Project Fives Alive!
IMPROVEMENT COLLABORATIVE REPORT
September 1, 2011 to April 30, 2012
INTRODUCTION

Project Fives Alive! aims through the application of quality improvement (QI) methods to assist and accelerate Ghana’s efforts to achieve the Fourth Millennium Development Goal of reducing under-five mortality by 67% from its 1990 baseline of 110-120 deaths per 1000 live births to less than 40 deaths per 1000 live births by 2015. Operational since July 2008, PFA! has worked with frontline health workers to develop, test and implement successful change ideas that have proved useful in overcoming system barriers accounting for preventable deaths in children less than five in Ghana. Starting from three districts in the Northern sector of Ghana, the project is now scaled up in all 38 districts in Upper East, Upper West and Northern regions of Ghana and in 32 hospitals of the National Catholic Health Service scattered all across the country in various districts. Effectively tested and implemented ideas within districts, sub-districts and the hospitals to improve processes in the continuum of care have been documented into two “Change packages” - one for successful changes in antenatal, skilled delivery and post-natal care and the other in hospital-based care.

In the last quarter of 2011, the Project received additional funding from the Bill & Melinda Gates Foundation to commence a three-year project aimed at improving access to maternal and newborn health services and health outcomes in rural Ghana by using a QI approach to improve referral processes. This referral project has an additional objective of fostering cross-site learning, sharing, standardization and dissemination amongst BMGF-funded projects in MNH referral work in Ethiopia, Ghana and Nigeria.

With this, the entire Project Fives Alive! is now scheduled to run until March 2015. In addition to starting the MNH referral project, the project will have a great focus in 2012 on institutionalizing QI in the health service delivery system, especially in the three regions of the North.

PROJECT DESIGN

a. **PFA! Waves 2-4**

Project Fives Alive! continues to employ the IHI Breakthrough Series Improvement Collaborative Network as its primary means of accelerating peer-to-peer learning and large-scale improvement. Frontline health providers and their managers convene at Learning Sessions (LS) every four to six months to acquire QI knowledge and skills and to share with, and learn from each other, progress in testing change ideas. LSs are interspersed with Activity Periods (AP) during
which the local QI teams, with support from their managers and the project staff, develop, test and assess change ideas to improve care processes and outcomes.

The project is being scaled-up in four consecutive waves over a seven-year period, the first of which (i.e. Wave 1, starting July 2008) focused on rapid innovation and testing of more than 100 change ideas on a small scale in four districts/dioceses in the Northern Sector - Northern Region (NR), Upper East Region (UER) and Upper West Region (UWR). Wave 1 was then integrated into Wave 2 as the project scaled up successful interventions learned from Wave 1 across all three regions of the North. A National Catholic Health Service (NCHS) hospital collaborative in the South focused on reducing Under-5 deaths in the hospital setting, which started in October 2009, constitutes Wave 3. Wave 4, which constitutes national spread through the remaining GHS and faith-based health facilities, is due to start in 2013.

In 2012, the activities of the project will be focused on achieving the following objectives;

- To complete that PFAI programme of work in the three regions of the North
- To work towards institutionalizing QI into the health system especially in the North
- To define a scale-up strategy
- To commence the MNH referral work

b. Wave 4 scale-up model

The project is currently testing a variation of its design strategy in three districts – Central Gonja, Tolon-Kumbungu and Tamale Metropolis – in the Northern region in anticipation of the need for a leaner model during Wave 4 national scale-up to an anticipated 130 districts and 1000s of health facilities. By December 2012, it is expected that the learning gleaned will be adopted/adapted to inform the final scale-up strategy. Started in August 2011, this represents a more hands-off, less labour intensive approach that will see the project focusing on QI capacity building of change agents at the District and in regional hospitals, as opposed to the previous sub-district focus.

c. Design of MNH referral work

The MNH referral work is divided into three distinct phases with six months of baseline data collection, 18 months of innovation and testing referral solutions, and another 18 months of scale up. Within the innovation phase, referral solutions will be tested in intervention districts (with community-facility improvement collaborative networks) and comparison districts (with facility-only improvement collaborative networks). The community-facility Improvement Collaborative Networks (ICNs) will be rolled out in four districts in the Northern and Central regions and facility-only ICNs in a district each in both regions. These ICNs will develop and test innovative change ideas to improve MNH referral processes amongst all levels of the health system, both formal and informal – community, health post, health center and hospital.
Similar to Project Fives Alive!’s other ICNs for innovation and testing (Waves 1 and 3), these ICNs will have Learning Sessions every four to six months, interspersed with monthly site visits by project staff to follow up on change ideas being tested and to provide additional training, coaching and mentoring on QI methods and tools. The learning from the 18 months of innovation will inform the documentation of a referral change package to be used to scale up national referral solutions.

