KOICA-UNICEF REPORT, APRIL, 2017

PROJECT FOR IMPROVING ACCESS TO QUALITY HEALTH AND EDUCATION SERVICES IN THE NORTHERN AND UPPER EAST REGIONS OF GHANA-AN ENDLINE EVALUATION: RFP: 9127709

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EN DLNE EVALUATION REPORT FOR THE PROJECT FOR IMPROVING ACCESS TO QUALITY HEALTH AND EDUCATION SERVICES IN THE NORTHERN AND UPPER EAST REGIONS OF GHANA-AN EN DLNE EVALUATION: RFP: 9127709

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Chapter 5

5.1 Conclusions and Recommendations

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### Abbreviations and Acronyms

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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADEOPs</td>
<td>Annual District Education Operational Plans</td>
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<tr>
<td>AWP</td>
<td>Annual Work Plan – UNICEF</td>
</tr>
<tr>
<td>CFS</td>
<td>Child Friendly School</td>
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<td>CHPS</td>
<td>Community Health Planning Services</td>
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<td>DTSTs</td>
<td>District Training Support Teams</td>
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<td>DHIMS</td>
<td>District Health Information Management Systems</td>
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<tr>
<td>ECD</td>
<td>Early Childhood Development</td>
</tr>
<tr>
<td>EMIS</td>
<td>Education Management Information System</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>GDHS</td>
<td>Ghana Demographic Health Survey</td>
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<tr>
<td>GES</td>
<td>Ghana Education Service</td>
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<tr>
<td>GHS</td>
<td>Ghana Health Service</td>
</tr>
<tr>
<td>HBPNC</td>
<td>Home-based Postnatal Newborn Care</td>
</tr>
<tr>
<td>HSMTDP</td>
<td>Health Sector Medium Term Development Plan</td>
</tr>
<tr>
<td>IDI</td>
<td>In-depth interviews</td>
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<tr>
<td>IMR</td>
<td>Infant Mortality Rate</td>
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<tr>
<td>JHS</td>
<td>Junior High School</td>
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<tr>
<td>KG</td>
<td>Kindergarten</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MoE</td>
<td>Ministry of Education</td>
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<tr>
<td>MNCH</td>
<td>Maternal Neonatal and Child Health</td>
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<tr>
<td>NEA</td>
<td>National Education Assessment</td>
</tr>
<tr>
<td>NER</td>
<td>Net Enrollment Rate</td>
</tr>
<tr>
<td>NMR</td>
<td>Neonatal Mortality Rate</td>
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<tr>
<td>PTAs</td>
<td>Parent Teacher Associations</td>
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<tr>
<td>PTR</td>
<td>Pupil-Teacher Ratio</td>
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<tr>
<td>R/DEOs</td>
<td>Regional and District Education Offices</td>
</tr>
<tr>
<td>R/DHMTs</td>
<td>Regional and District Health Management Teams</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>SDHMTs</td>
<td>Sub-District Health Management Teams</td>
</tr>
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<td>SMCs</td>
<td>School Management Committees</td>
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<tr>
<td>TLMs</td>
<td>Teaching and Learning Materials</td>
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<tr>
<td>ToR</td>
<td>Terms of Reference</td>
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<tr>
<td>U5MR</td>
<td>Under Five (5) Mortality Rate</td>
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<tr>
<td>PCR</td>
<td>Pupil-Classroom Ratio</td>
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Acknowledgement

The endline evaluation of the project for improving access to quality health and education services in the Northern and Upper East regions of Ghana was conducted by the Navrongo Health Research Centre in collaboration with the Northern and Upper East Regional Health and Education Directorates with funding from UNICEF.

We gratefully acknowledge the regional, district and sub-district heads/circuit supervisors for their immense support in implementing the evaluation. We would like to thank the health and education workers particularly coordinators of the various units-newborn care/corners; early childhood and education coordinators, district training officers; UNICEF regional focal persons who individually sacrificed their time and energy to participate in the study and shared their knowledge and experiences with us. Without their acceptance and participation this study would not have been successful.

