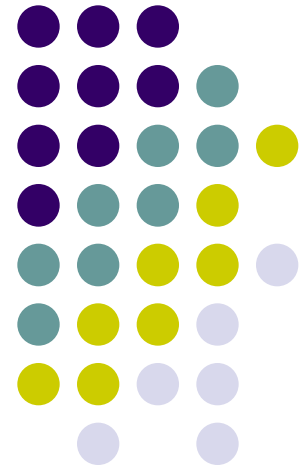


Development & Use of GIS in the GHS

Presentation Outline

- What is GIS?
- What can GIS do?
- Why the need?
- How can it be done?
- Where are we?

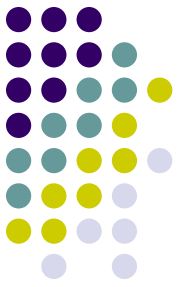


What is GIS

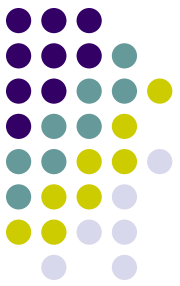


- A Geographical Information System (GIS) is a computer technology that combines geographic data (i.e. the location of features in our environment both natural and man-made) and other types of descriptive information (e.g., names and addresses) to generate visual maps and reports.
- GIS provides the capability to collect, manage, manipulate, analyze, and distribute information that is tied to a location, and it layers that information in a map-based environment to provide a better visual image of location, patterns and relationships. GIS is enabling and core technology that touches numerous business processes, systems, data, and other applications.

Why the need?

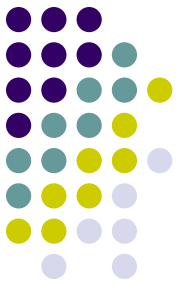


- GIS information can assist one to see patterns and relationships in geographic data not usually seen in tables and lists.
- It can provide insight to a place, help focus actions, or help one to choose the best options.
- It is a planning tool. GIS is employed in the EMD for health facilities planning, management, education, research and monitoring.
- The GIS can add a spatial dimension to support more informed decision making in the health sector to enhance service delivery.



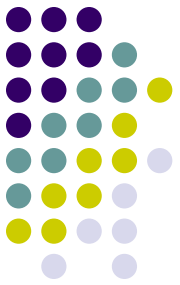
Why the need contd.?

- GIS provides essential information tools for many levels of society. It is the best tool to be able to:
 - Provide solutions to real-world problems in the management of our estates.
 - Coordinate and communicate key concepts between departments within the Ghana Health Service.
 - Share crucial information between stakeholders
 - Analysis healthcare delivery at all levels
 - Location of these services in Regions/Districts/Towns and Buildings



Why the need contd.?

- Plan for human resources (HR)
- Plan for Transport Management
- Analyze and plan for infrastructure development
- Analyze and display spatially diseases patterns and prevalence.
- Display infrastructure e.g. the network of health facilities in a region especially useful in a referral healthcare system such as we find in Ghana



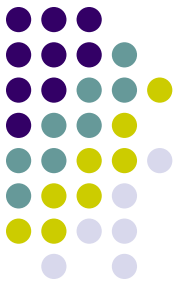
What can GIS do?

- A GIS enables a person to visualize patterns, relationships, and trends. This process gives an entirely new perspective to data analysis in map form that cannot be seen in a table or list format. A GIS is not just about maps however, but consist of a collection of hardware, software, data, skilled personnel, and the method to manage how the technology is applied.
- GIS can address the following:
 - Map where things are
 - Identify what exists at a certain location
 - Determine if certain conditions are satisfied
 - Map change over time
 - Discern spatial patterns and relationships
 - Conduct 'what if? Scenarios and model future conditions



How can it be done?

- GIS development process can be divided into five broad iterative phases namely:
 - Strategy and Planning
 - Analysis and Design
 - Development
 - Deployment
 - Production and Operation



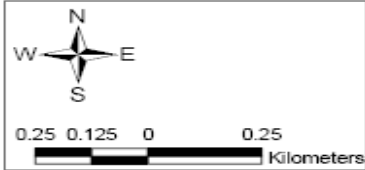
Where are we?