**IMPLEMENTATION HIGHLIGHTS FOR THE REPORTING PERIOD**

- With the inclusion of the remaining five districts in the Northern region, scale-up of QI work with the change package to the 38 districts in the three Northern regions is complete. Out of these five districts, two are pursuing the traditional model (Savelugu – Nanton and West Mamprusi districts) and three are piloting the Wave 4 scale-up model (Central Gonja and Tolon-Kumbungu districts, and Tamale Metropolitan).

- A plan for institutionalizing QI methodology in the health system has collectively been developed by the Project and the three Regional Directors of Health Services in the three Northern regions and the National Catholic Health Service.

- The development of Data Quality Improvement protocol for the three regions with follow-up training has been completed.

- **Wave 3**: Successful scale-up from nine to 29 NCHS hospitals with adoption/adaption of relevant components of change packages is underway. Further, six out of the nine innovation hospitals continue to hold the gains in significant mortality reduction recorded in the innovation phase. As of January 2012, two hospitals in addition to the initial 4 showed that significant mortality reduction at the end of the innovation phase in April 2011 had been attained.

- First External Advisory Board (EAB) meeting was held in November 2011.

**MNH Referral work**

- Selection of intervention and comparison districts in the Northern and Central regions done
- Baseline surveys set to be completed by July 2012
- Active Stakeholder engagement to finalise design and redesign underway

**WAVE 2 – SCALE-UP THROUGHOUT NORTHERN SECTOR**

By December 2011, scale-up to all 38 districts in the three Northern sector regions had been achieved with the inclusion of the last remaining five districts in Northern region. The number of QI teams has thus increased from 220 to 258, exceeding the 250 targeted (Figure 1). The excess (8 teams) is attributable to the participation of private hospitals in the hospital collaborative and the commissioning of new or upgraded facilities to polyclinics in the NR that was not accounted for in the initial estimate. By December 2011, the number of hospitals and sub-district teams, their constituent health centres and Community Health Planning Services (CHPS) were 36, 222, 300, and 240 respectively. These facilities
thus continued to experience the QI training, coaching and mentoring in the implementation of the “change package” for antenatal, perinatal and postnatal care to all the 38 districts in the Northern sector.

On the average, by December 2011, this level of engagement translated into 54 participants per learning session and 5.5 on-site visits per QI team. By December 2011, when the project had been operational for a total of 30 months, a total of 52 Learning Sessions had been held with 1818 site visits (Figure 3). The total number of health staff participating in Wave 2 learning sessions, including the hospital-only sub-Collaborative from September 2009 to December 2011, stood at 2,171, representing an increase from the August 2011 figure of 1,792. Even so, the total number of learning sessions and site visits was lower than initially planned, due mainly to parallel learning sessions and multiple national level programmes, Regional Health Directorate (RHD) reporting challenges and scheduling conflicts. All the Activity Period (AP) visits across the regions by both POs and M&E Officers were carried out as planned except in NR where due to inadequate technical staff, site visits were not carried out according to plan. Staff recruitments have since been carried out with the addition of two new Project Officers.

Periods of reduced site visits reflect periods of infrequent site visits due to competing priorities and scheduling conflicts in the regions in addition to a deliberate reduction in frequency of site visits to a bimonthly regime from the monthly regime in order to create space for the Regional and District Change agents to have enough time to mentor and coach their own teams, build their capacity and thus build more confidence for the exit plan. Collecting data to address the question of the capacity of the R/D-CA to engage the QI teams at the same level as project officers has been challenging due to the rapid staff turnover and staff unavailability due to lack of dedicated time for site visits which make it difficult for the project officer to track the performance of a particular R/D-CA longitudinally. With the sustainability plan outlined coupled with the high level leadership engagement embarked upon, these matters are expected to be resolved and or minimized going forward. Further, some efforts will go into simplifying the tool for data collection following some concerns.

