# **GHANA**

## Improving Routine Immunization Service Delivery to Urban Poor in Ghana: Results of Situational Analysis

#### **BACKGROUND AND RATIONALE**

Estimates show that Ghana has maintained high immunization coverage rates between roughly 90-95 percent for the past 10 years (WHO/UNICEF 2017). However, there are pockets of low-performing areas in districts which are not achieving the targets of 80 percent with 3 doses of pentavalent vaccine [DPT/HepB/Hib - referred to as penta3] (GHS 2017). There are also high numbers of under-immunized children in certain metropolitan areas, including Sekondi-Takoradi metro in the Western Region, Ho municipal in the Volta Region, and Asokore-Mampong in the Ashanti Region (Figure 1).

# Immunization coverage in Ghana is generally high at an estimated 99 percent for DTP3<sup>1</sup> in 2017.

In Ghana, as in many developing countries, the trend toward urbanization has led to increasing numbers of people living in financially constrained settlements (United Nations 2017). The country's urban population grew more than three-fold between 1984 and 2014 (2010 Population and Housing Census), increasing the number of under-immunized children in these areas. Yet there is little information on geographic delineation of urban poor areas in Ghana, as well as inadequate data on immunization coverage among urban poor populations and the underlying factors contributing to pockets of lower coverage.



Data from two recent Ghana Demographic and Health Surveys (2008 and 2014), showed that sampled children between 12 and 59 months in rural areas are more likely to complete the required vaccinations than those in the urban communities (GDHS 2008, 2014). Despite the physical access to health facilities and immunization centers in urban areas, there still exist substantial barriers to immunization coverage particularly among the poor living in urban settings (Asuman 2017). In addition, health system strengthening has not kept pace with the rapidly growing slums and informal settlements of Ghana's metropolitan areas.

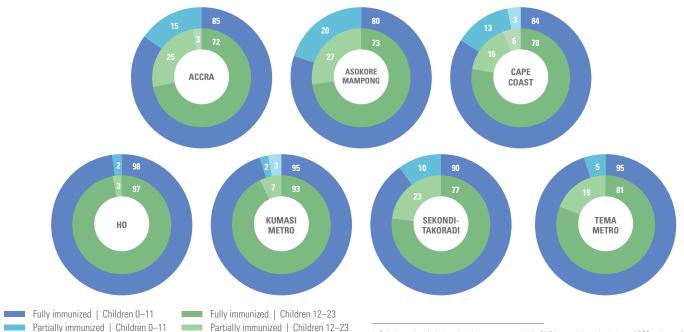
FIGURE 1. DISTRICTS WITH HIGHEST NUMBERS OF UNDER-IMMUNIZED CHILDREN (PENTA 3) IN GHANA, 2017



To identify potential factors contributing to low immunization rates in urban poor communities, JSI Research & Training Institute, Inc. (JSI), in collaboration with the Ministry of Health (MoH) and the Ghana Health Service (GHS), conducted a situational analysis in seven major metropolitan areas across five regions in Ghana between January and July 2017.



<sup>1</sup> Diphtheria, tetanus, and pertussis 3rd dose.



Status unknown | Children 12-23

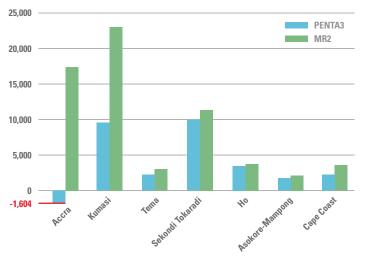
#### **DATA COLLECTION AND ANALYSIS**

Status unknown | Children 0-11

Following consultation with the MoH, the GHS, and in-country partners, the JSI team and the London School of Hygiene and Tropical Medicine developed a methodology for the urban immunization situational analysis. Data collection tools were developed based on past experience with immunization analyses and tailored to the local context. The exploratory situational analysis was undertaken in seven metros and municipals (Accra and Tema metros in Greater Accra Region, Kumasi metro and Asokore-Mampong municipal in Ashanti Region, Ho municipal in Volta Region, Cape Coast in the Central Region and Sekondi-Takoradi in the Western Region).

Primary qualitative and quantitative data were collected from lot quality assurance sampling (LQAS) of 714 children and 35 focus group (FG) members<sup>3</sup>. As part of the Situational Analysis, JSI conducted structured key informant

FIGURE 3. NUMBER OF UNIMMUNIZED CHILDREN IN METROPOLITAN AREAS: 2017



Source: Ghana National Annual EPI Administrative Data, 2017.

interviews with mothers of immunized and unimmunized children; community members (e.g., individuals from fishing communities, market women); nongovernmental organizations (NGOs) and civil society organizations (CSOs) representing social welfare education, HIV, gender, etc.; municipal leaders; community leaders; and health workers from both the private and public sector. Secondary data were gathered from GHS' Expanded Program on Immunization (EPI) administrative data, the 2017 Gavi Joint Assessment report, Ghana Demographic and Health data, a desk literature review, and Social Welfare Department poverty mapping. Administrative routine immunization (RI) data were available at the metro level but not disaggregated by slum or urban poor communities highlighting a gap in the evidence base and an opportunity for further in-depth research.

