



2021 POPULATION & HOUSING CENSUS

FIELD OFFICER'S MANUAL



GHANA STATISTICAL SERVICE
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PREFACE AND ACKNOWLEDGEMENT

All impactful developmental activities take into account the population and housing characteristics as a necessary condition. To this end, the 2021 Population and Housing Census (PHC) will be conducted to provide updated data on the socio-economic, demographic, and living conditions of persons living in Ghana. Collecting such information is crucial as it enables the formulation and implementation of viable development plans and programmes at national, regional, district and sub-district levels. The 2021 PHC will be Ghana's first digital population and housing census, following previous censuses that were less underscored with information and technological innovations. While the conduct of a digital census promotes the achievement of complete coverage and ensure quality data, its implementation requires behavioural change and adaptation to new working approaches, detailed planning and synchronization of activities. Among the requirements for adhering to the demands of conducting a digital census is the production of comprehensive documentation of the processes and systems for all stakeholders involved in the conduct of the census.

Premised on the foregoing, the Field Officer's Manual has been prepared for the Enumerators and Supervisors to utilise during training and data collection. The manual provides definitions of key concepts and provides clarifications to ensure all definitions are well understood. Examples have also been provided for illustrative purposes to enhance understanding. The manual provides an understanding of the Census processes and its objectives, how the Census will be conducted, questionnaire content, and the roles of enumerators and supervisors. The overarching purpose is to ensure that enumeration procedures across the country conform to the same set of guidelines.

Thus, this manual should be used as reference material for all persons involved with the implementation of the 2021 PHC to achieve complete coverage and quality data collection. Accordingly, census officers are required to read this manual thoroughly to guide them to collect, compile and sync data. It is also essential that census officials continuously study this manual alongside other census instruments thoroughly to gain an in-depth understanding of the census work. The manual contains nineteen (19) chapters that explain the background information, including legal authority; conduct, role and responsibilities of field officers; use of maps in the Census; listing of structures and completing the listing form; achieving complete coverage; enumerating the population and recording responses; tablets and Computer-Assisted Personal Interview (CAPI) use; and leadership of the field officer.

This Field Officer's Manual is the outcome of collaborative efforts by key stakeholders, including Management and Staff of GSS, and Lecturers from universities across the country. The team of experts who worked on its production has brought their varied skills, knowledge, and experiences in the various thematic areas to bear on the final product, thereby improving its content and practical usability by census officials. We gratefully acknowledge the support of all the individuals and institutions who have contributed to the development of this manual.

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ABBREVIATIONS

DCIC	District Census Implementation Committee
DCO	District Census Officer
DDQMT	District Data Quality Management Team
DITO	District IT Officer
EA	Enumeration Area
FSSR	Final Supervisor’s Scrutiny Report
GPS	Global Positioning System
GRATIS	Ghana Regional Appropriate Technology Industrial Service
JHS	Junior High School
IT	Information Technology
ITTU	Industrial Technology Transfer Unit
M&E	Monitoring and Evaluation
NVTI	National Vocational Training Institute
PHC	Population and Housing Census
POI	Point of Interest
RCIC	Regional Census Implementation Committee
RCO	Regional Census Officer
SA	Supervisory Area
SDG	Sustainable Development Goal
DFS	District Field Supervisor
SHS	Senior High School
TVET	Technical Vocational Education and Training
WASSCE	West African Senior Secondary Certificate Examination

CHAPTER 1

INTRODUCTION TO POPULATION AND HOUSING CENSUS

1.1 Introduction

Population Censuses have been conducted in Ghana at approximately ten-year intervals since 1891. Ghana has conducted five population Censuses after independence – 2010 was the last. The last two Censuses (2000 and 2010) combined Population and Housing in one operation. The last Census conducted in 2010 recorded a total population of 24.7 million. Ghana will conduct its third Population and Housing Census (PHC) this year with data collection scheduled for the first half of 2021. Field work for the 2021 PHC is scheduled to begin on 13th June 2021, with **27th June 2021 as Census Night**.

The main rationale for conducting periodic Censuses is to update the socio-demographic and economic data in the country and ascertain the changes that have occurred in the population structure since the last Census.

1.2 What is a Population Census?

A Population Census is the complete enumeration of all persons in a country at a specified time. The enumeration also implies the collection, compilation, evaluation, analysis, publication and dissemination of demographic, social and economic statistics relating to the population.

1.3 What is a Housing Census?

A Housing Census is the complete enumeration of all living quarters (occupied and vacant) in a country at a specified time. This enumeration also implies the collection, compilation, evaluation, analysis, publication and dissemination of statistical data pertaining to these living quarters and the occupants.

The housing conditions of the population are one of the most important indicators of well-being. Data from the housing Census can be used by Government Agencies such as the Ministry of Works and Housing, Town and Country Planning Department, Local Government and other interested bodies for analysing the housing situation both in terms of stock and quality. This will facilitate the estimation of housing deficit and future housing requirements. Such analysis is necessary for the formulation of national housing programmes and their implementation.

The data from the housing Census will also have commercial uses. It will assist the construction industry, institutions involved in housing finance and manufacturers of housing fixtures and equipment to make realistic projections of the demand for housing and assess their activities within the overall housing programme.

1.4 Relationship between Population Census and Housing Census

There is a close association between a Population Census and a Housing Census. For example, an essential feature of a Population Census is the identification of each occupied set of living quarters and of the persons living therein, and an essential feature of a Housing Census is the collection of information on the characteristics of each set of living quarters in association with the number and characteristics of its occupants.

The 2021 Population and Housing Census (PHC) will consist of a Population Census and a Housing Census as one operation. Thus, the 2021 PHC will be conducted concurrently with the use of a single schedule. The two Censuses, though separate, constitute one statistical

operation and they are not completely independent of each other because of the essential elements of each Census which are common to both and are also with well-coordinated activities. In this way, the information on the population and living quarters can be more readily matched, and processing is facilitated, and extensive analysis can be carried out. This also makes it possible to relate to the Housing Census data, the information on demographic and economic characteristics of each household member that is routinely collected in the Population Census.

The 2021 PHC is the third Census since 2000 to be conducted in Ghana which combines the two activities in one operation. The 2021 PHC is designed to generate statistics that are essential for policy and planning purposes. It is therefore of the greatest importance to every person living in Ghana. The Census information will be used for only statistical purposes and is **NOT** to be used for identifying people for taxation or punitive purposes.

Thus, the Population and Housing Census (PHC) would provide key information about us as individuals, households, communities, and a nation. The PHC gives information about who we are: Age and sex are fundamental characteristics (males viz-a-viz females; young, adults, aged); where we live and/or work; distribution of the population across the country; regions, districts, urban/rural; how we are evolving as individuals; marital status, educational attainment; number of employed and unemployed; type and nature of jobs; ss households - conditions of housing; types of housing structures; adequacy of housing stock; type of drinking water, electricity etc.; in our communities – distribution of facilities (schools, health, ICT, financial, sanitation). In addition, the PHC would provide information to ascertain what progress we have made as a nation.

1.5 History of Census taking in Ghana

This is not the first Population Census to be undertaken in this country. Even before the advent of the British Administration, our local chiefs used to count their subjects. The first Population Census undertaken by the British Administration in this country was in 1891. Since then, Censuses have been conducted at ten-yearly intervals except in 1941 when World War II interrupted the series. Post-independence Ghana has witnessed five Population Censuses in 1960, 1970, 1984, 2000 and 2010. The 2021 Census will therefore be the sixth Census to be conducted since independence. It is also the third time Ghana is conducting a Population and Housing Census as one operation.

Table 1.0: History of Censuses in Ghana

Pre-independence		Post -independence	
Year	Count	Year	Count
1891	764,613	1960	6,726,815
1901	1,549,661	1970	8,559,313
1911	1,503,911	1984	12,296,081
1921	2,296,400	2000	18,912,079
1931	3,160,386	2010	24,658,823
1948	4,118,459	2021	?

1.6 The essential features of a Population and Housing Census

The 2021 Population and Housing Census of Ghana will follow, as much as possible, all the essential features of a modern Population and Housing Census as recommended by the United Nations (UN). It is extremely important that the recommendations are followed because it is upon this basis that Ghana can compare her data with those of other countries. The four essential features recommended by the UN for the 2021 Round of Population and Housing Censuses are the following:

- (a) Each individual and each living quarter must be enumerated separately;
- (b) The Census operation must be confined to a well-defined territory, must cover all persons present or reside in the territory and nobody in this defined territory must be enumerated more than once or omitted. The housing Census must include every living quarters irrespective of type;
- (c) The Census must be conducted at regular intervals;

The Census must refer to a well-defined reference period or a specific time (the Census Night). The information you will collect for the Census will refer to this date.

The Census night is a statistical reference point or period for a Census. It signifies an imaginary snapshot of the population status of the country at that point in time. Statistically, it is midnight of the Census Night date (27th June 2021). This assumes that all persons should have been enumerated at midnight of 27th June 2021. It is therefore the reference point to the main Census; all enumeration must relate to that night.

The Census Night will be publicized in advance throughout the country so that it will be easily remembered by everyone (see more details in Section 5.1).

1.7 Persons to be enumerated during the 2021 PHC

The following persons must be enumerated during the 2021 PHC:

1. All persons who spent the Census Night in a household in Ghana;
2. All persons who spent the Census Night in an institution (Group Quarters) in Ghana; and
3. All persons who were in transit in Ghana (floating population) on Census Night.

1.8 Persons not to be enumerated during the 2021 PHC

The following persons must not be enumerated:

1. All persons who did not spend the Census Night in Ghana;
2. All persons born after the Census Night; and
3. All persons who died before the Census Night.

1.9 Why are we conducting the 2021 Census?

A Population and Housing Census has many uses. In the first place, it will give us the total number of persons and housing types and their characteristics in every town or village or a given small area in the country. This information will be of great help to the Central and Local Governments in planning various educational, health, housing, and other social services. The information that will be derived from the Census will also help the private sector, including businesses to plan their activities, which will be of benefit to the economic development of this country. In addition, international bodies, including Development Partners (DPs) and Non-Governmental Organizations will also utilize the Population and Housing Census data when planning for Ghana.

Since the last Census in 2010, there have been many changes in the structure of the population. In this regard, there is a need for a Census to update the socio-demographic and economic data in the country and ascertain changes that have occurred in the population structure since 2010.

1.10 The Census Process

This section is meant to give an overview of what a Census process involves. Census taking is a complex, large-scale operation involving three main stages (see Figure 1.1).

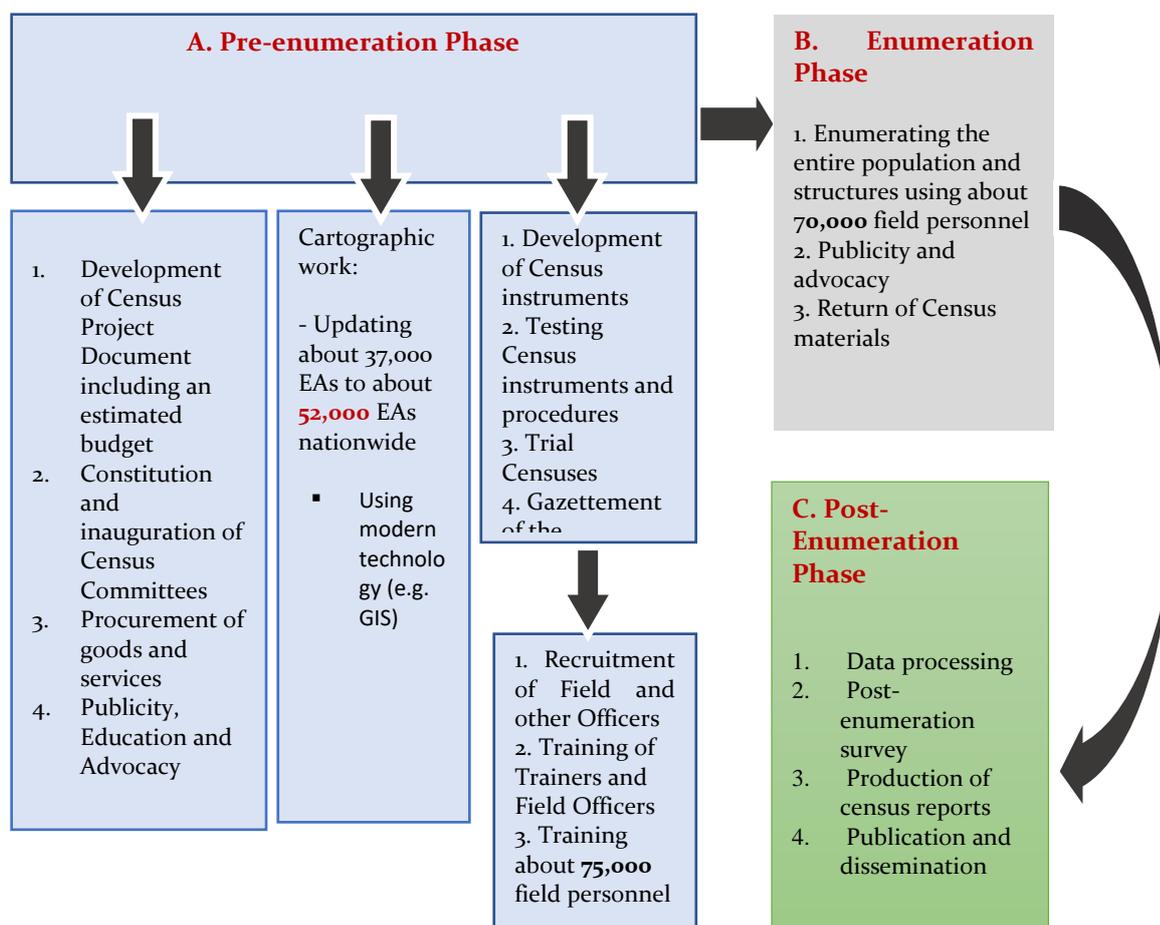
a) Pre-enumeration Phase: Good planning and advance preparation are vital to the success of every Census. All resources (human, logistics, technology, etc.) necessary for the conduct of the Census must be planned for so that the Census will be carried out at the appropriate time and sequence. During this stage all major decisions about the Census are taken, for instance, the geographical or mapping work and preparation of documents and other such activities are undertaken.

b) Enumeration Phase: This is the stage where the required data are collected from the people who make up the population of the country. A number of carefully planned procedures and methods are set in place which direct Census staff exactly how the required information is to be collected.

c) Post-enumeration Phase: This stage consists of various activities including:

- i. *Data Processing:* This involves a set of operations that translate the information collected in a Census into a useful and timely set of statistical tables.
- ii. *Post Enumeration Survey (PES):* The PES is a short survey conducted few weeks after the Census to determine the accuracy and reliability of the Census. The PES would help to determine how many people were missed or counted more than once. It is meant to estimate the completeness of the Census.
- iii. *Production, Publication and Dissemination:* The main objective of any Census is to collect, compile and transmit information to the public in the form they can use. A Census is complete only when the collected information is made available to those who use it. This is done through printed reports of data, seminars and other ways of dissemination.

Figure 1.0: The Census process



1.11 What is new in the 2021 PHC?

- The use of Computer-Assisted Personal Interviewing (CAPI) to ensure efficient data, collection, management, and processing. This will help to receive real-time data and also minimise the data processing period so that processed data could be released shortly after field data collection.
- Use of Geographic Positioning System (GPS) to capture the location (coordinates) of all structures and also all localities to ensure complete coverage and also improve data analysis.
- The sanitation module has been expanded to get more information to help solve the sanitation challenges in the country.
- Information Communication Technology (ICT) Module has been expanded to ensure the measurement of Sustainable Development Goal (SDG) indicators.

CHAPTER 2

LEGAL AUTHORITY AND CONFIDENTIALITY OF THE INFORMATION

2.1 Introduction

The 2021 Census will be conducted in accordance with the Statistical Service Act, 2019 (Act 1003). As a Census official, the law allows you (the enumerator) access to any premises, compound, or house for the purpose of enumerating persons and structures. However, the law forbids you from conducting yourself inappropriately. It allows that you only ask such questions as are necessary to complete the questionnaire or check entries already made. Penalties are specified for members of the public who fail to furnish enumerators with the required information or enumerators who fail in their duties. The law particularly stresses on confidentiality of the information collected from individuals.

2.2 Legal Authority for the Census

The Legal Authority for conducting Population and Housing Census is the Statistical Service Act 2019 (Act 1003). This Law empowers the Government Statistician to conduct statistical surveys and any Census in Ghana.

2.3 Legal right to enter premises to conduct the Census

Any person authorized by the Government Statistician in writing is empowered to enter any premises within reasonable hours (e.g. between the hours of 6 a.m. and 6 p.m.) to enumerate persons. This does not mean that you must work only within these hours. It may be necessary for you to work outside these hours on many occasions depending on the respondent's time schedule. Any person who hinders or obstructs any Census Officer in the execution of his/her duties is guilty of an offense with the penalty of a fine or a term of imprisonment or both (Statistical Service Act 2019, Act 1003).

2.4 The Act requires the public to respond to Census enquiries

The Act also stipulates penalties for failure to furnish information and for making false statements. The penalty is a fine or a term of imprisonment or both (Statistical Service Act, 2019, Act 1003).

2.5 The Act demands careful handling of documents and logistics

It is important to note that there is a penalty for the destruction, defacing, or mutilation of forms or other documents and logistics connected with the Census. The relevant section of the Statistical Service Act 2019, Act 1003 reads as follows:

“Any person, who, without lawful authority, destroys, defaces or mutilates any schedule, form or other document containing particulars obtained in pursuance of the provisions of this Act shall be guilty of an offense and liable on summary conviction to a fine or to imprisonment for a term not exceeding twelve months or to both fine and imprisonment”.

2.6 Confidentiality of Census information

It must be emphasized that the information you obtain is **CONFIDENTIAL** and shall only be used to compile statistics. The law places a restriction on publishing particulars on individuals and that all data are published as numerical tables, summaries and general conclusions. You are not permitted to disclose any information to anyone who is not an authorized officer, nor should you leave the information where others may have access to it. Disclosure of any

information obtained in the Census without lawful authority is an offence liable to a fine or a term of imprisonment or both (Statistical Service Act 2019, Act 1003). You will administer the questionnaire using the CAPI. On no account should you allow any unauthorized person(s) to use your tablet or any of the Census forms.

All the Census information you receive must be kept confidential. Under no circumstance must you reveal any information to anyone unless he/she is a sworn employee of the Ghana Statistical Service (GSS) and needs it for official purposes.

2.7 Taking of Oath of Secrecy

To enforce this confidentiality, you will be required to take an oath of secrecy (see Appendix 10). In the oath-taking, you will promise to fulfill your duties as an enumerator faithfully and honestly and you will promise not to disclose any information which comes to your knowledge because of your engagement as an enumerator/supervisor. This oath is prescribed by the law and is administered to all the staff of the Statistical Service as well as all other persons engaged to perform a duty under the Statistical Service Law. If you break your oath, you will be guilty of an offense and liable to punishment, which is either a fine or a term of imprisonment, or both (Statistical Service Act 2019, Act 1003). Any person who fails to take the oath will not be allowed to work as an enumerator for the Census.

CHAPTER 3

2021 POPULATION AND HOUSING CENSUS ORGANISATION

3.1 Introduction

To ensure effective coordination and implementation of the 2021 PHC, a strategic implementation structure has been set up at the national, zonal, regional, district and field levels. This chapter explains the roles of the different members of the census implementation structure. The structure and organogram for the implementation of the 2021 PHC are presented in Section 3.3.

3.2 2021 Population and Housing Census implementation structure

A. Government Statistician (Chief Census Officer)

The Government Statistician is the Chief Census Officer (CCO) and is responsible for coordinating all the Census activities.

B. Independent External Monitors (GSS Board)

Independent external monitors are made up of Ghana Statistical Service (GSS) Board members who have oversight responsibility on the Census activities. They give directives and suggestions on the ongoing 2021 PHC.

C. National Census Secretariat

The Census Secretariat is responsible for coordinating administrative issues on the 2021 PHC such as organising Census meetings for all the various work streams established by the Chief Census Officer.

D. Census Coordinating Team (CCT)

There is a five-member Census Coordinating Team (CCT) made up of the acting Deputy Government Statisticians, two Census Operations Advisors, and one Chief Technical Advisor. The CCT has been established to advise the CCO on all technical matters relating to the 2021 PHC as well as supporting the Census Implementation Teams.

E. Census Operations Advisors

Two consultants (Census Operations Advisors) have been hired by GSS to advise the CCO on technical matters.

F. Deputy Government Statisticians (Operations) and Deputy Government Statisticians (Services)

The Deputy Government Statistician in charge of Operations and the Deputy Government Statistician in charge of Services are to assist the CCO to coordinate the 2021 PHC.

G. Chief Technical Advisor

Census Technical Advisor is responsible to support the CCO on matters relating to technical issues on best practices and standards in conducting Censuses.

H. Independent Internal Monitors

Independent Internal Monitors are individuals within GSS formed to monitor the activities of the 2021 PHC.

I. Census Implementation Team (CIT)

Census Implementation Team (CIT) is made up of five (5) different work streams which are Census Methodology; IT and Data Processing; Publicity, Education and Advocacy,

Monitoring and Evaluation (M&E), and Logistics and Finance. CIT is responsible for the day-to-day activities of the Census workplan. The group undertakes the relevant technical and administrative activities of the 2021 PHC.

J. Census Secretariat

The Census Secretariat is charged with the responsibility of managing all the activities of the 2021 Census, including establishing and maintaining linkages among various work streams and stakeholders involved in the census process within the Service, by providing administrative and logistical support to the CIT.

K. Zonal Field Coordinators (ZFCs)

For operational purposes and effective field data collection, the country has been divided into six (6) zones, each with Coordinator(s).

L. Regional Census Implementation Committee (RCIC)

The setting-up of Regional and District Offices and Committees is to decentralize the management and supervision of the 2021 Census programme.

- i. The RCIC will support the Regional Census Field Officer in the implementation of the 2021 PHC programme.
- ii. At the Regional level, the Regional Census Field Officer takes charge of issues relating to the Census with the support of the RCIC.
- iii. He/she is responsible for all aspects of the Census work (Technical and Administration) in the region.
- iv. Specifically, the RCIC will support the Regional Census Field Officer in the following:
 1. Provide support for the general oversight and direction for the conduct of the 2021 Census activities at the district level
 2. Contribute to publicity and education on the Census
 3. Facilitate monitoring of the Census field activities by reporting uncovered areas to the District Census Field Officer
 4. Assist with the recruitment of Census field personnel in the districts
 5. Provide logistical support at all stages of the Census programme
 6. Submit monthly reports on the activities of the committee and status of programme implementation to the Census Secretariat
 7. Assist in securing Regional storage facilities and offices
 8. Respond to other issues that may come up from time to time in the promotion of the objectives of the Census.

M. Regional Census Offices (RCOs)

At the Regional level, the Regional Census Officer is responsible for all aspects of Census work as well as the overall supervision of Census operations in the region.

N. Regional Field Supervisors (RFSs)

For operational purposes, the six (6) zones have further been subdivided into 32 Statistical Regions (Table 3.1) for smooth implementation of the 2021 PHC. Within the framework of the National Census Programme, the RFSs shall report to the RCO, and also be responsible for planning, coordinating and executing all Census activities of the various 2021 PHC work streams within the districts under their jurisdiction. The RFSs will be responsible and supervise the DDQMT. Specifically, the Regional Field Supervisors will assist the Regional Census Officers for the general oversight and direction of the conduct of the 2021 Census activities before training, during training, before field work, during fieldwork and after fieldwork.

Table 3.1: Statistical zones and statistical regions

Zone	Administrative Regions	Number of Statistical Regions
1	Western and Central	6
2	Greater Accra	4
3	Volta, Oti and Eastern	6
4	Ashanti	4
5	Western North, Ahafo, Bono and Bono East	5
6	Northern, Savannah, North East, Upper East and Upper West	7

O. District Census Implementation Committee (DCIC)

District Census Implementation Committee members' responsibility is equally the same as the RCIC but at the district level.

P. District Centre Lead (DCL)

Within the framework of the National Census Programme, the DLCs shall report to the RFSs, and also be responsible for planning, coordinating and executing all Census activities of the various 2021 PHC work streams within the assigned district. The DCLs will be responsible and supervise the work of the DDQMT in the District. Specifically, the DCL who is a member of the DDQMT is charged with the general oversight and direction of the conduct of the 2021 Census activities before training, during training, before field work, during fieldwork, and after fieldwork.

Q. District Census Officer (DCO)

Each Administrative District is under the supervision of a District Census Officer (DCO). The DCO is assisted by three other Technical Team members, including a District Field Supervisor, Data Quality Monitor, and an IT Officer.

The key role of the DCO is to handle administrative activities within the district of assignment and act as the mediator between the Field Officers and the Regional Census Officer. He/she is responsible for all aspects of Census work in the district. The DCO takes charge of issues relating to the Census with the support of the DCIC.

The DCOs have to ensure that every human being or structure in the district has been visited and enumerated. It is the responsibility of the DCO to ensure that all items needed for the Census in their districts are secured and after the work send all returnable items to the RSO. The DCO will also clear the District Field Supervisors after completion of their task. He has to arrange to pay all the Field Officers in their districts after certification of work. As part of the duties of the DCO during fieldwork, s/he will specifically:

1. Lead in the publicity and education of Census activities in their district
2. Receive Census materials from field personnel after fieldwork
3. Identify areas of poor connectivity Compile list of localities in the district
4. Identify places of outdoor sleepers and estimate the number of outdoor sleepers in their respective district
5. Identify the location of institutions and ascertain the number of inmates in these institutions
6. Identify difficult and inaccessible areas and device strategy for enumeration in these areas
7. Compile list academic institutions with boarding facilities by sex
8. Compile a list of hospitals or health facilities with facilities for admissions
9. Compile a list of hotels, guest houses, motels, hostels
10. Retrieve and convey field materials to the Regional Office
11. Clear the District Field Supervisors after completion of the task

12. Provide management and oversight support to district Census activities.
13. Provide administrative and technical direction of the Census operations.
14. Take full responsibility for executing the Census in your district.
15. Direct and manage Census working teams (DFS, DQM & DIT).
16. Control and manage all budgets relating to 2021 PHC.
17. Ensure that all Census activities (pre-enumeration, enumeration, and post enumeration) are delivered on time and are quality-assured
18. The DCO will coordinate all Census activities in the district
19. Identify and collaborate with key stakeholders of the Census in the District
20. Maintain strong coordination and networking among stakeholders
21. Organize and coordinate the celebration of Census Night activities in the district – (provide an operational strategy)
22. Supervise the activities of all field supervisors and enumerators
23. Schedule meetings of the District Census Implementation Committee as directed by the Chairman (DCD) and act on recommendations of the meetings
24. Schedule meetings of the District Technical Team comprising of the District Field Supervisor, District Data Quality Monitor, District IT and DCO
25. Secure storage and office accommodation for the Census
26. Develop and implement an inventory management system for handling logistics based on the template and plan of the national Census office
27. Ensure the safety of all Census materials and field workers
28. Document relevant information on all enumerations areas (EAs)
29. Sample 10% of EAs (50% of Type 3 EAs, 25% of Type 2 EAs, 25% of Type 1 EAs) for validation of demarcation exercise
30. Availability of electricity and other essential facilities for Census
31. List of hard-to-reach localities
32. Identify and facilitate modes of transport for hard-to-reach areas within the District
33. Provide a road map on how to deal with hard-to-count population

R. District Data Quality Management Team (DDQMT)

This is a four (4) member District Data Quality Team (DDQMT) made up of the District Centre Lead, who doubles as the District Field Supervisor (DFS); District Census Officer; District IT Officer (DITO), and District Data Quality Monitor (DDQM). As mentioned earlier, the District Centre Lead is to provide leadership during the training of enumerators and supervisors. During the field data collection, the District Centre Lead becomes the District Field Supervisor. In some districts, however, the number of District Centre Leads and District IT Officers may be increased due to the large size of personnel to be used.

District IT Officer: The DITO is responsible for addressing all technical issues and challenges related to ICT gadgets and CAPI Application. More information on the role and responsibility of the District IT Officer can be found in Section 19.9.

District Data Quality Monitor (DDQM): The role of the District Data Quality Monitor is to run daily checks on the data to ensure there are no errors and inconsistencies. The detailed responsibilities of the DDQM can be found in the Data Quality Monitor manual.

District Field Supervisor (DFS): The DFS will work closely with the DCO, Data Quality Monitoring officers, and IT officer but generally will be in charge of technical issues. DFS will be responsible for a certain number of SAs to ensure that work from the assigned SAs is of high quality.

Specifically, the role of the DFS:

1. Supervises all the supervisors in their jurisdiction and ensure that supervisors working under them sync collected data daily
2. Conducts spot checks
3. Assists in the protocols and community entries into the institutions and communities
4. Addresses maps and boundary challenges within their assigned areas
5. Keeps track of the number of days enumerators will use to complete listing of structures in their EAs
6. Works with the Rover/IT officer to get to their zones and copy data where there are syncing challenges
7. Ensures that the supervisors are always on the field
8. Receives feedback and gives feedback to supervisors and enumerators
9. Clears the Field Supervisors after completion of their task

S. Field Supervisors

Each District is divided into Supervision Areas (SA), each of which is under one Field Supervisor. The Field Supervisor is to guide the Field Enumerators working under him/her in the field to follow the right procedures to ask questions in the questionnaires appropriately and to record responses correctly. The Supervisor is also expected to assist the Enumerators he/she is supervising to resolve challenges that may be encountered during the data collection exercise. The Supervisor must encourage positive spirit and cooperation among team members.

Note: Detailed roles and responsibilities of a Field Supervisor can be found in Chapter 19.

T. Field Enumerators

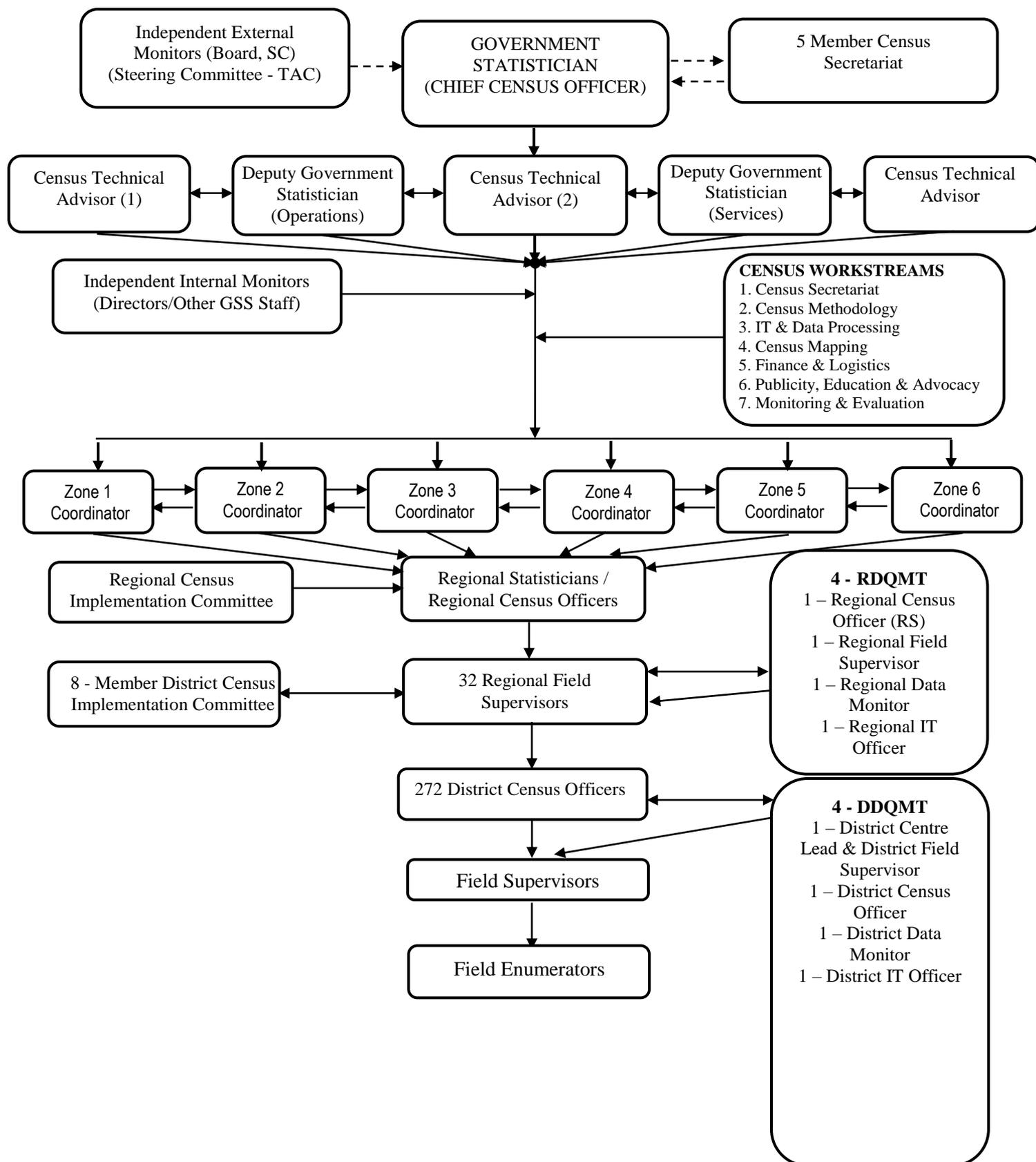
Enumerators play important role in the Census operation. About 70,000 Enumerators will be engaged in the PHC with the common goal of obtaining accurate and complete information about all persons and all living quarters which qualify to be enumerated in the country.

The whole country has been divided into nearly 52,000 Enumeration Areas and it is the responsibility of the Enumerator to count all persons present on Census Night in the Enumeration Areas assigned to him/her.

Note: For more details on the roles and responsibilities of Field Enumerators, refer to Chapter 4 of this manual.

3.3 2021 Population and Housing Census organogram

Figure 3.1: 2021 Population and Housing Census Organogram



CHAPTER 4

CONDUCT, ROLE AND RESPONSIBILITIES OF FIELD OFFICERS

4.1 Your Behaviour is Important

As mentioned earlier, the success of the whole census operation depends to a large extent on how well respondents co-operate in giving the needed information. By the time you approach the people, every effort would have been made already to publicize the census through all the important publicity and education channels such as the Press, Television, Radio, Chiefs, Assemblymen/women, Unit Committee Members and Schools, to obtain the co-operation of the people. Nevertheless, your success as a Field Officer depends greatly upon your approach.

4.2 How to Approach People

Whenever you are about to enter a house for an interview, remember that you are a stranger to the house and must, therefore, observe all the rules and customs governing visits to other people's houses:

- a) Knock or ring the bell and wait for a response to usher you in;
- b) Greet and exchange customary courtesies;
- c) Look cheerful;
- d) Ask for an elder of the house and explain to him/her briefly the reason for your visit

Example:

“Good Morning Sir/Madam, I am sure you have already heard about the 2021 Population and Housing Census which is now taking place in all parts of the country. I am a Census Officer (**SHOW YOUR ID CARD**) and my work is to enumerate every person and living quarters in this area. The information you give me will be treated strictly confidential and will not be disclosed to anybody. This information is needed for planning purposes.”

Many of the people you will visit may already be aware of the nature of the work you are engaged in. If some of the people you visit do not appear to know anything about the census, you must proceed to explain briefly the nature of the census operation to them. You must emphasize that the operation will help in making realistic development plans such as the provision of pipe-borne water, construction of roads, schools, hospitals, etc. However, you must desist from promising any developmental projects. You must also stress that the census has nothing to do with taxation and deportation of non-Ghanaians. Again, emphasize that the information provided is confidential because Statistical Service Act (2019) forbids the disclosure of any personal/individual information acquired under the act to any Ministry, Department, or other Government organization for taxation or deportation of non-Ghanaians.

- a) Immediately after your brief explanation, you must proceed to obtain the information required. Do not waste time with any person or group of persons as this may delay your work within the enumeration period.
- b) Do not act overly aggressive or too sociable. Maintain a pleasant and business-like composure.
- c) When leaving the household, remember to thank the head and the other members for their cooperation.

4.3 Language of the Interview

You must as much as possible, conduct your interview in a language that is understood by the person who is answering the questions. Occasionally, you will come across individuals who do not understand any of the languages you speak. If a substantial proportion of persons in your

EA do not understand your language, you must, with the knowledge of your Field Supervisor, engage an interpreter.

In such cases, you must ask the respondent to identify someone in the same house or a neighbouring house that they trust to translate your questions. This person must be told that they must not add anything to the questions you have asked, nor must they volunteer any explanations. Before a person from the same or neighbouring house is asked to do your interpretation, make sure that such a person is acceptable to the respondent. If the respondent raises any objection to the presence of this interpreter, you will have to change him/her.

4.4 The clothes you put on matters

Do not do anything to frighten the people whose co-operation you are seeking. It is important not to wear clothes that resemble uniforms such as a policeman, a soldier, a scout, fire or prison officer, customs or immigration officer, or use paraphernalia of any political party. Put on simple but decent clothes, which will not **frighten, intimidate or offend any person** and that does not indecently expose parts of your body. The golden rule: dress to blend into the environment of the interview.

NOTE: ALWAYS WEAR YOUR CENSUS JACKET, ID CARD, AND A FACE MASK.

4.5 Patience and tact are needed

Remember that you must be very patient, however provocative a respondent may be. This is very necessary to obtain the cooperation of all kinds of people. You must not, under any circumstance, lose your temper because this can disrupt the entire operation and make it difficult for you to proceed further. You must always be courteous and friendly.

4.6 Role and responsibilities of the Census Field Enumerator

As an Enumerator, you play an important role in the census operation. You are one of a team of about 70,000 Enumerators with the common goal of obtaining accurate and complete information about all persons and all living quarters which qualify to be enumerated in the country. Your job is to ask questions about everyone who slept in the household on **Census Night (27th June 2021)** and to record the answers correctly. It is the single most important job in the census. The quality of the census data will depend to a large extent on the effort you make and the thoroughness with which you and your fellow Enumerators carry out your tasks.

The information you collect becomes the foundation upon which all census results will be based. **You must make every effort to obtain complete and accurate answers and to record them carefully and correctly.** The census results cannot be better than the data you obtain. The success of the census largely depends upon the public's willing cooperation and it is your job to obtain this by being polite, tactful, and patient at all times.

4.6.1 You must work through to the end of the census data collection exercise

You are expected to work conscientiously to complete work in the area assigned to you in good time. You should not abandon the work before the end of the exercise except for the reason of sickness. In case you become ill or incapacitated while working on the census, you must report this immediately to your Field Supervisor or, in his/her absence, to a higher authority so that he/she can arrange for your replacement.

4.6.2 You must work as a full-time enumerator without engaging in any other activity during the enumeration period

Take note that your work is full-time. You are strictly forbidden to engage in any other activity such as the teaching of extra classes, petty trading, political or religious propaganda/activity during the period of enumeration.

4.6.3 *You must work without the assistance of unauthorized persons*

You must not permit anybody, not even members of your family or household, to help you with your work. Only sworn Census Officials are allowed to help you. Note that punitive action would be taken against you if found culpable.

4.6.4 *You must count every household once and avoid omission and double counting*

You must not miss any household in your area or count any household twice to avoid omission and double counting.

4.6.5 *You must be a team player*

The Census operation is teamwork. Enumeration is not complete until work in the whole Supervision Area is completed. Your Supervisor or District Census Officer can send you to assist enumeration in any Enumeration Area (EA) in the district or a nearby district if there is a need.

4.7 Interviewing Skills

Field Officers must utilize the following interviewing skills:

- a. Establishing a good rapport with the respondent;
- b. Being mindful of their sitting posture during interviews;
- c. Obtaining respondents' consent before starting interview;
- d. Maintaining neutrality throughout the interview period;
- e. Refraining from suggesting answers to the respondents;
- f. Asking the questions without changing the wording or sequence;
- g. Handling difficult/reluctant respondents tactfully;
- h. Recording information accurately;
- i. Being patient to go through the interview with the respondent;
- j. Being courteous, patient, and tactful;
- k. Answering questions from the respondent frankly; and
- l. Keeping to appointment times on the call-back card and never keep the respondents waiting

4.8 How to deal with difficult respondents

Occasionally, you may come across people who show a suspicious or uncooperative attitude. In such cases:

- a) You must point out to the uncooperative person that all the information you are collecting is confidential and will not be disclosed to anyone.
- b) You may obtain help from neighbours whom you have already enumerated. You should try to find another person known to the uncooperative respondents to help you in explaining the purpose of your visit. This may help you obtain a favourable response.
- c) You may also obtain help from the local Chief or Headman or Assemblyman/woman or Unit Committee member. For this reason, it is always advisable to pay a courtesy call on the Chief or Headman or Assemblyman/ woman of any town, village or hamlet you visit before you start your work. You must explain your mission to him/her and let him/her know the important part he/she can play to ensure that your mission is successfully carried out.
- d) If he/she still refuses to co-operate, take note of it and report the matter to your Field Supervisor who will take it up with a higher authority.
- e) If all these approaches fail, then as a last resort, tell him/her that the Statistical Service law requires him/her to give answers to your questions. Failure to oblige could lead to

the committal of an offence which is liable on summary conviction to a fine or a term of imprisonment or both.

4.9 Things you must DO

- a) As far as possible, only adults must be interviewed;
- b) Carry your Identity Card or introductory letter, tablet and your Field Officer's Manual with you at all times while working on the census;
- c) Study your Manual thoroughly in order to do your work efficiently;
- d) Discuss all your problems and uncertainties with your Field Supervisor;
- e) Be patient, tolerant, and courteous at all times when dealing with respondents;
- f) Visit again and again, households where enumeration has not been completed;
- g) Always conduct the interview in such a way that the respondents are always assured of "confidentiality".

4.10 Things you must NOT DO

- a) Do not enter any fictitious information on your Tablet. You will be found out and be charged with fraud. In some cases, respondents themselves will tell you "to provide the answers for them". You should patiently explain to them that the census regulation does not allow you to provide information for respondents and that you would be charged with fraud if you did that.
- b) Do not interview people in a group except when they are members of the same household;
- c) Do not permit any unauthorized person to accompany you on your visits. If, in an exceptional case, you have to depend on a guide to locate a hamlet or house, do not allow him/her to interfere with the interview;
- d) Never discuss issues relating to politics or religion, nor must you allow yourself to be involved in any controversial arguments while engaged in an enumeration;
- e) Do not argue with your respondents;
- f) Do not disclose to anyone, except to Census Officials, any of the information you receive in the course of your duties as an Enumerator;
- g) Do not permit any unauthorized person, not even a member of your family, to see the information entered on the tablet;
- h) Do not delegate your work as an Enumerator to another person;
- i) Do not combine your census work with any canvassing for personal gain, your church, mosque, political party or any other organization.

4.11 The success of the Census depends on you

The success of the census depends on how well you carry out your tasks as an Enumerator. Among other things, you must be conscientious and honest. Do not hesitate to bring to the notice of your Field Supervisor anything which strikes you as being doubtful. Note that your entries will be carefully checked after enumeration and you will be asked to go back to the field and correct all your mistakes at your own cost.

4.12 Role and responsibilities of the Census Field Supervisor

The Census Field Supervisor is responsible for all Census work in the Supervisory Area (SA) assigned to him/her. Specifically, the Supervisor is to:

1. Assign EAs to enumerators in your SA before listing commences;
2. Report to the DDQMT and calls for support where necessary; e.g. reassigning of workload to enumerators.
3. Ensure that all structures are listed;

4. Ensure all households are enumerated;
5. Check for duplicates and partial save cases for corrections and completeness;
6. Sync data with enumerators
7. Review the work of enumerators;
8. Conduct re-interviews;
9. Sync data to HQ;
10. Ensure to sync with enumerators anytime there is a CAPI update;
11. Run reports on EAs for omission and correction;
12. Check and assist enumerators to address the challenges they may encounter during enumeration; and
13. Report any problem encountered to the District Field Supervisor (DFS).

CHAPTER 5

KEY CONCEPTS AND DEFINITIONS

5.1 Census Night (27th June 2021)

In order to meet one of the essential requirements for a modern Census, **27th June 2021** is designated as the **Census Night**. All enumeration must relate to the **CENSUS NIGHT**. Thus, it is a reference point to which **all enumeration must relate**. Note that **only persons alive in Ghana at midnight of this day must be enumerated**. Census Night will be publicized in advance throughout the country so that it will be easily remembered by everyone. Remember that all the questions you ask (e.g. Socio-Demographic and Economic Characteristics, Information Communication Technology (ICT), Housing Conditions, and Sanitation questions) must relate to Census Night unless you have specific instructions in this manual to the contrary.

Note that between the Census Night and the time of enumeration, the composition of a particular household may have changed. If somebody died after Census Night you must enumerate him as living on Census Night; if a baby was born after Census Night you must not enumerate him/her. Visitors are enumerated if they spent Census Night in the household.

5.2 Concepts of structure, housing unit, and dwelling unit

As indicated in Section 1.2, all living quarters in Ghana would be enumerated during the Census. Therefore, it is important to know what structure to be listed and enumerated so that you do not miss out on any of them. Thus, the principal units of enumeration in the housing Census are living quarters, whether occupied or vacant. Note that they may (a) have been constructed, built, converted, or arranged for human habitation, provided that they are not at the time of the Census used wholly for other purposes and that, in the case of improvised housing units and collective living quarters, they are occupied or (b) although not intended for habitation, actually been used for such a purpose at the time of the Census.

5.2.1 Concept of a structure

For purposes of the Census, a structure is defined as a separate and independent building or an enclosure, either completed or uncompleted with any of the following characteristics (see question LS05 in Section 10.4):

1. Fully completed
2. Fully roofed but uncompleted
3. Partially roofed
4. Roofing level (with improvised roof)
5. Lintel level (with improvised roof)
6. Roofing level (without roof)
7. Lintel level (without roof)
8. Window level
9. Concrete/metal pillars level

A structure may be at any location and may be used for any activity such as residence, business, school, hospital, public toilet, etc. (see Section 10.4). A structure may be constructed with different materials such as concrete, brick, mud, metal, plastic, cardboard, wood, glass, grass, straw, and bamboo. A structure may be immovable or movable. A residential structure may contain one or more housing units (for example, single houses or apartments). Note that a structure need not be surrounded by a fence wall or a hedge. For example, multiple houses, a house, kitchen, and toilet may be on one compound, whether or not surrounded by a wall

should be considered as separate structures. In the same way, a group of huts walled or unwalled should be considered as separate structures.

For purposes of the Census, information on both completed and uncompleted structures would be collected. The inclusion of uncompleted structures would help identify those structures that have the potential of being added to the housing stock within the short to medium term period.

Note that for uncompleted structures, only those that have reached window levels and beyond should be listed. Table kiosks or structures under construction that are below window and footing or at foundation levels should not be considered as structures.

5.2.2 Concept of housing unit

A housing unit is defined as a separate and independent place of abode that is intended for habitation by one or more households. Households usually occupy the whole or a part of, or more than one housing unit.

5.2.3 Concept of a dwelling unit

A dwelling unit is a single unit that could provide living facilities for one or more households. The unit could be part of a structure or an entire structure serving as a home or residence. A dwelling unit may have one or more rooms that may or may not be occupied at the time of the Census. It includes units within a structure such as a compound house, apartment building, detached or semi-detached house, and a kiosk.

In some cases, the dwelling unit and the structure are the same and in other cases, the two are distinct and different. For example, a ‘metal container’ as a structure could be a dwelling unit for a particular household. However, within an ‘apartment building’ structure, the apartment units could be dwelling units for different households.

5.3 Concept of a household

5.3.1 What is a household?

The household is a general framework within which most individuals are identified since the majority of the population lives in households. The concept of a household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either:

- a) A one-person household: a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household or;
- b) A multi-person household: a group of two or more persons living together who make common provisions for food or other essentials for living. The persons in the group may pool their incomes and may, to a greater or lesser extent, have a common budget; they may be related or unrelated persons or constitute a combination of persons both related and unrelated (OECD).

For purposes of the Census, three important criteria should help you to identify a household. These are that the individual(s) must:

- 1) Live alone or together and catered for as one unit;
- 2) Make common provision for food and other essentials;
- 3) Acknowledge one person as the head of the household.

The persons in the group may be related by blood or marriage, unrelated, or a combination of persons both related and unrelated. It is important to emphasize that not all related persons

living in the same house or compound are necessarily members of the same household. For example, two brothers who live in the same house with their wives and children may or may not form separate households depending on their catering arrangements. The same applies to a father/mother and his/her married children. Thus, in many cases, a house or compound may be divided into separate households.

Note that a household may also consist of one or more 'homeless' people. These include persons living in the streets without a shelter.

5.3.2 *Dividing a house into households*

Dividing a house or compound into households may require a lot of probing. The following examples must guide you to identify a household:

- a) In large family houses where you have more than two generations of people living in the same house, first, find out which members share common catering arrangements and regard each unit as a household. A parent may, for example, have four sons, each of whom has a separate arrangement for the preparation of food for their own "family". Each of these units must be treated as a household. If the father shares meals with one of his married children, he must be classified as part of that household. An exception to the above principle is where in a house or compound, a man has several wives with each wife and her children occupying their own set of rooms in the house. The man eats successively with each of his wives. In such a case, the man, his wives, their children, etc. must be treated as one household.
- b) A lodger who sleeps and eats at least one meal a day with the household must be considered a member of that household.
- c) A house-help and his/her family who live in a house or an out-house on the same compound as the employer but prepare their own food and eat separately must not be considered as members of the employer's household. They must be classified as forming a separate household. However, a house-help who eats and sleeps with the family of the employer must be considered as a member of the employer's household.
- d) If two or more unrelated persons live together in one flat or one room, they may or may not be regarded as one household depending on whether or not they have a common catering arrangement. Probe to find out.
- e) Two or more friends who share accommodation but have separate catering arrangements should be classified as separate households. However, if they have common catering arrangements then they should be treated as one household. In this case, one of them should be identified as the head.
- f) One person may constitute a household if that person lives alone in a house or part of a house. If the person lives with others in one room but prepares and eats his/her meals separately, he/she forms a one-member household.

Note the following in identifying different households in a structure:

1. Upon identifying an adult who lives in a listed residential structure, explain the key characteristics of a household as stated in Section 5.3.1 above.
2. Explain the concept of dwelling unit (refer to Section 5.2.3) to the respondent and ask for assistance to identify and count all the dwelling units in the structure.
3. Engage this person (the respondent) to identify the households in the dwelling units in the structure. This should be done independently from the number of the dwelling units.
4. In determining who should be included in the household, emphasis should be placed on the living arrangement of the household members and not the sleeping arrangement.
5. There could be more than one household found in a dwelling unit or a structure or at an outdoor location.

6. One household could occupy more than one dwelling unit or a structure. Remember that there could be households who may be renting, perching, squatting or occupying the dwelling unit as the owner(s) or living in the dwelling unit for free.
7. In a storey building, begin to identify the dwelling units and households within them from the topmost floor and descend to cover all the households on the other floors below to the ground floor.

5.3.3 Who is the head of a household?

The head of household is generally the person who is recognized and acknowledged by the other members of the household. The head of household has the primary responsibility for making major decisions on the household's living arrangements. The person (could be either a male or female), may or may not be the main income earner of the household. He/she is not necessarily the oldest person in the household. Your main guide as to who is the head is the one who will be pointed out to you as such based on the above criteria.

5.3.4 Who is a usual member of a household?

A usual member of a household is a person who (whether present or absent on Census Night) has spent at least the last six months with the household or intends to spend at least the next six months with the household.

The following, however, must also be considered as usual members of the household, even though they **do not satisfy** the residential requirements:

- a) Persons who have not spent the last six months with the household but who have the intention of staying there for at least the next six months, e.g. workers on transfer.
- b) Seasonal workers who return home after a season. If such workers spent Census Night with the household, they should be considered as usual members present. However, if they were absent on Census Night they should be recorded as usual members absent.
- c) Students in boarding schools or hostels. If a student spent Census Night with the household, he/she should be recorded as usual member present; if not he/she should be classified as usual member absent. However, students who have spent six months or more before Census Night outside the country and those who were outside the country on Census Night and intend to stay outside the country for the next six months or more, should not be regarded as usual members.
- d) Soldiers in barracks/camps where they are catered for as a group. In this category, treat any person who did not spend the Census Night with the household as household member absent. Those who spent the Census Night with the household should be regarded as household members present.
- e) Construction workers camped at sites. If any of such workers spent the Census Night with their household, they should be considered as usual members present.

5.3.5 How are other household members related to the head?

The relationship among household members can be used to determine family structure and the existence of households composed, partially or completely, of unrelated persons. In identifying the members of a household (as defined in Section 5.3.1), it is useful to identify first the household head and then the remaining members of the household according to their relationship to the head. After identification of the household head, each of the remaining members of the household should be distinguished in relation to that person, as appropriate, as one of the following:

- a] spouse (either wife, husband or cohabiting partner); b] child (either son or daughter); c] parent (either mother or father); d] parent in-law (either father or mother of spouse); e] son in-law; f] daughter in-law; g] grandchild; h] great-grandchild (either great grandson or great

granddaughter); i] brother or sister; j] step child; k] foster child; l] adopted child; m] other relative (such as uncle, auntie, cousin, etc.); n] non-relative (such as friend, friend's daughter, etc.); o] house-help (persons engaged purposefully as such).

Note that the relationship must always be written as if it were defined by the head himself/herself. For example, if the person who has been identified as household head says:

- a) Akrofi is my son - write SON
- b) Borketey is my brother - write BROTHER
- c) Cecelia is my wife - write WIFE
- d) Daniel is my father - write PARENT

On the other hand, if a member of the household other than the head is responding to the questions then, **you must reverse the relationship before recording**. E.g. a household member says:

- a. The head is my father - write SON or DAUGHTER (as applicable)
- b. The head is my mother's brother - write OTHER RELATIVE
- c. The head is my son - write PARENT
- d. The head is my in-law - write SON IN-LAW or DAUGHTER IN-LAW (as applicable)
- e. The head is a friend to my mother - write NON-RELATIVE

Most relationships are established either by blood (descent) or by marriage (affinal). This means that your brother and sister's son are blood relatives whilst your wife, wife's mother or wife's sister are relatives by marriage. Enumerators must be able to distinguish between:

- Biological, step, foster and adopted children
 1. Biological child is born to the head (blood child)
 2. Stepchild is born to a spouse with another partner
 3. Adopted child is non-biological but legal child of the head
- Relative child and non-relative
 1. Relatives are related by blood and marriage
 2. Non-relatives are persons not related to the head by blood or marriage

Note that there is a difference between a foster child and an adopted child. A foster child is raised by the head and not his/her natural or adoptive parents, with no legal backing. However, an adopted child of another becomes his/her after going through all the legal processes.

Make sure that the blood relationships specified are true biological relationships. A son must mean the head's own true son and not his brother's son, etc. Half-brothers, e.g. persons having one mother but different fathers, or one father but different mothers must be recorded as brothers. Similarly, half-sisters must be recorded as sisters. Adopted Son/Daughter must be classified as Son/Daughter.

Any other relationships must be clearly stated e.g. Parent/Parent-in-law, Grandchild, etc. Other household members, who are not related to the head of the household such as lodgers, guest, friend, etc. must be classified as non-relatives. Paid unrelated house help(s) must also be classified as non-relative(s).

Always remember to avoid such vague terms as nephew, cousin, uncle, etc., which do not denote exact relationships. Nephew may mean brother's son or sister's son.

5.3.6 Visitors

A visitor is a person who is not a usual household member but spent the Census Night with the household. This person could be a relative, friend or stranger. S/he could be present or absent at the time of interview.

5.4 Homeless Households

Homeless household could be one or more persons who sleep outdoors at fixed locations. For example, a mother and child or mother, father and child sleeping outdoors at **fixed locations such as Tema Station and CMB in Accra, Asafo Market in Kumasi, etc.** Such persons may be found in front of shops, under sheds, etc. These are person(s) who usually are located at 'fixed locations' and continually live in the street. They usually do not live in but live around structures and are not protected from animals and bad weather, notably rain, heat, wind and sunlight. These people are classified as homeless households and they may be identified as individuals or groups forming one unit (Refer to Section 5.3 for definition of a household). This includes persons who sleep at lorry parks, markets, in front of stores and offices, public bathrooms, petrol filling stations, railway stations, on verandas, pavements, hideouts and all such places which are not houses or compounds. A typical example of the homeless households is the *kayayei* who sleep in identified locations in Tema Station in Accra.

5.5 Group Quarters population

These are persons who live as a group in an institution but do not form a household. This group of people would be enumerated as group quarters (institutional) population. For the purposes of the Census, the institutions have been grouped into stable and non-stable institutions (see Sections 12.3.1 – 12.3.3). The following are examples of population living in Group Quarters:

- a) Educational Institutions, e.g., students in boarding schools, hostels, universities halls of residence, training colleges, blind schools, seminaries, convents, monasteries, etc.
- b) Children's Homes, Orphanages, Nurseries, Old People's Homes, etc.
- c) Hospitals and Healing Centres including Mental Hospitals, Maternity Homes, Divine Healers' Camps and Herbalists' Establishments, Rehabilitation Centres and similar institutions for the sick, as well as those who are physically and mentally handicapped.
- d) Hotels, motels, hostels, guest houses, bed and breakfast, etc.
- e) Prisons including Borstal Institutions, Remand Homes, Industrial Schools and Police / Immigration / Military Cells.
- f) Security training institutions such as Military Academies, Police Training Schools, and Immigration training schools etc., Army Camps are also including in this category.
- g) Construction workers camped at construction sites should also be treated as members of group quarters/institutional population

Note: staff members living in private houses in the institutions form household population and must **not** be considered as part of the institutions.

Note also that in tertiary and other institutions, there may be students or friends who are illegally in residence with their friends. These persons who are usually referred to as "Perchers", should be enumerated provided they spent the Census Night there.

5.6 Floating population

The **FLOATING POPULATION** are transient population and sleeps outdoor. These persons may either be enumerated more than once or may not be enumerated at all if care is not taken. Enumeration of these persons will be carried out during Census Night (Refer to Section 12.4 for further details on enumerating floating populations).

This group of persons may be found in certain locations other than their usual place of abode. Thus, for this group, where they are located are not their usual place of residence but are found at such locations due to some circumstances such as travelling and taking care of the sick. The following are examples of persons in this category:

- a) Persons who may be at bus terminals or lorry stations and travelling long distances from one town/village to another within the country on Census Night. Note that these people will spend the Census Night on the road and will be enumerated before boarding the bus or lorry takes off.
- b) Persons who will be found at the border posts, airport, seaports on the Census Night with the intention of travelling outside the country after 12 midnight. These are people who even though are travelling outside the country, will be found on Ghana's territorial borders by Census Night.
- c) Persons on Ship/Boats in Ghana's Territorial Waters/Airports on Census Night.
- d) Persons on Oil Rigs in Ghana's Territorial Waters on Census Night.
- e) Persons at Ghana's Border Posts/Check Points.
- f) Persons found on Census Night to have slept on verandas, corridors and pavements in and around hospitals while taking care of their sick relatives (in-patients). However, in cases where hospitals/clinics or prayer camps provide hostel facilities for those caring for patients, they should be treated as institutional population.
- g) Hunting and fishing groups.
- h) Beggars and vagrants (including mental ill persons) who may be roaming about.

How the population in transit would be enumerated are discussed in Section 12.4.2.

Note that persons at funerals, pubs/night clubs, parties, etc. on Census Night must not be treated as part of the floating population. If the respondent spent Census Night at such a social gathering, he must be enumerated in the house to which he finally returned to after the function. For instance, if Kwamena Appiah after the social function went to sleep with a friend after Census Night he must be enumerated in the friend's household.

Note: Do not confuse floating population with homeless household population as discussed in Section 5.4 above.

5.7 Locality

A locality is defined as an inhabited geographical area with a distinct name. It could be a hamlet, mining camp, ranch, farm, village, town, city or part of a town or city. A locality may contain one or multiple EAs. For example, Kaneshie in Accra is a large locality which has more than one EA (see Section 7.3 for information on the types of EA). Locality names are pre-populated in CAPI, however, where locality names must be recorded, write exactly what the inhabitants themselves call it. Do not write any locality name which is different from what is known in the area.

5.8 Enumeration Area (EA) Map

The country has been divided into small geographic units called Enumeration Areas (EAs) during cartographic mapping for purposes of enumerating all people within Ghana. Owing to other factors, mainly population density, geographic terrain and distances to be travelled, EAs have been conveniently demarcated to facilitate effective canvassing by an enumerator. Enumeration Area (EA) is a map showing the EA of interest. This EA has been highlighted using a grey colour. The Map shows each enumerator the extent of the EA allocated to him/her. Each enumerator will be assigned an EA or part of EA during the enumeration and will be responsible for visiting each and every household and recording the particulars of all

persons who spent the **CENSUS NIGHT** in the EA ensuring he/she does not miss out or double count any household in the EA.

The supervisor will help to identify the EA boundaries. Make sure you familiarise yourself with your EA before you start work. Study the EA map carefully so that the boundaries are clear to you, both on the ground and, on the map. In most cases, the boundaries of your EA follow easily identifiable features such as buildings, churches, mosques, rivers, streams, roads, tracks and footpaths, etc. On each map, there is a legend (key) showing what each symbol represents. Always refer to the legend for proper identification of features. Details of how to use maps is explained in Chapter 7.

CHAPTER 6

PRELIMINARY OPERATIONS BEFORE ENUMERATION

6.1 Training programme for all Field Officers

Field Officers would be trained comprehensively on all aspects of the Census. Primarily, the training will include the concepts and definitions of the Census as well as how to carry out the fieldwork. The training would also cover the duties of the field officer before, during and after enumeration.

The training would adopt a participant-centred approach which involves lectures, video presentations, face-to-face interactions, mock interviews, assessments, field practice, small group discussions (using English and local languages) to ensure that concepts, definitions and procedures for collecting data are well understood. Trainees would also be encouraged to participate and contribute to all discussions. At the end of the training, it is expected that each participant would be able to interpret and use an Enumeration Area Map, carry out listing of structures and complete a listing form, know how to enumerate a household population, institutional population and floating population using the CAPI system.

Field Officers would be selected for fieldwork based on the criteria below:

- a) Performance in assessment
- b) Contribution made during training sessions
- c) Performance during field practice
- d) Fluency in one or more local language(s) spoken in the district
- e) General appearance, attitude, and behaviour
- f) Punctuality and attendance

6.2 Documents and materials, you would receive after training

For a successful execution of your duties as a field officer, you will be provided with the following documents and materials:

- a) Tablet/Charger
- b) SD Card
- c) Sim Card
- d) Tablet Case
- e) Power Bank
- f) Enumeration Area (EA)/ Supervision Area (SA) Map
- g) Field Bag
- h) Census Jacket
- i) Identity Card
- j) Census Cap
- k) Certificate of Enumeration
- l) Chalk
- m) Call-back Cards
- n) Enumerator's Materials Receipt Form (Photocopy)
- o) Raincoat
- p) Wellington Boots (in rural and marshy areas)
- q) Questionnaires and other instruments

Some of the items like the tablet, power bank, EA and SA maps, ID card and Certificate of Enumeration (both used and unused) should be returned at the end of enumeration. The Census Secretariat would make this information known before the start of enumeration. You need to

take note of this information because failure to submit a returnable item would attract a penalty.

6.3 Enumerator's materials receipt form

Enumerators) should complete the appropriate part of the Enumerator's Materials Receipt Form (refer to Appendix 6) whenever they receive any documents or materials from the Field Supervisor, and the latter will do the same whenever they hand over any documents or materials to him/her.

6.4 Community entry and household entry

6.4.1 Introduction

Securing and sustaining the community/household members' interest is critical during the 2021 PHC because the support and cooperation of communities and households will ensure the successful collection of complete and accurate data during the 2021 PHC. Effective community entry and household entry are critical to the collection of complete and accurate information in the 2021 PHC. This is because it affords the Census Officials the opportunity to make the right contacts; engage with the right people or leadership of the community; clarify the purpose of the visit; specify the support expected from them to achieve the objective of the visit; determine any challenges that are likely to affect successful data collection at the community or household levels; and develop the appropriate measures to prevent or minimise these challenges.

6.4.2 Community entry

Community entry refers to the process of initiating, nurturing, and sustaining a desirable relationship with the purpose of securing and sustaining the interests of members of locality in all aspects of the Census. It involves recognizing the locality, its leadership and people, and adopting the most appropriate process in meeting, interacting, and working with them to enhance the cooperation of the community members to participate in the Census exercise.

For the purpose of the 2021 PHC, a community refers to an area or entity (or group of people) with a defined location and/or organized structure or hierarchy that can be used to facilitate the Census process. A community as defined above includes residential spaces or settlements (e.g. refugee camps, estates), group quarters (people who live together but are not households), traditional Area (e.g. Paramountcy, Division, village/town), public administration offices (e.g. District Assemblies, Zonal Councils), places of worship (e.g. churches, mosques, shrines), market centres and lorry parks. Community entry is required to successfully list and enumerate all structures and persons in these communities.

The Census EA Maps are classified based on the size of the locality and therefore, the community entry should be strategized based on the size of the locality.

In both rural and urban areas, it is necessary to contact the Chief or “*Odikro*” and opinion leaders such as Assemblymen/women, Unit Committee members and inform them of your mission before you start your fieldwork. Briefly explain to them the objectives of the Census. Do not forget to mention the fact that the Census will provide the basic data required for the planning of economic and social services, e.g. the provision of water, health services, schools, housing, feeder roads, etc. In organizing such meetings:

- Teams should, as much as possible, visit all localities within their jurisdiction and meet with the power brokers (Chief and Elders, Assemblyman/woman, etc.);
- Introduce the Team and the Enumerator who is likely to be working in that locality often;
- Talk about the importance of the exercise; and

- Communicate the need to encourage their subjects and residents to make themselves available and provide accurate data.

In a large locality which has more than one Supervisory Area (SA), the teams working in such a locality should meet as a group and arrange to meet the chiefs and opinion leaders. Note that in some cases, the Enumerator will have to do the community entry by himself/herself. This may come about because the Supervisor may not be able to go to the various communities with all his/her Enumerators.

There will be no need to meet the entire membership of the locality, but when the opinion leaders request for such a gathering, the team leader(s) should not hesitate to speak on the subject to the entire locality. Field Officers need to be tactful in this regard and be prepared to answer all questions accurately in order not to create any ambiguity in the minds of the people. In a large locality which has more than one Supervisory Area (SA), the teams working in such locality should meet as a group and arrange to meet the chiefs and opinion leaders. Note that in some cases, the Enumerator will have to do the community entry by himself/herself. This may come about because the Supervisor may not be able to go to the various communities with all his/her Enumerators.

Guidelines for Community Entry

The team must contact the Community leaders of all localities to:

- Conduct proper introductions of the team members
- Briefly explain the purpose of your visit, the Census process, and the benefits of the Census to the community.
- Seek any support the team may require from the community to accomplish your tasks
- Request their cooperation and participation and
- Also ask for any new locality they may know about in your jurisdiction and ask for direction to all these localities

Note: In Type 3 EAs, the Enumerator should specifically seek the following support:

- Ensure that the list of localities on the PHC2 Form are exhaustive, and identify missing localities to achieve complete coverage;
- Map out localities with reference to the base locality to plan your itinerary;
- Help to publicise the Census and inform the community members about the benefits of the Census; and
- Administer the Questions in F01, F01a and F01b.

6.4.3 Household entry

“Household Entry” is the process of accurately identifying households that occupy a dwelling unit. This process starts with the community entry, properly locating structures where people live and correctly identifying households within the structures. Refer to Section 5.3 for a review of the concept of a household.

Guidelines for Household Entry

It is important that Field Officers observe all the rules and customs governing visits to other people’s homes on each visit. These rules and customs include the following:

- Knock, ring the bell and/or announce your presence (with *agoo*, *gafara*, etc.) and wait for response to usher you in.
- Cheerfully greet the people in the customary way and introduce yourself:

Good Morning/Afternoon/Evening Sir/Madam. My name is I am the Census Official (SHOW YOUR ID CARD) assigned to enumerate every person and living quarter in this area. I am sure you have already heard about the Census which is now taking place in all parts of the country. The information you provide is strictly confidential. The Census data will be used to support national development activities and general decision making.

- Briefly explain the purpose of your visit.
- Always seek to speak with an adult first when available. Otherwise, if an adult is not available find out when an adult may be available and make an appointment accordingly (including leaving a call-back card).
- Do not engage in any conversation that would not be relevant to your work or any controversy or argument relating to the Census process.
- Emphasise confidentiality. Explain that the Census Law prohibits disclosure of any personal information provided by the respondent to a third party (individuals or institutions). Any official who breaches the Law shall be punished accordingly.
- Emphasise the benefits of the Census to the communities and households (refer to Chapter 1 on the importance of the Population and Housing Census).
- Immediately after your brief explanation, read out the confidentiality statement before proceeding with the interview.
- Alert the household of a possible re-visit should there be the need.
- Remember to thank the household for their assistance and cooperation at the end of the interview.

Note: An effective community and household entry would require you the Field Officer to make a good first impression which includes dressing appropriately, putting up good manners and appropriate behaviour (Refer to Chapter 4 for more on the conduct, role and responsibilities of Field Officers).

6.5 Basic security, Health, and safety guidelines for Field Officers

6.5.1 Introduction

As a Field Officer, you are going to operate within complex, hazardous, remote, and dynamic socio-political contexts to collect Census data. The quality of data collected, and the security of the Field Officers and logistics are key towards the success of the entire Census exercise. This section provides a set of guidelines to equip the Field Officers (including Monitors, Supervisors, Enumerators, etc.), with the requisite knowledge in identifying hazards, assessing and/or mitigating/de-escalating threats or situations to ensure safety of their lives as well as all properties in their possession.

6.5.2 Identifying hazards and assessing the risk

At each step of the way, the Field Officer is expected to identify all possible threats to his/her safety and properties in his/her custody. Hazards include diseases/illnesses; attacks by animals including snake bites; theft, harassment (i.e. sexual and verbal); assault; etc. For each of the hazards identified, the Field Officer should be able to determine the likelihood of the event happening and its consequences on his/her life or properties. The assessment should be done using personal judgment or perception.

6.5.3 Mitigating potential risk

As a Field Officer, you need to decide quickly what action is needed to better manage a suspected risk. It is important to note that you should avoid panicking in whatever situation you find yourself as that could scale up the identified risk. To mitigate the identified risk, it is important to emphasise that apart from ensuring your own safety, you are also responsible for whatever equipment are in your custody. The under-listed guidelines are to prepare Field

Officers to prevent or effectively handle such security threats. These guidelines, though not exhaustive, if adhered to could limit significantly, the risks in the field.

1. If possible, always keep a clean filled water bottle on you.
2. Always keep minimal cash when stepping out.
3. Keep all equipment and gadgets (i.e. tablets, power banks, etc.) inside your bag always except when administering a questionnaire.
4. Avoid shortcuts, dark routes, suspicious neighbourhoods etc. while moving from one place to the other.
5. Avoid indulgence in any kind of arguments with natives.
6. Leave behind expensive articles such as jewellery, etc.
7. If possible, avoid working during odd hours i.e. night, dawn.
8. Identify multiple safe points (open space) within the SA to converge with your Supervisor. Try as much as possible to meet at different points/locations.
9. Ensure that your luggage has a good lock to keep items safe after relocating into communities.
10. If you become suspicious, consider changing the 'key cylinder' in the lock on the door of the room you live/sleep in.
11. Where necessary, report any incidents to the police.

6.5.4 Health Guidelines

The emergence of COVID-19 presents a new way of life for every person. The coronavirus has spread to almost every part of the world. This virus can spread from:

- Person to person
- Between people who are in close contact with one another (within about 6 feet)
- Via respiratory droplets produced when an infected person coughs or sneezes, and are inhaled into the lungs of a person nearby
- Possibly through touching an infected person who has touched their own mouth and nose which are spread when a person with COVID-19 coughs or exhales.

Also, it spreads when one's fingers (or hands) touches infected surfaces such as door handles, tables and fabrics, and the infected fingers touch the mouth, eyes, or nose. It can also be transmitted from animals to humans. Symptoms may include:

- Fever
- Cough
- Running nose
- Sore in the throat
- Frequent headaches
- Body temperature above 37.5°C
- Shortness of breath
- Loss of taste and/or smell

The symptoms may appear from 2–14 days (incubation period) after contact with an infected person and may range from mild to severe illness. The only way to prevent being infected is to avoid being exposed to the virus. Everyday preventive actions include:

- Wear face mask anytime you step out of you room.
- Physically distance yourself – at least 2 metres from any person.
- Use an alcohol-based hand sanitizer with at least 70% alcohol. Always wash hands first with soap and water if hands are visibly dirty.
- Avoid touching your eyes, nose, and mouth.

- Cover your nose and mouth with disposable tissue when coughing or sneezing, and then properly dispose of the tissue.
- Clean and disinfect frequently touched objects and surfaces using regular household cleaning spray or wipe.
- Wash your hands often with soap and water for at least 20 seconds, especially after going to the bathroom, before eating, and after blowing your nose, coughing, or sneezing.
- Avoid close contact with people who are sick.
- Stay at home if you are sick.

6.6 Planning your itinerary

Before you commence your work in the rural areas, you must draw up your itinerary for the enumeration and submit this to your Field Supervisor for discussion and approval. An itinerary is a schedule of events relating to planned travel, and which generally includes the destinations to be visited at specified times and means of transportation to move between those destinations. The purpose of this itinerary is to fix the approximate date you expect to visit each locality or area. Your visits must be systematic and orderly. You are the best person to judge how you can cover all the houses, but if you get ahead of your schedule, do not stop.

For Enumerators in Type 3 EAs, the prepared itinerary should be in agreement with the Chief or Assemblyman/woman or Unit Committee Member, and a copy given to your Supervisor. This will enable the Supervisor to visit/contact each Enumerator in the field. It will also make the enumeration easier for the Enumerator. In agreement with the Chief, the inhabitants of some villages or part of a village could be advised to stay home on the day scheduled for their enumeration.

In the urban EAs, the Enumerators could approach the problem in a different manner. Here, there would be no need for any specific itinerary. However, Enumerators have been advised to enumerate houses/structures following the listing order. This will enable Supervisors to contact their Enumerators during their visits.

This itinerary will not show the order of visiting houses in each locality since it is drawn up before you visit the localities. Later on, when you are in the locality, or after you have completed the house listing, you must draw up an itinerary showing the order in which you will enumerate the households in each locality and/or each house. This will make the enumeration easier. You could work out an agreement with the chief or opinion leaders so that the inhabitants of the village or part of the village are informed to stay at home on the day scheduled for enumeration.

CHAPTER 7

USE OF MAPS IN THE CENSUS

7.1 Introduction

Maps are essential for achieving complete coverage and accurate enumeration. It is important for Field Officers to be conversant with the procedures for using maps to accurately identify enumeration and supervision areas. In the case of the Census, Enumeration Maps serve as the basis to plan for the effective enumeration of the assigned area. The maps help enumerators to locate the boundaries of their assigned area, identify all localities, list, and enumerate all structures and persons in the assigned areas. They also serve as a basis for recruitment and distribution of logistics.

7.2 Definition of a map

A map can be defined as the representation of either an entire earth surface or a part of it in a reduced form showing natural and/or man-made features. Maps may be drawn to scale or not there are many different types of map that attempt to represent specific things. Maps can display political boundaries, population, physical features, natural resources, roads, the climate, economic activities, etc.

7.3 Types of maps

There are many different types of map that attempt to represent specific things. However, for purpose of the 2021 PHC, three (3) main types of map will be used. These are:

- a) Enumeration Area (EA) Map
- b) Supervision Area (SA) Map
- c) District Map

7.4 Enumeration Area (EA) map

An Enumeration Area (EA) map is the map of the smallest geographical area with a well-defined boundary and features that is assigned to an enumerator which can easily be canvassed and enumerated during the data collection period. Each EA map has a description form (PHC 2) attached which describes the boundaries and other relevant characteristics of the EA.

The objective of the Census can only be achieved if all structures are listed and all persons who spent the Census Night in Ghana are enumerated. The EA map is the most important aid in achieving complete enumeration in the assigned area. It is therefore, very important that you know the area assigned to you in order to cover it systematically as any omission of households and dwellings will have a negative impact on the success of the Census. Remember that the EA map is simply an image of land, water and other features that are unique to a particular part of the country.

The EA map shows the area the enumerator has to cover. It also shows the boundaries and names of all sides of the EA. Again, the EA map shows localities, roads, streets, rivers, streams, railways, houses and other major features within the boundaries of the EA. An EA has an estimated average population of 750, even though it can be more or less. It is expected that the enumerator enumerates **ALL** the population and structures within his/her assigned EA.

The following information are usually found on an EA map irrespective of type.

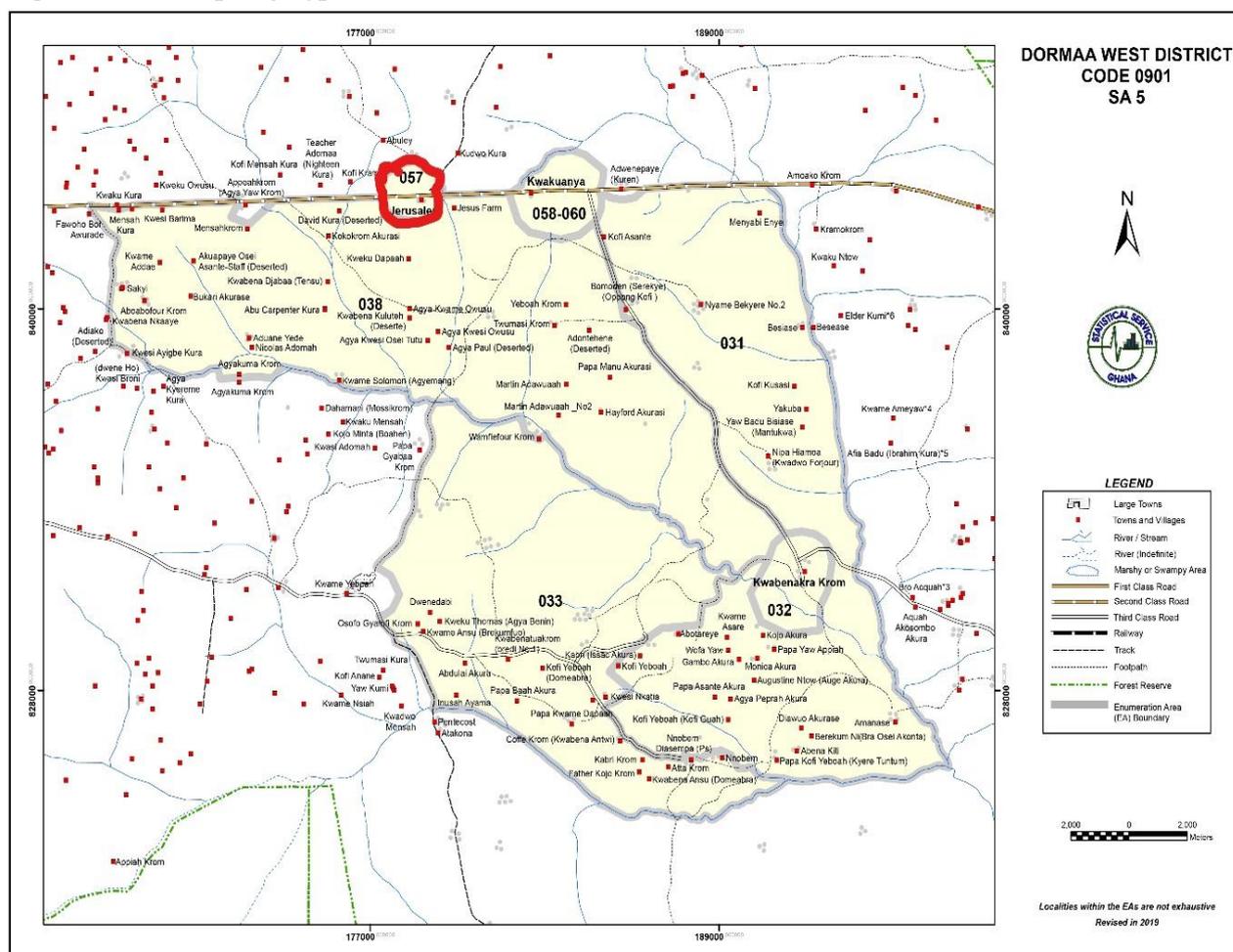
- a) Locality Name and Code
- b) Region and District name and their codes
- c) Name and number of Supervision Area (SA)
- d) Name/Base of Enumeration Area
- e) Enumeration Area Number

7.4.1 Type 1 Enumeration Area (EA) Map

Type 1 EA map represents an entire locality (one EA to one locality). This type of enumeration area is formed out of one locality (i.e. One Locality = One EA). This type of EA is normally referred to as an island and is found in a rural area (See Figure 7.1).

Note: For the purpose of the 2021 PHC, a locality is defined as an inhabited geographical area with a distinct name and defined boundaries. It could be a hamlet, mining camp, ranch, farm, village, town, city or part of a town or city. A locality may contain one or multiple EAs (refer to sections 5.7 for definition of a locality)

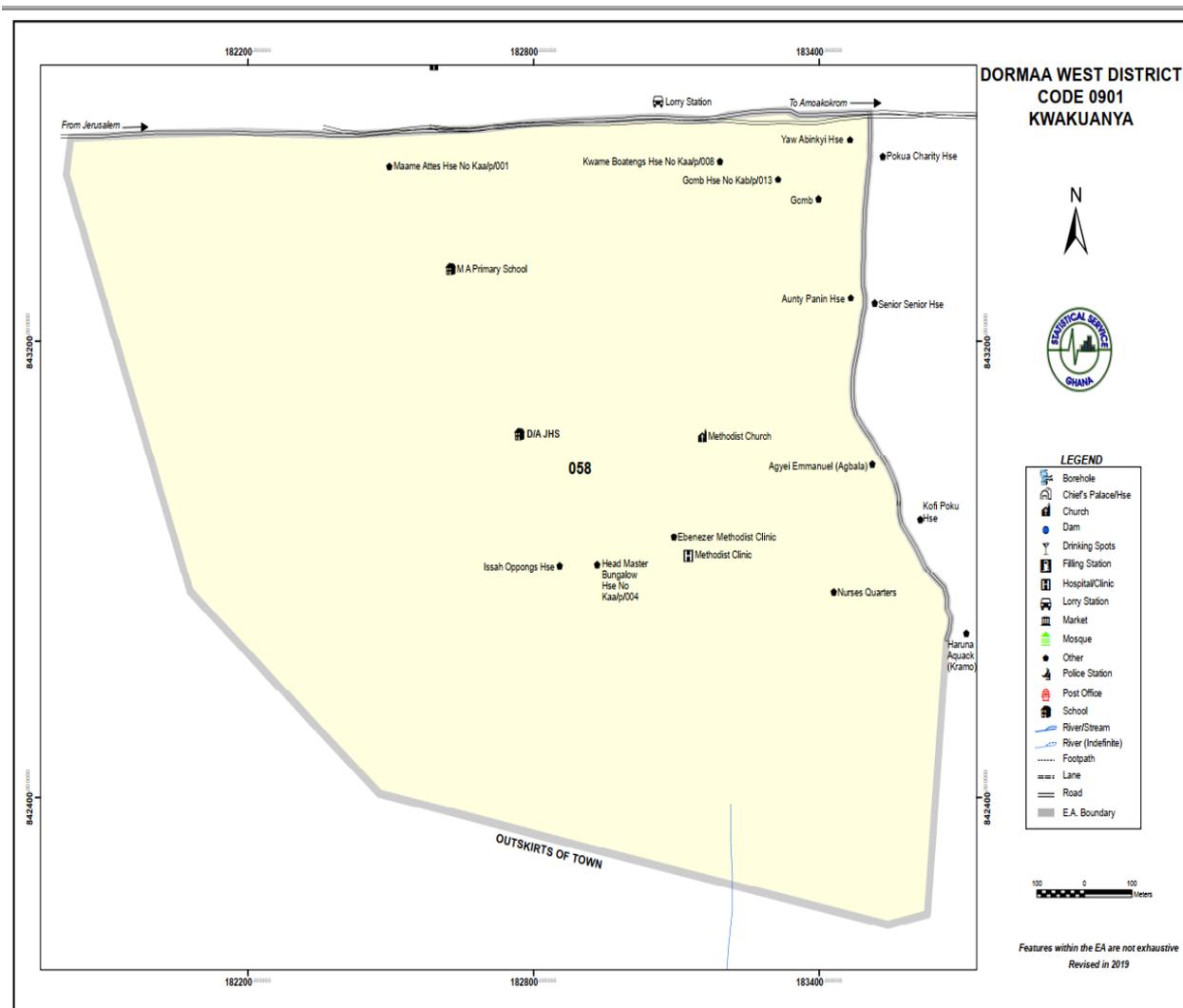
Figure 7.1: Example of Type 1 EA (EA numbers 057)



7.4.2 Type 2 Enumeration Area (EA) Map

Type 2 EA map represents a part of a locality. Here, one locality is divided into two or more EAs (i.e. two or more EAs in one locality). The Type 2 EA map below (Figure 7.2) shows names of points of interest including Pentecost Church, Presby Church, Lorry Station, etc. In Type 2 EAs, boundaries are mostly formed by features like streets, buildings, lanes, drains, railway lines, etc.

Figure 7.2: Example of Type 2 EA (EA numbers 058, 059 and 060)

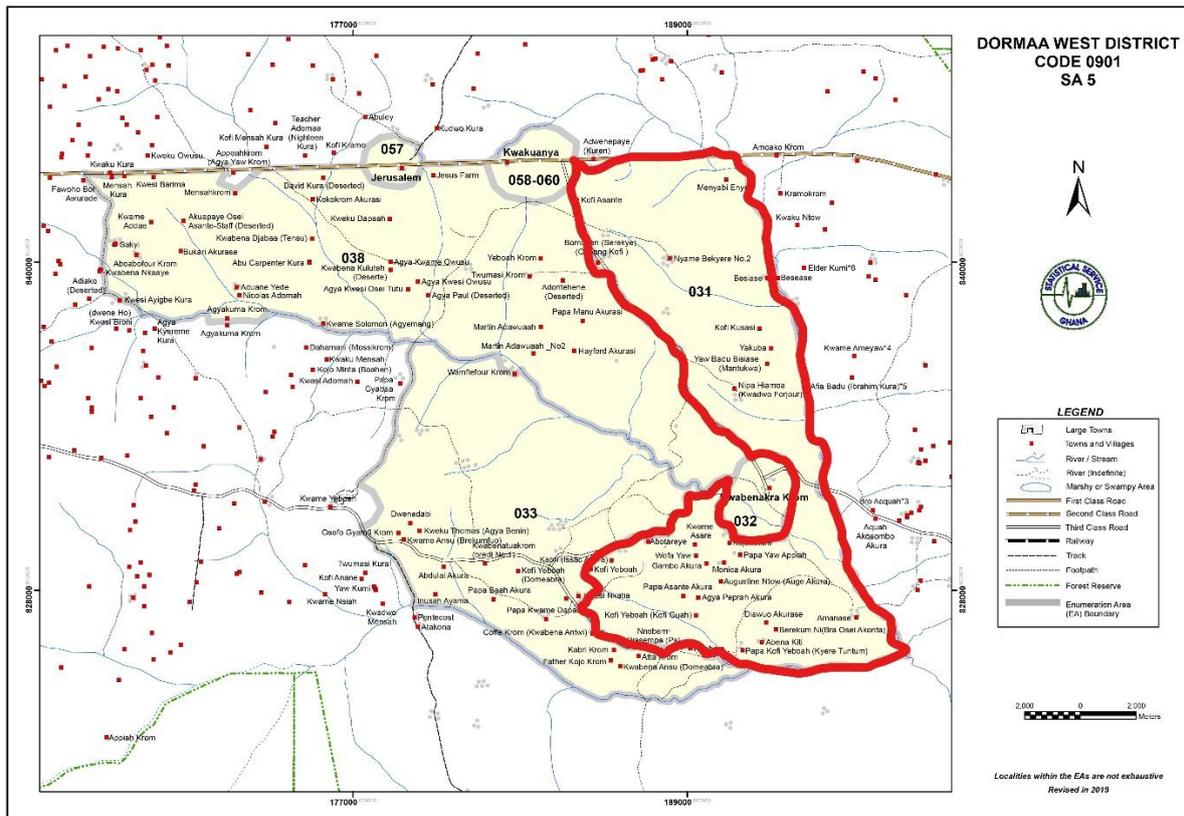


7.4.3 Type 3 Enumeration Area (EA) Map

Type 3 EA map represents two or more localities put together to form one EA (one EA for many localities).

These EAs are the rural type. A type 3 EA is usually made up of two or more localities and its boundaries are marked mostly by natural and artificial features such as streams, rivers, mountains, roads, and foot paths (See Figure 7.3).

Figure 7.3: Example of Type 3 EA (EA numbers 031)



7.5 EA Boundary Description (PHC2)

The boundary description of the EA assigned to you will be attached to your map and is called EA Boundary Description (also referred to as PHC 2). The following details are provided on all the EA maps:

- | | | |
|----|--|------------------------------|
| a) | Name of Region | Region Code |
| b) | Name of District | District Code |
| c) | District Type | District Type Code |
| d) | Sub-District | Sub-District Code |
| e) | Base locality Name | Base locality code |
| f) | Locality Type | Locality Code |
| g) | 2010 EA Number | 2021 EA Number (provisional) |
| h) | Ghana Post Digital Address | |
| i) | EA Name | |
| j) | Other settlements in the EA, their estimated population and code | |
| k) | Boundary Description | |

7.5.1 General Steps to reading the EA map

1. Understand and acquaint yourself with the map symbols;
2. Use the EA description alongside the landmarks / localities on the map as a guide to locate the assigned EA;
3. Locate the EA name (base) for Type 2 EA and for Type 3 EA, look for the base locality
4. Orient your map correctly with the help of the north arrow symbol on the map;
5. Identify the starting point of the EA as indicated on the PHC 2.
6. With the aid of the PHC 2, use the map to trace the EA boundary;
7. Canvass the EA for Types 1 & 2 by systematically moving within and around the entire EA segment by segment;

8. For Type 3 EAs, canvass the base locality by systematically moving from one locality to the other based on proximity;
9. Familiarize yourself with the EA and identify key features that will help facilitate the process of listing and enumeration.

7.5.2 How to read Type 1 EA Map and locate Type 1 EA

Type 1 EA map represents the entire locality. This means that the enumerator is supposed to cover the whole locality including outskirts. The enumerator must:

1. Check the PHC2/ Description form to ensure that it matches with the map.
2. Locate the EA with the help of the locality name on the map and other information on PHC2.
3. Canvass (move within and around) the EA to identify the boundary, major landmarks, and positioning of structures.
4. Start the listing at one corner to the end of the EA.

Figure 7.4: Example of PHC 2 - Description Form for Type 1 EA (057)

18-Oct-19

GHANA STATISTICAL SERVICE



REPUBLIC OF GHANA
PHC2
2020 POPULATION AND HOUSING CENSUS
GHANA AUTOMATED ENUMERATION AREA INFORMATION SYSTEM [GAEA-INFO]

GPS: 0.0
0.0

1a. Region	BONO	1b. Region No.	09
2a. District	DORMAA WEST	2b. District No.	0901
3b. District Type	District	3b. District Type No.	1
4a. Sub District	DORMAA WEST	4b. Sub District No.	00
5a. Base Locality Name	JERUSALEM	5b. Base Locality No.	01
6a. Locality Type	RURAL	6b. Locality No	2
7a. 2010 EA Code	0724100028	EA Number	057
GhanaPostGPS	-	EA Base	JERUSALEM
EA Type	1		

2020 EA Code (Prov.).....: 0901100057

No. Localities	2010 PHC		2018 GCA		2020 Estimated.		2020 Enumerated	
	Enum.Pop	Enum.HseHd	Enum.Pop	Enum.HseHd	Est.Pop	Est.HseHd	Enum.Pop	Enum.HseHd
01 JERUSALEM								

Boundary Description

The entire locality of Jerusalem constitutes the enumeration area.