We also acknowledge the hard work of all the field team, data processing and administrative staff of the NHRC whose effort was critical in conducting the evaluation.
Executive Summary

Background

Reduction in newborn deaths within the first 30 days of life has stagnated in Ghana (1,2). Despite some improvement in maternal health services, maternal mortality has not seen the needed decline. Maternal mortality ratio (MMR) in Ghana was estimated at 319 per 100,000 live births in 2015. This is high compared with other sub-Saharan African countries such as Botswana, which has a MMR of 129 deaths per 100,000 live births (3). Consequently, the Ghana Health Service (GHS) with support from KOICA-UNICEF prioritized the implementation of newborn health care interventions to reduce newborn deaths in order to accelerate the attainment of MDGs 4 and 5 nationally.

With the introduction of the free, compulsory and universal basic education in Ghana, there has been a remarkable increase in the net enrolment rate in pre-school and primary education. However, the quality of education has declined over the years as a result of the rapid increase in school enrolments over the past ten years (4).

UNICEF, as part of its 2012-2017 programme of cooperation with the government of Ghana, supported the Ghana Health Service (GHS) and the Ghana Education Service (GES) in 6 selected districts in the Upper East and Northern Regions of Ghana (Chereponi, Sawla Tuna Kalba, Karaga, and Central Gonja in the Northern region and Builsa North and South in the Upper East region) to develop and implement a package of interventions aimed at improving maternal, newborn and child health as well as education within the framework of the life cycle approach.

This evaluation report assessed the extent to which the programme objectives were met and the major lessons learnt going forward. The evaluation was limited to the timeframe of the interventions - from July 2013 to December 2016 and covered two districts, the Builsa North district in the Upper East Region and the Karaga district in the Northern Region. A baseline study was conducted for the health component before the interventions. For the education component, the baseline indicators were reconstructed using records from the Ghana Education service. We therefore compared endline and baseline indicators.

Methods

The evaluation involved the use of both quantitative and qualitative research methods. We interviewed service providers and carried out a health facility assessment survey. We had in-depth interviews and focus group discussions with health and education professionals as well as community members. The primary data were supplemented by secondary data from routine records of the Ghana Health Service and the Ghana Education service.
Findings

The Health Facility Assessment survey covered a total of 38 health facilities; 2 hospitals, 5 health centres and 31 CHPS compounds. A total of 29 MNCH service providers were interviewed; 17 midwives, 6 CHNs, 3 enrolled nurses, 1 CHO, 1 Medical Assistant and 1 other health professional.

**MNCH Services:** Most of the facilities offer MNCH services namely antenatal care, delivery, postnatal care for mothers and newborns, child immunization, child welfare (weighing), family planning, counselling on HIV/AIDS and post abortion care. Karaga hospital does not carry out child welfare (weighing) and immunization activities. All the hospitals and health centres offer post abortion care services except St. Lucas Health Centre in the Builsa North district.

**Provision of Equipment and supplies:** There was vast improvement in the availability of basic equipment and consumables in the hospitals and health centres in the two districts involved in the endline evaluation compared to the baseline indicators. Health workers confirmed that they received motorbikes and other supplies from the UNICEF interventions.

**Newborn care units/corners:** Newborn care units and corners were set up in health centres and CHPS compounds that had midwives and equipped with incubators, thermal warmers, oxygen, nasal prong, etc and basic logistics such as towels for wrapping the babies and keeping them warm. Care providers at these departments were trained in neonatal resuscitation, essential care for newborns and care for sick newborns and infection prevention. Health care providers reported that these newborn care units and corners are functioning well and have played a significant role in the improvement of newborn health and general child survival.