Data Quality Improvement (DQI)

By September 2011, 60% of the 38 districts in the three Northern regions (Wave 2) had undergone data quality improvement (DQI) activities aimed at improving the timeliness, completeness and accuracy of District and facility data reported into the District Health Information Management Systems (DHIMS). The Data Quality Improvement (DQI) protocol has now been finalized with substantial inputs from the District Information Officers (DIOs) as part of will building and local ownership. It has since been deployed in all three regions.

The Project partnered the Child Health Unit of the Ghana Health Service to successfully implement Ghana’s post natal care policy. In summary, this required that given the high burden of neonatal mortality within the first week of life, a neonate ought to be seen by a qualified health worker at least twice in the first week of life; first on Day one/two and second on day six/seven. The quality of collected
data to assess the performance has been a challenge mainly because the new indicators introduced and tested by the Project are not routinely reported by the health workers in the DHIMS. PNC data has been collected from October 2009 to July 2011 with challenges being experienced in its completeness and update. Although we have seen improvements in the number of facilities submitting PNC data to DIOs, a lot more needs to be done to get all facilities to report timeously. POs will continue to follow-up on this during site visits and provide feedback to district and regional leadership to find more sustainable ways of collecting, summarizing and submitting these data.

Fortunately, following engagements with the leadership of the Ghana Health Service, three indicators have now been integrated into the new DHIMS2 data set with an agreement reached with the Director of Child Health Division to incorporate them into the Midwifery returns forms. These indicators are;

1. # received 1st PNC on day 1 or 2 (this refers to the number of PNC registrants receiving PNC within 2 days of birth)
2. # of attendees for 2nd PNC (refers to number of PNC registrants receiving a follow-up PNC visits irrespective of which day)
3. # received 2nd PNC on day 6 or 7 (refers to number of PNC registrants receiving follow-up PNC visit on day 6 or 7)

**Wave 2 Hospital Collaboratives**

Since June 2011, the strategy to have a greater intra-hospital focus as a means of improving process failures that lead to preventable deaths in pregnant women and young children continued. This happened through hospital-only sub collaboratives that borrowed heavily from the “change package” developed from the Wave 3 hospital collaboratives. By March 2012, a total of five learning sessions had been held for the three regions; two apiece in Upper East and Upper West regions and one in Northern. These learning sessions included all public hospitals and some private hospitals (2 in UER and 1 in UWR). Subsequent collaborative reports will be redesigned to reflect this strategy to enable objective monitoring and evaluation.
ANTENATAL CARE (ANC)

Within the period, early antenatal care registration improved in all three regions. The Upper East Region (UER) increased from a median of 38% to 50%, Upper West Region (UWR) from 45% to 50% and Northern Region (NR) from 30% to 40% since the last reporting period (Figure 4). Although all 3 regions have had better performance than was previously reported, they still lag behind their targets for early ANC registration.

SKILLED DELIVERY AND STILLBIRTHS

For skilled delivery coverage, the UER remained unchanged at 90%, while UWR and NR improved from 70% to 80% and 50% to 60% respectively (Figure 5). However, facility-based stillbirth rates have not improved significantly in all 3 regions for the reporting period. The UER and NR made modest gains with reductions from 20 to 16 per 1,000 skilled deliveries and 27 to 24 per 1,000 skilled deliveries respectively, while the UWR remained stable at a mean of 26 per 1,000 skilled deliveries. (Figure 6).
NEONATAL MORTALITY

Facility-based neonatal mortality largely stagnated in the UER and NR though at very low rates (3 and 2 per 1,000 skilled deliveries respectively), while the UWR was relatively high at (4 to 5 per 1,000 skilled deliveries) (Figure 9). Further analysis by type of facility revealed that over 75% of the facility-based neonatal deaths occurred in district and regional hospitals, while less than 25% happened at the primary care level (health centre, clinic and CHPS), pointing to the need for a greater hospital focus. Hospital QI teams are being supported to disaggregate their data for better diagnosis of faulty care processes and direct causes of mortality to enable better targeting of interventions for improvement.

In connection with the above, however, the External Advisory Board of the Project noted the possibility of resource constraints being a huge bottleneck and called for more context specific and disaggregated analysis along facility types, provider type and with the relevant annotations.