7.5.3 How read Type 2 EA Map and locate Type 2 EA

The locality consists of two or more EAs. This means that the enumerator is supposed to cover the assigned EA which is a segment of the locality by following the steps below:

1. In order to locate a type 2 EA, the map user must first locate the EA Name. The EA has been named after a prominent feature within the EA such as Churches, Mosques, Schools, Police Stations, Chief's Palaces, etc., called the **EA Base**. In a few instances where no such prominent features could be found in the area, house numbers (may come with the owners' name) are used as the EA Name.
2. The first step is to lay/hold the map flat so that the features on the map and those on the ground are clearly visible and in alignment (map orientation). It is usually preferable to begin the orientation at a major street or road intersection as this can be easily located both on the map and on the ground.
3. The map should be held in such a way that major features are lined up (or oriented) parallel with the ground features, then the map and ground features will be in their correct relative positions.
4. The other nearby features such as houses, churches, railways, roads, rivers and other physical features should be checked against the symbols shown on the map. Take note of

the fact that certain man-made features might have sprung up or no longer still exist. Despite any such changes, the map should still be useful.

5. Canvass the EA (move along the boundaries of the EA) to familiarize yourself with the features within the EA. Trace the EA boundaries using features provided on the map. Do this activity with using the description form (PHC 2) attached EA Map.
6. Start the listing from one corner of the EA. List and enumerate all the structures and the households in the EA

Figure 7.5: Example of PHC 2 - Description Form for Type 2 EA (060)

16-Oct-19

GHANA STATISTICAL SERVICE



REPUBLIC OF GHANA
PHC2
2020 POPULATION AND HOUSING CENSUS
GHANA AUTOMATED ENUMERATION AREA INFORMATION SYSTEM [GAEA-INFO]

GPS: 0.0
0.0

1a. Region	BONO	1b. Region No.	09
2a. District	DORMAA WEST	2b. District No.	0901
3b. District Type	District	3b. District Type No.	1
4a. Sub District	DORMAA WEST	4b. Sub District No.	00
5a. Base Locality Name	KWAKUANYA	5b. Base Locality No.	04
6a. Locality Type	RURAL	6b. Locality No	2
7a. 2010 EA Code	0724100031	EA Number	060
GhanaPostGPS	-	EA Base	PRESBY CHURCH
EA Type	2		

2020 EA Code (Prov.).....: 0901100060

No. Localities	2010 PHC		2018 GCA		2020 Estimated.		2020 Enumerated	
	Enum.Pop	Enum.HseHd	Enum.Pop	Enum.HseHd	Est.Pop	Est.HseHd	Enum.Pop	Enum.HseHd
04 KWAKUANYA	492				603			

Boundary Description

Start from the Presby Church (Incl) and Maame Atta (Excl). Proceed along the Amoakokrom road by-passing the lorry station (Incl), Yaw Abinkyi and Gomb (Both Excl). Move further along the road to by-past Elder Ayamba Cornmill (Incl) and Dwankobea Church (Excl), Confidence Academy (Also excl). Turn left and proceed along the outskirt by-passing Sister Hawa and Pentecost Church (Both Incl). Move further along the outskirt to by-past a refuse dump and Asante Kwabena (Amajaro) (Both incl) to meet Jerusalem road. Turn left finally and move towards the road to meet Presby Church (Incl), your starting point.

7.5.4 How to read Type 3 EA Map and locate Type 3 EA

Several localities constitute the EA. This means that the enumerator is supposed to cover all the localities that make up the EA by following the steps below:

1. Because of the large area usually covered by Type 3 EAs, tracing the boundary can be challenging. And so it is not advisable to canvass this type of EA.
2. Identify the EA boundary on the map using the landmarks such as streams, footpaths, roads, localities, etc.
3. Check the number of localities constituting the EA on the PHC 2.
4. Visit all localities.
5. Additional information can be obtained from the local people.
6. Start the listing from the Base locality (i.e. the locality with the highest population – the most populous locality). When listing is completed in the base locality, find out from the local people how best the other localities in the EA could be accessed easily and conveniently for complete coverage.

Figure 7.6: Example of PHC 2 - Description Form for Type 3 EA (031)

5/11/2020

GHANA STATISTICAL SERVICE



GPS:

REPUBLIC OF GHANA
PHC2

2020 POPULATION AND HOUSING CENSUS

GHANA AUTOMATED ENUMERATION AREA INFORMATION SYSTEM [GAEA-INFO]

1a. Region	Greater Accra Region	1b. Region No.	03
2a. District	GA SOUTH	2b. District No.	0301
3b. District Type	MUNICIPAL	3b. District Type No.	2
4a. Sub District	GA SOUTH	4b. Sub District No.	00
5a. Base Locality Name	OCLOOKOPE	5b. Base Locality No.	01
6a. Locality Type	RURAL	6b. Locality No	2
7a. 2010 EA Code	03012006311	EA Number	330
GhanaPostGPS	.	EA Base	OCLOOKOPE
EA Type	3		

2020 EA Code (Prov.).....: **0301200330**

No. Localities	2010 PHC		2018 GCA		2020 Estimated.		2020 Enumerated	
	Enum.Pop	Enum.HseHd	Enum.Pop	Enum.HseHd	Est.Pop	Est.HseHd	Enum.Pop	Enum.HseHd
01 OCKOOKOPE					46			
02 TOGBE OCLOO					10			
03 THOMAS OCLOO					5			
04 GABESHIEKOPE					8			
05 OBED ASAMOAH FARMS					12			
06 GANNAT FARMS					12			
07 KUMA APALOOKOPE					12			
08 APALOO KWESIKOPE					20			
09 APALOO STEPHENKOPE					13			
10 KEY FARMS					12			
11 PEPPERKOPE					15			
12 KABU					10			
13 OKYEAME AKROWA					12			
14 KWAMI DZOLO (ZORO)					18			
15 AYIGBE KOFIKOPE					18			
17 GAPEKOPE (TAATA PAPA)					20			
18 GADRI AKWAKU					15			

Boundary Description

START FROM THE OUTSKIRTS OF DOMIABRA AND FOLLOW THE DOMIABRA - DANCHIRA ROAD ROAD PAST OCLOOKOPE (INCL) TO MEET RIVER LARANU. TURN RIGHT AND FOLLOW THE RIVER TO MEET THE DENSU RIVER. TURN RIGHT AND MOVE ALONG THE DENSU TO MEET A STREAM. TURN RIGHT AND FOLLOW THE STREAM TO MEET TOGAHKOPE (EXCL). FROM TOGAHKOPE MOVE ALONG THE TOGAHKOPE - DOMIABRA ROAD TO MEET THE OUTSKIRTS OF DOMIABRA, THE STARTING POINT.

Note: Special EAs have their codes beginning with a '9'. They are designate as special EAs because of the presence of either one or more of any of the following: military camps (including training schools), police barracks (including training schools), hospitals, prisons, immigrations, fire academy, correctional homes, forest reserves/camps, hotels, boarding schools (public and private at all levels), prayer camps, mining camps, children's homes, witch camps, orphanage homes, etc. Enumeration in such areas will require permission for entry and require prior arrangements with the authorities in charge.

7.6 Things to know about your Enumeration Area

1. Always work within the EA Map that is given to you. Never enumerate any population that falls outside your EA.
2. Always start with the base of your EA (Type 3 EA) which is the largest locality in your EA or the most prominent feature in your EA, then proceed to the other localities or structures in your EA.
3. You are not required to go around the boundary of your EA if you have an EA Map with many localities (Type 3 EA).
4. Make use of the boundaries and ask the local people of the settlements already listed in the EA and about others which may not be listed but are still found within the EA.
5. For type 1 and 2 EAs canvass your boundary before starting your enumeration. Consult opinion leaders for information on localities within your EA. Rely on the information provided by your Supervisor.
6. The estimated population for an EA is only a guide; it could be more or less. The actual population could only be determined after enumeration. If the workload happens to be too much for you, contact your Field Supervisor.
7. The boundary of two localities should only be determined using the maps that have been provided. Do not rely on opinion leaders to determine them. If in doubt consult your Supervisor.
8. The individual EA Maps, SA Maps, District Maps and the Descriptions (PHC 2) complement one another; hence Supervisors/Enumerators should use them together. If the boundary descriptions or maps are not clear, consult your **District Census Officer or District Field Supervisor** for a thorough understanding.

7.7 Identifying Overlaps and Gaps in EA Map Reading

Steps have been taken to ensure that there are no overlaps and/or gaps: An overlap occurs, when one EA boundary crosses into another EA. If some structures within the boundary of your assigned EA are chalked (have the Census numbering) anytime during the period of listing or enumeration, this gives an indication of a possible overlap with another EA.

A gap is a part of the land area (space) that does not belong to any EA or simply unaccounted for as part of any EA. If some structures around the boundary of your assigned EA are not chalked (are without the Census numbering) when listing period is ended, this gives an indication of a possible gap.

To avoid overlaps or gaps, all Enumerators must ensure that they know and collaborate with all other Enumerators working in the EAs that their EA share boundary with. In the same vain, all Supervisors must ensure that they are familiar with all other Supervisors working in SA that their SA share boundary with.

Should you encounter any overlap or gap, report to your supervisor, who should also report to the DDQMT.

Figure 7.7: Adjoining EAs without gaps and overlaps

Identifying Overlaps and Gaps in EA Map reading

• Adjoining EAs without gaps and overlaps

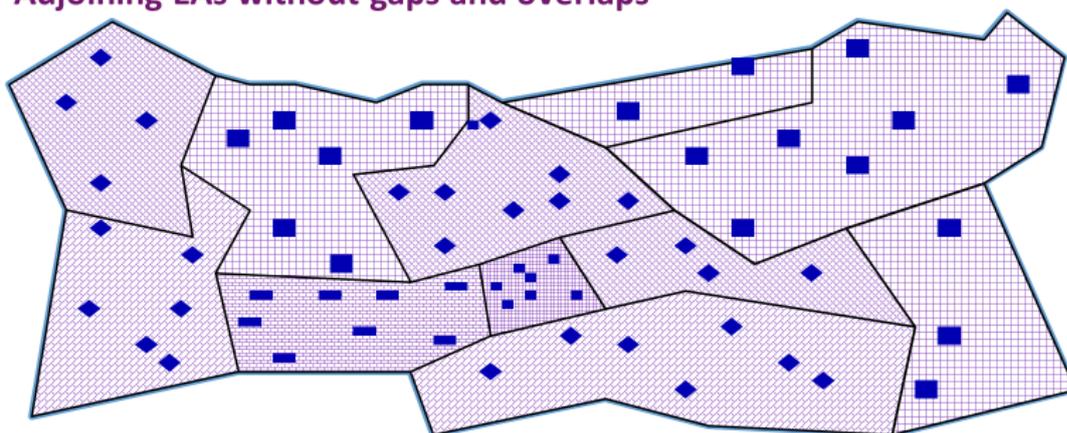
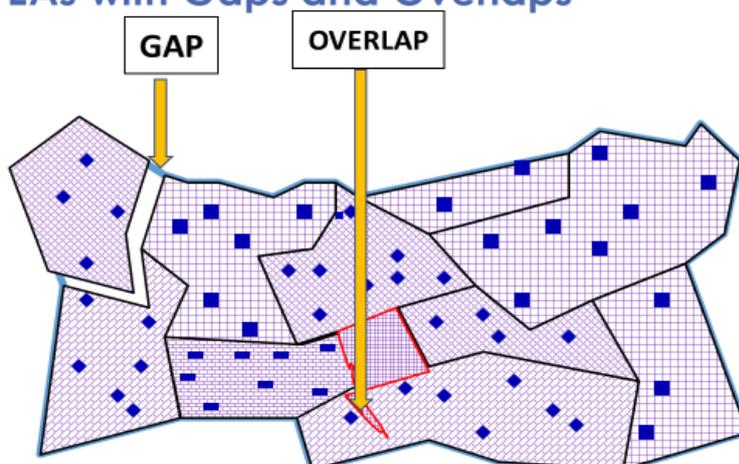


Figure 7.8: Adjoining EAs with Gaps and Overlaps

Identifying Overlaps and Gaps in EA Map reading

Adjoining EAs with Gaps and Overlaps



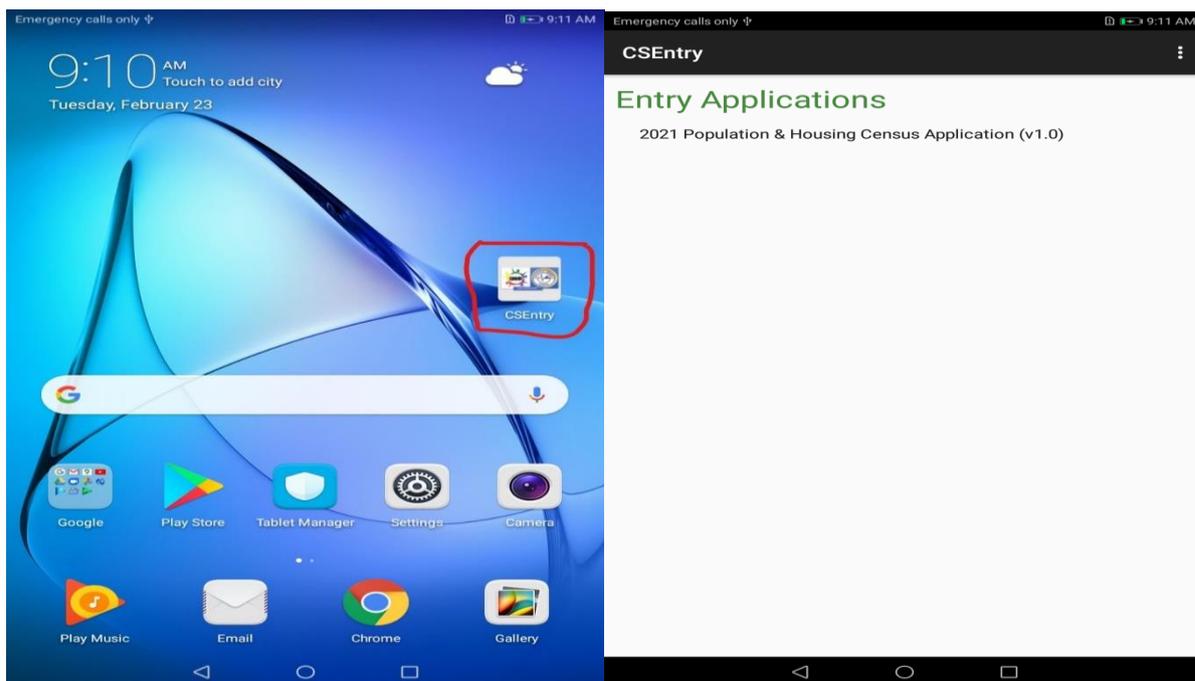
7.8 Guidelines on how to use Interactive Maps for the 2021 PHC

The Interactive Map is an add-on to enable enumerators and supervisors identify their position or location in the field during the census exercise. The interface is integrated into the CSPro to allow enumerators to see if listing of structures are within their allocated EAs and to make sure they have not strayed into other EAs.

To use the Interactive Map:

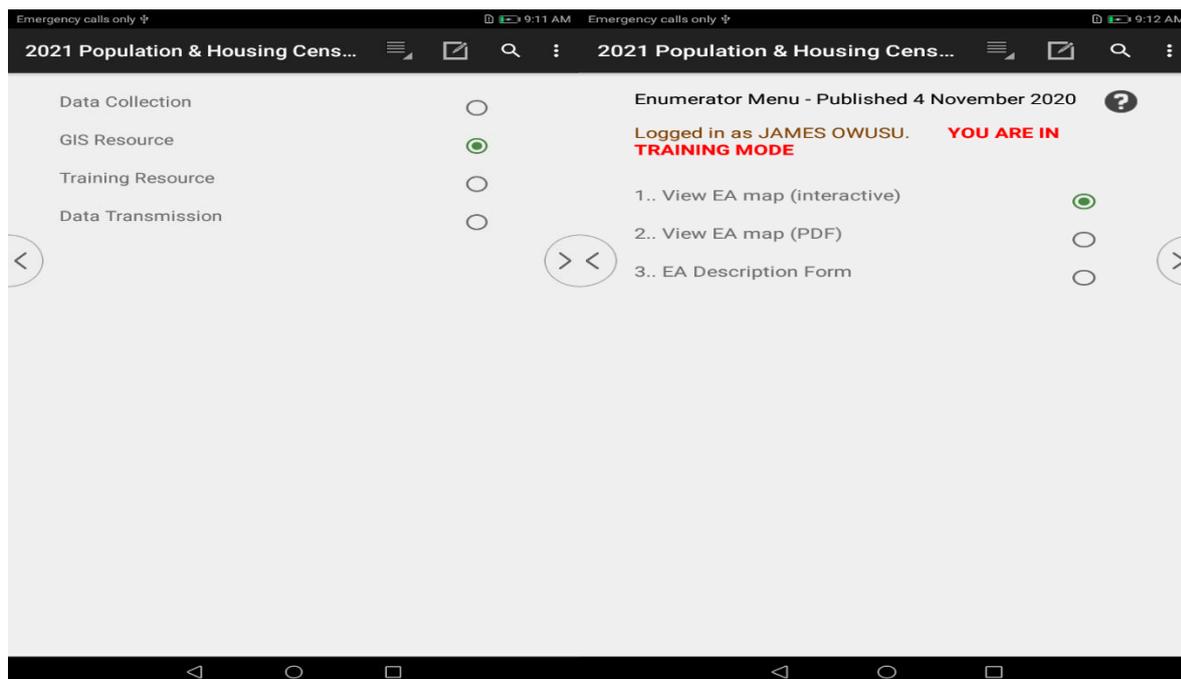
1. Turn on your tablet and search for the CSEntry application. Tap on it and log in. Then tap on the “2021 Population & Housing Census Application (v1.0)” inscription. This takes you to an interface where you select your resources.

Figure 7.9: CSEntry Interface 1



2. On the resources selection interface, select “*GIS Resource*”. Then select “*1. View EA map (interactive)*”. This would open into the map interface.

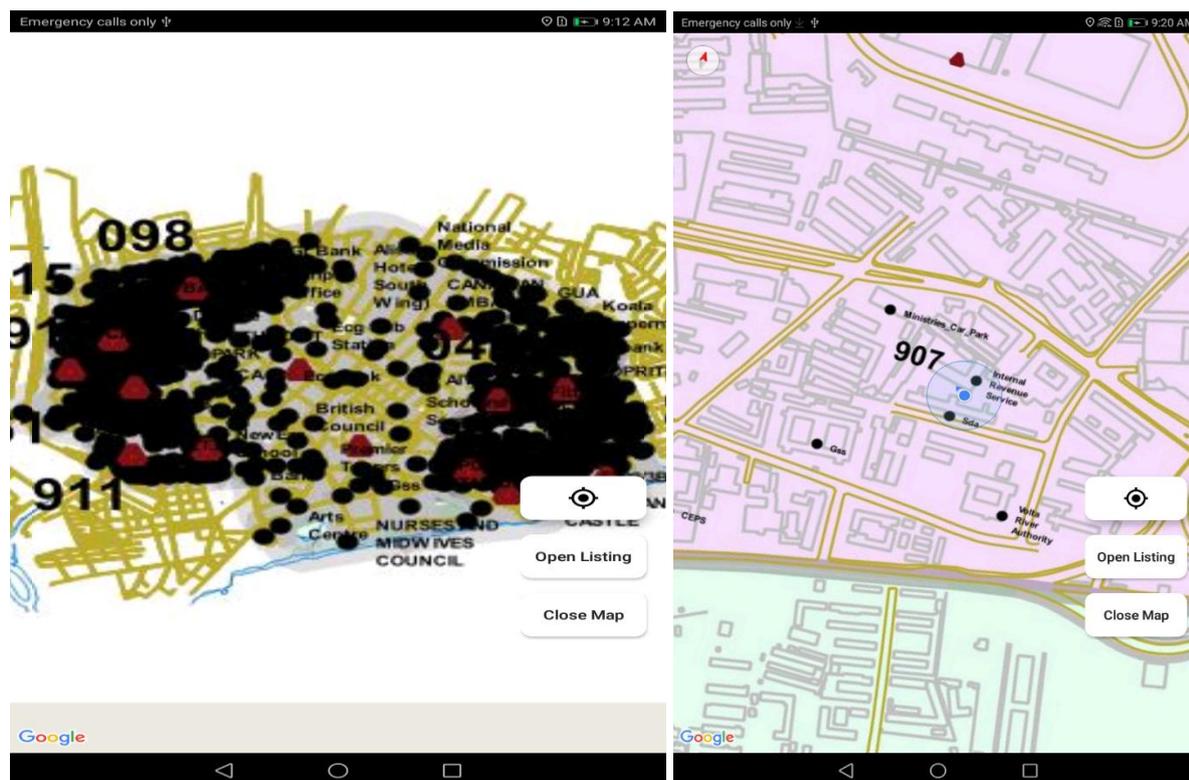
Figure 7.10: GIS Resource



Note: you would need **internet** on the first instance of initiating the map to allow the position configuration to activate. Once this is done, interactive map can be used offline. Activate the location on the notification bar drop down.

3. On the **map interface**, tap on the navigation to zoom to current position.

Figure 7.11: Map Interface



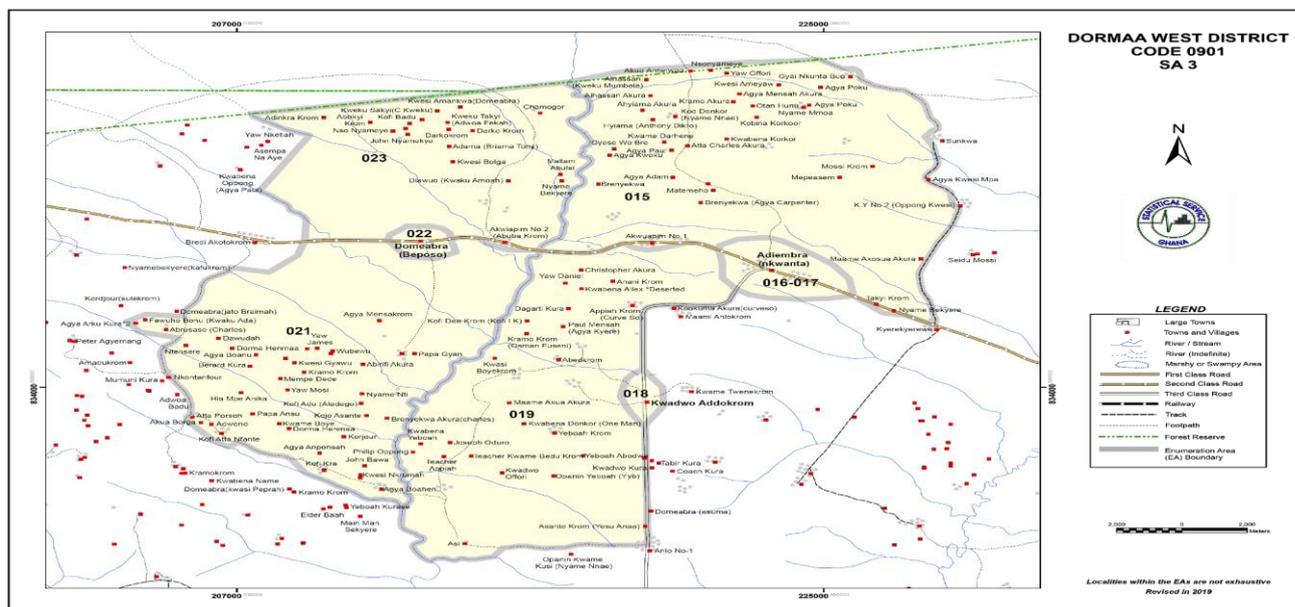
4. Click on the **“Open Listing”**, and start listing your structures.

Note: Follow the above process to visualize all the listed structures.

7.9 Supervision Area (SA) Map

SA Map is a group of adjoining EA Maps assigned to a Supervisor during the Census period. It is the area for which a Census enumeration supervisor is responsible. It is made up of an average of (six) 6 Enumeration Areas. The variation depends on the population sizes, the topography and difficulty of enumerating the area. The SA map is contiguous and assigned to a supervisor during the Census enumeration to aid supervision and monitoring of field work. See Figure 7.9.

Figure 7.12: Example of SA Map

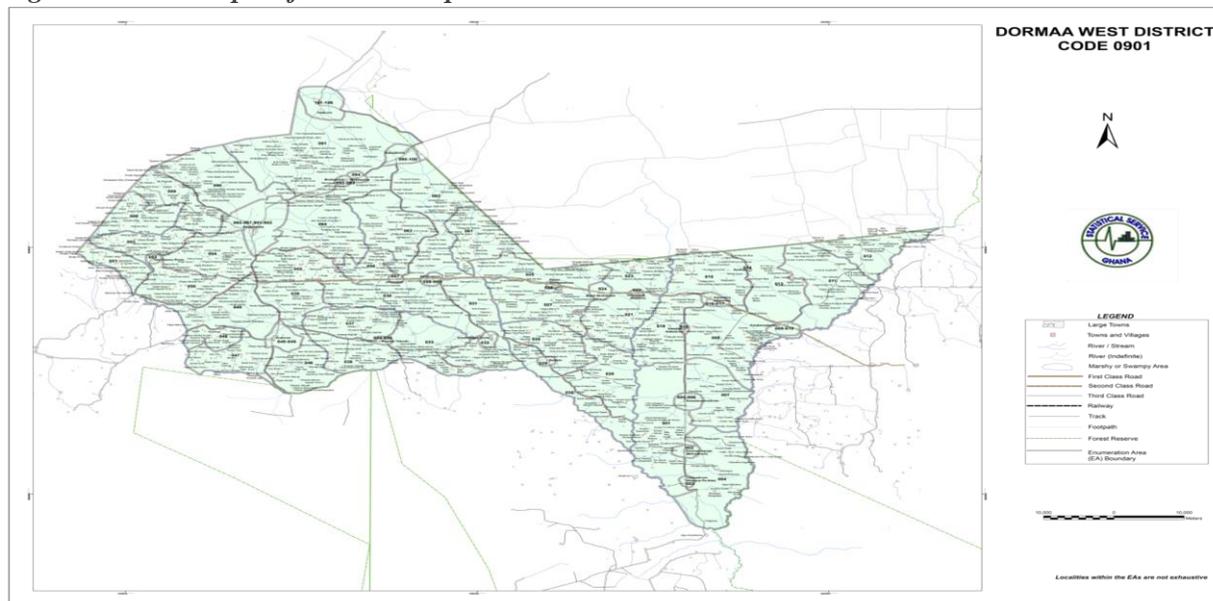


In some cases, the initial SA drawings may have contained more than six (6) EAs. Such SAs were further divided into zones to facilitate effective supervision work in the field. Therefore, such big SAs will have two or more supervisors working in the SA. However, the boundaries are clearly delineated in the circumstance that no two teams work in the same area to avoid duplicates and gaps during the data collection exercise.

7.10 District Map

A District Map is a group of SA Maps representing a number of EAs assigned to the District Data Quality Management Team (DDQMT) during the Census period. It covers an entire district as an administrative unit. It is the collection of various SA maps within the district put together to create a larger spatial coverage and to aid supervision and monitoring of field work.

Figure 7.13: Example of District Map



7.11 New localities and other changes in the EA

Do not assume that the list of localities on the PHC 2 Form is complete because there may be other localities which do not appear on the list or the map. Though the EA Map and PHC 2 Form must indicate all localities in the EA, it is possible that some of these may not have been captured during the demarcation exercise or may no longer be in existence or new ones may have been established since the completion of the demarcation exercise. Enumerate such localities and notify your supervisor of any changes. The Supervisor should also inform the DDQMT.

7.12 Deserted or Collapsed Localities

If a locality listed on the PHC 2 is deserted or collapsed, confirm with the neighbouring localities if indeed the locality is deserted and then take the GPS reading. In addition, make a brief description of the locality and the possible reason(s) why the locality has been deserted or collapsed. Finally, report to your supervisor who will in turn report to the DDQMT

7.13 Geographic Identification Codes (Geo-Codes)

Enumeration Areas (EAs) have been assigned consecutive numbers within the administrative division and in conformity with the geographic coding of the country that uniquely identifies each EA. It is a ten (10) digit code system which contains geographic identification codes of each administrative area and EA numbers associated with them (Table 7.1).

Table 7.1: Geographic codes

Geographical Area	Digit Location	Code	Range	Remarks
Region	First Two	2-Digits	01-16	From Western = 01 to Upper West =16
District	3 rd and 4 th	2-Digits	01- 43	Ashanti has the Highest = 43
District Type	5 th	1-Digit	1- 3	District=1, Municipal = 2, Metropolitan = 3
Sub-Metro	6 th and 7 th	2-Digits	01- 05	KMA has the highest = 5
EA Number	8 th , 9 th & 10 th	3-Digits	001-999	To be numbered sequentially within district/municipal/sub-metro

1. **Region name:** There are 16 regions in Ghana. Each region has its own code, based on the serpentine ordering recommended by the United Nations for listing.
2. **District:** Within these Administrative Regions are districts (MMDAs) and there 260 Administrative districts in Ghana.
3. **Statistical District:** For purposes of the Census, 271 Statistical Districts have been created, including all the existing Metropolitan, Municipal and District Assemblies in Ghana.
4. **District Type:** Refers to the existing administrative District, Municipal or Metropolitan Area.
5. **Sub-Metro:** A geographically defined urban jurisdiction or centre performing governance and administrative functions at the sub-metropolitan level. It is represented by a 2-digit code. Kumasi Metropolitan Assembly has the highest number of 5 sub-metros.

Table 7.2: List of Sub-metros within the Metropolitan Assemblies

Metropolitan Assembly	Name of Sub Metros	Number of Sub Metros
STMA	Takoradi, Sekondi and Esikado-Ketan	3
Cape Coast	Cape Coast North and Cape Coast South	2
AMA	Ablekuma South, Ashiedu Keteke and Okaikoi South	3
TMA	Tema Central and Tema East	2
KMA	Nhyiaeso, Subin, Manhyia South, Manhyia North and Bantama	5
Tamale	Tamale South and Tamale Central	2
Total		17

1. **EA Number:** EA number is a 3-digit number assigned to each Enumeration Area in the district.
2. **Locality Code:** This is three-digit code for localities listed on PHC 2
3. **Point of Interest (POI)** It is a specific point location that someone may find useful or interesting. It is a feature on a map (or in a geo dataset) that occupies a particular point. An example is a point on the map used to represent a school or a church, etc.
4. **Map Orientation:** For using any map, it is important to know how to align it on the ground correctly so as to be able to identify and locate certain features on the ground that are shown on the map in relation to ground features. The process of aligning a map with ground features is known as “map orientation”.
5. **Legend** - In cartography, the information on a map that explains which symbols are used for the features and variables that are represented on the map. This includes the symbol key required to interpret the map, for example, the shade colours and corresponding value ranges of a population density map.
6. **Administrative unit** – It is a geographic area that serves administrative and governmental functions. They are usually defined and established by legal action.
7. **Boundary** - a line that defines the extent of an area unit or the location where two areas meet. A boundary is represented in a GIS as a line feature, which may define a side of a polygon. The boundary may or may not be visible on the ground; i.e., it can follow real-world features such as roads and rivers, or can be defined solely by geographic coordinates.
8. **Contiguity** - if two or more geographical features are neighbours or adjacent.
9. **Geographic code** - unique alphanumeric identifier that is assigned to a legal, administration, statistical reporting unit. This is a unique numeric identifier that is assigned to a legal administrative, statistical reporting unit.
10. **Outskirts** - It is the outer part of a locality. The concept of outskirts must be clearly understood by all users of E.A maps. In most cases outskirts apply to type 1 and type 2 E.As. It is usually the uninhabited area of the locality after the last structure/dwelling. It should be noted that when 2 or more localities are contiguous and are almost joined together, this concept of outskirts no more holds.

7.14 Boundary Disputes

There could be two types of boundary disputes: disputes relating to boundaries between two EAs and disputes relating to boundaries between localities and districts. Whereas the former could easily be resolved, localities and districts boundary disputes can be sensitive and must be handled tactfully. All boundary disputes in the EAs, localities and districts should be reported to supervisor, who will in turn report to the DDQMT.

7.15 Strategy for Resolving Mapping Challenges during the Data Collection

To address any challenge which might occur during the main census fieldwork, the Census Mapping/GIS Workstream has put in place a team of mappers for each of the six (6) Statistical Zones and 32 Statistical Regions to perform some technical and operational activities to ensure that the 2021 PHC's goal of achieving complete coverage and collecting quality data is attained. The mappers will be responsible for resolving the following cartographic issues during the fieldwork in their various zones.

MAP

1. Boundaries on top of or through building footprints
 - **Action:** Align boundaries described on the PHC 2
2. Boundary extent issues i.e., where enumerator is not sure which structure to end the EA in an outskirts situation
 - **Action:** Include all structures you can identify with the locality
3. Point of interests missing at the starting point
 - **Action:** Indicate feature on the map and inform GIS Zonal Field Officer
4. EA Names/Base locality names not matching e.g. St. John the Baptist Catholic Church and Catholic Church
 - **Action:** Indicate the full or correct name on the PHC 2 and inform GIS Zonal Field Officer
5. Point of interests without labels
 - **Action:** Write name on the map and inform GIS Zonal Field Officer
6. How to treat new localities found during fieldwork
 - **Action:** Add on to the PHC 2 list and inform GIS Zonal Field Officer
7. EA Name/Base locality different on the ground from what is provided on the map and PHC 2
 - **Action:** Align your map properly and match other features on the map with ground features to confirm your location
8. Overlap/Gap detected
 - **Action:** Inform GIS Zonal Field Officer
9. Wrong EA Code
 - **Action:** Inform GIS Zonal Field Officer
10. Duplicate EA numbers in same district
 - **Action:** Inform GIS Zonal Field Officer

EA LIST

1. Issues with locality numbers (where different localities have same locality numbers)
 - **Action:** Inform GIS Zonal Field Officer
2. Differences in spelling of locality names (i.e. between Map and PHC 2)
 - **Action:** Provide the correct spelling and inform GIS Zonal Field Officer
3. Typographical errors
 - **Action:** Effect necessary correction and inform GIS Zonal Field Officer

LOCALITY LIST

1. Differences in spelling of locality names (i.e. between Map and PHC 2)
 - **Action:** Provide the correct spelling and inform GIS Zonal Field Officer
2. Where there are more localities on EA map than PHC 2 or vice versa
 - **Action:** include and indicate all localities within the EA boundary with the assistance of the local residents and inform GIS Zonal Field Officer
3. Where one or more localities are identified as part of an adjoining district
 - **Action:** Inform GIS Zonal Field Officer and DCO to ascertain where these localities really belong and enumerate them accordingly
4. Suburbs of large localities captured as separate localities

- **Action:** Use locality name and provide information on suburb to GIS Zonal Field Officer

PHC 2

1. Where description is inconsistent with map
 - **Action:** Rely on map for decision, after checking map with ground features
2. Position of included and excluded features on the map and PHC not reflecting ground situation
 - **Action:** Confirm position using linear feature for EA boundary
3. Turn left/right issues i.e. where the turns in the description are inconsistent with ground situation
 - **Action:** Check EA boundary together with other features for confirmation
4. Differences in EA code between PHC 2 and Map
 - **Action:** Inform GIS Zonal Field Officer

CHAPTER 8

LISTING OF STRUCTURES

8.1 Introduction

Before census enumeration, special serial numbers are assigned to structures in every Enumeration Area (EA) for the purpose of identifying the structures for actual enumeration. The procedure for undertaking this exercise is termed **listing operation** and this would start **two weeks before enumeration begins (i.e. 13th June 2021)**. This is aimed at ensuring complete coverage of all persons and structures. The listing operation involves visiting every structure in the EA and assigning a 4-digit serial number to the structure. This 4-digit number, together with other information, is then recorded on the Listing Form. Thus, the listing serves as an operational control document.

During the listing exercise, inform every household that after the listing phase, you will be visiting the households again for the actual enumeration of the population and structures, which will start a day after the Census Night (**28th June, 2021**).

Concepts and Definitions

1. **Structure:** This refers to a separate and independent building or an enclosure. It could be:
 - Completed or uncompleted
 - Residential or non-residential
 - Occupied or unoccupied
 - Movable or immovable
2. **Level of completion of structure:** This refers to the stage at which the structure is constructed/built.
3. **Listing:** This is the process of assigning special serial numbers to structures in every Enumeration Area (EA) for the purpose of identifying the structures for actual enumeration.
4. **Housing Unit:** This describes a separate and independent place of abode that is intended for habitation by one or more households.
5. **Dwelling Unit:** It is a single unit that could provide living facilities for one or more households.
 - The unit could be part of a structure or an entire structure serving as a home of residence.
 - A unit may have one or more rooms which may or may not be occupied at the time of the Census and may include units within a compound house, apartment building, detached or semi-detached house and a kiosk.

8.2 Listing of structures in the EA

As part of the field strategy aiming at achieving complete coverage, 28 days will be dedicated for fieldwork.

- First 7 days of field data collection will be used for listing of structures.
- For effective monitoring of fieldwork and access to collected data for editing and analysis, areas of poor connectivity will be visited frequently by DFSs and DIT Support Officers to ensure that Field Officers are safe, at post and as well copy data they have collected and sync for verification.
- 22nd to 26th June, 2021 will be dedicated to the completion of the analysis of listing data (structural editing) on number of residential structures, use of structures, non-residential structures under various categories, unoccupied structures, etc. by the DQM

where feedback from analysed data will be used for planning, moving into the enumeration stage of the field work.

- However, if the team is unable to finish the listing exercise in all EAs within the assigned SA in the stipulated period (i.e. if all team members have not finished listing by end of the 7-day period), then the team members would have to continue with the listing exercise until all structures within the SA have been listed.

As much as possible, the workloads (number of households to be enumerated) should be distributed equally among enumerators. In the week preceding the enumeration, it is expected that the District Data Quality Management Team (DDQMT) would have known the total number of households within the district, as listing would have ended. This information should inform the team to find the best strategy in ensuring complete coverage within the district.

You must list all structures irrespective of level of completion (see question LS05 in Section 10.4), material used for construction, whether occupied or not, purpose for which it is used or intended to be used. These structures include houses, containers and kiosks used as dwelling units or for other purposes during the listing period. As well, list all uncompleted structures (as described in Section 10.2) during the listing exercise. As mentioned earlier, table kiosks and structures under construction that are below window and footing or at foundation levels are **NOT** to be listed because they do not qualify as structures by the census definition.

To ensure that all living quarters (both occupied and vacant) are listed, all independent structures on a plot or compound should be listed separately. Thus, each living quarter should be enumerated separately and that the characteristics should be separately recorded. In the listing of structures, you must take note of the following procedures:

- a) You must identify each structure as a separate unit and for each, assign a separate 4-digit serial number.
- b) Assign different 4-digit serial numbers to different structures that are distinct but are on a plot or compound (whether walled or not), even if they have the same house number. By distinct structures we mean each structure should be separate and independent. In doing so, additional descriptions should be provided to distinguish one structure from the other. Note that there could be one or more households occupying these different and separate structures. E.g. House No. F/89, One-storey building and House No. F/89, boy's quarters, occupied by Efo Kwadwo.
- c) Semi-detached houses bearing the same house number, must be regarded as two separate houses and be given two different 4-digit serial numbers. In addition, give some other descriptions to distinguish one structure from the other, e.g. House No. B 48, owned by Kwasi Adomako and House No. B 48, occupied by Mr. Kodjo Amedume.
- d) For gated houses, there is the possibility that they are more than one structure within the gates. You should ascertain the number of structures before assigning a number to the next structure.

8.2.1 Listing in serpentine order

The listing operation must be carried out systematically. You must be extra careful in areas where houses are built haphazardly so you do not miss any house. The best way to list houses/structures in such cases is to **divide your area into segments**, then proceed to assign 4-digit serial numbers to each house/structure in an orderly manner. Finish with one segment and move on to the next segment until all segments are completed.

Similarly, in congested urban areas you can, for example, take a small area bounded on all sides by streets and starting from one corner, proceed to list all the houses on one side of the street until you come to the end of that street. Start again from the other end of the street and

then proceed to list the houses adjacent to the first row of houses you have listed inside your EA. Continue in this manner until you have covered the whole area. This procedure is generally referred to as the "Serpentine Order" of listing.

List all structures whether occupied or vacant except Embassies, High Commissions and Consulates which will require special arrangements for coverage. Ideally, the offices and residences of the Embassies/High Commissioners (Diplomatic Corps) should also be covered during the listing exercise. However, for security reasons, you may not be given access to these structures. Therefore, for their security, safety and convenience, members of the Diplomatic Corps will be required to conduct self-enumeration i.e. complete the questionnaire for all persons who spend the **Census Night** in their residences by themselves.

If after the house-listing operation you come across houses/structures which were missed, you must list these "new" houses/structures at the end of your list for the locality. As stated earlier, the listing operation should be recorded in the Listing Form.

Note: In case an un-demarcated area is discovered, report to your Field Supervisor for directives.

Pictorial examples of the different types of structures to be listed are shown in Section 10.

8.2.2 Listing procedures

For the purpose of the 2021 PHC, structures to be listed should reach any of the following levels of completion:

1. Fully completed
2. Fully roofed but uncompleted
3. Partially roofed
4. Roofing level (with improvised roof)
5. Lintel level (with improvised roof)
6. Roofing level (without roof)
7. Lintel level (without roof)
8. Window level
9. Concrete/ metal pillars level

List all structures whether:

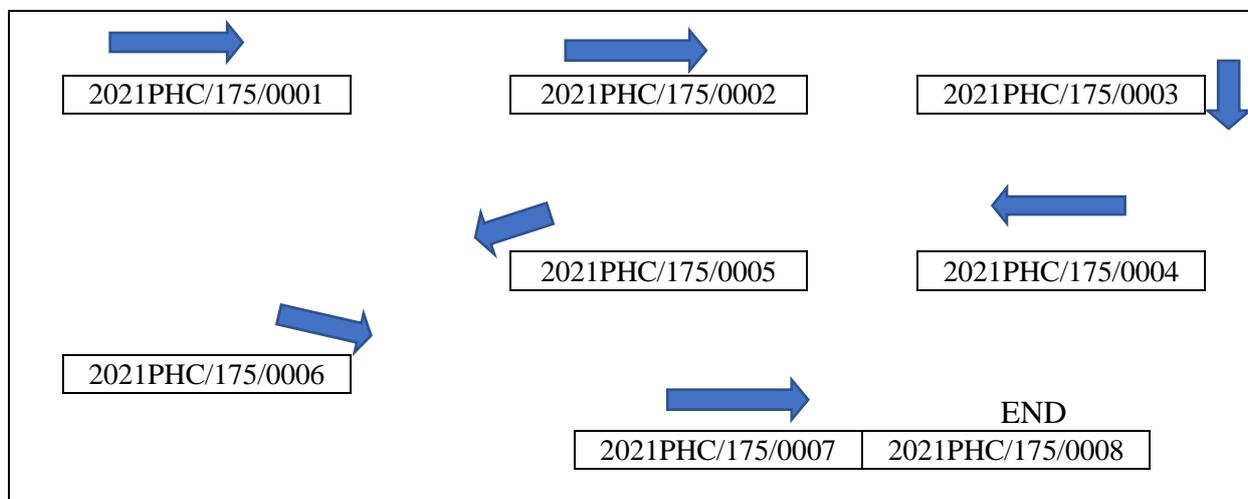
- i. Completed or uncompleted;
- ii. Residential or non-residential;
- iii. Occupied or unoccupied; or
- iv. Movable or immovable.

1. For block of flats, list each block separately.
2. Every detached structure should be listed separately.
3. For semi-detached structures, each structure should be listed separately.

During the listing exercise, Enumerators should visit every structure in their EAs (as described in Section 8.2) and write a 4-digit serial number with either chalk or sticker or both on the front door or on the wall near the front door or at any conspicuous spot on the building, with either a piece of chalk or a marker on the listing sticker (pasted on the wall). The stickers may be used mostly in urban areas and in rural areas where chalking on walls will be difficult. Before you chalk or paste a sticker on a wall of a structure, make sure you speak with the occupants of that structure and seek permission first. Listing and subsequently enumeration will be easier once permission is sought.

The 4-digit number must be preceded by 2021PHC (i.e. 2021 Population and Housing Census) and EA number e.g. **2021PHC/175/0001**, **2021PHC/175/0002**, **2021PHC/175/0003**, **2021PHC/175/0004**, **2021PHC/175/0005**, etc. where 175 is the EA number of the assigned EA and ‘0001’, ‘0002’, ‘0003’, ‘0004’, ‘0005’ are the serial numbers of the structures identified in the EA. An arrow should be indicated to show the direction of the listing operation. During the listing period, you are to administer questions LS01 to LH16 of the Listing Form (Section 10.4). In addition, information on the availability or otherwise of identified facilities in your EA should be asked.

Figure 8.1: Diagram illustrating the listing procedure



8.2.3 Listing of kiosks, containers, and other makeshift structures

Due to the increasing number of **kiosks (including lotto kiosks and mobile money shops), containers and other such makeshift structures** being used as sleeping places and for other purposes, it is important that information is gathered about these structures. In order to ensure that these structures are captured during the listing period, there is a need to have guidelines for listing them. **Remember that table kiosks are not to be listed as structures.**

a) If a kiosk or container is placed inside the compound of a house with access (a door or window) through the wall of the main house, a separate 4-digit serial numbers should be assigned to cover both the house and the kiosk/container. The structure and the kiosk should be numbered as follows:

- i. 2021PHC/044/0006 : Main structure on the compound
- ii. 2021PHC/044/0007 : Kiosk placed on the compound

b) If a kiosk or container is placed in front of the structure and it is not attached to the structure (or the kiosk is separated but within the compound), you should assign separate 4-digit serial numbers to the structure and the kiosk/container. The structure and the kiosk should be numbered as follows:

- i. 2021PHC/044/0008 : Main structure on the compound
- ii. 2021PHC/044/0009 : First kiosk
- iii. 2021PHC/044/0010 : Second kiosk
- iv. 2021PHC/044/0011 : Third kiosk

c) In situations where a lot of kiosks or containers are lined up or placed haphazardly, on a plot or compound, each kiosk is treated as if they are sitting on a separate compound and so

you should assign each kiosk or container a separate 4-digit serial number. The kiosks and containers should be numbered as follows:

- i. 2021PHC/044/0012 : First kiosk on plot or compound
- ii. 2021PHC/044/0013 : Second kiosk on plot or compound
- iii. 2021PHC/044/0014 : First container on plot or compound
- iv. 2021PHC/044/0015 : Third kiosk on plot or compound
- v. 2021PHC/044/0016 : Second container on plot or compound

8.2.4 Listing of institutional buildings

For purposes of the Census, institutional buildings are structures that house group quarter population such as hospitals, boarding houses in educational institutions, prisons, hotels, etc. The population found in these structures are not related but are organized as one unit. These institutional buildings would also be listed two weeks preceding Census Night. You should assign each block with a 4-digit number and continue listing until all blocks have been listed.

In the case of group quarter institutions, such as Korle Bu Teaching Hospital, University of Ghana and Nsawam Prison, the individual blocks (e.g. Block A, Block B, Block C, etc.) which make up the various Wards or Halls (e.g. Commonwealth Hall, Legon Hall, Atlantic Hall, Oguaa Hall, etc.) should each be given a separate 4-digit serial number for effective control. However, you should remember that structures which are houses or flats for doctors, nurses, teachers, lecturers, etc. of these institutions and are separate from the blocks should also be listed separately and treated as non-institutional population because these are household populations.

8.2.5 Listing in EAs with several localities

In rural EAs which have two or more localities (i.e. Type 3 EAs), listing should be completed in one locality before moving to another locality. Serial numbers assigned to structures should continue from one locality to another within the EA. For instance, if locality 'A' ended with serial number 2021PHC/044/0016, locality 'B' should start with 2021PHC/044/0017 and the numbering should continue till the last structure is assigned (e.g. 2021PHC/044/0045). Serial numbering then continues in locality 'C' and should start with serial number 2021PHC/044/0046. In some situations, it may not be possible to list structures in all the localities in the EA before enumeration starts. You should therefore start listing structures in the largest locality in the EA (i.e. the base locality) and list as many localities as possible. Ask from the opinion leaders in the base locality, how the other localities within the EA could easily be reached to help draw your itinerary and movements. On the **27th June, 2021**, you should participate in Census Night activities at the locality where you are currently.

On the morning after Census Night (i.e. 28th June, 2021), start enumerating persons in this locality. When you come to localities not listed, you should first list the structures then enumerate persons and structures in those localities. When you have covered all such localities, you should return to the localities already listed and then continue enumerating persons and structures in these localities.

8.2.6 Strategy for listing

As has been indicated already, you will use either chalk and/or sticker to number all the structures during the listing exercise. As much as possible, assign the structure numbers to all the structures in your EA before filling the listing form. However, the listing form for the first 10 structures must be filled and synced to your Supervisor for onward transmission to the server at HQ. This is important on two grounds: for the DDQMT and NDQMT to recognise your presence on the ground and possible early support if it becomes necessary.

In Type 1 and Type 2 EAs, enumerators are to chalk the first 10 structures and complete the Listing Form for these structures on the first day of listing. The enumerators should continue

chalking from the 11th structure until all structures are assigned numbers in the EA. They must also ensure that the work of Day 1 is synced with the Supervisor who will in turn sync to HQ. The enumerators should continue chalking in Day 2 if chalking was not completed in Day 1. After completing chalking of all structures in the EA, complete the Listing Form for the last structure chalked in the EA and work towards the 11th structure. Make sure you complete the Listing Form for the remaining structures in the EA.

However, this approach might not be feasible in Type 3 EAs. Therefore, the chalking and filling of the Listing Form will have to be done differently from how it is done in Types 1 and 2 EAs. In type 3 EAs, listing has to be done for the individual localities one after the other. The enumerators will have to chalk the first 10 structures and complete the Listing Form for these structures on the first day of listing in the first locality (Base locality). Continue chalking from the 11th structure until all structures in the locality are assigned numbers. Sync the work of Day 1 with your Supervisor who will also Sync to HQ. Enumerators must continue chalking and listing after Day 1 till all structures in the locality are completed. The enumerator must continue to the next locality and chalk all the structures in that locality, then fill the Listing Form for all the identified structures. The process must be continued in all the other localities that form the EA.

During the listing, enumerators should inform the respondents that they will be visiting the households for the actual census enumeration, which will start on the night of the **27th June, 2021**.

Note that the data collected will be submitted to the server immediately after syncing with the Supervisor.

CHAPTER 9

TABLET AND CAPI USE

9.1 Introduction

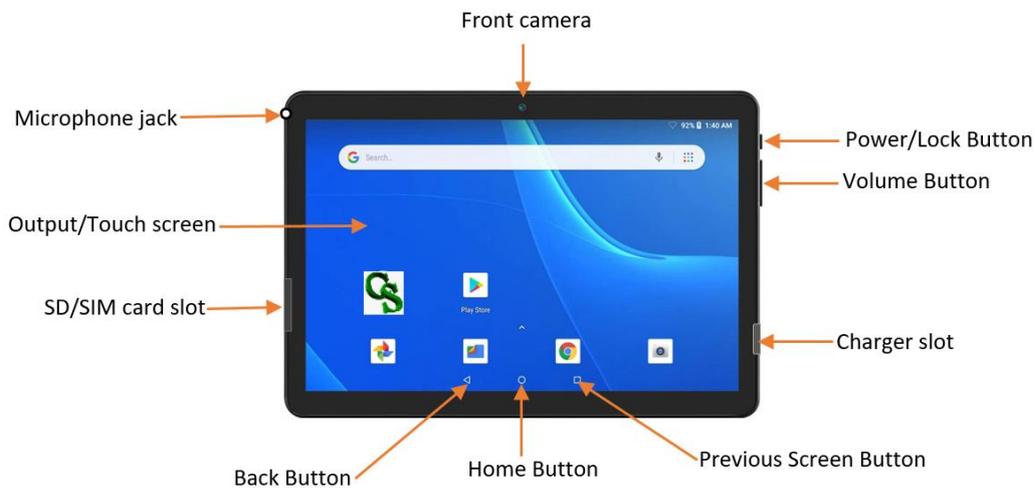
Advancement in Information and Communication Technology have brought up new approaches for data collection which are faster and of higher quality than the traditional paper-based methods. Mobile electronic devices, such as laptops, tablets, smartphones and Personal Digital Assistants (PDAs) have proved to reduce data capture and processing time. This method also minimize errors, ensures real-time data transmission and monitoring thereby improving data quality over the Paper Assisted Personal Interviewing (PAPI) method. This section is in two parts; tablet handling and safety and the use of the CAPI Application.

9.2 General overview of a tablet

9.2.1 What is a tablet?

A tablet is a wireless portable personal computer with a touchscreen as a primary input/output interface. It is typically smaller than a notebook computer, but larger than a smartphone. Tablets use android, windows or mac (IOS) operating systems. The 2021 PHC tablets use android operating system.

Figure 9.1: Features of a tablet



9.2.2 Tablet Accessories

These are items that are added to the tablets to aid its functionality. E.g. SD card, charger, power bank and android cable.

Figure 9.2: Tablet Accessories



- **Android charger:** It is an accessory that is attached to the tablet to enable you recharge the tablet's battery whenever the battery life is low or exhausted.
- **SD card** (Secure Digital **card**): It is a type of memory card slotted into the tablet purposely for backups.
- **Power bank:** It is a portable power storage device designed for recharging the battery of mobile phones, tablets and other such electronic gadgets.

9.3 Key functions of the tablet required for 2021 PHC CAPI application

There are key functions of the tablet that the Enumerators and Supervisors would be using throughout the field exercise. These functions are Location (for GPS taking), Bluetooth (for syncing data between field officers) and Mobile Data or Hotspot (for syncing data to HQ). The features having these functions are located on the status bar of the tablet.

9.3.1 Location (for GPS taking)

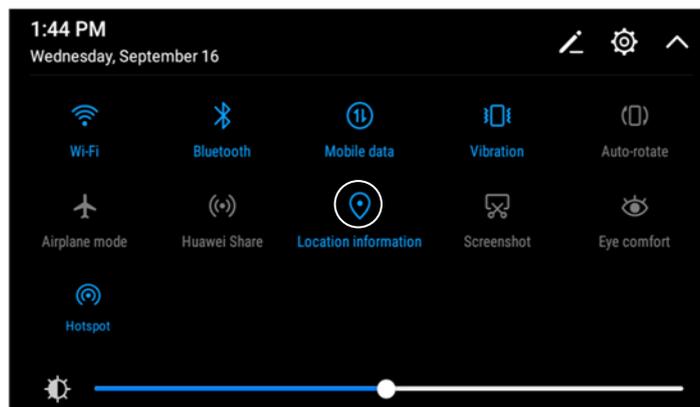
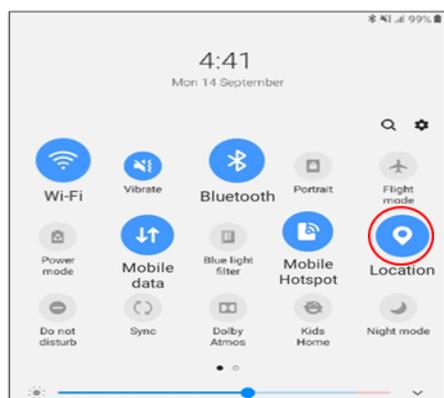
Global Positioning System (GPS): This is a global navigation satellite system that determines the location of structures in the form of coordinates. These are unique identifiers of a definite geographic location on the earth. They are usually expressed as a combination of Latitude, Longitude, Altitude and Accuracy level. GPS Accuracy level refers to how close a device's calculated position is from the actual, expressed as a radius. The lower the value, the higher the accuracy. For the purpose of 2021 PHC the acceptable accuracy level is 5 meters or less. Turn on the Mobile Data for internet to enhance the accuracy of the GPS coordinates taken.

To take the GPS coordinates with the CAPI, turn on the location function on the tablet to enable it to read the GPS coordinates of every structure during listing. CAPI will prompt you if the location function on the tablet is off when taking the GPS coordinates of a structure.

How to turn on Location (GPS):

- Swipe down from the top of the Tablet Home Screen to view the status bar
- Tap on the Location icon to activate it. The icon will change colour when activated.

Figure 9.3: How to turn on GPS



Picking accurate GPS Coordinates

- Do not pick GPS coordinates under cloudy/dark weather
- Do not move the tablet whiles GPS is reading
- Always stand in the middle or in front of the structure to pick the GPS coordinate
- Never pick GPS coordinates under a shade, shed or roof
- Stretch out the tablet with the screen fully exposed to the sky when taking the GPS

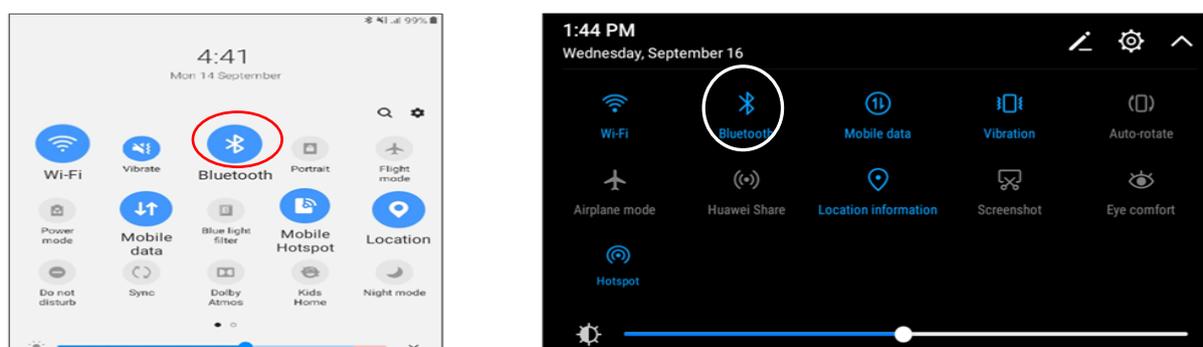
Location Accuracy Settings

- Open your device's Settings
- Tap on **Location**.
- Tap on **Advanced** >> **Google Location Accuracy**.
- Turn on **Improve Location Accuracy** on

9.3.2 Bluetooth

Bluetooth is a wireless function that connects one tablet to another in a short-range (10m). This function allows first level data transmission (synchronization) between the Enumerator and Supervisor. It is also used to sync assigned EA from the Supervisor's tablet to the Enumerator's tablet.

Figure 9.4: Bluetooth



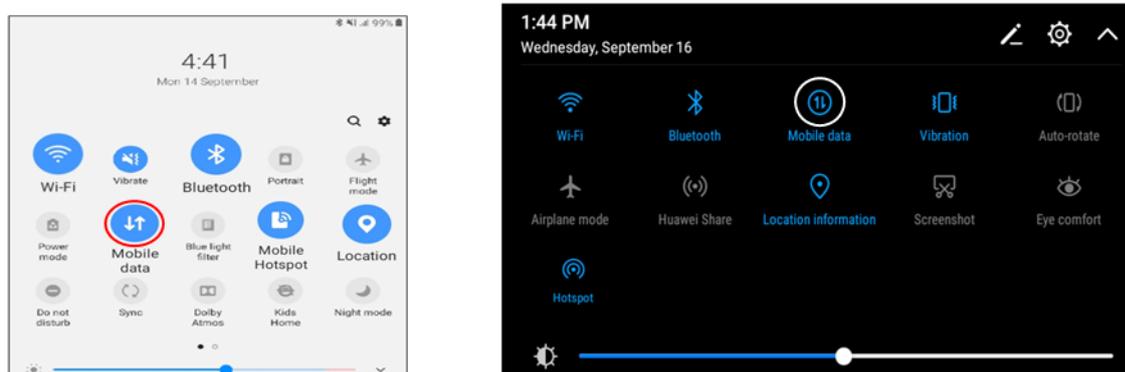
Using Bluetooth to pair your Tablet

- Use the status bar to turn your device's Bluetooth on. From the Home screen, swipe down from the top to access the status bar.
- Tap on the Bluetooth Icon to turn it on.
- Firstly, it scans for nearby Bluetooth devices and displays them for pairing.
- Make sure the target device is discoverable on the tablet.
- Tap on the name of the target device when displayed in the Bluetooth devices section on the tablet. The tablet automatically tries to pair with the target device.
- The Bluetooth communication range is approximately 30 feet (about 10 metres).
- Both the sender and the receiver should be ready concurrently.
- Without pairing the two devices, Bluetooth data transfer from Enumerator to Supervisor will not be successful .

9.3.3 Mobile data

Mobile data is an internal internet content delivered to the tablet over a SIM Card inserted into the tablet. This enables the field officer to connect to the internet for syncing data to the Central Server at HQ.

Figure 9.5: Mobile Data



How to turn on mobile data

- From the Home screen, swipe down the status bar to display the notification panel.
- Tap on the Mobile Data Icon to turn it on. Note that a SIM card is required in order to have an internet connection. Check if you have enough internet data bundled (use *124# on all networks to check). Always check the strength of the network service signals (e.g. Edge, 2G, 3G, 4G). Network signal strength of 3G or 4G is appropriate to enable you send the data.
- The strength of the internet connection varies depending on the type of network service available to the tablet.

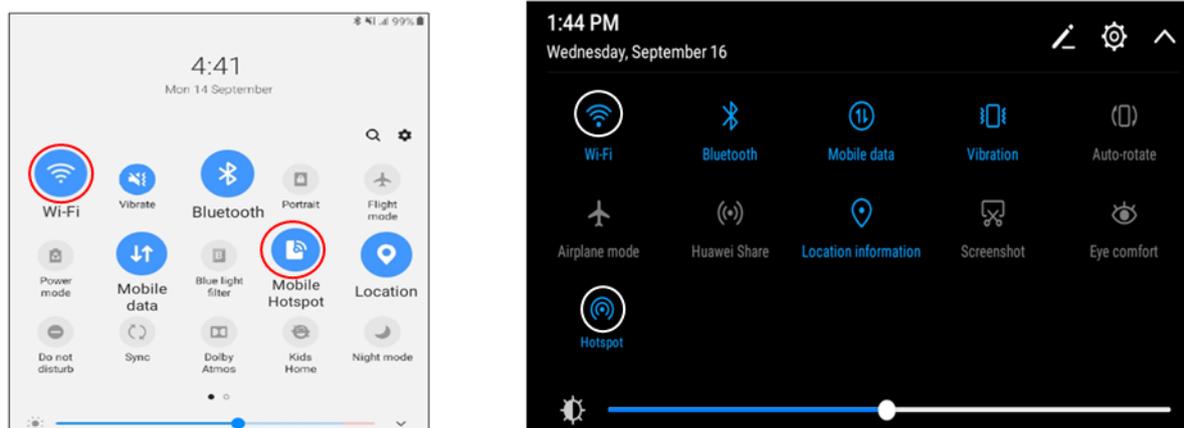
9.3.4 Wi-Fi /Mobile Hotspot

The Wi-Fi function allows computers, smartphones, or tablets to connect to the internet being broadcasted within a particular area i.e. a facility that allows the tablet to connect to an external internet source.

Mobile Hotspot is a function that allows tablets or mobile phones to share internet with other devices (laptop, tablets, and mobile (smart) phones).

In order to access internet that is being shared by another mobile phone or tablet, turn on the Wi-Fi function, identify and tap on the name of the mobile phone or tablet sharing the internet. Request for the password from the one sharing the internet if required.

Figure 9.6: Wifi/Mobile Hotspot



How to turn on/off Wi-Fi

1. From a Home screen, swipe down the status bar to display the notification panel
2. Tap on the Wi-Fi icon to turn it on and identify available networks to connect to.

Troubleshooting Samsung/Huawei Tablet Internet Connection:

1. Samsung Tablet

- From **Settings >> Connections >>** tap on the **Wi-Fi** to turn it on.

Or

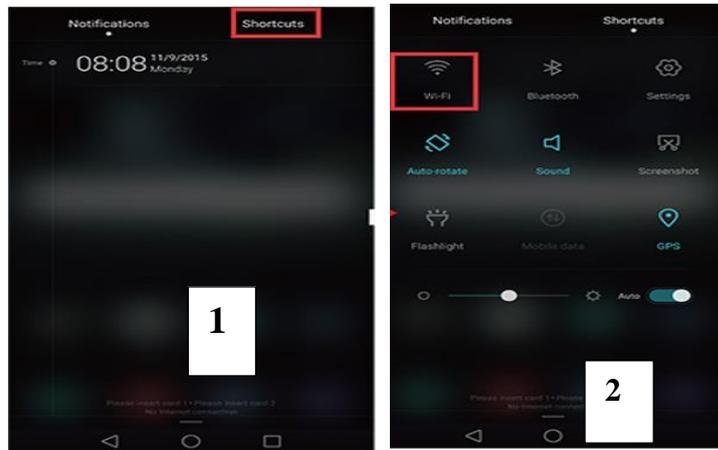
- Swipe the Status bar down to display the notification panel.
- Tap on **Wi-Fi** to turn it on Wi-Fi.

When Wi-Fi is turned on, the tablet automatically scans for available network (internet sources) and displays them.

- i. Tap on the network you want to connect to.

When you select an open network, you are automatically connected to the network. Otherwise, enter a password to connect.

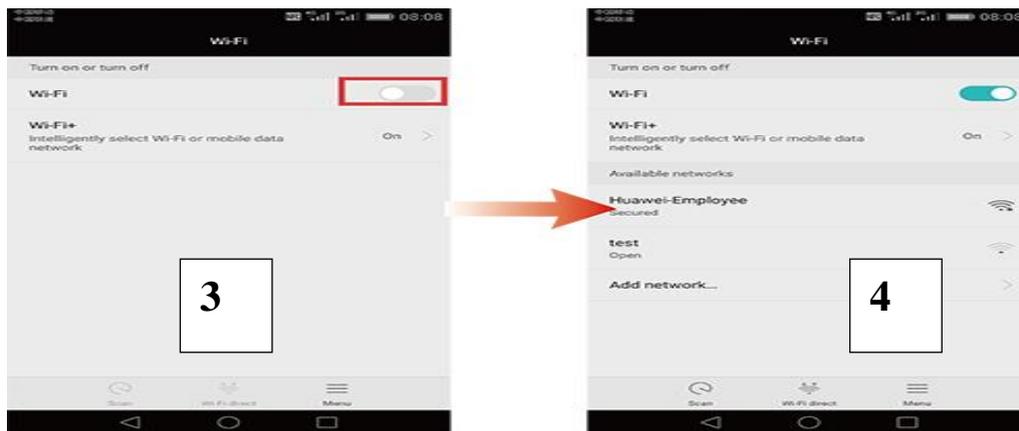
Figure 9.7:



1. Huawei Tablet

- Swipe downward from the status bar to open the notification panel. Tap on Wi-Fi to turn it on. Or
- Swipe downward from the status bar to open the notification panel.
- Tab on the **Settings** 
- - Tap on Wi-Fi to turn it on.
 - Identify available network, to connect to and tap on it.
 - Type in the password if required.

Figure 9.8



9.3.5 Date and time

Date and Time of interviews are automatically recorded. All age and other computations are linked to the system date and time. The Date and time can be checked from the **logout screen**, **Home Screen** or at the **Top right** of the screen.

Setting the correct date and time

Setting the correct date and time on the tablet is related to complete and accurate data collection.

How to Set Date and Time (Steps Below)

Samsung Tablet:

- i. From a Home screen, tap on **Settings >> General Management**
- ii. Switch **automatic time zone** off or uncheck
- iii. Select **Date & Time >> Switch off Automatic Date & Time**
- iv. Select **Set Date >>** Set the date on the Calendar that pops up.
- v. Select **Set Time >>** Set the time on the clock that pops up.
- vi. Select **Region >>** set time zone to **Ghana (GMT) / Azores**

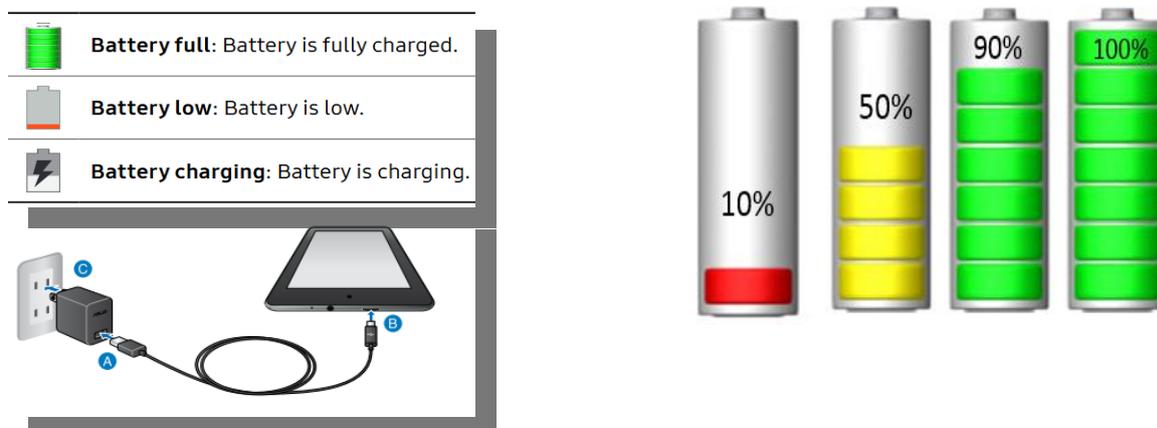
Huawei Tablet:

- i. From a Home screen, tap on **Settings >> Advance Settings >> Date & time**
- ii. Switch **automatic date & time** off
- iii. Select **Set Date >>** Set the date on the Calendar that pops up >> **OK**
- iv. Select **Set Time >>** Set the time on the clock that pops up >> **OK**
- v. Tap on **Select time zone >>** select **Greenwich Mean Time (GMT+00:00)**

9.3.6 Recharging Tablet Battery

Battery Power/Life is measured by the amount of power stored in the **battery** at a point in time. How long the tablets battery lasts depends on the amount of power stored in the battery. Field officers should ensure that the tablets are fully charged before work starts.

Figure 9.9: Levels of battery charge



- Unplug the charger from the electric socket when it is fully charged
- Use the AC power supply defined in the specifications of the charger (220 Volts).
- Do not use damaged or faulty power cable or charger head to recharge the tablet.
- Do not leave your tablet plugged all the time or throughout the night.

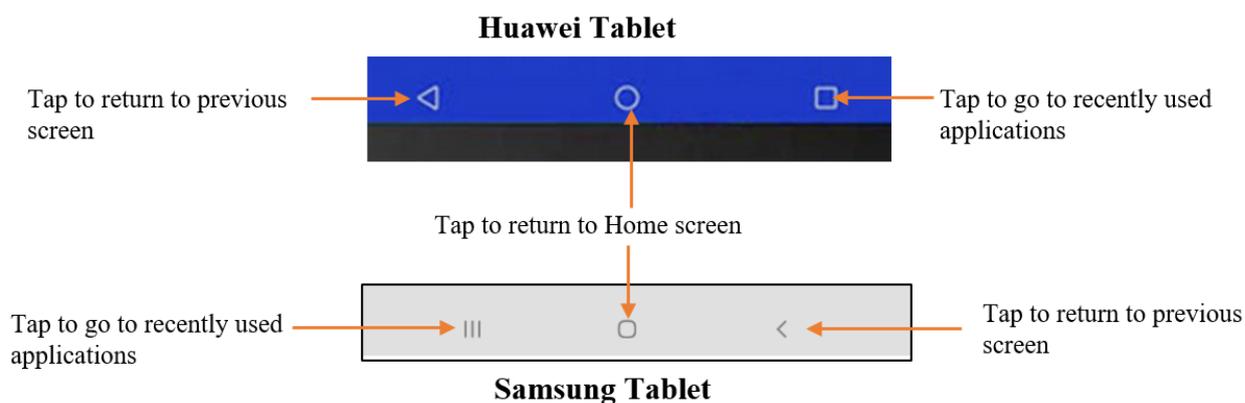
How to Save the Tablet Battery Life

The following are ways to improve the tablet battery performance.

- Fully charging your tablet each evening will improve battery performance during the workday.
- Put tablet into sleep mode or turn it off when not in use.
- You can also reduce the screen brightness to save battery life.
- Switch off Bluetooth, Wi-Fi, Mobile Data and Hotspot when not in use.

9.3.7 Navigation Icons

The following icons are commonly used on the Home screen or other application screens. Touch the icons to perform the following operations.



9.4 Rules Governing Tablet Use

Field officers must adhere to GSS acceptable tablet use policy.

- The Tablet and its accessories are properties of GSS, and you are responsible for taking care of them.
- The purpose of the tablet is for 2021 PHC field data collection. Using the tablet for any other purpose is strictly prohibited.
- Each tablet has been prepared for one enumerator only, and should be used by that enumerator alone. Sharing the tablet with unauthorized persons is strictly prohibited.
- Never create a password to lock the tablet screen.
- Do not attempt to upgrade, update, or download/install any application on the tablet.
- Field officers are not allowed to repair or authorize repair of a damaged tablet.
- Do not delete any folder or file from the tablet.
- Keep the tablet away from children.
- Promptly report lost or stolen tablet or any of its accessories to the supervisor or District Data Quality Management Team (DDQMT).
- Do not copy data off the device since it is a breach of the Data Protection Law.

9.5 Tablet and Accessories Care and Use

When handling tablet and accessories, do not:

- Expose the tablet to any liquid substance, e.g. water, cooking oil, petrol and kerosene. If any liquid enters the tablet, stop using it immediately, turn it off, remove all cables connected to it and contact the supervisor and the DIT.
- Place the tablet on the floor to avoid stepping on it.
- Place the tablet on a bed to avoid lying on it.
- Place the tablet on a chair to avoid sitting on it.
- Expose the tablet to dust or dirt which may damage it.
- Place heavy objects on the tablet to avoid breaking the screen.
- Expose the tablet to excessive heat (above 40oC).
- Throw or slide the tablet when putting it down.
- Place or slide the tablet on rough surfaces to avoid scratching the screen.
- Use the tablet where there are inflammables or explosives to prevent the tablet from catching fire. E.g. In a gas stations, fuel pumps, or chemical plant.

- During thunderstorms, put off the tablet and disconnect the charger from the socket if charging to prevent it from getting damaged.

9.6 Introduction to CAPI

9.6.1 What is CAPI?

CAPI (Computer-Assisted-Personal-Interviewing) is a technology that uses mobile devices (personal digital assistants, laptops, tablets, and smartphones) and internet or cellular networks to enable field officers to collect data on the field. Interview Data is collected using electronic questionnaires on mobile devices and transmitted to a central server (Database) for real-time quality control and analysis. CAPI also offers active data collection management tools such as progress reports, which allow project managers to monitor and organize fieldwork efficiently.

9.6.2 Why use CAPI in 2021 PHC Data Collection?

Use of CAPI eliminates several operational and data processing steps in traditional face-to-face paper interview data production (such as printing, data entry and physical management of the questionnaires). This reduces the time lag between data collection and analysis. Overall data quality is improved because the use of electronic questionnaires enables automatic skip patterns to check entry quality during the interviews. Data validation can be done during data collection, as the information is ready for statistical analysis as soon as an interview is completed.

9.6.3 Benefits of CAPI over Paper Questionnaire for Data Collection

A. Quality

- Computes skip & codes automatically.
- Incorporates Multimedia.
- Enables use of GPS functionality.
- Survey progress monitoring in real time for quality control and analysis.
- Automatic filters and range checks.
- Real time prompts for errors made.

B. Timeliness

- Reduces the time lag between data collection and publication of results.
- Reduces data entry time.
- Enables real time data access.
- Enables real time monitoring of coverage

C. Cost

- Space for Data Entry Office resolved
- Saves paper cost
- Eliminates data entry cost
- Save cost of storage for paper questionnaire

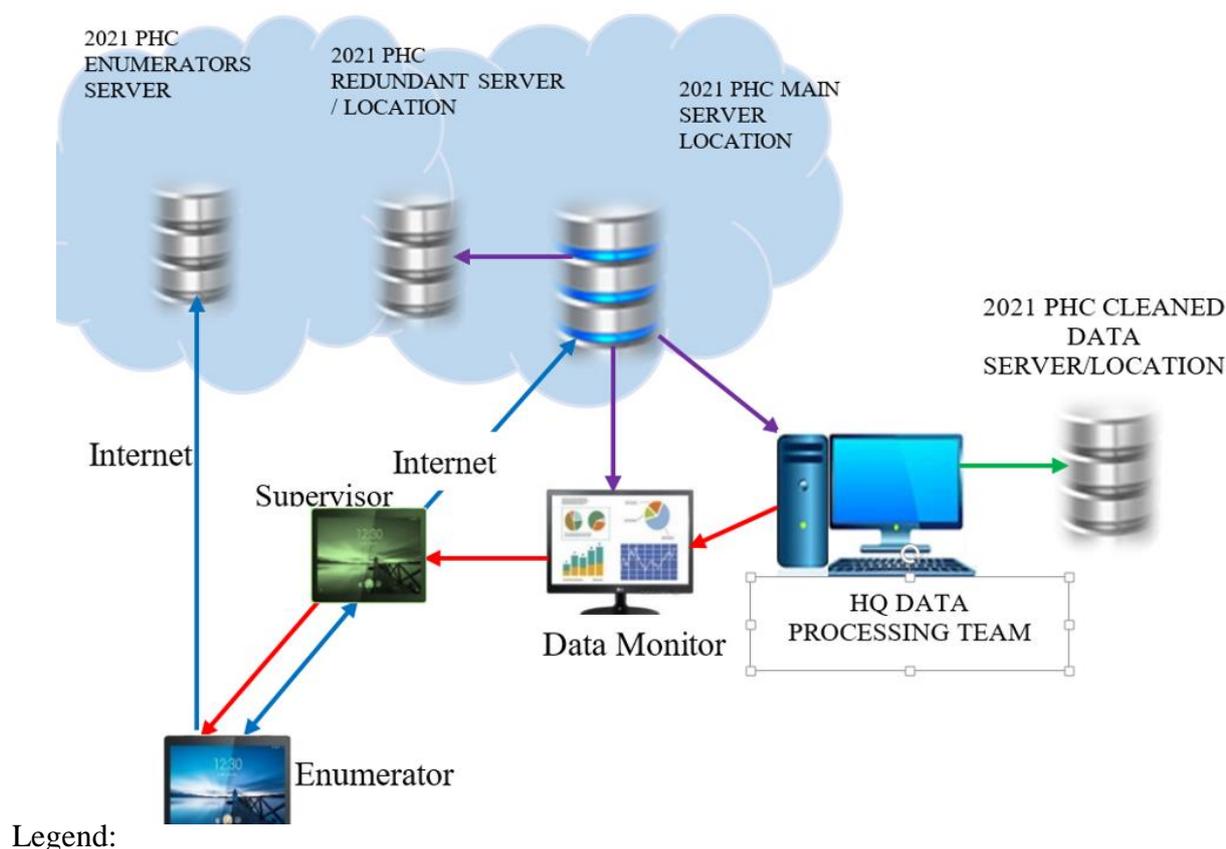
9.7 Data flow in 2021 PHC CAPI application operations

There are three ways of which data will be transmitted to HQ (Servers)

- The first level is between the Enumerator and Supervisor, where the data is transmitted (synced) via Bluetooth connectivity to the Supervisor's tablet for review.

- The second level is where the Supervisor sends the Team’s Data to HQ (2021 PHC Main Server)
- The third option is an Enumerator syncing to the 2021PHC Enumerators Server

Figure 9.10: Data flow in the 2021 PHC CAPI application



- Legend:
- Data transmitted from enumerator to supervisors and then from supervisor HQ Server
Data transmitted from enumerator to a separate Server at HQ.
 - Clean Data transmitted by DP to GSS Head Office Separate Server
 - Raw data from Server to Data Monitors/Data Processing team/HQ Redundant Server
Data downloaded by data processing unit/data monitors from the HQ Server
 - Message/Feedback/Assignment

9.8 Structure of 2021 PHC CAPI Menu System

9.8.1 Introduction

The 2021 Population and Housing Census will engage Supervisors and Enumerators to conduct the enumeration. These field officers will play unique roles which were factored into the development of the 2021 PHC CAPI application. The role and operations expected of a Supervisor is organized under the “Supervisor Menu” and that of the Enumerator is organized under the “Enumerator Menu”. The 2021 PHC CAPI Menu is the only “KEY” used to access or launch all other actions of the CAPI Application. It organizes the operations of the Enumerators and Supervisors. It also simplifies the work and sets up identifiers for the data through the login ID of the Supervisor or Enumerator.

The login ID is a unique identification number of a field officer that makes reference to the Enumeration Area number (for enumerators only) and Supervisory Area number. It is made up of 12 digits. The composition of the login ID is explained in the following section.

9.8.2 Login ID Composition

In 2021 PHC application usage, login is required to get access to the main system or application.

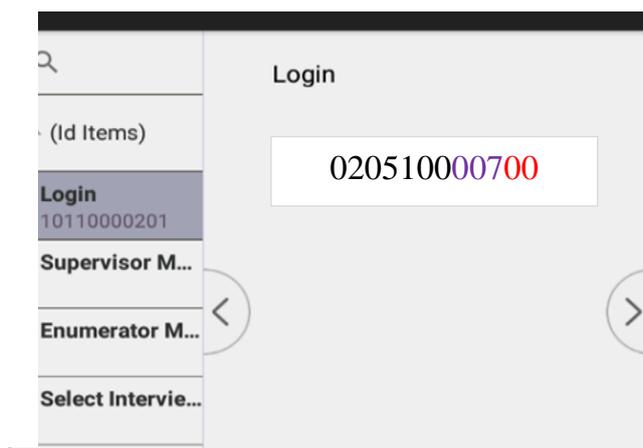
Supervisor Login ID

Every Supervisor is assigned a unique login ID, a **12-digit code** which is required before proceeding to use the CAPI Application. This is to control the actions of the Supervisor in a designated Supervisory Area (SA) and ensure accountability.

The composition of the Supervisor ID is made up of:

Regional Code	=	0
District Code	=	05
District Type	=	1
Sub Metro	=	00
SA Number	=	007
Status	=	00

NOTE: All together make the Supervisor's login ID. The SA number should not be confused with the EA number even when the digits are the same.



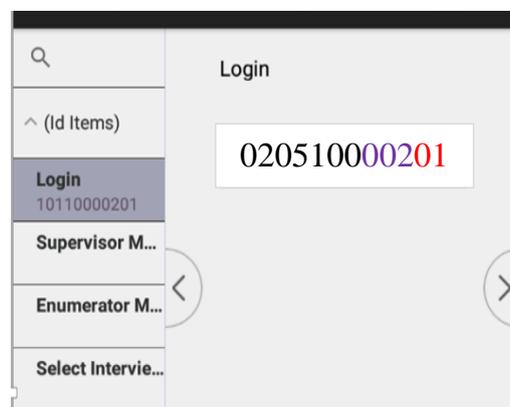
Enumerator Login ID

The 2021 PHC field data collection will deploy **Primary Enumerators** and **Support Enumerators**. The Primary Enumerator is the one originally assigned an EA to canvass during enumeration. Upon information gathered that the task cannot be completed by the Primary Enumerator within the enumeration period, Support Enumerators would be engaged to assist the Primary Enumerator to complete the work with the period.

Every **Enumerator** is assigned a unique ID, a 12-digit code which enables the Enumerator to use the CAPI Application. This is to control the actions of the Enumerator in a designated Enumeration Area (EA) and ensure accountability.

The composition of the ID is:

Regional Code	=	02
District Code	=	05
District Type	=	1
Sub Metro	=	00
EA Number	=	002
Status	=	01



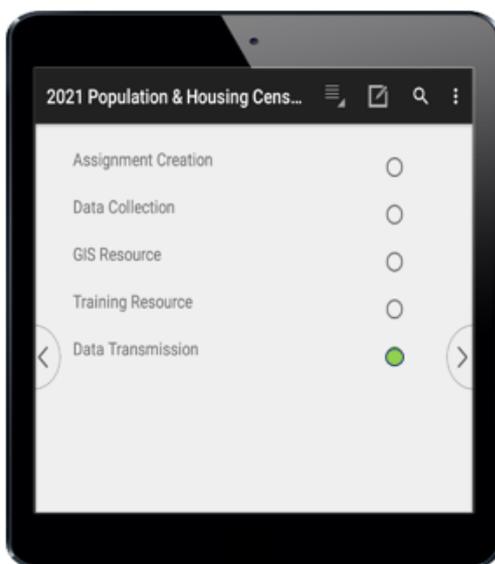
Combining these codes make the Supervisor's login ID. All Primary Enumerators have status code **01**

NOTE: Support Enumerators would be assigned status codes **02, 03, 04 ... 99** depending on the number of Support Enumerators who may be required to assist the Primary Enumerator.

9.9 Supervisors' Main Menu:

The Supervisor logs in with the ID to access the Main Menu. An example of a Supervisors' login ID is 0205100**0700**. There are five broad options in the supervisors' main menu. These are "Assignment Creation", "Data Collection", "GIS Resource", "Training Resource", and "Data Transmission" as indicated in Figure 1. Each broad group has submenu options.

Figure 1: Supervisors' Main Menu



The items on the **Supervisor Main Menu** are:

Assignment Creation: Allows the Supervisor to Create, View and Modify assignment.

Data Collection: Grants the Supervisor access to run reports on data collected and conduct re-interview for completed listing and PHC 1A questionnaires.

GIS Resource: Contains interactive maps, pdf maps and the EA boundary description (PHC 2) sheets.

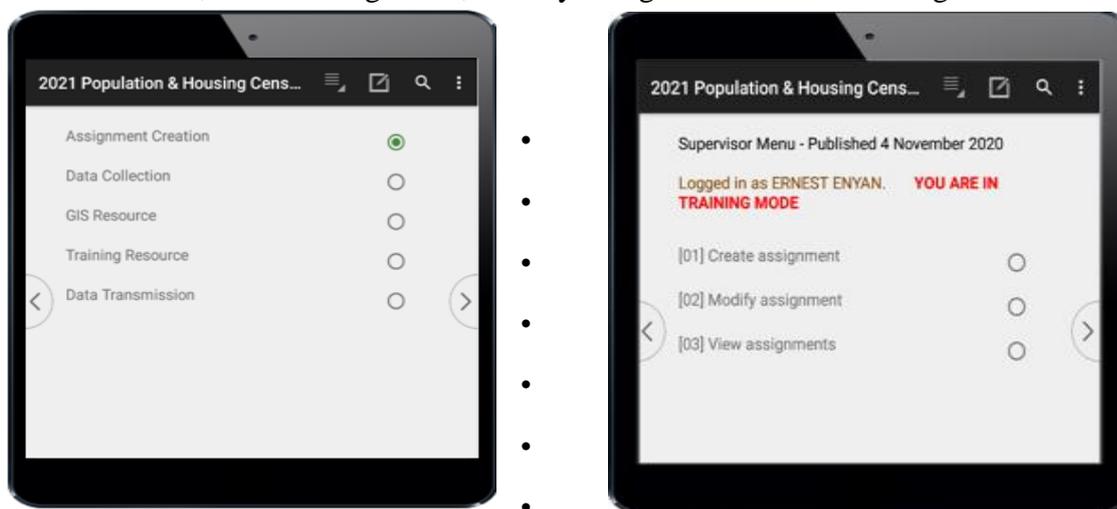
Training Resource: Contains copies of the 2021 PHC questionnaires, field officers manual, presentations and a link to take exams during training.

Data Transmission: Allows the Supervisor to sync with Enumerator to transmit assignment to the Enumerator or receive data from the enumerator, and sync data to HQ.

9.9.1 Supervisors Menu: Assignment Creation

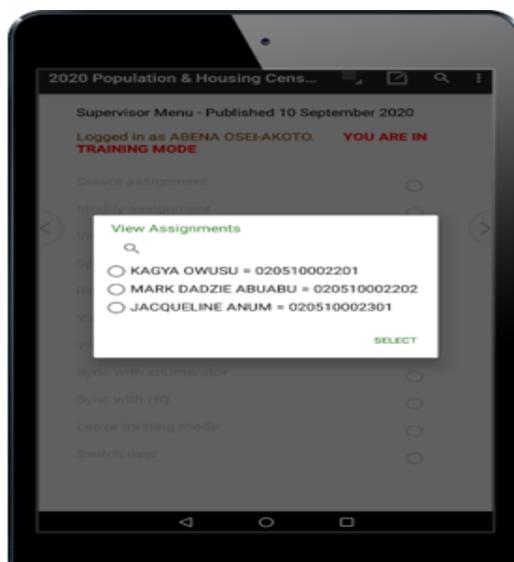
Assignment creation is a process of setting the roles and assigning the task of field officers. The first page of the Menu allows the Supervisor to set roles for each team member in the Supervisory Area.

Assignment Creation: Supervisors use "**Assignment Creation**" to assign the SA to him/her self and the EAs to the Enumerators. There are three items in the assignment creation; Create Assignment, Modify Assignment and View Assignment.



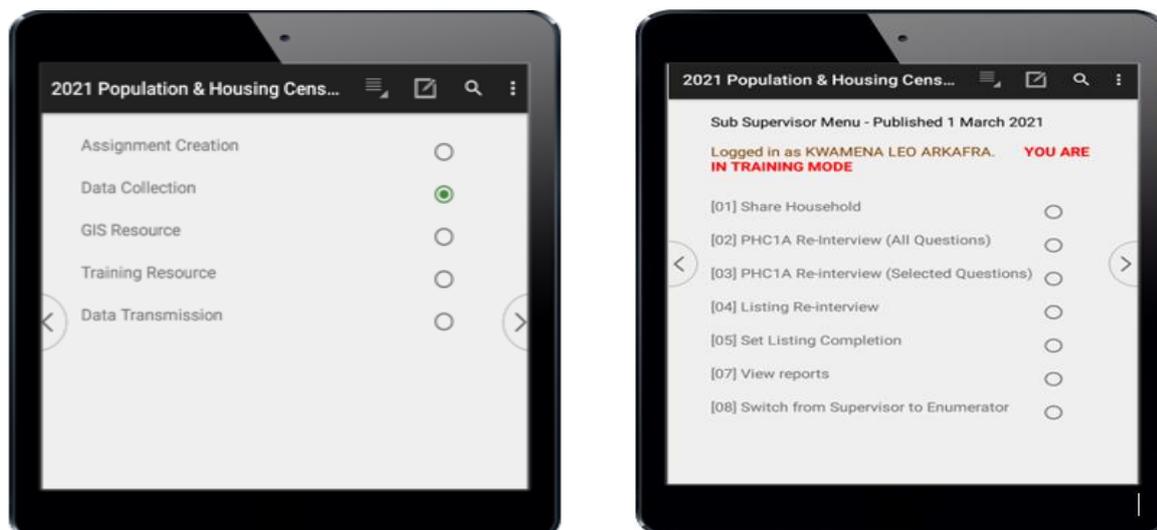
- **Create Assignment:** This is used to create the Supervisors and Enumerators assignments.
- **Modify Assignment:** This is used to make changes or review an existing assignment.
- **View Assignment:** This is used to view the assignments created and their corresponding login IDs. The first 10 digits of the login ID is the EA code and the last 2 digits is the status of the enumerator.

Figure 9.3: View Assignment interface showing assignment for three enumerators.



9.9.2 Supervisors Menu: Data Collection

Data Collection: There are six (6) items under the data collection option in the supervisors' menu. These are listed as follows.