**Staffing:** Hospitals were better staffed with critical staff (midwives and Doctors) in MNCH than Health Centres. General medical practitioners (Doctors) were available only at the District hospitals. There were no specialists in pediatrics, obstetrics and gynaecology in any of the hospitals.

**Refresher training:** Over 72% of all the health staff interviewed received refresher training on basic emergency obstetric care with 78% of all health centre staff receiving training.

**Training in leadership development programme and home based postnatal care:** UNICEF facilitated capacity building training workshops in Leadership Development Programmes (LDP) and Home-Based Postnatal care (HBPNC) for health personnel providing MNCH service at all levels of the health care system. The endline survey showed that doctors at the two hospitals received training in both LDP and HBPNC. About 86% of the community health officers at the health centres and CHPS compounds also received training in both LDP and HBPNC.
Availability of action plans, performance feedback: Across the two districts, there were remarkable improvements in the availability of action plans and community level activities in the health facilities compared to baseline indicators. For instance, all the hospitals and health centres assessed had action plans focused on newborn health care. Annual performance targets were mostly set for individual providers by the facility in- charges and the DHMTs, and Community Health Management Committees (CHMCs) were formed in all CHPS Zones to approve and review annual work plans.

Availability of written Job descriptions: Generally, there were substantial improvements in the use of written job descriptions, and setting of MNCH specific targets for health providers and facilities following the project intervention. About 83 percent of the health staff interviewed reported having written job descriptions compared to the baseline of 5 percent. Similarly, 83 percent of health providers had MNCH specific targets compared to 66.7 percent at baseline. Most of the health staff (83%) reported of clarity of targets at the end of the intervention compared to 52% at baseline.

Joint monitory and supervision: Health providers reported improvements in joint monitoring and supervisory visits carried out by health managers at the facility, sub-district and district levels. Furthermore, there were notable improvements in the sharing of knowledge and learning across districts and regions through exchange visits.

Improved performance feedback: Performance feedback was often given by the DHMT (80%), the facility in-charge (50%) and clients (41%). Feedback was usually given verbally during staff meetings (68%).

Availability of National Safe Motherhood (SM) protocol at facility: The endline findings showed remarkable improvements in the availability, application and knowledge of MNCH protocols as recommended by the GHS/UNICEF/WHO in the intervention facilities. Almost 66% of all facilities had the National SM protocols in comparison to 42.9% (9/21) at baseline.

Provider knowledge on ANC, management of labour and delivery Services: There was general improvement on health providers’ knowledge score on ANC, management of labour and delivery services. Provider knowledge on ANC increased from a mean score of 4.3 at baseline to 5.8 at endline. Knowledge on the management of first, second and third stages of labour also improved at endline. For instance, knowledge on management of the second stage of labour among hospital staff increased from an average score of 5.7 at baseline to 11 at endline. Among staff in health centres, it increased from an average score of 4 to 11.4.

Antenatal Care: Data from DHIMS showed increasing trends in the number of pregnant women who patronized ANC services from 2013 to 2016 in the two districts. The proportion of ANC registrants who had at least four ANC visits has been increasing over the years. The qualitative
findings revealed that ANC attendance was high particularly among pregnant women in their 1st trimester.

Delivery Services: Generally, skilled delivery was reported to have improved compared with previous years in both the Karaga andBuilsa North districts. Even in some sub-districts, there were reports of absence of TBA deliveries.

Postnatal Care: There was improvement in home based postnatal care (HBPNC) visits by CHO/CHN. The qualitative results revealed that the postnatal home-based care initiative has had an impact in the communities. The health professionals and community health volunteers were active in providing postnatal care in communities and that contributed immensely to improving health service delivery, particularly newborn care in the two districts.

Early initiation and exclusive breastfeeding: The community stakeholders indicated that most of the babies attended to at postnatal care were put to breast immediately after delivery and majority of respondents reported exclusive breastfeeding in the first 6 months.