The early phase of Project Fives Alive! has resulted in improvements in maternal and child health outcomes. The quality improvement approach of testing and adopting simple and low-cost “changes” has demonstrated the potential to lead to improved health outcomes as the project is rapidly scaled up across Ghana and as the approach is applied to other low and middle income countries.

INSTITUTIONALIZING QUALITY IMPROVEMENT IN GHANA’S HEALTH SYSTEM

In November 2011, the Project held its first External Advisory Board meeting. Among other recommendations, the EAB emphasized the need for the Project to take deliberate steps to build capacity and institutionalize QI methods, tools and packages into the health system of the three innovator regions prior to national scale-up. More specifically, the EAB tasked the Project Director, NCHS Director and the three Regional Directors of Health Service to meet in early 2012 to ‘fine tune’ sustainability strategies for Wave 2 and create mechanisms for increased implementation and accountability of the QI institutionalization process within GHS, including budgeting for QI training, coaching and mentoring in the GHS budget cycle, and creating space and time for QI discussions during the district and regional performance review meetings that take place twice a year.”
In February 2012, this high-level engagement of all the stakeholders mentioned above was held and a sustainability plan was created, together with a set of sustainability indicators, to institutionalize the project’s methodology into the health care delivery system through

The plan mostly incorporates activities around training and development and is a major component of the Project’s 2012 plan of work. Regarding next steps, quarterly review meetings of the sustainability plan have been scheduled with all the stakeholders for purposes of monitoring and assessing progress.

WAVE 3 – NCHS HOSPITALS IN SOUTHERN SECTOR

After 18 months (November 2009 to April 2011) of innovating and testing changes to reduce delays in seeking care, reduce delays in providing care, and increase adherence to standard treatment protocols, the nine initial hospitals in Wave 3 demonstrated a 16% reduction in facility-based Under-5 mortality rate (Figure 7). By April 2011, four out of the nine hospitals were showing significant improvement with Under-five mortality reduced between 32-60%. Also, an analysis of the 47 change ideas had been completed and the most successful ones constituted into a change package which has been scaled up throughout the NCHS hospitals.

By March 2012, six out of the nine innovation hospitals were showing significant reductions in mortality with the highest performing hospital, Our Lady of Grace Hospital, Breman Asikuma, succeeding in reducing mortality by 67% by January 2012 (Figure 8). For the remaining three hospitals still not showing significant improvement, a root cause analysis revealed the following; high neonatal mortality burden, weak management support, isolated teams working without hospital-wide support and rapid team leadership turn-over.

Secondly, it has been observed that among the scale-up hospitals are some already high-performing ones with low mortalities. This is not surprising given that by design, the worst-performing hospitals were selected for the innovative phase, leading to the situation where by the time of the scale-up, some of the new hospitals were predictably already high performing. Typically, while the mean Under five mortality rates of the nine hospitals was in the range of 20.3 deaths per admissions (Figure 9), the new hospitals only had a baseline mortality rate of 13.4 deaths per admissions (Figure 8). For some of these hospitals, the change package may be too rudimentary for reasons of containing changes that may already have been adopted/adapted through a previous iterative process. Regarding next steps, especially for those challenged hospitals and some of the new hospitals which may be sub-optimally challenged, the following interventions have been planned and are underway:

- Sub-age group mortality, process and cause of death analysis. The aim is to assist these teams to diagnose age groups most at risk, poorly performing processes and the specific diseases directly leading to mortality and to reexamine the extent to which changes being tested are targeting these system diagnosed issues.
- The Project has refrained from forcing the adoption of change packages. Rather, the focus has been on reliable implementation of the QI process and methods and also
improving the reliability of in-facility care processes especially for at-risk age groups. In future, challenging examples of improved care from developing countries will be identified and aspired to.

By December 2011, a total of 29 NCHS hospitals were involved in the scale-up including the initial nine involved in the innovation phase. From October 2009, a total of seven learning sessions had been held, with an average attendance of 40 participants per session and a total of 131 site visits. While the nine hospitals had recorded a mean number of 8.6 visits per team, the scale up hospitals and period had suffered from a low site visitation rate of 1.9 visits per hospital. This was attributable to inadequate numbers of Project Officers to provide the monthly site visit support.