### KEY FINDINGS: ACCESS AND UTILIZATION BARRIERS TO IMMUNIZATION SERVICES AMONG URBAN POOR

Many Ghanaian caregivers have access to immunization services and ensure completion of their children's immunization series, although less so for vaccinations provided in the second year of life (2YL) immunizations. Some urban poor communities face a number of barriers to reaching full immunization, as highlighted in the situation analysis described in Table 1.

The LOAS sampled a total of 714 children from the seven selected metros. Immunization status data were available for 684 respondents: children 0-11 months (401) and 12-23 months (283). From the sampled respondents, 90 percent of the children 0-11 months and 82 percent of the children 12-23 months were fully immunized, ranging from 80 percent in Asokore-Mampong to 98 percent in Ho for children 0-11 months. For children 12-23 months, the rate of full immunization by metro ranged from 72 percent in Accra Metro to 97 percent in Ho; in some metropolitan areas more than 20 percent of children were under-immunized (Figure 2). These findings are consistent with EPI administrative data which identified large numbers of unimmunized children in each of the metros sampled (Figure 3).

<sup>2</sup> Fully immunized includes all antigens recommended by GHS by age 24 months; 1 dose of BCG, 4 doses of OPV, 3 doses of pentavalent vaccine, 3 doses of PCV, 2 doses of rotavirus vaccine, 2 doses of MCV, and 1 dose of yellow fever vaccine.

<sup>3</sup> Conducted as part the Situational Analysis in collaboration with MoH, GHS and Metro Health teams, June 2017.

### **ACCESS**



### UTILIZATION



### BARRIERS AND CHALLENGES FOR URBAN IMMUNIZATION FALL UNDER THE FOLLOWING AREAS:

planning and management of resources, availability of immunization services, community engagement and communication, quality of services, monitoring and data use, vaccine supply and cold chain, and leadership and governance

Opening times and long waiting times: Facilities are often not open on days and times that are convenient for caregivers such as busy working mothers or those facing limited transportation options. There were multiple reports of long waiting times even when caregivers were able to attend sessions.

"Others also miss the opportunity because of busy work schedule. Some people leave for work as early as 4 a.m. and 5 a.m., especially the market women. The government workers also leave around 7 a.m., so most mothers will not be around because Child Welfare Clinic starts at 9 a.m. People leave for work early, close late, and do not get the chance to meet the Child Welfare Clinic for vaccination."

- CSO Representative, Ashanti

### Availability of vaccines and opening of vaccine vials:

Providers sometimes did not open multidose vials if there were only a few children present, for fear of increasing wastage. All facilities also reported at least one vaccine stockout in the previous year despite the fact that most had all vaccines on the day of data collection.

**Finances:** Some facilities were charging for essential RI components such as replacement immunization cards or for paracetamol.

#### **Knowledge and awareness:**

Caregivers are often not aware of when to return for the next immunization, what diseases the vaccines prevent, or the benefits of vaccination generally.

Fear of stigma and discrimination: Poorer caregivers have experienced stigma from health workers and feel embarrassed to attend facilities if they do not feel they have the proper attire.

### Fear of adverse events following immunization:

Some caregivers were concerned about potential negative side effects of vaccination. Even though mild reactions sometimes occur, providers were not informing caregivers about what to expect.

"Some mothers may know the importance of immunization but they intentionally do not bring their children for immunization. They know that if they bring the child for immunization the child will have increased temperature and will not sleep which will also make the mother not sleep."

Mother of Partially Immunized
 Child, Greater Accra

Poor provider interactions and attitude: Negative experiences affected overall trust in the system and willingness to return for boosters.



Other data support these findings, highlighting obstacles in accessing immunization services, highlighted in Table 1. Challenges in access and utilization of immunization services are related to and affected by several cross-cutting themes that were identified through the situational analysis and are highlighted and further described in Table 1. The insights from the key informants also provide useful information for short-term and long-term improvements that can assist with strengthening the immunization program and service delivery.