Kangaroo mother practices and cord care: Community members and health care providers have reported improvements in kangaroo mother and cord care practices among mothers. The respondents attributed the improvements to the KOICA-UNICEF interventions.

Education Component

Access to basic education, quality of education and child friendly schools: The results after the implementation of the UNICEF interventions showed an improvement in access to basic education over the period. For instance, at the primary level, net enrolment rate (NER) increased from 84.9% in 2012/13 to 96.9% in 2015/16 in the Karaga district. The NER for kindergarten increased by 50% from 2012/13 to 2015/16, but quality of education service delivery had not changed much over the period. There was marked improvements in the child friendly school status as all the six dimensions of the child friendly school check list improved. Karaga recorded an increase in the overall child-friendly school score from 20% in 2013 to 71% in 2016, and Builsa North District recorded an increase from 37% in 2014 to 74% in 2016.

Capacity building and community involvement in service delivery: There was a general view among participants that the training programs were very useful as they had improved the skills of teachers to impart knowledge in a more practical and holistic way during instructional hours. Parents reported that the community engagement processes with KOICA-UNICEF and the training sessions made them aware of their roles in promoting the academic wellbeing of their wards.
Relevance and appropriateness of the KOICA-UNICEF Initiatives: The community, management of education services and focal persons of the UNICEF-KOICA initiatives viewed the interventions as relevant, appropriate and timely. They intimated that the capacity building of health and education staffs, strengthened planning, monitoring and supervision at the regional, district and sub-district/circuit levels, and supported some engagement between GHS and GES through school-based activities, were laudable initiatives for meeting project outcomes. Moreover, the support for school enrolment drive have contributed to improving access to quality basic education services.

Effectiveness and efficiency of the Interventions: There was active community entry, mobilization and sensitization and engagement that brought on board various stakeholders including traditional leaders, school management committees, parent-teacher associations and other community members in the service delivery process and that helped to make the interventions more effective.

The interventions helped to build the capacities of teachers as well as community stakeholders and provided equipment and supplies for efficient and effective service delivery. Teachers and their supervisors, PTAs and SMCs were given basic skills in effective teaching and learning and supportive roles in improving access to quality education particularly at the basic level.

There was also effective monitoring of the program by education authorities. All these activities contributed to improving education indicators including access to basic education, quality of education and child friendly schools were also improved.

Sustainability of the project: The KOICA-UNICEF project ensured community engagement from the inception of the project to the end. This strategy created the platform for active community participation and ownership of the project. Community stakeholders pledged their commitment and willingness to play their respective roles in ensuring the success of the project. The Ghana Health Service and the Ghana Education Service are committed to improving access to maternal, neonatal and child health services as well as providing quality basic education which are in line with the KOICA-UNICEF initiatives which are of national priority. The involvement of GHS and GES as key stakeholders and implementers of the interventions is the best strategy for the interventions to be continued and sustained.

Challenges
The respondents pointed to challenges with the health system such as attitude of some health professionals that included disrespect, neglect and mistreatment of patients/clients. The second challenge is the mobilization of resources and the commitment and dedication of health and education authorities to ensure continuity of the programs with similar intensity as was done under the KOICA-UNICEF project.
**Lessons Learnt**
The capacity building workshops show the need for routine in-service training for health and educational professionals and community stakeholders.
Community engagement is an important component of service delivery and utilization. Interaction between community members and health professionals could help to address pertinent health issues that relate to the community.

Home visitation is necessary to avert complications, and intervening within one month after delivery is critical to preventing neonatal mortality. In addition, monitoring and supervision at the service delivery points is critical for effective and efficient service delivery.

Another important lesson learnt was that the decentralization and grassroots approach KOICA-UNICEF, the Ghana Health Service and Ghana Education Service adopted made it possible for health and education services to be delivered evenly between rural and urban settings.

Availability of equipment and supplies for project implementation is key in the successful execution of that project. This project provided the requisite equipment and logistics which enhanced service delivery and improved project outcomes.