- We have gone through all the stages in the development of a GIS and have the requisite skills to implement GIS in the GHS.
- The following are some of our works:

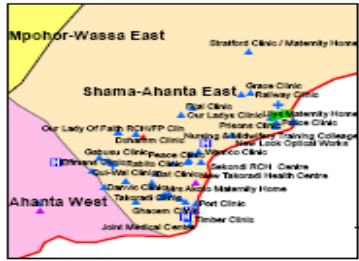
Where are we contd.?



Health Facilities in Western Region



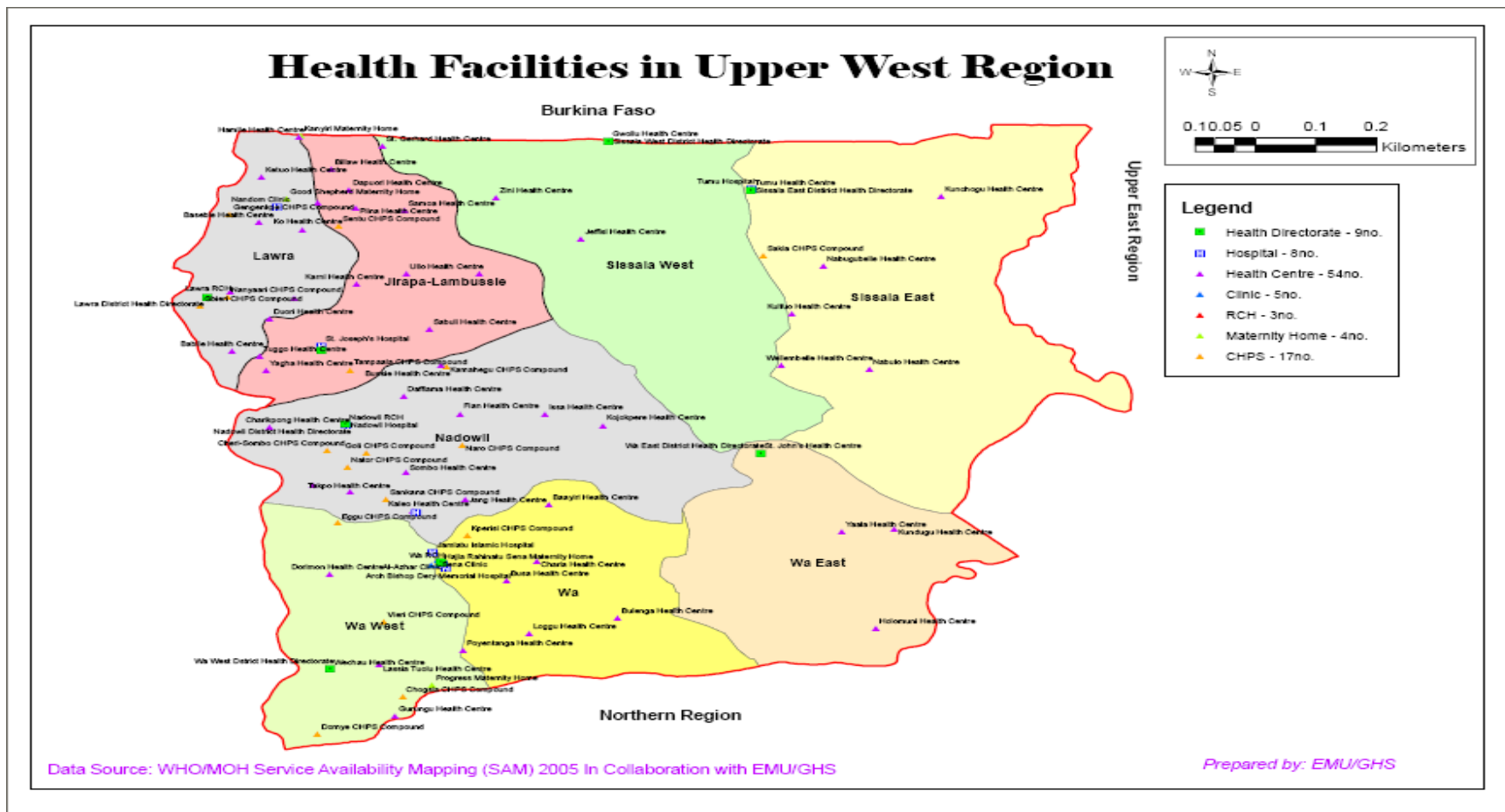
- Legend**
- Health Directorate - 14no.
 - Hospital - 24no.
 - ⬢ Polyclinic - 2no.
 - Health Centre - 54no.
 - ▲ Clinic - 141no.
 - ▲ RCH - 4no.
 - ▲ Maternity Home - 26no.
 - ▲ CHPS - 22no.
 - ▲ Training & Research Institute - 2no.