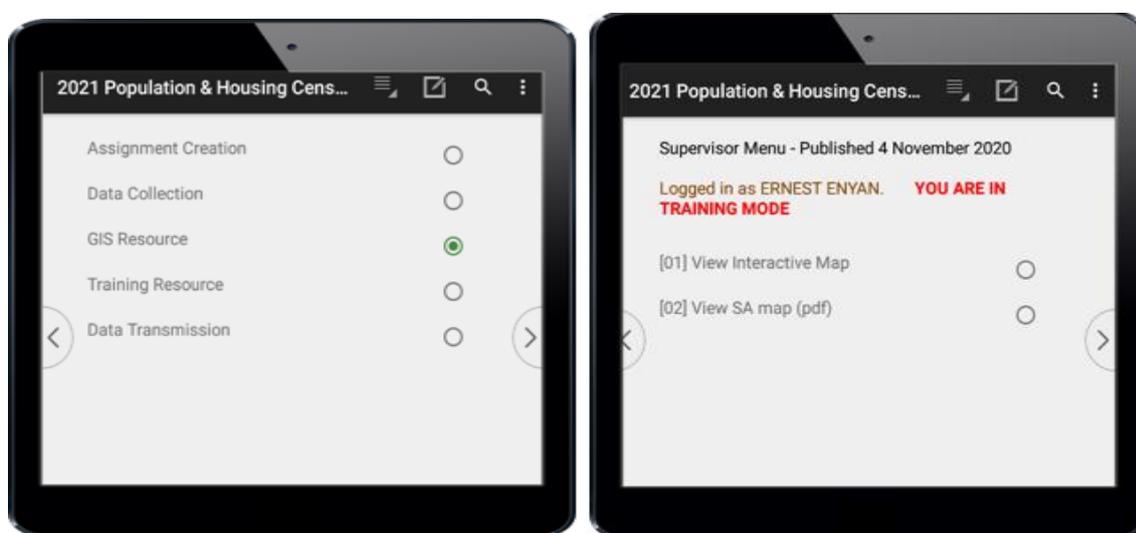
- **Share Household:** This is used to share listed households among several enumerators to conduct enumeration in an EA. It is used when support enumerators have to assist the primary enumerator to accomplish the task in an EA.
- **PHC 1A Re-interview:** This is used to launch the PHC1A re-interview application for the supervisor to conduct re-interview during enumeration. This application has sampled questions from the main questionnaire for the re-interview. CAPI randomly

selects five (5) completed households for the Supervisor to conduct re-interview. The final report compares the responses recorded by the Supervisor with that of the Enumerator to identify differences.

- **Listing Re-interview:** This is used to launch the Listing Re-interview Application for the supervisor to conduct re-interview during listing. This application has sampled questions from the listing form for the re-interview. CAPI randomly selects five (5) listed structures for the Supervisor to conduct re-interview. The final report compares the responses recorded by the Supervisor with that of the enumerator to identify differences.
- **Set Listing Completion:** This is used to confirm the completion of listing in an EA by the supervisor.
- **View Reports:** This takes you to the next page where you choose among three reports (i.e. completion, duplicates and gaps reports).
- **Switch from Supervisor to Enumerator:** This allows the supervisor tablet to switch from being a Supervisor to login as an enumerator. This is used during training of all field officers. Supervisors must not switch to become Enumerators and vice versa during main field work.

9.9.3 Supervisors Menu: GIS Resource

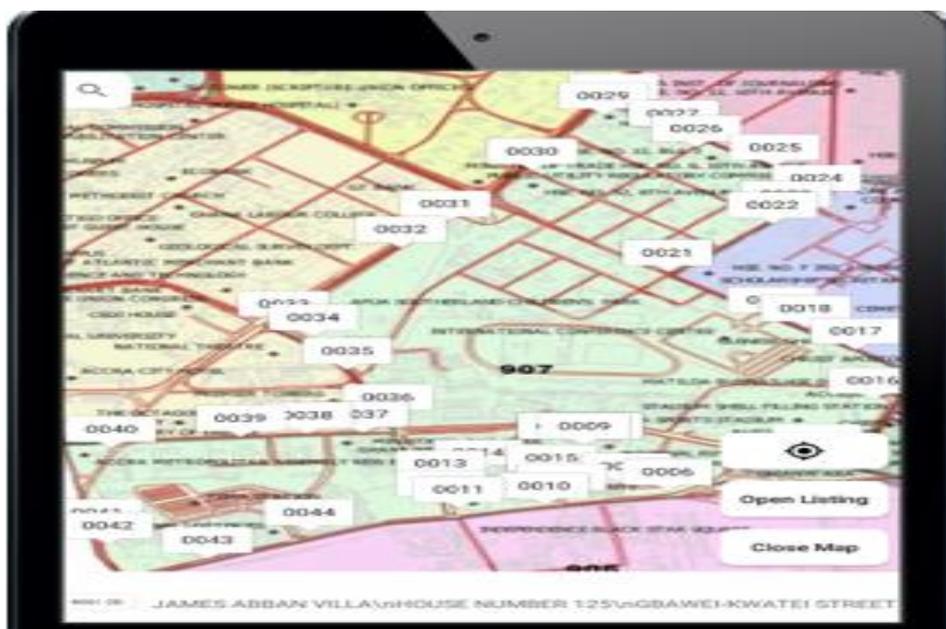
Select GIS Resources to have access to all GIS resources for the Supervisor.



The GIS resources are:

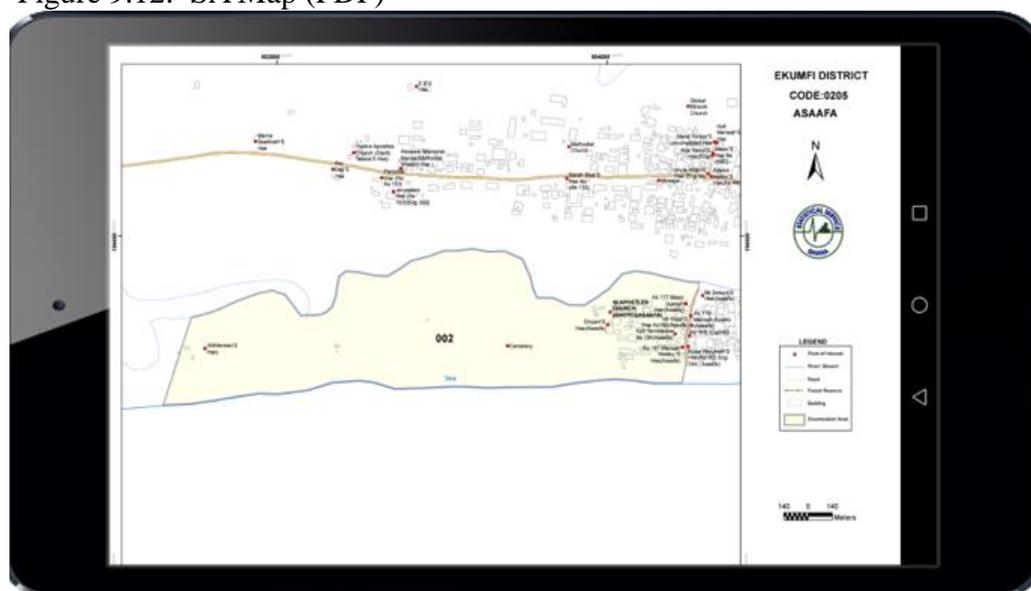
- **SA Map (Interactive):** This plots the GPS points and addresses of the listed structures on the SA map. It shows the coverage of work by the enumerators working in that SA. Interactive SA map interface showing listed structure numbers in the EA is shown in Figure 9.11.

Figure 9.11: Interactive SA map showing listed structure numbers in the SA



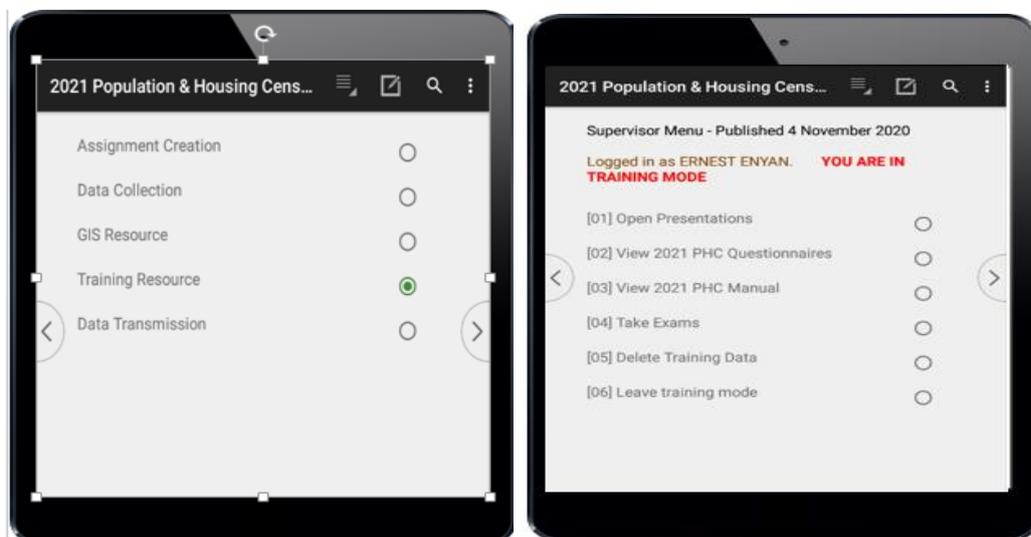
- **SA Map (PDF):** This is a static map showing the features in each EA in the SA to guide the enumerators during EA boundary canvassing. Figure 9.12 show the interface of the SA Map (PDF) on the tablet.

Figure 9.12: SA Map (PDF)



9.9.4 Supervisors Menu: Training Resource

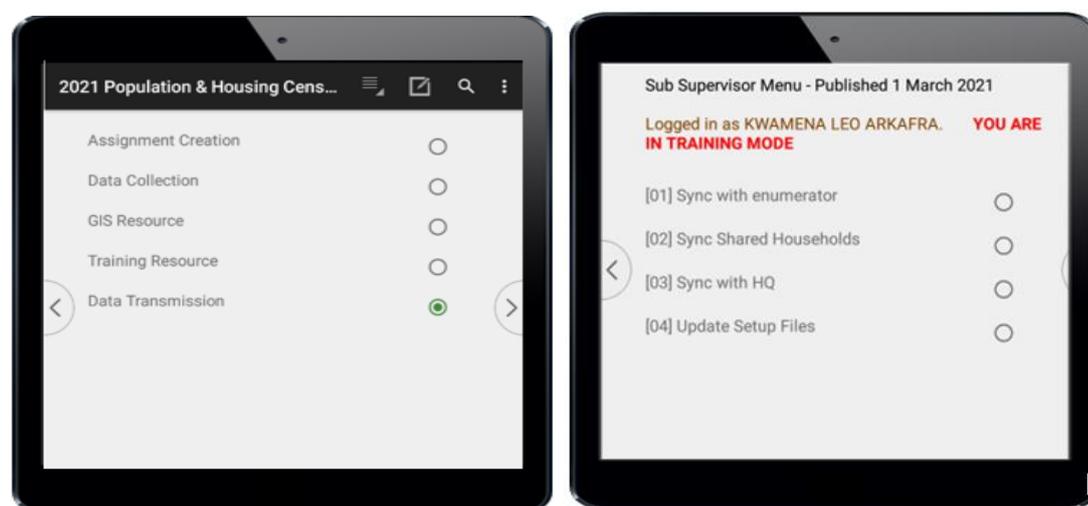
“Select Training Resource” to have access to the following materials.



- **Open Presentation:** This gives the Supervisor access to all the presentations relating to the 2021 PHC. Field officers can select one presentation at a time.
- **View 2021 PHC Questionnaires:** These are soft copies of all the 2021 PHC questionnaires for training. Hard copies may be printed for field data collection where required.
- **View 2021 PHC Manual:** This is a soft copy of the field officers’ manual included in the CAPI.
- **Take Exams:** Field officers would be assessed on everything learnt during training. “Take Exams” grants the Supervisor access to the examination platform to participate in all 2021 PHC training exams.
- **Delete Training Data:** This allows the Supervisor to delete data entered during training to prepare the tablet for the main field work.
- **Leave Training Mode:** This enables the Supervisor to switch the CAPI Application from Training Mode to Census Mode. This option is used when the Supervisor is ready for the main field work.

9.9.5 Supervisors Menu: Data Transmission

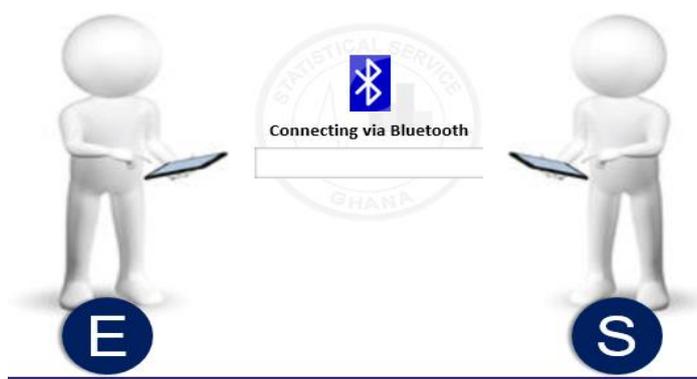
There are four (4) items under the Data Transmission option in the Supervisors Menu.



- **Sync with enumerator:** This allows the Supervisor to transmit EA assigned to the respective Enumerators tablet. It is also used to receive data from the Enumerators tablets.

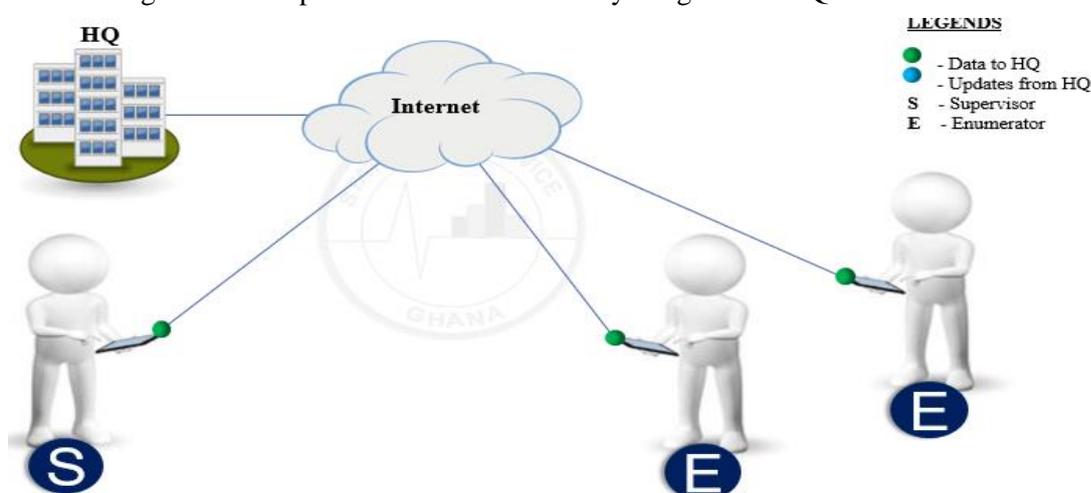
The Supervisor selects “**Data Transmission**” in the main menu and then selects “**Sync with enumerator**”. The Enumerator also selects Data Transmission on his/her main menu and then selects Sync with supervisor. These actions on both tablets activates the Bluetooth pairing to pair both tablets. As a result, the EA assigned will be transmitted to the Enumerators tablets or the data on the Enumerators tablets will be transmitted to the Supervisors tablet.

Supervisor Syncing with Enumerator via Bluetooth



- **Sync Shared Households:** This allows the Supervisor to transmit shared households to enumerators for enumeration.
- **Sync with HQ:** This allows the Supervisor/Enumerator to sync data to HQ server as in figure 9.13. This data serves as a backup for both Supervisor and Enumerator. Hence field officers must sync data to HQ each day after close of work or early morning before work starts. Data syncing can also be done occasionally during the day, after some enumeration have been conducted to secure the data collected.

Figure 9.13: Supervisor and Enumerator syncing data to HQ via internet

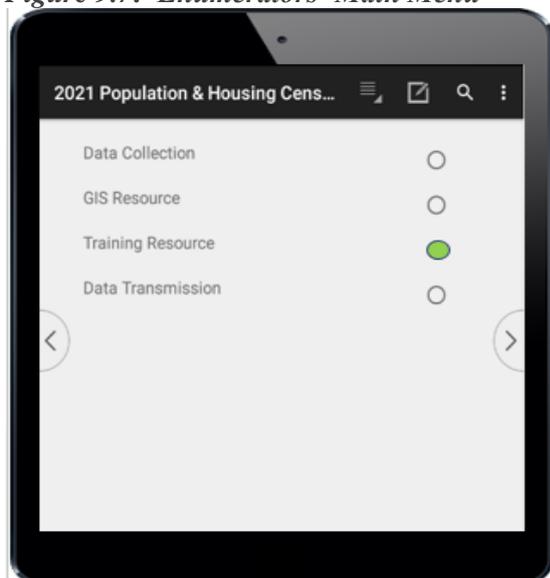


- **Update Setup Files:** This allows the Supervisor to update the CAPI Application files where necessary so that syncing with the enumerators for data will also update the CAPI Application files on their tablets.

9.10 Enumerators' Main Menu

The **Enumerators' Main Menu** is accessed through the login ID. Example of such login ID is 020420000101. There are four broad options under the Enumerators' main menu. These are "Data Collection", "GIS Resource", "Training Resource", and "Data Transmission" as indicated in Figure 9.7. Each broad group has submenu options.

Figure 9.7: Enumerators' Main Menu



The items on the **Enumerator main Menu** are:

"Data Collection" - This gives the Enumerator access to all data collection resources and reports.

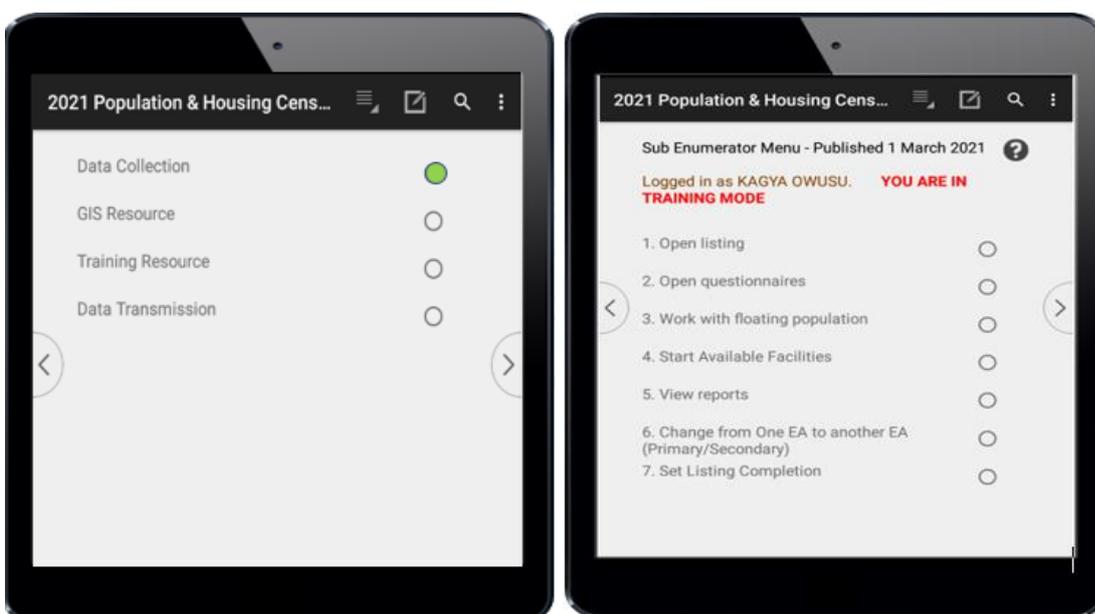
GIS Resources – This gives the Enumerator access to all GIS resources; pdf maps, interactive maps and EA description form

Training Resources – This allows the Enumerator to access all training resources. E.g. questionnaires, manual, power point presentations and take exams.

Data Transmission – This grants the Enumerator access to data transmission (Data Syncing) resources.

9.10.1 Enumerator Menu: Data Collection

The items under the Data Collection option on the Enumerators Menu are described as follows.



"Open Listing" gives the Enumerator access to the listing Application.

"Open Questionnaire" gives the Enumerator access to the PHC 1A, B, C and E Application.

"Work with floating population" gives the Enumerator access to the PHC 1D Application.

"Start Available Facilities" gives the Enumerator access to the Available Facilities Application.

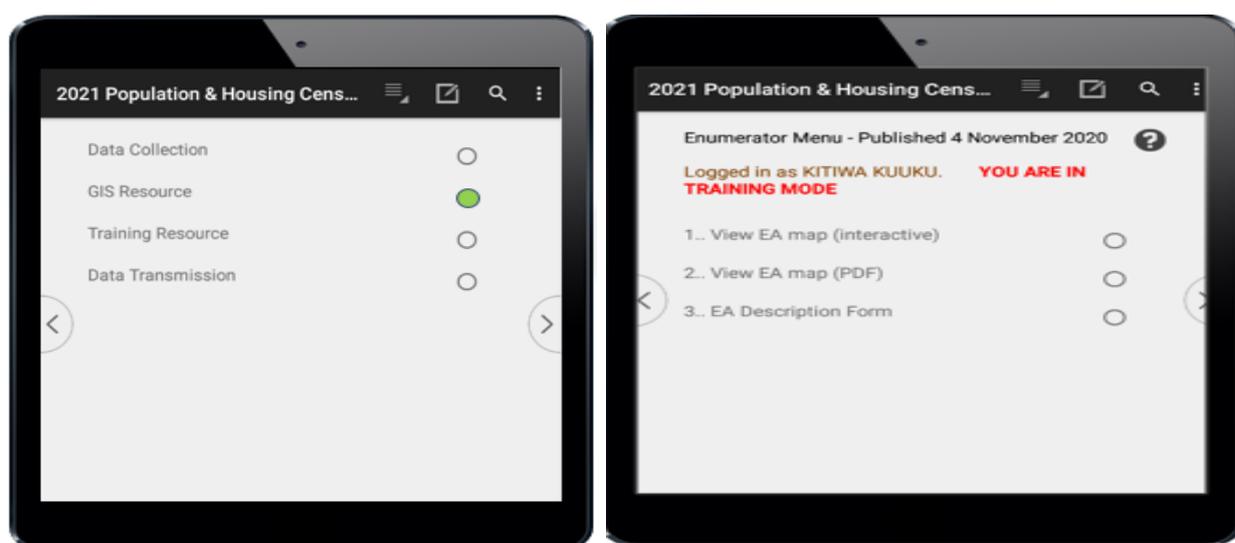
“View Report” gives the Enumerator access to items to run report on Progress of work (Completion report), Structure numbers skipped (Structure Number Gaps report) and report on structure numbers that are repeated in the EA (Duplicates reports). Note that the CAPI Application will prevent an Enumerator from recording a structure number more than once on the same tablet. CAPI automatically records household numbers in a structure serially.

“Change from One EA to another EA (Primary/ Support)” Allows Enumerator to change status from a Primary Enumerator to a Support Enumerator.

“Set Listing Completion” This is used to confirm the completion of listing in an EA by the enumerator.

9.10.2 Enumerator Menu: GIS Resources

“Select GIS Resources” to have access to all GIS resources in the CAPI.

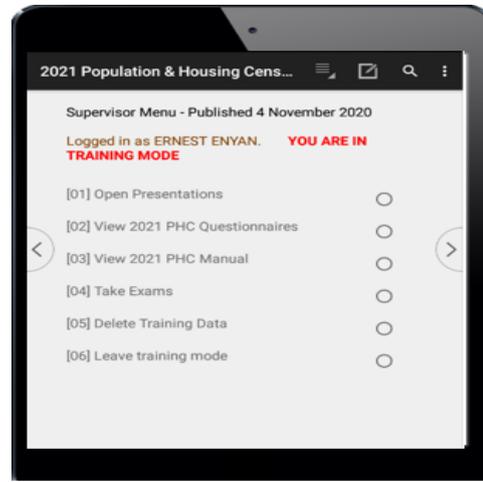
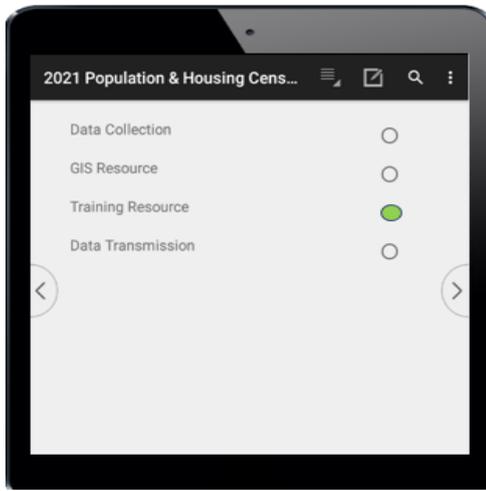


The GIS resources are:

- **EA Map (interactive):** The interactive map plots the GPS points and addresses of the structures listed on the map. This guides the enumerator to work within the EA boundary and ensure complete coverage.
- **EA Map (pdf):** This is a static map showing the features in the EA on the map to guide the enumerator during EA boundary canvassing.
- **EA Description Form (PHC 2):** This is a form describing the EA boundary and showing some important features in the EA on the pdf maps. This map is not interactive i.e. it does not show the GPS points taken for the structures in the EA.

9.10.3 Enumerator Menu: Training Resource

The content is the same as that on the supervisor menu

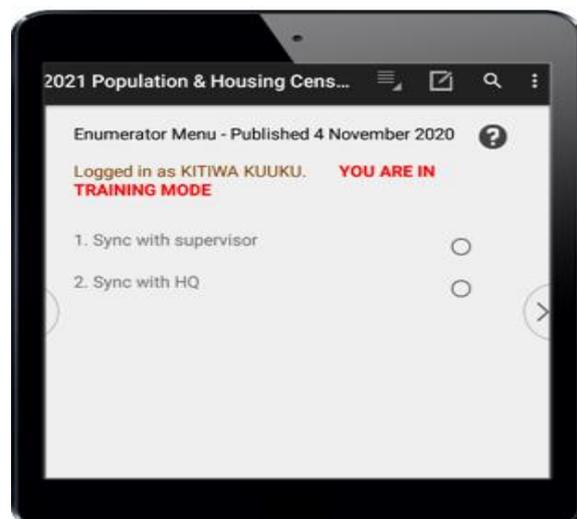
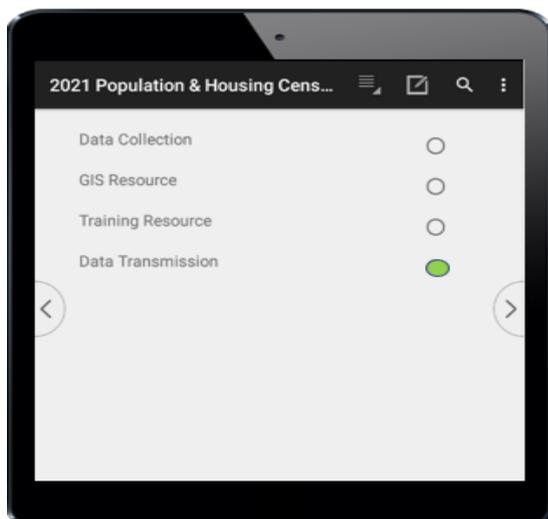


“Select **Training Resource**” to have access to the following materials.

- **Open Presentation:** Gives the Enumerator access to all the power point presentations for the 2021 PHC field officers training. Field officers can select to open one presentation at a time.
- **View 2021 PHC1 Questionnaires:** These are soft copies of all the questionnaires for 2021 PHC field officers training. One questionnaire can be opened at a time.
- **View 2021 PHC Manual:** This is a soft copy of the field officers’ manual included in the CAPI.
- **Take Exams:** Field officers would be assessed during training. “Take Exams” option on the Enumerators menu grants him/her access to the examination platform to participate in the exams.
- **Delete Training Data:** This allows the Enumerator to delete data recorded during training to prepare the tablet for the main field work.
- **Leave Training Mode:** This enables the Enumerator to switch the CAPI Application from Training Mode to Census Mode. This option is used when the Enumerator is ready for the main field work.

9.10.4 Enumerator Menu: Data Transmission

There are two items under this menu option: Sync with supervisor and Sync with HQ.



Sync with supervisor: This option is used to take assignment from the Supervisor via Bluetooth. The Supervisor creates EA assignment for the Enumerators on his/her tablet and afterwards syncs the assigned EAs to the Enumerators to enable them work in the EA. Using this option, the Enumerator is able to sync data collected from the field to the Supervisor via Bluetooth.

Receive Shared Households: This option allows the enumerator to receive the shared households from the supervisor for enumeration.

Sync with HQ: This option allows the enumerator to transmit (or sync) data from the tablet to HQ server via the internet.

9.11 2021 PHC CAPI Application Features and Navigation

CSPro software was used to develop the CAPI Application for the 2021 PHC field data collection. There are two versions of CSPro – Windows and Android versions. The android version, which is called CSEntry is the base software on which the CAPI Application for the 2021 PHC runs.

The CAPI Application is user-friendly with features that field officers can easily control. Its user-friendliness makes it easy to use to collect accurate information from the respondents. The features of the CAPI Application are explained in this section.

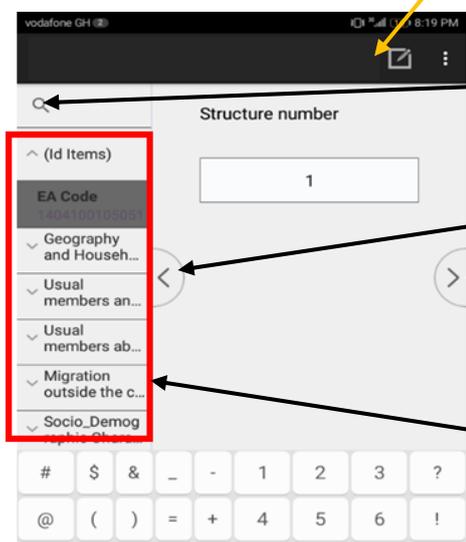
A. Predictive text functionality:

Predictive Text suggests words that match your text entries and can automatically complete common words. Predictive text can learn your personal writing style from your application. The CAPI application has this functionality for the spaces provided for writing text.

B. Application versioning:

A particular release of the CAPI application that is slightly different from other forms of the same CAPI App. Or a copy of CAPI Application that has been changed so that it is slightly different from the current one. The version helps you to know if there is a new upgrade or changes in the application.

9.11.1 CAPI Features

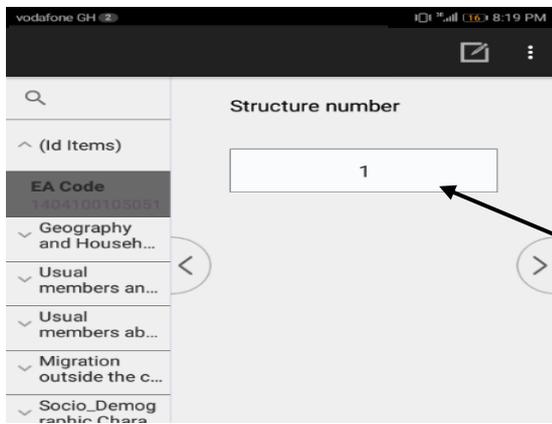


Note Box
Clicking on the pencil and paper icon, you will have the opportunity to type a field-specific note. If you do not want to add a new note, you can press the Android back button to cancel.

Search Box
After clicking on the search icon, a space will appear where you can type a search query. The list of responses will automatically filter based on your search query. The full text of each response is searched, not necessarily starting from the first letter of the response.

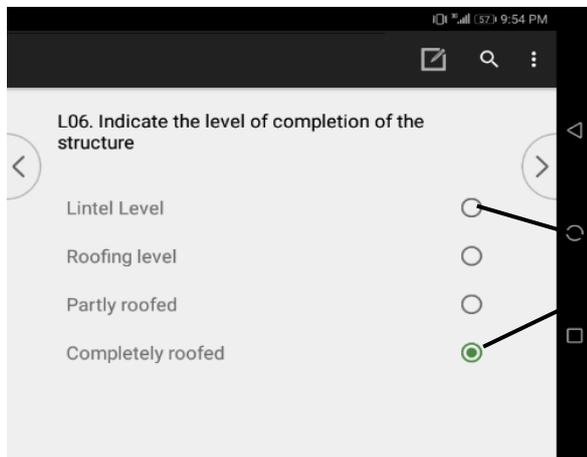
Navigation Buttons
These are the left and right navigation buttons, which correspond to moving backwards or forwards in the data entry application. Clicking on the Android back button will close out of adding or modifying a

Case Tree
Clicking on the show case tree icon brings up the case tree. The case tree displays all fields that have been entered in the data entry application, showing the field label as well as the field response. If you click on a field, you will be taken to that field. This allows you to quickly move from one part of the questionnaire to another. Once the case tree is shown, clicking on the CS icon again will take you up the hierarchy of the data entry application.



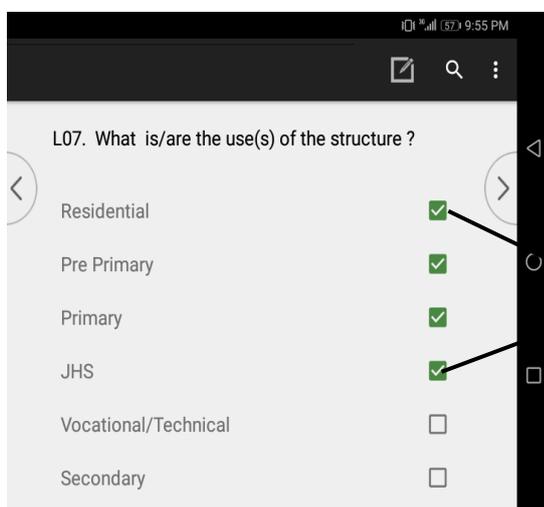
Text Box

To enter data in a text box field, simply type the response using the keypad on the screen. If a keypad does not appear automatically, tap on the field and a keypad will appear to start entry.



Radio Buttons

When presented with a list of radio buttons, you must select **one**, and **only one**, response. Click on the response label, or the corresponding radio button, to make your selection.



Check Boxes

This will allow you to select one or more (multiple selection) responses. Click on the response label, or the corresponding checkbox, to make a selection. Once you are finished making all selections, you can proceed to the next field.

The CAPI application is user-friendly, with features and navigations that enumerators and supervisors can easily control.

Navigation: It is the movement between pages and features of the CAPI to access tools and materials, administer the 2021 PHC questionnaires and record responses. CAPI navigation features enable field officers to move through the application effectively.

Features: These are attributes or objects of the CAPI which make it user-friendly for the field data collection. These features include:

Radio button; Check box; User bar; Text boxes; alphanumeric keypad; Search icon; Question mark icon.

Skip patterns: These are conditional and consistency checks included to ensure field data collected make logical sense. CAPI does these checks and skips over the non-applicable question(s) to the next applicable one. E.g. If a person has never been to school then the person cannot respond to a question on highest level of education.

Filters: CAPI automatically selects particular household members to answer questions on certain modules leaving out other members who are not eligible to answer these questions. E.g. Education module is for household members 3 years and older.

2021 PHC CAPI Navigation

User Bar 1
It is usually named by the function it is expected to perform. Eg, Get Device ID, **Clear Training Data**

2 Search
Image of a magnifying glass located at the top-right corner of the CAPI window.

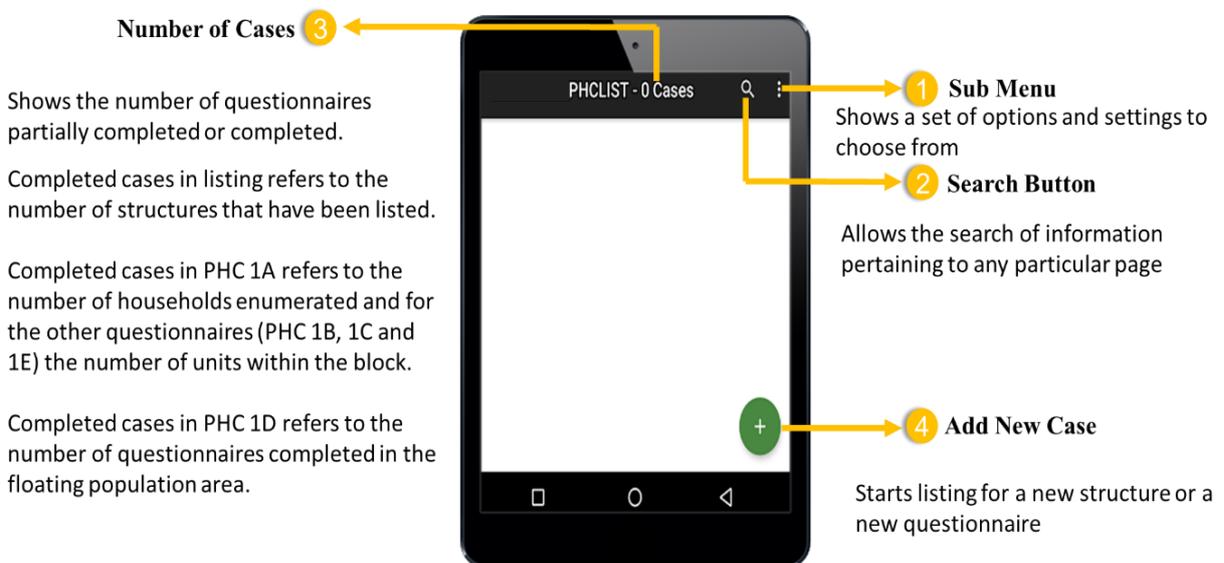
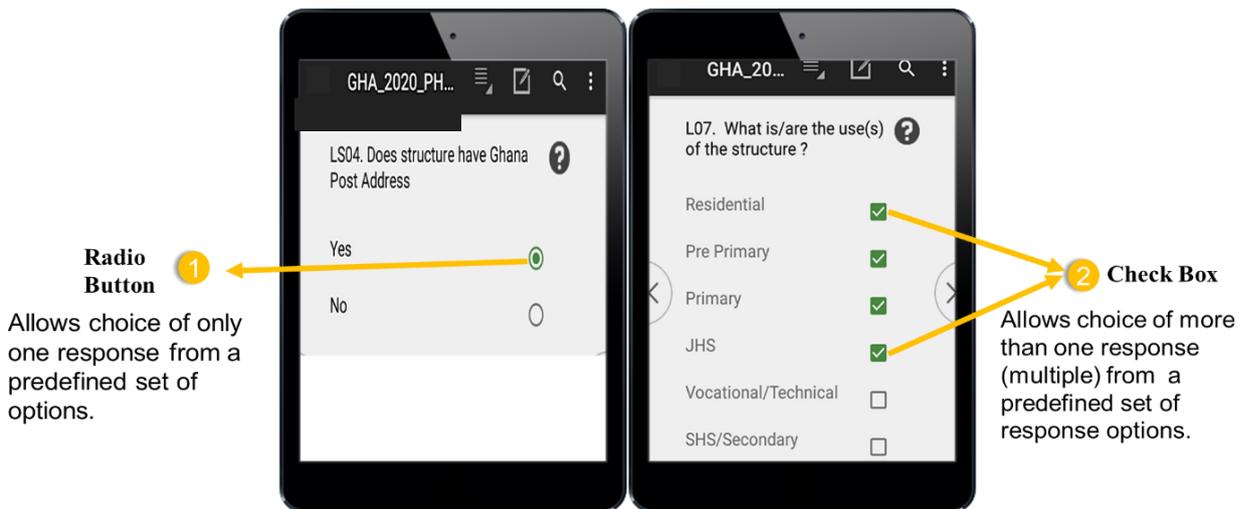
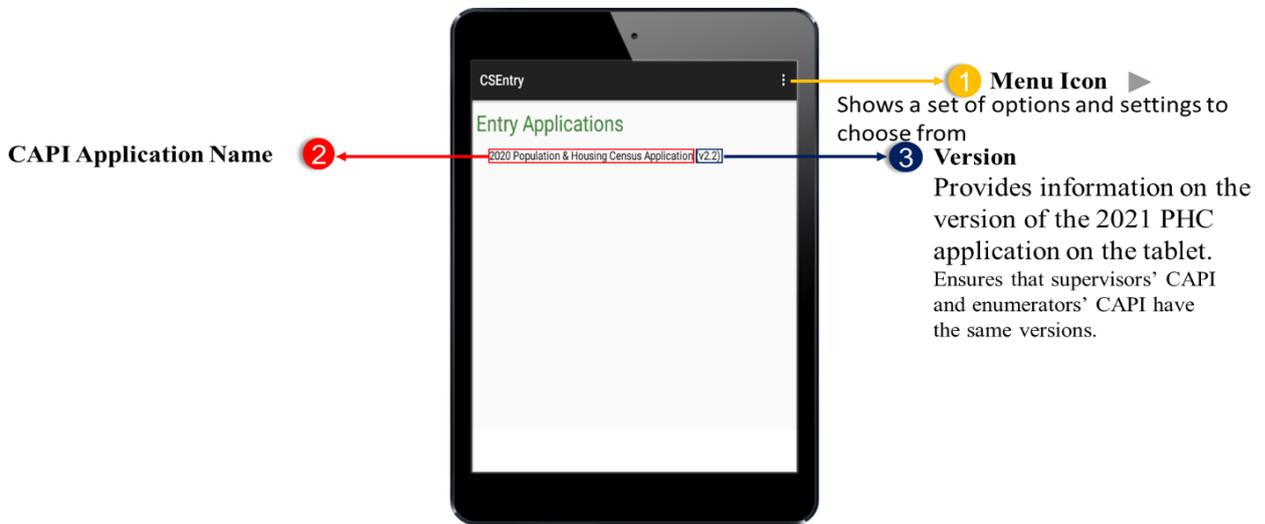
3 Navigation Button: Previous Page
Enables movement to the preceding page

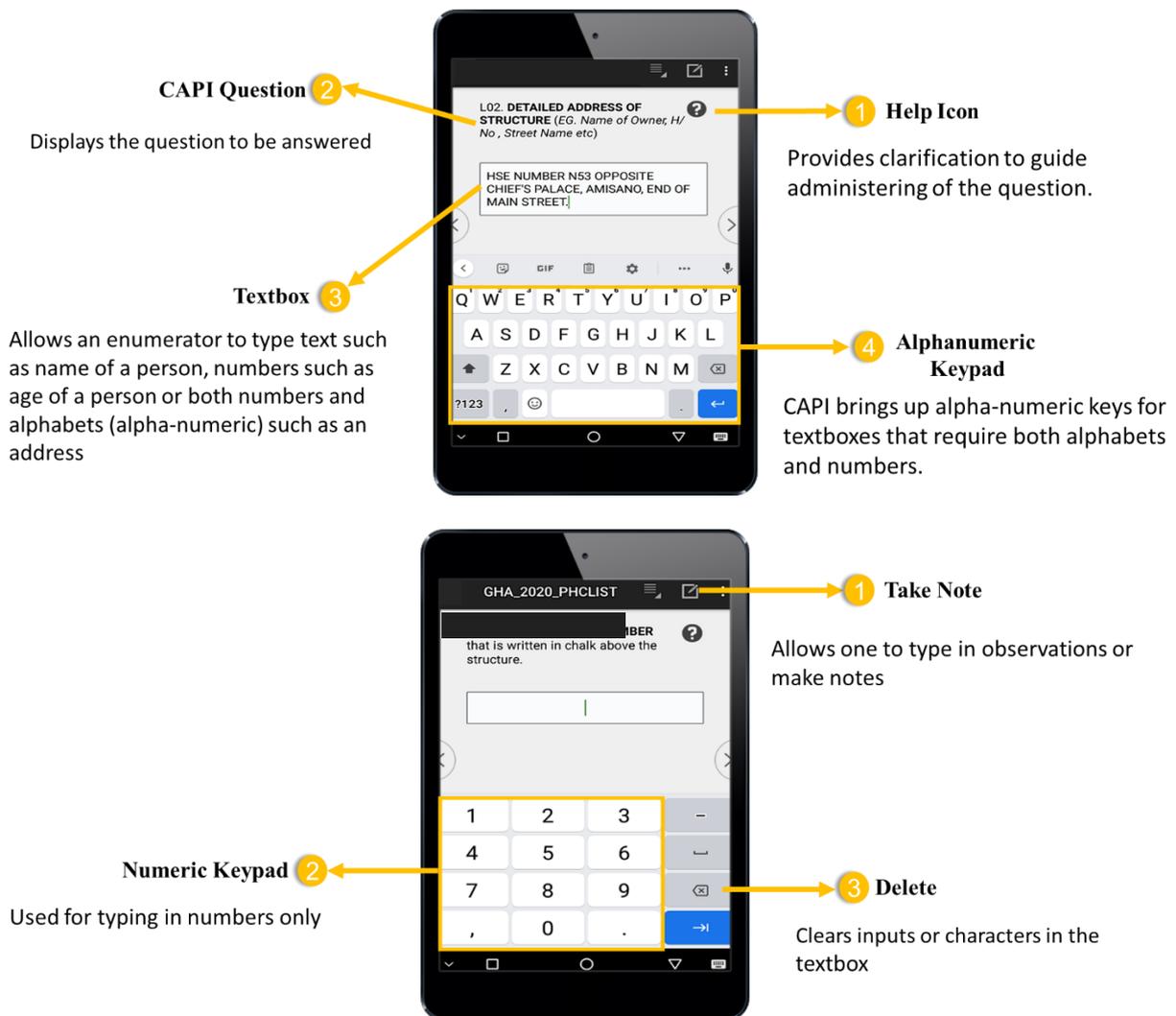
4 Navigation Button: Next Page
Enables movement to the next page

5 Home Button
Takes one to the home screen of the tablet

6 Back Button
Enables termination, temporary save or advancement of interview

7 Task Overview Button
Shows all running applications





Why Consider CAPI Navigation and Features

- It identifies the key CAPI navigation features necessary to perform tasks related to field data collection.
- The features make it user-friendly.
- It accords the field officers control to move between pages and features flexibly and conveniently
- It reduces time spent during field data collection. It saves the enumerator time for flipping pages and looking for the next applicable questions and household members who are eligible for a certain module.

9.12 Supervisory Area (SA) and Enumeration Area (EA) Assignment

9.12.1 Introduction

The country has been demarcated into non-overlapping (or non-intersecting) adjoining smaller areas for enumeration during the 2021 Population and Housing Census. These smaller areas are called Enumeration Areas (EA). A number of adjoining EAs are grouped to form a Supervisory Area (SA). These SAs are also adjoining and non-overlapping in each district.

An SA is assigned to a supervisor and the EAs in the SA are assigned to Enumerators. Therefore the Supervisor is responsible for the listing of all structures and enumeration of the population in the SA. Similarly, each Enumerator is responsible for the listing of all structures and enumeration of the population in the assigned EA.

A team of one supervisor and a number of enumerators, will be formed for the 2021 PHC enumeration.

The assignment of SA/EA is what initiates the data collection process. Each team must ensure that the assignments are done correctly so that each team member will work in the right SA/EA assigned.

A database of all the SAs and EAs in the country have been pre-loaded into the 2021 PHC CAPI Application. As a result, all these areas must be completely and correctly assigned to the team in their respective districts for a complete coverage.

All the SAs in each district will work under a District Data Quality Management Team made up of the following officers; DCO, DDM, DFS and DIT.

The SA/EA assignment is a responsibility of the Supervisor. Each would be given an SA/EA Assignment Sheet prepared by the DDQMT after the teams are formed. This sheet presents the list of EAs in an SA with the corresponding login IDs of the Supervisor and the Enumerators. The SA/EA assignment process is explained with diagrams in this section.

SA/EA Assignment Preparation

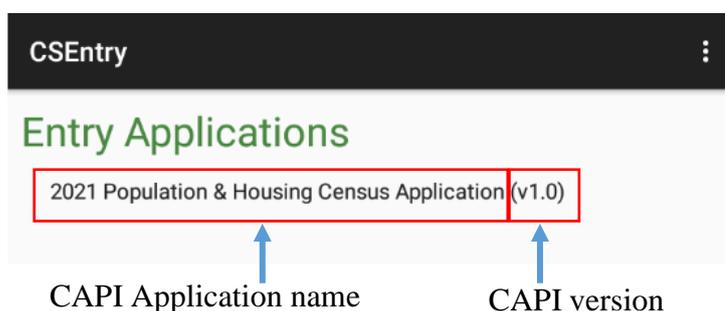
The assignment process begins with the formation of teams by the facilitators. A team is composed of a Supervisor and a number of Enumerators, according to the number of EAs in the SA. Thus, each team corresponds to one SA. Each team will be given an SA/EA Assignment sheet prepared by the Training Team (facilitators).

Supervisor (SA) Assignment

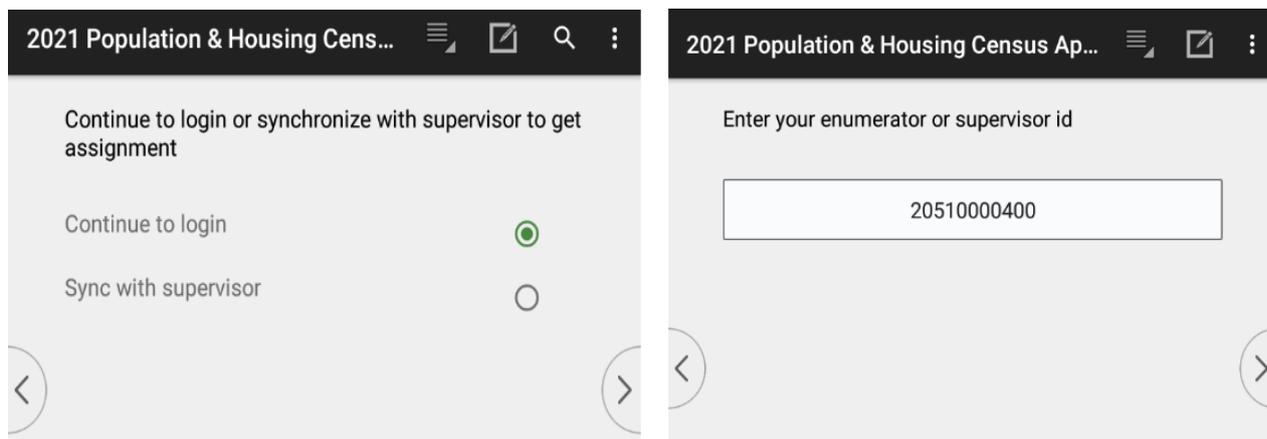
This is the assignment of the SA to the Supervisor by him/her self. The Supervisor logs in with the ID provided on the Assignment Sheet.

9.12.2 Steps to create SA assignment:

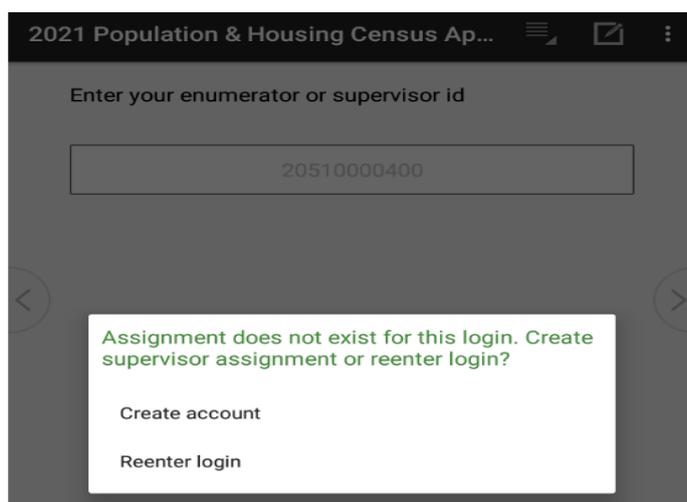
1. Tap on the CSEntry  to open the application, showing the CAPI Application name and version. At this stage, it is version 1.0 (v1.0).



2. Tap on the **2021 Population & Housing Census Application** to open the Application.

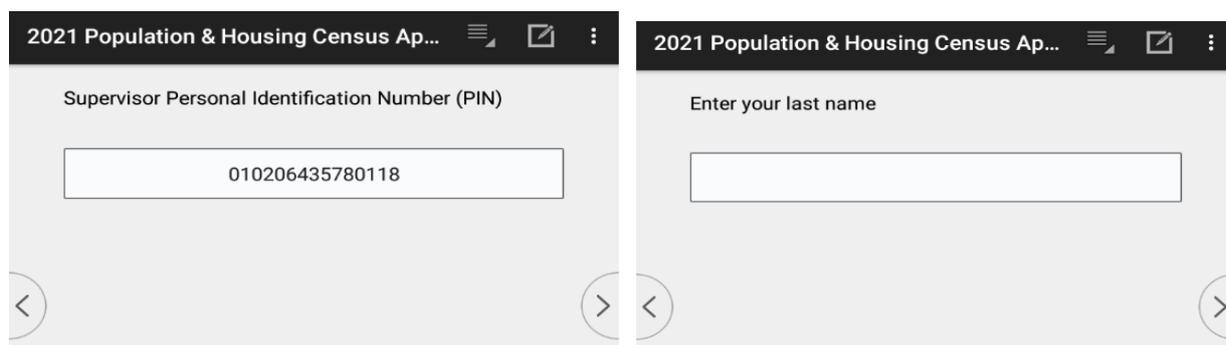


3. At this page, choose **Continue to login** and tap on the **forward arrow** to go to next page to key in the Supervisor login ID. Tap on the forward arrow after keying in the ID.

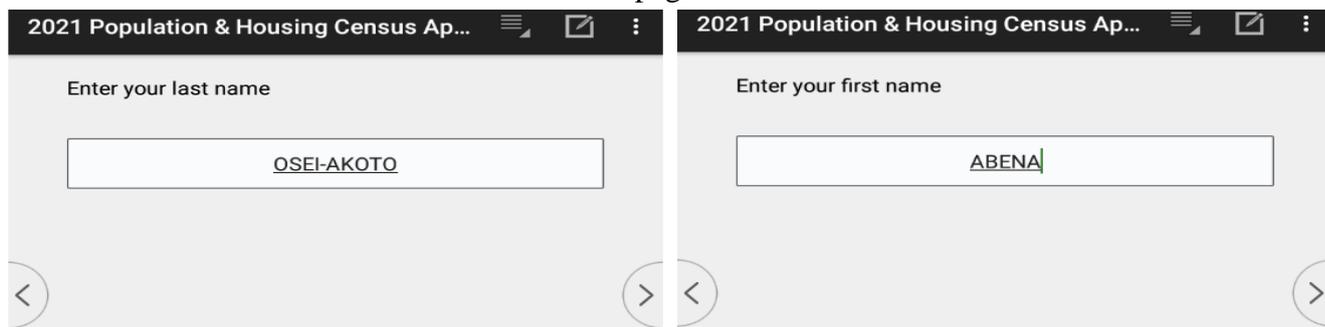


4. Note the prompt that pops up. The message tells that the SA needs to be assigned to the Supervisor. Choose **Create account** to continue to the next page.
5. Key in the Personal Identification Number (**PIN**) of the Supervisor. The PIN is a 15 digit ID of every field officer participating in the 2021 PHC enumeration whereas the login ID is a 12 digit code.

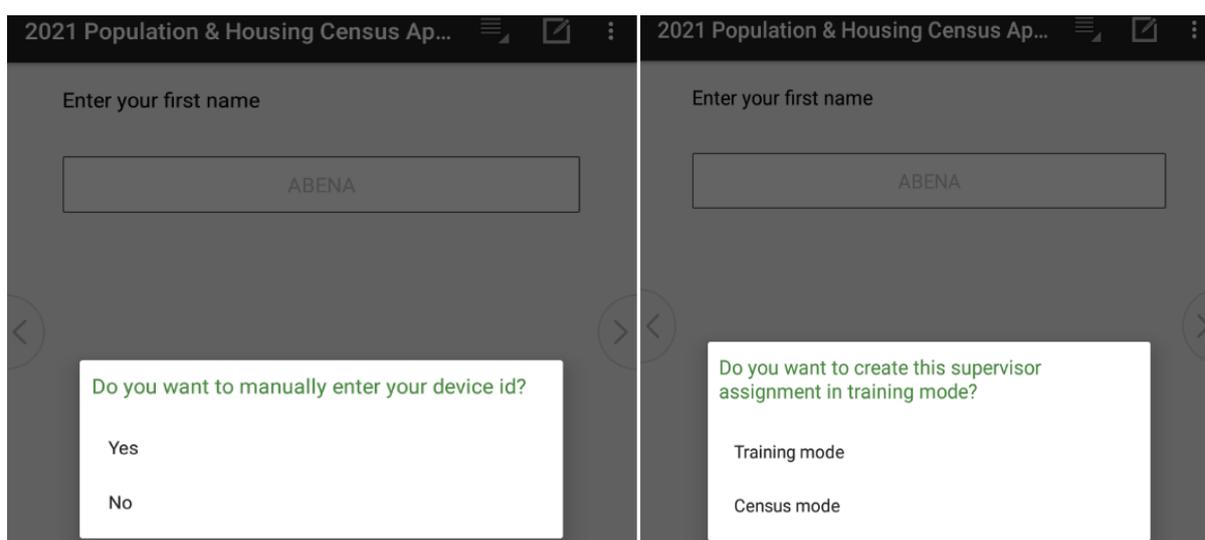
Note: The PIN is not the same as the login ID. This is a combination of the **Serial Number** and the **Password** given to all persons who applied as Census field officer through GSS website (Enumerators' Bureau) during the recruitment.



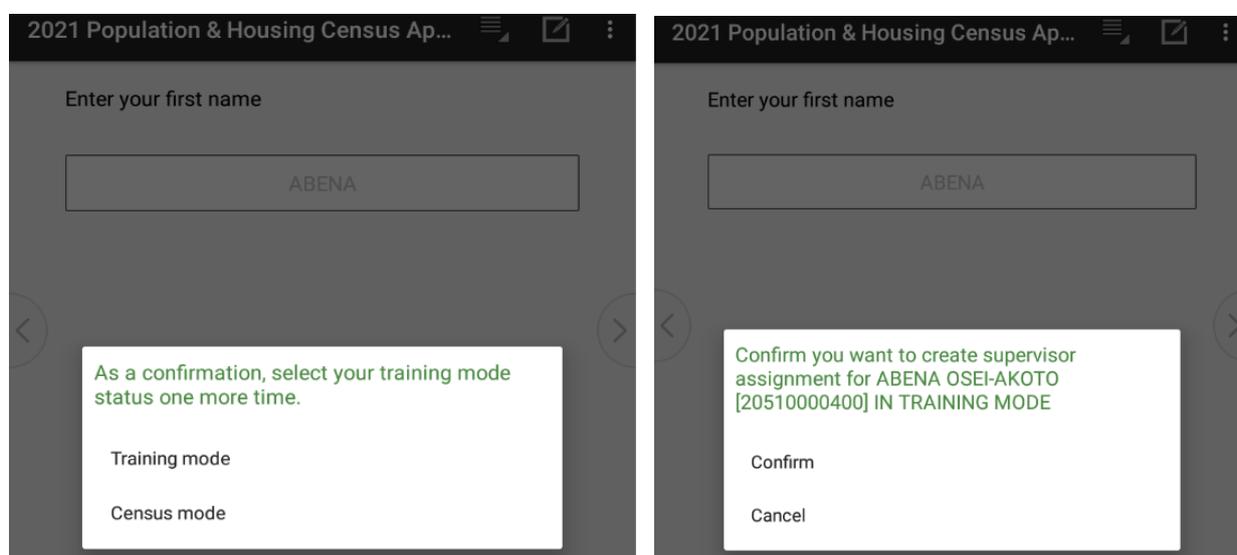
- After keying the PIN tap on the forward arrow to enter the Last Name of the Supervisor. Proceed to enter the First Name on the next page.



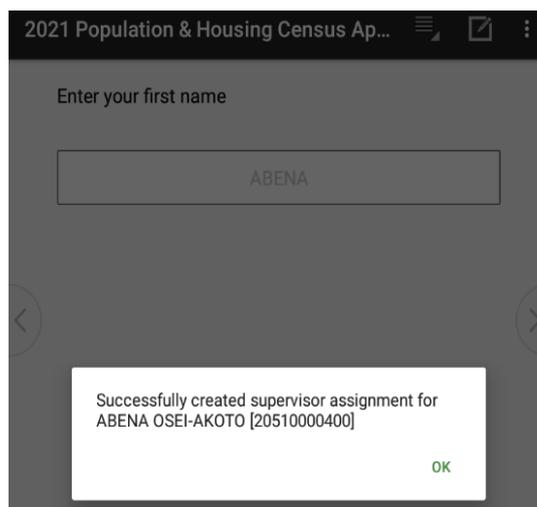
- From the Last Name the CAPI asks for either manual or automatic entry of the tablets (device) mark address (ID). Choose 'No' to let the CAPI pick the device ID automatically.
- On the next page choose Training Mode during training. The Census mode is for the actual 2021 PHC field data collection.



- Confirm the **Training mode** by tapping on the **Training mode** again. Afterwards **Confirm** that you want to create supervisor assignment for the name that appears.



- The message that pops up after confirmation indicates “**Successfully created Supervisor Assignment for ABENA OSEI-AKOTO [20510000400]**”. After tapping on ‘OK’ the CAPI returns to the page where the login ID was keyed. Tap on the **forward arrow** to continue to the **Supervisor Main Menu**.



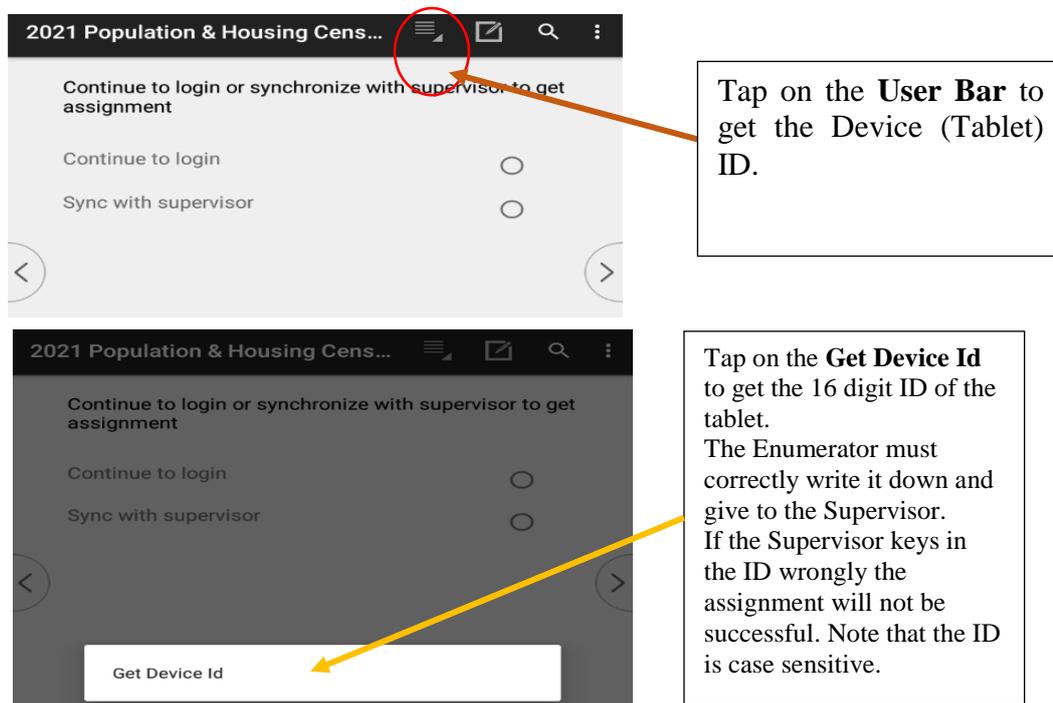
9.12.3 Steps to create Enumerator (EA) Assignment

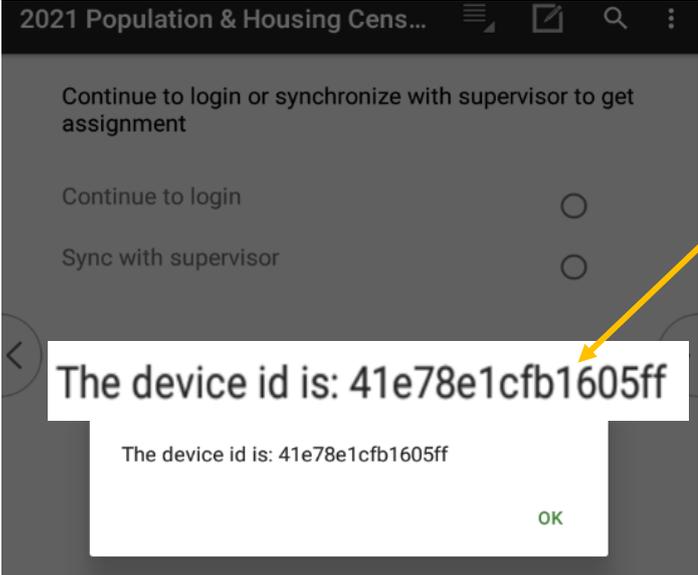
This is a process in which the Supervisor assigns an EA within the SA to an Enumerator. At this stage the Enumerator cannot login into the CAPI Application with the login ID from the assignment sheet since the EA has not yet been assigned to him/her by the Supervisor. The EA has to be assigned to the Enumerator on the Supervisor’s tablet and afterwards synced to the Enumerator before he/she can login to start work.

Steps to create Enumerator (EA) assignment.

- After opening the 2021 Population & Housing Census Application the Enumerator gets access to the page to **continue login**. Here, the enumerator is expected to obtain the Tablet (Device) mark address (ID) from the tablet and give it to the Supervisor to use in the assignment creating process.

Note: The Device ID links the tablet and the EA to allow the tablet to work in the EA.

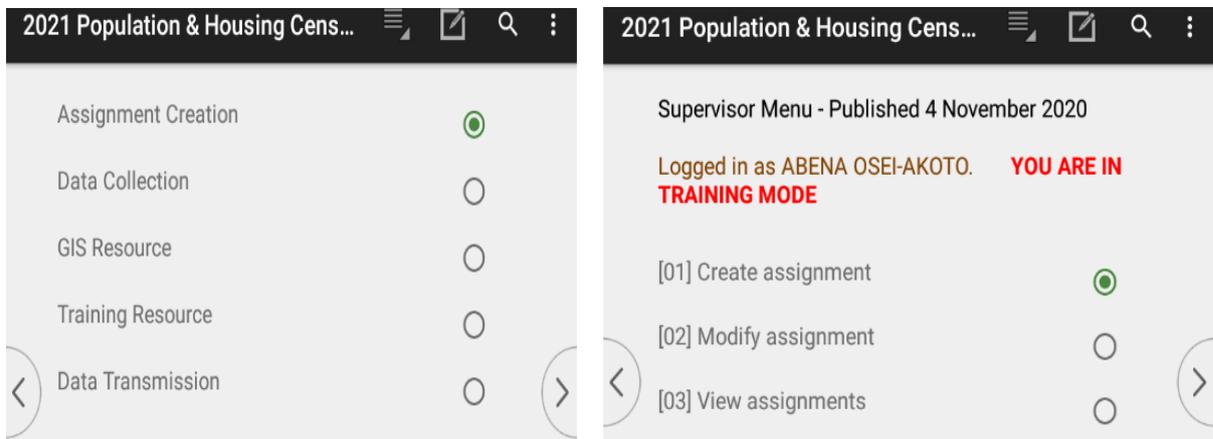


2. 

This the device ID of the tablet.

Every device has a unique ID. Therefore, a one tablet (device) ID cannot be used for another tablet. Each tablet has its own ID.

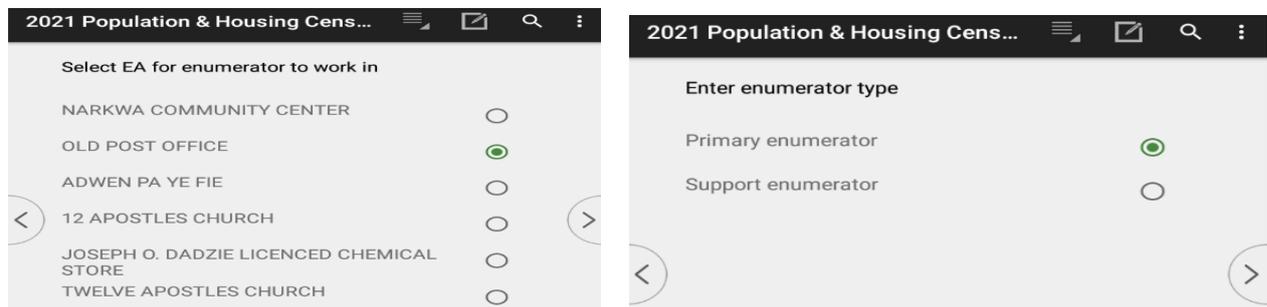
3. On the **Supervisor Main Menu** on his/her tablet, let the Supervisor choose **Assignment Creation** and tap on the **forward arrow**. On the next page choose **Create assignment** to start creation of assignment for the Enumerator.



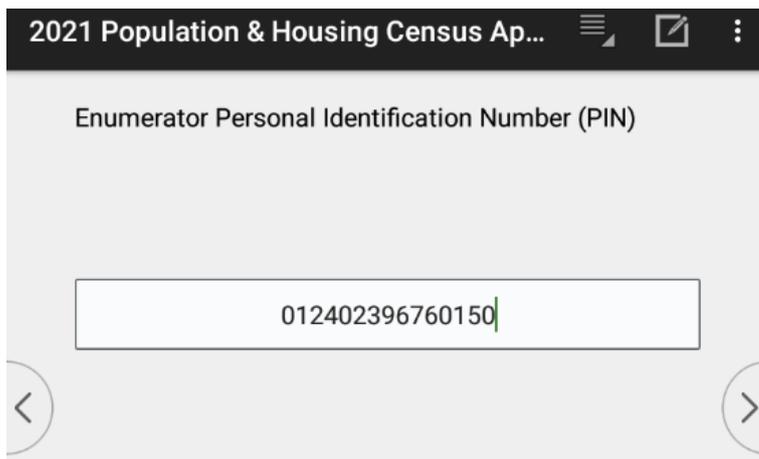
4. This page has a list of all the EAs in the SA by their names. **Choose** the **EA** that is to be assigned to the Enumerator and tap on the **forward arrow** to the next page.

Note that assigning an EA to a Support Enumerator is not permitted when a Primary Enumerator has not been assigned the EA. The Support Enumerator is designed to support Primary Enumerators when their workload cannot be completed within the Census enumeration period.

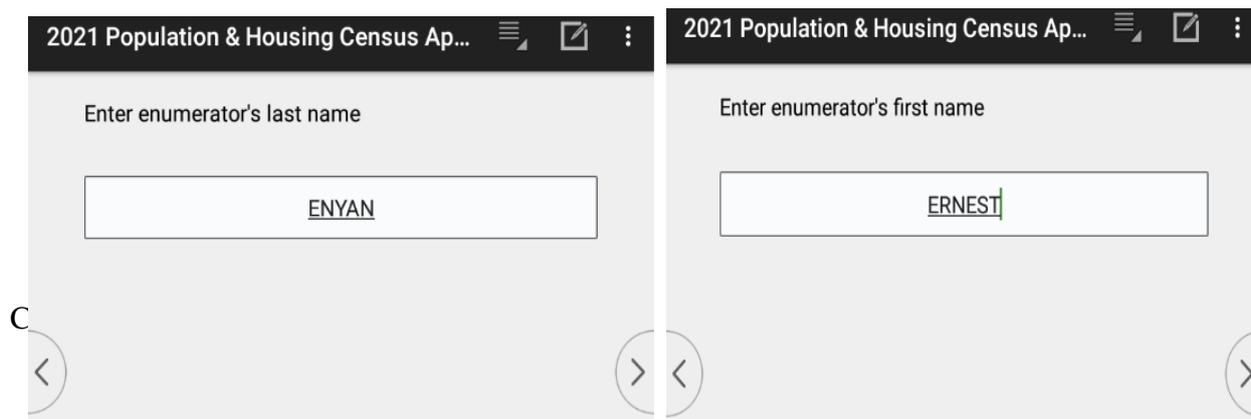
5. Choose **Primary Enumerator** and tap on the **forward arrow** to the page that requires the Enumerators PIN.



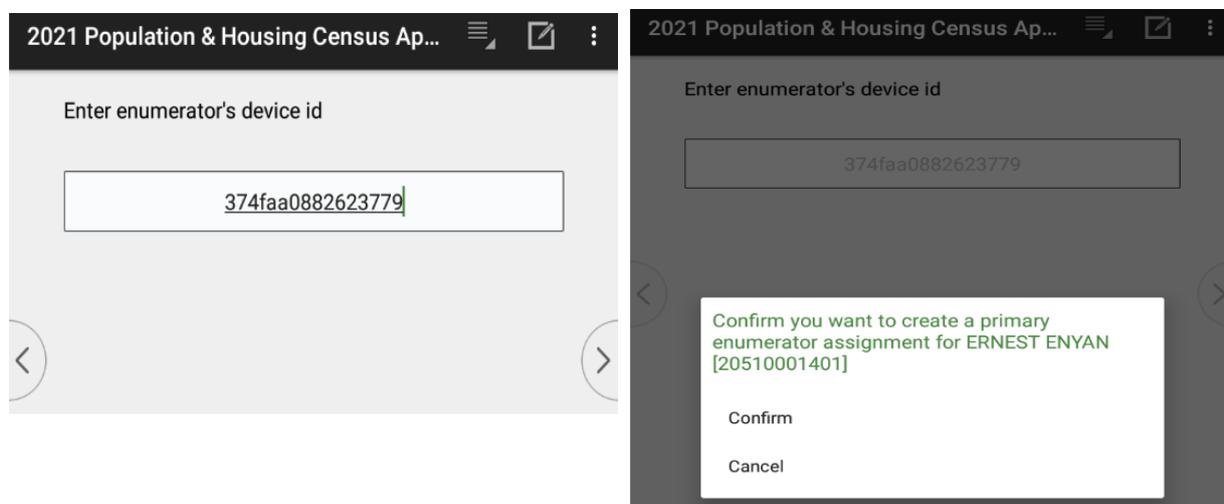
6. Key the Enumerator's PIN in the textbox on the page.



7. Key in the Last Name and First Name. Tap on the forward arrow to go to the next page.



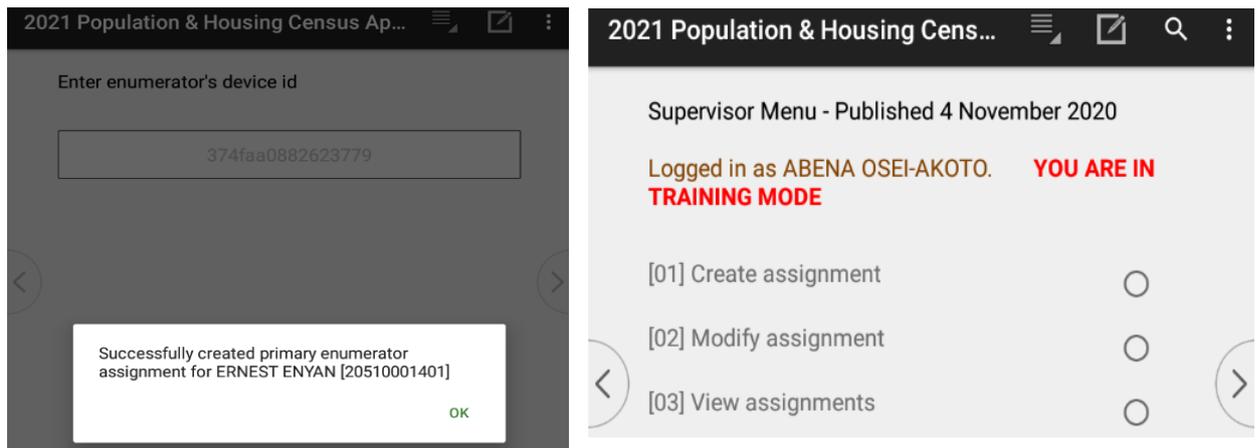
8. Key in the Enumerator's **device id** and tap on the forward arrow to go to the next page.



Tap on "Confirm" to indicate that you want to create a Primary Enumerator assignment for ERNEST ENYAN [20510001401]. This means that EA 014 is now assigned to ERNEST ENYAN.

The login ID is 020510001401.

- Assignment Creation for the Enumerator is Successful at this stage. Tap on Ok to return to the submenu under Assignment Creation option.

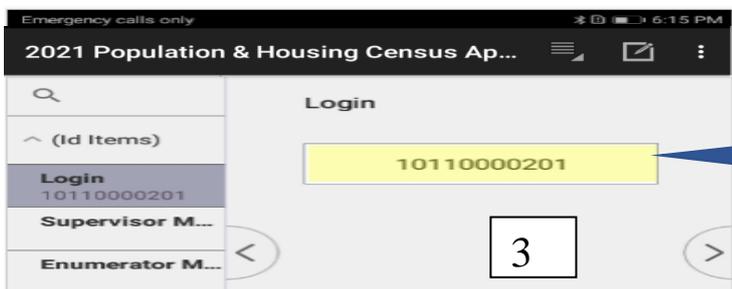
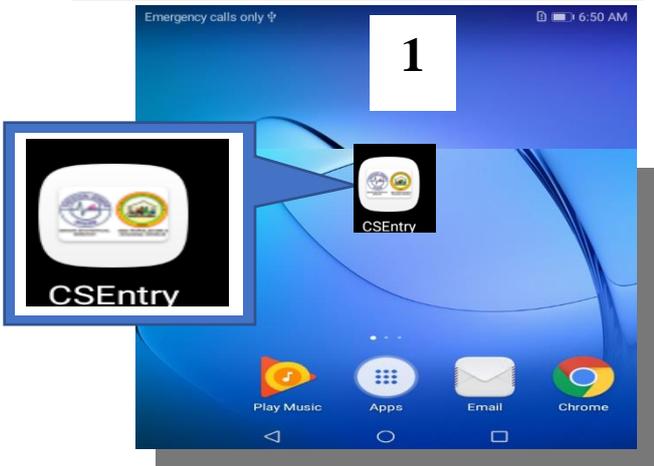


After the process is successfully completed, the Supervisor should sync with the Enumerator to transmit the assignment from his/her tablet to the Enumerators tablet. After the syncing process is completed successfully, the Supervisor must view assignment and get the login ID corresponding to the Enumerators name and give it to him/her to login.

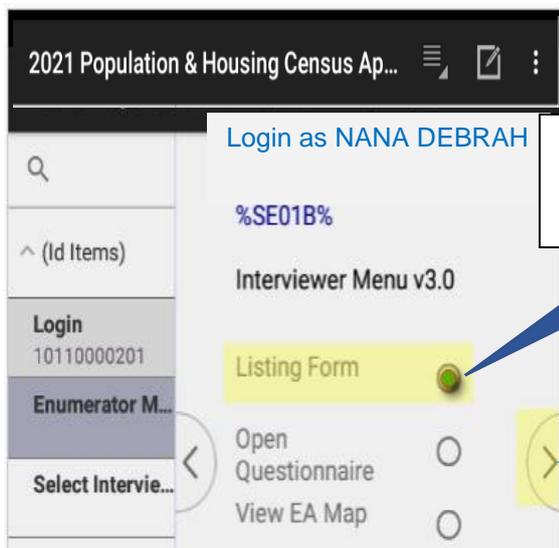
START LISTING

Double click/ Tap on the **CSENTRY** Application Icon on the Tablet Screen/desktop to launch the program

Select/Tap on the 2021 Population and Housing Census Application (Trial) to start the 2021PHC CAPI App



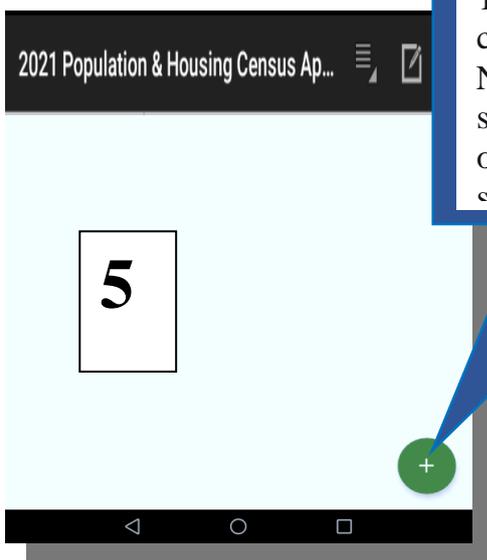
Login: Enter 12digit user Login ID number to Proceed



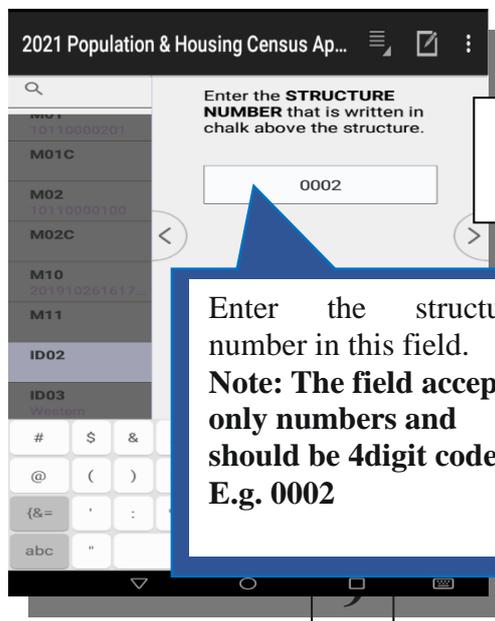
4

Select **Listing Form** to begin listing of structures

Go to next using the **Forward Navigation Key** to start a new case

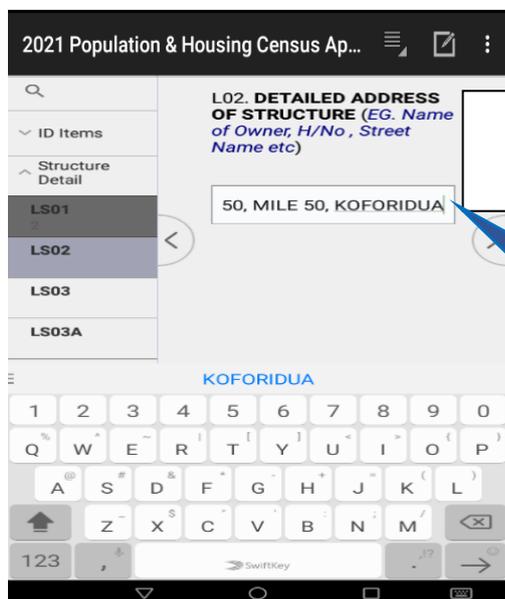


Tap on the **Plus (+)** to start a new case
 Note: If you complete listing a structure you will require to Tap on the **(Green +)** to list the second structure



6

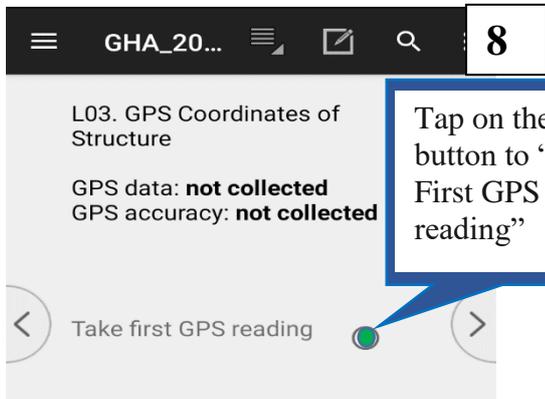
Enter the structure number in this field.
Note: The field accept only numbers and should be 4digit code. E.g. 0002



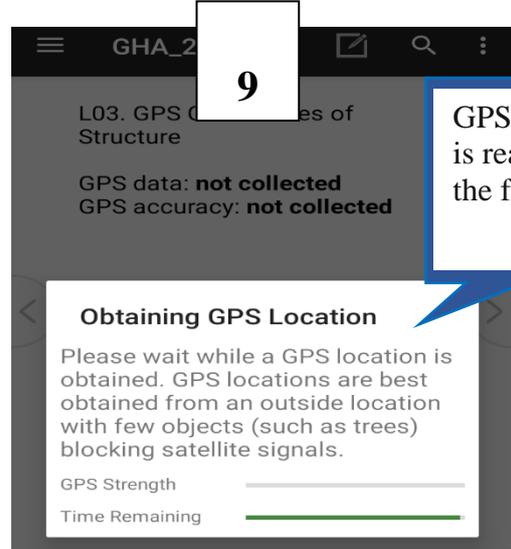
7

Enter the detail address of the structure.
Note: This is a text box which accepts both alphabets and numeric characters

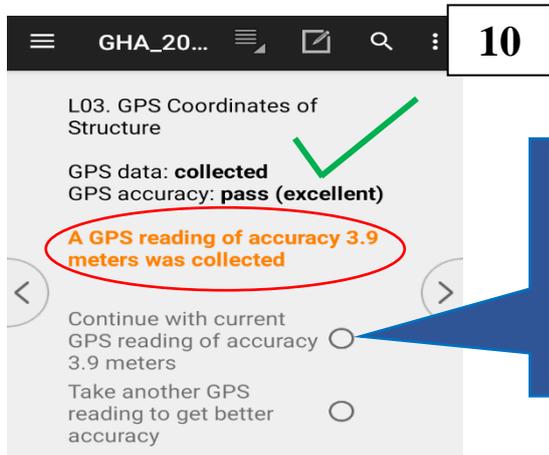
E.g. Mr Otibu's House. H/No. 150, Mile 50, Koforidua



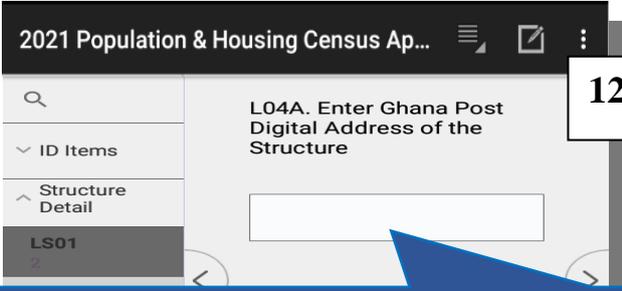
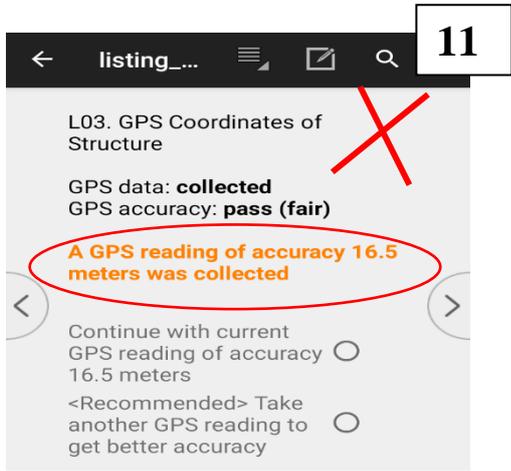
8
Tap on the radio button to "Take First GPS reading"



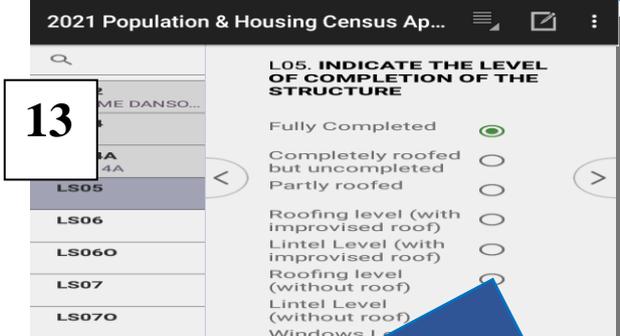
9
GPS Location is reading for the first time



10
After a successful GPS reading of having less than 5meters, select "Continue with current GPS reading of accuracy meters"
NOTE: Any reading of accuracy above 5meters is unacceptable and has to be retaken

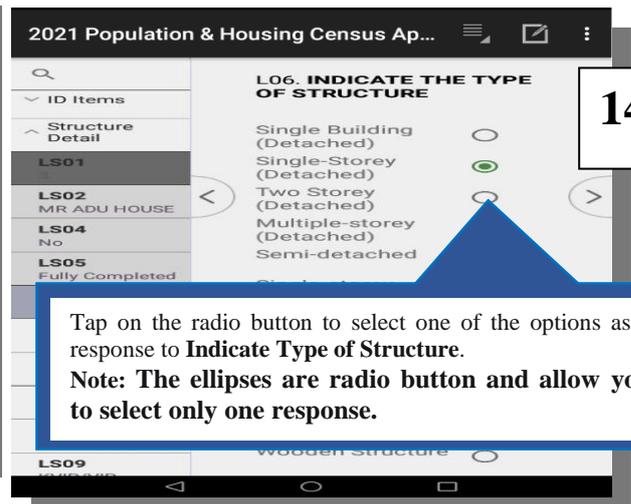


11
12
Enter the Ghana Post Digital Address of the structure.
Note: This is different from the GPS coordinate that will be taken for the structure.
You can always ask from the respondents if there is any. If no GhPost Digital Address available, then leave it blank and continue to the next question.



13

Select one of the options to indicate the level of completion of the structure.
Note: The ellipses are radio button and allow you to select only one response.



14

Tap on the radio button to select one of the options as a response to Indicate Type of Structure.
Note: The ellipses are radio button and allow you to select only one response.

15

2021 Population & Housing Census Ap...

L07. What is/are the use(s) of the structure ?

Residential	<input checked="" type="checkbox"/>
Pre Primary	<input type="checkbox"/>
Primary	<input checked="" type="checkbox"/>
JHS	<input type="checkbox"/>
Vocational/ Technical	<input checked="" type="checkbox"/>
SHS/Secondary	<input type="checkbox"/>
Tertiary/University	<input type="checkbox"/>
Seminary	<input type="checkbox"/>
Monastery	<input type="checkbox"/>
Convent	<input type="checkbox"/>
Children's Home/ SOS	<input type="checkbox"/>
Orphanage home	<input type="checkbox"/>

Tap on the check Box to select one or more of the options as a response to **the use of the structure.**
Note: The ellipses are Text Box and can select more that.

16

2021 Population & Housing Census Ap...

L07. What is/are the use(s) of the structure ?

Residential	<input checked="" type="checkbox"/>
Pre Primary	<input type="checkbox"/>
Primary	<input checked="" type="checkbox"/>
JHS	<input type="checkbox"/>
Vocational/ Technical	<input checked="" type="checkbox"/>
SHS/Secondary	<input type="checkbox"/>
Tertiary/University	<input type="checkbox"/>
Seminary	<input type="checkbox"/>
Monastery	<input type="checkbox"/>
Convent	<input type="checkbox"/>
Children's Home/ SOS	<input type="checkbox"/>
Orphanage home	<input type="checkbox"/>

Tap on the check Box to select **one or more** of the options as a response to **the use of the structure.**
Note: The ellipses are Text Boxes and you can select more than one

2021 Population & Housing Census Ap...

LS08. Is there a usable latrine(toilet) in this house/ structure

Yes, currently in use	<input checked="" type="radio"/>
Yes, but not in use currently	<input type="radio"/>
No	<input type="radio"/>

17

2021 Population & Housing Census Ap...

LS09. What type of toilet facility are available in this house/structure?

Septic tank (manhole)	<input type="checkbox"/>
KVIP/VIP	<input type="checkbox"/>
Pit latrine	<input type="checkbox"/>
Enviro Loo	<input checked="" type="checkbox"/>
Bio-digester (e.g. bio fill)	<input type="checkbox"/>
Bio gas	<input type="checkbox"/>
Bucket/Pan	<input type="checkbox"/>
Portable toilet (e.g. Water potti)	<input type="checkbox"/>
Sewer	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>

18

2021 Population & Housing Census Ap...

LS10. Is any household or Institution (Group quater) population living in this structure ?

LS02 MR ADU HOUSE

LS04 No

LS05 Fully Completed

LS06 Single-Storey (D...

LS07 Residential

LS08 Yes, currently in ...

LS09 KVIP/VIP

LS10 Yes, Household ...

