Bringing Immunization Services closer to Communities

[The Reaching Every District experience in Ghana]

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Acronyms

AFRO – Africa Regional office of WHO

CDC-Centre for Disease Control, Atlanta (USA)

EPI – Expanded programme on Immunization

DHMT – District Health Management

GAVI – Global Alliance for Vaccine and Immunization

IDSR – Integrate Disease Surveillance and Response

IMCI – Integrated Management of Childhood Illness

MO – Medical Officer

NID – National Immunization Day

NPO – National Professional Officer

RBM – Rollback Malaria

RED – Reaching Every District

WHO – World Health Organization

Foreword

Although immunizing children against often fatal childhood diseases is one of the most cost-effective intervention strategies for reducing child mortality and morbidity, much remains to be done to ensure that immunization services are effectively provided and fully utilized to eliminate the effects of vaccine-preventable diseases in Ghana. Implementation is hindered by limitations in the health infrastructure, particularly limited transport and logistics. Outreach services of the routine immunization programme are especially affected by these constraints.

Barriers such as inadequate understanding of immunization and insufficient demand for immunization services by families and communities; limited access to immunization services for communities located in hard-to-reach areas; and inadequate numbers of health staff to provide services to very large and scattered communities have hampered the delivery of services to many target populations.

To address these problems, the 'Reaching Every District' or 'RED' approach was adopted as an extension of routine immunization services in 2003. RED aims at improving organization of immunization services so as to guarantee sustainable and equitable immunization for every child. It emphasizes strategies that, if utilized appropriately, will contribute to the achievement of the fourth Millennium Development Goal of 'halving child mortality by 2010'. Empowering districts to plan, implement and monitor activities is key to the RED strategy. This will also strengthen the entire health system for primary health care an important strategy for sustainable health service delivery.

The RED approach can further promote the delivery of integrated services serving as a rallying point for all the priority intervention programmes like Roll Back Malaria (RBM), Integrated Management of Childhood Illnesses (IMCI), Expanded Programme on Immunization (EPI), Integrated Disease Surveillance and Response (IDSR), and Soil Transmitted Helminthiasis (deworming) to pool resources for joint activities at the district and sub-district levels.

This publication attempts to document and share some of the experiences from the initial implementation of the RED approach in Ghana and the process adopted. The document further points out that with extra support, (both technical and financial) the concept of RED is the most appropriate and technically feasible intervention. It further suggests that RED can provide a framework for improving other priority interventions in a more coordinated and integrated manner.

The experiences gathered from implementing the RED approach in Ghana give hope for the future of the country's immunization programme. Districts have demonstrated their ability to perform well if they get the necessary support. It is also clear that the financial support from AFRO and its partners through the country office contributed greatly to the gains made in routine immunization services. Such tremendous support, coupled with the collaboration of partners, puts Ghana on the road to achieving desired goals in immunization service delivery.

Dr. Melville George
WHO Representative, Ghana.

Acknowledgement

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Background information

Ghana has ten administrative regions and had 110 districts until October 2004, when the government created 28 new districts, to bring the total to 138. Currently there are 800 sub-districts, but this number will increase after the demarcation of the new districts is completed.

Map of Ghana showing the ten administrative regions.

In line with the Government's decentralization and primary health care policies, every district health office is required to independently determine its priority health needs and develop appropriate strategies and actions to address these needs, based on national priorities. These policies have given District Health Management Teams (DHMT) autonomy to plan and implement their own health programmes. The Regional and National levels play advocacy, supervisory and monitoring roles.

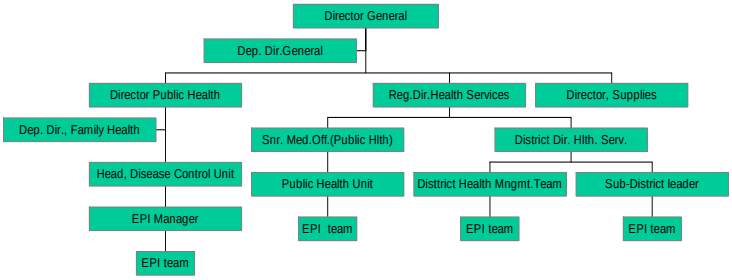
Funds allocated from the national level are channeled to the districts through the regions. However, the regions have limited control over the use of the funds by the districts. EPI and Disease Control Officers at all levels of the health system are responsible for the planning and coordination of immunization activities in the country.