To tackle this emerging challenge, the Project devised a strategy where it provided refresher training and reengaged five improvement advisors (IAs), trained in the IHI’s Improvement Advisor Professional Development Program, and two experienced physicians (EPs) who had led improvement efforts in their hospitals in the innovation phase. By March 2012, this group of IAs/EPs had undergone two rounds of visits. This idea is significant not only because it enables us to provide the required supportive on-site visits, but more especially, it enables the NCHS better institutionalize the project given that these
IAs/EPS are all professionals working in NCHS facilities with enough experience and systems knowledge to take the new ideas and methods and influence ways in which work is done in the NCHS as a whole.

DISSEMINATION

We contracted a communications consultant to review the project’s work and he presented the following findings and recommendations:

Positives

“It has become clear that Project Fives Alive! has succeeded in clearly communicating its niche area in the larger context of Under-5 mortality prevention; its focus on the use of quality improvement methods for this purpose has been well communicated to its various stakeholders.”

What is not working well?

- Underutilization of major prospects and platforms at the national level of the health service for sharing results and challenges due mainly to the absence of a communications plan to actively request and access these platforms.
- Not easily memorable visual identity of the Project (logo) across most stakeholder groups
- The absence of a trained Communication professional
- Lack of active mainstream(broadcast and print) media engagement and presence
- Underutilization of the project newsletter due to time constraints of frontline workers compounded by unduly long articles

Recommendations

The audit recommended inter alia the use of a deliberate, graduated and sustained media approach to create and sustain awareness about using quality improvement methods to achieve improved health outcomes through the work of Project Fives Alive!; while actively seeking existing platforms to engage national level stakeholders

Peer-reviewed publications

While having done numerous poster and oral presentations of its work, the Project is yet to break through into any top-tier scientific journal. Various project officers are at various stages of transforming abstracts to manuscripts for submission to peer-reviewed journals. A series of interventions have been planned to ensure that the necessary block of time is created to enable the completion of these manuscripts to address the dissemination gaps identified.

Two abstracts have however been submitted to The Lancet and to the IsQua journals respectively, namely
a. Impact Evaluation of a Quality Improvement Intervention on Maternal and Child Health Outcomes in Northern Ghana: Early Assessment of a National Scale up Project
Authors: Kavita Singh, Ilene Speizer, Sudhanshu Handa, Richard O. Boadu, Solomon Atinbire, Pierre M. Barker, Nana A. Y. Twum-Danso

b. A nationwide quality improvement project to accelerate Ghana’s progress towards Millennium Development Goal Four: design and implementation of innovation and scale-up

The project’s work has also been disseminated during the period under review in the following fora:

1. Meetings & Conferences
   a. The IHI’s National Forum in the USA in December 2011, during which the team made an oral presentation on the improvement work of one of the participating Wave 2 hospitals (Lawra Hospital- UWR) titled Establishing a System for Reliable Implementation of Partograph Use Reduces Stillbirths Rates in a District Hospital in Rural Ghana.
   b. A poster presentation at the Centre for Disease Control (CDC) Maternal and Child Health (MCH) Epidemiology conference in December 2011 titled Improving and Sustaining Perinatal Care in a Rural District in Northern Ghana Using Quality Improvement Methods: The Experience of Lambussie-Karni.
   c. Performance review meetings in the GHS at district and regional levels in January/February 2012
   d. NCHS annual planning meeting in January 2012
   e. IHI/British Medical Journal’s annual QI conference, the International Forum for Safety and Quality in Health Care, in Paris in April 2012 where seven abstracts were accepted for presentation among which were two oral and five poster presentations. The project additionally provided financial support to enable four members of QI teams from Waves 2 and 3 to join us at the conference in addition to two regional directors of health services who have been key to our sustainability efforts.

CHALLENGES IN PERIOD UNDER REVIEW & STRATEGIES TO ADDRESS THEM

Wave 2
• Although more focused attention is now on the referred facilities through the Hospital Collaborative, perinatal and neonatal outcomes have not improved significantly over the period. The focus will shift to encouraging hospital QI teams to audit more of their stillbirths and neonatal deaths to better understand the root causes and find opportunities for improvement. Plans are also underway to decentralize the clinical skills training on life-saving skills and essential newborn care to the Tamale Teaching Hospital (NR) for more midwives and community
health nurses to benefit. These trainings are expected to impact positively on labour management and delivery outcomes.