LS11 No

Listing Detail

End

Yes, Household population

Yes, Institution population

Yes, Both (Household & Institution)

No

Select this response option if there is/are only Household population living in the structure

NOTE: Selecting this option means that in the next two questions (LH12) only two response options will be populated under Type of population

Select this response option if there is/are only Institution population living in the structure

NOTE: Selecting this option means that in the next two questions (LH12) all institutions will be populated as a response to the Type of population

Select this response option if there is/are both Household and Institution population living in the structure

NOTE: Selecting this option means that in the next two questions (LH12) all institutions and HH options will be populated as a response to the Type of population

2021 Population & Housing Census Ap...

LS11. Are there outdoors sleepers located here (in this structure)

LS02 MR ADU HOUSE

LS04 No

LS05 Fully Completed

LS06 Single-Storey (D...

LS07 Residential

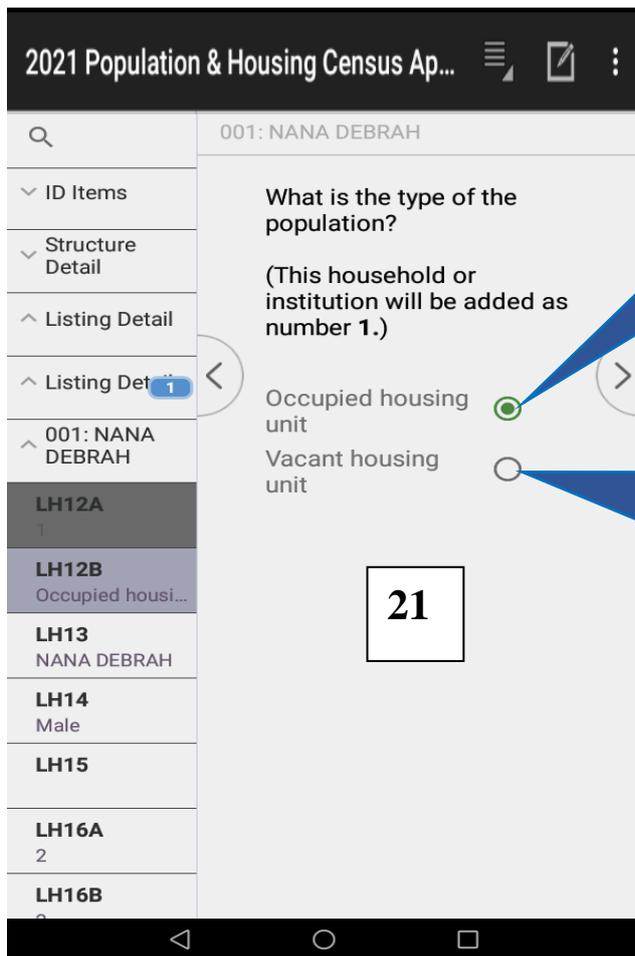
Yes

No

20

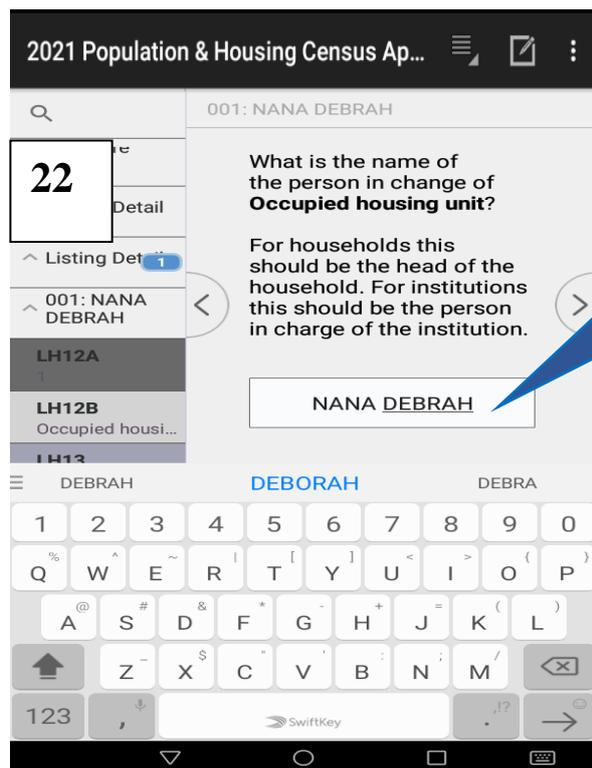
Select "Yes" to this question if there is/are people sleeping outside this structure

Select "No" if no one is sleeping outside this structure

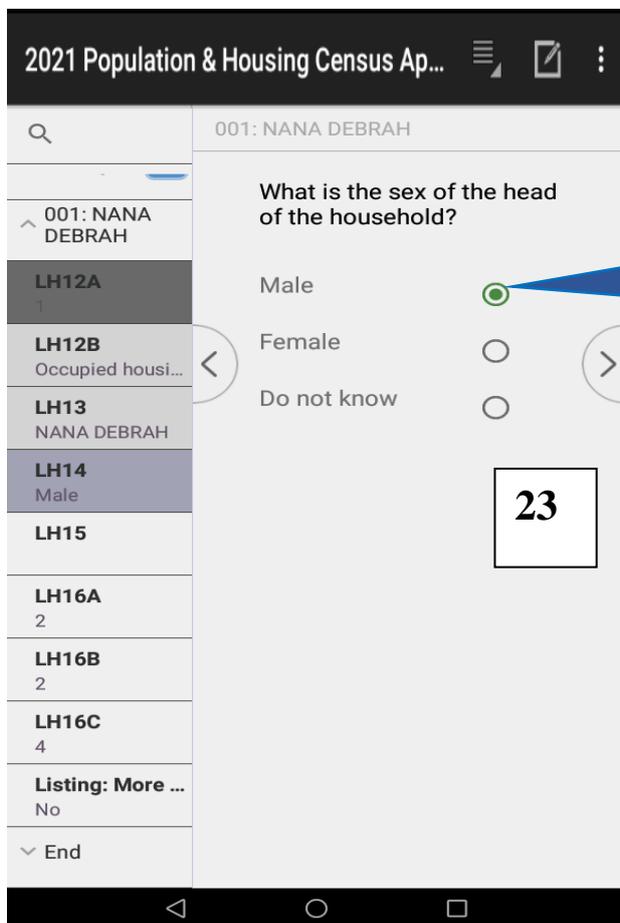


Tap on a response to indicate whether the housing unit is Occupied or Vacant
Note: If “Occupied Housing Unit” is selected proceed to end.

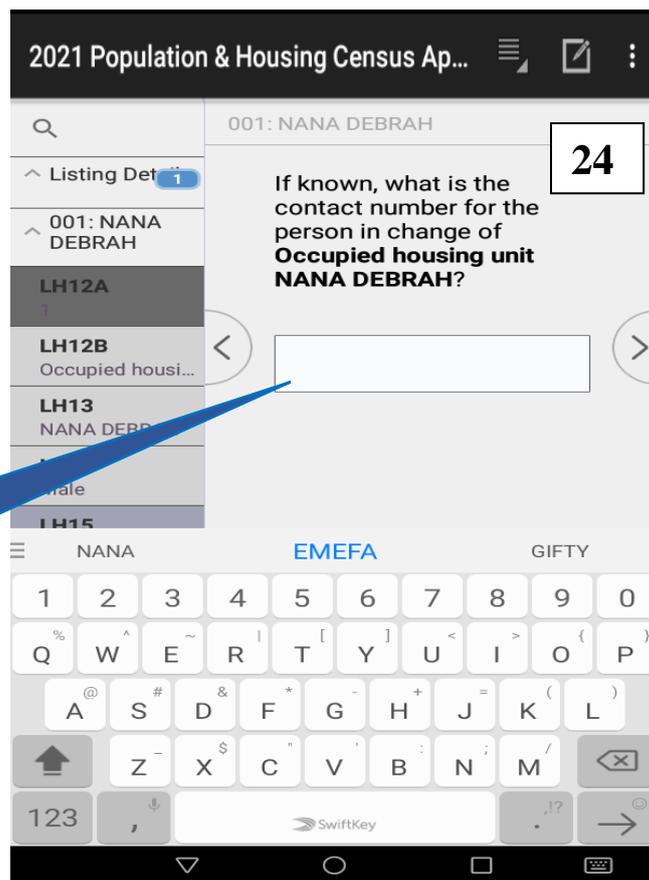
Tap on a response to indicate whether the housing unit is Occupied or Vacant
Note: If “Vacant Housing Unit” Is selected, then proceed to the next question then end is there are no more Household living in the structure.



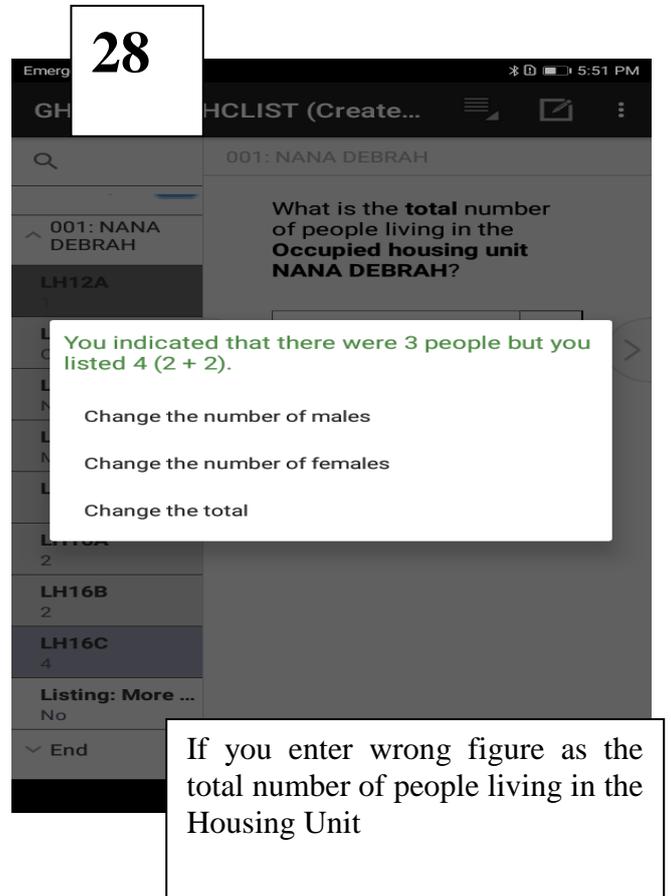
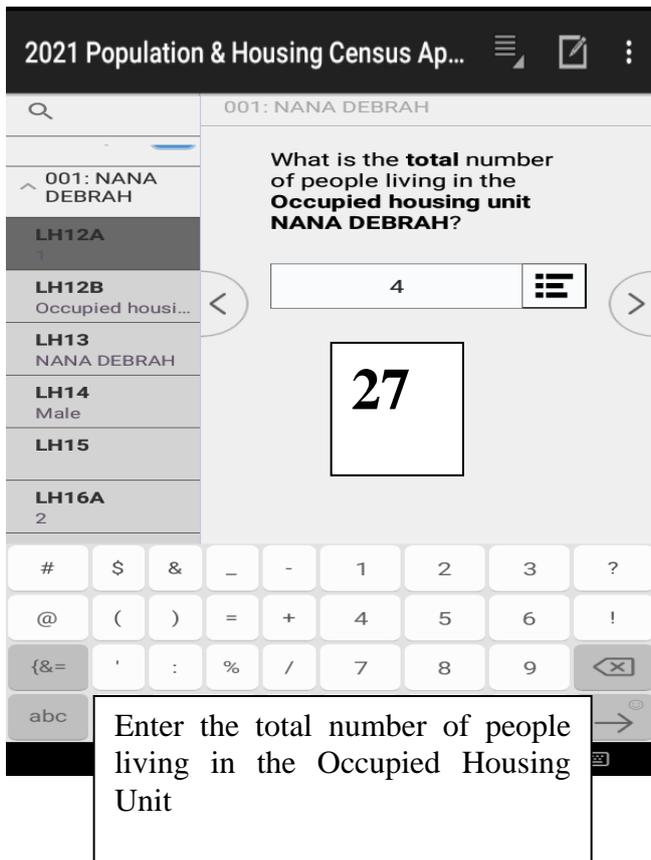
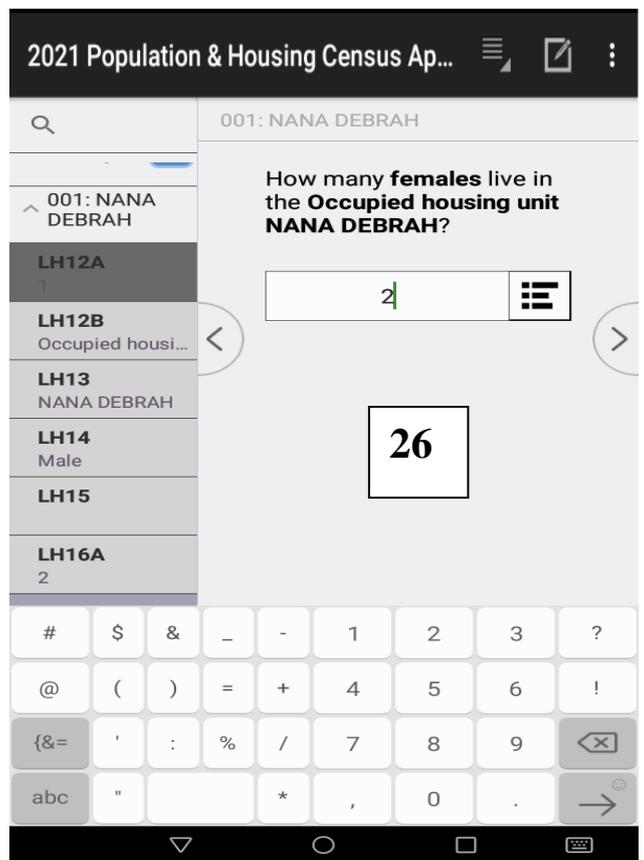
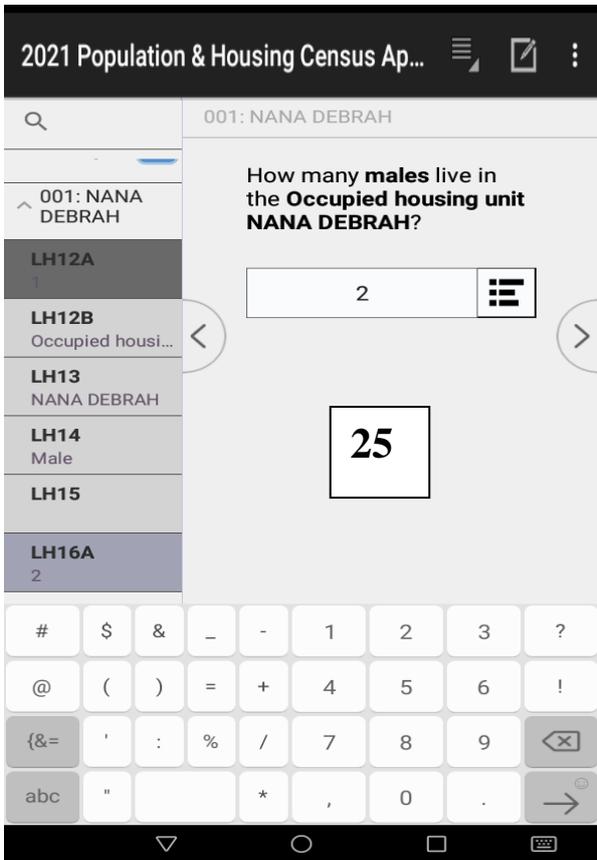
Enter the name of the person in-charge of:
 Occupied Housing Unit
 or
 Vacant Housing Unit (**ENDS HERE**)

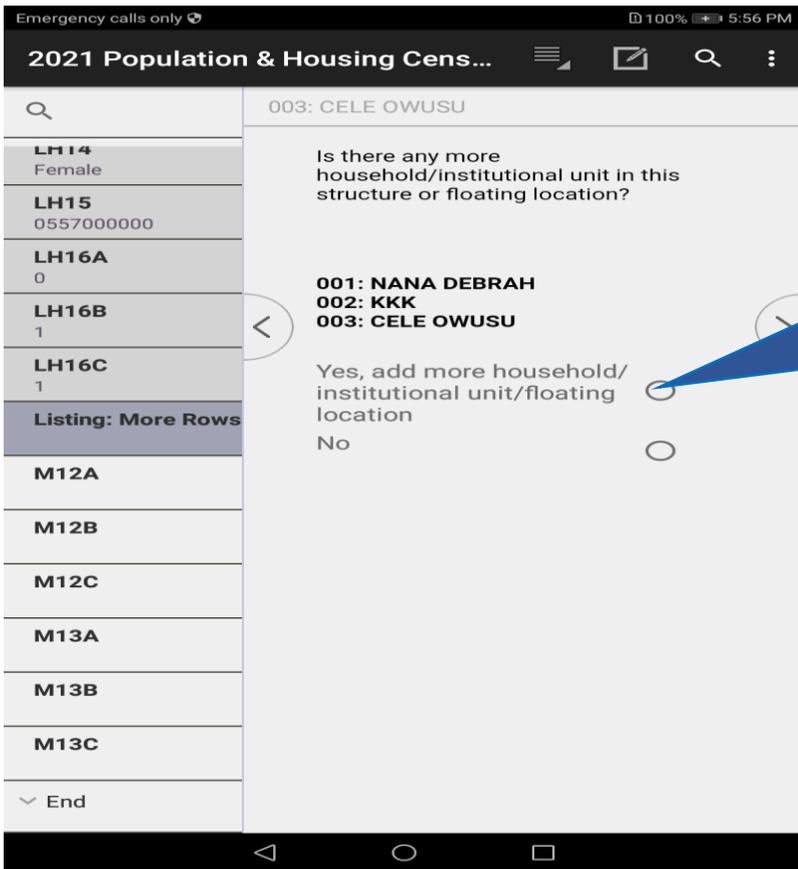


Select any of the response option depending on the Sex of the Head of the Household living in the Housing Unit

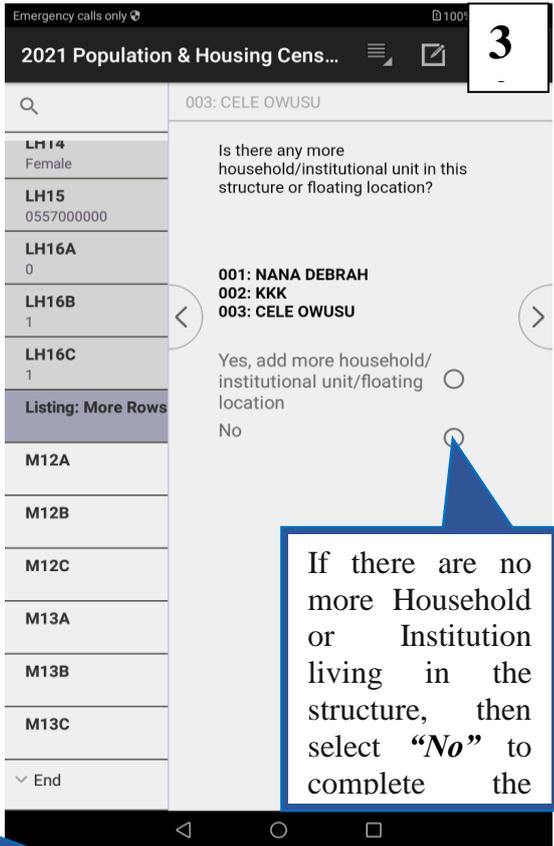


Enter the phone number of the person in charge of the Occupied Housing Unit
NOTE: This fields accept only Numeric characters and the length of the phone number should be 10 digits.

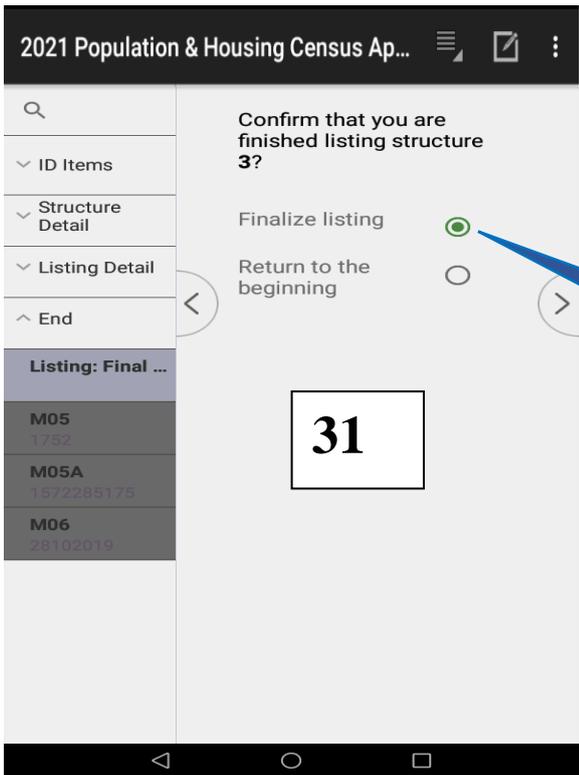




If there are more Household or Institution living in the structure, then you select ***“Yes, more household or Institution”*** to add more

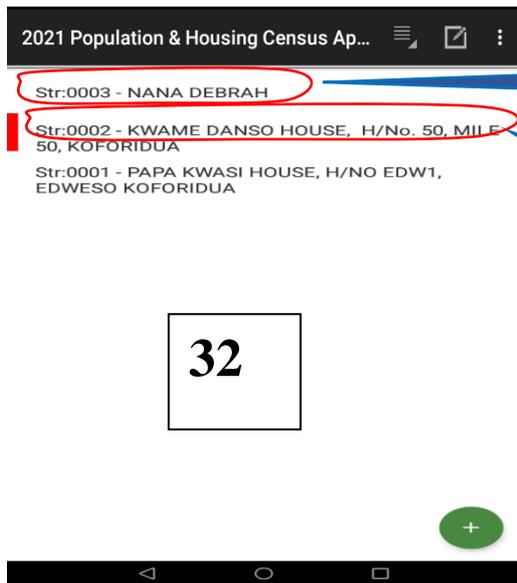


If there are no more Household or Institution living in the structure, then select ***“No”*** to complete the



31

You are to confirm the completion of work for the structure
NOTE: If you are really done, then select “Finalize listing”
But if there is something else to add or confirm, then select ***“Return to the beginning”***

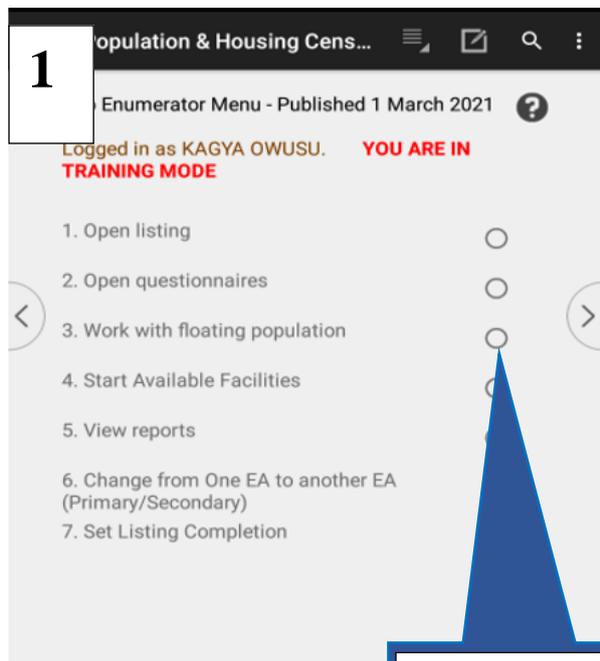


Displays a completed saved case

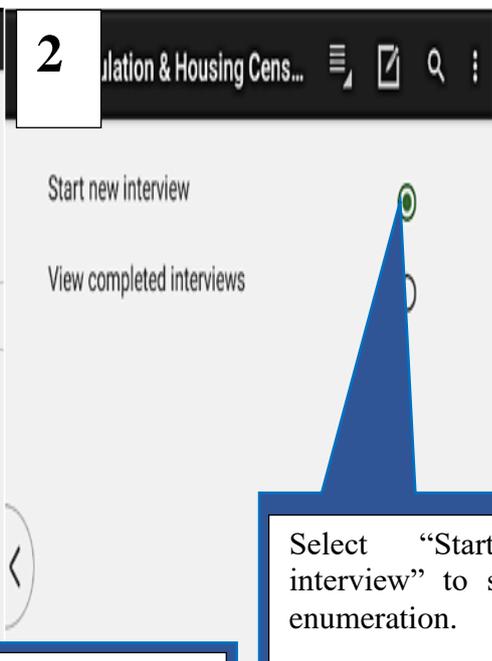
Displays a partial saved case yet to be completed

32

START ENUMERATION



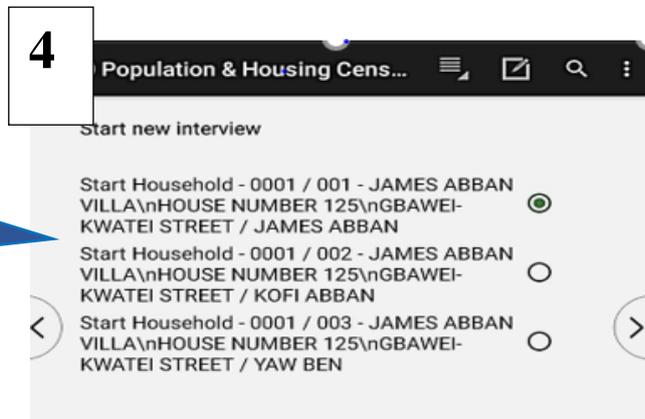
Select "Open questionnaires" to launch the enumeration app



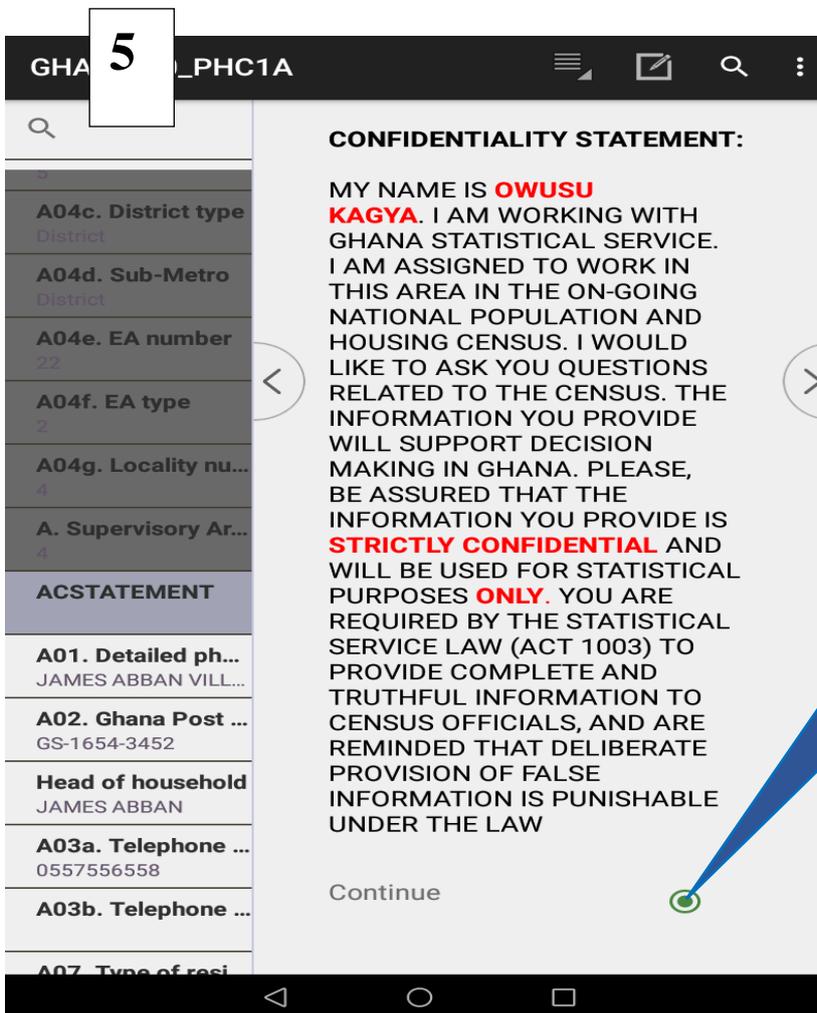
Select "Start new interview" to start the enumeration.



Select one from the list of structures to start enumeration of the households in the structure.



Select one household from the list of households in the structure selected in step 3.



Select "Continue" after carefully reading the above **CONFIDENTIAL STATEMENT** to the respondent

CAPI pre-fill A01: with physical address information collected during listing.

6

GH..._PHC1A

A01: Detailed Physical Address of House/Compound

JAMES ABBAN VILLA
HOUSE NUMBER 125
GBAWEI-KWATEI STREET

A04d. Sub-Metro District

A04e. EA number

A04f. EA type

A04g. Locality nu...

A. Supervisory Ar...

7

GH..._PHC1A

A02: Ghana Post Digital Address

GS-1654-3452

A04e. EA number

A04f. EA type

A04g. Locality nu...

A. Supervisory Ar...

CAPI prefill the A02: with the GPS coordinates taken during listing.

8

GH..._PHC1A

Enter the full name of Head of household

JAMES ABBAN

Enter the full name of Head of household

JAMES ABBAN

W Confirm that JAMES ABBAN is the head of household?

Reenter name

Confirmed

A04f. EA type

A04g. Locality nu...

A. Supervisory Ar...

ACST...

Contin...

A01. I...

JAMES

A02. I...

Head

JAMES ABBAN

CAPI prefill the full name of the head of household with info. collected during listing and prompt you to confirm.

9

GHANA PHC1A

A03a: HH Contact Phone Number 1

0557556558

A04g. Locality nu...

A. Supervisory Ar...

ACSTATEMENT
Continue

A01. Detailed ph...
JAMES ABBAN VILL...

CAPI prefill A03a with HH contact phone number collected during listing.

10

GHANA PHC1A

A03b: HH Contact Phone Number 2

A. Supervisory Ar...

ACSTATEMENT
Continue

A01. Detailed ph...
JAMES ABBAN VILL...

A02. Ghana Post ...
GS-1654-3452

A03b: Provide HH 2nd contact phone number, if any.

11

GHANA 2020 PHC1A

A07: Type of residence

Occupied housing unit

Homeless household

Secondary housing unit for same household

Vacant housing unit

ACSTATEMENT
Continue

A01. Detailed ph...
JAMES ABBAN VILL...

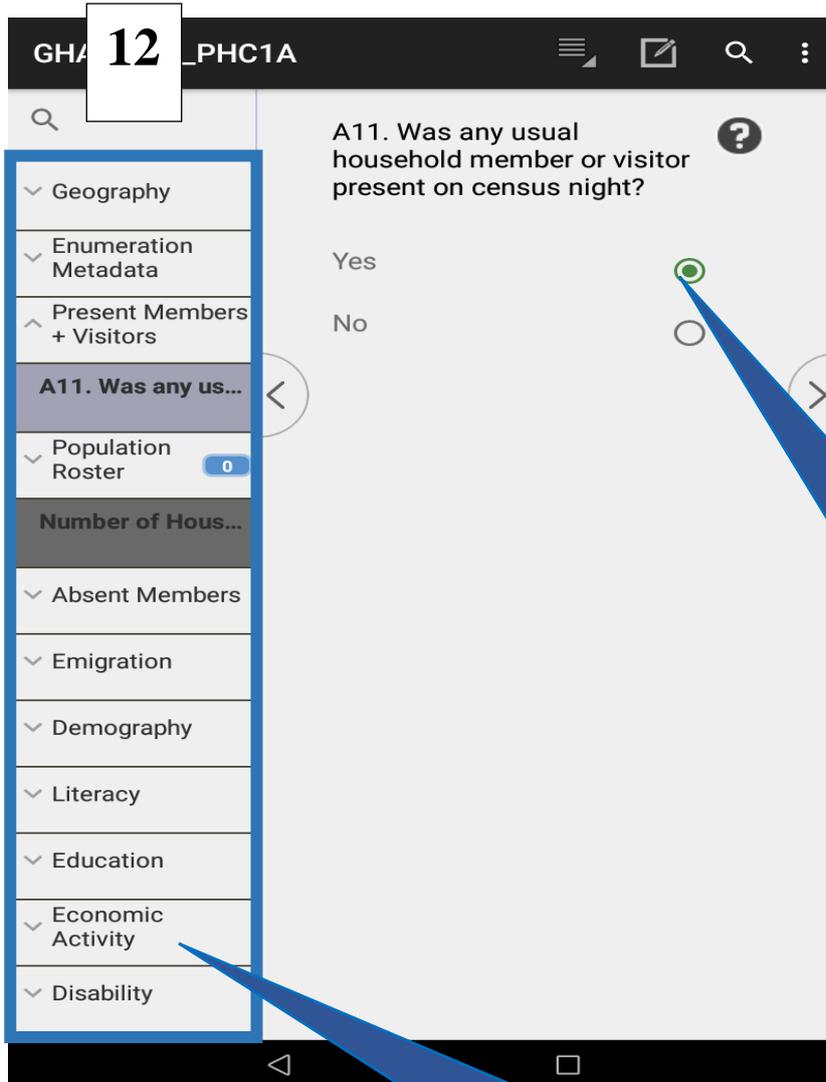
A02. Ghana Post ...
GS-1654-3452

Head of household
JAMES ABBAN

A03a. Telephone ...
0557556558

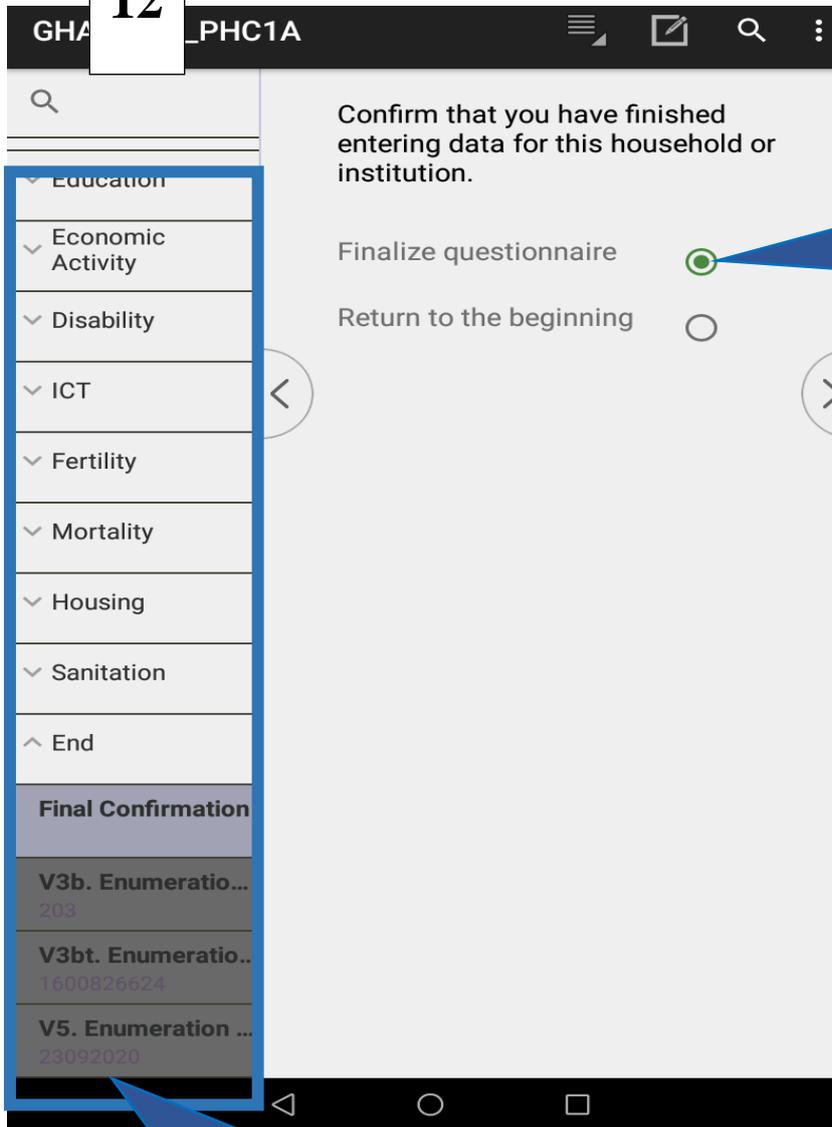
A03b. Telephone ...

CAPI pre-select A07: base on the option selected in LH12b during listing.



Select “Yes” to begin the HOUSEHOLD ROSTER (Usual household member or visitor present census night).
NOTE: If you select “No” to move to HOUSEHOLD ROSTER (Usual household members absent on census night)

The left pan shows all the modules in the PHC 1A questionnaire.
NOTE: if



Select “Finalize questionnaire” to end the administering of the PHC questionnaire.

The left pan shows all the modules in the PHC 1A questionnaire that the enumerator is to go through before finalizing to end enumeration for a single household.

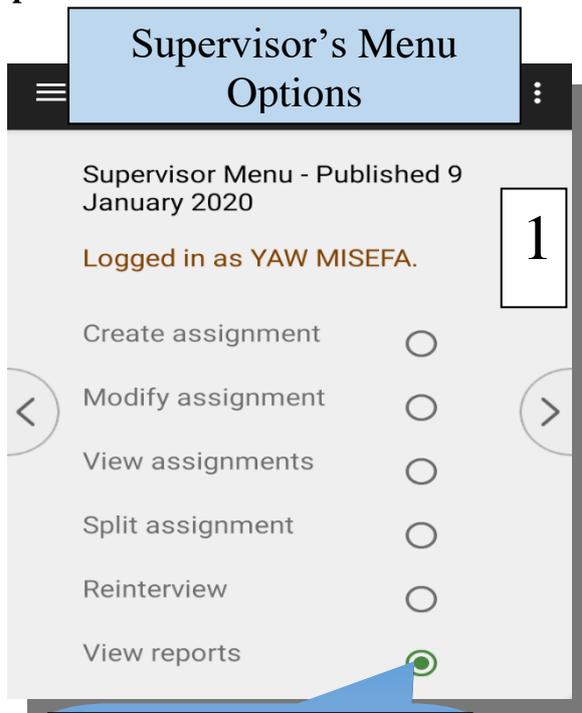
9.13 CAPI Application Reports Checks on both Supervisors/Enumerators

To run report checks, go to **view report**. This menu option allows both the Supervisor and the Enumerator to check for the status of work done by the entire team, check for duplicates and gaps in listing of structures and structure numbering.

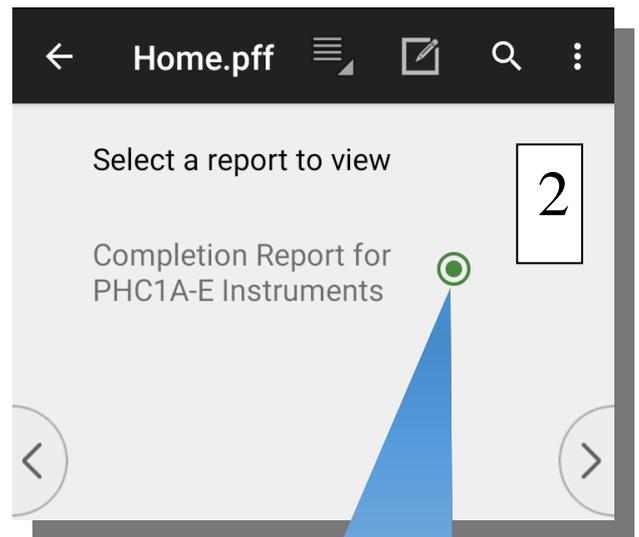
9.13.1 View report by the Supervisor

As part of the Supervisor’s functions you are required to run a report to check for completeness of work assigned to Enumerators.

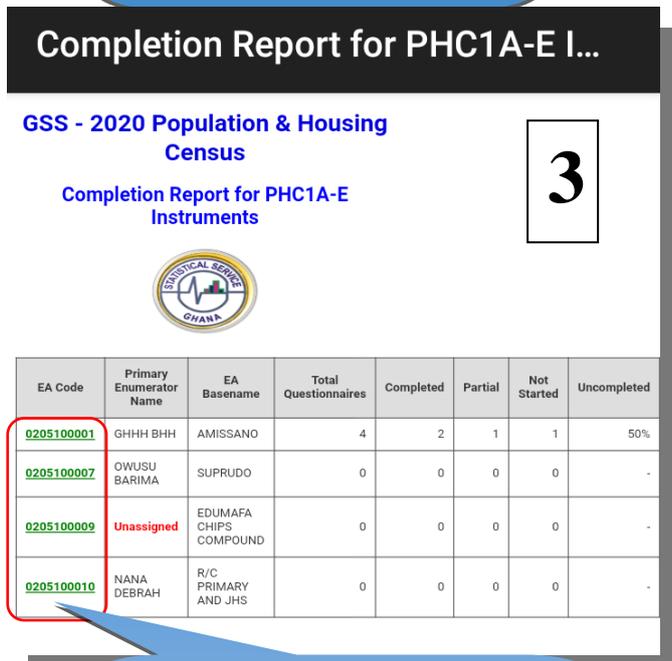
Steps



Tap/Select on View reports option and proceed to next

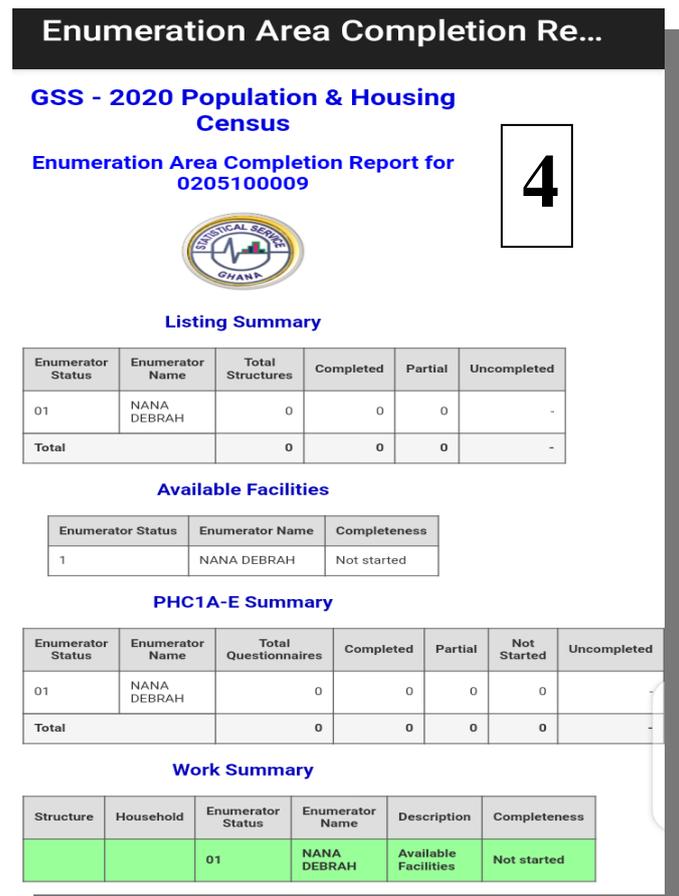


Tap/Select on Completion Report for PHC 1A-E Instruments and move to next



Entire list of Enumerators within the SA is displayed, Tap/Select on any of the team members ID to further view individuals report

Enumerator "0205100009" report on Supervisor's CAPI



With reference to step (4) the Supervisor will check for the following:

1. Listing Summary – Total number of structures listed, completed, partial saved and uncompleted cases.
2. Supervisor can also check for available facilities within the EA.
3. View summary for PHC1A to 1E with detailed reports on total questionnaires available for the Enumerator(s) to complete, completed cases, partial save, not started and uncompleted cases.

9.13.2 View report by the Enumerator

As an Enumerator you are required to run a report to check for completeness of work assigned, listing gaps, total questionnaires available for you the enumerator to complete, completed cases, partial saved cases, not started and uncompleted cases

Steps

The image shows two screenshots of the Enumerator's Menu app interface. The first screenshot, titled "Enumerator's Menu", shows a list of options: "Open listing", "Open questionnaires", "View EA map (interactive)", "View EA map (PDF)", and "View reports". A callout box labeled "1" points to the "View reports" option, with the text "Tap/Select on View reports option and move to next". The second screenshot shows a screen titled "Select a report to view" with three options: "Completion Report", "Listing: Duplicate Structures", and "Listing: Gaps in Structures". Three callout boxes provide instructions: the first points to "Completion Report" with the text "Select/Tap on 'Completion Report' to view the total number of cases completed"; the second points to "Listing: Duplicate Structures" with the text "Select/Tap on 'Listing Duplicate Structure' to check for duplicate in structures listed"; and the third points to "Listing: Gaps in Structures" with the text "Select/Tap on 'Listing Gaps in Structure' to check for gaps in structural numbering".

Enumeration Area Completion Re...

3

GSS - 2020 Population & Housing Census

Enumeration Area Completion Report for 0205100009



Listing Summary

Enumerator Status	Enumerator Name	Total Structures	Completed	Partial	Uncompleted
01	MAAME MANU FREMPONG	0	0	0	-
Total		0	0	0	-

Available Facilities

Enumerator Status	Enumerator Name	Completeness
1	MAAME MANU FREMPONG	Not started

PHC1A-E Summary

Enumerator Status	Enumerator Name	Total Questionnaires	Completed	Partial	Not Started	Uncompleted
01	MAAME MANU FREMPONG	0	0	0	0	-
Total		0	0	0	0	-

Work Summary

Structure	Household	Enumerator Status	Enumerator Name	Description	Completeness
		01	MAAME MANU FREMPONG	Available Facilities	Not started

Total number of structures listed, completed, partial saved and uncompleted cases

Displays available facilities listed within the EA

Displays summary of PHC1A-E with detailed report on total Questionnaires available for the enumerator to complete, completed cases, partial save, not started and uncompleted cases

Displays summary of all work done by the enumerator

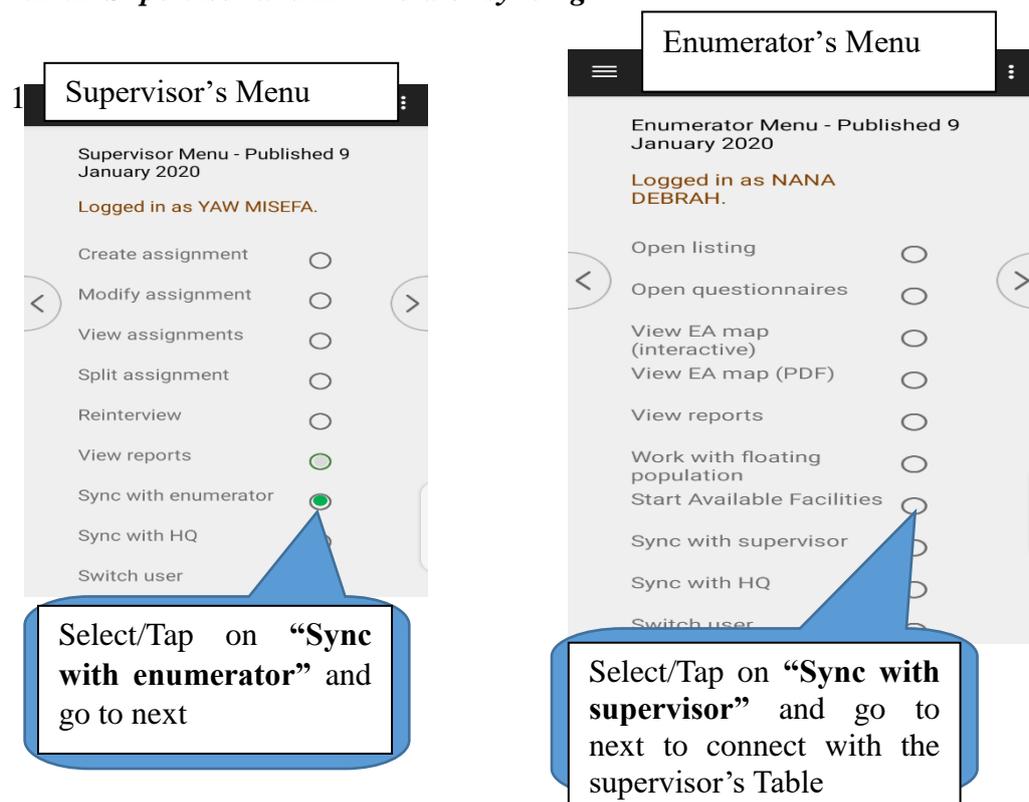
9.14 Data synchronisation by Supervisor and Enumerator

There are three different options of syncing data in 2021PHC CAPI Application

1. Supervisor and Enumerator syncing
2. Supervisor and HQ syncing
3. Enumerator and HQ syncing

Follow the steps below to go through the syncing processes

9.14.1 Supervisor and Enumerator syncing



9.14.2 Supervisor and HQ Syncing

In order for a Supervisor to successfully sync with HQ, follow the steps below:

[On the Supervisor's Menu]

- i. Select "Sync with HQ" >> go to next
- ii. The Supervisor's tablet will connect to the sever automatically and sync with the server

NOTE: Internet is required to be able sync with HQ

9.14.3 Enumerator and HQ syncing

In order for an enumerator to successfully sync with HQ, follow the steps below:

[On the Enumerator's Menu]

- i. Select "Sync with HQ" >> go to next
- ii. The Enumerator's tablet will connect to the sever automatically and sync with the server

NOTE: Internet is required to be able sync with HQ

9.15 Possible error/challenges and how to avert them

<i>Possible problems that will occur both hardware and software.</i>	<i>Possible Causes</i>	<i>Averting/Solutions</i>
1. Data transmission difficulty (internet & Bluetooth connectivity)	<ul style="list-style-type: none"> Poor or no internet availability Bluetooth malfunctioning Bluetooth not active Improper configuration of Bluetooth settings 	<ul style="list-style-type: none"> Call IT Officer Backup and locate strong internet connectivity and sync to HQ Clear Bluetooth cache Turn on or restart Bluetooth Call IT Officer to reconfigure the Bluetooth settings
2. Tablet screen crack	<ul style="list-style-type: none"> Accident Exerting pressure on tablet 	<ul style="list-style-type: none"> Caution Contact IT Officer for replacement Replacement of tablet
3. Touch Screen defective	<ul style="list-style-type: none"> Factory Defects Improper handling of tablet 	<ul style="list-style-type: none"> Contact IT Officer for replacement
4. Tablet unable to take GPS	<ul style="list-style-type: none"> Factory Defects GPS not calibrated Location service may be off GPS settings may not be correctly set 	<ul style="list-style-type: none"> Turn on location service Contact IT Officer
5. CAPI Application not running	<ul style="list-style-type: none"> Deletion by supervisor/enumerator Tablet automatically reset 	<ul style="list-style-type: none"> Enumerators should be cautioned not to access unauthorized resources/folders Contact IT Officer
6. Faulty charging system	<ul style="list-style-type: none"> Improper connection of android cable into the charging port Using wrong/defective android cable Power surges 	<ul style="list-style-type: none"> Properly align the cable pin into the charging port Always ensure the right android cable is used for charging Contact IT Officer
7. Charger heads, USB cable malfunctioning	<ul style="list-style-type: none"> Improper handling of charger android cable Power surges Factory defect 	<ul style="list-style-type: none"> Users should be schooled on tablet use and care Replace charger heads and cables Procure original chargers Contact IT Officer
8. Blank/ Blur tablets screen	<ul style="list-style-type: none"> Improper handling of tablet Power surge Screen defective from factory 	<ul style="list-style-type: none"> Users should be schooled on tablet use and care Contact IT Officer
9. Tablet restart intermittently	<ul style="list-style-type: none"> Battery power not stable Error in operating system 	<ul style="list-style-type: none"> Replace battery Contact IT Officer
10. Bad battery cell	<ul style="list-style-type: none"> Power surge Improper first charge Overcharging of battery 	<ul style="list-style-type: none"> Surge protector should be used at areas where the is rampant fluctuation

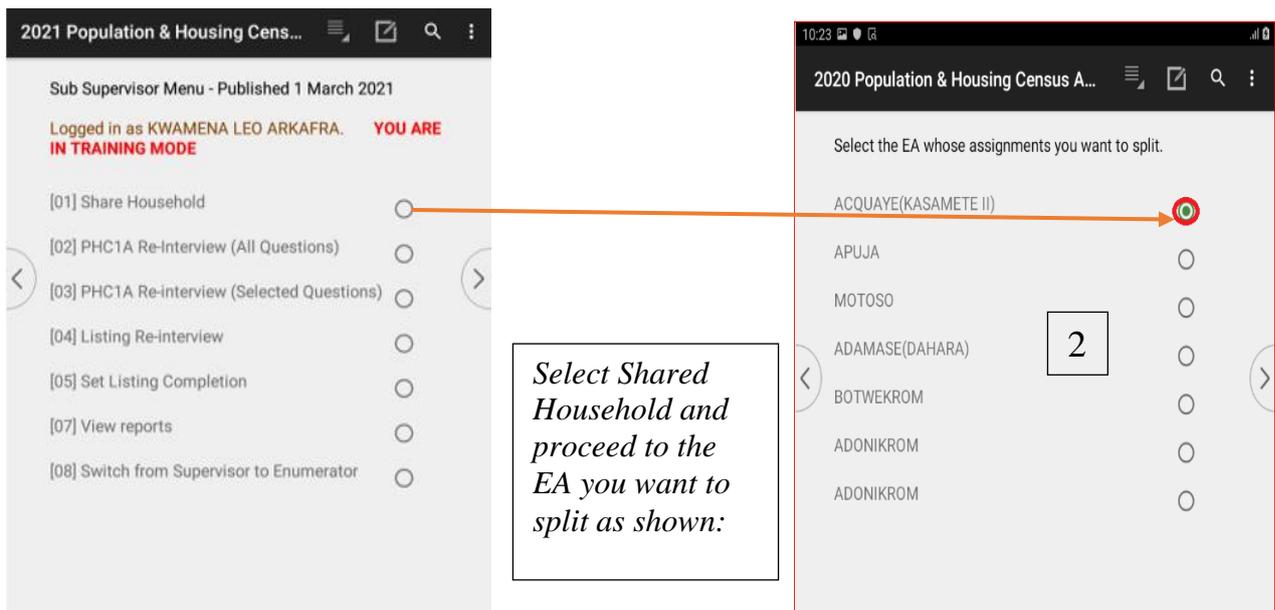
	<ul style="list-style-type: none"> Power deplete to zero without charging 	<ul style="list-style-type: none"> Always ensure battery power level not less than 20% Do not charge tablet overnight or more than its prescribed hours of charging Contact IT Officer
11. Android OS loads slowly	<ul style="list-style-type: none"> The tablet memory not able to hold the program and the processor speed may also be low Error in the Operating System 	<ul style="list-style-type: none"> Contact IT Officer
12. Application running very slow	multiple applications running on the background	<ul style="list-style-type: none"> Close all unused apps sessions Contact IT Officer
13. Loss of Tablets	Due to theft either on the field or at home	<ul style="list-style-type: none"> Ensure real time synching Replace tablet Restore data file from backup

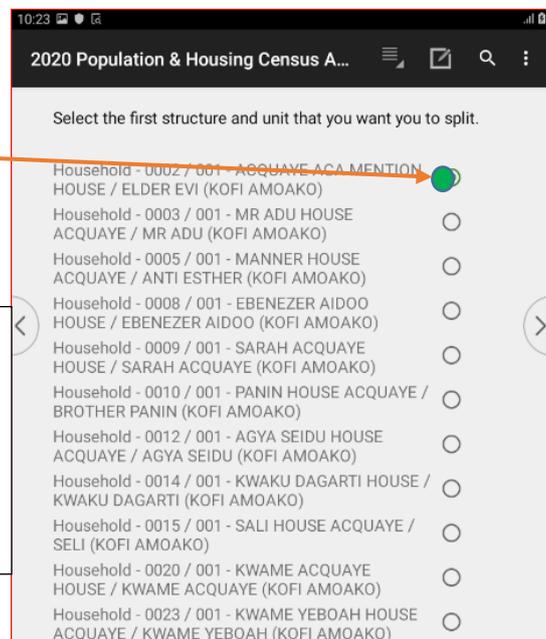
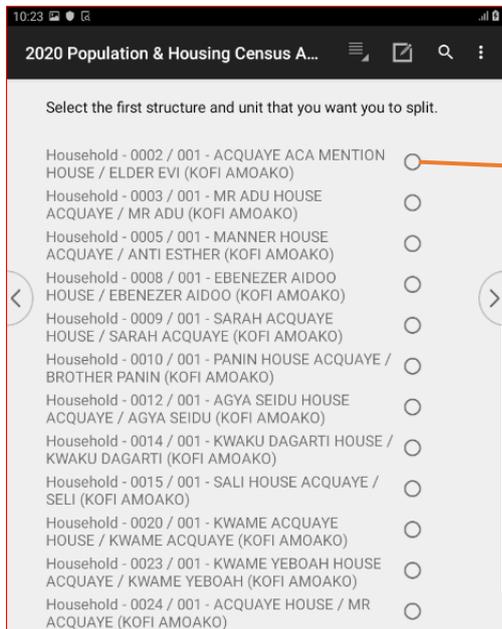
9.16 Performing specific tasks under the menu functions

This section provides general step by step guidelines to help field officers perform a specific task under the menu functions of both the Supervisor and Enumerator.

9.16.1 Shared Household by Supervisor

Step One: On the Supervisor’s menu, tap on ‘Split assignment/Shared household’ as shown below:





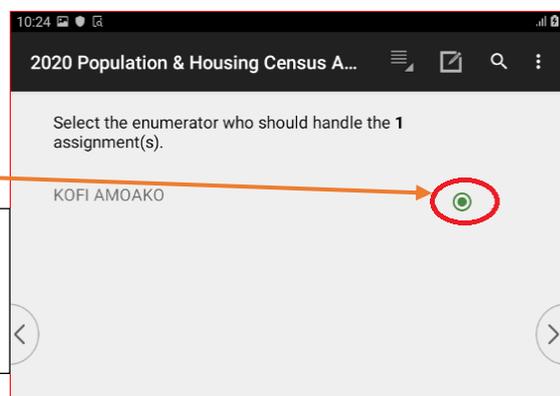
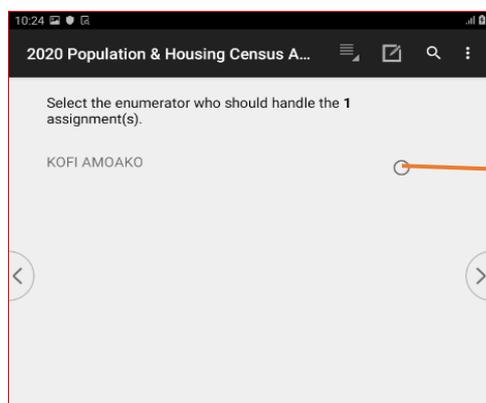
3

Select the structure and unit you want to share

Step Two: Select the first structure and unit that you want to share.

Step Three: If you only want to share one unit, continue with the current selection as shown above

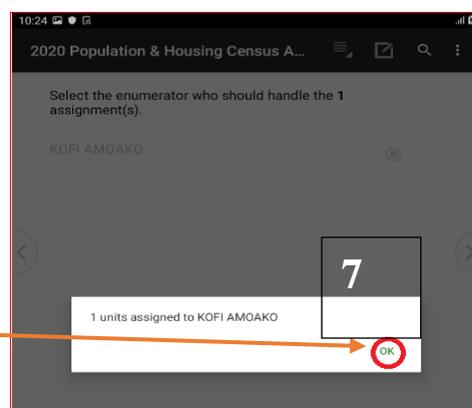
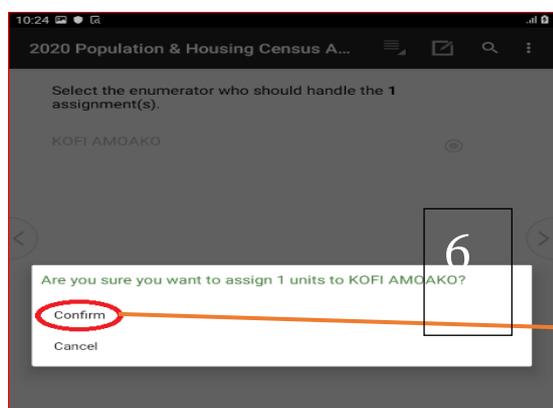
Step Four: Select the Enumerator who should handle the first (1) assignment



6

Select the Enumerator to handle the assignments

Step Five: Tap on confirm to accept assigning one (1) units to an Enumerator



6

After confirming tap on **OK** for one unit to be assigned to the Enumerator

NOTE: After successful splitting of an assignment on Supervisor's tablet,

- Supervisor should sync with the primary Enumerator to effect the changes
- Supervisor should sync with the support Enumerator to receive the assignment (New cases).

- Support Enumerator is to confirm the receipt of the new cases through “Open Questionnaire”

Note: Repeat process until sharing of structures/households is done.

9.16.2 How to edit entry/ modify a case

This section allows users to modify cases that have already been listed or enumerated. Follow the steps below to modify a case.

The image shows two screenshots from the CSEntry application. The top screenshot shows the 'Entry Applications' screen with the title '2020 Population & Housing Census Application (v1.0)'. A callout box labeled '1' points to the top bar, with the text: 'Tap/Select the entry application to display the user menu'. The bottom screenshot shows the 'Enumerator's Menu' with options: 'Open listing', 'Open questionnaires', 'View EA map (interactive)', and 'View EA map (PDF)'. A callout box labeled '2' points to the 'Open listing' option, with the text: 'Select “Open listing” and proceed to display the listed cases'. Another callout box points to the 'Open questionnaires' option, with the text: 'Select “Open questionnaires” and proceed to display the enumerated cases'.

The above step shows how to modify cases both in Listing Form and Main Questionnaire

The image shows a screenshot of the 'GHA_2020_PHCLIST - 2 Cases' screen. Two cases are listed: 'Str:0002 - PRISCILLA YARLEY' and 'Str:0001 - NANA BOAKYE HOUSE 2, OPPOSITE MAIN MARKET'. A callout box labeled '3' points to the first case, with the text: 'Select a case to edit The case marked with red a partial save'. Another callout box points to the second case, with the text: 'Select a case to edit The case with no red mark is completed'.

9.17 Terminology

Entry Application Screen – Upon opening CSentry, all the data entry applications on the devices are displayed

Cases Listing Screen – The case listing displays all cases that have already been added to the data file.

Case Tree – The case tree displays all fields that have been entered in the data entry application.

Partial Save – Saving an interview midway to avoid data loss in case of impromptu shutdown of the tablet

Completed Cases – Saved completed interviews (data)

Advance to End - Skipping to the end of interview

Cases – Saved interviews (data),

EA Assignment – The act of tasking an Enumeration Area (EA) to an enumerator for field work.

Modify Cases – Making changes to already completed cases

CHAPTER 10

COMPLETING THE LISTING FORM

10.1 Introduction

The Listing Form is the document in which you will keep a record of your listing operation and enumeration. This record must include a unique **4-digit serial number** (refer to Section 8.2) of structures in the Enumeration Area (EA), the address of each structure in your EA, the type and use of the structure/house, the number of households in the house as well as the conditions of the structure in which the households reside. The total number of persons enumerated in the house and the availability of identified facilities in the EA, including post and telecommunication, health, educational, sanitation, community library, ICT centre etc. are also to be recorded. Instructions for filling the Listing Form are explained in the next section.

10.2 How to complete the Listing Form

Region Name: There are 16 regions in Ghana. The region name will be pre-loaded and available on the tablet once the Field Officer logs in.

District Name: There are several districts in each region and you are to select the name of the district in which you are doing the enumeration. The district name will be pre-loaded and available on the tablet once the Field Officer logs in.

Name of Locality (Town/Village): Locality refers to town or village in which you are collecting the data. A locality is defined as a distinct population cluster (also designated as inhabited place, populated centre, settlement) which has a **NAME or LOCALLY RECOGNISED STATUS**. It includes fishing hamlets, mining camps, ranches, farms, villages, towns, cities, and many other types of population clusters, which meet the above criteria.

In writing names of localities, you must not suffix No. 1, No. 2, **except** where the inhabitants themselves call it that way, e.g. Pakyi No.1, Pakyi No.2. In short never put down any name, which is not known in the area. The locality name will be pre-loaded for the Enumerator to select. In the case where the locality is not among the list, add a new locality by selecting the option to “add new locality” and typing the name of the locality. Please make sure the locality is not already in the list of localities before adding as a new locality.

Enumeration Area (EA) Code: EAs are assigned numbers in conformity with the geographic coding of the country that uniquely identifies each EA. It is a thirteen-digit code system which contains geographic identification codes of each administrative area with associated numbers. The information will be pre-loaded and available on the tablet once the Field Officer logs in.

Region Code: The list of the regions with their codes is provided below:

Table 10.1: The regions in Ghana and their respective codes

S/N	Region	Code	S/N	Region	Code
1.	Western	01	9.	Bono	09
2.	Central	02	10.	Bono East	10
3.	Greater Accra	03	11.	Oti	11
4.	Volta	04	12.	Northern	12
5.	Eastern	05	13.	Savannah	13
6.	Ashanti	06	14.	North East	14
7.	Western North	07	15.	Upper East	15
8.	Ahafo	08	16.	Upper West	16

District Code: The list of Districts together with codes can be found in Appendix 2 of this manual. When using the tablet, select from the pulldown menu.

Table 10.2: Positions of various digits during coding

Geographical Area	Digit Location	Code	Range	Remarks
Region	1 st & 2 nd	2-Digits	01-16	From Western 01 to Upper West 16
District	3 rd and 4 th	2-Digits	01-43	Ashanti has the Highest number of districts: 43
District Type	5 th	1-Digit	1-3	District=1 Municipal=2, Metropolitan=3.
Sub-Metro	6 th & 7 th	2-Digit	1 and 2	
EA Number	8 th , 9 th & 10 th	3-Digits	001-999	To be numbered sequentially within district/municipal/sub-metro
Locality code	11 th , 12 th & 13 th	3-digits	001-999	numbered sequentially within type 3 EAs

Other information to be included in the identification are:

SA NUMBER: A supervisory area constitutes more than one enumeration area which is assigned to a number of enumerators with one supervisor. Supervisory areas are assigned with a two-digit number. The information will be pre-loaded and available on the tablet once the Field Officer logs in.

EA TYPE: There are three types of Enumeration Areas (EA) and each type is assigned a one-digit number. The information will be pre-loaded and available on the tablet once the Field Officer logs in.

10.3 Interview Dates and Time

Start/End date: Refers to the dates the listing of structures or enumeration of households in a particular EA actually start or end. The CAPI automatically records these dates from the tablet's date. They are not made available for the enumerator to edit.

Start/End time: Refers to the time the listing of structures or enumeration of households in a particular EA actually start or end. The CAPI automatically records these times from the tablet's time. They are not made available for the enumerator to edit. (Refer to Section 9.3.5 on setting the correct date and time).

10.4 Questions on Listing Form

LS01. Serial number of structures: This is a unique four-digit serial number assigned to the structure during the listing exercise in the EA. This number uniquely identifies each structure in the EA. Record this number (written on the structure) in the space/column **LS01** provided.

LS02. Address of Structure/ Compound or Location of Structure (e.g. Name of owner, H/No., Street Name, etc.): This refers to a description that will help locate the structure in the EA. The description should include information such as official house numbers or any other number assigned by ECG, NHIS, VRA, etc. If the streets are named and the houses numbered, you must write the House Number and the name of the street e.g. C49/2 Castle Road, Adabraka. Otherwise write a precise description of the location of the house or compound/group quarters. In addition, describe the location of the structure, using identifiable

landmarks e.g. near, behind, opposite, besides, adjacent to or in front of L/A Primary School. In some cases, popular names to locate the structures can be used.

Give a precise description of the location of the structure. Description must include at least three (3) of the following indicators

- **Name of house, owner, popular person or institution-(required field)**
- **Popular landmark** (e.g. churches, mosque, schools, health facilities, market and communication mast, police station, bus stops, water bodies, forest reserves, Chief palace, name of a house) – (required field)
- **House numbers and any nationally recognized identification number on the wall** e.g. ECG, Ghana water, NADMO or any other identifiable project/programme specific number
- **Street names**
- **Suburb/Estate names**
- **Closest popular locality name**

Examples:

- Mrs. Osabutey Bukari’s house, 200 metres from the Trotro Last Stop, House Number 21, Ashie Loop (street), Trotro Last Stop
- Commonwealth Hall, 50 metres from Great Hall, G Block, E.A. Boateng Road,
- Adoma’s House, Opposite Agya Ato Corn Mill, House Number AB 38, Wesleyan mission street
- Abeiku Mensah Akura, on the Boundary of Krokosua Forest Reserve, 1 km from Opanyin Boadi Krom

LS03. GPS Coordinates of Structure: The Global Positioning System (GPS) coordinates will be taken for each structure using the tablet. The readings of the coordinates are made up of longitudes and latitudes, observed in decimal degrees and in meters.

Note: When taking the GPS, the reading must be within 5 metres or less. If the GPS reading is over 5 metres, then the Enumerator must re-take the reading again until it is within the acceptable range.

LS04. Ghana Post Digital Address of Structure: Record the Ghana Post Digital Address for the structure if embossed on the structure, otherwise obtain from the residents. Leave LS04 blank if the address is not available. The address consists of 11 to 13 alphanumeric characters, including the hyphen (-). Example of a Ghana Post Digital Address is GA-398-9594 or XW-0214-2312.

LS05. LEVEL OF COMPLETION:

This question requires the enumerator to provide description of the level of completion of the structure. This question has nine response categories each of which has been described with guidelines on how to identify them.

1. **Fully completed:** Choose this option if the structure is enclosed and has a covering on the uppermost part of the building or shelter which is fully or completely covered to provide protection from animals and bad weather, notably rain, heat, wind and sunlight and has doors and windows.
2. **Completely roofed but uncompleted:** Code 2 is selected if the covering on the uppermost part of a building or shelter is fully or completely covered to provide protection from animals and bad weather, notably rain, heat, wind and sunlight but doors and windows are not fixed. This will include storey buildings with some floors completed (i.e. have all the windows and doors fixed) but the other floor(s) yet to be

completed. Example: one storey building with the ground floor completed (i.e. all windows and doors fixed) but the first floor is at window level.

3. **Partly roofed:** Choose this option if the structure has a covering on the uppermost part of a building or shelter which is **NOT** fully or completely covered to provide protection from animals and bad weather, notably rain, heat, wind and sunlight.
4. **Roofing level [With improvised roof]:** Choose this code when a building has been constructed up to the stage when the roof is yet to be put on but there is an improvised material used as a roof to provide shelter for occupants. In simple terms, it is when the structure is at the roofing level and temporal roofing is provided.
5. **Lintel level [with improvised roof]:** Select this code when the structure is at a level where a beam is placed across the openings to support the load from the structure above; and there is an improvised material used as a roof. In simple terms, it is when the structure is at the window level and temporal roofing is provided.
6. **Roofing level [without roof]:** Choose this code when a building has been constructed up to the stage when the roof is yet to be put on
7. **Lintel level [without roof]:** Select this code when the structure is at a level where a beam is placed across the openings to support the load from the structure above. In simple terms, it is when the structure is at the window level; and yet to be used for habitation. Go to the next structure when this option is selected. **Note** that if the boards have been mounted but have no concrete then it should be considered as window level.
8. **Window level:** It is the level between the base portion of the window and portion of the floor above ground level (upwards). Structures being constructed and are below window or footing levels are to be excluded.
9. **Concrete/metal pillars level:** These are structures which have concrete, metal or wood pillars erected with the uppermost part roofed. These should have standard roof and exclude structures where pillars have been erected only for the foundation of the structure.

1. Fully completed



2. Completely roofed but uncompleted



3. Partially roofed



4. Roofing level (with improvised roof)



5. Lintel level (with improvised roof)



6. Roofing level (without roof)



7. Lintel level (without roof)



8. Window level



9. Concrete/metal pillars level



IF ANY OF OPTIONS 6-9 IS SELECTED, SKIP TO LS11

Note: With regard to storey buildings, consider it to be “Fully Completed” if one floor has been cast with concrete (floored) with doors and windows all fully installed.

LS06. Type of Structure: Thirteen different response categories have been provided. Indicate the type of structure.

See descriptions of responses with their respective pictures below for a better appreciation of the structure types.

01. Single building (Detached) house:

A detached house is any housing unit that stands alone and is not attached in any way to another house. It has only one floor level. During listing, each detached house should be assigned a separate 4-digit serial number.



02. One-storey (detached): It is a building with one floor level on top of a ground floor house/building. It stands alone and not attached to any other building.



03. Two-storey (Detached): It is a building with two floor levels on top of the ground floor house/building. It stands alone and not attached to any other building



04. Multiple-storey (Detached): It is a multi-storey with 3 or more floor levels on top of the ground floor house/building. It stands alone and not attached to any other building



05. Semi-detached: It refers to a single building that is attached to another single building and the adjoining building usually have a common dividing wall which extends from ground to the roof. It has only one floor level. It may or may not have a fence wall.



06. One-storey (Semi-Detached): It is a building with one floor level on top of a ground floor house/building. It has a common dividing wall which extends from ground to the roof. It may or may not have a fence wall.



07. Two-storey (Semi- Detached): It is a building with two floor levels on top of the ground floor house/building. It has a common dividing wall which extends from ground to the roof.



08. Multiple-storey (Semi- Detached): It is a multi-storey with 3 or more floor levels on top of the ground floor house/building. It has a common dividing wall which extends from ground to the roof.



09. Terrace: Refers to house which is part of a row of similar houses that are joined together by their side walls.



10. Metal Container: It is an independent makeshift structure built of metal sheets. This is also an enclosure which could be used as a dwelling unit or for other purposes and made of a metallic material.



11. Wooden structure: It is a makeshift structure which is built of wood. Mostly it has an unmovable foundation/ base and it is permanent.



12. Kiosk/Poly-Kiosk: A kiosk is a small enclosed structure usually made of wood, polyplastic, etc. and is movable. It could be used for various purposes ranging from dwelling to store keeping, etc.



LS07. Use of Structure: This question seeks to identify the current use(s) of the listed structures. Eighty-one (81) different response categories have been provided in Appendix 1 of this manual to help code the use of the structure appropriately. Take your time to locate the right appropriate response and do not be too quick to go for 'Other' response.

LS07a: Indicate the use(s) of this structure in health facility. Thirty-three (33) health facility structure use response categories have been identified and pre-loaded onto the tablet. These response categories have also been provided on page 6 of the Listing Form for the Enumerator to choose from.

LS07b: Indicate the use(s) of this structure in educational facility. Twenty-eight (28) educational facility structure use response categories have been identified and pre-loaded onto the tablet. These response categories have also been provided on page 6 of the Listing Form for the Enumerator to choose from.

Note: These questions (LS07, LS07a and LS07b) allow for selection of multiple responses in the case of structures that are being used for more than one purpose e.g. a primary classroom block that is also used as a place of worship should have the options primary (03) and church (29) selected in LS07.

Note the following:

- i. In the case where, a structure is currently not being used, the purpose(s) for which the structure was constructed/being constructed must be selected e.g. select residence (01) for an apartment building that is yet to be rented). In such cases, enumerators will need to enquire from neighbours or community leaders to find out the purpose(s) of the structure.
- ii. In the case where, the structure has a toilet facility and also serve other purposes, select just the other use(s) in LS07. This will then take you to LS08a to ask the question of whether or not the structure has a toilet facility. Do **not** select both toilet and the other use(s) in LS07. This explanation also apply to both LS07a and LS07b.

LS08a. Does this structure have a toilet facility? This question is asked if the identified structure in LS07/LS07a/LS07b itself is not a separate toilet facility. The question finds out whether there is a toilet (latrine) within the structure. Note that this question finds out about the availability of a toilet facility in the structure and **not** where people within the structure defaecate.

- 1) A **'Yes, currently functional'** response should be selected if there is a functional toilet facility (latrine) in the structure. That is, there is a toilet facility located in the structure and can be used when the need arises.
- 2) A **'Yes, but currently not functional'** response should be selected if the structure has a toilet facility but is dysfunctional (i.e. in a state that is not functioning) and

- 3) A **‘No’** response should be selected if there is no toilet facility found within the structure.

If either option ‘2’ or option ‘3’ is provided, skip to LS10.

LS08b. Is this toilet functional? This question is purposely asked for structures identified in LS07/LS07a/LS07b as toilet facility(ies) **only**. That is, the structure itself is a separate toilet facility (e.g. either code ‘39’, ‘69’ or ‘73’ is selected in LS07).

Code ‘1’ (Yes) should be selected if the toilet facility is operational. That is, people can use it when they want to, otherwise select code ‘2’ (No) and skip to LS10.

LS09. What type of toilet facility(ies) is/are available in this house/structure? (YOU MAY CHOOSE MORE THAN ONE FACILITY). A toilet (latrine) is an installation for the disposal of human excreta. The focus of this question is on the containment, where the excreta is stored and not the user interface (where the user interacts). For instance, if a respondent tells you the house/structure has water closet, you must probe to find out where the excreta is flushed to so that appropriate code could be assigned. **Note:** Observe the type of toilet facility available in the household.

- A. **Septic tank (manhole)** - A *Septic Tank*, also referred to as manhole, is a dug-out with chambers which is completely lined with cement blocks and/or concrete. It may be connected to soakaway or not. The soakaway is that part of the septic tank where there are openings on the walls for the water to seep into the soil. The septic tank is an outlet for flush toilet. A flush toilet is an installation connected to piped water, for humans to discharge their wastes and from which the wastes are flushed by water.
- B. **KVIP/VIP** - The Kumasi Ventilated Improved Pit (KVIP)/ Ventilated Improved Pit (VIP) has a pipe through which fumes escape for ventilation to occur. The KVIP has twin pits that allow the contents of one to compost while the other pits are in use. The VIP on the other hand has only one pit.
- C. **Pit Latrine** – This refers to SINGLE deep pits that are not ventilated i.e. no specific channels have been provided for the escape of fumes. They are mainly found in rural areas of the country.
- D. **Enviro Loo** – It is a form of VIP with a rotating vent pipe that draws in air to dry the faeces in the pit.
- E. **Bio-digester (bio fill)**: This is a system designed to instantly separate the water from the faeces. The water (effluent) is discharged into either drains, soakaway or drain-field and unlike the septic tank, the faeces digest (decompose) in a single relatively small chamber.
- F. **Bio-gas**- This refers to a system designed to generate gas from faeces for purposes of cooking, lighting or electricity generation.
- G. **Bucket/Pan** – This refers to the storage of faeces which can be removed from an opening for disposal as waste. The bucket/pan is a permanent part of the toilet structure.
- H. **Portable Toilet (Water Potti)** – This is a mobile plastic sitting toilet that has a detachable tank that temporarily stores the faeces.
- I. **Sewer** – This is a system where faeces from flush toilets (e.g. water closet), waste water from kitchen and bathroom flow through connected pipes to a treatment plant. The treatment plant is located offsite (distant location).
- J. **Other (specify)** – All other types of toilet facility not mentioned above must be specified in the space provided

LS09a: How many usable toilet rooms (cubicles) are available in this structure?

The question complements the preceding Question LS09 by seeking the total number of rooms (cubicles) within an identified toilet facility(ies) that is functional in the structure. In case of multiple toilet facilities from LS09, the total of number of cubicles must be recorded for each option.

LS10: Is any household or institutional (Group quarters) population living in this structure?

The question seeks to find out if any household or group quarter population live in the structure. Select one of the four responses provided: 1. 'Yes, household population only' - there is only a household population but not any other population type located in the structure; 2. 'Yes, institutional (group quarters) population only' - there is only a group quarters population but not any other population type located in the structure; 3. 'Yes, both household and institutional population' - there are both a household and group quarters populations located in the structure; and 4. 'No' - there is neither a household nor a group quarter population located in the structure. Make sure that you get the household and institutional population concepts right. Note that group quarters refer to institutions with residential or boarding facilities (i.e. institutions that have collective living quarters). They exclude purely day schools and institutions such as offices and churches (Refer to Chapter 5 for more details on the household and institution populations concepts).

LS11: Are there outdoor sleepers located here (around this structure)?

This question is seeking to identify the locations of outdoor sleepers. These outdoor sleepers are individuals or homeless households who sleep around a structure. They are persons who sleep on verandas, in front of shops, live on the streets or open spaces and without a shelter. If these outdoor sleepers are using these places as fixed place of abode (i.e. they can be found here every night), then code '1' (Yes) should be selected. On the other hand, a 'No' response (i.e. code '2') should be selected if there are no outdoor sleepers located around the structure. (Refer to the details on floating populations in Section 5.6).

NOTE: If LS10 = 4 and LS11= 2 (i.e. 'No' responses are recorded in both questions), and Use of structure (LS07, LS07a and LS07b) is **not** for residential purpose, GO TO NEXT STRUCTURE.

LH12a: SERIAL NUMBER OF HOUSEHOLD/ GROUP QUARTERS IN THE STRUCTURE

The CAPI Application automatically assigns serial numbers to the households and institutional (group quarters) population identified in the structures listed. Several scenarios may arise. E.g.:

1. A structure with only household population occupying it – Identification of households in the structure results in automatically assigning serial household numbers to the households in a sequential order.
2. A structure with only institutional (group quarters) population occupying it.
 - a. A single detached structure used as a hospital with different wards - Identifying each ward as a group results in the automatic assignment of serial numbers to each ward starting from 01, 02, 03, ... to the last ward.
 - b. A single detached structure used as a dormitory block – Identifying each room in the dormitory block results in automatic assignment of serial numbers to each room starting from 01, 02, 03, ... to the last room.
 - c. For a storey building occupied by institutional (group quarters) population:
 - Each floor should be treated as a unit.
 - If the population occupying the floor is more than 100, segment the floor into groups of less than 100 people each.

- The enumerator must liaise with the supervisor to segment the floor into the groups. This requires that the estimated number of people on each floor is ascertained. Each unit or group/segment is automatically assigned a distinct serial number starting from 01, 02, 03, ... to the last unit.
3. A single detached structure with both households and institutional population occupying it – Identifying each household results in automatic assignment of a distinct serial number to each household as explained in point 1. Identifying each unit or group/segment also results in automatic assignment of a distinct serial number to each unit or group/segment of institutional population as explained in point 2. However, the numbering serially follow one another. This means that if the households were first identified, then the group quarters numbering should be a continuation of the household numbering up to the last unit as explained earlier. The reverse is equally true.
 4. A storey building structure with both households and institutional population – Identifying each household results in automatic assignment of a distinct serial number to each household and institutional unit as explained in point 1, point 2 and point 3.

Note that in structures where both household and institutional populations are identified, the household population would be enumerated with the PHC 1A Questionnaire and the institutional population, depending on the type, would be enumerated with either PHC 1B, PHC 1C or PHC 1E.

LH12b: TYPE OF RESIDENCE

There are 25 different types of residences identified for the 2021 Population and Housing Census. Select the type of residence that is applicable for each structure/population. The type of residence determines which questionnaire type would be used during the main enumeration. For instance, PHC 1A will be administered to resident types 01 (Occupied housing unit), 02 (Homeless household), 03 (Vacant housing unit) and 98 (Secondary housing unit for same household); PHC 1B will be administered to resident types 04–16; PHC 1C will be administered to resident types 17–20; PHC 1D will be administered to resident types 21–23 and PHC 1E will be used for residence type 24.

01. Occupied housing unit
02. Homeless household
03. Vacant housing unit
04. Basic Schools (KG, Primary, JHS)
05. Senior High School (SHS, Secondary, Vocational, Technical)
06. Colleges (Nursing, etc.)
07. Service training institution (Police training, Military Academy, Army Camp, Immigration training, Fire Academy, Prisons training, etc.)
08. University/ Technical University/ Polytechnic/University colleges/Colleges of education
09. Seminary/ Theology school
10. Monastery/ Convent
11. Hostel
12. Children’s home/ Orphanage/ Old people’s home
13. Mining camp/ Road camp/ Farm camp
14. Refugee camp
15. Prison/ Borstal/ Correctional homes
16. Leper settlement (Leprosarium)
17. Hospitals, Polyclinics, Clinics
18. Remand homes, Police cells
19. Divine healers, prayer camps

20. Herbal healing centres, Bone setters
21. Transit post e.g. at railway station
22. Lorry park, market (inside or outside)
23. Other location of floating population
24. Hotels, Guest-houses and Motels
98. Secondary housing unit for same household

Note the following:

- a) In a situation where one household occupies two or more structures on the same compound, assign a 4-digit serial number to each of the different structures. However, for 'Type of Residence', enter code '01' as type of residence in LH12b for the household in the main structure and Code '98' as type of residence for the members in the other structure(s). Code '98' will also be assigned as residence type in LH12b for the second dwelling unit if the household occupies two dwelling units within the same structure. **Note that Code '98' is assigned only when the unit identified is used for DWELLING.** For such dwelling units, information will be elicited for H01 through to H06 and H08 during enumeration.
Information on the head of household or owner of the other structures/ dwelling units would be asked from LH13 up to LH15. During enumeration, the structures/ dwelling units with code '98' would be treated as 'special vacant housing units' during the main enumeration. Therefore, only questions from H01 through to H08 (except H07a and H07b) would be asked for such structures.
- b) Resident types 21–23 can only be administered on Census Night. Once any of these codes are selected, listing will end. However, the enumeration procedure for the floating population will have to be followed strictly (see Section 12.4)

LH13: Name of head of household/institution

Write down the name of the person the household recognises as the head. This is the usual head of the household (Refer to Section 5.3.3 on the definition of the household head). Note that this person may or may not be available during the actual enumeration period, as this will depend on whether the usual head is present on Census Night or not. In the case of an Institution/Group quarter population the head is the person who is in charge of an identified residential unit. Thus, the following should be considered as head:

- a) Hall Masters of Universities.
- b) Representatives of blocks/floors in the various group quarter residential unit.
- c) House Prefects of houses in Senior High schools.
- d) Dormitory representatives.

NOTE: IF VACANT HOUSING UNIT, provide detailed information in LH13 and SKIP TO NEXT RESIDENCE TYPE. For a single vacant unit in a multiple housing unit structure, write "Vacant" in LH13 (Name of head of household/ institution) and skip to the next residence type. This also applies to a single housing unit structure which is vacant. If there are two or more vacant housing units in a structure, then, it is required that additional information be provided to differentiate between the vacant housing units. For example, "Vacant 1 – housing unit close to the main entrance of the structure", "Vacant 2 – housing unit opposite Mr. Opoku Nyarko's dwelling", "Vacant 3 – housing unit near the stair case" and "Vacant 4 - housing unit between Mr. Konkeh's dwelling and Ms. Nenumin's dwelling", "Vacant 5 – housing unit on the 5th Floor", etc. Do not ask the subsequent questions for the structure.

For a vacant housing unit, only questions H01, H02 and H03 would be answered through observations during the enumeration phase. This is so because the structure has been declared vacant which means that there is nobody available to furnish you with the other details of the structure. Note however, that if during the enumeration, you find that this structure is being

occupied, then the listing information has to be modified to reflect this to allow you to fully take information on the housing conditions and sanitation questions.

LH14: Sex of head of household/institution

Indicate the sex of the household head by coding ‘1’ for male and ‘2’ for female.

LH15: Contact number of the head of household/institution

Write in the space provided the contact numbers (telephone/mobile phone number) of the head of household/institution identified in LH13. The contact numbers of any of the household member(s) could be taken if the head has no telephone number. Collect both the main and alternative contact numbers of the head. The contact numbers should be available to the head. You need to necessarily provide one valid contact number of the head identified in LH13.

If the respondent cannot retrieve his/her contact number and the phone is available in the household, the following SHORT CODES could be applied to get the number.

MTN	=	*156#
AIRTEL/TIGO	=	*703#
VODAFONE	=	*127#
GLO	=	*777#

LH16: Number of persons in household/institution

For each household or institutional unit, record the number of persons disaggregated by sex (males and females) and total. Note that at this stage we are interested in the **USUAL household members whether present or absent at the time of administering the listing form.**

QUESTIONS LH17-LH21 ARE TO BE COMPLETED AFTER ENUMERATION. (I.E. WHEN ALL STRUCTURES ARE COVERED).

These questions will be derived after completing LH12a-LH16. They will not be found on the CAPI.

In the rare case of using paper questionnaire for listing, the following should be completed.

LH17. POPULATION IN THE HOUSEHOLDS

Record the population in the households by sex (i.e. ‘MALE’ and ‘FEMALE’).

LH18. POPULATION IN INSTITUTION (GROUP QUARTERS)

You should record the population in the institution by sex (i.e. ‘MALE’ and ‘FEMALE’).

LH19. FLOATING POPULATION (POPULATION IN TRANSIT)

These are the population who slept outdoors and were in transit on Census Night. They exclude the homeless households, who though sleep outdoors but are identified at fixed locations (Refer to Section 5.6). Record the population by sex.

LH20. HAS ENUMERATION BEEN COMPLETED?

The purpose of this question is to determine the level of completion of enumeration in a particular structure. Enter code ‘1’ (Finalize listing) if numeration has been completed and enter code ‘2’ (Return to the beginning) if enumeration has not been completed. Make sure to indicate the date and time of call back if enumeration has not been completed.

LH21. REMARKS. RECORD SPECIAL CASE OR PROBLEM (IF ANY), ENCOUNTERED IN THE STRUCTURE.

This question is to identify challenges encountered during the enumeration. Record special case or problem (if any), encountered in the structure. If enumeration was successfully conducted this question should not be answered.

10.5 Availability of Facilities in Enumeration Area

These questions should be asked to a focus group of Community Leaders. The following people should be included in the focus group: Assemblymen, Teachers, Chiefs, Queen mothers and Unit Committee Members. A maximum of three (3) of the Community Leaders should be identified to respond to these questions.

LF01: Are the following facilities found within this Enumeration Area (EA)?

This question seeks to find out about the availability or otherwise of the 32 listed facilities in the Enumeration Area (EA) assigned to you. Remember that in LS07, the uses to which each structure is put is identified. Therefore, in an ideal situation, if these facilities are available, they would have been picked already. However, it is also possible that some of these facilities may have inadvertently been missed out. A confirmation of the availability of these facilities is therefore required in F01. Code '1' (Yes) in F01 if the facility is available in the EA and '2' (No) if not available

A. Post and Telecommunication Facilities

1. **Post Office** - A public department or corporation responsible for postal services. A *post office* is a customer service facility forming part of a national *postal* system. *Post offices* offer *mail*-related services such as acceptance of letters and parcels; provision of *post office* boxes; and sale of postage stamps, packaging, and stationery.
2. **Internet Café** - An *Internet café* (also known as a *cyber café*) provides internet access to the public. Customers pay to use computer terminals to access the Internet.
3. **Telecommunication Service Centre** - Is a place where telecommunication services are provided. For example, there is a Vodafone service centre at Weija and MTN service centre at Mampong-Ashanti., where customer services including replacement of lost SIM cards and sale of SIM cards are provided. However, if any telecommunication service centre provides internet café and ICT services, such services should be considered as telecommunication services available in the EA or Locality.
4. **ICT Centre** - Is a facility that provides training and services in Information, Communication Technology. It is a public place where people can access computers, the Internet and other technologies that help them gather information and communicate with others at the same time as they develop digital skills. An ICT centre is primarily put up for learning purposes. Note that there may be instances where an E-library is part of the ICT centre. In such cases, a 'Yes' response should be selected for both the community library facility and the ICT centre.

B. Health Facilities

Information on the availability of the following health facilities in the community is to be collected.

1. **Hospital** - It is an institution that provides medical and surgical treatment as well as nursing care for sick or injured people. It has a range of departments such as surgical, emergency care unit, OPD and laboratories.
2. **Polyclinic** - Is a healthcare facility where both general and specialist examinations and treatments are provided to outpatients.
3. **Health Centre/Clinic** - It is a healthcare facility that is primarily focused on the care of outpatients.

