Immunization Information System Assessment (IISA), Ghana 2016

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Expanded Programme on Immunization

Ghana

2018 AIRA Meeting, Salt Lake City, Utah, 15 Aug 2018

Outline

- Background

- Ghana EPI reporting system

- Objectives (IISA)

- Key findings/Results

- Challenges/Strengths

- Data quality improvement plan

- Conclusion

Map of Ghana
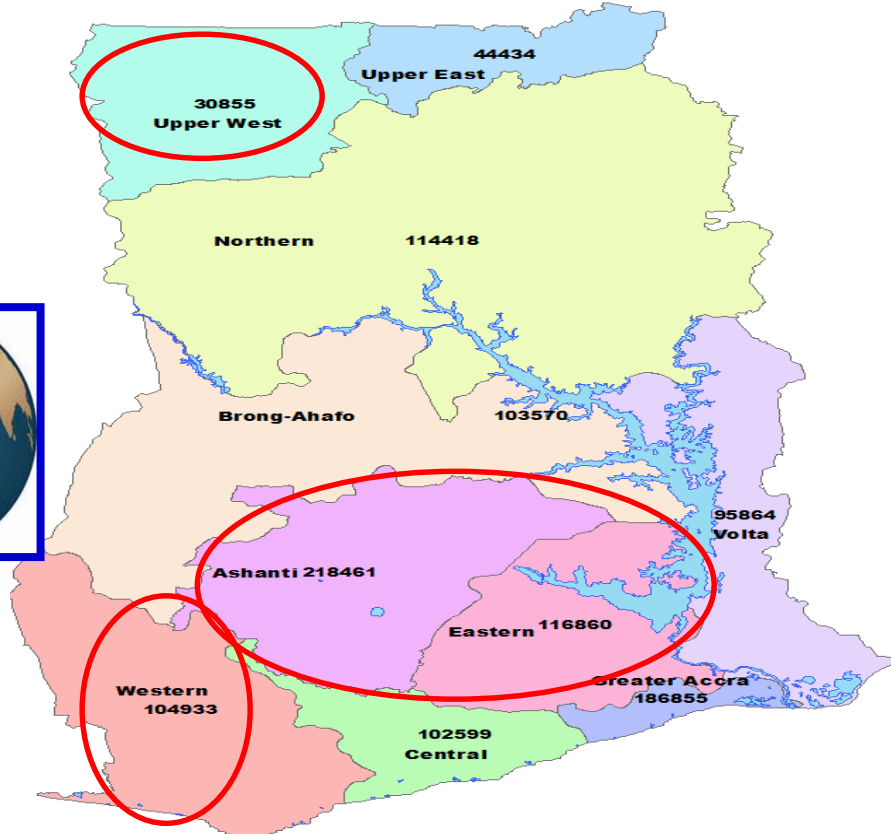
2018 Population – 29,611,508