Immunization service delivery

Ghana implements the Expanded Programme on Immunization (EPI) in all districts. The country is currently a beneficiary of a 5-year plan of support from GAVI spanning the period 2001-2005, to strengthen the immunization system. The country also received an additional 3-year GAVI support, from 2003-2005, to improve injection safety and waste management practices. These funds supplement the Ghanaian government's national immunization programme.

The Expanded Programme on Immunization (EPI) in the country has a three-tier management system. At the national level, EPI comes under the Disease Control Unit together with other programmes that fall directly under the Directorate of Public Health.
At the regional level, EPI service is integrated into the public health system under the leadership of the Regional Director for Health Services. There are EPI coordinators or Disease Control officers who are responsible to the Senior Medical Officer (Public Health) of the region for the day-to-day management of immunization programmes in all regions.
At the district level, the District Health Management Team (DHMT) led by the District Director of Health Services manages EPI activities. Members of the DHMT include public health nurses, nutrition technical officers, biostatistics, etc. There are designated Disease Control Technical Officers who are responsible to the DHMT for EPI and Surveillance

activities in the districts. They team up to plan, implement and monitor immunization activities. They collate activity reports from the sub-districts for onward transmission on monthly basis. Services at the district level are delivered in an integrated manner.



Organizational structure of the health sector in Ghana, with particular emphasis on EPI coordination and management in the country

Challenges to EPI service delivery

Access to basic health care is a constraint to health care service delivery in hard-to-reach areas in Ghana, while service utilization is a major problem throughout the country. About 40% of the population in Ghana lives more than 15 kilometers from a health facility. Hard-to-reach areas pose particular challenges to expansion of service delivery. Many such communities are denied access because bodies of water cut them off from routine services. Furthermore, communication networks are poor and social infrastructure, such as health and education facilities, are inadequate. The Volta Lake Basin, comprised of island communities in 17 districts, is one such hard-to-reach areas. Because of these difficulties, health services are not provided to the islands on a regular basis as expected. In addition, the cost of providing vaccinations in these islands can be as high as 30 times that of inland areas.

THE 'DONKOKROM' DECLARATION

As part of efforts to reach some of the island communities experiencing poor access to basic health care, the Ministry of Health organized a meeting in Donkorkrom in the Eastern region in November 1999 to assess the problem of service delivery in the Volta Lake Basin. The meeting was attended by health workers from Eastern, Ashanti, Brong Ahafo, Volta, and Northern regions, the Public Health Directorate of the Ministry of Health and other partners. A declaration agreed on by participants at the meeting stated that:

- Regions and districts should allocate resources for service delivery in the islands and other hard-to-reach areas
- Incentive packages should be developed to motivate staff to work in these areas
- Additional transport services should be provided to facilitate service delivery

- A communication system should be designed to support implementation

After the Donkorkrom declaration in 1999, efforts were made to improve provision of health services to these island communities. WHO and its partners provided boats and additional funds for running costs to transport staff to the islands. These efforts, however, focused mainly on using the Polio Eradication Initiative as an entry point to expand service delivery to the island communities.

Implementing the RED approach

As a result of the experiences and lessons learned from the Volta Lake Basin project, a decision was made to adopt the RED approach in additional districts throughout the country.

1. Review of district performance

The selection of the additional districts was based on the review of district performance centered on previous achievements in immunization coverage. It identified priority districts for support to improve access and immunization coverage. The districts first chosen were Krachi, Kpando, Afram Plains, Jasikan, North Tongu and Sekyere East. In 2004, four more districts (Amansie East, Nkoranza, Bole and Nanumba) were added to bring the total to 10.