4. **CHPS Compound** - This is a healthcare facility in deprived communities that seeks to bring clinical services close to the communities. The facility delivers essential community-based health services involving health planning and service delivery with the communities. This should be distinguished from mobile/outreach clinic where the health officers travel to the communities to provide services.
5. **Maternity Home** - It is a home where maternal healthcare services such as antenatal, delivery, postnatal, etc. are provided.
6. **Herbal hospital/clinic** - It is a facility that uses substances extracted from flowers, fruits, roots, seeds and stems as an alternative to orthodox medicine. The personnel that work in this health facility have formal training in different aspects of their operation. In some cases, they use modern health equipment in their diagnosis.
7. **Traditional Herbal Centre** - It is a facility that uses substances extracted from flowers, fruits, roots, seeds and stems as an alternative to orthodox medicine. The personnel that work in these herbal centres have no formal training but rather acquired their skill/knowledge through apprenticeship.
8. **Pharmacy/ Drugstore** - A pharmacy is a retail shop which provides prescription drugs, among other products. At the pharmacy, a pharmacist oversees the fulfilment of medical prescriptions and is available to give advice on their offerings of over-the-counter drugs. A typical pharmacy would be in the commercial area of a locality. On the other hand, a drugstore is a store that only sells medicines and usually other goods, especially products relating to cleaning and caring for the body.

C. Educational Facility

Information on the following educational facilities in the community is to be collected.

1. **Pre-school** – This level targets infants children beginning from crèche throughout to kindergarten.
2. **Primary school** - It is one of the levels of basic school and it targets children between the ages 6-11 years.
3. **Junior High School (JHS)** - It is the terminal point for a basic school education targeting pupils between the ages 12-15.
4. **Senior High School (SHS)** - This refers to a three-year Senior High education. It also includes Senior High Technical schools which write the West African Senior Certificate Examinations (WASSCE).
5. **Vocational Schools** - Like the pure technical schools, Vocational schools provide vocational training to its students. Also included here are Vocational and skill training institutes. They are mostly under National Vocational Training Institute (NVTI).
6. **Technical School** - They provide career-focused job specific training to its students. These categories of schools run pure technical causes. They operate under Technical and Vocational Education and Training (TVET), Ghana Regional Appropriate Technology Industrial Service (GRATIS) and Industrial Technology Transfer Unit (ITTU) etc.
7. **Vocational/ Technical School** - These are schools that combine both technical and Vocational causes. Included in this category is Vocational and Technical Institute. These institutions are either under Technical and Vocational Education and Training (TVET), National Vocational Training Institute (NVTI), Ghana Regional Appropriate Technology Industrial Service (GRATIS) and Industrial Technology Transfer Unit (ITTU) etc.
8. **Tertiary** - This is a post-secondary educational facility. In Ghana it is defined to include Universities, Technical Universities, Polytechnics and other Specialized Colleges.

D. Public Toilet Facilities

It is a building with toilets that does not belong to any particular household. Rather, the toilet is available for use by the general public.

E. Public Bathhouse facility

It is a building with bathhouse that does not belong to any particular household. Rather, the bathhouse is available for use by the general public.

F. Community Library Facilities (including E-library)

It is a physical building where books, journals, publication, etc. or digital materials are kept and made accessible to the general public. Note that a community library may include e-learning materials.

G. Police Station

It is a physical structure staffed with Police officers/personnel basically to protect and keep the general citizenry safe at all times.

H. Financial Institutions

It is an institution engaged in the business of dealing with financial and monetary transactions, such as deposits, loans, investments and currency exchange.

1. Bank: This includes private, public, community and rural banks
2. Savings and loans
3. Micro finance
4. Credit union
5. Insurance company

I. Stock Exchange

A stock exchange is a centralised location where the shares of publicly traded companies are bought and sold. In other words, a stock exchange is a forum where securities like bonds and stocks are purchased and traded. This can be both an online trading platform and offline (physical location). E.g. Ghana Stock Exchange.

J. Recreational Centre/ Community Centre

It is a building or an area, public or private that is open to the public where recreational activities take place. Examples are national parks, golf courses, stadia, club houses, beach resorts, etc. note that some communities have also constructed such facilities for use as recreational centres.

K. Market

It is a place where people regularly gather to undertake commercial activity such as purchase and sale of commodities.

LF01a and LF01b: If is available, how many are (not) functional?

For a particular facility type, if a ‘Yes’ response is provided in LF01, proceed to ask questions LF01a and LF01b. However, if the response is ‘No’ in LF01, skip questions LF01a and LF01b and ask for the availability of the next facility. It has been observed that some facilities may only exist but not functioning as per the purpose for which it was constructed. Therefore, find out how many of the identified facilities there are within the EA. Of the numbers available, find out in LF01a how many are functional and in LF01b, find out how many are not functional.

Summary

Two summary tables have been provided to be completed after enumeration (**i.e. QUESTIONS LH17 TO LH21 and QUESTIONS S01 TO S15**). Questions LH17 to LH21 is a summary of the population categories (household, institution and floating) enumerated in the EA while questions S01 to S15 is a summary of the facilities identified. For each enumeration area, questions S02-S09 identify the totals of each of the 32 facilities while S10-S15 indicate the type of facility(ies) in the EA.

Note: This summary table will be filled out automatically in the CAPI application.

CHAPTER 11

HOW TO ACHIEVE COMPLETE COVERAGE

11.1 What complete coverage implies

Achieving complete coverage is the ultimate goal for the 2021 PHC. To achieve this goal in each EA, all structures, households and members of each households must be listed. Complete coverage is the listing of all structures and households and enumeration of all persons in the country. This means that for each EA, all structures and households must be listed and all persons must be enumerated. The primary aim of the 2021 Population and Housing Census is to obtain a complete count of structures, households, and persons within the borders of Ghana. This means that all structures must be listed, all households and persons and other population groups such as institutional population, floating population, and guests in hotels; and every living quarters in your EA must be enumerated. Therefore, ensure that:

- a) If your EA consists of many villages and hamlets (Type 3 EA), you must list each house/structure on the listing form before enumeration. All village/hamlet in your EA, have been pre-loaded in the CAPI and information needed to be collected before enumeration should be gathered for each structure. The serial listing of houses/structures should continue from one village/hamlet to another until you cover all the villages/hamlets (localities) listed on your PHC 2 (i.e. EA Map and the EA Boundary Description) and/or pre-loaded on the CAPI. For new localities that will be identified in the EA, a new line is to be added and locality name typed in the CAPI.
- b) Within your EA and within each locality, you must make sure that you **visit every house or compound**, as well as any other buildings such as schools, stores, etc. Some people sleep in their stores or shops and you may miss them if you do not visit these places.
- c) For the type 2 EAs where a locality is sub-divided into two or multiple EAs, Field Supervisors/ District Field Supervisors should 'align' all the EAs to the total land surface area of the locality to be sure that no part of the locality is left out.
- d) Within your EA, no structure(s) is/are left out during the 'chalking' stage. Within the EA, Field Officers must use both the pdf and the interactive maps to clearly identify all the structures that fall within the EA and those that fall outside. Canvassing within and among the EAs in the SA is a prerequisite. This should be carried out before assigning structure numbers in the EAs.
- e) The **offices of Embassies, High Commissions and Consulates will also be covered**. Thus, the embassy employees and citizens of foreign countries whether living in the offices or in their private residences will be enumerated. Special arrangements will be made to cover the Diplomatic Corps. For their security, safety and convenience, members of the Diplomatic Corps will be required to conduct self-enumeration i.e. complete a simple, self-explanatory abridged questionnaire for all persons who spend the **Census Night** in their residences by themselves.
- f) As you proceed to list, look everywhere within your EA for possible places where people may be living, such as basement of office buildings. Inquire whether anyone is living in places of business (offices), garages, and farms. Find out whether a security personnel or caretaker lives in any factory or large business establishment located in your EA.
- g) Within each structure, field officers should probe and identify all the dwelling units in that particular structure.
- h) Within each dwelling unit in a structure in your EA, ensure that all households are identified and enumerated. At the household level, premium should be placed on these three (3) issues:

- *Leaving out some households:* The issue of completely identifying and listing all the households in a particular structure has been identified as a major challenge due to the fact that at the time of the listing, some households might not be around. It has therefore become extremely important to outline the various steps that would guide all field officers to ensure that all households in a particular structure are identified and listed.
 - *Households absent during listing but present on Census Night:* The issue of some households being absent during the listing period but present on Census Night have widely been reported. If the said household is alone in a particular dwelling unit, that dwelling unit would have been recorded as vacant during the listing period. Once the household was present on Census Night, it is required of you to **modify** the listing information and enumerate the household.
 - *Merging of households:* Some field officers may claim to have listed all the households in the structure but may not have probed very well enough because either they did not explain the concept of household well to the respondents or the field officers did not understand the concept well, which normally result in merging of households. When this happens, though all the persons in the structure would have been listed, the unit of enumeration, which is the household, would have been compromised, resulting in under listing of the number of households in the structure.
- i) For each identified household, you must enumerate all persons who qualify (i.e. were present on Census Night) as well as all living quarters. Make sure you also enumerate all new-born babies (**born before** 12:01 a.m. on Census Night), infants, children, and the sick, mentally challenged persons, people with no fixed place of residence, as well as people with all forms of disabilities. Remember to enumerate all those who were present on the Census Night but died **after** the Census Night.
 - j) All persons are covered. Some Field Officers would list all the households in the structure but would not take their time to identify all the members of the households probably due to the fact that some household heads might deliberately conceal the presence of some of their members for obvious reasons or alternatively, some Field Officers would do this to intentionally reduce their workload. Cutting down the household size during listing would automatically reduce the population. It is therefore equally important to probe and include all the members of the household, especially the very young or old, persons with disabilities (PWDs), etc. Field Officers are advised to probe further for the presence of such persons in the household and enumerate them.

11.2 How to ensure complete coverage

In order to ensure complete coverage, you must pay attention to the following guidelines:

- i. **Study your area thoroughly** - The two basic documents which will assist you in achieving complete coverage of your EA are the **EA Map** and the **EA Boundary Description (PHC 2)**. With the aid of these two documents you must make every effort to thoroughly familiarize yourself with the area assigned to you. For instance, if a road or street forms one of its boundaries, be sure you know the side which is in your EA. You will create confusion if you enumerate persons and houses belonging to another EA.

Note that not all persons sleep in houses. A number of people sleep on verandas, in marketplaces, at lorry parks, at international border stations, at ferry stations, etc. To ensure complete coverage of these areas, it is absolutely essential that you note all such places in your EA, before Census Night and enumerate them according to the instructions in Sections 12.2.2 and 12.4 (enumeration of homeless households and

floating populations). If you are working in a rural area, make sure that you enumerate all forest rangers, cattle herdsmen (nomads), wanderers or persons in transit quarters and similar institutions in your enumeration area.

- ii. **Systematic method of enumeration** - You must cover your area in a systematic manner since haphazard manner of enumeration will result in omission or multiple counting of persons in houses.

Listing of Houses/structures - You must complete the listing of houses/structures including blocks of flats before you start recording the particulars of respondents. This listing operation must be done carefully in **serpentine order** since there is the possibility of leaving out houses if listing is not carried out in an orderly manner. Always ask what appears to be the last house whether there are houses further on which may be obscured from view and may be easily missed. Endeavour to follow paths and trails to ensure you do not miss some houses/structures. All buildings and houses, including blocks of flats must be listed on the **listing form** and questions **LS01 to LH16 administered**. Location of outdoor sleepers and group quarters must also be identified (if found within your EA). This will help you to cover your EA completely. Make sure that you complete LH13 to LH16 only after you complete enumeration in a house. This will help you to know the houses in which you have not completed enumeration.

Listing Household members - You must complete the household roster (household listing) on the Questionnaire, by listing the names of all usual members of household (Status A), all visitors (Status B) who spent Census Night in the household on A11 and all usual members of the household absent (Status C) on the Census Night on A12 before you start detailed interviewing (See Chapters 15 for instructions on categorizing household members).

11.3 Areas Likely to Miss Out Households

There are certain places that you could easily miss out households that occupy them. Enquire whether anyone lives in these places:

- 1 Office buildings (e.g. Basements, security posts, etc.)
- 2 Garages of buildings and fitting shops
- 3 Farms with settlements
- 4 Factory premises
- 5 Shrines
- 6 Market places
- 7 Lorry parks
- 8 International border stations
- 9 Ferry stations
- 10 Kiosks
- 11 Forest ranges
- 12 Warehouses
- 13 Filling stations
- 14 Cattle kraal

11.4 Other Key Activities to Ensure Complete Coverage

The following key activities are to be conducted where applicable:

Call-backs - You must make sure you honour all call-backs.

Daily Review of Work: Every day, go over your work to identify any gaps (omissions, inconsistencies) and address them.

Adding a missed house/structure – If you detect that a house/structure was mistakenly missed while listing and it is impossible or difficult to correct because you have gone far with the listing, **you must add it**. You must do so **by giving a structure number that follows the last structure number assigned**.

Disputed Boundaries - These are disagreements relating to boundaries between localities and districts. If there is any dispute about who should enumerate a certain house, compound or village, i.e. if two Enumerators claim that the same village, house or compound lies within their respective EAs, this must be reported at once to the Field Supervisor who will check whether there has been any duplication or error on the map. He/she will decide which Enumerator must enumerate that disputed house or hamlet.

If the dispute is about community boundaries, it is important to remain tactful and cool tempers down as members of the communities involved may be angry with you. Consult with your Supervisor who will subsequently inform the DDQMT. The Regional Statistician (RS) has to be consulted for a quick resolution if the DDQMT was unable to resolve the problem. Even if the DDQMT was able to resolve the said problem, the RS has to be informed about what the issue was and how it was addressed.

Monitoring of completion rate: Monitor completion rates to get all persons enumerated and all structures covered to inform interventions required to achieve complete coverage within the enumeration period. Rely on messages from the Data Quality Monitor to identify structures and households not covered. Rely on IT Officers to sync data if you face challenges.

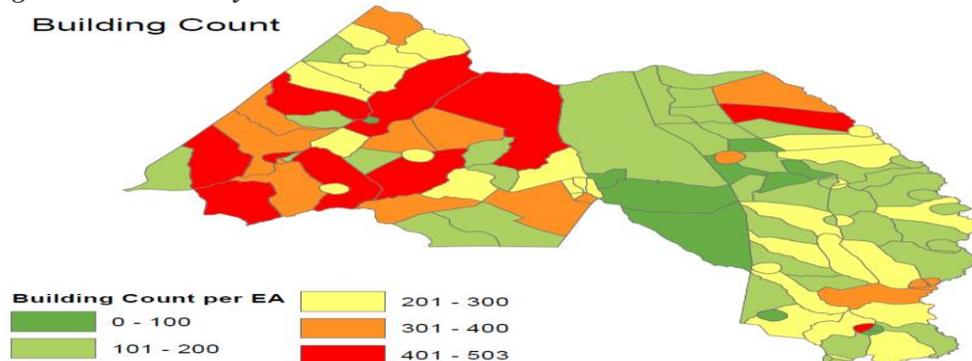
11.5 Scores of Difficulty

There are three levels of scores of difficulties as follows:

- 1 **Geometry Indicators:**
 - i. Area coverage
 - ii. Convex hull
 - iii. Polsby-Popper Score
- 2 **Accessibility Indicators:**
 - i. Road density
 - ii. Tree cover
 - iii. Accessibility (*friction surface*)
- 3 **Building density and distribution**
 - i. Building count per EA
 - ii. Building area per EA
 - iii. Building cluster distance per EA

11.5.1 Geometry Indicators

Figure 0.1: Geometry Indicators



For Geometry indicators, the wider the surface area, the more difficulty it is to complete work within the given period. This, therefore, calls for support or intervention:

- i. Area coverage: An EA with a larger surface area is likely to have a higher score of difficulty compared to one with a smaller surface area.

- ii. Convex hull: This is a measure of the complexity of the shape of an EA is how dispersed (spread) it is. That is, the pattern of distribution or how it stretches over a large surface.
- iii. Polsby Popper score: This is a measure of the complexity of the shape of an EA, i.e., a measure of the indentation of the EA. The more indented or sunken the surface of an EA is, the higher the score of difficulty relative to one with a less concave surface.

Combined Geometry Score- This is a combination of the above three indicators to produce one score of difficulty based on size and shape.

11.5.2 Accessibility Indicators

Road Density: EAs with a higher road density are marked as having lower score of difficulty as they are easier to travel around. EAs with a lower road density are marked as having a higher score of difficulty.

Figure 0.2: Road Density

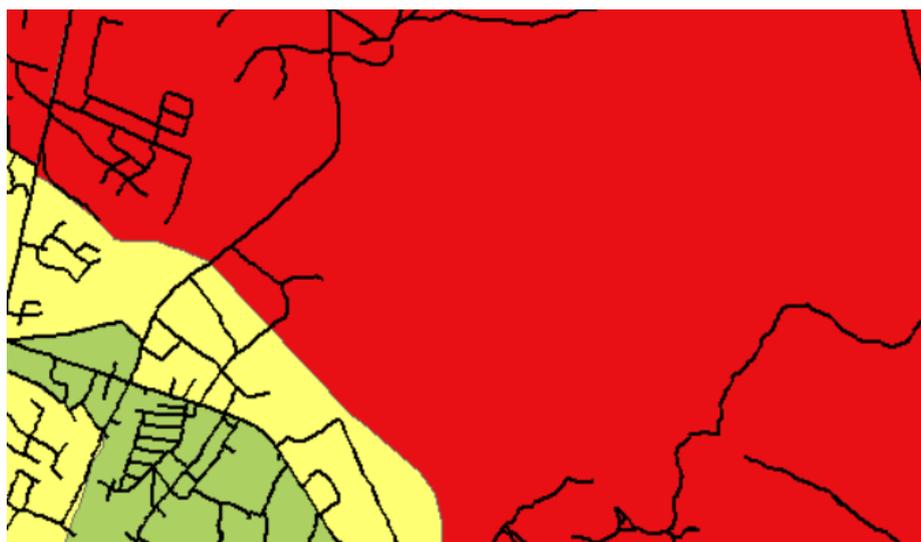


Figure 0.3: Percent of Tree Cover

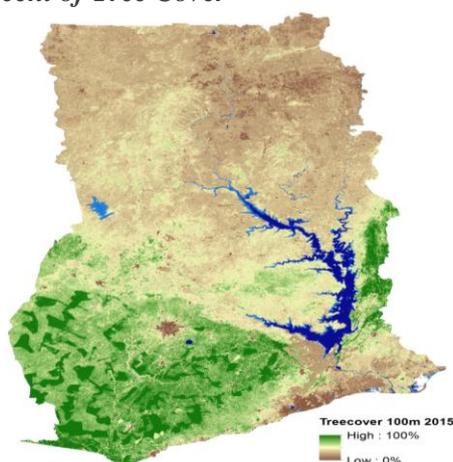
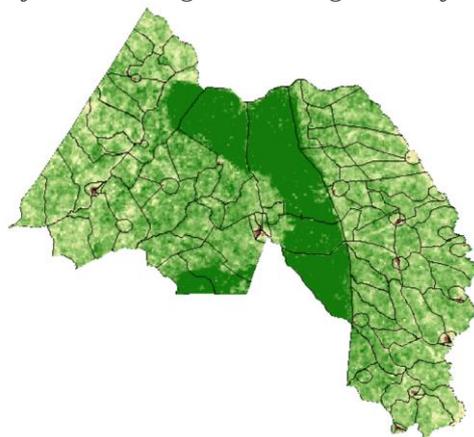


Figure 0.4: Part of Western Region showing the % of tree cover



11.5.3 Building Footprints

The building footprints does not use any road or topographic data, it just calculates the straight-line distance between each cluster, to give an indication of distance that would need to be travelled.

- i. Building Area %: A percentage of building area compared to the surface area of an EA.
- ii. EAs with a higher percentage are marked as having a high score of difficulty. That is, there is a high concentration of buildings to enumerate.
- iii. Cluster Distance: This measures the distance between clusters of buildings where a higher distance depicts a higher score of difficulty. That is, there is a longer distance to travel between buildings. A higher distance is marked as high difficulty, as this means there is further to travel between buildings.

CHAPTER 12

ENUMERATING DIFFERENT POPULATION GROUPS

12.1 Introduction

The 2021 Population and Housing Census will collect information to cover different population groups throughout the country. In this regard, different instruments have been developed to capture information on the different population groups. Various enumeration procedures have been outlined for different population groups (based on LH12b – type of residence on the listing form). The following questionnaires have been prepared to be used during the field enumeration process: PHC 1A, PHC 1B, PHC 1C, PHC 1D and PHC 1E.

12.2 Enumeration of population in households

12.2.1 Enumeration of population in conventional households (PHC 1A Questionnaire)

As indicated earlier, the listing phase of the census starts on **Sunday, 13th June 2021** (i.e. two weeks before Census Night). On the morning after **Census Night (i.e. 28th June 2021)**, the enumeration of persons who spent Census Night in households begins **using the PHC 1A questionnaire**.

NOTE: Remember to include:

1. Workers on duty on Census Night (e.g. security guards/watchmen, doctors, nurses, etc.)
2. Visitors who spent Census Night with the household
3. Usual members of a household who spent Census Night with the household but may not be present at the time of your visit.

12.2.2 Enumeration of homeless households (PHC 1A Questionnaire)

Homeless household could be one or more persons who sleep outdoors at fixed locations (Refer to Section 5.4 for details on homeless households). For example, a mother and child or mother, father and child sleeping outdoors at **fixed locations such as Tema Station and CMB in Accra, Asafo Market in Kumasi, etc.** Such persons may be found in front of shops, under sheds, etc. Whenever homeless households are identified on the Census Night, the PHC 1A Questionnaire should be administered to them on Census Night (**27th June, 2021**). Enumeration of these groups will start around 8:00 p.m. of the **27th June, 2021**.

Take note that homeless households are not supposed to answer questions on the housing and sanitation modules. After enumerating the homeless household, a Certificate of Enumeration should be given to members of that household to indicate that they have been enumerated to avoid double counting. Every effort should be made to enumerate this population group on Census Night. However, enumeration of homeless households should continue throughout the entire census enumeration period, if for some reasons some people in this group of population could not be enumerated on the Census Night. Remember that this group of population could be reached effectively at nights. It must be emphasized that before you take a decision to enumerate a homeless household after Census Night, make sure to establish that the homeless household was not captured during the Census Night.

12.2.3 Collecting information on unoccupied (vacant) housing unit (PHC 1A Questionnaire)

During the enumeration period of the census, housing units identified as vacant would be captured using the PHC 1A questionnaire. Although the housing unit is vacant, questions H01 (Type of Dwelling), H02 (Main Outer Wall), and H03 (Main Roofing Material) should be completed through observations and recording the appropriate responses. This is because no household is found in this structure.

12.2.4 Collecting information on secondary housing units for same household

During the enumeration period of the census, housing units identified as secondary housing units that are occupied by the same household in another structure would be captured using the PHC 1A questionnaire. Note that code '98' would have been selected in A07. For this type of structure, questions H01 through to H08 must be answered. For H01 (Type of Dwelling), H02 (Outer Wall), and H03 (Roofing Material) should be completed through observation and recording of the appropriate responses. There is the tendency to consider Boys' Quarters as a secondary housing unit without the necessary clarification being sought. Note that structures such as the main house and a Boys' Quarters on the same compound may be occupied by different households. Also, the second structure may not be used for dwelling; it may be kitchen, storage room, etc. In that sense, the second structure will not be assigned code '98'. Therefore, seek clarification before you make use of code '98'.

12.3 Enumeration of institutional (Group Quarter) population

The institutional non-household population are persons who did not spend Census Night in households but in institutions such as educational institutions, patients in hospitals, hotel guests, inmates of prisons, correctional centres. They are considered as population in group quarters. Different procedures will be used to enumerate them. Before the Census Night, Supervisors and Enumerators together will list all locations of non-household population with estimates of their population and plan for their enumeration. Procedures for enumeration of the different categories of non-household population are outlined below.

12.3.1 PHC 1B Questionnaire

The PHC 1B questionnaire will be used to enumerate stable institutional population such as students in boarding schools, hostels and university halls of residence and others listed below.

04. Basic School (KG, Primary, JHS)
05. Senior High School (SHS, Secondary, Vocational, Technical)
06. Colleges (Education, Nursing, School of Hygiene, Agriculture, etc.)
07. University/Technical University/ Polytechnic
08. Hostel
09. Service training institution (Police training, Military Academy, Army Camp, Immigration training, Fire Academy, Prisons training etc)
10. Seminary/Theologian school
11. Convent/ Monastery
12. Prison/ Borstal/Correctional homes/ Industrial school
13. Children's home/ Orphanage/ Destitute home/ Old people's home
14. People found at: Mining camp/ Farm camp/ Construction sites (i.e. road and building sites)
15. Refugee camp
16. Leprosarium
- 17.

It is expected that the list of institutions in each EA would be provided and the heads of these institutions must be contacted before the Census Night. Prior discussions should be held with the authorities of the institutions to explain the purpose of the exercise and seek their permission. On **28th June 2021** (the day following the **Census Night**), the Enumerator must visit these institutions to enumerate persons who spent Census Night there using the PHC 1B.

Note: Staff and their household members who reside in these institutions must be enumerated in the same way as persons in households during the usual enumeration period using PHC 1A.

Note: CAPI does not allow more than 99 members listed under institutional “household” and therefore segmentation may be necessary in some cases.

12.3.2 PHC 1C Questionnaire

PHC 1C Questionnaire would be used to enumerate persons who spent the Census Night in the following institutions:

18. Hospitals, Polyclinics, Health centres, Clinics, Health posts, Maternity homes, Rehabilitation centres, Infirmary/Sick bay, CHPS compound
19. Remand homes, Police/Immigration/Military cells
20. Divine healers, prayer camps
21. Herbal healing centres, Bone setters’ facilities

This population group are non-stable (i.e. circumstances brought them in these places). In addition, persons found on Census Night sleeping on verandas, corridors and pavements in and around hospitals/prayer camps while taking care of their sick relatives (in-patients) should be enumerated with the PHC 1C questionnaire.

Patients who are on admission at the various health institutions in the country must be enumerated. They would be enumerated in the late afternoon before Census Night (**27th June 2021**) at about 3:00 p.m. The enumerators assigned to hospitals will contact the authorities of the health facilities, Police/Immigration/Military facilities, etc. to inform them of the exercise and also discuss the mode of enumeration.

The same procedure should be used for the enumeration of persons in rehabilitation centres, prayer and healing camps. Rehabilitation centres are facilities where addicts are helped to recover from their addiction. Discussion on procedures for enumeration of in-patients should be held with hospital authorities prior to enumeration time. Relatives and non-relatives of in-patients who are temporarily residing within hostel facilities with the intention of taking care of the sick must be enumerated with PHC1B.

Note: caregivers who do not reside within hostel facilities provided by the health facilities but reside in their homes and commute daily to and from the hospital to take care of their patients should be enumerated as part of their households.

12.3.3 PHC 1E Questionnaire

The PHC 1E is a paper questionnaire which would be used to capture information on guests who spent the Census Night in hotels, guest houses, rest houses, motels, etc. This population group are also non-stable. The PHC 1E questionnaire has been prepared for the guests to complete before leaving the hotel. In the evening of the **27th June 2021**. The enumerator should leave some PHC 1E questionnaires at the reception of these facilities and also stay to assist guests to fill the questionnaire if required. These persons should be given Certificate of Enumeration. The data on the completed questionnaires should be transferred immediately onto the CAPI Application and submit the paper questionnaire(s) to the supervisor.

12.4 Enumerating floating population

A population census covers household population, institutional population, and floating population groups. The floating population is likely to be missed or double-counted if care is not taken during the census. Therefore, great care must be taken to enumerate them once to ensure complete coverage and avoid double counting. The floating population refers to persons who on Census Night, will be found at locations other than their usual place of residence such

as persons on ships, on the sea, railway stations, lorry parks, etc. It should be noted that such locations are not the permanent places where these people would be located.

12.4.1 PHC 1D Questionnaire

PHC 1D will be used to elicit information on the population in transit. Unlike homeless households, the transient population does not have fixed locations and could be found at the following places:

1. Transit post e.g. at railway station, on a ship, in a ferry, inside harbour, at the airport, at international border station, etc.
2. Lorry Park, market (inside or outside).
3. Other locations of floating population include on the floor near shops, on beach, on veranda of houses, on pavement at office premises, locations of persons not in transit, e.g. mentally ill.

Floating population includes: Persons who on Census Night, slept at lorry parks, markets, in front of stores and offices, filling stations, railway stations, on verandas, pavements, hideouts and all such places which are not considered houses. It also includes beggars and vagrants (including the mentally ill).

Floating population excludes: Persons who spent the Census Night at social gatherings such as funerals, dances, parties, etc., and would finally return after the function. It will also exclude people who work at these locations and would return home after work.

12.4.2 Population in transit

These are persons who will be travelling on the Census Night by road, water or air. They are:

- a) **Persons who will be travelling long distances from one town/village to another within the country on Census Night.** Example, from Kumasi to Accra.

This group of people will be enumerated few hours before the Census Night with the PHC 1D Questionnaire and will be administered at the major bus terminals at the place of boarding. You will also be required to issue this group with Certificate of Enumeration once you enumerate them. Inform them that they are to keep the certificate until the census is over to avoid being counted more than once.

The National Census Secretariat, Regional and District Census Officers will have prior discussions with transport associations (e.g. GPRTU, PROTOA, etc.) and transport companies (e.g., STC, VIP, Pergah, OA, etc.) to have an idea about the buses which will be on the road on Census Night. The discussions will concentrate on long haul travellers, (e.g., Accra-Tamale, Accra-Bolgatanga, Accra-Wa, Tamale-Accra, etc.) which require people to sleep overnight on the vehicles. The census officials should arrange and enumerate the passengers before they set off and issue them with a Certificate of Enumeration to indicate that such persons have been enumerated.

- b) **Persons who will be found at the border posts, airport, seaports on the Census Night with the intention of travelling outside the country after 12 midnight.**

This group will be enumerated few hours before Census Night with the PHC 1D Questionnaire which will be administered at the place of boarding and disembarkation. Issue them with a Certificate of Enumeration once you enumerate them. Inform them that they are to keep the certificate until the census ends to avoid being counted more than once.

Travelers who will spend the Census Night at the seaports, international airport and border posts but will move out of the country immediately after the Census Night would be enumerated before they get on board. For instance, at the airport, such persons would be enumerated at the waiting lounge. In order to facilitate the enumeration process, prior discussions would be held with officials of the Ghana Immigration Service, Ghana Ports and Harbour Authority and Ghana Civil Aviation Authority to provide information on ships and planes that will be within Ghana's territorial waters and airspace on Census Night. This

information will aid the Census Secretariat to plan well in advance to enumerate such persons who will be on board.

Note: Arrangements should be made to enumerate those who would be on the sea within Ghana's territorial borders on that night (i.e. those who will not disembark).

c) Persons on Ship/Boats in Ghana's Territorial Waters/Airports on Census Night

Discussions with officials of the Ghana Immigration Service, Ghana Ports and Harbour Authority (GHAPHA) and Ghana Civil Aviation Authority should be carried out to provide information on ships/boats within the ports of Ghana on Census Night. Supervisors and Enumerators should plan well in advance to enumerate such persons. Persons who will spend the Census Night at the ports but who will board their ships/boats and sail after the Census Night must be enumerated before they board. A similar approach should be used to enumerate persons found at the country's international airport and are preparing to move out of the country after 12 midnight.

d) Persons on Oil Rigs in Ghana's Territorial Waters on Census Night

Discussions with officials of Oil Companies operating these off-shore oil rigs should be made about a few weeks before Census Night. Information on their workers should be provided by their on-shore offices to the Enumerators a few days to Census Night. This information should be checked on the morning following Census Night.

e) Persons at Ghana's Border Posts/ Check Points

The manned border posts usually close at 10 p.m. This means that travellers who arrive at the border post after 10 p.m. have to sleep there until the re-opening of the borders the next morning at 6 a.m. Enumeration of persons at manned crossing points should begin immediately after 10 p.m. when the borders close. Prior discussions should be held with the Ghana Immigration Service, transport associations and transport company officials so they can assist in the orderly enumeration of such persons. Enumerated persons should be issued with a Certificate of Enumeration to avoid being counted twice or more.

f) Hunting and fishing groups

Groups of individuals sometimes embark on hunting and fishing expeditions, moving from one location to another, and resting at convenient outdoor locations. Sometimes, such persons may be away for periods lasting up to six months or more and may, therefore, not qualify to be enumerated as household members. Find out from the community leaders whether any such group is present within your assigned E.A. If you encounter such a group, liaise with its leader to have the members enumerated on Census Night.

This group of people will be enumerated a few hours before the Census Night with the PHC 1D Questionnaire before they go to bed.

Note: Enumeration of the floating population and homeless households are the most problematic so great care must be taken to ensure complete coverage. **A preliminary survey to list all locations of outdoor sleepers and estimate the population at each location will be carried out to enable the appropriate allocation of Enumerators (one Enumerator to about 10 outdoor sleepers) and Supervisors at each location.**

For security reasons, the Supervisor must ensure that Enumerators work in groups and are provided with lanterns/flashlights.

Remember that most mentally ill people normally move within the same area even though they do not sleep in any house. It is possible that some persons in the area may be able to give you information about them. Where no one can tell you anything about the mentally ill, just write down the sex and estimated age and record that the person is mentally ill in the space provided

for "Full Name". Then leave the rest of the items blank. You must do your best to enumerate all of them on Census Night. If you meet a mentally ill person on the second or subsequent days of enumeration in your E.A., do not enumerate him unless you have very good reasons to believe that he/she has not already been enumerated.

To avoid omissions and double counting of the population, all the floating population, and the population enumerated as group quarters, once enumerated with PHC 1D, should be issued a CERTIFICATE OF ENUMERATION. The Certificate of enumeration should be kept by the respondent until the census operation has ended. You should inform these people who have been enumerated to show the certificate to any Census Official to clear any doubt of his/her enumeration when the need arises.

CHAPTER 13

WHAT TO DO DURING ENUMERATION PERIOD

13.1 When does enumeration begin?

Enumeration of all persons in **households** and **all living quarters** for the 2021 Population and Housing Census starts on the morning of **28th June 2021**. You will start visiting each house/compound in the order in which they were listed in each Enumeration Area (EA) and start enumerating all persons who spent Census Night in households (i.e. usual members of household and visitors present on Census Night). The non-household population will be enumerated on the morning of **28th June 2021**. Prior arrangements must be made by Enumerators and their Supervisors with the institutions. For the **floating population**, i.e., those in transit, enumeration will be carried out a few hours before the Census Night (**27th June 2021**).

13.2 Who should be enumerated?

Every person who spent Census Night in a household, in an institution (i.e., an established organization, especially one dedicated to education, health care, the care of the destitute, poor, or any other public service institution) or in an outdoor location (as floating population) in your EA must be enumerated. All usual members of a household and their visitors who spent Census Night in the house must be enumerated. All usual members who did not spend Census Night in the house must not be enumerated in that particular household but will be listed on A12 as usual members absent. Thus, the following three groups of population are to be enumerated:

- a) All persons who spent Census Night in a household in Ghana.
- b) All persons who spent Census Night in an institution in Ghana.

Sometimes groups of people live together but do not belong to a household. Those in hospitals, colleges, hotels, barracks and prisons are examples of this. Such places are called institutions.

- c) All floating persons (i.e. transient population in Ghana).

13.3 Enumeration Period and Working Hours

You will have to work outside the normal working hours during the enumeration period. You should work as hard as you can to complete your assignment during the Census Enumeration Period. If it becomes obvious that you cannot finish on time, report the matter as soon as possible to your Field Supervisor. **But, under no circumstance should you stop working before completing enumeration in the whole Enumeration Area.** Working hours will not be fixed for you because, in many cases, you will have to work at very odd periods. Remember that you are performing an invaluable national service. Motivate yourself to give of your best in order to finish the enumeration within time.

A Population and Housing Census takes place once in ten years. Help to make this one a success and you will feel proud thereafter that you made a worthwhile contribution to the success of the 2021 Population and Housing Census of Ghana.

13.4 What is the unit of enumeration?

For the purpose of this Census, the **units of enumeration are the individual and housing units**. In private houses/compounds, an **additional unit of enumeration** in which persons will be identified is **the household**. In institutions, the additional unit is the hall, house, wards, cells, etc., and for outdoor sleepers, it is their location.

13.5 Look out for those likely to be omitted

There are certain categories of persons who are likely to be omitted during the enumeration period. You should, therefore, make sure to enumerate the following categories of persons who spent Census Night in the household:

- a) Workers on duty on Census Night (27th June, 2021) who are members of the households (example: watchmen or security guards, doctors, nurses, etc.)
- b) All newly born babies in the household who were born alive before Census Night. It does not matter whether they have been named or not or whether they have died since Census Night;
- c) All persons who died after Census Night but who were alive on Census Night;
- d) All physically challenged or mentally ill persons;
- e) All old men and women;
- f) All visitors not present at the time of enumeration;
- g) All servants/domestic employees.
- h) Persons who on Census Night are found at wake-keeping, night clubs, on the street, etc., but will be going back to their houses must not be enumerated as floating population but rather in their homes as household members.

Highlight that different households must be enumerated using separate PHC 1A questionnaires.

In short, you must enumerate every human being of whatever sex, age, social or family status and health condition who spent Census Night in a household or in an institution or slept outdoors in your EA.

13.6 Look out for the following who should not be enumerated

Note that persons (relatives or non-relatives) who are not members of the household staying in the household at the time of enumeration but who spent the Census Night in another house or outside Ghana should not be enumerated. In the same way, babies born after Census Night and persons who died before Census Night should not be enumerated.

13.7 Enumeration of all Census Officials including yourself

All the rules of enumeration also apply to census official. You must enumerate all Census Officials who spent Census Night in their respective houses in the usual way. Census Officials who were engaged on census duties during Census Night must also be enumerated in their usual houses.

13.8 Who should be interviewed?

Persons to be interviewed with PHC 1A

Though we require information on every person who qualifies to be enumerated, it is not likely that you will obtain information directly from every individual. In some cases, you will have to rely on some responsible persons in the household you visit to give you information about persons who may be absent when you call but who spent Census Night in the household.

You must **never** rely on the following persons to supply you with the information required:

- a) Young children
- b) Strangers
- c) Mentally ill persons
- d) Persons with weak memory

Remember that in most cases you will have to use your own judgment to decide whom to rely on to provide the information required. It is, however, best if the information is provided by the head of household.

Persons to be interviewed with PHC 1B-1E

Field personnel must engage the appropriate authorities or responsible persons and seek for permission before enumerating the populations within these institutions. For stable, unstable (except guest in hotels/guest houses) and floating population groups, the individuals should answer the questions themselves. For guest in hotels/guest houses, it is expected that the respondents fill out the questionnaire themselves.

13.9 Need to make appointments

To complete your enumeration on schedule, you must work steadily every day. It is, therefore, important to make appointments so that you will have work to do every day. In rural areas, the chief/assemblyman/woman/community leader may help you by asking some people to stay at home each day. If you miss a day's work because the people are all on their farms, you will probably not finish your work on time. You should hand over your work to your Supervisor only after you have finished the task assigned. **Your second tranche of allowance will be paid only after the satisfactory completion of your work.**

13.10 The use of Call-back Cards

In many cases, you may find that when you call at a house there will be no one around to give you the required information. Since we do not want to miss any person from this census, you must call back when the persons are likely to be at home. Try to call back at different times of the day or ask neighbours when they are likely to be in. Especially, in urban localities, you will be provided with cards on which you must indicate when you will call again. Leave this card in the house and try to call again at the time you have stated.

In most rural areas, you must not use call-back cards but you may leave a message with neighbours stating when you will call again. Do not leave any house out of the enumeration simply because you did not meet the occupants when you called. Try to make as many visits to the house as possible until you succeed in getting the respondent(s) to enumerate. After making unsuccessful attempts, if you still do not meet anybody in the house, make a note about this house in your Listing Form and report the matter to your Field Supervisor. In cases where you are unable to contact your Field Supervisor because you may be working in a remote village, you must decide on your own how best to obtain the necessary information, e.g., from neighbours, the Chief, Assemblyman/woman/ community leader, etc., and must report back to the Supervisor later.

CHAPTER 14

GENERAL INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRES

14.1 Format/Layout of Questionnaires

The front pages of the questionnaires have been designed for identifying houses/structures, households, and institutions. The section of the questionnaire for individuals is divided into columns and rows.

In the **inside pages of the questionnaires**, there are sections covering various topics and the members of households and institutions are each identified by their person ID and **Names**. Each member also retains his/her person ID number throughout the interview.

For recording/entering responses there are **boxes**. In each box or boxes the appropriate code or codes should be entered. For each person, you must accept **only one** response out of the alternatives given for each question (unless instructed otherwise). You should adhere strictly to the instructions for filling the questionnaires to yield optimum results. While recording the responses, avoid missing and double entries.

Five different types of questionnaires; PHC 1A, PHC 1B, PHC 1C, PHC 1D and PHC 1E will be used to enumerate the population. Take note that all questions are written in small letters while instructions are always written in CAPS. These instructions are meant to guide you as an enumerator to be effective, and are not supposed to be read to the respondents.

PHC 1A will be used to enumerate conventional household population and homeless households. For those in homeless households, information will be provided from A11, A12, E01 and P00 to M02 only.

PHC 1B will be used to capture stable group Quarters/Institutional population such as the Basic School (KG, Primary, JHS), Senior High School (SHS, Secondary, Vocational, Technical), College (Education, Nursing, School of Hygiene, Agriculture etc.), University/ Technical University/Polytechnic, Hostel, Service Training Institution(Police training, Military Academy, Army Camp, Immigration training, Fire Academy, Prisons training, etc.), Seminary/Theologian school, Convent/ Monastery, Prison/Borstal/Correctional homes/Industrial school, Children's home/ Orphanage/ Destitute home/ Old people's home, Mining camp/ Road camp/ Farm camp, Refugee camp, Leper settlements (Leprosarium), etc., **Note that Schools and other facilities without boarding facilities are NOT 'institutions/group quarters'**.

PHC 1C will be used to enumerate 'unstable' group quarters/institutional population that will be found in the under-listed places on Census Night.

- a. Hospital, Polyclinic, Health centres, Clinics, Maternity homes, Health posts, CHPS compounds, Divine healers or Herbalist establishments, Bone setters' facilities, Infirmary/sick bays, Prayer camps.
- b. Remand homes, Police/Immigration/Military cells

PHC 1D captures the floating population. The floaters are defined to include

- a. Those who will be found travelling on Census Night.
- b. Those in transit e.g. at railway stations, in ships, in ferries, inside harbours, at airports, at international border posts, etc.
- c. Those found in and around Lorry Parks, marketplaces (inside or outside).

- d. Other location of floating population e.g. on floor near shops, on the beach, on the veranda of houses, on pavement in front of office premises, locations of persons not in transit, e.g. mentally ill.

PHC 1E is a paper questionnaire to be self-administered by guests in hotels, guest houses and motels. Note that an EA with hotels, guest houses, motels will require that the enumerator drops questionnaires at the receptions in the evening of the Census Night (**27th June 2021**) at about 6 p.m. Explain to the owner or manager or receptionist about the need for guests who will spend the Census Night to fill the questionnaire. The enumerator is expected to pick-up the completed questionnaires the next day (**28th June 2021**) and enter the information on the completed questionnaire onto the CAPI and sync the data to his/her Supervisor. It is important that the Enumerator should also **SUBMIT ALL** the paper questionnaires to his/her Supervisor after syncing the data.

It is important to note that PHC1A and PHC 1B have the same questions from P00 to P27.

It is also important to note that the contents of the PHC 1C, PHC 1D and PHC 1E are the same even though they will be used to capture different categories of the population.

14.2 Filling the questionnaires

It is extremely important to indicate the **QUESTIONNAIRE ID** (made up of the EA number, structure number, the household number and the questionnaire number) at the right top corner of each page of the questionnaires. Note that the household number (HH No.) on the PHC 1B questionnaire, may refer to the serial number assigned to the homeless household, ward, cell, floor etc. enumerated.

In recording/entering answers for an individual, make sure you enter them in the box(es). For example, if in the relationship column the respondent is the head of the household, write/enter code '01' in the boxes provided as shown below.

Relationship Codes

Head.....	01
Spouse (Wife/Husband/ Living together).....	02
Child (Son/Daughter.....)	03
Parent	04
Parent in-law.....	05
Son in-law.....	06
Daughter in-law.....	07
Grandchild.....	08
Great Grandchild).....	09
Brother/Sister.....	10
Stepchild.....	11
Foster child.....	12
Adopted child	13
Other relative.....	14
Non-relative.....	15
Househelp.....	16

Another example is, if in A11b a respondent's relationship to the head of household is son, the code is 03. In the response boxes provided, enter '03' as shown below.

0	3
---	---

In the same way, in P06, if a respondent was born in the Eastern Region (which is coded '05'), you should enter '05' in the boxes.

0	5
---	---

14.3 Entering responses

There are some questions with pre-coded answers, and you should take care in the process of entering in the boxes.

You must **enter in the appropriate box(es)** provided, numeric and alpha-numeric responses. Precede the number with zeros in situations where the number of digits is/are less than the number of boxes provided. Examples are provided below.

For example, in P02, a respondent whose age is “49 years” should be entered in the boxes provided as shown below.

0	4	9
---	---	---

14.4 Questions that require description and coding of responses

Responses to some questions require a description in addition to writing/entering appropriate codes in the box. These questions are Occupation (P14), Industry (P15), etc. In these cases, you should write the response in the space provided, then write the correct code in the next column. For example, if a former household member has emigrated to Nigeria, write Nigeria in the “Country” column and enter code 11 in the boxes corresponding to that emigrant as shown below:

1	1
---	---

14.5 Other (Specify)

Some questions such as employment status, employment sector, housing conditions, etc. have the response category “other specify” in addition to a list of response categories. You must use the “other specify” category **only** when the response to the question is not in the list of the given pre-coded responses. In a situation like this, you are to enter the code in the box corresponding to "other specify" category and then **specify (write)** the appropriate response in the space provided. Write the response in block letters. For CAPI, select the "other specify" category and it will open a line for you to type in the appropriate response. For example: If the respondent indicates that she is a Buddhist, question P09 should be filled in as shown.

Note: Check and double check to ensure that the option you record for other (specify) is not one of the available responses.

P09	
RELIGION	
What is [NAME's] religious affiliation?	
No religion.....	1
Catholic.....	2
Protestant (Anglican, Lutheran, Presbyterian, Methodist, etc.).....	3
Pentecostal/Charismatic.....	4
Other Christian.....	5
Islam.....	6
Ahmadi.....	7
Traditionalist.....	8
Other (specify).....	9
CODE	OTHER (SPECIFY)
9	BUDDHIST

14.6 Go To (Skipping)

The response to some questions necessitates the skipping (leaving out) of some questions (or alternatives to some questions). In such instances, the prefix 'Go To' is used to indicate that some subsequent questions (or alternatives to some questions) must not be asked. For example, in P12a, there is an indication in parenthesis (**IF P12a = 1; Go To P13a**). This means that if the response to P12a is “NEVER”, you **MUST NOT** ask questions P12b and P12c. CAPI is programmed to automatically skip when required.

14.7 Using paper questionnaire to conduct interviews

You have been told earlier that you will use CAPI to elicit the census information from the households and individuals. However, there may be extremely rare cases when you may have to conduct an interview with a paper questionnaire, due to delays in resolving a technological challenge and that you do not want the census work to unduly delay.

Under such circumstances, you are required to transfer the information unto the CAPI, when normalcy has been restored. Remember, however, that you will be required to account for all documents given to you. Therefore, you will submit all the completed questionnaires to your Supervisor. The questionnaires would be kept for future reference should the need arise.

Note that the Census Secretariat will not under any circumstances accept filled paper questionnaires in the place of CAPI entries.

CHAPTER 15

HOW TO RECORD ENTRIES ON THE FRONT PAGE OF THE QUESTIONNAIRE

15.1 Entries on the front page of the Questionnaire

On the front page of the questionnaire, spaces are provided for general information:

- (A01) Detailed Physical Address of Structure/Compound
- (A02) Ghana Post Digital Address
- (A03a) and (A03b) Household Contact Phone Number(s)
- (A04) Enumeration Area Code
- (A05) Structure No. of House/Compound/Group Quarters
- (A06) Serial No. of Household within House/Compound or subgroup of Group Quarters
- (A07) Type of Residence
- (A08) Date Enumeration started
- (A09) Date Enumeration completed
- (A10a) Total number of visits
- (A10b) Form numbering (forms used)
- (A11) Household Roster (Usual Household Members and Visitors present on Census Night)
 - Total Number of usual members present and listed as Status A by sex
 - Total Number of visitors present and listed as Status B by sex
- (A12) Total Number of usual members absent and listed as Status C by sex
- (A13) Total Number of persons enumerated (i.e. Status A)
- (A14) Total Number of visitors present and enumerated (i.e. Status B)
- (A15) Total Number of usual members absent (i.e. Status C)
- (A16) Total Number of usual members present and visitors present (i.e. A13 + A14)

15.2 How to fill out the general information entries

On the front page of the questionnaire, spaces are provided to elicit general information about the location of the household as well as the status and size of household population. For some items on the front page, alphabetic responses are expected, some require a combination of alphabets and numerals known as alphanumeric, while others only require numeric responses to be entered. An **alphabetic** response is one that consists of alphabets (e.g. A). Alphanumeric response is a combination of alphabets and numbers e.g. GT-331-7273. A numeric response, on the other hand, consists of only numerals (e.g. 07).

Boxes have been provided to enable you to write the responses. Each box is for one character.

15.2.1 Detailed physical address

(A01) Detailed physical address of Structure/Compound – Confirm or update the address of the structure or compound that was recorded during listing. Note that the address should be precise and easy to follow to find the location of the structure or compound on subsequent visits. Record the House Number and the street name if provided or available. E.g. C49/2

Castle Road, Adabraka. Otherwise enter a precise description of the location of the structure or compound. For example,

- (a) KWAME ADOMAKO'S HOUSE ON THE MAIN STREET, DIRECTLY OPPOSITE GOD IS GREAT DRUG STORE, OR
- (b) MUSTAPHA BUKARI'S HOUSE, SECOND COMPOUND TO THE EAST OF THE CHIEF'S PALACE.
- (c) LEGON HALL, UNIVERSITY OF GHANA
- (d) HOUSE TWO, ASANKRAGWA SENIOR HIGH SCHOOL
- (e) NSAWAM FEMALE PRISON, WARD 5
- (f) AGOGO HOSPITAL, CHILDRENS' WARD

Note that the address of the structure or compound on both the listing form and the PHC 1 questionnaire must be the same. If it becomes necessary to correct any address on the PHC 1 questionnaire you must also correct it on the listing form.

For a location of the floating population, the precise name of the place must be written in the space provided. E.g. Amasaman Goil Filling Station before the toll booth towards Kumasi; VIP Bus Station Circle Accra.

15.2.2 Ghana Post Digital Address and Household Contact Phone Number(s)

(A02) Ghana Post Digital Address - Record the Ghana Post Digital Address for the structure if embossed on it, otherwise obtain it from the residents. Leave it blank if the address is not available. The address has between 11 and 13 alphanumeric characters, including hyphen (-). For example, GA-398-9594 or XW-0214-2312.

(A03a) and (A03b) Household Contact Phone Number(s) – Record the contact phone numbers of the household in the spaces provided. If the household has two phone numbers, record both. On the other hand, if the household has only one phone number, record it in the space for A03a and leave that of A03b blank.

15.2.3 Enumeration Area Code

(A04) Enumeration Area Code – The EA code is the first ten (10) digits of the login ID. The Supervisor login ID has the first ten digits as the SA code. The supervisor has to provide the enumerators with their respective login IDs after the assignment creation in order to enable them login to their assigned EAs.

15.2.4 Structure number

(A05) Structure No. of Structure/Compound – This is a four-digit serial number assigned to the structure to uniquely identify it in the EA.

The CAPI Application automatically prefills the structure number from the listing data and does not make it available to the enumerator for editing. The respective structure numbers of the households appear as part of the addresses of the households list brought from the listing database. This is to ensure consistency of structure numbers between the listing and PHC 1 data.

(A06) Serial No of Household within a Structure/Compound - Every **household** enumerated in each structure or compound is automatically given a **three-digit** serial number which is not available for the enumerator to edit. (Refer to Listing of Structures in Section 8.2 and completing the Listing Form in Section 10.4)

(A07) Type of Residence – Write the appropriate code in the relevant box provided for the type of residence. Refer to question LH12a in Section 10.4 on the types of residence.

For PHC 1A, the responses for type of residence are 01, 02, 03 and 98.

For PHC 1B, the responses for type of residence are 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16.

For PHC 1C, the responses for type of residence are 17, 18, 19, and 20.

For PHC 1D, the responses for type of residence are 21, 22, and 23.

For PHC 1E, the response for type of residence is 24.

15.2.5 Date of enumeration

(A08/A09) Dates and Time of Enumeration – The start/end dates and time of enumeration are recorded automatically in the CAPI application and are not made available for editing.

15.2.6 Number of visits and forms used (if paper questionnaire was used)

(A10a) Total Number of visits – Record the total number of visits to the household before enumeration was completed. For example, if three visits were made by an enumerator before enumeration was completed, record ‘3’ in the box provided for A10a. Record 9 if more than 9 visits were made.

(A10b) Number of forms or questionnaires used (if paper questionnaire was used)

Write the number of forms or questionnaires used for each household.

One Questionnaire used

If one questionnaire is used for a household write 1 of 1 in the boxes provided.

Example:

FORM
 /

Two Questionnaires used

If two questionnaires are used for a household, write 1 of 2 in the boxes (for the original questionnaire) and 2 of 2 for the supplementary questionnaire.

Example:

FORM
 /

and

FORM
 /

15.2.7 (A11) Household Roster:

Listing of Usual Members and Visitors Present on Census Night (i.e. 12:00 a.m. on 27th June, 2021)

Population in households in the 2021 PHC will be enumerated using the PHC 1A questionnaire.

In order to cover completely all persons in the 2021 PHC, population in households has been put into three statuses to facilitate enumeration and to avoid double counting. The statuses are:

- Status A – Usual members present on Census Night
- Status B – Visitors present on Census Night
- Status C – Usual members absent on Census Night

A usual member of a household is:

- A person who (whether present or absent on Census Night) has spent at least the last six months with the household, or
- A person who has spent less than six months but intends to spend at least six months with the household.

Note: Short term absences (less than six months) especially for travel or business do not disqualify one from a usual member of the household (please probe and ascertain) E.g. Students who occasionally come home on vacation

Visitor(s) are:

- Non-usual members of a household who spent the Census Night with the household
- This person(s) could be a relative(s), friend or a stranger(s)
- He or she could be present or absent at the time of interview

Statuses A and B together constitute the census day (*de facto*) population

The following information would be derived from the CAPI so the field officer is not required to provide this information in the CAPI Application:

(A13) Status A - Total number of persons (Males and Females) listed as usual members present.

(A14) Status B - Total number of persons (Male and Female) listed as visitors present.

(A15) Status C - Total number of persons (Male and Female) listed as usual members absent.

(A16) Total Persons (Male and Female) Enumerated.

Household Roster: List of accurately identified household members

Information on the survival status of biological parents will be collected in this module.

Probing to record accurate data on age, sex, and relationship to head of household about members of the household is critical for the overall success of the 2021 PHC.

This module is therefore seeking to describe the dynamics of the household such as headship and household structure, family ties and relationships.

The first row of the household roster is for the information on the head of household. Record the full name (A11b1 – A11b4), relationship (A11c) and sex of the household head (A11d). Then record the names of each usual member of household and each visitor who slept in the house on Census Night together with their relationship to the head of household, relationship code and sex. In writing the name(s), arrange them such that the ‘first name’ comes first, then the ‘middle name’ followed by the ‘surname or last name’. In addition, if the person has a popular name or in some cases, ‘nickname’ provide it so that it will be easy to trace if it becomes necessary. The arrangement must be adhered to as this will also help during a matching exercise in the Post Enumeration Survey (PES). Indicate in question A11e whether a listed person is a **usual member** who slept in the house/compound on Census Night (**i.e. Status A**) or whether he/she is a **VISITOR** (**i.e. guest of any member of the household**), who slept in the house on Census Night (**i.e. Status B**).

Names should be arranged in order of first name, middle name, surname and popular name. Leave the column blank if a particular member doesn’t have a popular name or a middle name. For instance, if the respondent has no middle name, you must leave the column for middle name blank.

A typical household may have the following composition:

1. Head
2. Spouse(s)
3. Children (start from eldest child)

4. Additional members of household (parents of head, parents of spouse, other relatives, non-relatives, etc.)
5. Visitors present on Census Night

List in the following order (where applicable)

For a household, you will usually have the following household pattern:

1. Head
2. Spouse
3. Children (start from eldest child)
4. Parents of head;
5. Parents of spouse;
6. Other relatives;
7. Non-relatives;
8. Househelp living with the household
9. Visitors present on Census Night.

In a household where a head has more than one wife as part of one household, the listing should be as follows for all persons who will have spent the Census Night:

1. Head
2. First spouse followed by all her children
3. Second spouse followed by all her children
4. Continue to list all spouses and their children until they are finished
5. Other children of the head
6. Parents
7. In-laws
8. Other relatives (niece, nephew, grandchildren etc.)
9. Non relatives
10. Househelp living with the household
11. Visitors

You must note that this method of listing the names first is to ensure **completeness of coverage** within the household. If this is not done the respondent may forget to give information on all the eligible members. In this connection, you must make sure that all babies born before Census Night are listed.

After listing all persons as provided by the respondent, ask whether there are any other persons who spent Census Night with the household e.g.

1. Persons alive on Census Night but who died before the enumerator's visit
2. Babies born before Census Night still living or dead at time of visit
3. Functionally impaired (Mentally, physically challenged) persons
4. Elderly men and women
5. House-help living with the household
6. Visitors present on Census Night but absent at the time of Enumerators visit

You should record the relationship codes in the column provided (using the codes provided for relationship (below the household roster – A11). You should then indicate the sex of each person in A11 by coding ('M' for male and 'F' for female in the sex column).

You should note that the non-household population roster in PHC-1B does not have a column for **STATUS**.

(A12) Listing of Usual Members Absent on Census Night (Status C) - This section should include any usual household member(s) absent on Census Night. If a household member did not sleep in the house on Census Night, list such person in A12.

Note that for persons classified as Status C, you must first record the:

- a) Full name (A12b)
- b) Relationship to head of household (A12c)
- c) Sex (A12d)
- d) Age (A12e)
- e) Village/ town/country where the usual member absent spent Census Night (A12f)
- f) Total number of months (**completed months**) the usual member has been absent from the household (A12g).

Use the District codes and Country codes provided in Appendix 2 and Appendix 3 respectively. When using the tablet, select from the pull-down menu.

Then write in **completed months** how long he/she was absent up to the Census Night. For example, if the person has been away for two months three weeks write "02" in the space provided. If he/she has been absent for less than one month, write down "00". Note that if the person has been away for **six months or more, he/she must not be considered as a usual member of the household.**

Note that if the usual head of household was absent on Census Night, he/she must never be entered as HEAD in the relationship column but rather specified as the Husband, Brother, Mother, etc., of the temporary Head in A11.

15.2.8 Important points to note about Head of Household, Name, Relationship to Head, Sex and Age

1. Who is the Head of the Household?

The head of household is a member of the household who is acknowledged by the other members as the head and has the primary responsibility for making major decisions on the household's living arrangements. The person, who could be either a male or female, may or may not be the main income earner of the household. Refer to Section 5.3.3 for further explanations on household headship.

If the head of household was away on Census Night you must ask for the person who took charge of the household when the usual head was away. This person thus becomes the head of household and all other relationships must refer to this person and not to the usual head who was absent. Record the name of the head of household on the first row of the household roster and write in the relationship column "**Head**". Then relate all other relationships to this person. E.g., if the usual head of household was away and the wife becomes the "**Head**" all the relationships must refer to his wife. The usual head, (the "Husband") will be classified under **Status C**.

2. Full Name

Write in the spaces provided in the first column of the Household Roster (A11) the full names of household members and visitors who spent Census Night in the household. The names you put down must be such that if a second visit is paid to the house during or after the final enumeration, the persons to whom the names refer can easily be identified.

Persons with more than one Name - If a person has two names, one for official use and the other for use at home, write down the name(s) by which he/she is best known in the neighbourhood or village where he/she is being enumerated and then write his/her other name(s) in parenthesis. For example, Ato Safo (Charles Mensah).

Babies who have not been named - Occasionally, you will come across babies who were born before Census Night but who have not been named by the time you call to enumerate. In such cases, write down only the day name (e.g. Kwame, Akua, Abla, etc.) of the baby together with the mother's name. For example, if the newly born baby's day name is Kwame and the mother's name is Akua Mansa, the name you must put down is Baby Kwame, Akua Mansa's

son. In areas where day names are not used, assign a letter of the alphabet such as A, B or C to the baby. If the mother's name is Likidami, then the name should be 'Baby A, Likidami's daughter' or 'Baby B, Laarbik's son' etc.

Persons who refuse to give out their names - Sometimes you may come across a person who will refuse to give you his/her name although he/she may be quite prepared to give you answers to the remaining questions. Explain to such a person that the law strictly forbids the disclosure to unauthorized persons of any census information and that the name is required only for identification purposes in connection with later checks on the accuracy of the information being collected. If he/she still refuses to give his/her name assign a letter of the alphabet such as A, B or C for him/her and proceed to record the other facts. After completion of the questionnaire, you might be able to obtain the person's name from other sources, e.g. neighbours, chiefs, etc.

Persons with identical names - You may also come across households where two or more persons have identical names. In such cases, you must record also the nicknames, or any other names by which they are distinguished in the household or by neighbours and friends, e.g., Kofi Kyamba Panyin and Kofi Kyamba Kakraba. If this is not possible, you must distinguish them by physical characteristics such as height or fatness or shortness. Thus, for instance, you can have Abongo Jato (fair coloured) or Kofi Dogo (tall).

3. *Relationship to head of household*

What is required in the relationship column is the relationship of each member of the household, including guests and visitors, to the head of household (Refer to Section 5.3.5 on recording the relationship to the household head).

For all non-household population (group quarters), the code for relationship is 17. You should therefore select "Group Quarters" in the relationship column and record 17 in the corresponding boxes for all non-household population.

4. **Sex**

Refers to whether a person is a male or female and it is about biological or genetic differences between a male and female such as the genitals (penis and vagina). Do not assume the sex of a household member on the basis of name or looks. Enumerators must enquire about the sex of each household member before recording and ensure that they enquire about the sex of children and newly born babies who have not been named at the time of visit

It is important to ask whether a person is male or female when information is being given to you by a third person. Do not infer the sex from the name or names of the person. Bear in mind that some names are given to both males and females and can be misleading in this respect e.g. Kafui, Dela. Some people also use George as a short form of Georgina and Ben for Bernice

5. *Status*

The Enumerator should indicate whether the person on the household roster is a Usual household member or is a Visitor present on Census Night by providing the appropriate code, i.e. Code 'A' for usual household members present on Census Night and Code 'B' for Visitors present on Census Night.

15.2.9 Maternal and Paternal Orphanhood (A11e and A11f) Is [NAME]'s biological mother/father alive?

There are two different questions that seek to find out the survival status of the **biological** mother (A11f) and father (A11g) of each individual on the household roster. Note that in some

cultures, people recognize others as their mothers or fathers even though they may not be the biological mothers or fathers. For the purpose of the Census, the Enumerator should endeavour to record the survival status (i.e. alive or dead) of biological mother and father. Tactfully explain this to the respondent so that he or she will not feel offended. Three response categories, ‘Yes for code 1’, ‘No for code 2’ and ‘Don’t Know for code 3’ have been provided.

A biological mother is the woman who gave birth to the child. Note that a surrogate mother (the woman who carries the pregnancy) and the woman who contributed the ovum are both considered a biological mother of the child. A biological father is the man whose sperm fertilized the ovum from which the child was conceived.

- i. Enter the appropriate codes in respect of the survival status of the respondent’s **biological mother and father** respectively. Note that at times **some children** are brought up or adopted at a very young age. Such foster parents should not be considered as the biological parents of the respondent.
- ii. In some cases, a child’s biological mother/father may not be married or living with the mother/father. In this case the mother/father might report that she/he does not know whether the mother/father of her child is alive or dead. In this case enter “3” for ‘Don’t Know’. You must always probe to ensure you obtain the most satisfactory response.
- iii. Each Question should be asked independently as it appears in CAPI.

A11h: Is [NAME] currently covered with any health insurance?

This question will be asked of all household members. Four response categories have been given.

1. Yes, NHIS
2. Yes, Private
3. Yes, both NHIS & Private
4. No

Select category 1 “Yes, NHIS” for household members who have registered with the National Health Insurance Scheme (NHIS) only and have either renewed their membership or paid the annual premium. Category 2 “Yes, Private” should be selected for household members who have only registered with a private health insurance provider and have either renewed their membership or paid the annual premium to the scheme. Category 3 “Yes, NHIS & Private” should be selected for household members who, in addition to the NHIS, have also registered with a private health insurance provider, and has either renewed their membership or paid the annual premium. Category 4 “No” should be selected for household members who have neither registered with the NHIS nor a private health insurance provider. This category also includes those who have registered (either with NHIS or private insurance) but have **neither renewed their membership nor paid their premium**. It is worth emphasising that registration does not connote coverage. Coverage is only achieved when every renewal or premium conditions are satisfied by the household member after registration.

15.2.10 Emigration (Migration Outside Ghana)

The emigration module is a component of the PHC 1A questionnaire that is to be used to capture information on Ghanaians who were once usual members of a household but have currently moved to live continuously outside the borders of Ghana for 12 months or more or have the intention to live continuously for 12 months or more. As an enumerator, you have the duty to identify and record information on all emigrant persons.

This section intends to collect information on persons who used to be members of the **household** who have travelled outside Ghana. Answer for those:

- a) Who have travelled outside Ghana and have been continuously living there for more than one year?
- b) Who have travelled outside Ghana, have stayed for less than one year but intend to stay there for one year or more?

The following information will be collected on emigrants: Full name, Relationship to head of household, Sex, Age (in completed years), Destination, year of departure and Main reason for travelling

Relationship to head of household: It means the current head of household where enumeration [0is being conducted

Age in completed years: means that all the ages must be written in full years, disregarding fractions of years and months. It also refers to the age of the former household member at the time of departure

Year of departure: The year in which the former household member left the borders of Ghana

Main reason for travelling: This is the main reason given just before the trip was made whether it was for employment, family reunification, settlement, education/training, asylum/refugee, conflict, disaster or some other reason.

Complete and accurate data on emigrants is used to generate various emigration indicators to support the effective implementation of population and development programmes for decision making. Indicators such as: Stock of emigrants, Net migration, Proportion of households with emigrants, Distribution of emigrants' destinations, Age distribution of emigrants, Sex distribution of emigrants, Duration of stay of emigrants, Main reason for travelling outside the borders of Ghana and Population projections will be derived from this module.

E01 Has anyone who used to be a member of this household been living continuously outside Ghana for more than 12 months, or intend to live there for at least 12 months?

This question seeks to identify all persons who were once living in Ghana but have migrated outside the country (emigrated to other countries). Note that we are not referring to people who have moved from one region of Ghana to another. We are referring to **those who have travelled outside Ghana and are currently staying outside Ghana**. This means that these persons can be located outside Ghana's borders and that information about them is being sought from the household to which they once belonged (former household). Thus, these persons are **former household members** who have emigrated and have been **living or intend to live** continuously outside Ghana for 12 months or more before **Census Night**. This should include persons who have not been visiting at all, those who have been visiting from time to time and those who have been away for less than 12 months but intend to stay away for a longer period (12 months or more). Code '1' (Yes) if any former household member has travelled outside for 12 months or more and Code '2' (No) if nobody has moved. If the response is 'Yes', proceed to ask question E02). If 'No', Go to P00.

E02 Recording of information on Emigrants

These questions are to be answered only for those households who responded 'Yes' in E01.

Full name (E02a): list the names of all former household members who have moved and living outside Ghana. This includes persons who are living continuously or intends to live outside Ghana for one year or more.

Relationship to head of household (E02c): should refer to the relationship between the emigrant and the current head of the household.

Sex (E02d): Record sex of emigrant

Age (E02e): Age recoded should be the emigrant's age at the time of departure. Note that age should be recorded in completed years.

Destination (E02f): enter the country code for the destination country of the emigrant. Refer to Appendix 3 of this manual for the country codes.

Year of departure (E02g): Record year that the individual emigrated.

Main Reason for Travelling (E02h): The question on main reason for emigration captures what reason was given just before the trip was made; whether it was for employment, family reunification, settlement, education/training, asylum/refugee, conflict, disaster or some other reason. It is a fact that reasons why people migrate could change when they get to the destination. For instance, someone who emigrate with the intention to go school but then decides to work when he gets to the destination - in that case the main reason for travelling should be Education/Training (4).

Seven possible causes have been provided.

1. **Employment:** This category refers to people who moved to their current place for work related purposes. For example, people who moved in search of work, transfer or secondment, establish their own business, etc. Note that for parents who moved for employment reasons, an accompanying child would be an accompanying child and should have code 3 as an option for E02h.
2. **Settlement (Long-term /permanent stay):** People who had moved from their previous place of residence to settle either permanently or temporary at the current place.
3. **Marriage, Separation/Family related issues/Accompanying child and other marriage related issues:** These include people sharing family ties, joining people who are either migrating or have previously migrated (i.e. people who have moved to reunite with their family or separated from their spouse/ family. In cases where children moved with their parents/family for whatever reasons, enter code “3” as reason for movement to current location.
4. **Education/Training:** This category refers to people who have moved for education and training purposes. This includes apprentices who have moved to learn a trade.
5. **Socio-political displacement (Asylum seekers, refugees, war, ethnic conflict, political etc.):** These are people who have moved from one community to another as a result of conflict in their previous community. It also includes persons who have moved into Ghana as a result of conflict, fear of persecution, etc. in their country.

Refugee: A person, who “owing to well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country” (*Convention relating to the Status of Refugees, Article 1A(2), 1951 as modified by the 1967 Protocol*).

Asylum seekers: Persons seeking to be admitted into a country as refugees and awaiting decision on their application for refugee status under relevant international and national instruments. In case of a negative decision, they must leave the country and may be expelled, as may any alien in an irregular situation, unless permission to stay is provided on humanitarian or other related grounds.

6. **Natural disaster displacement (flood, drought, fire etc.):** These are people who have moved into a different locality/country due to flood, famine, drought etc.
7. **Health:** This is when a person moves for health reason such as seeking medical attention, see a herbalist, etc.
8. **Other (specify):** This refers to the category of people whose reasons for moving do not fall into any of the categories described above.
9. **Don't Know**

NOTE: The relationship to head is with reference to the head of the current household. However, for all other questions on emigration (i.e. SEX, AGE, DESTINATION AND MAIN

REASON FOR TRAVELLING), should be with reference to the situation at the time of departure.

Soliciting information about emigrants from a different source and not the emigrants themselves poses a great challenge on you as an Enumerator. While some people may genuinely have little or no information about their family members who have travelled abroad, others may not want to disclose information about such members for various reasons. Therefore, seeking information about these emigrants require tactfulness and skillful probing in order to succeed. Using the codes provided, record the appropriate code for destination and the main reason for travelling.

Check for detailed explanation to the estimation of ages in Section 16.1 if the respondent is unable to determine the ages of the emigrants at the time of departure.

CHAPTER 16

HOW TO RECORD INDIVIDUAL AND HOUSEHOLD ENTRIES

16.1 Completing the Socio-Demographic Questions

The composition of households in Ghana reflects the social structure in the country. The household composition is therefore defined in terms of relationship of members of the household to one person that the members accept and recognize as the head. The person should be the one responsible for the management and upkeep of the 'house' and the household members. Thus, several factors modify the household composition, such as migration, modernization and the tradition of the extended family system.

The social-demographic characteristics of a population help in socio-economic planning and population projections. This section seeks to describe the dynamics of the household such as headship and household structure, family ties and relationships. It also attempts to analyse the socio-cultural characteristics such as marital status, literacy, and education of the population.

Key indicators that will be derived from this module includes Population distribution, Geographical distribution of the population, Age and sex distribution, Age dependency ratio, Migration patterns, Migration ratio, Net migration, Movers, and non-movers of the population. These questions are to collect information on all **individual members** of the household and **visitors** who spent **Census Night** in the household. The socio-demographic questions (P00 – P12c) are to be administered to all individual members of the household. Remember that these **individual entries are restricted to Usual members and Visitors who spent Census Night in the household (i.e. Persons listed as A or B in the MEMBER STATUS column in A11)** and persons in Group Quarters (i.e. institutional) and floating population who qualify to be enumerated.

P00 Write names of eligible household members (Status A and Status B): - Copy the names of **Usual Household Members** (Status A) and Visitors (Status B) from (A11). Do not change the line numbers of persons listed in the household roster (A11) when copying on to P00. This means that the full names of the usual household member(s) and visitor(s) should be copied in the same order you listed persons under STATUS 'A' & 'B' (Refer to Chapter 15, Section 15.2).

P01 Date of Birth: What is (NAME)'s date of birth? For date of birth you should record day, month, and year of birth for each person listed. If after probing the respondent can only provide the month and/or the year but not the day of birth, you should enter '98' for the day, then record the month and the year. In some cases, you may have to use various festive events such as Christmas, Easter, Odwira, Aboakyer, etc. to guide the respondent to determine the month of birth.

P02 AGE: How old is (NAME) in completed years?

The age of every person must be written in **3 digits in completed years** only. For those who know their birthdays, you should record the age at last birthday with reference to the Census Night (27th June, 2021). "**Age in completed years only**" means that all the ages must be written in full years, disregarding fractions of years and months. For example, 18 years 11 months as at Census Night must be recorded as 018. Do not record the months. All infants who are less than one year on Census Night must be recorded as being "000" year old.

Example 1: If a household member is 11 months old, write '000' in the three boxes provided as shown below.

0	0	0
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Example 2: If the household member is 1 year 11 months. Write '001' in the three boxes as shown below.

0	0	1
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Example 3: If a household member is aged 104 years and 2 months, write in the boxes as shown below.

1	0	4
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NOTE: The age of every person must be stated in completed years only. For those who know their birthdays the age to record is the age as at last birthday with reference to the Census Night.

What to do when a person does not know his/her age:

- i. For such a person, use the following method to estimate his/her age:
 - Ask him/her to name any historical event preferably a local one (as in Appendix 5), which occurred around the time of his/her birth.
 - Ask him/her to give you an indication of how old he/she was when that event occurred or how many years elapsed before his/her birth.
 - Then use this information to work out his/her age. For example, if a respondent tells you that he/she was about 15 years when Ghana attained her independence.

Given that the Census Night is 27th June, 2021;

Then, 6th March 1957 to 27th June, 2021 = $(2021 - 1957) = 64$ years

This person must be $15 + 64 = 79$ years

- ii. If this method fails, you must try the following approaches:
 - Simply estimate how old he/she may be.
 - Then select from your list of local, regional or national historical events which occurred about the time when according to your estimate, he/she must have been born.
 - Ask whether he/she has heard about any of these events.
 - If he/she has, ask him/her to give you an indication of how old he/she was when this event occurred or how many years elapsed before he/she was born.
 - Then from this information work out his/her age.
- iii. If this second approach also does not elicit the required information, then base your estimate on biological relationships. For instance, a woman who does not know her age but who has two or three children of her own is unlikely to be less than 15 years old however small she may look. You may then try to work out her age by the following method:
 - Ask her, at what age she had her first child.
 - Determine the age of her oldest child.
 - Then add her age at first child to the age of her first child to obtain her age. You must not base your assumption on the oldest living child without further probing. There is the likelihood that (in certain cases) the first child died or that the woman had miscarriages or stillbirths before the oldest living child was born. Therefore, if the woman tells you that she had one miscarriage or stillbirth before the oldest living child was born, you must make your estimation from the year of the first miscarriage, still-birth or live birth.

Note also that some women do not have children early in life while others have children earlier than what generally pertains in the community. Therefore, in every case you must find out whether she had her first child, miscarriage or stillbirth at the usual age before you assume, she was aged 18 years at her first pregnancy.

- Then use the information obtained by the above means to estimate her age.

- iv. Only as a last resort should you estimate a person's age from physical features.

- v. If you are obtaining information about an absent person from a third person, then obviously you have to rely on the information supplied by the third person in estimating the age in respect of the person who is absent. **Under no circumstance must you leave the age column blank.**

P03a. What is (NAME)'s Nationality?

You are required to differentiate between a Ghanaian by birth and a Ghanaian by naturalization as well as all other nationals.

- (1) Ghanaian by birth:
- A person born in or outside Ghana, one of whose parents is a Ghanaian citizen.
 - A child of not more than seven (7) years of age found in Ghana whose parents are not known.

Note that the choice of this option will skip you to P04 (ethnicity).

- (2) ***Ghanaian by naturalization:*** For the purpose of this census, a Ghanaian by naturalization include the following:
- Naturalization: A person who acquired Ghanaian citizenship by application and approval by Ministry of Interior.
 - Adopted Child: A child of not more than sixteen years of age neither of whose parents is a citizen of Ghana who is adopted by a Ghanaian.
 - Citizenship by Registration: A person who acquired citizenship by registration through marriage.

Note that the choice of this option will skip you to P05 (birthplace).

- (3) ***Dual Nationality (Ghanaian and other):*** This relates to a citizen of **Ghana** who holds the citizenship of another country in addition to his/her Ghanaian citizenship.

- (4) ***Non-Ghanaian:*** This relates to all persons who do not originate from Ghana. For these persons, they may have citizenship of a different country other than Ghana or have dual citizenship of other countries; none of which is Ghana. This group will also include stateless persons.

Stateless persons: Note that it is possible to find a person who does not have any nationality, otherwise called a "stateless person". A stateless person is a person residing in the Republic of Ghana, who does not hold the citizenship of the Republic of Ghana and has no proof of holding the citizenship of another State. Such persons do not possess the nationality of any State granted either automatically or under an individual executive order adopted pursuant to the law. For such stateless individuals assign code '8888' in P03b.

P03b. If P03a= 3, then P03b should be asked as this:

What is (NAME's) other nationality?

This question is to be asked of Ghanaians with dual nationality. Example, Ghanaian who has British citizenship. The other nationality in this case is British. Select the appropriate country and its code from the list of countries and their codes in Appendix 3. On the other hand, If P03a= 4 then P03b should be asked as this:

Which country does (NAME) come from?

Select the appropriate code from the list of countries and their codes in Appendix 3. If (NAME) is stateless, assign code '8888', after which you should go to question P04, ethnicity.

Note: Non-Ghanaians should not be asked question P04.

P04 ETHNICITY: To which ethnic group does (NAME) belong?

This question relates only to Ghanaians by birth and Ghanaians with dual nationality. Obtain from each of these persons what his/her ethnic group is and write it together with their corresponding codes in the boxes provided. A list of ethnic groups in alphabetical order and their codes has been provided in Appendix 4. **Note that this question does not seek the broad categories of the ethnic groupings. If for example a respondent indicates that he/she is an Akan, probe to find out which of the Akan groupings he/she belongs, whether he/she is Akuapem, Ahanta, Nzema, Sefwi, Akwamu, etc.**

Example: If the respondent is a Ga, you must enter code 201 in the boxes provided as shown below.

2	0	1
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P05 and P06 BIRTHPLACE

P05 Born in this Village/Town: Was (NAME) born in this town or village?

In this Census, the town or village (locality) of birth of a person is the usual residence (town or village) of the respondent's mother at the time of respondent's birth. For example, Akua Mansa who normally resides with her husband at New Tafo (Eastern Region) went to Dansoman in Greater Accra region to deliver her child in her mother's house. In such a case, the place of birth of her child will be New Tafo and not Dansoman. If, however, she stays in Dansoman after her child's birth for six months or intends to stay there for six months or more then, the birthplace of her child will be Dansoman and not New Tafo.

The following should not be regarded as birth place of respondent

- (a) A hospital or maternity home outside the usual place of residence of the mother;
- (b) The hometown of the mother's mother; or
- (c) Some other locality where the mother had gone for a short visit and gave birth.

If, however, the mother's length of stay outside her locality of usual residence is six months or more or the mother has the intention of staying in the new place for six months or more the "actual town/village of physical birth" is considered as the birthplace of the person in question.

Code '1' (Yes) if the person was born in the place of enumeration and '2' (No) if the person was not born in that place. **Note that a 'Yes' response will skip you to P07.**

P06 BIRTHPLACE OUTSIDE THIS VILLAGE/TOWN: In what district or country was (NAME) born?

Record the appropriate response in the boxes provided. As in P05, the region or country of birth is the usual place of residence of respondent's mother at the time of the respondent's birth and not where the birth took place. Note: for those born in the country, record the appropriate district code. If the respondent mentions a name of a locality instead of a district you should consult other household members to get the name of the district. For individuals born outside Ghana write the name of the country and record the appropriate four-digit country code then go to P08a.

P07 LIVING IN THIS TOWN OR VILLAGE SINCE BIRTH: Has (NAME) been living in this town or village since birth?

You should ask this question only of those persons who answer 'Yes' in P05 (i.e. born in this town or village). You should note that persons who have temporarily been absent from their place of birth or who are normally absent for periods less than one year (e.g. **seasonal workers** who return after a season and **students in boarding schools** elsewhere or **traders** absent for short periods) should be regarded as having lived in this town or village since birth. If respondent lives continuously in the place of enumeration, code YES and skip to P09. When a person answers 'No', you should probe further to get the right responses for P08a. This means a complete movement of the person from a community to settle in another community. This is not applicable to people commuting for business purposes.

P08a NUMBER OF YEARS LIVED IN THIS VILLAGE OR TOWN: *For how long has (NAME) been living continuously in this village or town?*

This question should only be asked of persons who answer ‘No’ in P05 (i.e. not born in this town or village where enumeration is taking place) and also those who answer ‘No’ in P07 (i.e. not lived in this town or village since birth). Note that breaks in duration of residence lasting less than 12 months should be disregarded. Also, note that for persons who have made multiple movements of 1 year or more, you should consider the last duration of stay as the number of years lived in the town or village. Write down the response in the appropriate boxes.

P08b Reasons for moving: *What was (NAME’s) main reason for moving to this village/town?*

The purpose of this question is to find out the reason people moved from their last place of residence to where they are currently staying. Seven possible causes have been provided and you are to choose the category that best suites the response.

1. **Employment:** This category refers to people who moved to their current place for work related purposes. For example, people who moved in search of work, transfer or secondment, establish their own business, etc. Note that for parents who moved for employment reasons, an accompanying child would have code 3 (marriage/family reunification) as an option for P08b.
2. **Settlement (Long-term /permanent stay):** People who had moved from their previous place of residence to settle either permanently or temporary at the current place.
3. **Marriage/family reunification:** Marriage here includes people getting married and joining their spouse or people who were married and have separated and moved. Family reunification includes family related issues, people sharing family ties joining people who are either migrating or have previously migrated. In cases where children moved with their parents/family for whatever reasons, enter code “3” as reason for movement to current location.
4. **Education/Training:** This category refers to people who have moved for education and training purposes. This includes apprentices who have moved to learn a trade.
5. **Socio-political displacement** (Asylum seekers, refugees, war, ethnic conflict, political etc.): this are people who have moved from one community to another as a result of conflict in their previous community. It also includes persons who have moved into Ghana as a result of conflict, fear of persecution etc. in their country.

Refugee: *A person, who “owing to well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country” (Convention relating to the Status of Refugees, Art. 1A(2), 1951 as modified by the 1967 Protocol).*

Asylum seekers: *Persons seeking to be admitted into a country as refugees and awaiting decision on their application for refugee status under relevant international and national instruments. In case of a negative decision, they must leave the country and may be expelled, as may any alien in an irregular situation, unless permission to stay is provided on humanitarian or other related grounds.*

6. Natural disaster displacement (flood, drought, fire etc.): These are people who have moved into a different locality/country due to flood, famine, drought etc.
7. Health: This is when a person moves for health reason such as seeking medical attention, see a herbalist etc.
8. Other (specify): This refers to the category of people whose reasons for moving do not fall into any of the categories described above.

P08c: USUAL PLACE OF RESIDENCE 5 YEARS AGO: *In which district or country was [NAME]’s usual place of residence 5 years ago?*

Select the appropriate district or country code from the pulldown menu. The district and country codes are in Appendix 2 and 3, respectively.

P09 RELIGION: *What is (NAME)’s religious affiliation?*

Ask the religious affiliation of each person. Do not assume that every household member, particularly the children, belong to the same religion as the head or the head’s spouse.

Do not use respondents’ names to determine their religious affiliation. For example, Yaw Owusu may be a Muslim whilst Yakubu Fuseini may be a Catholic. It is therefore, very important to ask for the religious affiliation of every respondent.

Write the code corresponding to the respondent’s religious affiliation in the boxes provided.

1. **Catholic** - Christians who belong to the Catholic faith
2. **No Religion** - Some people do not have any religious beliefs and thus do not belong to any religion.
3. **Protestant** - These are made up of mainly the Churches that belong to Christian Council and include; Anglican, Methodist, Presbyterian, AME Zion, Lutheran, E.P. Church, Baptist church, Seventh Day Adventist (SDA), etc.
4. **Pentecostal/Charismatic** - These include the Apostolic Church, Foursquare Gospel Church, Christ Apostolic Church, Assemblies of God, Church of Pentecost, International Central Gospel Church (ICGC), Action Chapel, Praise Valley Temple, Rhema Christian Centre, Word Miracle Church International, International Bible Worship Centre, Global Evangelical Church, Victory Bible Church, Jubilee International Church, Light House Chapel, Harvest Chapel Int., Perez Chapel, Salvation Army, etc.
5. **Other Christian** - Other Christians include members of the, Mosama Disco Christo Church, Church of Christ, Kristo Asafo, Odifo Nkansah/Awoyo, Church of Jesus Christ of Latter-Day Saints, Jehovah’s Witness, Church Universal and Triumphant, etc.
6. **Islam** - These are made up of people who mainly use the Holy Qur’an and the Hadith as their books of instruction. They include the following denominations: Al-Suna/Tijaniya (orthodox), Shia and other Islamic denomination. Select this option for all Islamic denominations except Ahmadis.
7. **Ahmadis** – People who also use The Holy Qur’an and the Hadith as their books of instruction. This group follows the Ahmadiyya denomination.
8. **Traditional Religion** - These are made of people who worship gods such as “*abosom*”/”*tro*”/”*wo*”, Africana mission and other forms of ancestral worship. Examples of some of the gods are “*akoned*”, “*antoa nyama*”, “*tigare*”, etc.
9. **Other Specify** - These include Eckankar, Bahai, Hinduism, Buddhism, Hare-Khrisna, Yoga and all other Transcendental Meditation. Those whose religious affiliation is unknown should also be put under this category.

P10 MARITAL STATUS:

What is (NAME)’s current marital status?

Question P10 is to be asked of persons who are 12 years and older. Nine (9) categories have been provided. The answer that is given must refer to the respondent’s marital status as **at Census Night**. This is to estimate the proportion of the population that have registered their marriages.

1. **Informal/Consensual union/Living together:** Relationship contracted by two adults who are living together without civil or traditional recognition.
2. **Married (civil/ordinance):** A civil marriage is a marriage contracted between two parties of the opposite sex under the Marriage Act. It could be a religious or non-religious legal marriage ceremony performed by a government official or functionary normally called a

Registrar or a Gazetted Minister. Select Code '2' for persons who, at the reference time have married partners whether they were staying in the same house or not.

3. **Married (Customary/traditional):** Customary marriage is a kind of marriage between a man and a woman, which involves performance of certain local customs. The customary rite performed differs from one ethnic group to another. However, gathering of the extended families of the couples and payment of a bride-price to the bride's parents are common to the various ethnic groups. Marriages that fall under this category are usually registered under customary marriage and divorce registration laws (PNDCL112).
4. **Married (Islamic):** Is a marriage that is contracted in accordance with Islamic rules regarding marriage. It is celebrated by couples who profess the Islamic faith. The ceremony is officiated by an Imam, a Sheikh, or Kadhi.
5. **Married (Other type):** Any marriage type which is different from what is described above.
6. **Separated** - Enter code '6' for all persons who because of a dispute or other reasons are no longer staying as "married partners" but whose marriage has not been declared customarily or legally dissolved. Note that the fact that the two married partners are not staying in the same house does not necessarily mean that the two are separated. Normally, a "Separated" person has his/her case before the "elders of one of the families" or before a law court. A separation need not lead to a divorce.
7. **Divorced:** Enter code '7' for all persons who at the reference time have had their marriage formally annulled or dissolved either in court or by custom and have not remarried.
8. **Widowed** - Select code '8' for persons who at the reference time had lost their marriage partners through death and had not remarried. If a man who is into polygamous marriage tells you that he has lost one of his wives, do not consider him as 'widowed', rather, he is to be considered 'married'.
9. **Never Married:** Select code '9' in the box for persons who have never been married.

Note: Occasionally, you may come across a respondent who has been divorced or widowed before his or her present marriage. You must treat such a person as married.

16.2 Completing the Literacy and Education Questions

Literacy and formal education are two key socio-demographic indicators. Literacy focuses on the ability to read and write in any language while formal education refers to the process of acquiring knowledge and skills in a structured school system.

P11 LITERACY: ANSWER FOR ALL PERSONS 6 YEARS AND OLDER

Questions on literacy (P11a, P11b and P11c) are to be asked of persons 6 years and older. The purpose of these questions relates to the individual's ability to **read and write** in any language. **Note that a respondent is considered literate if he/she can read and write a simple statement with understanding.** Literacy is more than the ability to write or distinguish between the various letters of the alphabet and counting numbers.

P11a. Can (NAME) read and/or write in any language? Three (3) response categories:

- 1 = Yes, read and write,
- 2 = Yes, read **only** (i.e. read but can't write),
- 3 = No (Neither read nor write).

Code '1' should be selected for someone who can read and write in any language and code '2' for someone who can read only but cannot write in any language. Skip to P12a if code '3' is selected. For those who answered 'Yes', ask P11b and P11c.

P11b. In what language(s) can (NAME) read and write with understanding? This question seeks to find out the exact language(s) that the person can READ and WRITE with understanding.

Note that the emphasis is on the ability to read and write with understanding so the two conditions should hold before selecting an option. So, if the person can read a language but cannot write then that language should not be selected for that individual. Similarly, if a person could read and write a language some time ago but cannot read and write with understanding at the time of the interview then that language should not be selected for this person.

P11c. In what language(s) can (NAME) read only with understanding? The question seeks to find out the exact language (s) that the person can **ONLY** read with understanding but cannot write. For example, if a respondent can read a simple sentence like “Ama is going to school” and understand it.

The following are the categories for literacy questions P11b and P11c. Probe and record as many languages as are provided.

Akuapem Twi.....A	Hausa.....M
Asante Twi.....B	English.....N
Fante.....C	FrenchO
Nzema.....D	Russia.....P
Ga.....E	Arabic.....Q
Dangme.....F	German.....R
Ewe.....G	Chinese.....S
Dagbani.....H	Hindi.....T
Gonja.....I	Spanish.....U
Dagaare.....J	Japanese.....V
Kasem.....K	Swahili.....W
Gruni.....L	Other (Specify).....X
	None.....Z

Use the above categories to fill the boxes with the appropriate code. Multiple responses are allowed.

P12 FORMAL EDUCATION: ANSWER FOR PERSONS 3 YEARS AND OLDER

P12a School Attendance: Has (NAME) ever attended school or is (NAME) attending school now?

This question refers to full time education in an educational institution such as, Nursery, Kindergarten (Pre-school), Primary, Junior Secondary, Junior High School, Middle, Senior Secondary, Senior High School, Secondary (O’ and A’ - Levels), Vocational, Commercial or Technical, Teacher Training College, University or similar type of school where a person spends or has spent at least four (4) hours a day receiving general education in which the emphasis is not on trade training.

Formal Education here refers to the process of giving and receiving a standardized systematic instruction from a recognized and accredited institution to individuals for knowledge acquisition and skill development. In this context, education is conceptualized as formal. The mode of instruction could be full-time or part-time. This definition excludes night schools and trade schools such as Catering schools, Floral schools, etc. It also excludes on-the-job training establishments like National Productivity Institute, Auditor-General's Training School, Accountant-General Training School, Labour College, Commercial Bank Training School, etc. It includes schools where Arabic and other subjects are taught. It, however, excludes Arabic schools where only reading and writing of the Qur’an are taught, example *Makaranta*.