### RECOMMENDATIONS AND NEXT STEPS BY GHANA HEALTH SERVICE AND PARTNERS

GHS, the MoH and in-country stakeholders are already implementing measures to further identify and target the needs and challenges of urban poor and addressing low immunization coverage among these communities. These measures include: mapping of urban and peri-urban slums, establishing container clinics at markets within urban poor areas, and conducting market and weekend vaccination sessions. Ongoing efforts include engagement of community structures through durbars, market queens<sup>4</sup>, and in some cases, use of radio. With support from the US Centers for Disease Control and in close collaboration with GHS and the private sector, container clinics are in use as part of 2YL interventions in metropolitan areas.

Building on the situational analysis informed a participatory process involving in-country stakeholders developed the following recommendations and suggested actions as part of an actionable urban immunization strategy. These recommendations complement existing strategies currently being implemented in each of the metropolitan areas. A stakeholder analysis conducted as part of JSI's situational analysis suggested opportunities for leveraging NGOs and CSOs to further strengthen RI service delivery, for

<sup>4</sup> Market queens are businesswomen who oversee an entire marketplace or dictate trade of a certain product within the marketplace. They often form informal or formal networks between markets, especially in urban settings.

example, through the 350-member Ghana Coalition of Non-Governmental Organizations. One-quarter of these member organizations already are involved in immunization-related activities and can be leveraged to engage with urban poor populations. There is also an opportunity to improve coordination

and collaboration across the health and other sectors, involving various stakeholders (including universities and schools of public health), to further understand urban immunization issues, conduct rapid assessments, and support data quality activities.















#### SHORT-TERM (<1 YEAR) ACTIONS TO OVERCOME BARRIERS

### **Ensure financial commitment to microplans:**

All levels, including each metropolitan area, must identify and include plans to reach the urban poor in their microplans each year and update them regularly to address changing needs and priorities. This planning requires reviewing the catchment area mapping for the urban areas to better define the population served either manually or with GIS technology where possible. Development of microplans must be through inter-sectoral collaboration including Community-based Health Planning and Services. These session plans will help identify the best way (including considerations about service delivery modality) to reach all members of the population to ensure commitment to equity. Microplans and session plans will need to be regularly and jointly monitored to ensure action points are met and this planning process becomes sustainable.

Reminders: A simple, personalized system should be set up to remind caregivers when and where to bring their children for vaccination sessions in both the first and second year of life. In addition to improving the use of Child Health Records, these reminders can leverage appropriate platforms such as SMS, TV, or radio. The strong involvement of community members (such as religious leaders and civil society) is necessary to increase acceptability of and demand for services.

Health worker training: As part of a primary health care approach, the MoH and GHS should conduct integrated mentoring, and revise and/ or update supportive supervision checklists and/ or job aids for health workers. These tools can: a) educate caregivers on the immunization schedule, b) improved client satisfaction/interaction, and c) establishing a tracing system for dropouts or children without immunization cards.

Engagement with private facilities to ensure quality services and reporting: The MoH and GHS will need to further engage with private facilities that provide immunization services to enforce quality control measures and ensure timely and accurate mmunization data and reporting.

Patient-provider interactions: Immunization service delivery policies, guidelines, and communications must be reinforced. Key among these is the guidance to open a vial regardless of the number of children present and to maintain an adequate stock of vaccines and Child Health Records so children are never turned away. Supervision, training, training, stigma reduction orientation and and mentoring should be conducted to build capacity of providers to improve client interactions, education, and customer service. Facility managers should also explore opportunities to improve the efficiency of

service delivery within a facility ((i.e triaging of service delivery to improve efficiency and patient flow through the facility).

Increase in awareness: Community leaders and members must be engaged at multiple levels to generate demand and increase awareness through personalized messages to specific groups at specific times and meeting points. This approach should be complemented by multimedia campaigns so that key messages reach caregivers who travel. Radio jingles and community engagement initiatives through the Ghana coalition of NGOs are already is taking place in some areas and should be expanded to all urban areas.

Session timing: Service hours need to be tailored to suit those seeking services. In some cases, this means extended hours and weekend vaccination sessions

Additional outreach sessions and tailored urban immunization approach: As part of regular reviews of health and immunization programs, plans at all levels should be updated to include specific approaches to reach urban poor communities.



#### LONG-TERM (> 1 YEAR) ACTIONS TO OVERCOME BARRIERS



Optimization of vial size and reinforcement of guidance on open vial policies: The MoH and GHS should use ongoing trainings, on-the-job mentoring and supervision, and close monitoring of RI data to help identify under-performing areas, tailor vial sizes to align with session sizes (as possible), and ensure that health workers follow requirements to open vials no matter how many children attend a vaccination session.

Introduction of electronic registries: A shift to electronic registries (paired with strengthened use and retention of Child Health Records with caregivers) could improve accuracy of coverage and drop-out rates, assist with defaulter tracing, and reduce barriers to access among children who are missed or not recorded

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