2. Strategies and support

As a follow-up to the review, WHO provided both technical and financial support for 6 districts in 2003 to begin the implementation of the Reaching Every District (RED) approach in the country. The strategies currently adopted in the implementation process include:

- support for low performing and hard-to-reach districts
- involvement of private mid-wives
- use of leaders of religious groups and traditional rulers, and
- immunizing on market days

It is envisaged that the number of districts will increase gradually, based on availability of resources, until all the 138 districts come fully on board to implement the RED approach

The Five operational components for RED

1. *Re-establishing outreach vaccination – regular outreach for communities that are under-served.*
2. *Supportive supervision – on-site training by supervisors.*
3. *Links between community and service – regular meetings between community and health staff.*
4. *Monitoring for action – chart doses, map populations for each health facility.*
5. *Planning and management of resources – better management of human and financial resources.*

Support for low performing and hard-to-reach districts:

Due to the limitation of resources, it became necessary to identify the districts that needed most attention and support. The most affected districts are those located in the Volta Lake basin, flood areas and areas with difficult terrain and poor road network. Some of these districts were portrayed to the WHO Representative to Ghana; Dr. Melville George, seen in the adjacent picture reviewing the map of the Volta region with officials of the Volta regional health administration at Ho. It was through this process of performance monitoring and review that the 10 districts supported in 2004 were selected.

Dr. George (arrowed) reviews the map of the Volta region.

The selected districts were provided with funds and technical assistance to develop and implement micro-plans that covered outreach services, supervision and monitoring, social mobilization, quarterly review meetings and other community activities. In addition, some districts received motor bikes and outboard motor boats for supervision and services in the island communities.

In the Volta Lake basin, outreach activities lasted for up to a week in each selected area, and included social mobilization and the set-up of temporary health posts to provide immunization and other basic healthcare services.

The performance of the six districts supported in 2003 is presented in table 1. This shows the total number of children immunized with three doses of the DPT, HepB, and Hib combination vaccine (Penta 3) as compared to the number immunized in 2002. There was a total increase of 1608 children in the six districts over the previous year's achievements, representing an 8% increase. Only Jasikan district did not maintain the previous year's achievement and had a reduction in coverage of 10% (353 children) from 2002 to 2003.

Table 1: Number of children immunized with Penta 3 by the 6 districts supported in 2003

District	2002	2003	difference	% increase
Sekyere East	3712	4191	479	13
Afram Plains	4143	4215	72	2
Krachi	2836	3356	520	18
Kpando	3384	3595	211	6
Jasikan	3404	3051	-353	-10
North Tongu	2991	3670	679	23
Total	20470	22078	1608	8

Table 2 shows the performance of the 10 districts supported in 2004. As in Table 1, Table 2 compares the number of children immunized with Penta 3 in 2004 with that of 2003. Five districts recorded increases in their performance over the previous year while five districts recorded a reduction during the year. Overall the 10 districts have additional 5317 children in 2004, representing a 12% increase.

Table 2: Number of children immunized with Penta 3 by the 10 districts supported in 2004

District	2003	2004	difference	% increase
Sekyere East	4191	4140	-51	-1
Afram Plains	4215	4995	780	19
Krachi	3356	5628	2272	68
Kpando	3595	3466	-129	-4
Jasikan	3051	3601	550	18
North Tongu	3670	3558	-112	-3
Amansie East	5859	5532	-327	-6
Bole	3384	4215	831	25
Nanumba	4298	6228	1930	45
Nkoranza	5443	5016	-427	-8
Total	43065	48383	5317	12

With good micro- plans, limited resources can make a difference. Although some of the districts recorded decreases in number of children immunized, against their previous performances, the 2 tables have shown that a little well planned and strategic extra support to districts can make a great difference in routine immunization coverage.

Bole, Krachi, Nanumba and Afram Plains districts, which performed poorly in previous years recorded massive increases in 2004 with the support they received from the WHO country office. This suggests that with regular support, targeted districts can make a difference and contribute to increasing the country's immunization coverage.