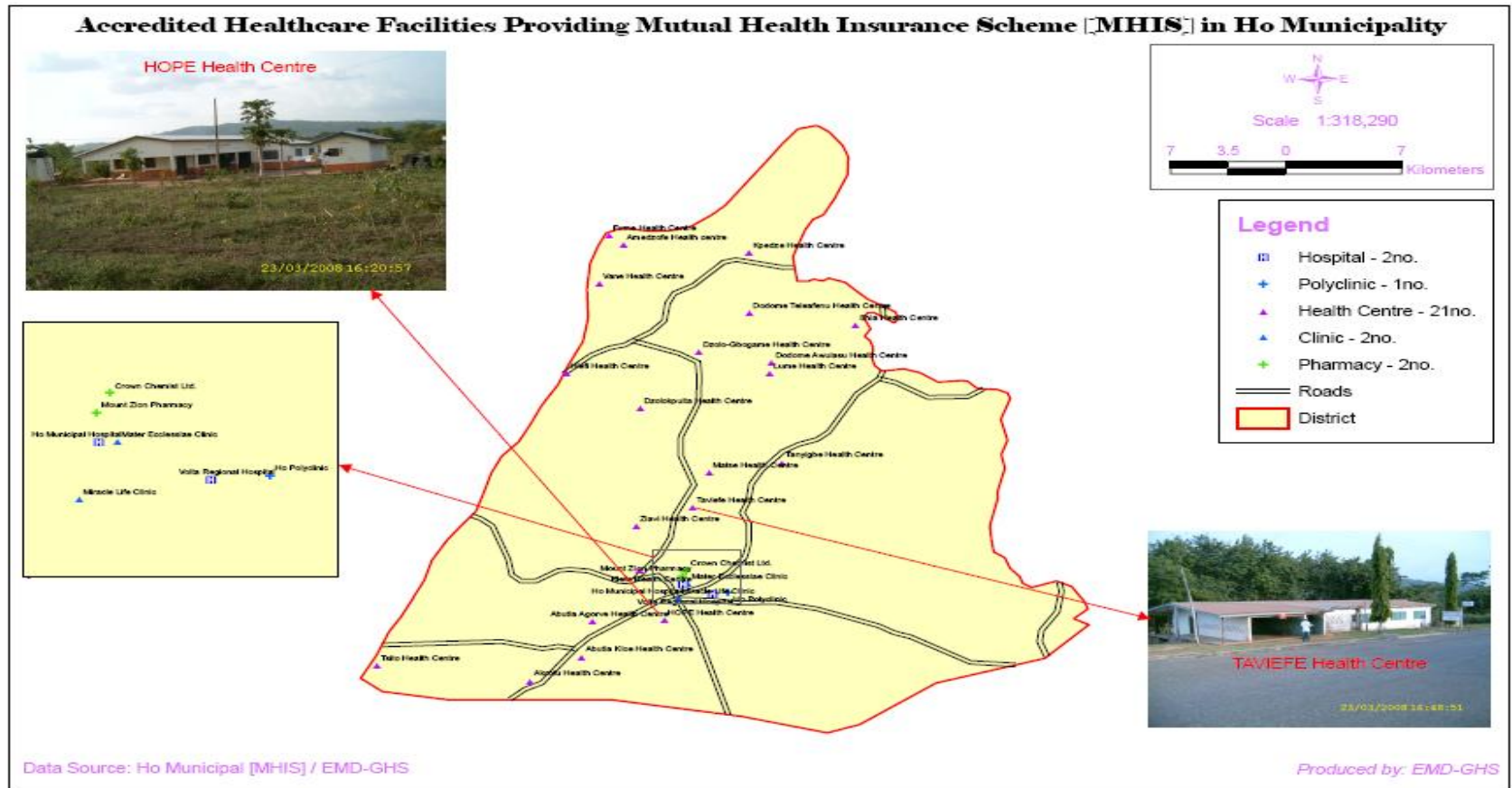
Data Source: WHO/MOH Service Availability Mapping (SAM) 2005/in Collaboration with EMU/GHS

Prepared by: EMU/GHS

Where are we contd.?