- Another key challenge is the delayed LS3 for the remainder of the Wave 2A districts in the NR, LS4 for Wave 2A districts in UWR and LS2 for the hospitals in the UER due to reporting delays and scheduling conflicts. The financial reporting delays in the NR are being resolved while high-level engagements with regional managers are expected to result in speedy agreement on new dates.
- Shortages in PO numbers in the NR have since been resolved with the recruitment of two officers.
- Data incompleteness in DHIMS from the hospitals inpatient morbidity and mortality events was also a major challenge, as it made it very difficult to do different levels of analysis beyond perinatal outcomes for the hospital-only collaborative. More than 80% (24 of 29) of all the public hospitals across the three regions did not have up-to-date complete data on admissions and deaths in the DHIMS database that was picked at the regional level, and the gaps ranged from 2 to 36 months. The project will work closely with the Regional Health Information Officers (RHIOs) and hospital HIOs to fully understand the causes of this problem and find ways of resolving them in order to fill the gaps. It is also envisaged that when the data is complete, a disaggregated analysis by age groups will be done separately for the hospitals to facilitate learning and find opportunities for reducing mortalities.

**Wave 3**

Two main challenges were identified:

1. Lack of sufficient management support in some hospitals not showing significant reduction in mortalities as a result of impaired inability to test planned changes and apply the learning etc. The Project has since deployed a Model for Understanding Success in Quality (MUSIQ) which is a tool that aims to provide insights into the contextual issues relevant for healthcare quality improvement. This tool is enabling the project to better document and address challenges as absence of expanded QI teams, lack of reliable data on processes being worked on, sub optimal management support and other team leadership issues.

2. Process data

While the focus on collecting and showing improvement in outcomes was good, the need to collect data not routinely reported continued to be a challenge. This was compounded by the fact that process measures to be uniformly collected for all primary measures was not defined and agreed upon until almost midway into the collaborative. As outlined in the last technical report, the exercise in retrospective collection of process measures proved helpful, although time-related measures, etc., missed earlier could not be retrieved.

**LOOKING AHEAD TO NEXT PERIOD**

1. **Wave 2**

The following activities are planned:
a. Complete outstanding Learning Sessions, on site visits, training and review meetings for District Change Agents (DCAs) and undertake clinical skills training in neonatal resuscitation in the three Northern regions.

b. Sustainability plan implementation: finalize the sustainability indicators and execute the sustainability plan as agreed upon with active collection of data to track its implementation in all three regions.

c. Redefine the scope of work on Wave 4 Scale up model with metrics for tracking progress of model in NR.

2. Wave 3
The plans for the first quarter of 2012 are as follows:

a. Organize subsequent Learning Sessions, on-site visits and improve reliable data collection on processes and outcomes

3. MNH referral work
The MNH referral work aims to iteratively complete the project design planning phase with active stakeholder engagement, including community groups and the formal health sector.

Glossary

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<th>Abbreviation</th>
<th>Full Form</th>
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<td>ANC</td>
<td>Antenatal Care</td>
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<td>AP</td>
<td>Activity Period</td>
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<td>CBSV</td>
<td>Community-based Surveillance Volunteer</td>
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<td>CDC</td>
<td>Center for Disease Control</td>
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<td>CHO</td>
<td>Community Health Officers</td>
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<td>CHPS</td>
<td>Community Health and Planning Services</td>
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<td>DCA</td>
<td>District Change Agent</td>
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<td>DDCC</td>
<td>Deputy Director, Clinical Care</td>
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<td>DHIMS</td>
<td>District Health Information Management System</td>
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<td>District Health Management Team</td>
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<td>DIO</td>
<td>District Information Officer</td>
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<td>DQI</td>
<td>Data Quality Improvement</td>
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<td>EP</td>
<td>Experienced Physician</td>
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<td>GHS</td>
<td>Ghana Health Service</td>
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<td>Health Information Officer</td>
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<td>IA</td>
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<td>IHI</td>
<td>Institute for Healthcare Improvement</td>
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<td>IMCI</td>
<td>Integrated Management of Childhood Illnesses</td>
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<td>LS</td>
<td>Learning Session</td>
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<td>LPD</td>
<td>Leadership Development Program</td>
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<td>MCH</td>
<td>Maternal and Child Health</td>
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<td>M &amp; E</td>
<td>Monitoring and Evaluation</td>
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<td>MUSIQ</td>
<td>Model for Understanding success in Quality</td>
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<td>National Catholic Health Service</td>
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