On the other hand, it is clear that the RED approach may not show an immediate impact in some districts and support needs to be provided for some time to demonstrate a difference to sustain the approach.

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Some experiences in the island communities

The Volta Lake basin has over 40 islands of migrant farmers and fishermen. Some of the islands have schools that offer basic education to children. There are no health facilities and all health services are provided through outreach activities. The major

obstacle to service delivery on the islands is the risk to life when traveling on and along the Lake.

Support and supervisory visits conducted in the Lake basin confirmed that many island communities were not visited regularly for outreach services usually because of frequent break downs in the boat transport services and shortage of staff.

The boat transport service is also very expensive to run with increased risk being caused by the tree stumps in the lake which often damage the boats, and cause accidents that pose significant hazard to the health teams. Some of the health personnel are apprehensive about accidents on the lake because they cannot swim and are also not sure of insurance provision or cover in case of accidents.

Health teams preparing for outreach services in the island communities in the Afram Plains district. In the background is the Volta Lake with tree stumps.

Working on the islands, although challenging, can be interesting. Once the health team arrives on the island, it faces the herculean task of reaching all children in the target group. They begin by conducting social mobilization activities, then set up stations for providing basic health services, including immunization, Vitamin A supplementation, de-worming, and disease surveillance. Some of the island poulations are very large and the teams spend a lot of time reaching all the communities.

The presence of the team creates a lot of excitement among the children, and maintaining order can be difficult, particularly during SIAs (Supplementary Immunization Activities). In general there is excellent cooperation from the communities, who respond positvely in receiving the teams and participating in the programme.

An immunization session in one of the island communities.

Experiences from service delivery to island communities

- *Difficulty in reaching many of the target population due to frequent movement of people*
- *Inadequate resources for planned activities*
- *High risk to life with the boats services on the Volta Lake*
- *Unwillingness of staff, especially females, to travel on the lake*
- *Cost of service –very expensive*
- *Many health staff not trained on safety measures such as use of life jackets*

Private partner collaboration (involving private mid-wives):

The key principles of the 5-year national health sector programme enjoins health management teams at all levels to identify key partners for collaboration to deliver basic health care services. However, such collaboration with private providers can have its challenges, such as coordination of data collection and sharing of information. In promoting the vision of collaboration for health care, WHO supported Central, Brong Ahafo, Volta and Western regions to identify private mid-wives as frontline partners to achieve the goals of reaching every child with immunization services. Their involvement in the immunization programme has the potential to reduce missed opportunities and dropout rates. The involvement of private mid-wives has been implemented since 2003 after a training programme in basic immunization skills.

So far 85 private mid-wives have been trained and supported to give immunization services. The district and sub-district health teams provide technical support and vaccines to the mid-wives.

The WHO officer for Routine EPI reviews the monthly immunization report with the midwife at one of the private maternity homes in the Juabeso-Bia district.

Out of the 20 private midwives trained in the Western region, 10 (50 percent) came from the Juabeso Bia district. The district health administration in Juaboso-Bia district has established a cordial relationship with all the private mid-wives in the district for routine immunization services. Private maternity homes have been supplied with cold chain facilities and are regularly supplied with vaccines for routine services. These activities are yet to be evaluated, but based on monitoring visits, implementation is proceeding as planned. It is hoped that private midwives in all regions will be involved in immunization activities in the future.

Promoting community participation in immunization services (use of religious leaders and interest groups):

Services need to be linked with the communities to enhance community appreciation, ownership and demand. One way to achieve this goal is to involve communities in communication and social mobilization activities at all levels of the programme. As part of the strategies to increase the communication network for immunization services, four districts were provided with funds to organize orientation and sensitization workshops for religious leaders. The districts chosen were Jasikan, Kpando, Nkoranza and Afram Plains.