Where are we contd.?

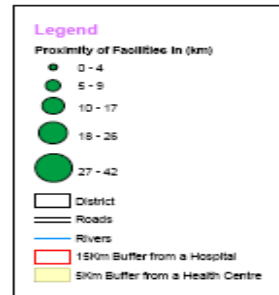
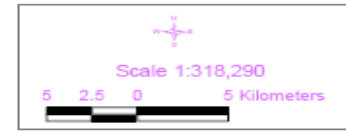
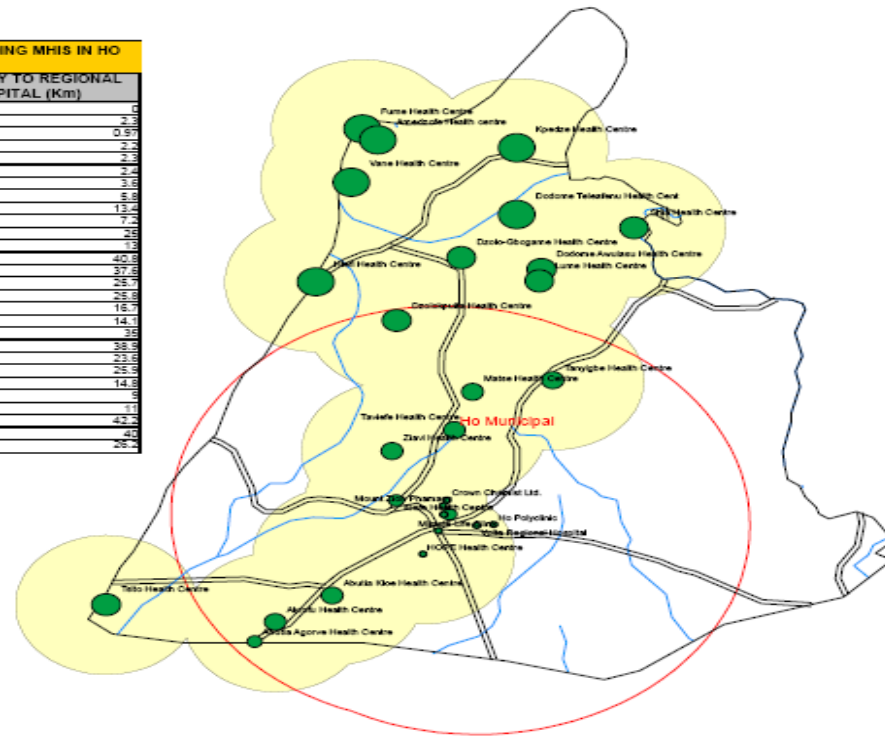


Where are we contd.?



Accredited Healthcare Facilities Providing Mutual Health Insurance Scheme [MHIS] in Ho Municipality