Pop <1 – 1,184,460

Regions – 10

Districts – 216

Sub-districts – 1,078

CHPS zones – 3,185

Circles- Assessment Regions

The EPI Programme in Ghana

- EPI started in 1978 in Ghana with four vaccines against 6 diseases
- Currently, 13 vaccine preventable diseases are targeted by the programme
- Key strategies: static, outreach, mobile, mop-up & campaigns
- District Vaccination Data Management Tool (DVDMT) was used since 2002 to manage immunization data
    - -an excel based tool developed by WHO
- Ghana Health Service (GHS) introduced the web-based District Health Information Management System (DHIMS) tool in 2012 which is currently used to manage immunization data
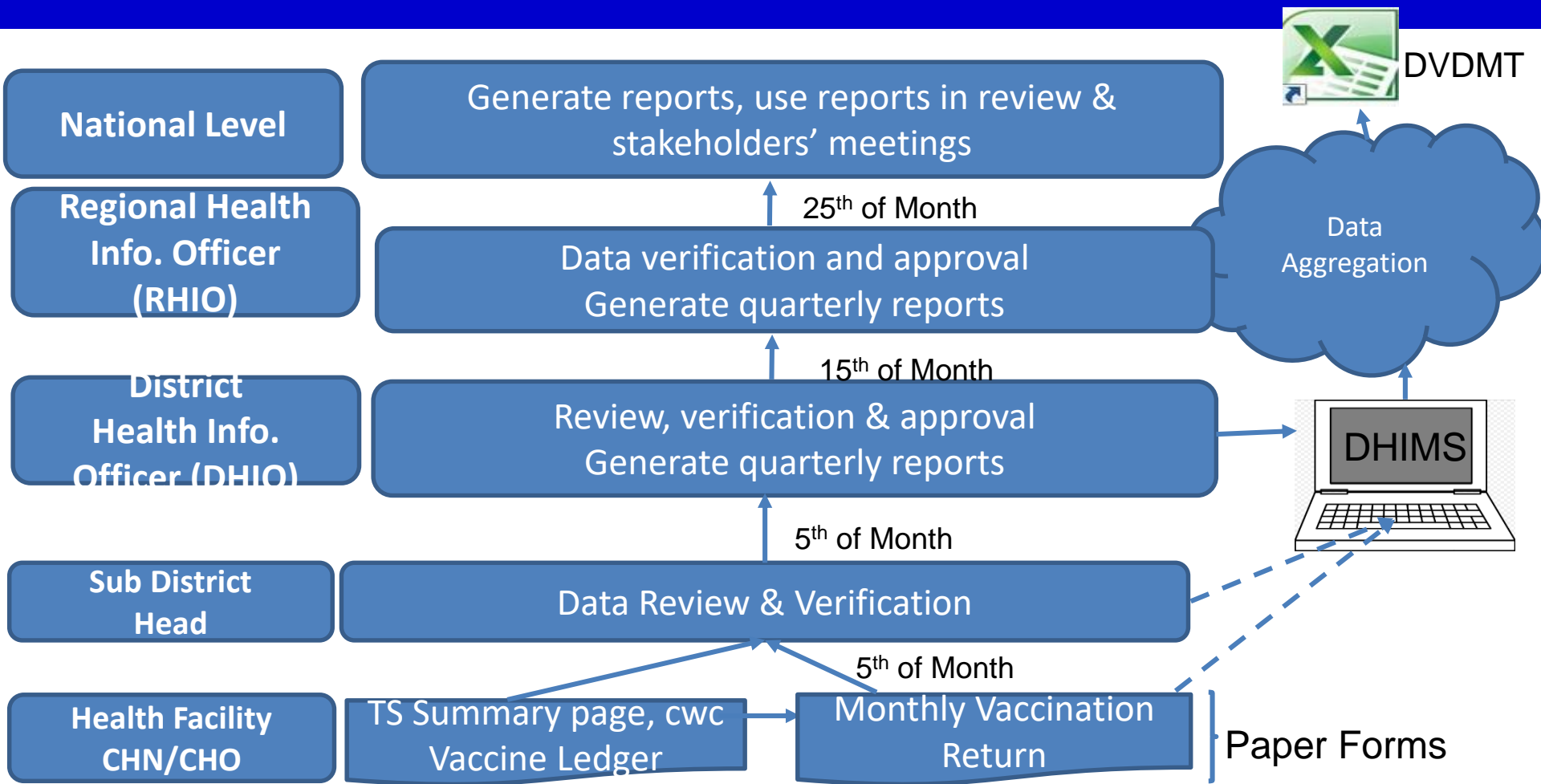
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Ghana Immunization Data Flow Chart

DVDMT

Data Aggregation

National Level	Generate reports, use reports in review & stakeholders' meetings
Regional Health Info. Officer (RHIO)	Data verification and approval Generate quarterly reports
District Health Info. Officer (DHIO)	Review, verification & approval Generate quarterly reports
Sub District Head	Data Review & Verification
Health Facility CHN/CHO	TS Summary page, cwc Vaccine Ledger

25th of Month

15th of Month

5th of Month

5th of Month

DHIMS

Monthly Vaccination Return

Paper Forms

Assessment objectives

- In 2016, the GHS with the support of partners (CDC & WHO) conducted data quality assessment;

  ➢ To assess quality of immunization data as captured in the recording & reporting tools

  -Data availability

  -Data completeness

  -Data accuracy and data consistency

  -To verify if reported data in DHIMS exist at the facility levels

  ➢ To identify the strengths and weaknesses of the existing immunization data system

  ➢ Use findings to inform the data quality improvement plan

Areas Assessed in Field Work

- Human resource capacity

- Data recording, reporting, storage and verification

- Data analysis, interpretation and utilization

- Denominator issue

Methodology

- WHO/CDC IISA protocol was used for the assessment
  - Desk review was conducted & questionnaires developed/revised at the national level
  - EPI performance for one year (2016) used for site selection
    - Region & district selection: Timeliness, Penta 3 & MR 1 coverage and Penta dropouts
    - Sub-district & HF selection: Timeliness, Penta dropouts, Penta1 & OPV1 Gap and Patient volume
  - 4 regions, 8 districts, 14 sub districts and 34 health facilities were visited
- Questionnaires used for data collection
- EpiInfo software used for data management and analysis

Methodology

- Field teams deployed to assigned regions to collect data

  -1 team/region and 4 people/team

  -Composition of team: National, regional, district and a Partner

  -Each team had a data manager

  -Each team member was assigned an area of focus

- Each team conducted data analysis and report writing for assigned region

- Data quality improvement plan was developed together by all teams

Staff Interviewed

Levels	*DDHS	Disease Control Officer (DCOs)	**HIO	Community Health Nurses	Field Technician	Enroll Nurse	Facility in-charge	Social Mobilizer	Total
District (8)	5	**14**	1	2	1	0	0	1	24
Sub District (14)	0	2	0	**26**	4	2	1	1	36
Facility (34)	0	0	0	**56**	7	7	3	1	74
Total	5	16	1	84	12	9	4	3	**133**

*DDHS: Director District Health System
**HIO: Health Information Officer

Findings

Human resource capacity (Subdistrict & HF levels)