School attendance is defined as **regular** attendance at accredited educational institution or programme for organized learning at any level.

Three Options: **NEVER ATTENDED**, **ATTENDING NOW** and **ATTENDED IN THE PAST** have been provided for this question and you must select **ONLY ONE** of them:

- a. **Never attended**– Select the option ‘Never attended’ if the person has never at any time received full-time education. If you select the option ‘Never’, skip to P13a without asking P12b and P12c.
- b. **Attending now** – Select the option ‘attending now’ if the person is still receiving full-time education at the time of the Census Night. This includes those who are on vacation at the time of the Census Night and would be going back to school.
- c. **Attended in the past** – Select the option ‘Attended in the past’ if the person received full-time education in the past and is no longer receiving it as at Census Night.

P12b If attending now or attended in the past in 12a: What is the highest level of schooling (NAME) is attending now/attended in the past?

This question seeks to elicit information on the highest level of formal school respondent attended or is attending. Fifteen levels of schooling have been identified and the enumerator must select the level that best describes the respondent’s response. However, in situations where the response is not found among the 15 response categories, “Other Specify” i.e. code ‘16’ must be selected.

01. Nursery
02. Kindergarten
03. Primary
04. JSS/JHS
05. Middle
06. SSS/SHS
07. Secondary (including 6th Form)
08. Vocational/Technical/Commercial
09. Post Middle/Secondary Certificate
10. Post Middle/Secondary Diploma
11. Tertiary- HND
12. Tertiary- Bachelor’s Degree
13. Tertiary- Post Graduate Certificate/ Diploma
14. Tertiary – Master’s Degree
15. Tertiary PhD
16. Other Specify

Note that the interest here is to find the highest level of formal school respondent ever attended or attending and NOT completed. If a respondent dropped out of school at a level it means he/she has attended that level.

Also note that first degree includes undergraduates who are still in the Universities those who attended university but dropped out before completing the bachelor’s degree in addition to those who have completed their bachelor’s degree.

Similarly, the Post Graduate category includes those who have completed post graduate diploma, masters’ degree and PhD. It also includes those who are currently doing a postgraduate course and those who started post graduate course but dropped out before completion.

You will also come across people who through distant or sandwich course have attained some level of schooling. In such cases, find the equivalent level of schooling and record the appropriate code in the box provided.

P12c HIGHEST EDUCATIONAL GRADE COMPLETED FOR THOSE CURRENTLY ATTENDING SCHOOL OR ATTENDED IN THE PAST. What is the Highest Grade [Class/Form/Level] (NAME) has completed at that level of schooling?

The highest grade completed, is the last full class, form or year **COMPLETED and not the present/current one being attended**. For example, if the person is now in primary class five (5), then the highest grade (class) completed will be Primary four (4) since he/she has not yet completed Primary five (5). Similarly, a child who is currently in JHS 1 or who dropped out during the second term in JHS 1, will have "0" (Zero) recorded, because no grade has been completed at that level. Record the equivalent grade for persons who have attained some level of schooling through distant or correspondence education. If the grade is unobtainable, the equivalence of the number of years devoted to that particular type of school will provide the required information. Below is an example of how to complete P12b and P12c.

If a child is currently in the third year of primary school, then enter **code "3"** in P12b. In P12c, you will write **'2'** in the box because the child has not completed class 3 of primary school yet and that class '2' is the highest grade she has ever completed.

Refer to Appendix 8 for grading system.

16.3 Completing the Economic Activity

SHOULD BE WITH REFERENCE TO THE 7 DAYS PRECEDING CENSUS NIGHT (ANSWER ONLY FOR PERSONS 5 YEARS AND OLDER)

The 2021 PHC would be one of the main sources of labour statistics, which are important elements in the measurement of economic growth and development in the country. Labour statistics measure aspects of the labour market and are important economic and social indicators. They are used in the analysis, evaluation, and monitoring of the labour market; governmental and non-governmental policies (relating in particular to employment, income support and industrial relations); and population groups of particular concern (e.g. younger people, older people, women). Users of labour statistics include government and their agencies and advisers, economists, financial analysts, journalists, businesspeople, trade unions, employer associations, students, and academic researchers.

The economic activity module provides a general pattern of participation of the population in different forms of work, classified according to the resolution of the 19th International Conference of Labour Statisticians (ICLS). These forms of work recognize that all productive activities contribute to economic output and to the livelihood of households and well-being. It also helps to produce separate sets of statistics on each 'form of work' to meet different policy needs.

Economic activity questions cover P13a, P13b, P13c, P13d, P13e, P13f, P13g, P14, P15, P15a, P16 and P17. All these questions should be referenced to the period 7 days preceding Census Night (i.e. **21st – 27th June, 2021**) and should be asked only for persons aged 5 years and older.

As much as possible, you should interview the individuals themselves and avoid the use of proxy responses (i.e. getting responses from a secondary source) as this may not give accurate information about the individual.

Economically active persons

Comprises all persons of either sex who provide the supply of labour during a specified time reference period, as employed or as unemployed, for the production of economic goods and services

P13a. During the 7 days, before Census Night (i.e. 21st – 27th June, 2021), did (NAME) engage in any economic activity for at least one hour?

Work in economic activity refers to any work performed during the reference week that contributes to economic production of goods and services. Examples are selling in a market/street, working in an enterprise/business or for government, working in one's own farm or enterprise, working in a household member's farm, selling roasted plantain, operating

mobile money transfer, etc. Thus, work could be done in small establishments like Afia Pokua's bakery, Tijani's bicycle repair point, Baba's Koko Joint, etc. or in big establishments like Ejura farms, Juaben Rural Bank, Ghana Statistical Service, Kongo Primary School, etc. Take note that the interest is in productive activities and not non-productive activities such as self-care activities and begging.

It is important to note that persons in employment can sometimes work in more than one job in the reference period. In such cases information about the *main job* should be provided. For purposes of the 2021 PHC, the *main job* is defined as the job with the longest hours *usually* worked even if the employed person was not at work in the reference period. Job-related characteristics are generally collected in reference to the main job for persons in employment, and also to be collected in reference to the *last main job* (if any) for persons not in employment. Once the (last) main job is identified, it is essential that all subsequent questions refer to the same job, even if the respondent was not at work in the reference period. It is important to use the main job even if the person was temporarily absent from his/her main job during the reference period. There may also be situations where a person was occupied temporarily with a job during the reference period without performing his main job. Note that the focus here is on the main job and not on the temporal job that he/she performed within the reference period.

It is important to also take note that school attendance does not mean non-engagement in economic activity. You are supposed to ask about one's employment status whether schooling or not. Do not assume that once a person is schooling, then he/she will not engage in work. It is common to find that some people combine schooling with work. Again, do not assume that younger children do not engage in work. Some of the children may even engage in work without the knowledge of their parents or guardians.

Five (5) options have been provided; choose the option that best describes the response.

1. Yes, worked for pay (cash or in-kind):

This category includes all those who worked for pay (either in cash or in kind). The pay does not necessarily mean that the person has received the pay but if the person worked and is expecting a pay later, then the person should be classified under this category. In-kind payment means that the individual either received or is expected to receive a form of payment which is other than cash. For instance, as his salary, a worker may be paid two bags of rice or GH¢500 plus one gallon of oil every month. Included in this category are people who sell and get profits or commission on what they sell. Note that persons who are learning trade (apprentices) and receive pay should also be classified under this category. Record '1' if only the person worked for some remuneration (cash or in-kind) in the past 7 days, even if the work was performed for at least one hour and skip to P13f.

2. Yes, worked for profit in own/family business

This category includes all those who worked in own/family business in producing goods and services for profit (either in cash or in kind). The profit may be received later or may have been received already. Also included in this category are persons who worked in their own business or in family business by selling goods and services for profits or commission on what they sell. Select option '2' and skip to P13g.

3. Yes, engaged in economic activity, but received no pay/profit

This category refers to people who engaged in some economic activity during the 7 days before the Census Night, but did not receive any remuneration for the work done. Note that this excludes those who are expected to receive payment for work done later. Included

in this category are persons who are learning trade (apprentices) and receive no pay. For those who worked and did not receive pay record '3' and skip to P13c.

4. Yes, worked in own agricultural activity

Engagement in "agricultural activity" means any of the following:

- a. Any activity directly related to the production of crops;
- b. Any activity directly related to rearing of poultry or livestock;
- c. Any activity directly related to the cultivation or harvesting of trees;
- d. Any activity directly related to fish farming; and
- e. Other agricultural activities such as Bee keeping, snail farming, among others.

If a respondent says, he/she worked on his/her farm during the 7 days before the Census Night, record option '4', skip to P13c and choose option '6', then proceed to ask P13d.

Note: this category only refers to respondents who are working in an agricultural activity in a farm or enterprise or holding they own.

Note: Do not select this category for persons engaged in agricultural activity but do not own the farm/enterprise/holding. For such persons, select option 1, 2, or 3 as applicable.

5. No

This refers to persons who did not work (did not engage in any economic activity) within the reference period. Included in this category are those who had work but for some reasons did not work within the reference period but would definitely go back to work after the short break. Examples are persons who were on leave or strike and expected to go back to work after the break. For those who did not work in the reference period, continue to P13b.

Refer to the following table for further information on how to distinguish the different categories of responses for question P13a.

Table 16.1: Distinguishing factors across the responses

Responses	Distinguishing factors across the responses in P13a				
	Explanation	Payment			Sector
		Nature	Expectation	Source/destination	
1. Yes, worked for pay (cash or in-kind)	Choose this option for respondents who had been engaged by other people, and either received or would receive salaries or wages at agreed time periods. Note that respondents who worked in a household or family business/ enterprise or in enterprises and are paid salaries/wages also fall in this category.	Defined with an agreement (structured or not)	Within the reference period, payment could either have occurred or in anticipation to receive payment at a later date.	Employer to Employees	All three sectors
2. Yes, worked for profit on own/ family business	Choose this option for respondents who worked for themselves in non-agricultural activities. It also includes those who worked in either a household or family business and earn profit. Note that these persons do not receive salaries or wages for the work done.	Not structured	Expected	Self-employed & Work in non-agricultural household/ family business/ enterprise	Industry & Services
3. Yes, engaged in economic activity, but received no pay/ profit	Choose this option for respondents who had been engaged in any economic activity within the reference period but received no remuneration (pay/ profit) for the work done.	Not structured	Not expected	Not applicable. Employer or the person engaging does not receive any payment/ profit. It also includes contributing family workers in non-agricultural activities	All three sectors
4. Yes, worked in own/family agricultural activity	Choose this option if the respondent was into his/her own agricultural holding – crop and animal production, cultivation or harvesting of trees, fish farming, bee keeping, snail rearing, etc. It excludes those who worked on other peoples' farms.	Not structured	Expected or Not expected	Self-employed in agricultural activities	Agriculture
5. No	Choose this if respondent did not engage in any economic activity within the reference period (i.e. 7 days prior to the Census Night).	Not applicable	Not applicable	Not applicable	Not applicable

P13b IF NO IN P13a: During the 7 days how was [NAME] mainly engaged?

1. Had work to go back to:

This category includes persons who, during the reference period, did not do any work within the 7 days preceding the census, although they had work to which they could return. Included in this category are persons who are learning trade (apprentices) and were absent during the 7 days. Persons who come under this category may or may not be paid during their absence from their work and include those who were temporarily absent for reasons such as:

- i. ***On leave with/without pay*** but with definite instructions to return to work after a certain period. Included are workers who were on study leave and who were receiving full-time education in educational institutions, with or without pay. Also included are persons on maternity leave with or without pay, etc.
- ii. ***Off-season*** e.g. farmers or fishermen who did not do any work because it was their off-season. Note that in certain parts of the country; particularly in the five regions of the North (Northern, Upper East, Upper West, North East and Savannah), farming takes place during certain months of the year while in other months the farmers remain virtually idle. The same applies to fishing activities in other parts of the country.
- iii. ***Temporarily ill with/without pay***, but would return to his/her work after recovery. Included in this are workers on sick leave or on admission at hospitals.
- iv. ***Labour dispute, strike or lockout*** but would return to a fixed work after the dispute, strike or lockout. Because of disagreements between workers and employers, the workers may refuse to work or the employers may prevent workers to work. However, once the problem is resolved, workers would return to work.
- v. ***Temporary lay-off*** with definite instructions to return to work at a specific date. Such workers include permanent farm labourers, or workers in various enterprises and establishments whose work have been interrupted temporarily for reasons such as lack of raw materials, breakdown of equipment and high cost of production.
- vi. ***Bad weather/Inaccessibility***. People may not be able to work because of bad weather. For example, farmers who could not go to their farms because the paths leading to their farms were flooded; fishermen who could not go to sea because of stormy weather, masons who did not work because of bad weather, etc. A workplace could be inaccessible due to factors such as broken-down bridge, flooding of road due to persistent rains, mudslide, etc.

2. Available and seeking for work (worked before).

Record code '2' in the box and skip to P14 for persons who have worked before but during the 7 days preceding the Census Night, were unemployed (i.e. not in paid employment or self-employment). Note that such persons must be available for work and should have taken steps to look for one such as visiting employment agencies, visiting worksites, writing applications, seeing relatives and friends for help in securing work and visiting websites, making efforts to set up own business, etc.

3. Available but not seeking for work (worked before)

Record code '3' in the box and skip to P14 for persons who have worked before but during the 7 days preceding Census Night, were unemployed (i.e. not in paid employment or self-employment). Note that such persons must be available for work but did not seek for work.

Included in this category are persons who have worked before and currently unemployed but have lost hope of finding work. However, if such persons are offered work, they will take it.

4. Available and seeking for work (first time work seeker)

Enter code '4' for persons who have never worked before and during the 7 days preceding Census Night, were unemployed (i.e. not in paid employment or self-employment) and skip to P18a. Such persons are available for work and have taken some steps to seek for one by visiting employment agencies, visiting worksites, writing applications, seeing relatives and friends for help in securing work, making effort to set up own business, etc.

5. Available but not seeking for work (first time work seeker)

Enter code '5', for first time work seekers who did not work during the 7 days preceding Census Night, i.e. they were unemployed (i.e. not in paid employment or self-employment) yet are not seeking for work, and skip to P18a. This category also includes persons looking for work for the first time but who have lost hope of finding work. However, such persons are willing to work if offered work.

6. Not available and not seeking work

Enter code '6' for any person who did not work in any economic activity and did not seek for work during the 7 days before Census Night. These are persons who may be engaged in home duties, full time education and disability. For such persons, skip to P13e.

P13c Which type of work has [NAME] been mainly engaged in?

The question is to be answered by persons who engaged in economic activity during the seven days before Census Night but did not receive pay or profit. Also to answer this question are persons who did not work within the reference period but had work to go back to after the short break. For these categories of persons, question P13c seeks to find out the type of work they mainly engaged in. Six response categories have been provided for this question as follows:

1. **Wage/salary/profit work** - If the person has mainly been engaged in wage or salary work or engaged in work that earned profit, enter code '1' and skip to P13f. Note that all persons who had indicated in P13a that they had worked in economic activity without receiving pay or profit cannot mention wage/salary/profit work as what has mainly engaged them. Note that only respondents who responded No (5) to P13a and answered had work to go back to (1) in P13b can check this answer.
2. **Paid apprentice work** – For apprentices who did not work during the reference period but will go back to work after the break, select code '2' and skip to P13g. All persons who were learning a trade (apprenticeship work) and received no pay cannot mention paid apprentice work as what has mainly engaged them.
3. **Unpaid Apprentice work** – This response is for apprentices who were engaged in apprenticeship work during the reference period but were not paid (they did not receive anything either in cash or in kind for their services). Select code '3' and skip to P13g.
4. **Voluntary work without pay** – Voluntary work is an activity that was carried out in the reference period out of the person's own will without receiving any pay (either in cash or in kind). It is an activity that is performed on voluntary basis and refers to people who produce goods or services for any enterprise/institution/household or for non-profit organisations without receiving any pay. For such persons, enter code '4' and skip to P13g.

5. **Non-voluntary work without pay** – This includes persons who engaged in any work activity which was against their will for which no payment (either cash or in-kind) was received. For such persons, enter code ‘5’ and skip to P13g.
6. **Own production /service work** – This response is for all persons who were engaged in the production of goods and services for the household or the family. Examples include the production and processing of goods from agriculture, fishing and hunting, manufacture of other goods (textiles, ceramics, furniture etc.) construction or major repair of own dwelling. For such persons, select code ‘6’ and proceed to P13d.

Thus, five different forms of work would be identified as follows:

Employment work: Employment work comprises work (as defined previously) performed for pay or profit. These are activities that are performed for the final use of others, in exchange for some monetary or non-monetary remuneration. Thus, a person is considered employed if, during the reference week he/she:

- (a) Did any work at a workplace or business, including self-employment for pay or profit; or
- (b) Had a work such as described in (a) but was not at work due to factors such as illness, personal or family responsibilities, vacation, etc. and would go back to this work after the period of absence.

Trainee work: This comprises the following two categories.

- (a) Paid trainee work: Paid trainee work includes work performed for others in receipt of payment to acquire workplace experience or skills.
- (b) Unpaid trainee work: Unpaid trainee work includes work performed for others without pay to acquire workplace experience or skills.

Volunteer work: Volunteer work includes non-compulsory work performed for others without pay for the production of goods and services for use by others, which contributes to the livelihoods of households and communities, to the functioning of non-profit institutions, to social inclusion and integration.

Non-volunteer work:

These are compulsory activities performed without pay to produce goods and services for others. This includes persons who are forced to engage in any economic activity against their will for which no payment either in kind or cash was received for work done. It includes activities such as unpaid community service and unpaid work by prisoners, when ordered by a court or similar authority, and unpaid military service etc.

Own production/service work:

Own production/service work is an activity carried out to produce goods/or services mainly for one’s own final use, use by household or use by other household members living in other households.

P13d What was [NAME’s] main purpose of production/service?

This question seeks to find out from persons who were into own production/service work, as to whether the intended use of the products obtained from their work or the service rendered was for own consumption only, own consumption with minor sales, sales with minor consumption or sales only.

1. **Own consumption only** - For products that were intended solely for own-use or for family use, select option '1'
2. **Own consumption with minor sales** – If the greater proportion of the product obtained from the person's activity was for consumption (own/family) use but a smaller proportion is for sale, select option '2'
3. **Sale with minor consumption** – If the greater proportion of the product obtained from the person's activity was for sale and a smaller proportion is for the household consumption select option '3'.
4. **Sales only** – Select option '4' if the intended purpose of the products/service obtained from the person's activity was for sales only.

Note that any response that is selected in P13d will skip you to P13g

P13e Why did (NAME) not work and not seek for work?

This question is restricted to persons who were not engaged in any economic activity for pay (in cash or kind) or profit and did not also seek for work during the seven days before the Census Night, i.e. those who **“Did not work and were not seeking for work”** in P13b. This category includes those who;

01. Did home duties (homemaker): Record code '01' for a person of either sex who was wholly engaged in household duties and was not paid for this work. Note that if a person traded one full working day in the seven days before Census Night, or worked regularly some hours daily, or engaged in some other economic enterprise (e.g. worked on a farm or in a bar), or did any part-time work e.g. typing, dressmaking for which the person was paid or did any work on the family farm or business for one hour or more without pay, such person must NOT be classified as homemaker BUT must be classified as having worked. You must not assume that any married female who did not do any work during the reference period is necessarily a homemaker. You should probe further to ascertain her correct status.

02. In full time education/student:

Record code '02' for a person who is pursuing full-time education in an educational institution for which reason the person did not engage in any economic activity in the reference period. Excluded from this category are persons who were combining schooling and work as these persons would be classified as having worked.

03. Pensioner/retired:

Record code '03' for any person who did not work during the seven days preceding the Census Night and indicated that he/she is retired or on pension. Such persons may either receive pension or Social Security payments or not. It is worthy to note that some people engage in work, either for pay or not after their retirement and such persons should not be included in this category.

04. Disability condition:

Record code '04' for any person who did not work during the 7 days preceding Census Night and mentioned that he/she has a disability. A person with a disability is one whose impairment inhibits his/her ability to work, participate in or perform an activity in a manner or within the range considered normal. Impairment refers to any physical, functional or psychological defect, which results from illness, injury or congenital malformation (people who are born with

disability). If a person with some form of disability worked within the reference period, then he/she should be excluded from this category.

05. Sick and unable to work

Record code ‘05’ for any person who did not work during the 7 days preceding Census Night and mentioned that he/she was too sick to work. For example, a person who is suffering from ‘stroke’ and has no idea of when he/she will recover.

06. Too old/Aged

Record code ‘06’ for any person who did not work during the 7 days preceding Census Night and stated that he/she is too old to work. It is the respondent who should indicate that he/she is too old and not you as enumerator.

07. Too young:

Record code ‘07’ for any person who did not work during the seven days preceding Census Night and stated he/she is too young to work. It is the respondent who should indicate that he/she is too young and not you as enumerator.

08. Don’t need work

Record code ‘08’ for any person who does not work or desire to work during the seven days preceding Census Night.

09. Pregnancy/delivery

Record code ‘09’ for females who indicate that they did not work because they were pregnant or had delivered. It is important to note that men cannot choose this option as only women get pregnant.

10. Discouraged/frustrated

Record code ‘10’ for those who will indicate that they have been frustrated or discouraged in their search for work.

11. Wage too low/not attractive:

This category is for those who will state that they did not work and not seeking for work because the wage offered for work available is too low or not attractive. Assign code ‘11’ for such persons.

12. There is no work

Assign code ‘12’ for persons who indicate that there is no work available for them to apply.

13. Don’t have any qualification/skill

These are persons who indicate that they do not have the requisite qualification or skill to apply for work. Assign code ‘13’ for such persons.

14. Other (Specify)

Any option, which does not fall into any of the above categories must be recorded as ‘Other’ (code 14) in the appropriate box and write the response given.

Note that there is a conditional skip on this question and that any option to this question should skip to question P18a.

P13f Does [NAME] have a work contract/agreement?

The question is to be asked of people engaged in employment work only and seeks to know if there was a mutual agreement on the terms and conditions of the work between the employer and the employee, either written or oral (verbal). It should be noted that signing “a written contract” also includes letter of employment/appointment in which the respondent’s wage/salary has been specified. Otherwise, there is no contract signed, that is, if the letter of appointment does not specify pay and other conditions of work. Select the appropriate option from the list of response categories.

1. **Written agreement with undetermined duration:** A written agreement with undetermined duration is when the contract between the employer and the employee has no fixed term of engagement. In the 2021 PHC, ‘Written agreement with undetermined duration’ is an employment contract made between workers and an employer which both parties agree upon without setting a specific ending date.
2. **Written agreement with fixed duration:** A written agreement with fixed duration is when the contract between the employer and the employee has a fixed term of engagement. For example, the agreement could be working for a company for up to 2 years after which he/she parts with the company.
3. **Verbal agreement:** A verbal agreement is when there is a verbal contractual agreement between the employer and the employee. This means that there is no documentation on the agreement that was reached between the employer and the employee.
4. **No:** A ‘no’ response is when the respondent indicates that there was no agreement, whether written or verbal between the employer and the employee.

P13g IF WORKED IN LAST 7 DAYS, ASK: How many hours did [NAME] devote to this activity within the last 7 days?

IF [NAME] DID NOT WORK IN LAST 7 DAYS, ASK: How many hours does [NAME] usually devote to this activity per week?

The focus of this question is to find out how many hours the respondent in total, spent on economic activities in the last 7 days. Record the number of hours worked on the main economic activity so described, for each day of the week preceding Census Night (Saturday, Friday, Thursday, Wednesday, Tuesday, Monday and Sunday **i.e. 21st June to 27th June, 2021**), and calculate the total weekly hours of work. It is important to mention that the interest is to record the hours of effective work and not the number of hours the respondent spent at the workplace. Therefore, exclude hours paid for but the respondent did not work such as meal breaks and commuting time.

Note: that there are 24 hours within a day and care should be taken such that the respondent does not seem to spend all his/her time on engagement of economic activities or possibly spending more than 24 hours on work within a day. For example, if on a particular day, the respondent

was at the workplace at 8 a.m. in the morning and left at 5 p.m. in the evening, do not necessarily record 9 hours of work for that day. Probe to find out how many hours he/she actually worked on that day. It is possible to find that the respondent stayed out of work for 1 hour and 30 minutes and therefore hours of work for that day should be 7¹/₂ hours. Similarly, if a farmer sets off at 5 a.m. to her farm and it takes 2 hours to walk before work actually starts, then the 2 hours should not be counted as hours of work.

P14: OCCUPATION

This section focuses on the different types of work performed by population aged 5 years and older. The kinds of tasks and duties performed, also called occupations, can be categorized using the 2008 International Standard Classification of Occupation (ISCO). Describing the main tasks and duties performed by individuals and selecting the appropriate occupational code is necessary to ensure that the occupations of individuals in the population are appropriately categorized.

Data on occupation is important because it provides information to analyse the socio-economic status of the population; to identify the kind of work that the employed population are engaged in; to determine the number of persons engaged in the different occupation groups; to determine the proportion of working children in the different occupational groups; and to determine the dominant occupation of males and females across different geographic areas.

Refer to the Occupation Manual for detailed information.

Who is eligible to answer questions on occupation?

- The question targets the following persons of the eligible age group (5 years and older):
- Those who worked for at least one hour in the last seven days before the Census Night;
- Those who did not work within the reference period but had work to go back to; and
- Those who have worked before and seeking for work and available.

Some key indicators to be derived from the data collected on occupation are;

- Occupational distribution of the labour force, 15 years and older by age group, sex, region, type of locality and district;
- Distribution of employed persons in the population, 15 years and older by age group, type of locality and district, and sex;
- Proportion of traders of the population and by sex, type of locality and district;
- Share of professionals (medical doctors, nursing, statisticians, etc.) of the economically active by sex, type of locality and district;
- Proportion of technicians and associate professionals (civil engineering technicians, mining supervisors, etc.) in the population and by sex;
- Occupation by major group of ISCO classification by sex, type of locality and district;
- Distribution of occupation by sector of employment (formal and informal) by sex, type of locality and district; and
- Occupational distribution of the labour force, 15 years and older by sex and educational attainment.

Concepts and Definitions

- Work refers to the activity that contributes to the production of goods and services as defined in the System of National Accounts. Examples: weaving of baskets; teaching at a primary school; welding of metal gates etc.
- Job is defined as set of task and duty performed by a person for an employer or in self-employment. Examples: Basket weaver; Primary school teacher; Metal gate welder;
- Occupation refers to the main type of work done in a job during the reference period (7 days prior to Census Night) by the person employed, or the type of work done previously, if the person is unemployed. Example: Handicraft workers in wood, basketry and related material (Code 7317); Primary School and early childhood teachers (Code 2341); Welders and Flame Cutters (Code 7212).
- Skill: This is the ability to carry out the tasks and duties of a job, it is determined by a combination of the following:
 1. Nature of work performed;
 2. Level of formal education and/or training required for competent performance of tasks and duties involved; and
 3. The amount of informal on the job training or previous experience on the related job required for competent performance of tasks and duties.

There are four levels of skill numbered 1 to 4. The highest level of skill is numbered 1 whereas the lowest level of skill is numbered 4.

OCCUPATION GROUPINGS (ISCO-08)

Types of work that are similar have been put together into groups called Major groups. Each Major group has been subdivided into smaller groups called Sub-Major groups based on their similarities.

Each group in the classification is designated by a title and code number and is associated with a definition that specifies the scope of the group and summarizes the main tasks and duties performed in occupation included in the group. It also provides the list of occupational groups included. In the case of unit groups, it gives examples of occupation.

There are 10 Major Groups of occupations classified in the ISCO-08 Code List as shown below:

- | | |
|-------------------|---|
| 1. Major Group 1 | Managers |
| 2. Major Group 2 | Professionals |
| 3. Major Group 3 | Technicians and associate professionals |
| 4. Major Group 4 | Clerical support workers |
| 5. Major Group 5 | Service and Sales workers |
| 6. Major Group 6 | Skilled agricultural forestry and fishery workers |
| 7. Major Group 7 | Craft and related trades workers |
| 8. Major Group 8 | Plant and Machine operators and assembles |
| 9. Major Group 9 | Elementary occupations |
| 10. Major Group 0 | Armed Forces occupations |

A major group consist of sub major groups, minor groups and unit groups.

- Each major group is denoted by a 1-digit code
- Each sub major group is denoted by 2-digit code of which the first digit is the same as its major group code
- Each minor group is denoted by a 3-digit code of which the first two digit are the same as its sub major group
- Each unit group is denoted by 4-digit code made up of its minor group code and an additional digit code

Each occupation belongs to only one unit group implying that it also belongs to only one minor group, one sub major group and one major group. The ISCO Frame below provides a summary of Major Group definitions and tasks performed for each Major Group. Border line cases are provided to assist in distinguishing between Major Groups.

HOW TO IDENTIFY THE OCCUPATION OF RESPONDENTS.

In order to determine the occupation of an eligible household member, enumerators have to identify one of the 10 Major Groups which the description of type of work aligns with.

I.e. select the major group which best describes the kind of work done by carefully considering the definitions of occupation group when in doubt.

Table 16.1: ISCO Frame

Major group	Definition	Sub-major groups	Tasks performed and nature of work	Skills level	Border line Cases
1 Managers	<p>Managers, plan, direct, coordinate and evaluate the overall activities of enterprises, governments and other organizations, or of organizational units within them, and formulate and review their policies, laws, rules and regulations.</p> <p>Key Words</p> <ul style="list-style-type: none"> - Plan, direct, - Coordinate - Review rules with respect to <ul style="list-style-type: none"> • Finances • Personnel • Production 	<p>11.. Chief Executives, Senior Officials and Legislators;</p> <hr/> <p>12. Administrative and Commercial Managers;</p> <hr/> <p>13.. Production and Specialized Services Managers; and</p> <hr/> <p>14. Hospitality, Retail and Other Services Managers.</p>	<p>Managers are responsible for and make decisions about the overall strategic and operational direction of a business or organizational unit in terms of budget and selection, appointment and dismissal of staff</p>	3 + 4	<p>(1)</p> <ul style="list-style-type: none"> • Workers who are mainly engaged in Production or service provision, Are excluded. • All farmers are excluded except for those who manage enterprises with Hierarchy of managers. Those who report directly to a Managing director are also excluded. • Where a worker performs both managerial and professional activities, he/she falls into the activity group whose tasks he/she is mainly engaged in. A Vice Chancellor is a manager if he/she spends little time lecturing and mostly planning and directing.
2 Professionals	<p>Professionals <u>increase the existing stock of knowledge</u>, apply <u>scientific or artistic concepts</u> and <u>theories</u>, teach about the foregoing in a systematic manner or engage in any combination of these activities.</p>	<p>21 Science and Engineering Professionals;</p> <hr/> <p>22 Health Professionals;</p>	<p>Professionals conduct analysis and research, develop concepts theories and operational methods. Teach or apply existing knowledge related to health, education, business,</p>	4	<p>(2) A catering manager is a professional (5) Though a Chef (3) is an associate Professional.</p>

	<p>Key Words:</p> <ul style="list-style-type: none"> - Increase knowledge - Teach - Arts and Sciences - Research - Analysis 	<p>23 Teaching Professionals;</p> <p>24 Business and Administration Professionals;</p> <p>25 Information and Communications Technology Professionals</p> <p>26 Legal, Social and Cultural Professionals</p>	ICT, science, legal and social services		
3 Technicians and Associate Professionals	<p>Technicians and associate professionals perform technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations.</p> <p>Key Words</p> <ul style="list-style-type: none"> - Application of methods and regulations - Technical tasks 	<p>31 Science and Engineering Associate Professionals</p> <p>32 Health Associate Professionals</p> <p>33 Business and Administration Associate Professionals</p> <p>34 Legal, Social, Cultural and Related Associate Professionals</p>	They perform mostly technical and related tasks connected with research and the application of scientific or artistic concepts and operation methods, and government or business regulations and teach at certain educational levels.	3	<p>(3)-Police officers are <u>excluded</u> because They maintain order and arrest offenders Whiles the Police Inspector and Detective is <u>included</u> because they Collect Information, analyze them for court Proceedings. Similarly, <u>child care workers</u> (5) teachers’ Aides, and cooks are excluded, whiles Chefs create dishes and menus.</p>

		35 Information and Communications Technicians			
4 Clerical Support Workers	<p>Clerical support workers are supporting staff in every office environment who perform a variety of essential day-to-day basic administrative tasks to assist in the functioning of an enterprise or business.</p> <p><u>Key Words</u></p> <ul style="list-style-type: none"> - Clerical Support 	<p>41 General and Keyboard Clerks</p> <p>42 Customer Services Clerks</p> <p>43 Numerical and Material Recording Clerks</p> <p>44 Other Clerical Support Workers</p>	<p>Clerical support workers record, store, compute and retrieve information, and perform a number of clerical duties in connection with money-handling operations, travel arrangements, request for information, and appointments.</p>	2	<ul style="list-style-type: none"> - (4) - Money collectors are included here. Though sales workers (5) are excluded, Hence Ticket issue clerks, tourist guides, Cashiers are excluded. - Medical <u>Secretary</u> (3) is excluded, Though a hotel receptionist (4) And a Medical office receptionist (4) Is included. <p>(5) Excluded are the following Workers:-</p> <ul style="list-style-type: none"> - Inspector General of Police (1112) - Workers in Armed Forces occupations (0110) though they provide protective service - Shop managers (1420) and Sales Managers (1420) are excluded - Technical, Medical, ICT sales Professionals (2243) are excluded. - Fast food prepares (941) are excluded. - Vendors in streets and public places of <u>Non-food items</u> or pre-packaged <u>Non-perishable food items</u> such as <u>Confectionery</u> e.g. Encati cake, from Pushcarts, trucks, trays etc. (9520) Though included are vendors in Street and public places of food And beverages <u>for immediate Consumption</u> from push carts, trucks etc. (5212).
5 Services and Sales Workers	<p>Services and sales workers provide personal and protective services related to travel, housekeeping, catering, personal care, protection against fire and unlawful acts; or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets.</p> <p><u>Key Words</u></p> <ul style="list-style-type: none"> - Personal Services - Sales - Protective Services 	<p>51 Personal Services Workers</p> <p>52 Sales Workers</p> <p>53 Personal Care Workers</p> <p>54 Protective Services Workers</p>	<p>organizing and providing services during travel; housekeeping; preparing and serving of food and beverages; caring for children; selling goods in wholesale or retail establishment, stalls or markets and providing of security etc.</p>		

				<p>(6)</p> <ul style="list-style-type: none"> - Included are workers who process their own Farm produce. - Excluded are those who process food produced by others.
6 Skilled Agricultural, Forestry and Fishery Workers	<p>They grow and harvest field or tree and shrub crops; gather wild fruits and plants; breed, tend or hunt animals; produce a variety of animal husbandry products; cultivate, conserve and exploit forests; breed or catch fish; to provide food and income for themselves and their households.</p> <p><u>Key Words</u></p> <ul style="list-style-type: none"> - Grow and harvest crops - Rear animal - Hunt - Fell grow trees - Catch fish - Exploit forests - Produce animal husbandry 	<p>61 Market-oriented Skilled Agricultural Workers</p> <p>62 Market-oriented Skilled Forestry, Fishery and Hunting Workers</p> <p>63 Subsistence Farmers, Fishers, Hunters and Gatherers</p>	<p>Preparing the soil; planting, and harvesting field crops; growing garden vegetables, breeding, raising, tending or hunting animals cultivating, conserving and exploiting forests etc.</p>	<p>(7)</p> <ul style="list-style-type: none"> - Excluded are: - Food Machine operator (8160) eg. Corn mills, Kneating Machine operator, Weaving machine operators. - Cleaners (9112) who use hand held tools. - <u>Construction Supervisor (3123)</u> are Excluded because they supervise other workers.
7 Craft and Related Trades Workers	<p>Craft and related trades workers are persons who work by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and</p>	<p>71 Building and Related Trades Workers (excluding)</p> <p>72 Metal,</p>	<p>Apply specific technical and practical knowledge and skills to construct and maintain buildings; form metal; erect</p>	

	<p>time required for specific tasks.</p> <p><u>Key Words</u></p> <ul style="list-style-type: none"> - Trades in building - Mechanical - Electrical - Processing of wood, textiles and food. - Using hand held Or hand powered Tools. 	<p>Machinery and Related Trades Workers</p> <p>73 Handicraft and Printing Workers</p> <p>74 Electrical and Electronics Trades Workers</p> <p>75 Food Processing, Woodworking, Garment and Other Craft and Related Trades Workers</p>	<p>metal structures; set machine tools or make, fit, maintain and repair machinery, equipment or tools; carry out printing work; and produce or process foodstuffs, textiles, wooden, metal and other articles, including handicraft goods.</p>		
<p>8. Plant and Machine Operators, and Assemblers</p>	<p>This major group includes stationary machine operators in factories, mines, timber firms, printing presses etc. as well as persons who assemble, bring or put together a machine or its parts, and skilled manual workers who drive and operate motor vehicles, trains, industrial and agricultural machinery or steer and execute deck duties on ships.</p> <p><u>Key Words</u></p> <ul style="list-style-type: none"> - Assemble machines or furniture and their parts - Drive or operate motor vehicles/ships - Operate mobile or stationery plants. 	<p>81 Stationary Plant and Machine Operators</p> <p>82 Assemblers</p> <p>83 Drivers and Mobile Plant Operators</p>	<p>Operate and monitor industrial and agricultural machinery and equipment on the spot or by remote control; drive and operate trains, motor vehicles and mobile machinery and equipment; or assemble products from component parts according to strict specifications and procedures.</p>		<p>(8)</p> <ul style="list-style-type: none"> - Exclude “myself” drivers, whose job Is not driving <p>Exclude pilots who because of their Skill level, are associate professionals (3140).</p> <p>Excludes those who fix or repair cars, But include those who assemble Engines and gear boxes.</p> <p>Includes carpenters but excludes those who assemble furniture.</p>

9 Elementary Occupations	<p>Elementary occupations involve the performance of simple and routine tasks which may require the use of hand-held tools and considerable physical effort.</p> <p>Key Words</p> <ul style="list-style-type: none"> - Do simple, routine, manual tasks - A lot of physical effort. 	<p>91 Cleaners and Helpers;</p> <p>92 Agricultural, Forestry and Fishery Labourer;</p> <p>93 labourers in Mining, Construction, Manufacturing and Transport;</p> <p>94 Food Preparation Assistants;</p> <p>95 Street and Related Sales and Services Workers; and</p> <p>96 Refuse Workers and Other Elementary Workers.</p>	<p>Includes cleaning, digging, lifting and carrying materials by hand, sorting or assembling goods by hand, picking fruits and vegetables and provision of other farm hand services as well as operating non-motorized vehicles like animal drawn carts and bicycle-drawn carts.</p>	1	<p>(9)</p> <p>A mail carrier or postman are excluded and</p> <p>Classified under clerical (4412) though a Messenger is classified under Elementary occupations (9621) Because he delivers messages on foot.</p>
10 Armed Forces Occupations	<p>Armed forces occupations include all jobs held by members of the armed forces. Members of the armed forces are those personnel who are currently serving in the armed forces, including auxiliary services, whether on a voluntary or compulsory basis, and who are not free to</p>	<p>01 Commissioned Armed Forces Officers</p> <p>02 Non-commissioned Armed Forces</p>		4 + 2 + 1	<p>(10)</p> <ul style="list-style-type: none"> - Retired Army officials who are not in active service are excluded even if service are excluded even if working as Private Security (5). - Civilian staff who work in the Ministry of Defence are excluded. - Army officers who are working

	<p>accept civilian employment and are subject to military discipline. Included are regular members of the army, navy, air force and other military services, as well as conscripts enrolled for military training or other service for a specified period.</p> <p><u>Key Words</u></p> <p>Serving Member of the Armed Forces.</p>	<p>Officers</p> <hr/> <p>03 Armed Forces Occupations, Other Ranks</p>		<p>As civilians are excluded if not on Secondment.</p> <p>- Army officers who are managing Organizations or Units within the Army are excluded (1).</p>
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Illustration

For a respondent who sold bread in the market 7 days prior to Census Night, select Major Group 5: service and sales workers.

Definition of service and sale workers:

Service and sales workers provide personal and protective services related to travel, housekeeping, catering, personal care, protection against fire and unlawful acts; or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets.

Tasks of service and sale workers:

Tasks performed by services and sales workers usually include organizing and providing services during travel, housekeeping, preparing and serving food and beverages, caring for children, providing personal and basic health care at homes or institutions, hairdressing, beauty treatment, telling fortunes, embalming and arranging funerals, providing security services and protecting individuals and property, posing as models for advertising, selling goods in wholesale and retail establishment, stalls and markets and demonstrating goods for potential customers.

Each service and sales worker belongs to one of these four sub major groups of the Major group 5.

51 Personal Services workers: Provide personal service related to travel and sightseeing to ensure comfort and safety, beauty treatment to enhance appearance, prepare and serve food and beverages.

52 Sales Workers: Sell goods in wholesale or retail establishments, on street or market, door-to-door, serve food for immediate consumption at counters in the street, stack and display goods for sale, wrap or package goods sold, operate cash registers, price scanners, computers or equipment to record and accept cash payments.

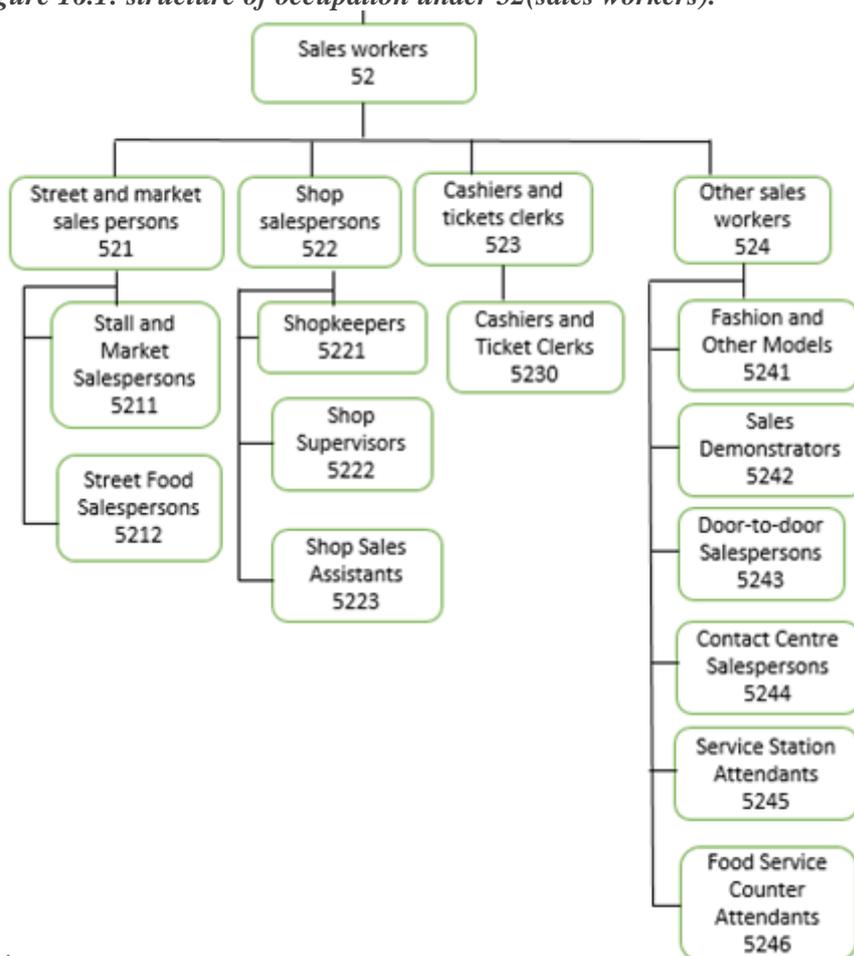
53 Personal care workers: Provide care, supervision and assistance to children, patients and the elderly. They observe and report concerns to appropriate health or social service worker with skill level 2. E.g. Babysitters, nanny, child care worker, pre-school assistant, and teacher's assistants. Also included are birth assistants, nursing aids in hospitals and clinics under direct supervision of medical, nursing or other health professionals. Their tasks do not require extensive medical knowledge or training (e.g., assist in marking preparation of materials and equipment for children's education and recreation during and after schools and in day care centres, administer medications, clean and dress wounds).

54 Protective services workers: Rescue, protect individual and property against fire and other hazards, patrolling, directing traffic, maintain law and order and enforce laws and regulations. E.g. Firefighters (fire fighter, forest fire fighters), Police officers and Prison guards (Police constable, police officer, police patrol officer - excludes those in high ranks in position), Security guards (bodyguards, security patrolman/woman, museum guard, Others Not Elsewhere Classified (beach patrolman/woman, crossing guard, traffic warden, lifeguard)

From the definitions above, 52(sales workers) best describe the type of work done by the respondent.

The diagram below shows the structure of occupation under 52(sales workers).

Figure 16.1: structure of occupation under 52(sales workers).



From the diagram above, "5211-stall and market salesperson" best describes the occupation of the respondent who sold bread in the market.

The method used above is called the **cascading method** of identifying occupations.

Alternatively, the **search method** can also be used by using an index of occupations which is a list of all occupations with their unit codes.

CODE LISTS

Code lists (hard or electronic) are useful tools for identifying occupation titles and unit codes.

The extract below is from an Index of Occupations based on (ISCO-08) *.

52 Sales workers

521 Street and market salespersons Stall and market Salespersons (not for immediate consumption)

5211	Cassava seller (market)
5211	Cloth seller
5211	Fresh fish seller (market)
5211	Fried fish seller (market)
5211	Fruit seller
5211	Kiosk salesperson (all)
5211	Koobi seller
5211	Market sales person
5211	Market stallholder (all)
5211	Market vendor (all)
5211	Orange seller (market)
5211	Plantain seller (market)
5211	Bread seller (market)
5211	Sale of live birds
5211	Sale of livestock
5211	Sale of Units and Phone Cards
5211	Sale of secondhand clothes
5211	Sachet water seller
5211	Seller of wood products (Plywood, roughwood)
5211	Smoked fish seller (market)
5211	Street stall sales assistant (all)
5211	Tomato seller
5211	Vegetable seller
5211	Yam seller (market)

Refer to the Index of Occupations

Extract from an Alphabetical Code List*

5221	Shop keepers
5222	Shop supervisors
5223	Shop sales assistants
5230	Cashiers and ticket clerks
5241	Fashion and other models
5242	Sales demonstrators
5243	Door-to-door salespersons
5244	Contact centre salespersons
5245	Service station attendants
5246	Food service counter attendants
5249	Sales workers not elsewhere classified

USE OF CAPI APPLICATION IN IDENTIFYING OCCUPATIONS

How to describe appropriately the kind of work done

In recording the occupation of the respondent, **record detailed and exact description** of the work the respondent actually did. The term LABOURER, for example is too vague. You should be more specific by indicating whether the person was an OFFICE CLEANER, a CONSTRUCTION LABOURER, a GARDENER, a FARM LABOURER, etc.

Example: If a respondent says he is a maize farmer, under the unit group “subsistence farmers” and “market gardeners and crop growers” you will find a maize farmer. The enumerator needs to ascertain whether the respondent falls under either “subsistence farmers” or under “market gardeners and crop growers” since the two categories have different codes.

- In the same way designations like BUSINESSMAN, OPERATOR, CIVIL SERVANT, TEACHER, are too vague. They cover several groups of persons occupying different grades and doing different kinds of work. For example ‘a businessman’ may be a **retail trader in spare parts or textiles or office machines**. An ‘operator’ may be **forklift operator, crane operator, or drilling machine operator**. In the same way a civil servant may be **Chief Director or an Executive Officer**. A teacher may be a primary school teacher, a JHS teacher or an SHS teacher.

- For those who sell items they themselves prepare e.g. *kenkey*, *aboloo*, fried fish, etc., you should indicate this by recording “**kenkey maker and seller**”.

- For those who sell food we would like to know whether they are **street food sellers** (i.e. selling food (cooked or uncooked on the street), **food seller in the market** or **food counter attendant**.

Note that whenever you specify a seller or maker of a particular commodity which is only known in a few areas, you must also write in brackets whether that commodity is food, drink, etc. For instance, you may write **SELLER OF AHEYI** (non-alcoholic corn drink), **MAKER OF TUBANI** (**kenkey made of beans**).

It is also important to distinguish between persons who carry out their work by hand and those who operate machines which do the same type of work. The following are examples of such occupations:

- Bread maker by hand and bread production machine operator,
- Labeller by hand and labelling machine operator, and
- Launderer, hand and laundry machine operator.

These distinctions are necessary because these two groups belong to different major occupational groups.

For members of the Armed Forces (i.e., Army, Air Force and Navy), you must probe to find out their ranks, i.e.

- a. Commissioned officers e.g. Air commodore, Air Marshal, Brigadier, Captain, Major, Officer Cadet, Navy commander, Wing Commander.
- b. Non-Commissioned officers e.g. Boatswain (Navy), Flight sergeant, Sergeant (Army), Warrant officer, etc.
- c. Armed Forces Occupations, other ranks such as Airman, Bombardier, Infantry/man/woman, Gunner, etc.

Note: If a respondent says he is a **captain**, the enumerator should probe to find out whether the respondent is a captain in the Army, Navy or Air Force since the rank “captain” can be found in all three categories.

However, for civilians working at the Ministry of Defence or any other military installations, record in detail work done, e.g. private secretary, office cleaner, administrative officer, etc.

For officers working in the Police Service, Enumerators should also provide the rank of each policeman/woman e.g. constable, corporal, sergeant, superintendent, etc. as the various ranks are classified differently.

SOME PROBING QUESTIONS FOR IDENTIFYING OCCUPATIONS

PF1: Do you have responsibility for and make decisions about the overall strategic and operational directions of the agricultural farm or business or organizational unit?

Yes, non-agriculture

Yes, agriculture - move to PF1x

No

PF1x: If yes, are you into “large or medium scale” agricultural farming (crops, livestock and poultry, forestry and logging, fishing/fish farming)?

Yes

No

PF2: Do you lead in the performance of conducting analysis and research, develop concepts, theories and operational methods, teach or apply existing knowledge related to health, education, business, ICT, science, legal and social services?

Yes

No

PF2x: if yes, do you lead in the performance of these technical duties?

Yes

No

PF3: Do you assist professionals such as scientists, engineers, medical doctors, nurses, lawyers, pastors, Imam, etc. in performing technical or practical tasks associated with research, apply scientific or artistic concepts and operational methods?

Yes

No

PF3x: if yes, do you support in administrative, secretarial work?

Yes

No

PF4: Do you provide administrative/secretarial support to professionals in the office (i.e. do you mainly enter data, answer calls, sort and file documents, perform money handling tasks, do travel arrangement and request for information and appointment)?

Yes

No

PF5: Do you provide personal care or protective services (police/prison officer) or sale of food or non-food items in the streets or markets or public places or a hawker. If sale of food, is it for immediate consumption or for later use?

Yes
No

PF6: Do you grow or harvest crops or conserve or exploit the forest or breed or catch fishes or hunt or trap animals?

Yes
No

PF7: Do you work by hand, hand-powered or other tools to improve the quality of products?

Yes
No

PF8: Do you drive or operate trains, motorbike, ships, mobile machinery, monitor industrial and agricultural machinery, and equipment, or assemble machines or its parts or furniture.

Yes
No

PF9: Do you perform simple and routine manual and physical tasks that require limited training such as cleaning, washing cars, sweeping or selling non-food items?

Yes
No

PF10: Are you a serving member of the armed forces or are you in charge of an organization or a unit within the armed forces?

Yes
No

P15: NAME OF ESTABLISHMENT

What is the name and physical location of the establishment/business where (NAME) currently works/previously worked?

For establishment/business that has a name, write down the name of the establishment/business where the individual currently works/previously worked. For example, if a respondent works/worked with LATEX Foam you should record the name ‘LATEX Foam’.

For an individual who works for an establishment without a name or by himself/herself write down the name of the individual and the area where he/she works or worked

- For example, Abena Yeboah who is a hawker, write “Abena Yeboah, Hawking” for
- Musah Mahama, a cocoa farmer, write “Musah Mahama cocoa farm”
- However, for a person who sells in a market or shop with a name write for example; Kwame Menkah Trading, Oko Fitting Shop, Adom shop, etc.

P15a. INDUSTRY

The working population is engaged by different establishments of the economy that produce mainly goods or provide services. The kinds of goods produced or services rendered by these establishments where the working population is engaged, is also known as industry. International Standard Industrial Classification of all Economic Activities (ISIC) places

industry into four-level structure that are mutually exclusive to facilitate data collection, analysis and presentation. The four-level structure comprises section, divisions, groups and classes. To understand these categories and the engagement of industry, there is the need to describe and classify appropriately the activities of industry, and also to select the appropriate ISIC description category.

Information on industry will help to analyse the socio-economic status of the population and to identify the kinds of industry in which individuals are employed. The information will also help to determine the number of persons engaged in the different industry groups and the proportion of working children in these industries. Again, it will help to determine the dominant industry in which males and females work or worked across different geographic areas.

The International Standard Industrial Classification (ISIC Revision 4)

It is the international reference classification of productive activities. Its main purpose is to provide a set of activity categories that can be utilized for the collection and reporting of statistics according to such activities. The International Standard Industrial Classification have been arranged or categorized using alphabets from A to U called SECTIONS. Each section of the ISIC is subdivided into four numerical codes as follows:

1. First two numerical codes forming DIVISIONS of the classification of industry
2. Third digit forming GROUPS of the classification of industry and
3. The fourth digit is the CLASSES of the classification of industry

ISIC Framework Sections

The following list shows the detailed list of twenty-one sections of ISIC classification grouped under corresponding sectors of the economy:

Section A: Agriculture, Forestry and Fishing

Sections B – F: Industry

- B. Mining and quarrying
- C. Manufacturing
- D. Electricity, gas, steam and air conditioning supply
- E. Water supply; sewerage, waste management and remediation activities
- F. Construction

Sections G - U Services

- G. Wholesale and retail trade; repair of motor vehicles and motorcycles
- H. Transportation and storage
- I. Accommodation and food service activities
- J. Information and communication
- K. Financial and insurance activities
- L. Real estate activities
- M. Professional, scientific and technical activities
- N. Administrative and support service activities
- O. Public administration and defence; compulsory social security
- P. Education

- Q Human health and social work activities
- R. Arts, entertainment and recreation
- S. Other service activities
- T. Activities of households as employers; undifferentiated goods- and Services –
Producing activities of households for own use
- U Activities of extraterritorial organizations and bodies

SECTION A: Agriculture, Forestry and Fishing

- 01 Crop and animal production, hunting and related service activities
- 02 Forestry and logging
- 03 Fishing and aquaculture

SECTION B: Mining and quarrying

- 05 Mining of coal and lignite
- 06 Extraction of crude petroleum and natural gas
- 07 Mining of metal ores
- 08 Other mining and quarrying
- 09 Mining support service activities

SECTION C: Manufacturing

- 10 Manufacture of food products
- 11 Manufacture of beverages
- 12 Manufacture of tobacco products
- 13 Manufacture of textiles
- 14 Manufacture of wearing apparel
- 15 Manufacture of leather and related products
- 16 Manufacture of wood and of products of wood and cork, except furniture;
Manufacture of articles of straw and plaiting materials
- 17 Manufacture of paper and paper products
- 18 Printing and reproduction of recorded media
- 19 Manufacture of coke and refined petroleum products
- 20 Manufacture of chemicals and chemical products
- 21 Manufacture of basic pharmaceutical products and pharmaceutical preparation
- 22 Manufacture of rubber and plastics products
- 23 Manufacture of other non-metallic mineral products
- 24 Manufacture of basic metals
- 25 Manufacture of fabricated metal products, except machinery and equipment
- 26 Manufacture of computer, electronic and optical products
- 27 Manufacture of electrical equipment
- 28 Manufacture of machinery and equipment n.e.c.
- 29 Manufacture of motor vehicles, trailers and semi-trailers
- 30 Manufacture of other transport equipment
- 31 Manufacture of furniture
- 32 Other manufacturing
- 33 Repair and installation of machinery and equipment

SECTION D: Electricity, gas, steam and air conditioning supply

- 35 Electricity, gas, steam and air conditioning supply

SECTION E: Water supply; sewerage, waste management and remediation activities

- 36 Water collection, treatment and supply
- 37 Sewerage
- 38 Waste collection, treatment, and disposal activities; materials recovery
- 39 Remediation activities and other waste management services

SECTION F: Construction

- 41 Construction of buildings
- 42 Civil engineering
- 43 Specialized construction activities

SECTION G: Wholesale and retail trade; repair of motor vehicles and motorcycles

- 45 Wholesale and retail trade and repair of motor vehicles and motorcycles
- 46 Wholesale trade, except of motor vehicles and motorcycles
- 47 Retail trade, except of motor vehicles and motorcycles

SECTION H: Transportation and storage

- 49 Land transport and transport via pipelines
- 50 Water transport
- 51 Air transport
- 52 Warehousing and support activities for transportation
- 53 Postal and courier activities

SECTION I: Accommodation and food service activities

- 55 Accommodation
- 56 Food and beverage service activities

SECTION J: Information and communication

- 58 Publishing activities
- 59 Motion picture, video and television programme production, sound recording and music publishing activities
- 60 Programming and broadcasting activities
- 61 Telecommunications
- 62 Computer programming, consultancy and related activities
- 63 Information service activities

SECTION K: Financial and insurance activities

- 64: Financial service activities, except insurance and pension funding
- 65: Insurance, reinsurance and pension funding, except compulsory social security
- 66: Activities auxiliary to financial service and insurance activities

SECTION L: Real estate activities

- 68 Real estate activities

SECTION M: Professional, scientific and technical activities

- 69 Legal and accounting activities
- 70 Activities of head offices; management consultancy activities
- 71 Architectural and engineering activities; technical testing and analysis

- 72 Scientific research and development
- 73 Advertising and market research
- 74 Other professional, scientific and technical activities
- 75 Veterinary activities

SECTION N: Administrative and support service activities

- 77 Rental and leasing activities
- 78 Employment activities
- 79 Travel agency, tour operator, reservation service and related activities
- 80 Security and investigation activities
- 81 Services to buildings and landscape activities
- 82 Office administrative, office support and other business support activities

SECTION O: Public administration and defence; compulsory social security

- 84 Public administration and defence; compulsory social security

SECTION P: Education

- 85 Education

SECTION Q: Human health and social work activities

- 86 Human health activities
- 87 Residential care activities
- 88 Social work activities without accommodation

SECTION R: Arts, entertainment and recreation

- 90 ` Creative, arts and entertainment activities
- 91 ` Libraries, archives, museums and other cultural activities
- 92 Gambling and betting activities
- 93 Sports activities and amusement and recreation activities

SECTION S: Other service activities

- 94 Activities of membership organizations
- 95 Repair of computers and personal and household goods
- 96 Other personal service activities

SECTION T: Activities of households as employers; undifferentiated goods and services producing activities of households for own use

- 97 Activities of households as employers of domestic personnel
- 98 Undifferentiated goods - and services-producing activities of private households for own use.

SECTION U: Activities of extraterritorial organizations and bodies

- 99 Activities of extraterritorial organizations and bodies

DEFINITION OF SECTIONS

A - Agriculture, Forestry and Fishing

The agriculture, forestry and fishing industry is made of activities of growing of crops, raising and breeding of animals, harvesting of timber and other plants, animals or animal products from a farm or their natural habitats.

B - Mining and Quarrying

Mining and quarrying (M&Q) is the extraction of minerals occurring naturally as solids (Gold, diamond, bauxite, and Manganese), other minerals including (silver, iron ore, limestone, salt, kaolin), liquids (petroleum) or gases (natural gas).

Extraction can be achieved by different methods such as underground or surface mining, well operation, etc. It also includes supplementary activities aimed at preparing the crude materials for marketing, for example, crushing, and grinding, cleaning, drying, sorting, concentrating ores, liquefaction of natural gas and agglomeration of solid fuels. These operations are often carried out by the units that extracted the resource and/or others located nearby.

C - Manufacturing

The physical or chemical transformation of materials, substances, or components into new products. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities. The assembly of the component parts of manufactured products is considered manufacturing. This includes the assembly of manufactured products from either self-produced or purchased components.

Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing. Establishments engaged in manufacturing are often described as plants, factories or mills and characteristically use power-driven machines and materials-handling equipment. However, units that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public of products made on the same premises from which they are sold, such as bakeries and custom tailors, are included in this section. More so, manufacturing establishments may process materials or may contract with other units to process their materials for them. Both types of units are included in manufacturing.

The output of a manufacturing process may be finished in the sense that it is ready for utilization or consumption, or it may be semi-finished in the sense that it is to become an input for further manufacturing. For example, the output of alumina refining is the input used in the primary production of aluminium; primary aluminium is the input to aluminium wire drawing; and aluminium wire is the input for the manufacture of fabricated wire products.

D - Electricity, Gas, Steam and Air Conditioning Supply

This section includes the activity of providing electric power, natural gas, steam, hot water and the like through a permanent infrastructure (network) of lines, mains and pipes. The dimension of the network is not decisive; also included are the distribution of electricity, gas, steam, hot water and the like in industrial parks or residential buildings. This section therefore includes the operation of electric and gas utilities, which generate, control and distribute electric power or gas. Also included is the provision of steam and air-conditioning supply.

This section excludes the operation of water and sewerage utilities, see 36, 37. This section also excludes the (typically long-distance) transport of gas through pipelines.

E - Water Supply; Sewerage, Waste Management and Remediation Activities

This section includes activities related to the management (including collection, treatment and disposal) of various forms of waste, such as solid or non-solid industrial or household waste, as well as contaminated sites. The output of the waste or sewage treatment process can

either be disposed of or become an input into other production processes. Activities of water supply are also grouped in this section, since they are often carried out in connection with, or by units also engaged in, the treatment of sewage.

F - Construction

This section includes general construction and specialized construction activities for buildings and civil engineering works. It includes new work, repair, additions and alterations, the erection of prefabricated buildings or structures on the site and also construction of a temporary nature.

General construction is the construction of entire dwellings, office buildings, stores and other public and utility buildings, farm buildings etc., or the construction of civil engineering works such as motorways, streets, bridges, tunnels, railways, airfields, harbours and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, sports facilities, etc.

The renting of construction equipment with operator is classified with the specific construction activity carried out with this equipment.

G - Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles

This section includes wholesale and retail sale (i.e. sale without transformation) of any type of goods and the rendering of services incidental to the sale of these goods. Wholesaling and retailing are the final steps in the distribution of goods. Goods bought and sold are also referred to as merchandise. Also included in this section are the repair of motor vehicles and motorcycles. Sale without transformation is considered to include the usual operations (or manipulations) associated with trade, for example sorting, grading and assembling of goods, mixing (blending) of goods (for example sand), bottling (with or without preceding bottle cleaning), packing, breaking bulk and repacking for distribution in smaller lots, storage (whether or not frozen or chilled), cleaning and drying of agricultural products, cutting out of wood fibreboards or metal sheets as secondary activities.

H - Transport and Storage

These include the provision of passenger or freight transport, whether scheduled or not, by rail, pipeline, road, water or air and associated activities such as terminal and parking facilities, cargo handling, storage, etc. Included in this section is the renting of transport equipment with driver or operator. Postal and courier activities are also included.

Excludes maintenance and repair of motor vehicles and other transportation equipment the construction, maintenance and repair of roads, railroads, harbours, airfields as well as the renting of transport equipment without driver or operator. Examples are passenger transport by inter-urban railways, land transport of passengers by streetcar, metro mass transit, transport from town-to-airport, Other renting of private cars with driver, operation of general merchandise warehouses, operation of storage and warehouse facilities for all kinds of goods, operation of car parks or garages, bicycle parking, etc.

I - Accommodation and Food Service

These include the provision of short-stay accommodation for visitors and other travellers and the provision of complete meals and drinks fit for immediate consumption. Also included is the provision of longer-term accommodation for students, workers and similar individuals. Some units may provide only accommodation while others provide a combination of accommodation, meals and/or recreational facilities.

Food and beverage serving activities involve the provision of complete meals or drinks fit for immediate consumption, whether in traditional restaurants, self-service or take-away restaurants, whether as permanent or temporary stands with or without seating. It excludes

the provision of long-term accommodation as primary residences (usual place of residence), which is classified in Real estate activities, preparation of food or drinks that are either not fit for immediate consumption or that are sold through independent distribution channels, i.e. through wholesale or retail trade activities classified under Manufacturing.

J - Information and communication

Includes the production and distribution of information and cultural products, the provision of the means to transmit or distribute these products, as well as data or communications, information technology activities and the processing of data and other information service activities. The main components are publishing activities including software publishing, motion picture and sound recording activities, radio and TV broadcasting and programming activities Telecommunications activities and information technology activities and other information service activities.

Examples: Operating of cell phone networks, provision of data entry services, application service provision, activities of studio engineers, activities of radio networks, i.e. assembling and transmitting aural programming to the facilitators or subscribers via over the air broadcasts, cable or satellite radio broadcasting activities over the internet (internet radio stations) data broadcasting integrated with radio broadcasting, etc.

K - Financial and Insurance Activities

This includes financial service activities, including insurance, reinsurance and pension funding activities and activities to support financial services. This also includes the activities of holding assets, such as activities of holding companies and the activities of trusts, funds and similar financial entities. Examples: commercial banks, the central bank. Credit unions, Life insurance policies, Provision of insurance services other than life insurance, funding of pension funds and plans, Activities of forex bureau, Securities brokerage activities, Management of mutual funds, microfinance, etc.

L - Real Estate Activities

This includes acting as liaisons, agents and/or brokers in one or more of the following: selling or buying real estate, renting real estate, providing other real estate services such as appraising real estate or acting as real estate escrow agents. Activities in this section may be carried out on own or leased property and may be done on a fee or contract basis. Also included is the building of structures, combined with maintaining ownership or leasing of such structures. Examples: Buying, selling, renting and operating of self-owned or leased apartment buildings and dwellings, Intermediation in buying, selling and renting of real estate on a fee or contract basis, development of building projects for own operation, i.e. for renting of space in these buildings, activities of real estate agents and brokers etc.

M - Professional, scientific and technical activities

This includes legal activities such as advice and representation in connection with labour disputes, advice and representation in criminal cases, legal representation of one party's interest against another party, whether or not before courts or other judicial bodies by, or under supervision of, persons who are members of the bar etc. Also, accounting, bookkeeping and auditing activities; tax and management consultancy such as preparation of personal and business income tax returns, preparation or auditing of financial accounts, advisory activities and representation on behalf of clients before tax authorities, provision of advice and help to businesses and public services in planning, organization, efficiency and control, management information, provision of advice on human resource policies, public relations and communication etc.

N - Administrative and support service activities

This includes the renting and leasing of tangible and non-financial intangible assets, including a wide array of tangible goods, such as automobiles, computers, consumer goods and industrial machinery and equipment to customers in return for a periodic rental or lease payment. It also includes leasing of intellectual property and similar products, activities of employment placement agencies, travel agency and tour operator activities, Security and investigation activities, cleaning activities, Landscape care and maintenance service activities (parks and gardens), Photocopying, document preparation and other specialized office support activities, activities of call centres. Examples: Activities of on-line employment placement agencies, Private security agencies, Renting and operational leasing of passenger cars (without drivers), Renting of pleasure boats, canoes, sailboats, Renting of musical instruments etc.

O - Public Administration and Defence; Compulsory Social Security

The activities classified by ISIC Revision 4 as “Public administration and defence; compulsory social security” includes activities of a governmental nature, normally carried out by the public administration. This includes the enactment and judicial interpretation of laws and their pursuant regulation, as well as the administration of programmes based on them, legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and the administration of government programmes as well as compulsory social security activities.

The legal or institutional status is not, in itself, the determining factor for an activity to belong to this section and the division. This means that activities classified elsewhere in ISIC do not fall under this section and the division, even if carried out by public entities. For example, administration of the school system (i.e. regulations, checks, curricula) falls under this section and division, but teaching itself does not (see section P), and a prison or military hospital is classified to health (see section Q). Similarly, some activities described in this section and division may be carried out by non-government units.

P - Education

This section includes education at any level or for any profession, oral or written and other means of communication. It includes education by the different institutions in the regular school system at its different levels as well as adult education, literacy programmes etc. Also included are military schools and academies, prison schools etc. at their respective levels. The section includes public as well as private education. For each level of initial education, the classes include special education for physically or mentally handicapped pupils. Examples: Photography schools, Automobile driving schools, learning centres offering remedial courses, computer training, Performing arts schools, Technical and vocational secondary education etc.

Q - Human Health and Social Work Activities

This section includes the provision of health and social work activities. Activities include a wide range of activities, starting from health care provided by trained medical professionals in hospitals and other facilities, other residential care activities that still involve a degree of health care activities to social work activities without any involvement of health care professionals. Examples: Medical, diagnostic and treatment activities, Medical, diagnostic and treatment activities of maternity hospitals, dental practice activities of a general or specialized nature, Activities of herbal medicine practitioners/centres, Activities of blood analysis laboratories, Activities of orphanages etc.

R - Arts, Entertainment and Recreation

This section includes a wide range of activities to meet varied cultural, entertainment and recreational interests of the general public, including live performances, operation of museum sites, gambling, sports and recreation activities. Broadly, it includes creative arts and entertainment activities; libraries, archives, museums and other culture activities; gambling and betting activities; sports activities and amusement and recreation activities. Example: Operation of concert and theatre halls and other arts facilities, Production of group circuses or companies, orchestras or bands, Operation of art museums, Activities of amusement parks or theme parks, Operation of nature reserves, including wildlife preservation, Lotto operators etc.

S - Other Service Activities

This section includes the activities of membership organizations, the repair of computers and personal and household goods and a variety of personal service activities not covered elsewhere in the classification. Example: Activities of chambers of commerce, guilds and similar organizations, (e.g. Ghana Chamber of Commerce), Repair and maintenance of cellular phones, Activities of churches, Activities of mosques, Repair and alteration of clothing, Hair washing and similar activities (hair dressing and barbering) for men and women, Repair of bicycles etc.

T - Activities of Households as Employers; Undifferentiated Goods - and Services

This includes activities of households as employers of domestic personnel such as maids, cooks, waiters, valets, butlers, laundresses, gardeners, gatekeepers, stable-lads, chauffeurs, caretakers, governesses, babysitters, tutors, secretaries etc. It allows the domestic personnel employed to state the activity of their employer in censuses or studies, even though the employer is an individual. The product produced by this activity is consumed by the employing household.

This excludes provision of services such as cooking, gardening etc. by independent service providers (companies or individuals), which are classified according to the type of service.

U - Activities of Extraterritorial Organizations and Bodies

This is the activities of international organizations such as the United Nations and the specialized agencies of the United Nations system, regional bodies etc., the International Monetary Fund, the World Bank, the World Customs Organization, the Organization for Economic, Co-operation and Development, the Organization of Petroleum Exporting Countries, the European Communities, the European Free Trade Association etc.

This class also includes activities of diplomatic and consular missions when being determined by the country of their location rather than by the country they represent.

COMPLETING QUESTION: P.15a

P15a: What is the main economic activity (product or service) of the establishment where [NAME] works/worked?

The purpose of this question is to find out the main product produced or service rendered by the establishment named in P15 above. Enumerators are to ask for the main product or service of the establishment where the individual works or worked and then write detailed and exact description of such product or service. For self-employed individuals, ask for the exact product produced or services rendered. Note: the term selling of provisions, doing business for example are vague and must be avoided.

Example 1: A household member who engages in growing of maize. Enumerators should note that “Maize” is not an economic activity. The correct description is “growing of maize” for household consumption

Example 2: An individual who works with Blue Skies Company. If the enumerator does not know the economic activity Blue Skies engages in, then he/she should probe and find out. Blue Skies is into “manufacture of fruit juice”.

Processing and preserving fruit and vegetables
Drying of fruits, nuts or vegetable
Freezing of fruits nuts or vegetable
immersing in oil or in vinegar, canning etc.
Manufacture of fruit in frozen or canned form
Manufacture of fruit juice (orange, guava, pineapple, lemon squash)

Example 3 (Establishment engaged in multiple economic activities): A household member may engage in growing of different crops (Cassava, Maize, Oil Palm) for sale. Enumerators should find out which of the crops gives him/her the highest value of output/profit and that becomes the main economic activity of the household member. Assume oil palm gives him the highest value of output / profit. “Oil palm is not an economic activity”. The correct description is growing of oil palm for sale.

ILLUSTRATION OF INDUSTRY CODING STRUCTURE OF LOWER LEVELS (GROUP AND CLASS)

By way of illustration, the Section G wholesale and retail trade: repair of motor vehicles and motorcycles will be the focus in explaining the structure of industry at the lower levels-groups and classes.

WHOLESALE AND RETAIL TRADES; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES

CONCEPTS AND DEFINITION

Trades involves the sale without transformation of any type of goods and rendering of services related to trade. Wholesaling and retailing are the final steps in the distribution of goods. An activity that involves assembling of parts of an equipment before selling it falls under manufacturing while one that involves only retailing of the equipment (e.g. bicycles) falls under retail trade

I. Sale without transformation: is considered to include the usual operations (or manipulations) associated with trade, for example sorting, grading and assembling of goods, mixing (blending) of goods (for example sand), bottling (with or without preceding bottle cleaning), packing, breaking bulk and repacking for distribution in smaller lots, storage (whether or not frozen or chilled), cleaning and drying of agricultural products, cutting out of wood fibre boards or metal sheets as secondary activities.

II. Wholesale trade except sales and repairs of motor vehicle and motor cycle: is the resale (sale without transformation) of new and used goods to retailers, to industrial, commercial, institutional or professional users, or to other wholesalers, or involves acting as an agent or broker in buying goods for, or selling goods to, such persons or companies.

III. Retail trade except of motor vehicle and motor cycle: Is the resale (sale without transformation) of new and used goods mainly to the general public for personal or household consumption or utilization, by shops, department stores, stalls, mail-order houses etc. It also includes activities such as washing, polishing of vehicles, the retail sale of automotive fuel and lubricating or cooling products or the renting of motor vehicles or motorcycles.

IV. Sales and repairs of motor vehicle and motor cycle: Includes all activities (except manufacture and renting) related to motor vehicles and motorcycles, including lorries and trucks, such as the wholesale and retail sale of new and second-hand vehicles, the repair and maintenance of vehicles and the wholesale and retail sale of parts and accessories for motor vehicles and motorcycles. Also included are activities of commission agents involved in wholesale or retail sale of vehicles

Specialized trades are trades in one type of goods e.g. food product, beverages, tobacco and telecommunication equipment etc.

Non-specialized trades are trades in variety of goods without any particular specialization.

Wholesale Trade: In wholesale trade, a distinction should be made between trading in specialized and non-specialized goods. This means dealing in one type of goods e.g. textile clothing and footwear; electronic and telecommunication equipment and parts or dealing in a variety of goods without any particular specialization.

Retail Trade: Similarly, for Retail trade, distinction is required first by type of sale outlet i.e. retail trade in stores and retail trade not in stores. For retail trade in stores, further distinction is required between specialized (i.e. range of items sold) and non-specialized retail trade. Retail trade not in stores is classified by forms of trade. Examples, retail sale in stalls and markets, door to door, mail order, by vending machines, on the street, in front of houses, etc.

STRUCTURE FOR SECTION G WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES

Section G

Wholesale and retail trade; repair of motor vehicles and motorcycles

Division	Group	Class	Description
Division 45			Wholesale and retail trade and repair of motor vehicles and motorcycles
	451	4510	Sale of motor vehicles
	452	4520	Maintenance and repair of motor vehicles

Division	Group	Class	Description
	453	4530	Sale of motor vehicle parts and accessories
	454	4540	Sale, maintenance and repair of motorcycles and related parts and accessories
Division 46			Wholesale trade, except of motor vehicles and motorcycles
	461	4610	Wholesale on a fee or contract basis
	462	4620	Wholesale of agricultural raw materials and live animals
	463	4630	Wholesale of food, beverages and tobacco
	464		Wholesale of household goods
		4641	Wholesale of textiles, clothing and footwear
		4649	Wholesale of other household goods
	465		Wholesale of machinery, equipment and supplies
		4651	Wholesale of computers, computer peripheral equipment and software
		4652	Wholesale of electronic and telecommunications equipment and parts
		4653	Wholesale of agricultural machinery, equipment and supplies
		4659	Wholesale of other machinery and equipment
	466		Other specialized wholesale
		4661	Wholesale of solid, liquid and gaseous fuels and related products
		4662	Wholesale of metals and metal ores
		4663	Wholesale of construction materials, hardware, plumbing and heating equipment and supplies
		4669	Wholesale of waste and scrap and other products n.e.c.
	469	4690	Non-specialized wholesale trade

Division 47		Retail trade, except of motor vehicles and motorcycles
471		Retail sale in non-specialized stores
	4711	Retail sale in non-specialized stores with food, beverages or tobacco predominating
	4719	Other retail sale in non-specialized stores
472		Retail sale of food, beverages and tobacco in specialized stores
	4721	Retail sale of food in specialized stores
	4722	Retail sale of beverages in specialized stores
	4723	Retail sale of tobacco products in specialized stores
473	4730	Retail sale of automotive fuel in specialized stores
474		Retail sale of information and communications equipment in specialized stores
	4741	Retail sale of computers, peripheral units, software and telecommunications equipment in specialized stores
	4742	Retail sale of audio and video equipment in specialized stores
475		Retail sale of other household equipment in specialized stores
	4751	Retail sale of textiles in specialized stores
	4752	Retail sale of hardware, paints and glass in specialized stores
	4753	Retail sale of carpets, rugs, wall and floor coverings in specialized stores
	4759	Retail sale of electrical household appliances, furniture, lighting equipment and other household articles in specialized stores
476		Retail sale of cultural and recreation goods in specialized stores
	4761	Retail sale of books, newspapers and stationary in specialized stores
	4762	Retail sale of music and video recordings in specialized stores

Division	Group	Class	Description
		4763	Retail sale of sporting equipment in specialized stores
		4764	Retail sale of games and toys in specialized stores
	477		Retail sale of other goods in specialized stores
		4771	Retail sale of clothing, footwear and leather articles in specialized stores
		4772	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles in specialized stores
		4773	Other retail sale of new goods in specialized stores
		4774	Retail sale of second-hand goods
	478		Retail sale via stalls and markets
		4781	Retail sale via stalls and markets of food, beverages and tobacco products
		4782	Retail sale via stalls and markets of textiles, clothing and footwear
		4789	Retail sale via stalls and markets of other goods
	479		Retail trade not in stores, stalls or markets
		4791	Retail sale via mail order houses or via Internet
		4799	Other retail sale not in stores, stalls or markets

Example 1: Consider a household member who sells frozen food in a grocery shop

A household member who sells frozen food belongs to SECTION G wholesale and retail trade: repair of motor vehicles and motorcycles. Under section G there are three divisions namely

- Division 45: Wholesale and retail trade and repair of motor vehicles and motorcycles
- Division 46: Wholesale trade, except of motor vehicles and motorcycles
- Division 47: Retail trade, except of motor vehicles and motorcycles

The household member selling frozen food will fall under Division 47: Retail trade, except of motor vehicles and motorcycles. Under this Division 47: Retail trade, except of motor vehicles and motorcycles there are 9 groups namely

- GROUP 471: Retail sale in non-specialized stores
- GROUP 472: Retail sale of food, beverages and tobacco in specialized stores
- GROUP 473: Retail sale of automotive fuel in specialized stores
- GROUP 474: Retail sale of information and communications equipment in specialized stores
- GROUP 475: Retail sale of other household equipment in specialized stores
- GROUP 476: Retail sale of other household equipment in specialized stores
- GROUP 477: Retail sale of other goods in specialized stores
- GROUP 478: Retail sale via stalls and markets
- GROUP 479: Retail trade not in stores, stalls, or markets

The household member belongs to GROUP 478: Retail sale via stalls and market. Under this group, there are three classes:

- CLASS 4781: Retail sale via stalls and markets of food, beverages, and tobacco products
- CLASS 4782: Retail sale via stalls and markets of textiles, clothing, and footwear
- CLASS 4789: Retail sale via stalls and markets of other goods
- The CLASS 4781: Retail sale via stalls and markets of food, beverages, and tobacco products is the CLASS to be selected.

This is because the activity done here is not done in a specialized store. If it had been in a specialized store, Group 472: Retail sale of food, beverages, and tobacco in specialized stores and class 4721: Retail sale of food in specialized stores should be selected.

From the discussion above, it is clear that the description of kind of economic activity requires not only detail but the right kind of details which enables one to identify the industry, group, and class to which it belongs.

Refer to the industry manual for detailed information on the other sections.

EMPLOYMENT STATUS AND EMPLOYMENT SECTOR

Economic activity provides a general pattern of participation of the population in different forms of work. These forms of work recognize that all productive activities contribute to economic output and the livelihood of households and well-being. This session provides general information on the economic activities the population is engaged in. This is to determine their mode of engagement and the type of institution in which they are engaged. Information on employment status and sector from the 2021 PHC will produce separate sets of labour statistics on each form of work in order to meet different policy needs. Information collected on employment status and sector will be used to monitor and evaluate labour force intervention programmes and policies to ensure they fairly and equitably serve the needs of all population sub-groups in the country

Employment status refers to the position of an economically active person with respect to the type of agreement that governs the employment with other persons or organizations that the person has in his/her job. The status is generally classified according to the strength of the attachment between the person and the job, and the type of authority he/she has over the establishment and other workers that the person has or will have in the job. Employment status is classified based on the:

1. Associated type of economic risk (job security)

2. Type of authority of job incumbents over establishments and other workers.
3. Written or unwritten agreement (contract) of employment the person has with other persons or organizations.

The sector of employment, on the other hand, relates to the legal organization and principal functions, behaviour, and objectives of the institution or enterprise with which a person is engaged. Employment sectors are distinguished as Public (Government, Semi-Public/Parastatal, Private Formal Private Informal, Local NGO/CSO, International NGO/CSO, Religious organization (Local), Religious organization (International), International Organization

P16 Employment status: refers to the position of an economically active person with respect to the type of agreement that governs the employment with other persons or organizations that the person has in his/her job. The status is generally classified according to the strength of the attachment between the person and the job, and the type of authority he/she has over the establishment and other workers that the person has or will have in the job. Employment status is classified based on the:

- Associated type of economic risk (job security)
- Type of authority of job incumbents over establishments and other workers.
- Written or unwritten agreement (contract) of employment the person has with other persons or organizations.

P16: *What was [NAME]'s Employment Status in that establishment/business/ industry?*

Nine (9) categories have been provided for this question and you must write the appropriate code in the corresponding box.

1. **Employees** – These are persons who are typically remunerated by wages and salaries for time worked. They may also be paid by commission from sales, or through piece rates, bonuses or in-kind payment such as food, housing and training. Employees could be engaged either in the public or private sector. Write code ‘1’ in the appropriate box for a person who works for a public or private employer and is paid by this employer.

Included in this category are persons with specialized skills who are engaged to perform specific tasks for relatively shorter periods of time. There are clear agreed terms of engagement and deliverables in the contract that are usually not compromised. Examples include consultants and contractors who may be working for either a local or foreign employer. For the purpose of the census, this category of workers is considered employees. Write code ‘1’ in the appropriate box for this person who works for a public or private employer and is paid by the employer.

Note: Paid apprentices must not be classified as employees and domestic workers (either paid or not) must not be classified as employees

2. **Self-employed without employees** – Record code ‘2’ for a person who operates his/her own enterprise (e.g., a farmer, *kenkey* seller, carpenter) and who DOES NOT EMPLOY anybody to work for him/her in the operation of his/her enterprise. It also includes persons who pay themselves on own account (e.g. financial consultant, lawyer, hairdresser, dressmaker, etc.). Note that self-employed with only apprentices must be classified as without employees. You must, however, make sure that the assistants of such a person are actually apprentices and not paid employees before classifying the respondent in this group.

3. **Self-employed with employees** – Enter code ‘3’ for a person who operates his/her own enterprise directly or through another person (E.g. a manager or caretaker) and who for the operation of this enterprise HIRES ONE OR MORE PERSONS. Note that the

persons considered as employees here exclude contributing family workers and apprentices, whether they are given allowances or not.

4. **Casual worker** – Any person who provides labour or services under an irregular or informal working arrangement. They are contracted from time to time for short periods to perform specific work and have limited entitlement to benefits and little or no security of employment. There are two categories of casual workers: those on daily wage ('by day'), and those on a casual payroll system and issued payslips at the end of each month. These persons designated as casual workers on payrolls are normally not expected to work continuously or cumulatively for more than six months in a year. Record code '4' for such persons.
5. **Contributing family worker** – Record code 5 in the appropriate box for a person who helps in running an economic enterprise operated by a member of his or her family without payment of wages or salary. Excluded from this category are family members who work for pay – such persons should be classified as employees.
6. **Paid Apprentice** – This category refers to a person who is learning a trade and who normally works under the supervision of a qualified worker. He/she is either paid or given an allowance on agreed terms.
7. **Unpaid Apprentice** – This category refers to a person who is learning a trade and who normally works under the supervision of a qualified worker. He/she is neither paid nor given any allowance.
8. **Domestic worker (house help, garden boy, etc.)** – These are persons who are engaged by private households to provide domestic activities such as cooking, driving, gardening, providing nanny service, etc. He/she may or may not receive remuneration for the activities performed.
9. **Other (Specify)** - All persons who do not fall into any of the above groups.

Employment Sector: The sector of employment relates to the legal organization and principal functions, behaviour, and objectives of the institution or enterprise with which a person is engaged. Sectors are distinguished as Public (Government, Semi-Public/Parastatal, Private Formal Private Informal, Local NGO/CSO, International NGO/CSO, Religious organization (Local), Religious organization (International), International Organization

P17. In what sector was (NAME) mainly working?

This question seeks to find out the sector in which (Name) is employed/working. The following explanations of employment sectors have been given to guide you choose the appropriate option.

1. **Public (Government)** - Code '1' if respondent works or worked in the public sector which is made up of establishments that are largely regulated, owned or controlled by the central or local government e.g. Ministries, other Government Departments and Agencies, District Assemblies, National Mobilization Programme, etc.
2. **Semi -Public/Parastatal** – Code '2' These are institutions (Corporations, companies, etc.) that are partly or fully owned by the government. These do not, however, depend on the consolidated fund or government funds. They normally generate their own income and have some autonomy e.g. ECG, VRA, Ghana Water Company,

- Ghana Broadcasting Corporation, Graphic Communications Group Limited, etc. Record '2' in the appropriate box if the person works in any of such institutions.
3. **Private Formal** - Record '3' for persons who work in establishments owned and controlled by a private person(s). This covers both big and small establishments like UNILEVER, Japan Motors, Nestle, etc.
 4. **Private Informal** - Record '4' for persons who work in small establishments owned and controlled by a private person(s) and those who do their own small business like the hawkers, tabletop shops, buying and selling at market places, etc. Also included are persons working in establishments like Kumasi Magazine Garages, Abossey Okai Spare Parts Shops in Accra, etc.
 5. **Local NGOs/CSOs** – Enter code '5' for respondents who work in non-profit making organizations which aim at providing services / facilities / assistance to the government and communities. It is referred to as local NGO/CSO because the source (headquarters) is in Ghana. Examples of local NGOs/CSOs are STAR- Ghana, Association of Church-Based Development (ACDEP), West Africa Programme to Combat AIDS and STIs (WAPCAS), Ghana Society for the Blind, etc.
 6. **International NGO /CSO** – Enter code '6' for respondents who work in non-profit making organisations which aim at providing services/facilities/assistance to the government and communities. It is referred to as international NGO/CSO because the source (headquarters) is in a country other than Ghana. Examples of international NGO's/CSOs are Save the Children Fund, International Needs, Water Aid, Help Age, World Vision International, ADRA, Care International, etc.
 7. **Religious Organization (Local)** – Enter code '7' for respondents who work in non-profit organizations which aim at providing religious activities and services in communities and have their source (headquarters) in Ghana. Examples o include Assemblies of God Church, Anglican Church, International Central Gospel Church (ICGC) and Godsway International Church, all of which have their headquarters in Ghana.
 8. **Religious Organization (International)** – Enter code "8" for respondents who work in non-profit making organizations which are into religious activities in communities and have their source (headquarters) outside Ghana. Examples of international religious organizations include Winners Chapel International and Christ Embassy Church, which have their headquarters in Nigeria.
 9. **International Organizations, Record** code '9' for persons who work in international organizations. This includes UNDP, UNICEF, UNHCR, FAO, UNFPA, WHO, ILO, World Bank, USAID, UKAID, DANID, etc.

16.4 Completing the Difficulties in Performing Activities Questions

P18a-f: DIFFICULTIES IN PERFORMING ACTIVITIES - ANSWER FOR PERSONS AGED 5 YEARS AND OLDER.

This module seeks to obtain information about difficulties faced by the respondent in doing certain activities. It includes persons who are unable to, or are restricted in the performance of specific tasks/activities due to loss of function of any part of the body as a result of impairment or malformation. It includes difficulties that occur within a health context, rather than those caused by a lack of resources. It also includes specific problems such as a disease or chronic condition, a missing limb, or physical or psychological symptoms. The questions on difficulties in performing activities cover six core domains: seeing, hearing, walking, or climbing stairs, remembering or concentrating, self-care, and communicating.

Difficulty in performing activities is critically important for national and global development agenda. Yet it remains a very sensitive and highly stigmatized subject in all societies, more so in developing countries. Indicators that could emerge from answers to the questions on Difficulties in Performing Activities include the following:

- Prevalence of difficulties in performing activities relating to seeing, hearing, walking and climbing stairs, remembering and concentrating, self-care, and speech difficulties – (Number; percent).
- Distribution of persons with difficulties in performing activities (demographic, socio-economic, and spatial)
- Degree of severity of difficulty in performing activities, i.e. number and/or percent of persons with a lot of difficulty or cannot do it all.

Issues to consider

Due to stigmatization, people are reluctantly talking about challenges associated with performing activities. Therefore, to obtain quality data, the enumerator must psych up the respondent and ensure they are comfortable before administering the questionnaires. There will be the need to prepare the respondent's mind before asking questions on difficulties in performing activities. You must ask the questions in the right manner, adopt the right tone and words and be **TACTFUL** – generally taking great care in keeping with the sensitivity of the module.

HOW TO COMPLETE QUESTIONS ON DIFFICULTIES IN PERFORMING ACTIVITIES

Questions on difficulty in performing activities are to be addressed to all persons aged 5 years and older. Questions on difficulty in performing activities are in two parts that have to be asked in full before soliciting for response and the response options must be read aloud as part of each of the six questions.

Prepare the mind of the respondent to answer the questions by reading the consent statement to the respondent as stated below:

“In this Census exercise, everyone is considered important. We want information about everyone including children and adults, and whether anyone of them has a form of difficulty in performing certain activities, including due to old age. It is important that no one is left behind because of their functioning status. So, please, I will now ask you about the functioning status of every member of this household in turn. The responses you provide are strictly confidential. Please answer the questions truthfully to fully highlight the extent of the challenge. Do I have your permission to proceed? Thank you”

Now ask the respondent about difficulties he/she may have doing a number of different activities. For each activity there are four possible answers: Please ask the respondent to tell you if he/she has: 1) no difficulty, 2) some difficulty, 3) a lot of difficulty, or 4) cannot do at all. Repeat the categories while asking the individual questions whenever the respondent does not use an answer category.

P18a. DIFFICULTY IN SEEING: Does (NAME) have difficulty seeing, even if wearing glasses? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot see at all?

The purpose of this question on difficulty in seeing is to identify persons who have challenges seeing even when wearing glasses or contact lenses. This question should be asked to persons whether or not they wear glasses. Difficulty in seeing refers to the use of one's

eyes to perceive or observe what is happening around them. Difficulty in seeing then includes challenges seeing things close up or far away; problems seeing out of one eye or only seeing directly in front but not to the side.