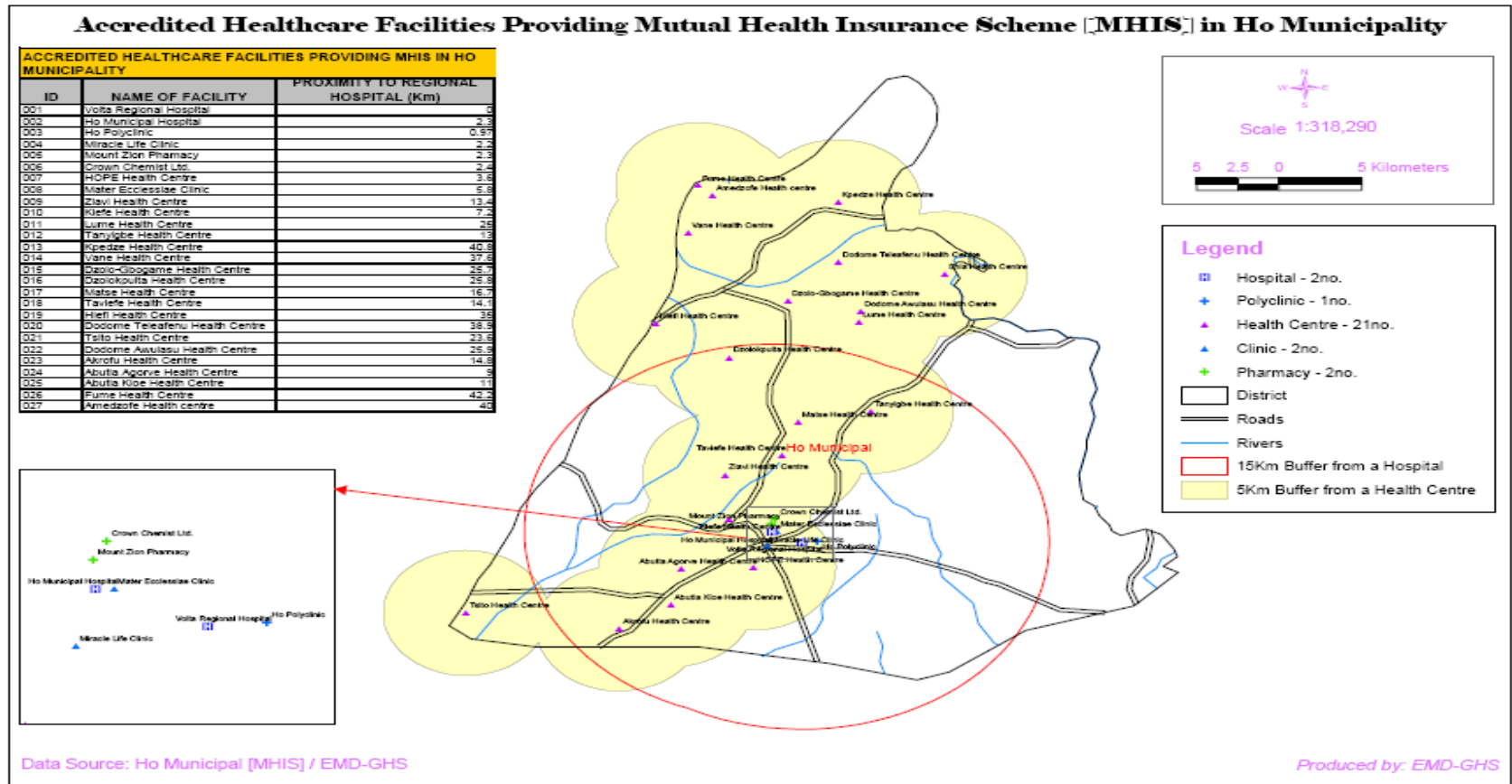
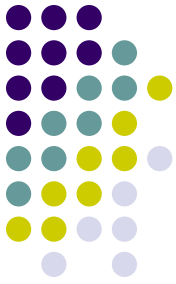
ACCREDITED HEALTHCARE FACILITIES PROVIDING MHIS IN HO MUNICIPALITY		
ID	NAME OF FACILITY	PROXIMITY TO REGIONAL HOSPITAL (Km)
001	Volta Regional Hospital	0
002	Ho Municipal Hospital	2.3
003	Ho Polyclinic	0.51
004	Miracle Life Clinic	2.3
005	Mount Zion Pharmacy	2.3
006	Crown Chemist Ltd	2.4
007	HICPE Health Centre	3.8
008	Water Ecclesiae Clinic	5.8
009	Zibavi Health Centre	13.4
010	Kiefe Health Centre	7.2
011	Lume Health Centre	21.6
012	Tanyigbe Health Centre	9
013	Kpedze Health Centre	40.8
014	Vane Health Centre	37.8
015	Dzolo-Gogame Health Centre	25.7
016	Dzokokouta Health Centre	25.8
017	Nasse Health Centre	16.1
018	Taviefe Health Centre	14.1
019	Hiefti Health Centre	38
020	Dodome Teleafenu Health Centre	38.8
021	Fialo Health Centre	23.8
022	Dodome Awususu Health Centre	25.8
023	Akrofu Health Centre	14.8
024	Abulia Agorve Health Centre	6
025	Abulia Kioe Health Centre	11
026	Fume Health Centre	42.2
027	Amedzofe health centre	40
028	Shia Health Centre	26.7