- Adequate staff at facilities visited
- Sub-districts exist by name not by function (in some areas)
- Inadequate data management training and skills among staffs
  - Only one staff participated in data training within the past year
  - No orientation for newly posted EPI staffs
  - inadequate knowledge of basic EPI indicators (eg drop-out rate)
  - Majority lack requisite skills to analyze data and use it
- Inadequate access to DHIMS by facility staffs; entry only done at district levels
  -No feedback from higher levels (Regions and Districts)
- Inadequate data collection & entry tools

EPI Tool Availability

Tools	District (N=8)		Sub-district (N=14)	
	Available (%)	Updated (%)	Available (%)	Updated (%)
Monthly Reporting Form	8 (100)	8 (100)	11 (78.6)	11 (78.6)
Vaccine Ledger	8 (100)	6 (75)	14 (100)	14(100)
Immunization Monitoring Chart	8 (100)	8 (100)	14 (100)	7 (50)
Temperature Monitoring Chart	8 (100)	8 (100)	12 (85.7)	10 (71.4)

Available Tools at the Facility (N= 34)

Recording Tool (# of facilities with tools)	Updated version (%)	Filled appropriately (%)	In-stock for the last 3 months (%)
CWC Register (19) Improvised (15)	19 (100) NA	11 (58) 0	19 (100) NA
Tally book(22) Improvised (1)	22 (100) NA	8(36)	22(100)
Child Health Records Book (6)	5	3	4
Monthly Reports (33) Improvised (1)	33(100) NA	0 0	33 (100) NA
Immunization Monitoring Chart (26)	26 (100)	14 (54)	NA
Vaccine Ledger (8)	7 (88)	6 (75)	7 (88)

Findings: Data Recording and Verification

- 10 facilities (29.4%) used the CWC registry to identify defaulters

- Home visit is the most common action taken to track defaulters

  -Two HF also reported using phones to contact mothers identified as defaulters

- Records in the registers vary from what is on the tally book and monthly reporting form

- Records on monthly form vary from that on the DHIMS

  -Due to transmission error at the district level since data entry is conducted at the district

- The negative dropout out for Penta and OPV was a challenge in most districts

  -Influx of people to the districts resulted in negative dropout reported by facilities staff

Data Verification

Data from 28 Health Facilities

Month	Doses from CWC register		Doses from tally sheet		Doses from HF monthly vaccination report	
	Penta 3	OPV 3	Penta 3	OPV 3	Penta 3	OPV 3
April	**224**	**227**	447	447	497	495
May	**227**	**227**	453	455	477	512
June	**201**	**201**	401	390	457	451

Reasons for discrepancy
- Visitors
- Fulani(s)
- Presence of the Regional Hospital and Market
- Clients accessing other facilities
- Limited registration of children in CWC books
- Using separate recording tools for outreach sessions/sites

Data Recording & Reporting Issues

- **One tally sheet use for more than a day**

- **Two different dates on one tally sheet**

- **Wrong totals**

Denominator

- Lack of realistic population estimates

  -Staff at 18 (53%) HFs did not agree with the official estimates provided by the districts

- Three facilities (9%) based their target on previous year's estimations

- The unrealistic denominator results in either very high coverage rates or very low coverage rates for some districts

Strengths

- Some HFs have determined their operational denominator (e.g. using head count)

- Data management capacity exist at the district Level

- A few examples of data use observed on the field

- Opportunities of defaulter tracking exist through home visits

- Half of the districts have strategies for feedbacks (e.g., bulletins and WhatsApp group)

- Staff requested training in data management (analysis and use)

Weaknesses

- Sub-district role not functioning (level between district & HF)

  -In terms of data management and supervision

- Inadequate tools observed in facilities

- Lack of orientation of new staffs

- Lack of computers at the facility levels for data entry and reporting

- Lack of registers in most facilities (affecting defaulter tracing)

  - The few registers observed on the field are not standardized (improvised)

- Inadequate understanding of EPI indicators (e.g. drop-out, left out) observed in some facilities

Recommendations

- Make EPI tools available to districts and facilities

- Orientate new staff on calculation and use of EPI indicators

- Provide in-service training to existing staffs

- Provide sub-districts and facilities with computers

- Strengthen district and sub district peer review mechanism

- Make sub-district more functional & ensure sub-districts conduct data validation

Data Quality Improvement Plan

- DQIP was developed, covering two main areas
  - Supply of paper tools
  - Provision of relevant data management skills
- Implementation of DQIP
  - Sub-district trainings have been conducted in Western and Northern regions only
  - Child health record books printed but not adequate
  - CWC registers revised and printed out but not adequate

Training Pictures

Conclusion

- There are a lot of positives in the IIS of Ghana

- Challenges still persist

- Regular training of newly posted staff & orientation for staff, understanding of the EPI indicators and the availability of recording and reporting tools will help improve data quality

Acknowledgement

- **Staff of GHS**

- **WHO Country Office**

- **CDC 2YL team**

- **The entire EPI team**

Thank you

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