Fig4: Jasikan District director, Dr. Winfred Ofosu, making a presentation on the EPI performance of the district

Through this initiative, Religious leaders are recognized as influential individuals, with attributes that can support health care delivery programmes if they are involved. These attributes are:

- They have very large following and interact regularly with a cross-section of society, especially mothers and caregivers.
- They command respect among their congregation and society at large.
- Their advice and instructions are heeded by a majority of the community with little reservation or hesitation

fig 2: A participant making a contribution at the meeting

More than 300 representatives from various religious groups, including Muslims, attended workshops in the districts. The picture above shows Dr. Winfred Ofosu, District Director of Health, presenting an overview of EPI performance at the Jasikan district workshop. The training stressed the role that religious leaders can play in health care delivery considering the position they occupy in society.

Participants at the meeting expressed their willingness to join hands to champion the cause of immunization in their communities and in religious services. They made the following suggestions:

- Health authorities should send information early so they can also relate messages to their congregations in time. They complained that information from the health authorities often reached them very late.
- Church groups will from time to time monitor the immunization status of children in their congregation and inform health authorities for the appropriate action.
- Health authorities should organize outreach sessions on adolescent programmes in the communities just as they do for immunization programmes.

Immunization on market days. (Eastern Region trial).

Experience from previous polio National Immunization Days (NIDs) show that many children miss the opportunity to get vaccinated because they are taken to the market by their mothers. It is against this background that Eastern region was given support to organize immunization sessions on market days on a trial basis. The funds were used for social mobilization and motivation of the field staff.

Table 3: Total Immunization in Eastern region 2004

Antigen	Total Immunized	Immunized on market day	Market day/total (%)
BCG	93050	241	0.26
Penta 1	77396	1612	2.08
Penta 2	72724	2425	3.33
Penta 3	70499	1612	2.29
OPV 0	44922	86	0.19
OPV 1	77069	1612	2.09
OPV 2	72496	2435	3.36
OPV 3	70282	1484	2.11
Measles	76653	1519	1.98
Y Fever	74374	1519	2.04
TT 2+	47126	ND	
Vit A	ND	7387	

The immunization on market days' trial in the Eastern region was carried out in June and July of 2004. Seventy-nine market centres were covered, involving 476 visits by health staff. Table 3 on the left shows the total number of children vaccinated during the market days operation, against the total number of children immunized in the region for the year. The table shows that market day immunizations contributed 2 percent of Penta 3 and OPV 3 to the total number of children covered in the region. These children would have been missed if the market operation had been ignored. It is clear that such innovations hold the potential for increasing coverage throughout the country.

Observations and Lessons learned

The following are some of the observations and lesson learned from the brief implementation of the RED approach in selected districts in country:

- *A little extra support to the districts can make a great difference in routine immunization coverage. Bole, Krachi, Nanumba and Afram Plains districts, which performed poorly in previous years, recorded massive increases in 2004 from the little extra support they received from the country office. This suggests that with regular support, targeted districts can make a difference and contribute to increasing the country's immunization coverage. On the other hand, it is clear that the RED approach may not make an immediate impact in some districts unless support is provided to sustain the approach for some time. This is evident in the districts that recorded reductions in coverage.*
- *Demand for service and ownership can be enhanced if adequate orientation and greater involvement in health care delivery is given to key decision-makers and leaders of community interest groups such as religious and traditional leaders. Feedback from the orientation workshops for leaders of religious groups on their roles and tasks in communicating EPI show that the leaders can educate their members and mobilize them for immunization if they are adequately oriented and involved in the programme.*
- *Immunization on market days can contribute greatly to routine coverage if organized properly and implemented in all districts. The two month trial programme in the Eastern region (illustration in table 3) has accounted for 2.3% of the region's total Penta 3 coverage in 2004. This suggests that some of these children would have been missed if the market day trial had not been implemented. In addition, more children would have been covered if the programme had lasted longer.*
- *It is clear that the financial support from AFRO and Partners through the country office has contributed greatly to the gains made in routine immunization services. Districts have demonstrated their ability to perform if they get the necessary support.*