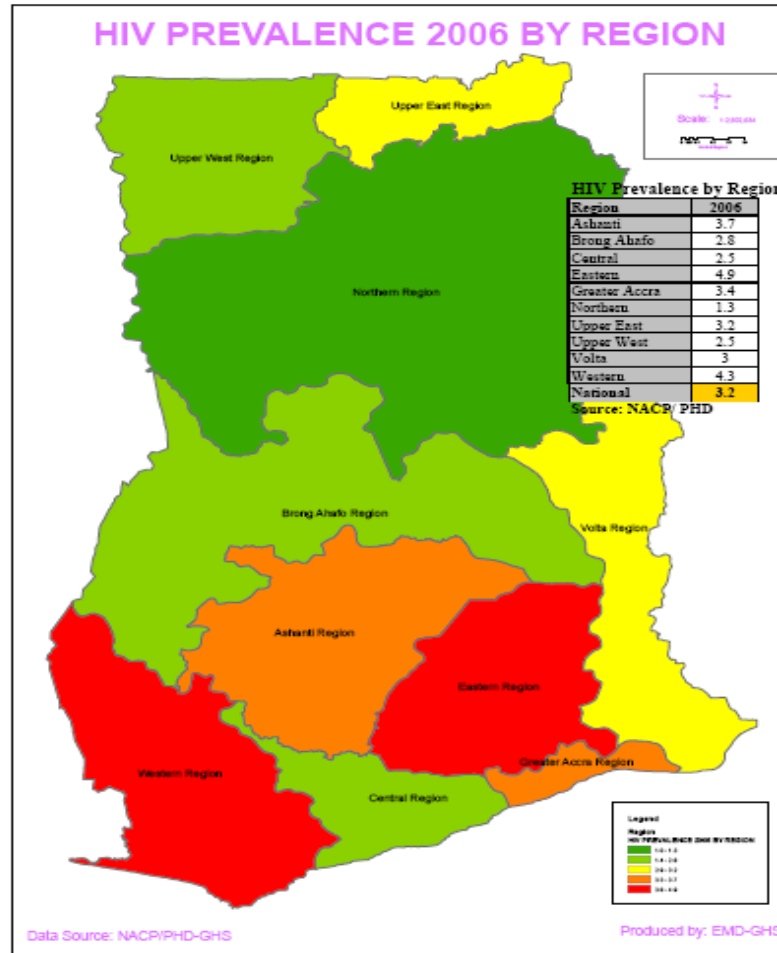
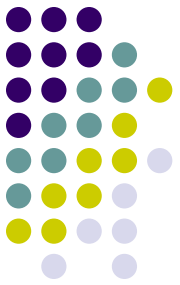
Data Source: Ho Municipal [MHIS] / EMD-GHS

Produced by: EMD-GHS

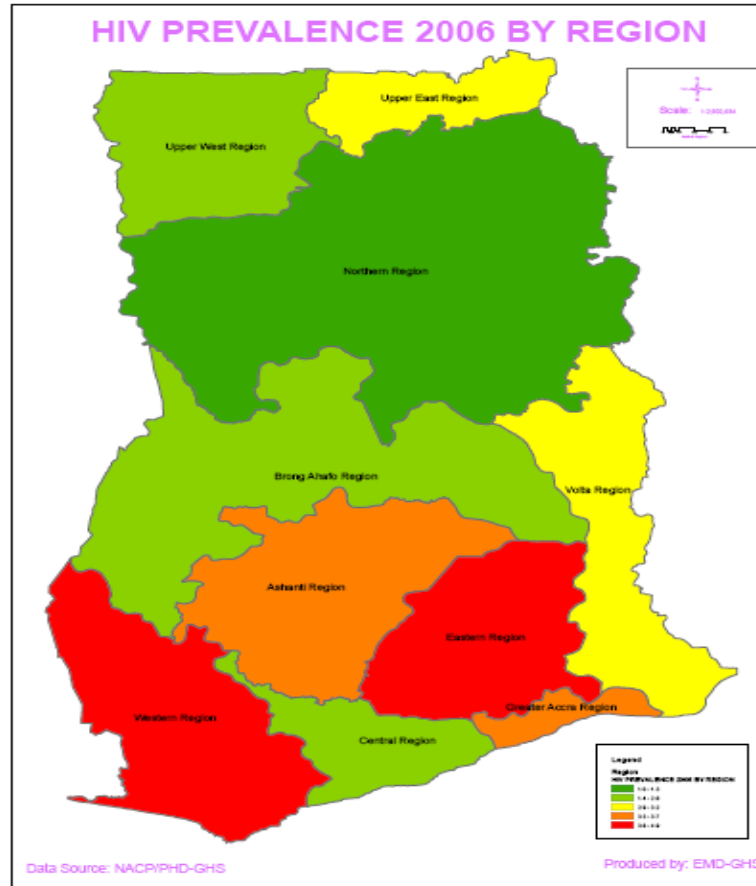
Where are we contd.?