P18b. DIFFICULTY IN HEARING: Does (NAME) have difficulty hearing, even if using a hearing aid? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot hear at all?

The purpose of this question is to identify persons who have some hearing limitations or problems of any kind with their hearing, even when using a hearing aid. Difficulty in hearing refers to challenges encountered by an individual while using his/her ears and auditory (or hearing) capacity to know what is being said to them or the sounds of activity, including the danger that is happening around them. Included are problems hearing in a noisy or quiet environment; problems distinguishing sounds from different sources; and problems hearing in one or both ears.

P18c. DIFFICULTY IN WALKING OR CLIMBING STAIRS: Does (NAME) have difficulty walking or climbing stairs? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot do at all?

The purpose of this question is to identify persons who have some limitations or problems of any kind getting around on foot. Walking refers to the use of the lower limbs (legs) in such a way as to propel one's self over the ground to get from one point to another. The capacity to walk should be without the assistance of any device (wheelchair, crutches, walker, etc.) or human. If such assistance is needed, the person has difficulties walking. Included are problems walking short (about 100 yards/meters) or long (about 500 yards/meters) distances. Difficulties walking can include those resulting from impairments in balance, endurance, or other non-musculoskeletal systems, including problems walking up or down stairs.

P18d. DIFFICULTY REMEMBERING OR CONCENTRATING: Does (NAME) have difficulty remembering or concentrating? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot remember or concentrate at all?

It refers to the use of memory to recall incidents or events. It means the individual cannot bring to mind or think again about something that has taken place in the immediate past. Remembering should not be equated with memorizing. Concentrating refers to the use of mental ability to accomplish some tasks such as reading, calculating numbers or learning something. It is associated with focusing on the task at hand in order to complete it. Included are problems finding one's way around, being unable to concentrate on an activity, or forgetting one's whereabouts. Also included are problems remembering what someone just said, or becoming confused or frightened about most things.

Note: difficulties remembering or concentrating because of common everyday situations such as high workload or stress, or as a result of substance abuse are EXCLUDED.

P18e. DIFFICULTY WITH SELF-CARE: Does (NAME) have difficulty with self-care such as washing all over the body or dressing? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot do at all?

The purpose of this item is to identify persons who have problems taking care of themselves independently including washing and dressing. Washing all over refers to the process of cleaning one's entire body (usually with soap and water) in the usual manner for the culture. This includes cleaning hair, feet, and brushing of teeth, as well as gathering any necessary

items for bathing, such as soap or shampoo, a sponge, towel, or water. Dressing refers to all aspects of putting clothing or garments on the upper and lower body, including the feet. Included are the acts of gathering clothing from storage areas (i.e. closet, dressers), securing buttons, tying knots, zipping, etc. Washing and dressing represent tasks that occur on daily basis and are considered basic, universal activities. This excludes persons unwilling to perform these activities because of culture or other concerns.

P18f. DIFFICULTY IN COMMUNICATING: Using (his/her) usual language, does (NAME) have difficulty communicating (e.g. understanding others or being understood by others)? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot communicate at all?

The purpose of this item is to identify persons who have challenges with talking, listening, or understanding speech such that it contributes to difficulty in making themselves understood by others or understand others. Communicating refers to a person exchanging information or ideas with other people using language. Communication difficulties can originate in numerous places in the exchange process. It may involve mechanical problems such as hearing impairment or speech impairment, or it may be related to the inability of the mind to interpret the sounds that the auditory system is gathering and to recognize the words that are being used. Included is the use of the voice for the exchange or using signs (including sign language) or writing the information to be conveyed. Included are problems making oneself understood, or problems understanding other people when they speak, to try to communicate in other ways.

NOTE:

1. Difficulty understanding or being understood due to non-native or unfamiliar language is NOT included.
2. Take note that a respondent may have more than one difficulty in the six domains listed.

16.5 Completing the Information and Communication Technology Questions

P19 INFORMATION AND COMMUNICATION TECHNOLOGY (ICT): ANSWER FOR PERSONS 6 YEARS AND OLDER

One of the key aspects of the 2021 PHC is the introduction of a detailed module on Information and Communication Technology (ICT). The intention is to obtain information on ownership and usage of ICT devices, use of the internet in the last three months (April to June 2021) among the population six years older, and use of a mobile phone for money transfer and other financial transactions.

Note that it excludes the use of devices for playing games, calculating, and other such activities that do not provide information.

For the purpose of the Ghana 2021 PHC, Information and Communication Technology (ICT) will cover the use of electronics/digital devices and the means of accessing information and services towards improving personal livelihoods and wellbeing. These devices are technologies that provide access to information through telecommunications, including the internet, wireless networks, computers, cell phones, and other communication media that enable users to access, store, transmit, and manage information.

This module will elicit information on the population 6 years and older that could be used to generate national development and SDG indicators to inform policy and monitor progress

towards universal access to ICT services. This information is important because universal access to ICT services will enhance international cooperation for development and it allows measures of SDG indicators include those under goals 4, 5, 9 and 17

indicators to be generated from the data on ICT include the proportion of the population six years and older who: owns a mobile phone, uses a mobile phone, uses the internet by place of residence, and uses a mobile phone for mobile money transfer and other financial transactions

Concepts and Definitions

- **ICT Devices:** These include all electronic equipment and other systems that combine to allow people and organisations to interact in the digital world. E.g., TV sets, mobile phones, laptops, radio sets, etc.
- **Functional ICT device: Refers to** a device that is operational and able to perform at least basic functions for which the device was designed.
- **Usage of an ICT device: Refers to the** productive use of any of the ICT devices listed, irrespective of the owner, in the last three (3) months. The “Use” here is the consumption of the services or functions of the devices, and it is not limited to the ability to operate the device.
- **Ownership of ICT device:** Refers to the bona fide possession of an ICT device.
- **The internet:** The internet is a network of global exchanges (*including private, public, business, academic, and government networks*) connected by guided, wireless and fibre-optic technologies. There are several services available instantly over the internet.

TYPES OF ICT devices

Mobile phone (Smart): This refers to a mobile phone that performs many of the functions of a computer, typically having a touchscreen interface, internet access, and an operating system capable of running downloaded apps. It allows the user to browse the internet and to download and use applications such as Facebook, WhatsApp, or YouTube. It has a large touchscreen display and functions with operating systems such as Android, Apple iOS, Blackberry OS, or Windows Mobile.



Mobile phone (Non-smart): This is a basic or feature phone that performs basic functions such as make/receive calls and send/receive text messages. Usually, it has a small screen and a keyboard and does not allow you to browse websites or use mobile applications (apps) such as Facebook, WhatsApp OR YouTube. A feature phone may offer web browsing and email, but generally cannot download apps from an online marketplace. It usually allows the user to browse websites or use social media applications such as Facebook, when pre-installed by the

manufacturer and has limited functionalities. This type of phone is popularly known as ‘Yam’ locally.



Cordless telephone: It is a wireless landline telephone that is not fixed to a desk or a wall, and it transmits to and receives signals by radio waves rather than a long cable within a range of a couple of hundred feet/metre. The cordless telephone can be as portable as a mobile phone, but it is mobile within a certain distance from the base.



Fixed telephone: This is a corded landline telephone which usually sits on a desk or is fixed to a wall or a particular location. It transmits and receives signals by the cable attached to it.



Tablet: is a wireless touch screen personal computer (PC) that is smaller than a laptop. It is also referred to as a notebook but larger than a smartphone. It has in-built wireless Internet and a variety of software applications, including business applications, Web browsers, and games aside from the basic mobile phone functionality. (Reference: <https://www.techopedia.com/definition/2353/tablet>, 2019-10-19).



Laptop: A laptop is a computer designed for portability, and it is most often used when space is limited and can be powered by a battery. It is sometimes called notebook.



Desktop computer

Desktop Computer: A desktop computer is a personal computer designed for regular use at a single location, on a desk or table due to its size and power requirements. It is not portable and does not have an in-built



Radio: A radio, also known as a radio receiver or wireless is an electronic device that receives radio waves and converts them into a usable form (audio). It is used with an antenna.

Digital



Analog



P19a. Does [NAME] own a functional ...?

The question asks for the ownership of the given ICT devices which are functional, whether it is used or not. This refers to the bona fide possession of an ICT device. Functional here means it should be operational and able to perform basic functions at least for which the device was designed. Note that usage is not the same as ownership. The use of an item in P19a does not mean ownership. On the other hand, ownership of a device does not necessarily mean that the owner uses it. You are to ask the question for each device to all eligible household members. The question should be posed as follows: ‘Does Ama own a functional laptop?’ If the response is ‘Yes’, tick the corresponding checkbox otherwise leave it blank. This should be repeated for all the listed devices.

Mobile phone (Smart)A

Mobile phone (Non-smart)..... B

TabletC

Laptop.....D

P19b. Has [NAME] used in the last three (3) months (April to June 2021)?

This question seeks to measure the number of persons 6 years and older who used any of the ICT devices listed, irrespective of the owner, in the last three (3) months. The “Use” here is the consumption of the services or functions of the devices, and it is not limited to the ability to operate the device.

A tablet may be owned by one member of the household but may be used by all the members in that household. In this case, each member of the household uses a tablet. Note that there may be people who own a particular device but not necessarily using it. For such people, a ‘No’ response, should be recorded. Another example is where a person uses an ICT device elsewhere. For such person record ‘Yes’.

You should ask the question for each device of all eligible members. For example, if you want to find out if Kofi uses a smart mobile phone, then the question should be posed like this, ‘Does Kofi use a smart mobile phone?’ If the response is ‘Yes’ tick the corresponding checkbox otherwise leave it blank. This should be repeated for all the listed devices.

Mobile phone (Smart).....	A	<input checked="" type="checkbox"/>
Mobile phone (Non-smart).....	B	<input type="checkbox"/>
Cordless telephone.....	C	<input checked="" type="checkbox"/>
Fixed telephone line.....	D	<input type="checkbox"/>
Tablet.....	E	<input type="checkbox"/>
Laptop.....	F	<input type="checkbox"/>
Desktop Computer.....	G	<input type="checkbox"/>
Radio/FM.....	H	<input checked="" type="checkbox"/>

P19c. Did (NAME) use internet through.....in the last three (3) months (i.e. from April to June, 2021)?

The internet is a globally connected network system that uses Transmission Control Protocol (TCP) or Internet Protocols (IP) to transmit data via various types of media. The internet is a network of global exchanges – including private, public, business, academic, and government networks – connected by guided, wireless and fibre-optic technologies. The terms internet and World Wide Web (www) are often used interchangeably, but they are not exactly the same thing; the internet refers to the global communication system, including hardware and infrastructure, while the web is one of the services communicated over the internet. The internet is the most cost-effective communications method in the world, in which the following services are instantly available:

- Email
- Web-enabled audio/video conferencing services
- Online movies and gaming
- Data transfer/file-sharing, often through File Transfer Protocol (FTP)
- Instant messaging
- Internet forums
- Social networking
- Online shopping
- Financial services

(Reference: <https://www.techopedia.com/definition/2419/internet>, 2019)

This question asks for usage of the internet in the last three (3) months through the listed devices regardless of the owner of the device.

Example: ‘Did Zinabu use internet facility in the last 3 months through smart mobile phone?’

Note that if a respondent uses either of the listed devices at least once in the last 3 months, he/she should be considered as having used the internet. In this case, tick the corresponding box. If the respondent has used the device to access the internet in the last 3 months, tick the corresponding checkbox from A-F, otherwise leave it blank.

Mobile phone	A	<input type="checkbox"/>
Laptop.....	B	<input type="checkbox"/>
Desktop.....	C	<input type="checkbox"/>

TabletD

Digital television.....E

Other (specify).....F

P19d. Did (NAME) use a mobile phone for mobile money or other financial transaction in the last three (3) months (i.e. from April to June 2021)?

Financial transactions here are activities such as depositing money into a bank account, borrowing money from a lender, buying or selling goods or properties. It has also become a common practice where people send or receive money via mobile phones. The purpose of this question is to find out the number of people who used mobile phones for any of such financial transactions, even if once in the last 3 months. Note that if the person has used someone’s phone for any financial transaction within the reference period, it should be considered as having used. In this instance, the user may not have operated the device himself/herself for the transaction. You should then probe to find out if the person has used it for mobile money only or other financial transactions as well.

If for mobile money only, tick the box corresponding to option ‘A’, and if for other financial transactions only tick option ‘B’ but if for both mobile and other transactions tick both ‘A’ and ‘B’. If the respondent did not use a mobile phone for any mobile money transfer or other financial transactions at all within the reference period (last 3 months) then tick the box corresponding to ‘Z’. Also tick the box corresponding to ‘Z’, if the respondent performed financial transactions with a mobile phone but not in the last three (3) months.

- Yes, mobile money.....A
- Yes, other financial transactions.....B
- NoZ

16.6 Fertility and Child Survival

Fertility is a key component of population change (the others are mortality and migration) and the main driver of population growth. Complete and accurate data on births and deaths of children are used to generate various fertility and child survival indicators which support the effective implementation of population and development programmes and general decision making. The data are also important for determining the burden and distribution of social services such as educational and health facilities. The census provides an opportunity to obtain disaggregated fertility data at lower levels such as districts, localities. Census data on fertility and child survival will complement available administrative and survey data in computing key fertility and child survival indicators.

This section describes the fertility behaviour of females 12 years and older. It seeks to find out the total number of children (male and female) ever born alive by females 12 years and older and the survival status of their children as well as the age of the mother at birth of her first child born alive. It also collects information on the last live births to women aged 12-54 years. This module serves as a source of data for fertility and child survival indicators to monitor the population growth and development dynamics. The inclusion criteria are:

- i. All females aged 12 years and older should respond to questions P20, P21, P22, P23 and P27; and
- ii. All females aged 12-54 years should respond to questions P24, P25 and P26.

Before completing the questions, the following should be emphasized:

- Sensitivity of the module
- Assurance of confidentiality,
- Live birth,
- Sex of child ever born,
- Interview the individual woman separately - to the extent possible,
- Watch out for consistency or balance between the total number of children ever born and the sum of those living in the household, elsewhere and dead i.e. the whole must be equal to the sum of the parts
- Recall lapse - inability of older women to remember vital events and dates.

Concepts and Definitions

Fertility: Is the actual childbearing performance among a population or the number of live births women of reproductive age (12-54) will give birth to in their lifetime.

Live birth: A live birth is defined as the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which after separation, cried, breathed, or showed any other evidence of life, such as the beating of the heart, pulsation of the umbilical cord, definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.

Still birth/ foetal death: It is a birth where the baby is born with no sign of life at or after 28 weeks (7 months) of gestation. Technically, it refers to the disappearance of life before the expulsion or extraction from its mother of a product of conception.

Children ever born (CEB) alive: This is the total number of children born to a woman (12 years and older,) in her lifetime (up to the Census Night), whether born in or out of a marriage and whether born in the present or previous union. This includes all live-born children who are currently alive, may be adults, living with the mother as one household, or living elsewhere. It also includes all children born alive but might have died before the Census Night.

Surviving children: This is the total number of live-born children (males and females) to a woman who is currently alive, regardless of whether they live with the mother in the same household or live elsewhere.

Children to be included

The fertility questions are about the number of all children (males and females) ever born alive to the female concerned regardless of: whether the child was born alive or has since died as at the Census Night, whether the child was born in or out of marriage (or union), whether the child was born in the present or previous marriage (or union), whether the child lives with the mother in the same household or elsewhere and the age or the marital status of the child.

NOTE: Only biological children of the woman should be included.

Children who are not to be included

Adopted children, step-children, children of relatives, still births and children born after the Census Night.

COMPLETING THE CHILDREN EVER BORN AND CHILDREN SURVIVING QUESTIONS (ANSWER FOR ALL FEMALES 12 YEARS AND OLDER).

For females less than 12 years and all males, go to next member of the household.

P20: What is the total number of male and/or female children you have ever born alive?

You should record the number of all live births of the female concerned by sex and in two (2) digits. Note that multiple births such as twins must be recorded as two (2) children. If the female concerned has not had any live birth during her lifetime, you should record 00 in the boxes provided and GO TO the next eligible female.

Information on the number of children born alive includes all children born alive during the lifetime of the female concerned up to the Census Night. The number recorded should include all male and female children born alive whether born in or out of marriage, born in a present or previous marriage, or a de facto union. It also includes all children of the female concerned living with her in the household as well as those living elsewhere. Excluded are adopted children, stepchildren, and children of other relations, e.g. sisters and cousins.

NUMBER OF CHILDREN SURVIVING (ANSWER FOR FEMALES 12 YEARS AND OLDER):

P21. Of the children you have born alive, how many males and females are now living with you in this household?

This question refers to all children (male and female children) born alive by the female concerned who are still living. It includes all surviving children (male and female) of the woman living with her in the same household. You should record the number of children born alive who are still alive and living in the household by sex in the boxes provided. If the woman has no surviving children living with her in the household, you should record 00 in the boxes provided.

You should note that the number of children surviving should not be more than the number of children ever born in P20.

You should note that adding P21 and P22 should not necessarily be equal to P20 since some of the children may have died

P22. Of the children you have born alive, how many males and females are living elsewhere?

You should note that $P21 + P22 + P23$ should necessarily be equal to P20. Record the number of children born alive but living elsewhere by sex in the boxes provided.

P23. Of the children you have ever born alive, how many males and females have died?

Record only the number of children ever born alive but who have died since birth and by sex (male and female).

NOTE: If none of the children ever born alive had died since birth, you should record 00 in the boxes provided

FOR P24, P25 AND P26 ANSWER FOR ALL WOMEN AGED 12-54 YEARS

Questions P24, P25 and P26 are to collect information on the last child or children born alive by individual women.

P24. What is the date of birth of the last child you have born alive?

For this question, information on the day, month, and year of birth should be recorded.

P25. What is the sex of the last child or children born alive?

This question seeks to collect information on the sex of the last child or children born alive to the woman. Select the appropriate response either Male or Female. Indicate the number of last births by sex. If none record '0'

P26. What is the survival status of the last child or children you have born alive?

This question helps to achieve two things: first, it finds out whether the last child born alive (P25) is still living. The second is to find out the sex of this child who is still living. Note that there could be multiple births some of whom may have died. Indicate the number of last children surviving in the appropriate box for males and females. If none, record '0' for male and female.

ANSWER FOR ALL WOMEN AGED 12 YEARS AND OLDER

P27. How old were you when you had your first child?

Record the age of the woman when she gave birth to her first child. For women who cannot recall or do not know their age when they had their first child, help them to estimate using historical events (**Refer to P02 under Section 16.1** for information on how to estimate age).

NOTE: If possible, the Enumerator should use a telephone to contact eligible women who may not be at home at the time of visit.

16.7 Mortality (Household Deaths)

This section seeks to ascertain ALL deaths to household members and the cause of death occurring during the 12 months period preceding the Census Night i.e. from 28th June 2020 to 27th June 2021. For deaths occurring to women aged 12-54 years, it goes further to identify whether the **TIMING** of the death was related to pregnancy or maternal causes. The information collected will be used to estimate the current levels and patterns of mortality in Ghana. Mortality levels and patterns are indicators of a country's level of socio-economic development.

Data on household deaths are used to generate mortality indicators that are essential for supporting the implementation of national and global development goals. The Census offers a methodological advantage by providing disaggregated and reliable data at the lowest level of administration. Indicators include Crude death rate (*number of deaths in the total population and usually calculated per 1,000 persons*), Age and sex-specific death rates (*proportion of deaths at a particular age by sex*). Maternal mortality ratio (*Maternal deaths per 100,000 live births*), Life expectancy (*Average number of years lived at the prevailing mortality condition*)

Information to be collected includes:

- Household members who have died within the past 12 months.
- Characteristics of the deceased (name, sex and age at death)

For the timing of deaths occurring to women aged 12-54 years, the focus is on pregnancy- and maternal-related causes: the death should have occurred while pregnant, during child birth, or within six (6) weeks of the end of a pregnancy or after child-birth

Mortality levels and patterns vary significantly with age and sex. Therefore, the enumerator must strive to elicit the most complete and accurate information on the age at death as well as the sex of the deceased to avoid distortions in mortality patterns. Equally, maternal, or pregnancy-related mortality is a sensitive yet important indicator of socio-economic development on multiple levels. Therefore, field officers must take care to ensure that the timing of deaths is well-considered before recording them.

Mortality questions are very sensitive so they must be asked tactfully. Deaths of loved ones elicit sad emotions, and many people would rather not be reminded of the event. Also, note that some deaths are tragic and painful to talk about. Therefore, field officers must adequately prepare (psych up) the respondents; they will require understanding and patience, assure the respondents of confidentiality, and generally be TACTFUL to obtain the required information. The enumerator may proceed as follows:

“Issues about deaths are difficult to discuss because they bring back painful memories. We however, console ourselves because their souls have been preserved and with the hope that we would see them again based on our faith. The information on death is very essential too, because it is useful for national planning and development. I appreciate this may not be comfortable with you, but because of its importance, please permit me to ask a few questions about deaths of household members within the past 12 months”.

Concepts and Definitions

1. **Household deaths:** All deaths to members of the household during the 12-month period immediately preceding the Census Night regardless of the place of occurrence.
2. **Maternal-related deaths:**
 - **Deaths during pregnancy:** *Deaths of females aged 12-54 years in the course of pregnancy irrespective of the duration of the pregnancy.*
 - **Deaths during delivery:** *Deaths of females aged 12-54 years during delivery irrespective of place of delivery*
 - **Deaths within 6 weeks after the end of a pregnancy or after child birth:** *Deaths of females aged 12-54 years within 6 weeks after the termination of a pregnancy (regardless of how it ended) or within 6 weeks after child birth*
3. **Deaths due to non-natural causes:**
 - **Deaths due to accident:** *Deaths that occur unexpectedly as a result of harm or injury to an individual e.g. motor crash, animal attack, drowning, collapsing of building, taking of wrong medication, fire, intoxication, etc.*
 - **Deaths due to violence:** *Deaths resulting from behaviour involving physical force e.g. wars, terrorist attacks, street fighting or civil unrest.*
 - **Deaths due to homicide:** *Deaths resulting from the killing of one person by another.*
 - **Deaths due to suicide:** *Deaths resulting from the intentional taking of one’s own life.*

How to complete questions on household deaths

M01: Has any member of this household died in the past 12 months?

There are two response categories, ‘Yes’ and ‘No’. Choose the appropriate response. If a ‘No’ response is recorded skip to H01. This refers to deaths from 28th June 2020 to 27th June 2021.

M02: RECORD THE FOLLOWING INFORMATION FOR EACH MEMBER WHO DIED DURING THE PAST 12 MONTHS.

M02a: What was the name of deceased?	M02b: What was the sex of deceased? Male.....1 Female....2	M02c: How old was the deceased at death? (AGE IN COMPLETED YEARS)	M02d: Was the death due to accident, violence, homicide, or suicide? Yes....1 No.....2	M02e: PREGNANCY-RELATED QUESTIONS (ANSWER FOR ALL WOMEN 12-54 YEARS) If deceased was female aged 12-54 years at the time of death, was she:		
				Pregnant? Yes....1 No.....2	Giving birth? Yes....1 No....2	Within six (6) weeks of the end of a pregnancy or after child-birth? Yes....1 No....2

If the response to M01 is ‘YES’, then the information should be sought for each household member who has died 12-month period before the Census Night. For each deceased person reported, name (M02a), sex (M02b), age at death (M02c), and whether the death was due to accident, violence, homicide (killed by another person), suicide, and all other non-pregnancy related death. (M02d) should be collected. Care should be taken to clearly specify the reference period to the respondent to avoid errors in capturing deaths that occurred in the past 12 months. Note that age at death should be recorded in completed years. For children less than one year at the time of death, record 000.

Babies not named before dying - For babies who were born before Census Night and were not named before passing on, write down only the day name (e.g. Kwame, Akua, Abia, etc.) of the baby together with the mother's name. For example, if the newly born baby's day name was Kwame and the mother's name is Akua Mansa, the name you must put down is Baby Kwame, Akua Mansa's son. In areas where day names are not used, assign a letter of the alphabet such as A, B or C to the baby. If the mother's name is Likidami, then the name should be ‘Baby A, Likidami’s daughter’ or ‘Baby B, Laarbik’s son’, etc.

M02e: For deceased females 12–54 years. It seeks to collect data on maternal pregnancy-related deaths in the household in the 12 months before Census Night. Maternal death is the death of a woman while pregnant or during delivery or within 6 weeks (42 days) of termination of pregnancy, irrespective of the cause. Enumerators should find out whether at the time of death, the deceased was pregnant, giving birth, or died within 6 weeks (42 days) following childbirth or the termination of the pregnancy.

If the deceased died while pregnant, ‘Giving birth’ or ‘Within six (6) weeks after the end of a pregnancy or after childbirth’ record ‘1’ if not, record ‘2’.

CHAPTER 17

HOW TO RECORD HOUSING CONDITIONS AND SANITATION ENTRIES

17.1 Introduction

The 2021 PHC is the third census with a housing component in the country. This module will collect information on all housing/dwelling units and ownership of household assets. Information collected on housing includes the type of dwelling unit, main construction materials for walls, floor, and roof, holding/tenure arrangement, ownership type, type of lighting, source of water supply, bathing facilities, ownership of household assets. Information on sanitation facilities includes the type of toilet facilities and waste disposal (both liquid and solid). The housing conditions module thus seeks to collect information on the characteristics of dwelling units and the occupants thereof. Obtaining information on housing conditions helps to link the population to their living conditions.

Inclusion of housing conditions in the census makes it possible to assess the adequacy of housing (stock) to meet the housing deficit and plan for the future; appraise the quality of housing (condition); determine the housing ownership status (tenure); assess basic drinking water services; critically assess ownership of household assets; critically assess the household amenities (utilities, assets) and help to link population and space e.g. disaster response and identification of vulnerable populations. Key indicators from the housing questions include housing stock, the proportion of households by type of dwelling unit, main construction materials for dwelling units (outer walls, roof, and floor), room occupancy, and tenure and holding arrangements (status of tenure).

17.2 Completing the Housing Conditions Questions

17.2.1 Part A (H01-H10)

H01. In what type of dwelling unit does the household live?

The question seeks to find out the type of dwelling in which the household lives (living quarters) i.e. the space occupied by the household. A dwelling unit is a structurally separate and independent place of abode. It could be a whole building, part of a building or some form of space or shelter arranged for human habitation which was occupied as at the Census Night (e.g. a hut or group of huts). Take note that a dwelling unit may contain one or more households. **The essential features of a dwelling unit are separateness and independence.** A dwelling unit is a room or rooms occupied by a household.

Twelve response categories have been provided for this question. You should select the appropriate response code for each structure.

For vacant structures, observe and assign appropriate codes for questions H01, H02 and H03.

01. Separate House: Refers to a building, which consists of a single detached (stand-alone) housing unit (two or one-storey) or a single detached housing unit. “Self-Contained” is an example of a single-detached housing unit.



02. Semi-detached House: Refers to a single housing unit that is attached to another single housing unit horizontally. The adjoining housing units would usually have a common dividing wall which extends from the ground to the roof. This could be a single or storey building.



03. Flat/Apartment: It is a dwelling/living quarters located in a building, which contains several sets of housing units. The Flat/Apartment building usually consists of several floors. The housing units are accessed by a common stairway.



04. Compound house (rooms): A compound house refers to multiple dwelling units that are located on the same yard/plot. These dwelling units usually have shared toilet(s) and bath(s) and cooking either takes place outside, on the porch, or in an enclosed area. The compound may or may not be surrounded by a fence wall or hedge.



05. Huts/Buildings (Same Compound): Huts/Buildings refers to dwelling units made up of a group of huts or buildings located on the same compound which are used as the place of abode by one or more households.

06. Tent: A moveable shelter made of cloth, tarpaulin, plastic, or polythene, supported by a framework of poles and ropes. This is used especially by campers, Red Cross men/women or refugees, security personnel, etc.



07. Metal Container - Is a structure, which external wall of which is constructed or built with metal sheets and is used as a dwelling unit. They are normally moveable.



08. Kiosk/ Poly Kiosk: Is a makeshift structure which is built of plywood or plastic sheets and is used as a dwelling unit.



09. Wooden structure - is a structure that is mainly built of wood and is used as a dwelling unit. The ground foundation may be constructed with blocks or concrete.



10. Living Quarters attached to office/Shop: This category comprises housing units that are located in buildings that have not been built/constructed for human habitation but which are actually being used as dwelling units. They include housing units attached to corn milling structures, warehouses, offices, shops, etc.

Premises that have been converted for human habitation, although not initially designed/constructed for this purpose must not be included in this category e.g. an old school block or cocoa shed which later on is converted into a dwelling unit, etc. This should be classified as other.

11. Uncompleted building - This is a building or structure that has not been completed but may provide shelter for some households.

12. Other (Specify) - If a type of dwelling does not fall into any of the above categories. You must specify it in the space provided for Other (Specify).



NOTE: Options 1-10 are all completed structures.

H02. OUTER WALL: What is the main construction material of the walls of this dwelling?

This question seeks to find out the predominant material used in constructing the dwelling unit in which the household lives. It seeks to find out whether the outer wall of the building is constructed from materials such as stone, concrete, unburnt mud, wood, or other material. Note that material used in constructing the main wall (not the fence wall) may not be visible directly if covered with other material used for finishing. In this case, the interviewer must find out from the respondent what the main material is. Also, in a situation where the main walls of the dwelling are constructed from different materials, the main material would be the dominant material used in constructing most parts of the dwelling and should be recorded accordingly.

01. Mud Bricks/Earth

This refers to outer walls which have been constructed with mud/earth only. In certain cases, this mud covers a wattle (sticks or twigs) framework. In cases where mud structures are plastered with cement, the option to be selected is Mud Bricks/Earth. Dwelling unit constructed with unburnt mud bricks also fall in this



category.



02. Wood

This category includes walls that have been constructed with wood such as wooden planks, boards, tree stems/wooden branches or some other form of timber.



03. Metal Sheets/Slate/Asbestos

These refer mainly to corrugated iron, zinc or

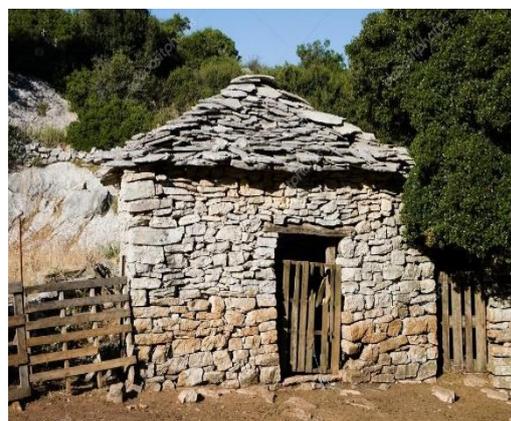
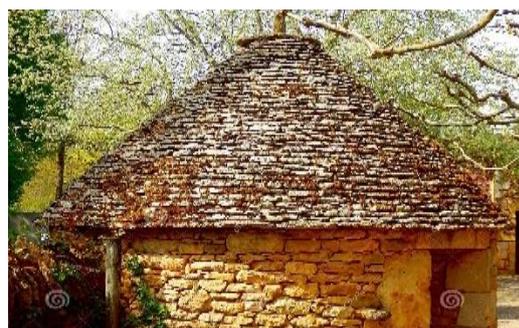
04. Stone

This refers to walls of dwelling units that

aluminium sheets and asbestos that has been used for the construction of outer walls of dwellings.



have mainly been constructed with stones or rocks.



05. Burnt Bricks

This category is made up of walls that have been constructed with burnt bricks.



06. Cement Blocks/Concrete

This category refers to walls that have been built with cement blocks or which have been built with reinforced concrete. Walls of dwellings that have been constructed with cement blocks are more common than those constructed with reinforced concrete. Note that in many cases houses built with cement blocks will be plastered over with a mixture of cement and sand.



07. Landcrete

This refers to blocks made from a mixture of cement and local earth. The cement in the mixture is usually of a lower proportion than what is used in concrete and cement blocks. The use of landcrete is found mainly in small towns and the peripheries of larger towns.

08. Bamboo

This refers to walls that are mainly made of bamboo.

	
<p>09. Palm Leaves or Thatch (Grass) or Raffia</p> <p>Included in this category are palm leaves, raffia and any kind of grass/straw or leaves used for the outer walls of the dwelling unit.</p> 	<p>10. Tarpaulin/fabric/canvas</p> <p>This refers to outer material made of tarpaulin, fabric or canvas.</p> 
<p>11. Other (Specify)</p> <p>Materials used for the outer walls of dwellings units that do not fall in any of the above categories must be specified in the space provided.</p>	

H03. ROOFING MATERIAL: What is the main roofing material used for this dwelling?

This question seeks to find out the predominant material used for the construction of the roof of the dwelling unit. The main material used for the construction of the roof of the living quarters has been classified into the following categories. You should select the appropriate code.

01. Mud/Mud Bricks/Earth

This category of roofs is made up of earth/swish/ unburnt mud bricks.



02. Wood

This category comprises roofs that have been constructed with wooden materials such as planks, boards, etc.



03. Metal Sheets

These refer mainly to corrugated iron, zinc or aluminium sheets that have been used for roofing the dwelling.



04. Slate/Asbestos

This category refers to slate/asbestos sheets that have been used to roof the dwelling units.



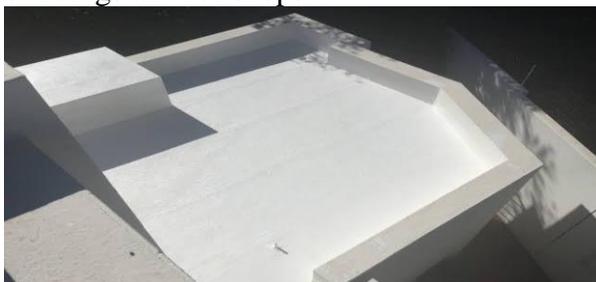
Slate



Asbestos

05. Cement/Concrete

This refers to concrete roofs. Cement/Concrete roofs are mainly found in towns/cities and are seldom used to roof houses, though they are often used for office buildings and for shops.



06. Roofing Tiles

These roofing materials are made of earth hardened by baking.



07. Bamboo

08. Thatch, Palm Leaves or Raffia

Any kind of grass/straw/reeds (thatch), palm

This refers to roofs made with bamboo.



leaves, or raffia; as well as any other form of leaves must be classified in this category.



09. Other (Specify) – All other materials used for roofing of dwellings (e.g. plastic sheets or polythene, etc.) which do not fall into any of the above-stated categories must be specified in the space provided.

H04. FLOOR: What is the main construction material of the floor of this dwelling?

The question seeks to find out the predominant material used for the floor of the dwelling unit or the living quarters. You should select the appropriate code.

1. Earth/Mud - This category of floors is made up of earth, swish or unburnt mud bricks.



2. Cement/Concrete - This category refers to concrete or cement floors.



3. Stone - This category comprises floors made of stone(s) and rock surfaces.



4. Burnt Bricks - Floors made with burnt bricks must be classified in this category.



5. Wood - This refers to floors that have been constructed with wood, such as parquet (wooden tiles), wooden planks, boards, tree stems or some other form of timber.



6. Vinyl Tiles - These are tough flexible plastic, used for floors.



7. Ceramic/Porcelain/Granite/Marble tiles - Dwelling units that have ceramic, marble/granite, and porcelain tiles for floors must be classified in this category.



8. Terrazzo/Terrazzo tiles - This category refers to terrazzo floors made with stone chippings and concrete/cement. It may be polished or rough.



9. Other (Specify) - Materials used for the construction of floors of dwellings which do not fall into any of the stated categories indicated above must be specified in the space provided.

H05: Tenure/Holding Arrangement: What is the present holding/tenancy arrangement of this dwelling?

This question refers to the arrangements under which the household occupies all or part of the dwelling units (housing unit or compound). Seven categories have been provided for this question (owner-occupied, renting, rent-free, perching, squatting, caretaker, and others). You should mark the appropriate code.

1. **Owner occupied** - If the household or a member of the household owns the dwelling unit (housing unit or compound), it should be classified under this category.

2. **Renting** - This category refers to an arrangement where money/in-kind payment is made periodically (weekly, monthly, yearly, etc.) for the space occupied by the household. Payment may be in cash or in-kind. If the household or a member of the household does any work or activity in any form in return to compensate the owner as a means of payment under the agreement, this arrangement falls under this category and should NOT be considered rent-free. It includes situations where:

- a. Members of the household rent all or part of the housing unit/compound as the main tenant or
 - b. A member of the household rents part of the housing unit/compound as a sub-tenant.
3. **Rent-Free** - This category refers to a situation where the household is permitted by the owner of the building to occupy the dwelling unit without paying rent. This category also includes households that reside in family houses and do NOT pay rent.
4. **Perching** - Perching generally refers to an arrangement where a person/household moves in to join another household in their dwelling units; usually for short term (on a temporary basis) while he/she makes the necessary arrangements to relocate. Such arrangement usually creates inconvenience for the main occupant(s) of the structure.
5. **Squatting** - This category refers to a situation where the household occupies a premise without permission from the owner.
6. **Caretaker** - This category refers to a situation where the owner of the structure does not reside in it and has given it to someone to take care of the building. The person can be a relative or non-relative.
7. **Other** (specify) - All other types of holding/tenancy arrangements of living quarters that do not fall into the categories indicated above must be specified in the space provided.

H06. Ownership Type: Who owns the dwelling?

This question refers to the ownership of the dwelling units and not the land on which the building has been constructed. Type of ownership must not be confused with tenure, which is discussed in question H05. Type of ownership is classified as follows:

1. **Estate developer**- This refers to households occupying housing units that have been developed by estate developers. Examples, TRASSACO, REGIMANUEL, GREDA, etc.
2. **Family property**: This refers to the situation where the dwelling unit belongs to a family and is being occupied by a household of which all or a member of the household belongs. E.g. If Aboagye is part of the Bempah family and that he has a dwelling unit he occupies. This should be treated differently from the one who stays in a dwelling unit belonging to a family of which Aboagye is not a member.
3. **Relative not a household member**: This refers to living quarters owned by a person who is not a member of the household but related to the household member(s).
4. **Other private individual**: This category refers to the dwelling units (housing units/compound) which are owned by persons not related to the occupants.
5. **Private Employer** - This refers to a dwelling unit (housing unit) that has been provided by the employer (private employer) for the household. The private employer may or may not own the housing unit.
6. **Other Private Agency** - This refers to living quarters (housing units) that are privately owned by other private agencies, corporations, cooperatives, housing associations, etc.
7. **Public/Government Ownership** - Included in this category are living quarters owned by the public sector, such as the central government, local government, (district assemblies) public boards, and corporations.
8. **Other (Specify)** - All other types of ownership of living quarters that do not fall into the categories indicated above must be specified in the space provided.

H07. ROOMS

H07a How many rooms does this household occupy?

The purpose of this question is to find out the number of rooms a household occupies. Information on rooms occupied by households provides an indication of overcrowding and adequacy of the dwelling stock. It also reflects the socio-economic condition of the household. You should count living rooms, dining rooms, bedrooms **but not bathrooms and kitchens**, and record the number in 2 digits.

NOTE: If a big room has a kitchen, dining, and living room combined, count it as one room.

H07b Sleeping Rooms - How many of the rooms are used for sleeping?

Only rooms used for sleeping must be counted unless the room/place has been specifically converted for sleeping. Conversion here means a change of its original use. Record in 2 digits, the number of rooms used for sleeping by the household.

Sleeping rooms must exclude the kitchen, dining room, study, rooms used for professional or business purposes (e.g. stores or garages) unless these are used as sleeping places. Bathrooms, toilet rooms, passageways, veranda and lobbies should also not be counted as sleeping rooms.

Note: If code '98' (i.e. secondary housing unit for the same household) was selected in A07, then H07a and H07b will be skipped to H08. This is because the number of rooms that is occupied and/or used by the household would have been accounted for in the main dwelling unit during the count.

H08. Lighting: What is the main source of lighting for your dwelling?

This refers to the main source of light in the dwelling. If two sources of lighting are used, record the one that is used most often as the main source in H08a and the other as a secondary source in H08b in the questionnaire. However, if only one source is used record that one in H08a and 'No secondary Source' in H08b. You should select the appropriate code from the different response categories that have been provided for this question.

01. Electricity (Mains) - This category includes electricity from the mains through the ECG or VRA.



02. Electricity (community-based Grid): This category includes electricity supply from private generating plants and other sources (industrial plant, mine, etc.). This type is mostly seen in smaller communities or part of the community. It can also be practised by a number of households coming together.



03. Electricity (private generator): Use of generator by a household to generate electrical power

04. Electricity (Solar panel/invertor) –This is electricity from the sun’s energy by using solar panels to trap the energy from the sun and invertors which are chargeable to get electricity.



05. Electricity (Wind energy) - The use of air flow through wind turbines to mechanically power generators for

06. Kerosene Lamp - Households that use kerosene lamps with wick and or glass shields should be classified under this category.

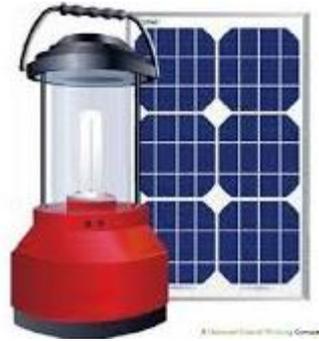
electricity.



07. Gas Lamp - This includes lamps that use liquefied petroleum gas (LPG) as well as pressure lamps which are pumped before

08. Solar lamp - In this category lighting is derived from solar (Sun's) energy.

they are lighted.



10. Candle - This category covers lighting derived from a candle.



10. Flashlight/torch - Households that use light from a flashlight or torch should be classified under this category. NOTE: A mobile phone with a flashlight should also be classified as the source of lighting for the household under this category provided the household uses the flashlight from the torch



light.

11. Other (Specify) - All other types of lighting which are not captured in the above categories must be specified.

12. None – There are two situations under which code ‘12’ could be selected. First, when there is no source of lighting for the household being enumerated (i.e. the household does not have any source of light). The second is when the household has only one source of lighting as the main but has no other as a secondary source. In this case, the one source would be indicated as the main, and code ‘12’ would be selected as secondary.

H09. Cooking Fuel: What is the source of cooking fuel for this household? (MAIN AND SECONDARY)

This question refers to the fuel predominantly used by the household for the preparation of principal meals. If two types of fuel are used, record the one used most often as the main source in H09a and the other as a secondary source in H09b. However, if only one source is used, record that one in H09a and ‘None’ (i.e. code ‘12’) in H09b. Different categories have been provided for this question. You should select the appropriate code.

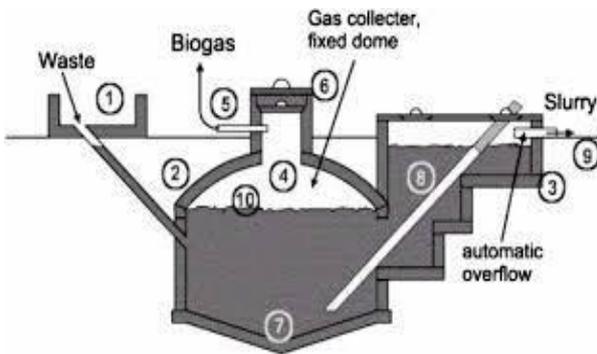
01. Wood - This refers to the use of wood fire for cooking.



02. LPG (Gas) - You should classify households that use liquefied petroleum gas under this category.



03. Bio Gas – this category is for households who have converted their faecal and other household wastes into gas for cooking.



04. Electricity - This category includes electricity from the mains which includes ECG/VRA, Community) or private generating plants and other sources (industrial plant, mine, etc.). Here, we are not interested in the source of the power, be it main or mini.



05. Kerosene - This category refers to households who use kerosene as their main source of cooking fuel



06. Charcoal - This is made from wood and used as fuel, especially for heating and cooking food.



07. Crop residue - This category includes straw from maize, paddy rice, coconut husks,

08. Saw dust/wood chippings - This is made up of very small pieces of wood-

groundnut shells, etc. used as cooking fuel.



like dust that are produced when the wood is milled. It is a residue of sawmills.



09. Animal waste - This category covers droppings of animals e.g. cow dung



10. Cooking gel – Cooking gel is an organic-based product made from renewable energy sources, mostly from sugar cane/ethanol. It is usually poured in small cans and burn to cook/warm food under serving pans by the household.



11. Other (specify) - Any other type of fuel used for cooking that is not listed in the above categories must be marked as “Other” and specified in the space provided below.

12. None – There are two situations under which code ‘12’ could be selected. First, when there is no cooking fuel for the household being enumerated (i.e. the household does not cook). The second is when the household uses only one cooking fuel type as the main but has no other as a secondary. In this case, the one type would be indicated as the main, and code ‘12’ would be selected as secondary. Note that if the household does not cook, select code ‘12’ and skip to H11.

H10. Cooking Space (Kitchen): What type of cooking space does this household use?

This question seeks to obtain information on whether the living quarters have a kitchen (separate room equipped for the preparation of the principal meals and intended primarily for that purpose), some other space set aside for cooking, or no special place set aside for cooking. The response categories for cooking space are:

1. Separate room for the exclusive use of household - To be regarded as a kitchen the room used must be enclosed by walls reaching from the floor to the ceiling or roof covering and it must be equipped for the cooking of the principal meals of the household and intended primarily for that purpose. The room, in this case, excludes temporary structures or sheds which may be used for cooking in the courtyard. This category refers

to a kitchen used exclusively by the household being enumerated. It also includes rooms used by the household as a kitchen at undeveloped sites.

2. Separate room shared with other household(s) - In this category, the kitchen is used by more than one household.
3. Enclosure without roof - In this category, the cooking space has walls but no roof. Note that this type of cooking space can be shared or not shared.
4. Structure with a roof but without walls - The cooking space, in this case, is a structure with a roof but without walls (e.g. shed) in the house/compound. Kitchens with dwarf walls should be included in this category.
5. Bedroom/Hall/Living Room - This type of cooking space is coterminous with the bedroom or living room (i.e. preparation of principal meals for the household is carried out in the Bedroom/Hall/living room).
6. Veranda/Porch - Preparation of the principal meals takes place on the veranda/porch of the dwelling unit.
7. Open Space in Compound - In this category, an open space in the compound of the dwelling without any roof or wall is used for cooking meals.
8. Other (Specify) - All other types of space used for cooking not mentioned above must be specified in the space provided.

17.2.2 Part B (H11-H13a)

H11. WATER SUPPLY

H11a. What is the main source of drinking water for this household?

The purpose of this question is to assess the type of water source used by households for drinking. Sixteen response categories have been provided and you are to select the appropriate source for the household based on the response.

01. Pipe-borne inside dwelling, also called a HOUSE CONNECTION, is defined as water service-connected by a pipe with in-house plumbing to one or more taps, for example, in the kitchen and/or bathroom. This source comes from Ghana Water Company. Wells and boreholes that are connected to the dwelling unit through pipes do NOT fall under this category.

02. Pipe-borne outside dwelling but on compound - also called a yard connection, is defined as a piped water connection to a tap located inside the compound, yard or plot - households that use water from a standpipe located on the compound of the dwelling must be classified in this category. This source comes from Ghana Water Company. Wells and boreholes that are connected to the dwelling unit through pipes do NOT fall under this category.

03. Pipe-borne outside dwelling but from neighbour's house - this refers to a situation where the household obtains water from a neighbour's house connection or yard connection. Households that get piped-borne water from a neighbour's house must be classified in this category. This source comes from Ghana Water Company. Wells and boreholes that are connected to the dwelling unit through pipes do NOT fall under this category.

04. Public Tap/Standpipe - This is a water point from which the public may collect their water. A standpipe may also be known as a public tap or drinking water fountain. Public standpipes are typically located on a street corner or other public space. They can have one or more taps and are typically made of brickwork, masonry, or concrete.

05. Bore-hole/Tube well - A tube-well / borehole is a deep hole that has been driven, bored or drilled to reach groundwater. Boreholes/tube-wells are constructed with casing, or pipes, which prevent the small-diameter hole from caving in and provide protection against infiltration of surface water run-off. Water is typically delivered from a tube well through a pump that may be powered by humans, animals, wind, electricity, diesel fuel, or solar energy. Note that this may either be within or outside the dwelling. This may be either within or outside the compound.

06. Protected Well - This category refers to a dug well that is protected from surface water run-off through a good lining or casing that is raised above ground level and a platform or apron that diverts spilled water away from the well. Additionally, a protected dug well is covered so that humans, animals, bird droppings, and other harmful substances cannot fall into the well.

07. Rainwater - This category refers to rainwater collected during rainfall into a container for use by the household.

08. Protected spring - Spring is where water gushes out from underground water sources or flows down slopes along rock or cliff surfaces with a wall constructed (cement or similar) around it to regulate access to and protect the source. Spring is typically protected by a 'spring box' that is constructed of brick, masonry, or concrete and is built around the spring so that water flows directly out of the box into a pipe without exposing the source to surface water run-off and/or contamination by humans or animals.

09. Bottled water - This refers to water sold in small or large bottles. Note that this option applies only to bottled water that is commercially available. Sometimes household members may store water from other sources in used bottles; – this should NOT be considered as bottled water.

10. Sachet water/package water - Sachet water/package water is similar to bottled water, but it is supplied in a plastic package rather than a bottle.

11. Tanker Supply/vendor-provided - This category refers to water supplied by tankers. Thus, a service provider transports and distributes/sells water to households/communities using a tanker truck.

12. Unprotected well - is a dug well for which one or both of the following are true: the well is not protected from surface water run-off; the well is not covered.

13. Unprotected spring - is a spring where the source is exposed to surface water run-off and/or contamination by humans and animals. Unprotected springs typically do not have a 'spring box' as described above.

14. River/Stream - This refers to water flowing from its source downstream towards a specific direction.

15. Dugout/Pond/Lake/Dam/canal - This category refers to a surface area dug for collection of rainwater or hole in the ground with water or a large sheet of water with land all around it or wall / bank built to keep back the water.

16. Other (Specify) - Any other source of water supply that is not listed above must be specified under Option 16.

H11b. How long does it take to go to the water source, get water and come back?

This refers to a single in-and-out trip made by household members. Probe and help the respondent to estimate the time usually spent by household members to go to the water source, queue (waiting time) for the water, time spent to fill the container or receptacle and

the time spent on the return trip. If a respondent tells you that his/her source of drinking water is a bore hole, rain water or protected/unprotected well, probe to find out where it is located. If the water source is located on the yard/compound, record 000.

RECORD THE TIME IN MINUTES. PUT 00 IF ANSWER IN H11a is 01, 02, 09, 10 OR 11; ALSO, RECORD 00 FOR ANY OTHER SOURCE OF WATER LOCATED IN THE RESPONDENT'S DWELLING UNIT OR YARD

H11c. What is the main source of water used by your household for other domestic purposes, such as cooking and washing?

The purpose of this question is to assess the type of water source used by households for other domestic purposes, such as cooking and washing hands. Fourteen (14) response categories have been provided. Select the appropriate option. Explanations on these response categories are the same as explained in H11a above.

H12. Bathing Facilities: What type of bathing facility is used by this household?

This question refers to the place where members of the household have their bath. Bathing facilities are categorized into the following:

1. **Own bathroom for exclusive use by household** - This category refers to households that have bathrooms for their own use (i.e. not shared with other households)
2. **Shared separate bathroom in the same house** - Households that share a bathroom with other households in the same house should be classified in this category.
3. **Bathroom in another house** - Households which use bathrooms in another house should be classified in this category.
4. **Open space around the house** - In this category, there is no bathroom. Household members use the open space around the house for bathing.
5. **Private open cubicle.** - This category refers to an open not roofed cubicle in the house used exclusively by the household.
6. **Shared open cubicle.** - In this category, the bathing cubicle in the house is shared with other households living in the house.
7. **Public bath house** - This category refers to households that use public bathing facilities.
8. **In/near river, pond, lake, dam, etc.** - Household members who have their bath in a river/pond/lake/dam should be classified under this category.
9. **Other (specify)** - Other types of bathing space. You should record other types of bathing spaces used by the household not specified in the categories above.

H13: OWNERSHIP OF HOUSEHOLD ASSETS

The purpose of this question is to determine the ownership of household assets (numbered A to S) which are FUNCTIONAL, whether they use it or not. You are to ask the question for each asset. An asset is considered functional when it is working and contributes to household consumption and welfare. There may be instances where the asset is not functional at the time of the interview but there is an intention for it to be repaired.

NOTE: If a given asset is not functional at the time of the interview but the household has the intention to repair this asset because of its usefulness to them, it should be recorded as functional. This means that the asset has value and for that matter it is useful to the household and all efforts will be made to refurbish it for use. Enumerators are advised to do a lot of probing where households report that their assets are not functional to determine whether they have the intention to repair them.

For each asset, the enumerator should also find out the number of items owned by the household and record the appropriate number in H13a. The enumerator should be careful not to provide the number owned by only the household head. Rather, the number should include all the numbers owned by each household member put together.

<p>H13: Does the household currently own</p> <p>PLEASE CIRCLE THE APPROPRIATE RESPONSE</p> <p>The question should be posed as follows: If the response is ‘Yes’ select ‘Yes’ and if ‘No’ select ‘No’. This should be repeated for all the listed assets.</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 70%;">A. Radio/Stereo</td><td style="width: 10%; text-align: center;">Yes</td><td style="width: 20%; text-align: center;">No</td></tr> <tr><td>B. Fixed telephone</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>C. Cordless telephone</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>D. Television (Digital TV)</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>E. Television (Analog TV)</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>F. Refrigerator (Fridge)</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>G. Deep Freezer</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>H. Desktop Computer</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>I. Laptop</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>J. Bicycle</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>K. Tricycle</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>L. Motor cycle</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>M. Private car or truck</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>N. Tractor</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>O. Animal-driven cart</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>P. Donkey/Mule/Camel</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>Q. Canoe</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>R. Outboard Motor</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> <tr><td>S. Home Theatre</td><td style="text-align: center;">Yes</td><td style="text-align: center;">No</td></tr> </table>	A. Radio/Stereo	Yes	No	B. Fixed telephone	Yes	No	C. Cordless telephone	Yes	No	D. Television (Digital TV)	Yes	No	E. Television (Analog TV)	Yes	No	F. Refrigerator (Fridge)	Yes	No	G. Deep Freezer	Yes	No	H. Desktop Computer	Yes	No	I. Laptop	Yes	No	J. Bicycle	Yes	No	K. Tricycle	Yes	No	L. Motor cycle	Yes	No	M. Private car or truck	Yes	No	N. Tractor	Yes	No	O. Animal-driven cart	Yes	No	P. Donkey/Mule/Camel	Yes	No	Q. Canoe	Yes	No	R. Outboard Motor	Yes	No	S. Home Theatre	Yes	No	<p>H13a: If owns...., how many of the does the household own?</p> <p>For each asset, the enumerator should also find out the number of items owned by the household and record the appropriate number in the boxes provided.</p>
A. Radio/Stereo	Yes	No																																																								
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<p>G. Deep Freezer</p> 	<p>H. Desktop Computer</p> 
<p>I. Laptop</p> 	<p>J. Bicycle</p> 
<p>K. Tricycle</p> 	<p>L. Motor cycle</p> 

M. Private car or truck

Private truck



Private car



N. Tractor



O. Animal-driven cart



P. Donkey/Mule/Camel



Q. Canoe



R. Outboard motor



S. Home theatre



17.3 Completing the Sanitation Questions

This section covers issues of sanitation in the household, with emphasis on four components namely: solid waste, toilet facilities, defaecation points, and waste water disposal. The focus is to explore the condition of solid and liquid waste disposal in the country. Sanitation is the safe management and disposal of liquid waste (faeces), solid waste, and waste water (from bathroom, kitchen, laundry etc.). **The Environmental Sanitation Policy (2010) provides a clear and nationally accepted vision for sanitation as an essential social service a major determinant for improving health and quality of life in Ghana**

Key indicators that can be generated from this section includes proportion of households with toilet, proportion of households using public/communal toilets, proportion of the households/population that practice open defaecation, proportion of households that share toilet with other households, average number of toilet rooms available to households, proportion of households using standard waste bins by urban/rural, proportion of households that practice open burning of waste, and proportion of households that dispose of their wastewater by throwing out.

Concepts and Definitions

Sanitation: refers to the **safe management and disposal** of faeces, solid waste, and waste water.

Solid waste (garbage/refuse): refers to the range of garbage materials-arising from animal and human activities that are discarded as unwanted and useless. E.g. Food waste, garden waste, plastic waste, scraps, etc.

Wastewater: refers to any water that has been contaminated by human use. E.g. from bathroom, kitchen, laundry, etc.

Toilet: refers to the **structure** where a user defaecates.

Containment: refers to the component of the toilet where the faeces is stored.

User interface (drop hole/seats): refers to the component of the toilet where the user sits or squats to defecate.

Improved toilet: describes toilets that safely and hygienically separate the user from their faeces.

Receptacle: refers to is the container (waste bin) that temporarily stores waste generated.

SOLID WASTE STORAGE

SO1: What type of refuse receptacle (bin, sack, polythene, etc.) is mainly used by your household?

The purpose of this question is to find out the various ways through which refuse are kept by the households before they are disposed of. Eight response options have been provided; you are to choose the appropriate response. If the response given by the respondent does not fit into any of the options, choose code 8 (other) and then specify.

1. Covered standard waste bin – This is a special container designed purposely for keeping refuse and mostly has definite volumes (i.e. 60L, 120L, 240L, 360L, etc.). The container usually has a cover to prevent houseflies from entering. Households which keep their rubbish into polythene bags before putting them in the bin should be classified into this category. Note that a standard waste bin with the cover but is seen with heaps of rubbish overflowing should also be considered as a standard waste bin. On the contrary, a standard waste bin without a cover should be considered as an uncovered container (i.e. code 2). Note that containers with covers but are seen with heaps of rubbish overflowing are to be considered as



covered.

2. Uncovered standard waste bin – This refers to situations where standard waste bins identified do not have cover thereby exposing its content to the elements (i.e. rain, wind).



3. Covered container – any container improvised for the purposes of storing waste that has a cover to prevent houseflies from entering. Note that containers with covers but are seen with heaps of rubbish overflowing are to be considered still as



covered.

4. Uncovered container - any container other than a standard container without a cover and used as an improvised waste bin.



5. Covered/uncovered basket - rubbish basket with or without cover.

6. Sack - ordinary sack that is used to store rubbish.

	
<p>7. Polythene bag alone - this refers to the use of any polythene bag to solely keep/store rubbish.</p> 	<p>8. Other (Specify) - any other option that does not fit into any of the above categories.</p>
<p>9. None (no receptacle) - this means that no receptacle is used by the household (i.e. the household does not have any receptacle).</p>	

Often, waste generated in such circumstances is directly deposited into dugouts, burning space, or other means. This is for those that have situations like pits in front of their homes where they directly dump, or in some cases have a designated area for burning their waste and as such do not require storage

S02: How does the household mainly dispose of rubbish (refuse)?

This question refers to the collection and disposal of solid waste (rubbish) generated by members of the household (or occupants of the living quarters).

	<p>01. Compaction truck – is a truck designed purposely for the collection of refuse. The Compaction trucks are often used for door-to-door waste collection services especially in urban areas where roads are accessible. It often has an opening at its rare (back) end where waste is tipped into and compacted by a hydraulic system.</p>
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02. **Other Vehicles** - this refers to all other vehicles or trucks such as pickup (KIA) trucks, Trolleys and others that are used for the door-to-door waste collection services.



03. **Tricycles** - These are mostly characterised by three tyres with or without an engine (motor). They are popularly called ‘*aboboyaa*’ such as ‘*bola taxi*’ mostly used in areas with narrow lanes and inaccessible roads. However, they are currently being patronised in areas where formal waste collection services have broken down. They are pre-collection vehicles with relatively smaller buckets.

04. **Central Refuse container** – This is a big rubbish container that is positioned at a designated place in the communities for the disposal of solid waste. Some central container sites have attendants who collect money from users (pay as you dump). Households that dispose of their solid waste into the central container should be classified under this category. Central Containers are often used at markets and slum areas where routes are also inaccessible.



05. **Bury in the ground**- this category refers to households who bury their rubbish often in a dugout (ground) and eventually cover it with soil to conceal it.

06 **Burn** - this refers to households who burn their solid waste often





07 Public dump/open space - This category refers to a locally recognised place for the disposal of solid waste (refuse dump) without environmental control. Note that there is no central container placed at the public dump. Dumping is, particularly onto the ground surface. The site sometimes could have attendants who collect money from users.

08. Push carts/ Walk - in attendants/ Bicycle/ Wheelbarrow - these are individuals who move from house to house to collect refuse for disposal at a fee. These people usually collect the rubbish in sacks, baskets, pans, etc., and are not associated with any waste collection/management company. Sometimes they come along with pre-collection vehicles like push carts, bicycles, wheelbarrows, etc. Note that this excludes *aboboyaa* and tricycles which should be coded 03.



09. Dumped indiscriminately - This refers to the disposal of solid waste haphazardly wherever they find convenient such as in the bush, along streets, open spaces, gutter, or on riverbanks.

10. Other (specify) - All other types of solid waste disposal not mentioned above must be specified in the space provided.

S03: Toilet Facilities:

What type of toilet facility is mainly used by this household? (KINDLY OBSERVE)

A toilet (latrine) is an installation for the disposal of human excreta. The focus of this question is on the containment system, that is, where the excreta is stored and not the user interface (where the user sits or squats). For instance, if a respondent tells you the household uses a water closet, you must probe to find out where the excreta is flushed to so that appropriate code could be assigned. Again, if the household uses more than one facility, then you must find out the type mainly used by the household and code accordingly. If the household does not use any toilet facility go to S07. Note that this question does not refer to the availability of the facility in the household, but the type of facility used by the household whether it is in the dwelling or not.

01 Septic tank (manhole) - A *Septic Tank* which is also referred to as manhole is a dug-out with single or multiple compartments which is completely lined with cement blocks and/or concrete. It may be connected to soak away or not. The septic tank is usually connected to a flush toilet (WC).

- 02 KVIP/VIP** – The Kumasi Ventilated Improved Pit (KVIP) and Ventilated Improved Pit (VIP) latrines are an improvement of the traditional/simple pit latrine. They often consist of a square, a circular, or rectangular pit dug into the ground and covered. The major distinction from the simple pit latrine is the provision of a ventilation pipe that removes smells and vent gases. All types of ventilated pit latrines are included in this category.
- 03 Pit Latrine** – This is also referred to as “*Atonko*” or “*hwiitim*”. It has a SINGLE deep pit that is not ventilated i.e. no specific channels have been provided for the escape of fumes. It consists of a deep pit (usually square, circular, or rectangular in shape) dug into the ground with provision for squatting. They are commonly found in rural areas of the country. Unlike the KVIP/VIP, it has **NO** vent pipe
- 04 Enviro Loo** – It is a waterless, onsite dry sanitation toilet system that functions without water or chemicals. It is characterised by a rotating unit attached to its vent pipe that draws/extracts in the air to dry the faeces in the pit. It is also characterised by Urine-Diverting Dry Toilet (UDDT). **Note that to identify the enviro loo, the major indicator is the rotary extraction unit on top of the vent.**
- 05 Bio-digester (bio fill):** This is a system designed to instantly separate the water from the faeces. The water (effluent) is discharged into either drains, soakaway or drain-field and unlike the septic tank, the faeces digest (decompose) in a single relatively small chamber.
- 06 Bio-gas-** This refers to a system designed to generate gas from faeces for purposes of cooking, lighting or electricity generation.
- 07 Bucket/Pan** – This refers to a container that temporarily stores faeces that can be removed from an opening for disposal as waste. The bucket/pan is a permanent part of the toilet structure.
- 08 Portable Toilet (Water Potti)** – This is a mobile plastic sitting toilet that has a detachable tank that temporarily stores the faeces.
- 09 Sewer** – This is a system where faeces from flush toilets (e.g. water closet), waste water from the kitchen and bathroom flow through connected pipes to a treatment plant. The treatment plant is located offsite (distant location)

Table 17.1: Areas with sewer connections

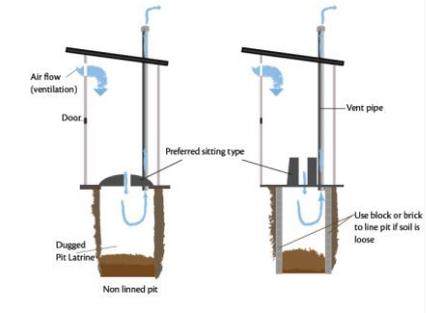
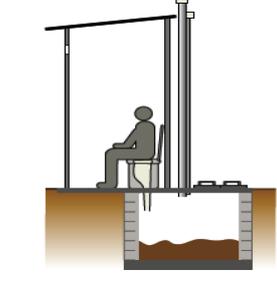
S/N	REGION	CITY	COMMUNITY	TYPES OF CONNECTIONS
i.	Ashanti	Kumasi	Subin	Households, schools, Public toilets, Polytechnic, Golden Tulip hotel, 4BN army barracks, Komfo Anokye Teaching Hospital (KATH)
			Asokwa	Households
			Oforikrom	Kwame Nkrumah University of Science & Technology (KNUST)
ii.	Greater Accra	Accra	Central Accra	Households, Institutions, commercial entities
			Jamestown	Households
			Korle-Bu	Korle-Bu Teaching hospital (KBTH)
			Korle-Gonno	Households
			Ministries	Institutions (Ministries, Departments & Agencies)
			Dansoman	Households
			Cantoments	Households
			Labone	Households
			Achimota	Achimota School
		Legon	University of Ghana (UG), University of Professional Studies (UPSA)	
	Tema	Community 1 to 12	Households, Institutions etc. PS: Total sewerage coverage	

10 Public Toilet: this category refers to cases where members of the household use a communal or public facility. Often, users are required to make payment before use (GO TO S08)

11 Other (specify) – All other types of toilet facilities not mentioned above must be specified in the space provided.

12 No Toilet facility - this category applies to the situation where there is no toilet of any kind available for the use of the household and members resort to the use of chamber pot, polythene, bush, beach, field, etc. (GO TO S07)

NOTE: Options 01 to 09 refer to household toilet facilities. Examples of the option categories are shown below

S/N	LATRINE TYPE	BASIC DESCRIPTION	PECULIAR FEATURES/INDICATORS	SCHEMATIC
1	Pit		NO Vent pipe	
			Single Dug Pit	
2	Ventilated Improve Pit (VIP)	Dug pit (square, rectangular, circular)	Vent pipe with fly trap/screen	
3	Kumasi Ventilated Improved Pit (KVIP)		Vent pipe with fly trap/screen	
			Double pit (square, rectangular, circular)	
4	Bucket/Pan		Opening at the back of the building (superstructure)	
			Pan/bucket under the slab or drop hole	
5	Septic tank (Manhole)	Water-tight tank	Soak away /drain field	
			Water tight tanks with a vent pipe	
6	Bio-		One chamber	

S/N	LATRINE TYPE	BASIC DESCRIPTION	PECULIAR FEATURES/INDICATORS	SCHEMATIC
	digester			
7	Biogas		Collecting tank	
			Biogas tank	
			Gas outlet pipe	
8	Enviro Loo		Ventilation Unit Extracting Unit	
9	Portable toilet i.e. Bop Potti & Clean Team		Plastic sitting toilet	
			Detachable flush tank	
10	Sewer		Inspection chamber	

S04 Which type of drop holes/seat is mainly used by the household?

The focus of this question is on the user interface where the user sits or squats to defaecate. Nine response categories have been provided. You are to observe and code the appropriate response.

S/N	USER INTERFACE	DESCRIPTION	SCHEMATIC
1	WC Seat	This is mostly a ceramic toilet seat that may be connected to a cistern (flushing unit) for flushing the excreta.	
2	Flush Squat-bowl	This is a squat bowl (ceramic) that is connected to a cistern (flushing unit) for flushing the excreta.	
3	Pour flush bowl	This is a squat bowl (ceramic) without a cistern (flushing unit). The faeces are therefore flushed by manually pouring water by use of a cup/bowl.	
4	Urine-Diverting Dry Toilet (UDDT)	It operates without water and has a divider so that the user, with little effort, can divert the urine away from the faeces. It has openings to collect urine separately.	

S/N	USER INTERFACE	DESCRIPTION	SCHEMATIC
5	Concrete pedestal/slab	It is made of concrete. It operates without flush-water. It may be a raised pedestal which the user can sit or a squat type over which the user squats. In both cases, both urine and faeces fall through the drop hole.	
6	Wooden pedestal/slab	It is made of wood. It operates without flush-water. It may be a raised pedestal which the user can sit, or a squat pan over which the user squats. In both cases, both urine and faeces fall through the drop hole.	
7	Satopan/ Micro flush	<p>Satopan is similar to concrete slab but is made of plastic and has a self-opening valve (trap door) at its bottom that is opened by the weight of the faeces.</p> <p>Micro flush is similar to the pour flush however, this requires a smaller amount of water to flush. It has a handle/pedal that is turned/pulled to flush.</p>	 
8	No slab (but with logs placed on the surface of the pit)	This user interface has multiple openings that directly exposes the faeces within the pit. This is categorised unimproved as it does not hygienically separate human excreta from human contact. In most cases, it also serves as a threat to users as they could slip or have parts/whole of their bodies enter the pit. Example of such cases is crossed wood planks	

S/N	USER INTERFACE	DESCRIPTION	SCHEMATIC
		etc.	

S05: How many usable toilet rooms (cubicles) are available to the household?

The question seeks to find out from households the number of toilet cubicles that are available to them. You are to record the number given in two digits in the boxes provided.

S06: Does the household share this toilet facility with other households?

This question seeks to find out whether the toilet facility is used exclusively by the household or is shared with other households. Two response categories are provided for this question; i.e. “Yes” or “No”. Choose the option that corresponds with the response.

DEFAECATION POINT FOR HOUSEHOLDS WITHOUT TOILET FACILITY

S07: Where do the household members defaecate?

This question is to be asked of households that do not use any toilet facility (i.e. coded ‘12’ in S03).

- 1. In a chamber pot** – It is a bowl (plastic or metallic) purposely used for defaecation indoors for transfer.
- 2. In a polythene bag** - When the household members defecate into a polythene bag.
- 3. Beach** - This category applies to situations where there is no toilet facility of any kind available for the use of the household and members resort to defecation at a beach/rivers/lagoons/water bodies. This, however, applies to only coastal communities or communities along with water bodies.
- 4. Bush/Open Field/ Gutter** - This category applies to situations where there is no toilet facility of any kind available for the use of the household and members resort to defecating in a bush/Field/open space and gutter.

WASTEWATER DISPOSAL

S08 How does your household dispose of wastewater (from bathrooms, kitchen, laundry, etc.)?

YOU MAY CHOOSE MORE THAN ONE

This refers to waste water from the kitchen, bathroom, and washing of clothes, produced by the household or occupants of the living quarters. The liquid waste may be disposed of through the sewerage system or thrown onto the street or gutter or by some other means.

- 1. Flows or thrown into drain/gutter** – Waste water disposed of through a plumbing system (pipes) into a gutter should be classified in this category.
- 2. Through drainage system into a pit (soak away)** - This refers to waste water disposed of through a plumbing system into a soak away (dugout). Commonly found in areas without drains (gutters).

3. **Thrown onto the ground/Street/Outside** - This category refers to cases where waste water is disposed of indiscriminately on the street or outside the house. This practice is also common in areas without gutters.
4. **Through the sewerage system** - This category refers to waste water disposed of through a plumbing system into a centralised sewerage network that flows to a treatment plant.
5. **Other (Specify)** - Any other means of disposing of waste water not captured by response codes 1–4.

CHAPTER 18

FIELD DATA QUALITY MANAGEMENT

18.1 Introduction

The requirement to collect high-quality data and release the results promptly is central to the goal of the Ghana 2021 Population and Housing Census, in accordance with international standards. The use of CAPI allows for real-time data quality checks during field data collection, quick data processing and timely release of the results.

In view of this, data quality assurance mechanisms have been established at all levels (national, regional, district, SA, and EA) involving various actors and the logical validation rules found in the CAPI application. Also, these mechanisms are put in place to direct the enumerators to collect complete and accurate data through real-time monitoring.

A computer program has been developed for monitoring and assessing the quality of the data being collected on the field and providing reports (i.e. feedback) to the teams on the field for prompt correction. This program is in place to detect errors and prevent them from recurring. Data Quality Management covers planning field work, data collection, processing, evaluation, and dissemination of results. It also spells out procedures for the Data Quality Management Team (DQMT) to follow after completing field work and a checklist to complete before exiting the field.

18.2 Concepts and Definitions

Field data quality monitoring: refers to the process of observing procedures and assessing data being collected and providing feedback for prompt correction on the field during data collection

Field data quality management: refers to the quality assurance programme involving various actors and sequence of activities to detect errors easily and early, and prevent errors from reoccurring. Quality management covers all activities including planning fieldwork, data collection, monitoring, processing, evaluation, and dissemination of results.

Near real-time: refers to the significantly reduced time lag between when the data are collected and when they are sent to the server at HQ by both supervisors and enumerators. Thus, data are available virtually almost immediately, processed and feedback sent to field staff for prompt correction.

18.3 Why Data Quality Monitoring and Clearance in the 2021 PHC

Field data quality management procedures and processes have been included in the 2021 PHC to ensure that:

- All EAs have been assigned and enumerated to achieve complete coverage,
- The work of field officers is validated continuously,
- Data collected during fieldwork are edited and cleaned in near real-time,
- Feedback is provided promptly,
- Any inconsistencies and errors observed in the course of the exercise are rectified immediately by field staff.
- These processes pave way for speedy clearance of field officers

18.4 Scope of the Data Quality Monitoring and clearance

The Data Quality Management for 2021 PHC is implemented at five different levels: National, Regional, District, SA, and EA. The actual monitoring of the data quality is at the 3 levels: mainly the EA level through the SA and the District. The National and Regional level management have general oversight responsibility.

The Data Quality Management Team at the District level (DDQMT) is made up of Census Officer, Field Supervisor, Data Quality Monitor, and IT Officer. It also includes independent monitors who will visit teams to assess the quality of the whole census process.

The District Data Quality Management Team (DDQMT) will work from the District Offices in their respective regions and would be responsible for monitoring data quality at the SA/EA levels. At the SA level, supervisors are responsible for monitoring data quality in their teams and the enumerators are to review their work regularly to ensure they achieve complete coverage and there are no errors in the data collected.

The National Data Quality Management Team (NDQMT) operates from the Head Office of the Ghana Statistical Service and oversees all the other levels of the data quality management structure. The Regional Data Quality Management Team (RDQMT) operates from the regional offices of the Service and has oversight responsibility for monitoring data quality in all the districts and other levels below the district. Note that only the Regional Data Quality Monitor (RDQM) operates from the HQ but gives feedback to the other members of the team who resides in the region.

18.5 Data Quality Management at the District Level

The DDQMT is the main body responsible for data quality management at the district level and their day-to-day operations involve:

- Ensure all field officers have synced data to the HQ server daily
- Prompt Supervisors about missing SA and EA data
- Provide support to field officers in the syncing of data where connectivity is a challenge
- Receive synced data from the HQ server
- Run checks on data synced to bring out all errors and inconsistencies, if any
- Communicates error messages to the respective field officers for correction
- Repeatedly runs checks to ensure errors identified have been corrected
- Generates daily reports to track progress of work for each enumerator and team
- Undertakes field visits to validate field officers' work and to correct them when necessary
- Resolves issues pertaining to field data collection
- Refers unresolved issues to the Regional Data Quality Management Team (RDQMT)
- Clears teams on completion of fieldwork and retrieval of materials and logistics

18.6 Important Issues to Consider

Since the daily monitoring exercise is key in achieving data quality of the 2021 PHC, the DDQMT must ensure that activities by enumerators and supervisors that must be done to drive the process have been followed. These activities include:

- Daily synchronization which is necessary for:
 - Tracking progress of work,

- Identifying teams/enumerators with data synchronization challenges
- Exposing possible errors,
- Timely communication of errors,
- Preventing reoccurrence.
- Supervisors ensuring that all error messages from DDQMT are resolved.
- The correct identification of SA and EA boundaries to attain completeness of coverage and avoiding duplication.
- Supervisors contacting the DDQMT immediately for any unresolved boundary issues.

18.7 Duty of Enumerators and Supervisors in Data Quality Management

All enumerators and supervisors have a role to play in achieving the overall quality of the 2021 PHC data and therefore must be guided in their daily procedures to know what to do in any situation that may arise in the course of the field data collection. To attain the required results,

- Enumerators must sync to HQ and Supervisor daily
- Enumerators should run reports on their tablets and correct any errors before syncing to the Supervisor.
- Where the problem cannot be solved immediately, the Enumerators should still sync to Supervisor and HQ and continue to resolve the problem.
- Enumerators should resolve any errors identified by the Supervisor.
- Enumerators should resolve any errors identified by the DDQMT.
- Enumerators should re-visit households and institutions to correct errors and gaps identified.
- Supervisors must sync to HQ daily
- Supervisors should run reports on data received on their tablets and work with the team to correct any errors before syncing to HQ.
- Where the problem cannot be solved immediately, the Supervisor should still sync to HQ and continue to resolve the problem.
- Supervisors should work with team members to resolve any error messages received from DDQMT and re-sync to HQ.
- Supervisors should ensure that all error messages from DDQMT are resolved seeking assistance from the DDQMT where necessary.
- Supervisors should ensure Enumerators go back to the households and institutions to correct errors and data gaps.
- Field officers should contact IT support for syncing challenges and IT related issues

18.8 Clearance of Field Officers

A team is cleared when the DDQMT confirms that the work in each EA under the SA is completed and HQ has certified the completeness and quality of the data. Thus, all field officers must be cleared by DDQMT before exiting the field.

There are procedures for clearance at two levels for all field officers, that is, at the district level DDQMT and at the national level by NDQMT.

A team is cleared when:

- DDQMT confirms that the work in each EA under the SA is completed
- HQ has certified the completeness and quality of the data
- DDQMT has received all returnable materials and logistics.

18.8.1 Criteria for clearance at the District level

The criteria for clearance must be employed strictly in certifying the work of an enumerator and the team. Procedures for DDQMT clearance of field officers cover four aspects:

1. Submission of data from the field: in the form of synced data and tablet backup
2. Completeness in coverage: all structures, households, institutions, and floating population in all EAs within the SA, and all localities in Type 3 EAs have been enumerated
3. Completeness and accuracy of content: information about the individuals in households (population and housing characteristics) and institutions is complete for all applicable topics
4. Retrieval of returnable materials/items

18.8.2 Completeness of Coverage and Content

The DDQMT confirms that the work in each EA under the SA is completed based on the following checklist:

1. All structures in the EAs have been listed and reflect in the database.
2. All structures with household and non-household population have been correctly enumerated.
3. All data for the EAs assigned to a team have no duplicates, no gaps, and no partial saves or (incomplete interview).
4. Total household and non-household populations identified during listing have been accounted for during the main enumeration
5. The total number of EAs assigned to the SA/Team have been listed, enumerated, and accounted for
6. The total number of localities expected for each Type3 EA have been accounted for
7. All inconsistencies and errors identified have been resolved for every enumerator in the team.

18.8.3 Retrieval of returnable materials/items

All tablets and accessories assigned to the team should be accounted for and be in good condition. DDQMT shall:

1. Reconcile data on tablets with those on the server,
2. Make a back-up of data on all tablets assigned to the team (SA),
3. Collect all other returnable materials / items,
4. Field officers must sign Assets and Material Receipt (Return)Forms.

Note: Individuals shall be held accountable for any item assigned to them on a case-by-case basis. It is when the returnable items have been collected from all field staff that they are to wait patiently for final clearance from HQ and payment.

18.9 Criteria for clearance at the HQ

DDQMT compiles the list of teams that have passed all the criteria and submits a copy to the RDQMT for collation and onward transmission to HQ

1. NDQMT certifies the work of the teams as having met all requirements for district-level clearance set out above
2. NDQMT submits final clearance list to Finance and Administration for payment authorization
3. Finance and Administration then effects payment

Some errors that can occur during listing

- Missing structure numbers due to gaps
- Structure Address is missing

- No GPS reading for the structure
- GPS Coordinates not taken
- Type of structure (LS06) not valid for level of structure (LS05)
- Type of structure (LS06) and LS05 skip not followed
- Vacant Housing Unit expected in LH12B, if LS07=01 and LS10=4,
- No Type of residence expected, if LS10=NOTAPPL or blank and LS11=2
- Population expected if RESTYPE(LH12B)=2
- Incomplete Questionnaire

Some errors that can occur during enumeration

- Year of birth not valid
- P02-Age of spouse not valid
- P12C(2)-Grade completed, Educational level & Grade mismatch
- P23T-Total children in P20T does not match P21T
- P23M-Male children in P20M does not match P21M,
- P23F-Female children in P20F does not match P21F

CHAPTER 19

LEADERSHIP OF THE FIELD SUPERVISOR

19.1 Introduction

Good supervision is a critical part of the census process since the success of the census will to a large extent depend on the quality of data that will be collected from the field. It is important to put in place measures that will ensure the collection of good quality data and also achieve complete coverage. Therefore, the supervisor's role before, during, and after fieldwork is critical in the 2021 PHC. The success of the 2021 PHC to a large extent depends on the quality of data collected from the field. It is therefore important for the supervisor to be on the field till the end of field work. Supervisors are to monitor the works of the enumerators to ensure they are working as expected. Supervisors are the first-level monitors on the field and for that matter must be on the field with their enumerators from the beginning till the end of the field work.

19.2 Main task of the Supervisor in the Census

As a Supervisor, your main task will be the supervision of a number of Enumerators, who will work directly under you during the Census. Enumerators' main assignment is to enumerate, during the Census period, all persons alive and all structures on Census Night in their EAs. It is your duty as a supervisor to ensure that this assignment is carried out efficiently. You will also assist in the training of the Enumerators. To be effective as a Supervisor, you must take note of the following:

19.2.1 Mastering the Field Officer's Manual

Every Enumerator and Supervisor has been given a copy of the Field Officer's Manual which contains detailed instructions on how Enumerators should conduct the actual enumeration in the field. The instructions are preceded by general background information concerning Population and Housing Censuses.

To supervise these Enumerators and help them conduct the Census well, you must understand very clearly what the Enumerators are being asked to do. This means that you must read and master the Field Officer's Manual before starting your supervisory work. It is only when you know the functions being performed by the Enumerators very well that you will be able to help them when they approach you with their problems.

19.2.2 Commanding the Confidence of your Enumerators

You must always try to command the confidence of the Enumerators who are working under you. Remember that you are their leader to whom they will turn whenever they come across any difficulties. If they have no confidence in your ability, they will always be reluctant to approach you with their problems. Your work as a Field Supervisor will be challenging if Enumerators find that you cannot help them to solve their problems.

19.2.3 Contacting the DFS in Case of difficulties

Whenever you are in any doubt concerning any part of your assignment, you must consult your District Field Supervisors (DFS), who may also consult the District Census Officer (DCO) if it becomes necessary. These two officers are in the position to help you overcome your difficulties.

19.2.4 Giving Approved Directives to the Enumerators

Enumerators will be instructed on how they should conduct the enumeration. Do not confuse them by giving wrong directives. Whenever you are in doubt, explain to them that you are not sure yourself, and that you will obtain the necessary explanation from your DFS or DCO. It is always better to admit your uncertainty rather than to offer wrong answers.

19.2.5 Leading in an Exemplary Manner

You are leading a group of Enumerators into the field to conduct an operation which is of vital national importance. You must always try to explain the solution to problems clearly and set a good example to these Enumerators. In particular, you must be fair and approachable, since that will encourage them to approach you with their problems. Some of the Enumerators may be experienced data collectors and of the same educational level as you so do not give them any cause to grumble about your leadership.

19.2.6 Cooperating with the Enumerators

Throughout the census enumeration, you must cooperate with the Enumerators working with you. Remember that you are working as a team. If they fail, it means that you yourself have failed. If they succeed you will share the honours of success equally with them.

19.2.7 Completing Enumeration in the SA

You and your Enumerators will have to work outside the normal working hours during the enumeration period. You should work as hard as you can to complete your assignment during the Census Enumeration Period. If you cannot complete it on time, report the matter as soon as possible to your DFS. **But, under no circumstance should you stop before completing enumeration in the whole Supervision Area.** Your work will be considered incomplete if ALL the EAs assigned to you have not been completed. Working hours will not be fixed for you because, in many cases, you may have to work at very odd periods. Remember that you are performing an invaluable national service. Encourage each of your Enumerators to produce their best in order to finish within time.

A Population and Housing Census take place once in ten years. Help to make this one a success and you will feel proud thereafter that you made a worthwhile contribution to the 2021 Population and Housing Census of Ghana.

19.2.8 Replacing Enumerators when necessary

The District will have some reserve Enumerators. If during the enumeration period any of your Enumerators falls sick, you should contact your DFS for immediate replacement. Every effort has been made to ensure that only Enumerators, who are efficient, are engaged to conduct the enumeration. You must keep a close watch on the work of all your Enumerators during the training and the Census operation period. Go through all the completed questionnaires and their listing forms. If you detect any sign of inefficiency and you feel that an Enumerator is not working satisfactorily, report it to your DFS immediately for possible replacement. When a decision has been taken to replace an enumerator, ensure that you collect all census materials from the Enumerator who is being replaced. The Supervisor must also remember that if he/she proves inefficient, the DFS could recommend his/her replacement.

19.3 Supervisor's duties before enumeration period

The duties of the Supervisor before enumeration is very critical in the data collection exercise of the census process. It is therefore, important that some preparatory activities are undertaken to help achieve complete coverage during field data collection. Some of the activities to be undertaken before the enumeration period are:

19.3.1 Training, retraining, and coaching of Enumerators

Supervisors will be identified ahead of the training on a temporal basis. At the end of the training, the final selection of supervisors will be based on performance during training – in the mastery of content and use of CAPI. Throughout the training (the lectures, mock interviews/role play, field exercises, class tests, and group discussions), you should be ready at all times to undertake any specific aspect of the training which might be delegated to you. You may be asked to help in organising training sessions, to distribute and collect documents, to make rollcalls, and to undertake any other tasks which will facilitate the smooth running of the training programme. Though you will be assisting in organising the large classes, the greater part of your attention should be concentrated on the Enumerators who are under you. Sometimes they may feel reluctant to raise some points which they did not understand in class, or there might not be sufficient time to discuss all their individual problems with them. Therefore, the task of solving these individual problems rests on you. You must give adequate attention to each Enumerator and re-train him/her personally if it becomes necessary.

Under the direction of your trainers, you will help:

- (a) Conduct field exercises,
- (b) Check the questionnaires filled out by each potential Enumerator and discuss his/her errors with him/her separately,
- (c) Then submit extracts of the major errors made by all the potential Enumerators to your trainers so that they can discuss these points with the whole class.

Enumerators have been specifically instructed to contact you whenever they do not understand something in the Field Officer's Manual. This means that you must always be prepared to receive any Enumerator and to help them solve any difficulty they may have. As a leader, you must try to explain the enumeration process and field problems they do not understand. This is the reason why it is absolutely necessary that you study the Field Officer's Manual very thoroughly.

19.3.2 Expanding list of historical events to estimate the age of respondents

In Appendix 5 of the Field Officer's Manual, you will find a list of national and regional historical events to help estimate ages of respondents who do not know their ages. In many cases, however, this list may not be sufficient, or the events listed may not be known to all the people in your area. It is your duty to supplement this with appropriate "Local Historical Events" in the area. The chief or Assemblyman/woman or any other knowledgeable person in the community is the best person to help you in the compilation of such events. Starting from the year 1900, try to list at least one event for each ten-year period, for example, one event that happened between 1900 and 1910, and so on. Make copies available for discussion during the Enumerators' training in the field.

The List of Local Historical Events is very important. It assists the Enumerators in avoiding rough guesses of respondents' age and enables them to check respondent's answers on age.

19.3.3 Ensuring that Enumerators check their EA boundaries

Before listing of houses/structures, Enumerators should check their Enumeration Area boundaries and localities within each EA. You should show them how to read their maps and how to find the boundaries of their EAs on the ground. **You should accompany** all the Enumerators during this checking of boundaries. Try to go in groups of two or three, so that neighbouring Enumerators know their common boundaries and agree on them. If during the field check of the boundaries, you come across any discrepancies or errors, which you cannot

resolve yourself, seek the advice of your District Field Supervisor (DFS)/District Census Officer (DCO). This boundary checking will reveal all the shortcomings of the EA maps and the list of localities on the PHC 2. The boundary checking may reveal new localities or new houses/structures not shown on the EA Map. On the other hand, some of the localities, which are on the Map, might be extinct at the time of the checking. You must ensure that the checking is carried out thoroughly, and if necessary, more than one visit should be arranged. It is important to do all you can to ensure that Enumerators have a thorough knowledge of the location of boundaries as well as the areas in which they will be working.

19.3.4 Sharing EAs for two or more Enumerators

Although the Cartographers have tried to demarcate EAs so that in an ideal situation, one person would have a manageable number of persons in an EA to enumerate, you may still find that an EA is so big that the Enumerator will not be able to complete the enumeration in the prescribed time. An EA can be large in terms of the number of structures or number of people. For such EAs, additional enumerators are required. The Supervisor will have to report to the District Census Management Team (DFS, DCO, DITO, and DM) and call for support. Support could be sought during the listing phase and/or enumeration period. The decision to call for support must be **endorsed** by the District Census Management Team who would assess the situation before deciding for support.

In cases when the workload is low enough that an Enumerator completes work in the EA before the end of period, the Supervisor should assign that Enumerator as a support Enumerator to another EA within the SA to ensure that the work in the SA is completed on time.

i. Support during listing phase

- a. Note that the Enumerator is expected to use one week to list the structures in his/her EA. Therefore, if by the fourth day of the listing exercise, the enumerator has listed more than 300 residential structures for instance, and has still not covered up to half of the EA, then the Supervisor should take the necessary steps to get additional hands to support listing in the EA.
- b. In compact areas where the population density is quite high i.e. about 15 households per house, if after one week of enumeration the Enumerator has not been able to cover up to half of the structures listed, the Supervisor should take the necessary steps to get additional hands to support enumeration in the EA.
- c. In the Type 3 EAs (refer to Section 7.3.3 for more on the EA types), if the number of localities within the EA is much more than normal, the Supervisor should take the necessary steps to get additional hands to support work in the EA.

Supervisors should request from the District Census Office, the services of additional Enumerators. When the supporting Enumerator(s) join the primary Enumerator during the listing phase, the Supervisor must ensure that all the Enumerators work together to ensure that all the structures in the affected EA are numbered and all listing processes are completed before they begin enumeration. The Supervisor should assist Enumerators to realistically share and list the structures and also proceed with the enumeration.

Note that whichever approach is adopted by the Supervisor to share, the Supervisor and the Enumerators must ensure that work is completed without omission and duplication.

ii. Support during the enumeration period

Requesting for support during the enumeration period requires that **listing has already been completed**. When listing has been completed and the Supervisor determines that the total number of listed households within the EA is more than the primary Enumerator can complete during the two-week enumeration period, they should request for support.

The completed listed work must then be assessed by the District Census Management Team to confirm that it is not possible for the primary Enumerator to complete the work during the stipulated period. In such a situation, Supervisors should assign some structures to the supporting Enumerator(s) enlisted (refer to Section 9.15 in Chapter 9 for instructions on how to assign supporting Enumerators to the EA using CAPI).

It is also possible that another Enumerator either within or outside the SA has been certified as having completed his/her work and is available to support in another EA. In these cases, Supervisors in the EAs that need support should assign structures to the supporting Enumerators.

iii. Support for both listing and enumeration

Support should also be requested for enumeration of hard to count areas e.g. security threat areas, drug-prone areas, Type 3 EAs and forest areas. For such areas, right from the start of listing stage, attempts should be made to assign two or more Enumerators to undertake the listing and enumeration.

19.3.5 Helping in publicising the census

During your visits to check the boundaries of the EAs with your Enumerators, you must approach the Chiefs, Headmen, or Assemblymen in the localities and explain to them the objectives of the Census and the need for them to co-operate with the Enumerators. It is expected that by the time you pay your visit, the Chief or Headman would have heard about the Census through the media (radio, TV, and newspapers) or through the DCIC. Your visit to the Chief or Opinion leader/Headman is to ensure that he/she knows about the Census. You should note that if you ignore the Chief before you start enumeration, you will be met with opposition from the local people, and enumeration will thereby be made difficult. To avoid this, see the Chief or Headman with your Enumerators **before** Census Night (Refer to Section 6.4 of Chapter 6 on why and how to perform community entry). Also, make sure that a programme of Census Night activities has been planned by the Chief, Assemblyman/woman, and Unit Committee Leaders.

19.3.6 Preparing of itinerary

You must ensure that each Enumerator in your area prepares the itinerary of his Enumeration trek. You should also prepare your own itinerary for visiting the Enumerators in the field and a copy of that itinerary should be handed over to the DFS/DCO (refer to Section 6.6 for how to plan your itinerary).

19.3.7 Ensuring that Enumerators have a complete list of institutions and locations of outdoor sleepers in their areas

A list of institutions e.g. boarding schools, hospitals, prisons, hotels, etc. in each district has been prepared and will be handed over to you. But it is likely that the list will not be complete. Go over this list and add any that have been omitted. Go over the list with each Enumerator and make inquiries from people in these areas, to verify whether the list is complete. If you satisfy yourself that the list is complete, discuss with each Enumerator, arrangements for enumerating inmates of each of these institutions and go over the instructions carefully with each of them. By **27th June 2021**, you should have completed all arrangements for the complete coverage of persons living in institutions (group quarters).

The Enumeration of outdoor sleepers should commence by 8:00 pm on **27th June 2021 (Census Night)** and be concluded by midnight. During this period, all Supervisors and Enumerators will be mobilised in groups to enumerate the floating population. Enumeration of group quarters population including enumeration of persons in halls of residence in senior high schools, teacher training colleges, polytechnics, universities, hotels, guest houses,

hospital patients, etc. will take place before Census Night. Details of enumeration procedures for these persons are outlined in Section 12.4 of the Field Officer's Manual.

19.3.8 Supervising Enumerators to ensure all structures are listed

A period of two weeks before Census Night (starting **13th June 2021**) has been assigned for Enumerators to list **all the structures in the EAs** and the information recorded/entered in the Listing Form. The first 10 days of field data collection i.e. 13th – 22nd June 2021 will be dedicated for the listing of structures: 7 days will be earmarked for listing and 3 days to wrap up listing work in ensuring complete coverage of all structures in each EA. The CAPI team will use 23rd to 26th June to prepare the tablets for the enumeration phase.

If the listing of structures in an EA is not completed before the start of the enumeration period, enumerators should start enumerating persons in the areas/localities where the listing had been completed. In the case where an Enumerator does not complete listing before Census Night, a support Enumerator should be brought to continue the listing exercise while the primary Enumerator starts the enumeration.

Note that listing will ensure that every house in the EA has been covered. The listing is done by visiting every house/structure and writing in chalk, 2021PHC plus the EA number as well as a 4-digit serial number of the house/structure on the front door, or on the wall near the front door, or at a conspicuous spot on the building e.g. 2021PHC/EA Number/Structure Number. The Enumerator must also indicate (in chalk with an arrow under the 4-digit serial number assigned (to the house/structure), to indicate the direction of his/her movements in the EA.

You should supervise the Enumerators during the listing operation to ensure that they carry out this operation systematically and carefully. This is to ensure they do not miss any house especially in areas where the houses are built haphazardly. You should also make sure that your enumerators do map spotting for easy tracing of their movements.

19.3.9 Distributing Field Officer's logistics

During the training period, your DFS/DCO would hand over to you the tablets and materials to be used by the Enumerators in your Supervisory Area (SA). Immediately after the training of Enumerators, you must distribute these tablets and materials to them. Make sure they leave for their respective EAs with all the needed field materials.

The materials that the DFS/DCO will hand over to you and your Enumerators will include:

- a. Backpacks containing materials for your Enumerators;
- b. Your backpack containing the items listed in Appendix 7.

19.3.10 Completing the Field Supervisor's Materials Receipt Form

You must complete the appropriate part of the Field Supervisor's Materials Receipt Form (see Appendix 7) whenever you receive any materials from your DFS/DCO, who will, in turn, do the same whenever you hand over any materials to him/her. Remember that some of these materials would have to be returned after the census period. These include:

- Tablets and accessories
- Enumeration Area (EA) map
- Enumerator's bag
- Identity Card
- Certificate of Enumeration (unused)
- Unused call-back cards

- Field officer's manual
- Paper questionnaires (both used and unused)

If any other items would need to be returned they will be communicated to you by your DFS/DCO.

You must return all the items from your enumerators at the end of field work and submit them to your DFS/DCO for onward submission to the Census Coordinator. You must fill the appropriate form whenever you receive materials from your Enumerators and whenever you submit materials to your DFS/DCO for proper records keeping. Note that you will be surcharged for failure to submit all returnable items.

19.4 The role of the Supervisor during enumeration

The Supervisor is expected to ensure that quality data are collected from the field by doing the following:

19.4.1 Keeping in touch with your Enumerators

To ensure a successful and complete enumeration, you should keep in constant touch with your Enumerators so that you check their work, encourage them and at the same time help them to resolve problems they may have. **Know that you are their leader and** note that your actions or inactions can affect the quality of data positively or negatively. Among your responsibilities are to:

- Plan for the execution of the exercise in your area;
- Ensure that you know your enumerators by the time the enumeration starts;
- Ensure that your enumerators are in the field at the prescribed time and perform their duties as expected;
- Monitor your enumerators if they possess the necessary documents;
- Become familiar with the performance of your Enumerators;
- Be familiar with difficulties in each of the Enumeration Areas and ensure that you visit the problematic areas, starting on the second day of enumeration; and
- Ensure that each Enumerator receives enough visits from you.

19.4.2 Maintaining effective control over enumeration

You need to maintain effective control over the enumeration. In this regard, you need to take all aspects of the work seriously and be confident on the job. When your Enumerators notice how conscientiously you approach your duties, they will also emulate you.

19.4.3 Conducting spot checks in your Supervisory Area (SA)

You are required to visit all your enumerators in your SA. To do this, you need to plan and systematically execute the plan. These visits should be more regular after the start of field work and more attention should be devoted to Enumerators you consider to be weak or are in difficult areas.

What to do during field visits

As a Supervisor, you should carry out thorough checks during enumeration. The aim is to limit errors as much as possible at the data collection stage. During field monitoring, ensure that the following activities are performed:

- a. Sit in and observe interviews, and be sure that the right translations and interpretations are being given to the questions.
- b. Check coverage of houses listed and members of households enumerated to ensure that no houses or persons have been omitted.

- c. Check to ensure that entries are consistent, i.e., they agree with each other and make sense.
- d. Check entries on the total number of persons enumerated in houses/structures in the listing form with the entries on the questionnaires for corresponding houses/structures.
- e. Make sure that your Enumerators are following the instructions in the listing form.
- f. Ensure that after enumerators have enumerated all persons in one EA or locality (i.e. type three EAs), they would complete questions LH17 - LH21 of the listing form before they start enumerating persons in another locality especially for the type three EAs where many localities form the EA.

19.4.4 Conducting re-interviews in your SA

The overarching role of the supervisor is to ensure completeness, accuracy, and timeliness of data collection in his/her assigned area. As part of the supervision work in your Supervisory Area (SA), you are required to conduct re-interviews to validate the quality of the data the enumerators will collect during the fieldwork (i.e. listing and enumeration periods). Re-interviews will be conducted of some structures and households that have already been enumerated by your enumerators to ensure consistency and accuracy of information being collected from the respondents. These re-interviews are meant to ensure complete coverage, consistency and accuracy of information being collected from respondents.

The re-interviews is a supervision tool for the supervisor to ensure that enumerators are covering every eligible person and gathering the right information about all structures and individuals within their areas of jurisdiction or not straying into other EAs. This will be done by physically verifying the work of the enumerators. The re-interview methodology exploits CAPI's ability to control quality of data at the point of collection. It affords the supervisor an additional tool to monitor the ability of each enumerator to collect quality data. This should be carried out within the first three (3) days of fieldwork so that any inadequacies in each enumerator's work can be addressed early enough, including the possibility of revisiting the data collection points to correct any errors discovered in the reports. In addition, it also equips the supervisor with information pertaining to the concepts and procedures that each enumerator may be struggling with and an opportunity to coach or retrain the enumerator as may be necessary to accomplish his/her tasks. This prevents the compounding or 'normalisation' of these errors in the data collected by individual enumerators. The re-interview tool is exclusively designed to improve the quality of data collection during fieldwork (listing and enumeration); it is not a post-fieldwork data analysis tool.

Re-interviews will be done using CAPI in the two phases of the fieldwork i.e., the listing phase and main enumeration phase. Selected questions will be extracted from the Listing Form and PHC 1A respectively. The re-interview module has been included in the supervisors' tablets/CAPI application and designed to randomly select two (2) structures already listed during listing and two (2) households already enumerated during enumeration for re-interviews.

There will be two (2) sets of re-interviews for both listing and enumeration: the first set where re-interviews should be carried out in one selected structure in **each EA** within the first three (3) days of fieldwork and the second set where re-interviews should be carried out in another structure in **each EA** within the 6th and 7th day of the listing. During the enumeration period, re-interviews should be carried out in one selected household in each EA within the first three (3) days of fieldwork and in another selected household in **each EA** for the second set within the 8th, 9th and 10th day of the main enumeration. This will basically to assess the quality of work of the enumerators.

Re-interview during listing

The system will automatically select two (2) structures and households for you in each EA in the SA. Note that in both selected structures, re-interviews would be conducted for some selected questions in the instruments. You are to ask only these few selected questions during the Listing re-interviews:

S/N.	Question No.	Question
1.	LS03	GPS Coordinates of the structure
2.	LS05	Level of completion
3.	LS06	Type of structure
4.	LS07	Use of structure
5.	LS09	Type of toilet facility
6.	LS10	Household/institution living in the structure
7.	LH12b	Type of residence
8.	LH13a	Name of head of household or institution
9.	LH15	Contact number of head of household or institution
10.	LH16	Population in household/institution (Males, Females & Total)

Re-interview during enumeration

You are to ask the following specific questions during the re-interviews:

S/N.	Question No.	Question
1.	A11a	Household roster: All usual household members and visitors in selected household who spent census night in the household (Status A+B)
2.	A11b1	First Name
3.	A11b2	Middle Name
4.	A11b3	Surname/last name
5.	A11b4	Popular Name
6.	A11c	Relationship to the head of household
7.	A11d	Sex
8.	A11e	Status
9.	A12	Usual Household members absent on census night (Status C)
10.	A12b	Full name of member
11.	A12c	Relationship to head
12.	A12d	Sex
13.	A12e	Age
14.	E01	Has anyone who used to be a member of this household been living continuously or intends to live outside Ghana for at least 12 months
15.	E02b	Full name
16.	E02c	Relationship to head
17.	E02d	Sex
18.	E02e	Age
19.	P06	In which district or country was Name born?
20.	P11a	Can [NAME] read and/or write in any language with understanding?
21.	P12a	Has [NAME] ever attended school or is [NAME] attending school now?
22.	P13a	During the 7 days before Census Night (i.e., 21 st – 27 June, 2021), did [NAME] engage in any economic activity, for at least one hour?
23.	P13b	During the 7 days, how was [NAME] mainly engaged?
24.	P14	OCCUPATION - IF WORKED IN LAST 7 DAYS, ASK: What kind

		of work did [NAME] do in his/her main work/business? IF DID NOT WORK IN LAST 7 DAYS, ASK: What kind of work did [NAME] do previously in his/her work/business?
25.	P18a	DIFFICULTIES IN PERFORMING ACTIVITIES (SIGHT Does (NAME) have difficulty seeing, even if wearing glasses? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot see at all?)
26.	P18c	DIFFICULTIES IN PERFORMING ACTIVITIES PHYSICAL Does (NAME) have difficulty walking or climbing stairs? Will you say that [NAME] has no difficulty, some difficulty, a lot of difficulty or cannot do at all?)
27.	P20	FERTILITY AND CHILD SURVIVAL (What is the total number of male and /or female children you have ever born alive?)
28.	P24	FERTILITY AND CHILD SURVIVAL (What is the date of birth of the last child you have born alive?)
29.	M01	MORTALITY (HOUSEHOLD DEATHS) - Has any member of this household died in the past 12 months?
30.	M02a	What was the name of deceased?
31.	M02b	What was the sex of deceased?
32.	M02d	Was the death due to an accident, violence, homicide, or suicide?

What to do after a re-interview

The data from the re-interview will be analysed by comparing with the corresponding data collected by the enumerators using an automated system to assess the nature and magnitude of errors. The supervisor is to sync the re-interview data to HQ where the Data Monitor will compare data from the enumerator's work and the re-interview by the Supervisor to generate errors and the source if any. The supervisor should click on view report that has been generated from the re-interview and compare with the results from ones completed by the enumerator. Where there is a mis-match, checks should be made to ascertain the extent of inconsistencies so that all the errors could be resolved. However, if multiple errors are found in a particular Enumerator's work then the issue must be referred to the District Field Supervisor. Data Monitors will assist the Supervisors and DFS to correct issues from re-interviews in real-time. At HQ, the dashboard to track coverage of work will display outcomes of the re-interview for quick interventions if required.

As part of the verification for mis-match or otherwise between re-interview and the work of the enumerator, it is important to trace the source of the mis-match (whether coming from the Enumerator or the supervisor) for immediate intervention. In any case, whoever the fault is originating from would require either coaching or re-training for improvement in their duties.

Resolution of Mismatch, steps to adhere to:

1. If multiple errors or mis-match is less than 30 percent, it is advised that the supervisor re-trains the enumerator and ensure that the Enumerator goes back to the already completed households to correct the errors and guide them to do the right thing in subsequent interviews. The enumerator's work should be closely monitored by DM and the Supervisor physically follow and guide the enumerator to ensure that the standard methods are adhered to.

2. If multiple errors or mis-match are found between 30 and 50 percent, this magnitude of the mismatch will require that the DFSs accompany both the Enumerator and Supervisor to the structures or households for verification by completing a questionnaire and sync and after that click the “**view report**” button sits with the supervisor and interviewer to discuss the discrepancies and ensure that problems are resolved and not repeated.
3. In the event that the errors are over 50%, it is expected that the enumerator should be coached and be monitored and if no improvement is realized after three days of coaching, there will be no option than to replace that enumerator. Whoever is deployed to such an EA will start the work afresh.

How the data should be used

The information to be gathered will be used at three (3) levels:

a) Level 1: Action at SA level

Upon completion of the re-interviews, the supervisor has to check **error reports** on their tablets by clicking on the “**view report**” button. Based on the error report, the supervisor has to sit with the enumerator(s) and point out the errors if any and send the enumerator back to correct the mistakes and use the information to coach or retrain so that the mistakes are not repeated.

b) Level 2: Action at District level

After enumerator(s) has given a signal for effecting the corrections, the Enumerator Error Report will be run again this time by the District Data Monitor (DDM) to confirm with the Supervisor that errors have been corrected. In a situation where the level of inconsistency through the summaries (average mis-matches and outliers) is less than 30 percent, the supervisor will be advised to follow the Enumerator and guide them to improve.

If Enumerator Error Report is found between 30 and 50 percent, the DDM will share the report with the DFS, and through the supervisor, the DFS will accompany both the Supervisor and the Enumerator to the structures or households and sit in interviews and verify how questions are asked or questionnaires are completed by the enumerator to ensure that such mistakes are not repeated and earlier problems resolved. If mistakes persist the DDQMT has the power to replace such an enumerator.

In the event that the errors report has inconsistencies at 50 percent or more, the enumerator has to be stopped temporary and re-coached and be monitored and if no improvement is realized after three days of coaching, and the magnitude of errors still remain huge after another set of re-interviews there will be no option than to replace that enumerator. Note that whoever is deployed to such an EA will start afresh.

c) Level 3: Action at HQ level

At HQ, the dashboard designed to track coverage of work will display outcomes of the re-interview and interventions to track the quality of work of field officers by Chief DM and give feedback to the Zonal Field Coordinators (ZFCs) to pay attention and intensify monitoring at such hotspot areas.

Note, it is the responsibility of all supervisors to sign off the work of the interviewers. Therefore, supervisors who fail to carry out re-interviews should be warned and failure to comply with the directives should have their contract terminated and withdrawn from the Census. Supervisors should be informed that their remuneration will be tied to the expected number of re-interviews to be completed. Supervisors who fail to do the expected number of re-interviews will not receive the full complement of payment due them.

19.4.5 Supporting Enumerators to deal with difficult cases

The **first rule** of the Census is to **enumerate all persons who spent Census Night (27th June, 2021) in Ghana**. Much will depend on how the people cooperate with the Enumerators.

Every effort has been made to ensure that the Census is publicised and it is hoped that by the time Enumerators start enumeration, most people would have heard about the Census. However, in a situation where people are reluctant to cooperate it is your duty as a Supervisor to step in and address the challenge.

In some cases, you may have to seek the help of the Chiefs/Assemblymen/women to be able to deal with some uncooperative respondents. Other cases will have to be referred to your DFS/DCO. The main difficulty arises when persons refuse to be enumerated. They may give many reasons and excuses that will not give the Enumerators the information that is required.

Enumerators have been instructed to explain to such persons the importance of the Census and also to seek help from neighbours who have already been enumerated. If this also fails, the Enumerators have been instructed to make a note of the house and report to you as soon as possible. It will be your duty, immediately you receive such a report, to do everything you can to ensure that the difficulties are overcome. **We cannot miss out on any person from the Census**. This means that even difficult cases must be overcome and the people concerned must be enumerated.

All Chiefs and assembly members in the country have been asked to help the Census operation by bringing their influence to bear on their people to cooperate with Enumerators. The first thing you must do, therefore, is to approach the Chief or any significant person of the town or village where difficulties are encountered. The influential person (Chief, Assembly person) may send a linguist to the house to explain the Census and to persuade the persons to give the required information. If they agree to cooperate, contact your Enumerator and ask him to proceed to enumerate them.

If after trying all possible means the person still refuses to cooperate, try to gather information about the household from neighbours, friends, and significant persons. In some cases, you may have to do the enumeration yourself. Try as much as you can to obtain information on how many males and females stay in the house as well as their estimated ages. If these cases are numerous report the matter to your DFS/DCO.

19.4.6 Taking action when Enumerators discover new localities

Each Enumerator working in a Type 3 EA will be given a list of all the villages which fall within his/her EA. Every effort has been made to ensure that all villages and hamlets, which lie within the EA, are included in the list on PHC 2. It is anticipated, however, that Enumerators will occasionally discover new villages and hamlets which have not been listed on the form.

Enumerators have been instructed to report to you when they come across new villages, hamlets, or settlements which did not exist before the drawing of maps. As soon as you receive such information you must proceed to the place to ascertain that all these newly discovered villages and hamlets falling within the specified EA. If the case is not clear, report to your DFS or DCO. The idea is to ensure that these villages or hamlets are only counted once. It is expected that you personally visit these places to confirm the discovery.

If the newly discovered village or hamlet falls within the EA concerned, the Enumerator must enumerate it. If it falls outside the EA, but within your SA, check with the Enumerator who worked in that EA to make sure it has been covered. If it falls outside your SA report it to your DFS/DCO for necessary action.

19.4.7 Taking action after Enumerator's unsuccessful visits

Enumerators have been instructed that whenever they visit a house in an urban area and do not meet anybody, they must leave a Call-Back Card on which is stated the time they will call again. They have been asked to make a number of call-backs. If after those visits no enumeration takes place, they must make a note of the house and report it to you.

Whenever you call on an Enumerator, obtain from him all the houses which (s)he has not been able to enumerate (because of refusals or unavailability of respondents) after making several visits. Try to help as a Supervisor by contacting neighbouring houses to find out whether people are staying in there and if they are, obtain some indication about their movements. Try to do all you can to help the Enumerator obtain the necessary information. Pass every piece of information, which you obtain to the Enumerator, and give him specific instructions as to how he should conduct his visits. Do not allow the Enumerator to “write-off” some houses simply because he did not meet anybody to interview on such visits, he/she made.

Remember every person must be enumerated. This means that you must make every effort to contact every household during enumeration. Sometimes, visits may have to be done by you and the Enumerator at odd times, e.g., early in the morning or late in the evening. Such visits could be very inconvenient but could help to achieve our goal. Make sure that before you resort to that you have explored all other means to enumerate the persons concerned. You will have to exercise tact whenever you make such visits. In particular, explain why you are calling at such odd hours. If possible, always give advance information to neighbours. When you have exhausted all possible means of trying to contact a household in a particular structure fails, try to obtain as much information from neighbours as you can. You must enter this information on the questionnaire and explain the reasons for missing entries on the questionnaire and in the listing form. At the very least ask the neighbours how many people live in that particular dwelling, their sex, and their approximate ages. In doing this, the District Field Supervisor in particular, and the other DDQMT members must be informed about this.

19.4.8 Providing Interpreters

Every effort will be made to ensure that Enumerators are assigned areas where they understand the languages spoken by the majority of the persons living there. This will reduce, to the barest minimum, the language problem.

There may be some cases, however, where an Enumerator cannot understand any of the languages spoken by people in the house in which he/she is to conduct an interview. If you the Supervisor understand the language of the people in the house, go ahead and do the enumeration of the people in the house/structure. Enumerators have also been asked to try to obtain the help of persons in consultation with the respondent. When they cannot find anybody to help them, they have been instructed to report it to you.

Much caution should be exercised when interpreters are used. It is a well-known fact that interpreters are fond of adding some explanations of their own to the original questions or responses. Each of the questions has been framed to elicit a particular answer and this should be emphasized to the interpreters. They should try as much as possible to convey the exact meaning of the question to the respondent so that the meaning of the questions would remain unchanged.

19.4.9 Holding a stock of materials

During enumeration, you will be given a stock of Census materials for the team. Your DFS will also hold a certain number of documents in stock. If your own stock runs short, contact him/her immediately for new supplies. Do not wait until your materials completely run out before contacting your DFS for more. **You must keep a record of the distribution of materials you make during Enumeration.** After the Census, you will be asked to account for all materials given to you.

19.5 Summary of activities of the Supervisor

Among the routine activities of a supervisor are:

First day activities

1. Help Enumerators check their EA boundaries (refer to Section 7.4)
2. Check that all structures in the assigned EAs have been listed (refer to Section 8.2)

Daily activities

1. Check errors – manually go through enumerated cases to identify possible errors.

Routine activities

1. Check completeness of work (see Section 19.6.4)
2. Ensure that data is synced to HQ (central server) daily (refer to Section 9.9.4)
3. Conduct spot checks and conduct re-interview (refer to Section 19.4.3 and 19.4.4)

The success of the operation will depend upon supervision and timely interventions to ensure that the right things are done.

19.6 The role of the Supervisor after enumeration

As a Supervisor, your work is not complete until everyone in the assigned area has been enumerated and every field logistics have been accounted for. The following activities should be performed to achieve this.

19.6.1 Syncing EA Enumeration Results and Final Summary

As soon as the Enumerators complete enumeration in their areas, they are expected to **sync** their data to you daily. Instructions for doing this are explained fully in Section 9.14. **Make sure the EA Enumeration results in the SA get to the headquarters by syncing.** Remain in the field till all the Enumerators have brought their work and syncing has been successful.

19.6.2 PHC 2 (Enumeration Area Boundary Description)

This is a form attached to the EA map which describes the boundary of the EA. It also provides the Enumerated Population in 2010 as well as the 2021 Field Estimated Population for the EA. The form also has space for recording the 2021 Enumerated Population. After enumeration, you should run a report for each Enumerator on the total population enumerated (households and non-household) in the EA. If the EA has two or more localities this information should be recorded for each locality.

You should compare the 2021 Enumerated Population of the EA with both the 2021 Field Estimated Population and the 2010 Population. If there are wide discrepancies, you should investigate this in the field with Enumerator and also inform your DFS/DCO. Remember that the total population on the listing form summary column and the one on the PHC 2 must be the same.

19.6.3 Collecting Census Documents and Materials from each Enumerator

It will be your duty to collect all the materials that are returnable including the tablets and questionnaires (completed, spoiled, canceled, and unused), from the Enumerators and hand

them over to your DDQMT. If there were interviews made with the paper questionnaire, remember to ensure that all the information elicited has been entered into the CAPI. It is advisable to fix an appointment with each Enumerator so that you will have sufficient time to carry out the final review. In addition to the completed questionnaires, you should collect all the items that are returnable to the Census Coordinator. If you find that everything is correct, sign the Enumerator's Material Record Form and hand it to the Enumerator.

19.6.4 Reviewing the Completed Work

You must examine the responses to the questions carefully before synchronizing. **This is the last opportunity for you to correct any serious errors which may have been committed by the Enumerator**, and to send the Enumerator back to the field for corrections. Briefly, here is what you must look out for:

- a. **Check that the number of questionnaires** completed for each locality tallies with the entries in the summaries of the listing form.
- b. **Check that the number of persons (males and females) enumerated** in each locality tallies with the entries for those localities in the listing form.
 - i. In case of discrepancies, try to find out the source of the mistake, by checking questionnaires used for each house/structure in each locality. If necessary, send the Enumerator back to his area to have the mistakes corrected, preferably in the company of another Enumerator.
- c. **Go through all the cases and check for partial saves (uncompleted) forms to ensure that they are all completed before syncing.** You should also check and take necessary action on closed or vacant houses which have not been enumerated or only partially completed. This check is one of the most important as it will help to ensure that all the persons have been enumerated. Emphasis on these does not mean that the other items are not important.

19.6.5 Dealing with Omissions and Errors

If your field checks during enumeration are thoroughly carried out, it is most likely that there will be little or no omissions and errors. However, if from your check you observe that more than 10% of rows/persons have errors in the work of any Enumerator, contact your DFS/DCO immediately and discuss the problem with him/her. You may decide to have a complete re-enumeration or have a more reliable Enumerator make another visit to the field. Do not forget that such omissions and mistakes are bound to be discovered during the Post-Enumeration Survey.

19.7 Supervisor using CAPI for 2021 Census exercise

The use of CAPI will require close monitoring to ensure optimal performance. The supervisors will be central in addressing field issues including challenges related to ICT devices. As a supervisor, you are to ensure that the enumerators assigned to you use the application effectively and efficiently to enumerate all persons in your SA. A supervisor will be in charge of a SA. Supervisors and Enumerators menu have been developed for the workflow and you will be expected to control all the processes.

19.8 Role of the supervisor before, during and after enumeration

As a supervisor, your main roles are the following:

1. Assign EAs to enumerators in your SA before listing commences.
2. Ensure all structures are listed
3. Ensure all Households are enumerated.
4. Check for Duplicate and Partial saves cases for corrections and completeness
5. Sync Data with Enumerator

6. Sync Data to HQ
7. Receive updates from HQ
8. Send updates from HQ to enumerators.
9. Run reports on completed EAs for omission and correction.
10. Check and help Enumerators working under you to solve whatever challenges they may encounter during enumeration, whether ICT-related or otherwise. Where the supervisor is unable to resolve ICT-related challenges, he/she should consult IT Officer for assistance.
11. Report any problem encountered to the DFS

19.8.1 Carefully handling documents

Before handing over the documents to your DFS/DCO ensure that all tablets put into any satchel are those which should go into that satchel. You should check the EA number of the satchel label with the EA number on the tablet. These satchels have been specially made for the preservation of the tablet. Under no circumstance should the tablet be kept somewhere else.

Remember that the results of the Census operation are recorded on the tablet, all of which are very valuable. None of them must be lost. Careful handling of documents has been requested of all Enumerators. This applies equally to you. Handle them carefully and deliver all of them safely to your DFS/DCO.

19.8.2 Handing over of documents to DFS/DCO

It may be necessary to book an appointment with your DFS/DCO before seeing him/her, as other Field Supervisors may also wish to see him/her at the same time. When you hand over the documents to the DFS/DCO, he/she will check them again with you, and you must make sure that you obtain his/her signature on your copy of the Field Supervisor's Material Receipt Form (see Appendix 7).

The success of the Census depends, to a large extent, on how well you perform your assignment. We know you will succeed. Be a good leader of your team and set as your goal the production of the best performance during the enumeration.

19.9 Role of the District IT Officer before, during and after enumeration

The 2021 census will be conducted using ICT gadgets. Enumerators will be expected to collect data and transmit the same directly to a central server via the internet. The data collection tablets will require close monitoring to ensure optimal performance. The District IT Support Officers will be a rover in addressing all technical issues and challenges related to ICT gadgets and CAPI Application.

In particular, the role of the District IT Support Officers will be as follows:

1. Prepare and assign tablets to Enumerators for fieldwork immediately after training
2. Take inventory of all tablets assigned to enumerators
3. Provide technical assistance by responding to technical queries/problems (e.g., IT equipment and network) and consultations.
4. Provide onsite diagnostic, troubleshooting, and assessment of technical problems.
5. Coordinate and allocate the ICT equipment in the respective area of jurisdiction and make sure they are functioning properly.
6. Monitor, manage and assess the CAPI application and mobile device performance and advice accordingly.
7. Investigate and implement measures to rectify or enhance data syncing.
8. Support and ensure roll-out and installation of new tablet assignments and application updates by enumerators and supervisors.

9. Coordinate, solve, and ensure the escalation of both hardware and software-related issues to the national IT Support team.
10. Establish a good, professional, and courteous relationship with Supervisors and Enumerators.
11. Train users in the management and utilization of the CAPI application.
12. Prioritize escalated issues and ensure their timely resolution.
13. Provide IT technical support during the enumerator's training.
14. Ensure capture of accurate and relevant logging of all requests and incidents raised in the field.
15. Monitor district risk posed to the ICT system and device and suggest precautions.
16. Backup all data file from the enumerator's tablets
17. Retrieve all IT assets assigned to field officers

19.10 Using hard-to-count indices to achieve complete coverage

19.10.1 Background on hard-to-count indices

'Hard-to-count' indices represent a collaborative effort to generate indicative scores for all enumeration areas (EAs) in Ghana. These scores relate to the relative ease or difficulty that field teams may experience when attempting to enumerate a given area, i.e. how 'hard to count' is a particular EA? GIS-based tools have been developed to help assess each EA against a range of variables such as surface areas, shape, perimeter, connectivity, accessibility, forest cover, estimated building count, and distribution. The indicators are intended to guide census field Supervisors and Enumerators on the relative difficulties that may occur in the EAs. The indicators should be regarded as 'flags' – from low difficulty (green) to high difficulty (red) – red being potentially 'harder to count.' Thus, this information by far would help the DDQMT to craft the best strategies to help field officers to achieve complete coverage in their assigned areas. This scale is described in the table below. *Note however, that the scores should not be regarded as a definitive indication of the difficulty of an EA, but as flags for potential concern and which may require more planning and preparedness for enumeration.* This section describes each of the hard-to-count indices.

Table 0.1: Description of indicator status assigned to each enumeration area

Colour	Difficulty	Description
Green	Low	<i>EA is marked low difficulty based on the indices</i>
Yellow/Amber	Medium	<i>EA is marked medium difficulty based on the indices</i>
Red	High	<i>EA is marked high difficulty based on the indices and is an area of possible concern, so may require more planning for enumeration</i>

The hard-to-count indices are separated into three categories, each containing its own collection of indicators that could affect enumeration. These are combined to create an overall indicator for each category with a difficulty score of between 0 and 1. The individual categories and indices are laid as Geometry indices, Accessibility indices, and Building indices.

19.10.2 Geometry indices definition

Surface area

The surface area measure calculates the surface area in hectares for each EA. EAs with a larger surface area are marked as more difficult compared to EAs with a smaller surface area. Larger EAs are considered to be more difficult to enumerate due to their greater size. On the other hand, smaller EAs require less area to travel around so are given a lower score of difficulty.

Compactness: Polsby-Popper score

The Polsby-Popper score provides a measure of compactness. It is a measure of the ratio of the area of an EA to the area of a circle whose circumference is equal to the perimeter of the EA. A higher polsby-popper score indicates a more compact EA. EAs with a higher score that are more compact are assigned a low score of difficulty, as they have a simpler shape and may be easier to navigate around. EAs that have a more complex shape and a lower score of compactness are assigned a high score of difficulty, as they may be harder to navigate around.

Combined geometry score

This is the combined score of surface area and compactness (Polsby-Popper) to create one difficulty index score based on geometry. Red indicates areas of high difficulty, due to the complexity of EA size and shape, and green indicates areas of low difficulty.

19.10.3 Accessibility indices definition

Tree cover percentage

This indicator provides a value for the amount of tree cover within each EA. It uses a raster containing fractional tree cover values at 30 metres across the whole of Ghana. The higher the percentage of tree cover, the higher the difficulty of the EA. Increased tree cover can be linked to issues such as lack of mobile network coverage and difficulty travelling and navigating across the EA.

Road density

This is a ratio of the total road length (km) in an EA against the total EA surface area (km²). This produces a value that represents the number of kilometres of road length per square kilometre of EA area. A higher value indicates an EA with increased road density. A high score of difficulty is given to EA's with a low road density, as this represents a smaller road coverage which may be more difficult to move around. A low score of difficulty is given to EAs with high road density and it indicates a larger road network and coverage within the area.

Accessibility

This indicator provides a value of 'accessibility' which identifies how many seconds on average are needed to move around a 100 metres grid cell within each EA, based on the road network, road class, and land cover type. It is derived from a friction surface raster (where friction is the resistance that you would encounter when moving across grid cells), which is represented by the number of seconds to travel through a 100x100 metres cell, regardless of direction, for walking and driving. A low score of difficulty indicates that it would take less time to move around an EA, making it more accessible. A high score of difficulty indicates that it would potentially take longer to move around that EA, based on the existing road network and land cover.

Combined accessibility score

This is a combined score for all 3 accessibility indices - Tree cover percentage, Road density and Accessibility. Red areas indicate high difficulty EAs that have decreased accessibility, due to a combination of the indicators.

19.10.4 Building indices definition

The building difficulty scores are generated using the MAXAR building footprint data which are produced from Satellite Imagery. Whilst the datasets are the most accurate available, there are some areas across Ghana where Satellite Imagery did not produce footprints of buildings due to out-of-date imagery, cloud cover, or tree cover. The dataset does not include a classification of buildings, so both commercial and residential buildings are included. Due to this, building indicators be used as a **guide** and enumerators should be prepared for the actual environment in the EA to differ.

Building count

This indicator provides a count of the number of buildings in each EA. A higher difficulty is assigned to EA's with a higher building count, as this will increase the time needed to enumerate an EA due to having more buildings to visit. A lower score of difficulty is awarded to EA's with a lower number of buildings.

Cluster distance (km)

This indicator represents the shortest straight-line distance between clusters of buildings in each EA, to give an indication of the minimum distance needed to travel between building clusters. Buildings are clustered together if they are within a user-set distance from each other. An EA with a higher cluster distance may take longer to enumerate as it indicates an area where buildings are more dispersed and have a greater distance to travel between. A higher score of difficulty is given to EAs with a higher cluster distance, as these may take longer to travel around to visit the buildings. EAs that have a lower cluster distance as all of their buildings clustered together are given a lower score of difficulty as these may take less time to enumerate.

Combined buildings score

This is a combined score of the building count and building cluster distance indicators. Red areas indicate high difficulty EAs that may have a higher number of buildings that are more spread out, due to a combination of the indicators.

19.11 Guidelines for Interpreting the New SAs

It was established that the number of EAs within SAs at the end of the field mapping work are not uniform, which was going to create disparity and unfairness among the supervisors during the Census field work. More so supervisors with large EAs will have challenges with effective supervision during the fieldwork. Therefore, there has been re-zoning of the old SAs such that the current SAs have between three (3) and seven (7) EAs, aimed at ensuring that the work will be fairly and evenly distributed among supervisors and for effective supervision. The following is a guideline (see the figure below) to assist Supervisors in identifying their Supervision Areas.

1. If an old SA had between three (3) and six (6) EAs, then one Supervisor will be assigned. E.g., 1 Supervisor will be assigned to SA 3 old as new SA 3 (No Split) and will cover EAs 23, 24, 25, 26, 42 and 60. The maps will also cover these 6 EAs.

2. If an old SA had more than six (6) EAs, it was split into two or more SAs depending on the number. E.g., 2 Supervisors will be assigned to old SA 4 as new SAs 4 and SA 5. They will be given a copy each of old SA 4 covering 7 EAs (7, 8, 9, 10, 11, 12 and 13)
 - i. 1 Supervisor will be assigned to new SA 4 and will cover 3 EAs 7, 8 and 9.
 - ii. 1 Supervisor will be assigned to new SA 5 and will cover 4 EAs 10, 11, 12 and 13.
3. In a few of the cases, the old SA was not split if it had 7 EAs.

Guidelines

Supervisor will be provided with:

• SA Map

• SA Table

REGION	DISTRICT	DISTRICT CODE	EA CODE	SA_NO_2_020	SA_NO_2_021
OTI	JASKAN	1102	1102100023	3	3
OTI	JASKAN	1102	1102100024	3	3
OTI	JASKAN	1102	1102100025	3	3
OTI	JASKAN	1102	1102100026	3	3
OTI	JASKAN	1102	1102100042	3	3
OTI	JASKAN	1102	1102100060	3	3
OTI	JASKAN	1102	1102100007	4	4
OTI	JASKAN	1102	1102100008	4	4
OTI	JASKAN	1102	1102100009	4	4
OTI	JASKAN	1102	1102100010	4	5
OTI	JASKAN	1102	1102100011	4	6
OTI	JASKAN	1102	1102100012	4	5
OTI	JASKAN	1102	1102100013	4	5

SA 3 no split Old SA New SA

SA 4 split into SA 4 & 5

19.12 Concluding Remarks

Remember that the success of the 2021 PHC depends largely on your cooperation, hard work and commitment. Work to make this Census the best census ever carried out in Ghana!

APPENDICES

APPENDIX 1: USE OF STRUCTURE

Code	LS07: Use of Structure	Code	LS07a: Health Facility Structure use
01	Residential	01	Residential Living Quarters
02	Pre-school	02	Classroom/Lecture Hall
03	Primary	03	Dormitory/ Residence Hall
04	JHS	04	Hostel
05	Vocational and Technical	05	Urinal
06	Vocational school	06	Toilet
07	Technical school	07	Office
08	SHS/Secondary	08	Bathroom
09	Tertiary/University	09	Laboratory
10	Seminary	10	Church
11	Monastery	11	Club House
12	Convent	12	Conference Hall/ Room
13	Children's Home/SOS	13	Drinking Spot
14	Orphanage home	14	Gymnasium
15	Destitute Home	15	ICT Laboratory
16	Old People's Home	16	Kitchen
17	Leper Settlement	17	Library
18	Prayer Camp	18	Mosque
19	Hospital	19	Pharmacy/ Drug Store
20	Polyclinic	20	Restaurant/ Cafeteria
21	Clinic/Health centre	21	Saloon
22	CHPS Compound	22	Security Post
23	Maternity Home	23	Shop
24	Herbal Hospital/Herbal Clinic	24	Storage/ Warehouse
25	Traditional Herbal Centre	25	Emergency Centre
26	Pharmacy/Drug Store	26	Neonatal Intensive Care Unit (NICU)
27	Shops/ Store/ Lotto Kiosk/ Mobile Money Shop (Excludes Mall)	27	Children Ward
28	Mall	28	Maternity Ward/Block
29	Church	29	General Ward/Block
30	Mosque	30	Intensive Care Unit
31	Hotel	31	Morgue
32	Guest House	32	Isolation Centre
33	Hostel	33	Other use (Specify)
34	Office - Bank		
35	Office - Non-Bank Financial Institution		
36	Office - (Non-Financial Institution)		
37	Filling Station - Fitting Shop		
38	Filling Station - Mart/Shop		
39	Public Toilet/Communal toilet	Code	LS07b: Educational Facility

			structure use
40	Public bath/Public urinal	01	Residential Living Quarters
41	Internet Cafe	02	Classroom/ Lecture Hall
42	Community Library/E-Library	03	Dormitory/ Residence Hall
43	Community ICT Centre	04	Hostel
44	Market	05	Urinal
45	Police Station	06	Toilet
46	Prison	07	Office
47	Borstal/ Correctional Home	08	Bathroom
48	Immigration/Military Camp	09	Science Laboratory
49	Remand Home	10	Church
50	Police Training College	11	Club House
51	Military Academy Camp	12	Conference Hall/Room
52	Mining Camp	13	Drinking Spot
53	Road Camp	14	Gymnasium
54	Farm Camp	15	ICT Laboratory
55	Refugee Camp	16	Kitchen
56	Rest House	17	Library
57	Bathhouse (Private)	18	Mosque
58	Drinking Bar	19	Pharmacy/Drug Store
59	Night Club	20	Restaurant/Cafeteria
60	Restaurant/Food joint/Chop bar	21	Saloon
61	Recreational Centre/ Community Centre	22	Security Post
62	Garage/Mechanic shop/Fitting shop	23	Shop
63	Treatment plant (compost, sewerage, faecal sludge)	24	Storage/Warehouse
64	Transit post/Quarters	25	Dining Hall
65	Lorry station/ Lorry park	26	Infirmery/Dispensary/Sick Bay
66	Other location of floating population	27	Assembly Hall
67	Kitchen	28	Other use (Specify)
68	Security Post		
69	Toilet (Private)		
70	Warehouse/ Barn		
71	Palace		
72	Shrine/ fetish groove		
73	Toilet (for other organisation)		
74	Micro finance		
75	Credit union		
76	Insurance company		
77	Post office		
78	Telecommunication service centre		
79	Office - Savings and Loans		
80	Isolation Centre		
81	Other structure (Specify)		

APPENDIX 2: DISTRICT CODES

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
WESTERN				
WR	Jomoro	Half-Assini	2	0101
WR	Ellembelle	Nkroful	1	0102
WR	Nzema East Municipal	Axim	2	0103
WR	Ahanta West	Agona Nkwanta	2	0104
WR	Effia Kwesimintsim Municipal	Kwesimintsim	2	0105
WR	Sekondi Takoradi Municipal (STMA)		3	0106
WR	Takoradi			01
WR	Sekondi			02
WR	Essikado-Ketan			03
WR	Shama	Shama	1	0107
WR	Wassa East	Daboase	1	0108
WR	Mpohor	Mpohor	1	0109
WR	Tarkwa-Nsuaem Municipal	Tarkwa	2	0110
WR	Prestea/Huni Valley	Bogoso	2	0111
WR	Wassa Amenfi East	Wassa Akropong	2	0112
WR	Wassa Amenfi Central	Manso Amenfi	1	0113
WR	Wassa Amenfi West	Asankragua	2	0114
CENTRAL				
CR	Komenda Edina Eguafu Abirem Municipal	Elmina	2	0201
CR	Cape Coast Metro		3	0202
CR	Cape Coast South			01
CR	Cape Coast North			02
CR	Abura Asebu Kwamankese	Abura-Dunkwa	1	0203
CR	Mfantsiman Municipal	Saltpond	2	0204
CR	Ekumfi	Essakyir	1	0205
CR	Gomoa West	Apam	1	0206
CR	Effutu Municipal	Winneba	2	0207
CR	Gomoa Central	Gomoa Afransi	1	0208
CR	Gomoa East	Potsin	1	0209
CR	Awutu Senya East Municipal	Kasoa	2	0210
CR	Awutu Senya West	Breku	1	0211
CR	Agona East	Nsaba	1	0212
CR	Agona West Municipal	Swedru	2	0213
CR	Asikuma Odoben Brakwa	Asikuma	1	0214
CR	Ajumaku Enyan Essiam	Ajumako	1	0215
CR	Assin South	Nsuaem-Kyekyawere	1	0216
CR	Twifo Heman Lower Denkyira	Hemang	1	0217
CR	Twifo Ati Morkwa	Twifo Praso	1	0218
CR	Assin Central Municipal	Assin Fosu	2	0219

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
CR	Assin North Municipal	Assin Breku	1	0220
CR	Upper Denkyira East Municipal	Dunkwa-On-Offin	2	0221
CR	Upper Denkyira West	Diaso	1	0222
GREATER ACCRA				
GAR	Ga South	Ngleshie Amanfro	2	0301
GAR	Weija Gbawe Municipal	Weija	2	0302
GAR	Ga Central Municipal	Sowutuom	2	0303
GAR	Ablekuma North	Darkuman	2	0304
GAR	Ablekuma West Municipal	Dansoman	2	0305
GAR	Ablekuma Central	Lartebiokorshie	2	0306
GAR	Accra Metro Assembly (AMA)		3	0307
GAR	Ablekuma South			01
GAR	Ashiedu Keteke			02
GAR	Okai Koi South			03
GAR	Korle Klotey	Adabraka	2	0308
GAR	Ayawaso Central	Kokomlemle	2	0309
GAR	Ayawaso East Municipal	Nima	2	0310
GAR	Ayawaso North Municipal	Accra New Town	2	0311
GAR	La Dadekotopon Municipal	La	2	0312
GAR	Ledzokuku	Teshie	2	0313
GAR	Krowor	Nungua	2	0314
GAR	Adentan Municipal	Adentan	2	0315
GAR	Ayawaso West Municipal	Dzorwulu	2	0316
GAR	Okai Koi North	Tesano	2	0317
GAR	Ga North	Ofankor	2	0318
GAR	Ga West	Amasaman	2	0319
GAR	Ga East	Abokobi	2	0320
GAR	La Nkwantanan-Madina Municipal	Madina	2	0321
GAR	Kpone Katamanso	Kpone	2	0322
GAR	Ashaiman	Ashaiman	2	0323
GAR	Tema West	Tema Community 18	2	0324
GAR	Tema Metro Assembly (TMA)		3	0325
	Tema East			01
GAR	Tema Central			02
GAR	Ningo Prampram	Prampram	1	0326
GAR	Shai Osudoku	Dodowa	1	0327
GAR	Ada West	Sege	1	0328
GAR	Ada East	Ada-Foah	1	0329
VOLTA				
VR	South Tongu	Sogakope	1	0401
VR	Anloga	Anloga	1	0402
VR	Keta Municipal	Keta	2	0403

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
VR	Ketu South	Denu	2	0404
VR	Ketu North	Dzodze	2	0405
VR	Akatsi North	Ave Dakpa	1	0406
VR	Akatsi South	Akatsi	1	0407
VR	Central Tongu	Adidome	1	0408
VR	North Tongu	Battor Dugame	1	0409
VR	Ho West	Dzokolpuita	1	0410
VR	Adaklu	Adaklu Waya	1	0411
VR	Agortime-Ziope	Agortime-Kpetoe	1	0412
VR	Ho Municipal	Ho	2	0413
VR	South Dayi	Kpeve	1	0414
VR	Afadzato South	Ve Golokwati	1	0415
VR	North Dayi	Amfoega	1	0416
VR	Kpando Municipal	Kpando	2	0417
VR	Hohoe Municipal	Hohoe	2	0418
EASTERN				
ER	Birim South	Akim Swedru	1	0501
ER	Birim Central Municipal	Akim Oda	2	0502
ER	Achiase	Achiase	1	0503
ER	Asene Manso Akroso	Manso	1	0504
ER	West Akim Municipal	Asamankese	2	0505
ER	Upper West Akim	Adeiso	1	0506
ER	Ayensuano	Coaltar	1	0507
ER	Nsawam Adoagyiri Municipal	Nsawam	2	0508
ER	Akwapim South	Aburi	1	0509
ER	Akwapim North Municipal	Akropong Akwapim	2	0510
ER	Okere	Adukrom	1	0511
ER	New Juaben South Municipal	Koforidua	2	0512
ER	New Juaben North	Effiduase	2	0513
ER	Suhum Municipal	Suhum	2	0514
ER	Abuakwa North	Kukurantumi	2	0515
ER	Abuakwa South	Kibi	2	0516
ER	Denkyembuor	Akwatia	1	0517
ER	Akyemansa	Ofoase	1	0518
ER	Kwaebibirem	Kade	2	0519
ER	Birim North	New Abirem	1	0520
ER	Atiwa West	Kwabeng	1	0521
ER	Atiwa East	Anyinam	1	0522
ER	Fanteakwa South	Osino	1	0523
ER	Yilo Krobo Municipal	Somanya	2	0524
ER	Lower Manya Krobo Municipal	Odumasi-Krobo	2	0525
ER	Asuogyaman	Atimpoku	1	0526

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
ER	Upper Manya Krobo	Asesewa	1	0527
ER	Fanteakwa North	Begoro	1	0528
ER	Kwahu South	Mpraeso	1	0529
ER	Kwahu West Municipal	Nkawkaw	2	0530
ER	Kwahu East	Abetifi	1	0531
ER	Kwahu Afram Plains South	Tease	1	0532
ER	Kwahu Afram Plains North	Donkorkrom	1	0533
ASHANTI				
AR	Amansie South District	Manso Adubia	1	0601
AR	Amansie Central	Jacobu	1	0602
AR	Akrofuom District	Akrofuom	1	0603
AR	Adansi South	New Edubiase	1	0604
AR	Adansi Asokwa District	Adansi Asokwa	1	0605
AR	Obuasi East District	Tutuka	1	0606
AR	Obuasi Municipal	Obuasi	2	0607
AR	Adansi North	Fomena	1	0608
AR	Bekwai Municipal	Bekwai	2	0609
AR	Amansie West	Manso Nkwanta	1	0610
AR	Atwima Kwanwoma	Foase	1	0611
AR	Bosomtwe	Kuntanase	1	0612
AR	Bosome Freho	Asiwa	1	0613
AR	Asante Akim Central Municipal	Konongo	2	0614
AR	Asante Akim South	Juaso	2	0615
AR	Asante Akim North	Agogo	1	0616
AR	Sekyere Kumawu	Kumawu	1	0617
AR	Sekyere East	Effiduase	1	0618
AR	Juaben Municipal	Juaben	2	0619
AR	Ejisu Juaben Municipal	Ejisu	2	0620
AR	Oforikrom Municipal	Oforikrom	2	0621
AR	Asokwa Municipal	Asokwa	2	0622
AR	Kumasi Metro Assembly (KMA)		3	0623
AR	Nhyiaeso			01
AR	Subin			02
AR	Manhyia South			03
AR	Manhyia North			04
AR	Bantama			05
AR	Kwadaso Municipal	Kwadaso	2	0624
AR	Suame Municipal	Suame	2	0625
AR	Old Tafo Municipal	Old Tafo	2	0626
AR	Asokore Mampong Municipal	Asokore	2	0627
AR	Kwabre East	Mampong	1	0628
AR	Afigya Kwabre South	Kodie	1	0629
AR	Atwima Nwabiagya North District	Barekese	1	0630

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
AR	Atwima Nwabiagya South	Nkawie Kuma	2	0631
AR	Atwima Mponua	Nyinahin	1	0632
AR	Ahafo Ano South West	Mankranso	1	0633
AR	Ahafo Ano North	Tepa	1	0634
AR	Ahafo Ano South East District	Adugyama	1	0635
AR	Offinso North	Akomadan	1	0636
AR	Offinso Municipal	Offinso	2	0637
AR	Afigya Kwabre North District	Boamang	1	0638
AR	Sekyere South	Agona	1	0639
AR	Mampong Municipal	Mampong	2	0640
AR	Ejura Sekyedumase Municipal	Ejura	2	0641
AR	Sekyere Central	Nsuta	1	0642
AR	Sekyere Afram Plains	Drobonso	1	0643
WESTERN NORTH				
WNR	Aowin	Enchi	2	0701
WNR	Sefwi Akontombra	Akontombra	1	0702
WNR	Suaman	Dadieso	1	0703
WNR	Bodi	Bodie	1	0704
WNR	Sefwi Wiawso Municipal	Wiawso	1	0705
WNR	Sefwi Bibiani Ahwiaso Bekwai	Bibiani	2	0706
WNR	Juaboso	Juaboso	1	0707
WNR	Bia West	Essam-Debiso	1	0708
WNR	Bia East	Adabokrom	1	0709
AHAFO				
AHR	Asunafo South	Kukuom	1	0801
AHR	Asunafo North Municipal	Goaso	2	0802
AHR	Asutifi South	Hwidiem	1	0803
AHR	Asutifi North	Kenyasi	1	0804
AHR	Tano North	Duayaw Nkwanta	2	0805
AHR	Tano South	Bechem	2	0806
BONO				
BR	Dormaa West	Nkran Nkwanta	1	0901
BR	Dormaa Central Municipal	Dormaa Ahenkro	2	0902
BR	Dormaa East	Wamfie	1	0903
BR	Sunyani Municipal	Sunyani	2	0904
BR	Sunyani West	Odumasi	1	0905
BR	Berekum East Municipal	Berekum	2	0906
BR	Berekum West District	Jinijini	1	0907
BR	Jaman South	Drobo	1	0908
BR	Jaman North	Sampa	1	0909
BR	Tain	Nsawkaw	1	0910
BR	Wenchi Municipal	Wenchi	2	0911
BR	Banda	Banda Ahenkro	1	0912

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
BONO EAST				
BER	Nkoranza South Municipal	Nkoranza	2	1001
BER	Techiman Municipal	Techiman	2	1002
BER	Nkoranza North	Busunya	1	1003
BER	Techiman North	Tuobodom	1	1004
BER	Atebubu Amantin	Atebubu	2	1005
BER	Sene West	Kwame Danso	1	1006
BER	Sene East	Kajaji	1	1007
BER	Pru West District	Prang	1	1008
BER	Pru East District	Yeji	1	1009
BER	Kintampo South	Jema	1	1010
BER	Kintampo North Municipal	Kintampo	2	1011
OTI				
OR	Biakoye	Nkonya-Ahenkro	1	1101
OR	Jasikan	Jasikan	1	1102
OR	Kadjebi	Kadjebi	1	1103
OR	Krachi East	Dambai	2	1104
OR	Krachi West	Kete-Krachi	1	1105
OR	Krachi Nchumuru	Chinderi	1	1106
OR	Nkwanta South	Nkwanta	2	1107
OR	Nkwanta North	Kpassa	1	1108
OR	Guan	Likpe Mate	1	1109
NORTHERN				
NR	Kpandai District	Kpandai	1	1201
NR	Nanumba South District	Wulensi	1	1202
NR	Nanumba North Municipal	Bimbilla	2	1203
NR	Zabzugu District	Zabzugu	1	1204
NR	Tatale/Sanguli District	Tatale	1	1205
NR	Saboba District	Saboba	1	1206
NR	Yendi Municipal	Yendi	2	1207
NR	Mion District	Sang	1	1208
NR	Nanton District	Nanton	1	1209
NR	Tamale Metropolitan Assembly		3	1210
NR	Tamale South			01
NR	Tamale Central			02
NR	Sagnarigu Municipal	Sagnarigu	2	1211
NR	Tolon District	Tolon	1	1212
NR	Kumbungu District	Kumbungu	1	1213
NR	Savelugu Municipal	Savelugu	2	1214
NR	Karaga District	Karaga	1	1215
NR	Gushegu Municipal	Gushegu	2	1216
SAVANNAH				
SR	Bole District	Bole	1	1301

REGION	DISTRICT NAME	DISTRICT CAPITAL	DISTRICT TYPE	DISTRICT CODE
SR	Sawla-Tuna-Kalba District	Sawla	1	1302
SR	North Gonja District	Daboya	1	1303
SR	West Gonja District	Damango	1	1304
SR	Central Gonja District	Buipe	1	1305
SR	East Gonja Municipal	Salaga	2	1306
SR	North East Gonja	Kpalbe	1	1307
NORTH EAST				
NER	Mamprugu Moagduri District	Yagaba	1	1401
NER	West Mamprusi Municipal	Walewale	2	1402
NER	East Mamprusi Municipal	Gambaga	2	1403
NER	Bunkpurugu Nankpanduri District	Bunkpurugu	1	1404
NER	Yunyoo-Nasuan District	Yunyoo	1	1405
NER	Chereponi District	Chereponi	1	1406
UPPER EAST				
UER	Builsa South District	Fumbisi	1	1501
UER	Builsa North Municipal	Sandema	2	1502
UER	Kassena Nankana East Municipal	Navrongo	2	1503
UER	Kassena Nankana West District	Paga	1	1504
UER	Bolgatanga Municipal	Bolgatanga	2	1505
UER	Talensi District	Tongo	1	1506
UER	Bolgatanga East	Zuarugu	1	1507
UER	Bongo District	Bongo	1	1508
UER	Nabdam District	Nangodi	1	1509
UER	Bawku West District	Zebilla	1	1510
UER	Binduri District	Binduri	1	1511
UER	Bawku Municipal	Bawku	2	1512
UER	Garu District	Garu	1	1513
UER	Tempene District	Tempene	1	1514
UER	Pusiga District	Pusiga	1	1515
UPPER WEST				
UWR	Wa West District	Weichiau	1	1601
UWR	Wa East District	Funsi	1	1602
UWR	Wa Municipal	Wa	2	1603
UWR	Nadowli Kaleo District	Nadowli	1	1604
UWR	Daffiama Bussie Issa District	Issa	1	1605
UWR	Sissala East Municipal	Tumu	2	1606
UWR	Sissala West District	Gwollu	1	1607
UWR	Jirapa Municipal	Jirapa	2	1608
UWR	Lawra Municipal	Lawra	2	1609
UWR	Lambussie Karni District	Lambussie	1	1610
UWR	Nandom District	Nandom	1	1611

APPENDIX 3: COUNTRY CODES

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
1	Cote d'Ivoire	Yamoussoukro	Africa	2001
2	Togo	Lome	Africa	2002
3	Burkina Faso	Ouagadougou	Africa	2003
4	Benin	Porto-Novo	Africa	2004
5	Guinea	Conakry	Africa	2005
6	Nigeria	Abuja	Africa	2006
7	Mali	Bamako	Africa	2007
8	Cameroon	Yaounde	Africa	2008
9	Guinea-Bissau	Bissau	Africa	2009
10	The Gambia	Banjul	Africa	2010
11	Liberia	Monrovia	Africa	2011
12	Niger	Niamey	Africa	2012
13	Senegal	Dakar	Africa	2013
14	Sierra Leone	Freetown	Africa	2014
15	Mauritania	Nouakchott	Africa	2015
16	Algeria	Algiers	Africa	2016
17	Angola	Luanda	Africa	2017
18	Botswana	Gaborone	Africa	2018
19	Burundi	Bujumbura	Africa	2019
20	Cape Verde	Praia	Africa	2021
21	Central African Republic	Bangui	Africa	2021
22	Chad	N'Djamena	Africa	2022
23	Comoros	Moroni	Africa	2023
24	Congo Republic	Brazzaville	Africa	2024
25	Democratic Republic of Congo	Kinshasa	Africa	2025
26	Djibouti	Djibouti	Africa	2026
27	Egypt	Cairo	Africa	2027
28	Equatorial Guinea	Malabo	Africa	2028
29	Eritrea	Asmara	Africa	2029
30	Ethiopia	Addis Ababa	Africa	2030
31	Gabon	Libreville	Africa	2031
32	Kenya	Nairobi	Africa	2032
33	Lesotho	Maseru	Africa	2033
34	Libya	Tripoli	Africa	2034
35	Madagascar	Antananarivo	Africa	2035
36	Malawi	Lilongwe	Africa	2036
37	Mauritius	Port Louis	Africa	2037
38	Mayotte	Mamoudzou	Africa	2038
39	Morocco	Rabat	Africa	2039
40	Mozambique	Maputo	Africa	2040
41	Namibia	Windhoek	Africa	2041
42	Reunion	Saint-Denis	Africa	2042
43	Rwanda	Kigali	Africa	2043

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
44	Saint Helena	Jamestown	Africa	2044
45	Sao Tome and Principe	Sao Tome	Africa	2045
46	Seychelles	Victoria	Africa	2046
47	Somalia	Mogadishu	Africa	2047
48	South Africa	Pretoria (administrative); Cape Town (legislative); Bloemfontein (judiciary)	Africa	2048
49	Sudan	Khartoum	Africa	2049
50	South Sudan	Juba	Africa	2050
51	Swaziland	Mbabane	Africa	2051
52	Tanzania	Dar es Salaam; Dodoma (legislative)	Africa	2052
53	Tunisia	Tunis	Africa	2053
54	Uganda	Kampala	Africa	2054
55	Western Sahara	El Aaiún	Africa	2055
56	Zambia	Lusaka	Africa	2056
57	Zimbabwe	Harare	Africa	2057
58	Afghanistan	Kabul	Asia	3001
59	Armenia	Yerevan	Asia	3002
60	Azerbaijan	Baku	Asia	3003
61	Bahrain	Manama	Asia	3004
62	Bangladesh	Dhaka	Asia	3005
63	Bhutan	Thimphu	Asia	3006
64	Brunei	Bandar Seri Begawan	Asia	3007
65	Burma	Naypyidaw	Asia	3008
66	Cambodia	Phnom Penh	Asia	3009
67	China	Beijing	Asia	3010
68	Christmas Island	Flying Fish Cove	Asia	3011
69	Cocos (Keeling) Islands	West Island, Cocos (Keeling) Islands	Asia	3012
70	Gaza Strip	Gaza City	Asia	3013
71	Georgia	Tbilisi	Asia	3014
72	Hong Kong	Victoria City	Asia	3015
73	India	New Delhi	Asia	3016
74	Indonesia	Jakarta	Asia	3017
75	Iran	Tehran	Asia	3018
76	Iraq	Baghdad	Asia	3019
77	Israel	Jerusalem	Asia	3020
78	Japan	Tokyo	Asia	3021
79	Jordan	Amman	Asia	3022
80	Kazakhstan	Astana	Asia	3023
81	Korea, North	Pyongyang	Asia	3024
82	Korea, South	Seoul	Asia	3025
83	Kuwait	Kuwait City	Asia	3026
84	Kyrgyzstan	Bishkek	Asia	3027
85	Laos	Vientiane	Asia	3028
86	Lebanon	Beirut	Asia	3029

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
87	Macau	Macau (Macao)	Asia	3030
88	Malaysia	Kuala Lumpur	Asia	3031
89	Maldives	Male	Asia	3032
90	Mongolia	Ulaanbaatar	Asia	3033
91	Nepal	Kathmandu	Asia	3034
92	Oman	Muscat	Asia	3035
93	Pakistan	Islamabad	Asia	3036
94	Paracel Islands	Woody Island	Asia	3037
95	Philippines	Manila	Asia	3038
96	Qatar	Doha	Asia	3039
97	Saudi Arabia	Riyadh	Asia	3040
98	Singapore	Singapore	Asia	3041
99	South Georgia and the South Sandwich Islands	King Edward Point	Asia	3042
100	Sri Lanka	Colombo; Sri Jayewardenepura Kotte (legislative)	Asia	3043
101	Syria	Damascus	Asia	3044
102	Taiwan	Taipei	Asia	3045
103	Tajikistan	Dushanbe	Asia	3046
104	Thailand	Bangkok	Asia	3047
105	Timor-Leste	Dili	Asia	3048
106	Turkey	Ankara	Asia	3049
107	Turkmenistan	Ashgabat	Asia	3050
108	United Arab Emirates	Abu Dhabi	Asia	3051
109	Uzbekistan	Tashkent	Asia	3052
110	Vietnam	Hanoi	Asia	3053
111	West Bank	East Jerusalem	Asia	3054
112	Yemen	Sanaa	Asia	3055
113	American Samoa	Pago Pago	Australia/ Oceania	4001
114	Australia	Canberra	Australia/ Oceania	4002
115	Cook Islands	Avarua	Australia/ Oceania	4003
116	Coral Sea Islands	Cato Island	Australia/ Oceania	4004
117	Fiji	Suva	Australia/ Oceania	4005
118	Guam	Hagåtña	Australia/ Oceania	4006
119	Kiribati	Tarawa Atoll	Australia/ Oceania	4007
120	Marshall Islands	Majuro	Australia/ Oceania	4008
121	Micronesia, Federated States of	Palikir	Australia/ Oceania	4009
122	Nauru	government offices in Yaren District	Australia/ Oceania	4010
123	New Caledonia	Nouméa	Australia/ Oceania	4011
124	New Zealand	Wellington	Australia/ Oceania	4012
125	Niue	Alofi	Australia/ Oceania	4013
126	Norfolk Island	Kingston	Australia/ Oceania	4014
127	Northern Mariana Islands	Capitol Hill, Saipan	Australia/ Oceania	4015

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
128	Palau	Melekeok	Australia/ Oceania	4016
129	Papua New Guinea	Port Moresby	Australia/ Oceania	4017
130	Pitcairn Islands	Adamstown	Australia/ Oceania	4018
131	Solomon Islands	Honiara	Australia/ Oceania	4019
132	Tokelau	Atafu	Australia/ Oceania	4020
133	Tonga	Nuku'alofa	Australia/ Oceania	4021
134	Tuvalu	Vaiaku village, Funafuti province	Australia/ Oceania	4022
135	Vanuatu	Port-Vila	Australia/ Oceania	4023
136	Wallis and Futuna	Mata Utu	Australia/ Oceania	4024
137	Akrotiri	Episkopi Cantonment	Europe	5001
138	Albania	Tirana	Europe	5002
139	Andorra	Andorra la Vella	Europe	5003
140	Austria	Vienna	Europe	5004
141	Belarus	Minsk	Europe	5005
142	Belgium	Brussels	Europe	5006
143	Bosnia and Herzegovina	Sarajevo	Europe	5007
144	British Indian Ocean Territory	Camp Justice	Europe	5008
145	British Virgin Islands	Road Town	Europe	5009
146	Bulgaria	Sofia	Europe	5010
147	Croatia	Zagreb	Europe	5011
148	Cyprus	Nicosia	Europe	5012
149	Czech Republic	Prague	Europe	5013
150	Denmark	Copenhagen	Europe	5014
151	Dhekelia	Episkopi	Europe	5015
152	Estonia	Tallinn	Europe	5016
153	Faroe Islands	Tórshavn	Europe	5017
154	Finland	Helsinki	Europe	5018
155	France	Paris	Europe	5019
156	French Guiana	Cayenne	Europe	5020
157	French Polynesia	Papeete	Europe	5021
158	Germany	Berlin	Europe	5022
159	Greece	Athens	Europe	5023
160	Guernsey	Saint Peter Port	Europe	5024
161	Holy See (Vatican City)	Vatican City	Europe	5025
162	Hungary	Budapest	Europe	5026
163	Iceland	Reykjavik	Europe	5027
164	Ireland	Dublin	Europe	5028
165	Isle of Man	Douglas	Europe	5029
166	Italy	Rome	Europe	5030
167	Jan Mayen	Longyearbyen	Europe	5031
168	Jersey	Saint Helier	Europe	5032
169	Latvia	Riga	Europe	5033
170	Liechtenstein	Vaduz	Europe	5034
171	Lithuania	Vilnius	Europe	5035
172	Luxembourg	Luxembourg	Europe	5036

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
173	Macedonia	Skopje	Europe	5037
174	Malta	Valletta	Europe	5038
175	Moldova	Chisinau	Europe	5039
176	Monaco	Monaco	Europe	5040
177	Netherlands	Amsterdam; The Hague (seat of government)	Europe	5041
178	Netherlands Antilles	Willemstad	Europe	5042
179	Norway	Oslo	Europe	5043
180	Poland	Warsaw	Europe	5044
181	Portugal	Lisbon	Europe	5045
182	Romania	Bucharest	Europe	5046
183	Russia	Moscow	Europe	5047
184	Samoa	Apia	Europe	5048
185	San Marino	San Marino	Europe	5049
186	Montenegro	Podgorica	Europe	5050
187	Serbia	Belgrade	Europe	5051
188	Slovakia	Bratislava	Europe	5052
189	Slovenia	Ljubljana	Europe	5053
190	Spain	Madrid	Europe	5054
191	Sweden	Stockholm	Europe	5055
192	Switzerland	Bern	Europe	5056
193	Ukraine	Kyiv	Europe	5057
194	United Kingdom	London	Europe	5058
195	Anguilla	The Valley	North America	6001
196	Antigua and Barbuda	Saint John's	North America	6002
197	Bahamas	Nassau	North America	6003
198	Barbados	Bridgetown	North America	6004
199	Belize	Belmopan	North America	6005
200	Bermuda	Hamilton	North America	6006
201	Canada	Ottawa	North America	6007
202	Cayman Islands	George Town	North America	6008
203	Costa Rica	San Jose	North America	6009
204	Cuba	Havana	North America	6010
205	Dominica	Roseau	North America	6011
206	Dominican Republic	Santo Domingo	North America	6012
207	El Salvador	San Salvador	North America	6013
208	Greenland	Nuuk	North America	6014
209	Grenada	Saint George's	North America	6015
210	Guadeloupe	Basse-Terre	North America	6016
211	Guatemala	Guatemala City	North America	6017
212	Haiti	Port-au-Prince	North America	6018
213	Honduras	Tegucigalpa	North America	6019
214	Jamaica	Kingston	North America	6020
215	Martinique	Fort-de-France	North America	6021
216	Mexico	Mexico City	North America	6022

S/N	COUNTRY	CAPITAL	CONTINENT	CODE
217	Montserrat	Plymouth	North America	6023
218	Nicaragua	Managua	North America	6024
219	Panama	Panama City	North America	6025
220	Puerto Rico	San Juan	North America	6026
221	Saint Kitts and Nevis	Basseterre	North America	6027
222	Saint Lucia	Castries	North America	6028
223	Saint Pierre and Miquelon	Saint-Pierre	North America	6029
224	Saint Vincent and the Grenadines	Kingstown	North America	6030
225	Trinidad and Tobago	Port-of-Spain	North America	6031
226	Turks and Caicos Islands	Cockburn Town	North America	6032
227	United States of America (USA)	Washington, D.C.	North America	6033
228	Argentina	Buenos Aires	South America	7001
229	Aruba	Oranjestad	South America	7002
230	Bolivia	La Paz (administrative); Sucre (judicial)	South America	7003
231	Brazil	Brasilia	South America	7004
232	Chile	Santiago	South America	7005
233	Colombia	Bogota	South America	7006
234	Ecuador	Quito	South America	7007
235	Falkland Islands (Islas Malvinas)	Stanley	South America	7008
236	Guyana	Georgetown	South America	7009
237	Paraguay	Asuncion	South America	7010
238	Peru	Lima	South America	7011
239	Suriname	Paramaribo	South America	7012
240	Uruguay	Montevideo	South America	7013
241	Venezuela	Caracas	South America	7014
242	Statelessness		Stateless	8888

APPENDIX 4: ETHNIC GROUPS AND THEIR ETHNICITY CODES

MAJOR ETHNIC GROUP	CODE	VARIOUS ETHNIC GROUPS
1. AKAN	101	Agona
	102	Ahafo
	103	Ahanta
	104	Akuapem
	105	Akwamu
	106	Akyem
	107	Aowin
	108	Asante
	109	Asen (Assin)
	110	Boron (Brong) (including Banda)
	111	Chokosi (Anufor)
	112	Denkyira / Twifo
	113	Evalue
	114	Fante (Gomoa, etc.)
	115	Kwahu
	116	Nzema
	117	Sefwi
	118	Wasa
	119	Bawle
2. GA-DANGME	201	Ga
	202	Dangme (Ada, Shai, Krobo, Osudoku, Ningo, Prampram)
3. EWE	301	Ewe
4. GUAN	401	Nkomi, Wiase, Dwan
	402	Akpafu, Lolobi, Likpe, Bowiri, Buem, Santrokofi, Akposo
	403	Avatime, Nyagbo, Tafi, Logba
	404	Awutu, Efutu, Senya, Breku
	405	Cherepong, Larteh, Anum-Boso
	406	Gonja
	407	Nkonya
	408	Yeji, Nchumuru, Krachi, Nawuri, Bassa Achode, Adele
	409	Other Guans
5. GURMA	501	Bimoba
	502	Kokomba
	503	Bassare (Bassari)
	504	Salfalba (Sabulaba)
	505	Kotokoli (Tem)
	506	Chamba (Kyamba)
	507	Challa
	508	Ntrubo
	509	Other Gurmas

6. MOLE-DAGBANI	601	Dagomba
	602	Kusasi
	603	Mamprusi
	604	Nanumba
	605	Builsa (Kangyaga or Kanjaga)
	606	Dagarte (Dagaba), Lobi , Wali (Wala)
	607	Namnam (Nabdom)
	608	Nankansi, Talensi & Gurense (Frafra)
	609	Other Mole-Dagbani
7. GRUSI	701	Grusi
	702	Kasena
	703	Mo
	704	Sisala
	705	Vagala
	706	Nankana
	707	Other Grusi (e.g. Lela, Templensi, Birifor, Yangala, Miwo)
8. MANDE	801	Mande
	802	Busanga
	803	Wangara (Bambara, Madingo & Dyula)
9. ALL OTHERS	901	ALL OTHER ETHNIC GROUP

APPENDIX 5: HISTORICAL EVENTS – FOR ESTIMATING AGES

A - NATIONAL EVENTS

EVENT	YEAR	NO. OF YEARS UP TO 2021
King Prempeh removed from Sierra Leone to the Seychelles Island	1900	121
Yaa Asantewaa War	1900	121
Capture of Yaa Asantewaa	1901	120
First World War	1914	107
West African Currency Notes introduced	1918	103
Armistice Day (End of 1st World War)	1918	103
Prince of Wales visited Gold Coast	1925	96
First Aeroplane arrived in Accra	1926	95
Dr. J.E. Kwagyir Aggrey died	1927	94
Takoradi Harbour opened	1928	93
Introduction of Basic Rate	1936	85
Cocoa Hold-up	1938	83
Earthquake	1939	82
Second World War Started	1939	82
Eclipse of the Sun	1947	74
Looting in Various parts of the Country resulting from the Shooting of Sergeant Adjetej and Others	1948	73
Arrest of Six Leaders of the United Gold Coast Convention	1948	73
Founding of CPP by Kwame Nkrumah	1949	72
Positive Action Declared	1950	71
Kwame Nkrumah made Leader of Government Business	1951	70
Kwame Nkrumah made first Prime Minister of the Gold Coast	1952	69
Ghana's Independence Declared	1957	64
R.R. Amponsah and M.K. Apaloo (both opposition members arrested)	1958	63
Preventive Detention Act came into force	1958	63
French Togoland became Independent State	1960	61
Ghana Became a Republic	1960	61
Queen Elizabeth II visited Ghana	1961	60
Murder of former Congo Premier Patrice Lumumba	1961	60
Railway Employees at Takoradi went on strike	1961	60
The Kulungugu bomb explosion	1962	59
Tema Harbour opened	1962	59
Detention of Ako Adjei, Tawiah Adamafo and H. Coffie Crabbe	1962	59
President Nkrumah dismissed Sir Arku Korsah from his Post as Chief Justice	1963	58
Flagstaff House shooting incident involving Ametewee	1964	57
Death of Dr. J.B. Danquah	1965	56
Formal Opening of Akosombo Dam	1965	56
O.A.U Summit Conference in Accra	1965	56
Introduction of Decimal Currency in Ghana (the Old Cedi and Old Pesewa)	1965	56
Military coup d'etat in Nigeria	1966	55

EVENT	YEAR	NO. OF YEARS UP TO 2021
Overthrow of President Nkrumah by the Army and the Police	1966	55
Introduction of the New Cedis and New Pesewas	1967	54
Death of Lieutenant-General E.K. Kotoka	1967	54
Lifting of Ban on Political Activity in Ghana after the 1966 Coup	1969	52
Dr. K.A. Busia made Prime Minister of Ghana	1969	52
Death of Asantehene Nana Sir Osei Agyeman Prempeh II	1970	51
Formation of "Justice Party" by a merger of National Alliance of Liberals and three other Opposition Parties	1970	51
Overthrow of Dr. K.A Busia's Progress Party Government by Colonel I.K. Acheampong	1972	49
Students harvest Sugar Cane at Asutsuare and Komenda	1972	49
Operation Feed Yourself Programme launched	1972	49
Death of Dr. Kwame Nkrumah in Romania	1972	49
Arrival of Dr. Kwame Nkrumah corpse in Ghana from Guinea	1972	49
Ghana broke Diplomatic Relations with Israel	1973	48
Introduction of Right Hand Traffic	1974	47
J.H. Mensah and Two others Arrested on Sedition Charge	1975	46
Creation of Supreme Military Council (SMC I)	1975	46
Appointment of Dr. Koranteng Addo's Adhoc Committee to gather information on how to implement a Union Government for Ghana	1977	44
Closure of the three Universities following demonstration by the Students against High Prices of Food	1977	44
Strike Action by members of Ghana Medical Association Demanding early re-opening of the closed Universities	1977	44
The Ghana Bar Association called on the SMC I Government to handover power to a Presidential Commission Pending a Return to Civilian rule	1977	44
Discovery of Oil In commercial quantities offshore Saltpond by Agric-Petco Ghana Incorporated	1978	43
Referendum on Union Government	1978	43
Strike Action by the Ghana Bar Association	1978	43
Demonstration by University Students again the Union Government concept and the invasion of Legon Campus by Police armoured Cars	1978	43
Formation of People's Movement for Freedom and Justice (PPMFJ) led by K.A. Gbedema, A. A. Afrifa and William Ofori-Atta	1978	43
Banning of PMFJ, the Front for the Prevention of Dictatorship and the Third Force by General Acheampong	1978	43
General Acheampong removed from Office and Lt.-General FWK Akuffo became Chairman of the reconstituted Supreme Military Council (SMC II)	1978	43
Dr. K. A. Busia died in London	1978	43
Appointment of Mr. Justice Amissah and Mrs Gloria Amon-Nikoi as Attorney General and Commissioner for Foreign Affairs respectively	1979	43
Currency Change Exercise	1979	42
An abortive uprising in which Flt. Lt. J.J. Rawlings was Arrested	1979	42

EVENT	YEAR	NO. OF YEARS UP TO 2021
The Revolution that overthrew SMC II lead by J.J. Rawlings as Chairman of the Armed Forces Revolutionary Council (AFRC)	1979	42
Execution of General Acheampong, General Akuffo, Lt. General A.A. Afrifa, Maj. General Utuka and four other Senior Military Officers	1979	42
General Elections	1979	42
Major General Odartey Wellington given a state Burial	1979	42
Demolition of Makola No.1 Market	1979	42
Mr. Justice Akuffo-Addo died and was buried at Akropong	1979	42
Second Round of Presidential Election	1979	42
Handing Over of Power to the People's National Party (PNP) Administration by the AFRC	1979	42
Usher Fort Jail Break By Captain Koda, Captain Okaikoi and Three other military Personnel	1979	42
Pope John Paul II visited Ghana	1980	41
Head of Ahmadiyya Muslim visited Ghana	1980	41
Visit to Ghana by Archbishop of Canterbury (Head of the Anglican church)	1980	41
Commissioning of Ghana's first Satellite earth station at Nkuntunse	1981	40
Overthrow of PNP Administration by J.J. Rawlings as Chairman of PNDC	1981	40
Draught, Bush fires and Hunger (Rawlings chain)	1983	38
Voters Registration Exercise	1987	34
District Level Elections	1989	32
Constitution for 4 th Republic	1992	29
Election of JJ Rawlings as President of Ghana	1992	29
An elephant wandered into Navrongo	1993	28
J.J. Rawlings elected President for a second term	1996	25
Visit of the American President (Bill Clinton)	1998	23
Death of Dr. Hilla Limann (in February)	1998	23
Election of President John Agyekum Kufour (Fourth Republic)	2000	21
Second visit of Queen Elizabeth to Ghana	2000	21
Accra Sports Stadium Disaster (on May 9 th)	2001	20
First mass cancellation of JSS results in Ghana	2002	19
Ghana Celebrates 50 years of independence from Britain (March)	2007	14
Major off-shore oil discovery announced (in June)	2007	14
Worst floods in over 30 years cause widespread devastation and destroys much of harvest (in September)	2007	14
Election of President John Evans Atta Mills (in December)	2008	13
US President Barack Obama visits Ghana (in July)	2009	12
Death of Professor John Evans Atta Mills (in June)	2012	9
B—REGIONAL EVENTS		
CENTRAL AND WESTERN REGIONS		
	YEAR	
First Train from Sekondi arrived at Kumasi	1903	118
Rev. Attoh-Ahuma died	1921	100
Nana Attafua, Omanhene of Akim Kotoku died	1927	94

EVENT	YEAR	NO. OF YEARS UP TO 2021
Govenor Guggisberg died	1930	91
Nana Mbra Ansa died	1933	88
First Section of Sese Oil Palm Plantation started	1934	87
Secondary Schools in Cape Coast went on strike	1948	73
Ahanta/Dixcove Local Council was established	1952	69
Opening of St. Mary's Training College at Apowa	1954	67
Nana Baidoo Bonsoe XIII died	1954	67
Tarkwa and Aboso Mines closed	1956	65
Opening of Busua Pleasure Beach	1963	58
Aboso Glass Factory started operation	1963	58
Nana Hima Dekyi XII (KC), Omanhene of Upper Dixcove died	1963	58
Nana Aboayisa II, chief of Ewusiajoe died	1964	57
Enstoolment of Nana Hima Dekyi XIII of Upper Dixcove	1964	57
Plane crash at Phillip Quarcoo Boy's School (on 18 th February)	1966	55
Death of Most Rev. John Kodwo Amissah, Catholic Bishop of Cape Coast	1992	29
Death of Nana Osabarima Kojo Mmrah V, Omanhene of Oguaa Traditional Area	1997	24
GREATER ACCRA, EASTERN AND VOLTA REGIONS	YEAR	
Execution of Sotordugbe of Aflao Viefe at Viefe	1902	119
Rev. A.W. Clerk of Basel Mission Church died at Aburi	1906	115
Dedication of Larteh Basel Mission Church	1907	114
Bubonic Plague (Akpornabu)	1908	113
Rev. Theophilus Opoku died at Akropong	1913	108
Major Agricultural show took place at Krobo Odumase	1913	108
Motor Car first Climbed Aburi Hill	1913	108
Anum-Peki Political Unrest	1920	101
Korle Bu Hospital Foundation laid	1921	100
Death of Odikro Anakwa of Mamfe	1925	96
Achimota School opened	1927	94
Opening of the joint Provincial Council at Dodowa	1938	83
Governor Allan Burns visited Anum	1946	75
Adomi Bridge (Volta) opened	1957	64
The Golden Jubilee of Nana Kumi VII	1960	61
Cutting of "Aryee Canal" at Kedzi near Keta	1963	58
Major Floods hit Accra causing several deaths and forcing thousands of people to flee from their homes (in June)	2001	20
Area canal commission at Kezi near Keta	2001	20
A boat capsizes on lake Volta reservoir and many passengers feared drowned	2006	15
Ghana Celebrates 50 years of independence from Britain (in March)	2007	14
Major off-shore oil discovery announced (in June)	2007	14
Worst floods in over 30 years cause widespread devastation (in September)	2007	14
ASHANTI AND BRONG AHAFO REGIONS		
First Train Arrived in Kumasi	1903	118
Lt. Lionel Henry Trafford Martin of the 1st Gold Coast Regiment Died at Sampa	1905	116
Basel Missionaries arrived at Sampa	1919	102
King Prempeh I return from exile	1925	96
Ashanti Tekyiman killed their Omanhene Yao Kramo	1927	94
Muslims led by Malam Halidu, left Atebubu and settled at Prang	1927	94
Installation of King Prempeh II	1931	90
Kumasi Fort destroyed accidentally by fire	1932	89

EVENT	YEAR	NO. OF YEARS UP TO 2021
Restoration of Ashanti Confederacy	1935	86
Suma became a member of the Ashanti Confederacy	1935	86
Telephone extension to Berekum	1946	75
Telephone service extended to Domaa-Ahenkro	1948	73
Telephone service extended to Nsoatre	1954	67
Kwame Nkrumah visited Yeji	1955	66
Creation of the Brong-Ahafo Region	1959	62
Foundation of Atebubu Training College laid	1965	56
NORTHERN, NORTH EAST, SAVANNAH, UPPER EAST AND UPPER WEST REGIONS	YEAR	
First chiefs meeting at Yapei	1923	98
First Aeroplane to Northern Territories	1934	87
Construction of Wa/Tamale road	1940	81
The initial operation of the Gonja Development Company in Damongo (GDC)	1948	73
Gonja Development Company established	1950	71
Chiefs from the Northern Region visited Accra	1956	65
Epidemic known as "Accra Zukogli".	1957	64
Opening of Notre Dam Seminary and Navrongo Secondary School	1960	61
Construction of Tono Irrigation Dam started	1975	46
Shooting of Colonel Felli and Others by Fring Squad	1979	42
Fighting between Saboro and Wusungu	1985	36
Start of Mamprusi/Kusasi War in Bawku	1985	36
Major Dust storm	1985	36
Start of Army worm invasion	1985	36
Establishment of the University for Development Studies	1992	29
Violent ethnic clashes between the Nanumba and Kokomba over land ownership	1994	27
Seven ethnic groups involved in violence in Northern Region sign peace agreement	1994	27
Government imposes curfew in Northern Region as a result of renewed ethnic violence	1995	26
Opening of a University Campus in Navrongo	1995	26
Reconstruction of the Tamale-Paga Road	1997	24
Death of Yaa Naa, Chief of Dagbon (on 26 th March)	2002	19

APPENDIX 6: ENUMERATOR'S MATERIALS RECEIPT FORM

CONFIDENTIAL

PHC 11



ENUMERATOR'S MATERIALS RECEIPT

Region: _____ District: _____ E.A. No.: _____

Item No. (1)	Description (2)	QUANTITIES RECEIVED		Quantities Returned (5)	Remarks (6)
		First (3)	Additional * (4)		
1	Enumerator's Satchel				
A.	In Satchel				
a.	Identity Card				
b.	E.A. Map				
c.	E.A. Description (PHC 2)				
d.	Enumerator's Manual				
e.	EVR				
f.	Questionnaires (PHC 1)				
g.	Certificate of Enumeration (Floating Population)				
h.	Call-back Cards				
i.	Blue Ball Pens				
j.	Chalk				
k.	Enumerator's Assessment Form A1				
l.	E.A. Enumeration Result Sheet (PHC 3)				
m.	Note Book				
n.	Pencils				
o.	Erasers				
p.	Sharpener				
q.	Clip Board				

ENUMERATOR

I have received from my Field Supervisor the items stated in columns 3 and 4.

Name: _____
 Signature: _____
 Date: _____ 20 _____

FIELD SUPERVISOR

I have received the items stated above in column 5.

Name: _____
 Signature: _____
 Date: _____ 20 _____

* Enumerator should initial all additional documents received.

APPENDIX 7: FIELD SUPERVISOR'S MATERIALS RECEIPT FORM

Region: District: S.A. No:

Item No	Description	QUANTITIES RECEIVED		Quantities Returned	Remarks
		First	Additional*		
(1)	(2)	(3)	(4)	(5)	(6)
A. Items not to be collected					
1.	Enumerator's bag				For Supervisor For Supervisor
2.	ISCO (code list)				
3.	ISIC (code list)				
4.	Rain coat				
5.	Wellington boot				
6.	Census Jacket				
7.	Census cap				
B To be Collected					
1.	EA Map				For Supervisor
2.	EA Map Description Form (PHC 2)				
3.	Identity Card				
4.	Tablet				
5.	Charger/Cable				
6.	Power Bank				
7.	SD Card				
8.	Sim Card				
9.	Tablet Case				
10.	Questionnaires (Listing Form, PHC 1A, PHC 1B, PHC 1C, PHC 1D & PHC 1E)				
11.	Field Supervisor's Scrutiny Report				
12.	Certificate of Enumeration				
13.	Call-Back Card				
14.	Chalk				

FIELD SUPERVISOR

I have received from my District Census Officer the items stated in Columns 3 and 4.

Name:

Signature:

Date:

DISTRICT CENSUS OFFICER

I have received from the Field Supervisor the items stated in Column 5.

Name:

Signature:

Date:

* Field Supervisor should initial all entries for additional materials received

APPENDIX 8: GRADING SYSTEM

Primary school have Lower primary and Upper primary. Lower primary is from primary one (P1) to Primary three (P3), while Upper Primary starts from P4 to P6. In the olden days, Upper primary was considered as STANDARD (corrupted to read “SAN”) and started with standard one (San 1). The grading system have been as follows:

LEVEL OF EDUCATION	GRADE/CODE
Primary School	
Primary One	Year 1
Primary Two	Year 2
Primary Three	Year 3
Primary Four	Standard One (San 1)
Primary Five	Standard Two (San 2)
Primary Six	Standard Three (San 3)
Middle Form 1	Standard Four (San 4)
Middle Form 2	Standard Five (San 5)
Middle Form 3	Standard Six (San 6)
Middle Form 4	Standard Seven (San 7)
Junior Secondary/ High School (JSS/JHS)	
JHS/JSS 1	Form 1
JHS/JSS 2	Form 2
JHS/JSS 3	Form 3
Secondary Education (ORDINARY & ADVANCED LEVEL)	
Form 1	Year 1
Form 2	Year 2
Form 3	Year 3
Form 4	Year 4
Form 5	Year 5
Lower-6	Year 6
Upper-6	Year 7
Senior Secondary or High School (Verify if 3 or 4 years)	
SHS/ SSS 1	1
SHS/SSS 2	2
SHS/SSS 3	3
* SHS 4	4
Post Middle Teacher Training Certificate A	
Post Middle- PM Cert A1	1
Post Middle Cert A- PM2	2
Post Middle Cert A- PM33	3
Post Middle Cert A- PM44	4
Post Middle Teacher Training Certificate B	
Post Middle Cert B1	1
Post Middle Cert B2	2
Post Middle Nursing Training	
Post Middle Nursing 1	1
Post Middle Nursing 2	2
Post Middle Nursing 3	3
Post Middle Agric Training	
Post Middle Agric 1	1
Post Middle Agric 2	2
Post Middle Agric 3	3
Post-Secondary	
Post-Secondary- PS 1	1
Post-Secondary- PS 2	2
Post-Secondary- PS 3	3
* At some point between 2007 and 2009, SHS was completed in 4 years. For those who attended SHS, verify whether he/she did it in 3 or 4 years	

APPENDIX 10: OATH OF SECRECY

GHANA STATISTICAL SERVICE



REPUBLIC OF GHANA

THE OATH OF SECRECY

I,, do solemnly swear in the Name of the Almighty God that I will faithfully and honestly fulfil my duties as a **Field Officer** for the 2021 Population and Housing Census field data collection exercise, in conformity with the requirements of the Statistical Service Act, 2019 (Act 1003), and that I will not, without authority in writing by the Government Statistician, disclose or make known any matter or thing which comes to my knowledge by reason of my employment as such, so help me God.

.....

(SIGNATURE)

Sworn before me at, this, 2021.

.....

.....

(COMMISSIONER FOR OATH)

APPENDIX 11: CERTIFICATE OF ENUMERATION



2021 POPULATION AND HOUSING CENSUS



CERTIFICATE OF ENUMERATION FOR FLOATING POPULATION

E.A. Code:..... Serial No. of Location:.....

This is to certify that

.....
(Full Name)

was enumerated at

.....
(Address of Location)

(Signature of Enumerator)



2021 POPULATION AND HOUSING CENSUS



CERTIFICATE OF ENUMERATION FOR FLOATING POPULATION

E.A. Code:..... Serial No. of Location:.....

This is to certify that

.....
(Full Name)

was enumerated at

.....
(Address of Location)

(Signature of Enumerator)

APPENDIX 12: LIST OF CONTRIBUTORS

Prof. Samuel Kobina Annim	-	Government Statistician & Chief Census Officer
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Dr. Collins Opiyo	-	Chief Technical Advisor
Prof. Kofi Awusabo-Asare	-	TAC Co-Chair & Curriculum Reviewer
Prof. Stephen Owusu Kwankye	-	TAC Member & Curriculum Reviewer
Dr. Opoku Manu Asare	-	Census Advisor
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Mr. Richard Sasu	-	Master Trainer
Mr. William Ofosu	-	Master Trainer
Ms. Alberta Seckey	-	Secretary
Mrs. Vivian Asantey	-	Secretary