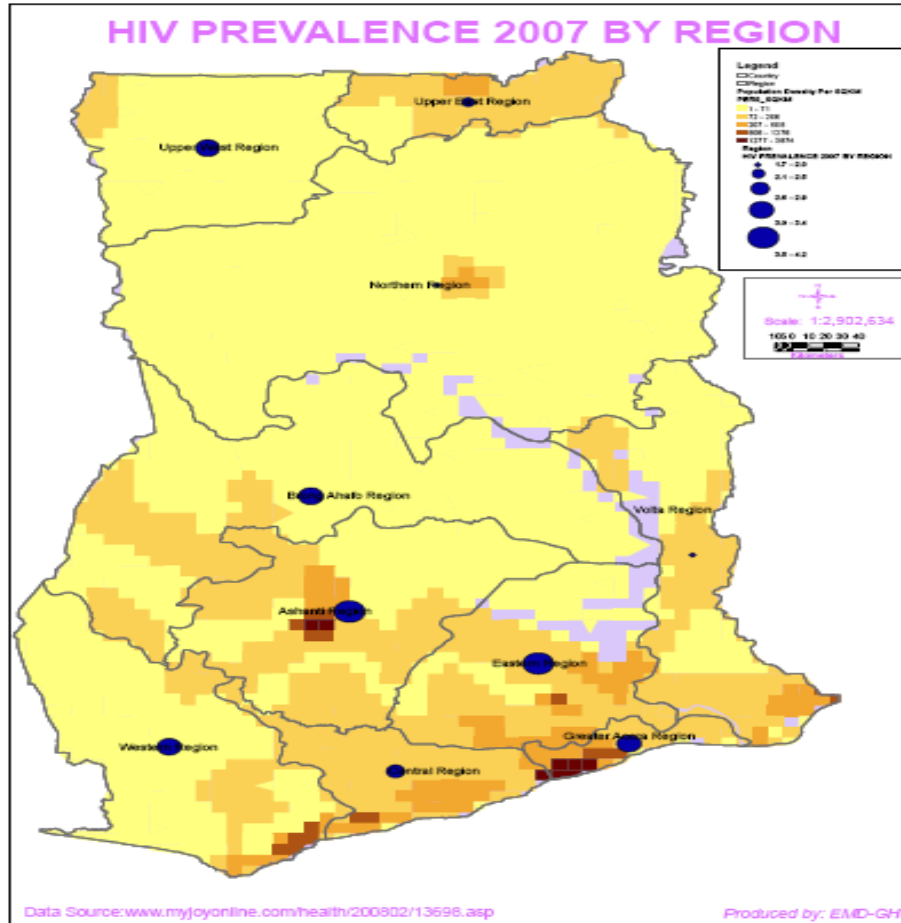
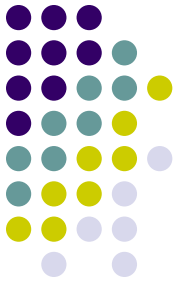
Where are we contd.?

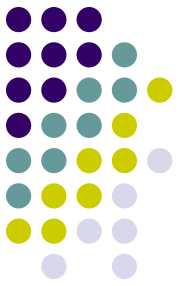


Where are we contd.?



Where are we contd.?





Thank you