**Conclusion**
In general, the KOICA-UNICEF interventions have helped to improve maternal, neonatal and child health services in the intervention districts. Most of the staff providing MNCH services and the key stakeholders in the communities benefited from the capacity building programme of the project. The interventions on education have contributed to the observed increases in net enrolment rates at the basic education level and improved access and child friendly school status indicators in the intervention districts.

The study yields key recommendations to further enhance program implementation and effectiveness:

- Continuous training by the Ghana Health Service is required to ensure that both old and newly posted health professionals receive the necessary information for newborn care.
- The Ghana Health Service should continue to provide equipment and logistics to sustain the gains made by the KOICA-UNICEF interventions.
- Continuous monitoring and supervision of MNCH service providers is critical to improve newborn care.
- Continuous community engagement is crucial in sustaining community participation in the programme.
- The Ghana Education Service should work to address the large Pupil-Classroom Ratio by building more classrooms in the two districts to cater for the increasing number of pupils being enrolled.
• The Ghana Education Service should increase the proportion of trained teachers to improve the Pupil Trained-Teacher Ratio in basic schools.
• The Ghana Education Service should make core textbooks available in primary schools to guarantee effective teaching and learning.
• Finally, leadership and commitment from the health and education authorities are required to ensure the sustainability of the KOICA-UNICEF intervention activities.
Chapter 1

1.1 Introduction

Ghana is one of the countries that failed to achieve the targets for the fourth and fifth Millennium Development Goals (MDGs) (5). Recent estimates suggest that in spite of the progress in the past five years; Ghana failed to meet the MDG 4 target of reducing by two-thirds, between 1990 and 2015, the under-five mortality rate (U5MR) (5). Despite the fact that programs have become more effective in addressing under-five mortality, the proportion of mortality occurring in the neonatal period (first 28 days after delivery) have declined marginally in recent years.

Currently neonatal deaths (deaths occurring during the first month of life per 1000 live births) constitute about 71 per cent of infant deaths and 48 per cent of deaths in children under 5 years of age in Ghana (2). Neonatal mortality rates (NMRs) have not improved much in the past 10 years. There has been a consistent decline in under-five mortality rates (UMR) and infant mortality rates between 1993 and 2014. Between the period 2008 and 2014 under-five morality rate reduced from 80 to 60 per 1000 live births. On the other hand, infant mortality rate (IMR) declined from 50 to 41 per 1000 live births from 2008 to 2014 (Figure 1). However, within the same period, neonatal mortality rate (NMR) declined marginally from 30 per 1000 live births in 2008 to 29 per 1000 live births in 2014 (2,6). In terms of the regional distribution of childhood mortality rates in the Northern and Upper East regions where the KOCIA-UNICEF intervention was implemented, the Northern region UMR declined from 137 per 1000 live births in 2008 to 111 per 100 live births in 2014. In the Upper East region UMR declined from 78 per 1000 live births in 2008 to 72 in 2014. Similarly, NMR declined from 35 per 100 live births in 2008 in the Northern region to 24 per 1000 live births in 2014. However, in the Upper East region, NMR increased from 17 per 1000 live births in 2008 to 24 per 1000 live births in 2014 (2,6).

Figure 1. Trends in Neonatal Mortality Rate (NMR), Infant Mortality Rate (IMR) and Under Five Mortality Rate (U5MR) in Ghana, 1993-2014

On education, basic education was declared free, compulsory and universal in 2005. The national net enrolment rate for primary education increased from 55.6 percent in 2003/4 to 91.5 percent in
2015/16. Ghana is also committed to pre-school education. The approval of the comprehensive Early Childhood Development (ECD) policy in 2004, which made kindergarten free and universal, increased the net enrolment rate in pre-school from 34.4 percent in 2003/04 to 79.5 percent in 2015/16. However, 330,000 children of primary school age are still not enrolled and over 290,000 children within the kindergarten age range (from four to five years of age) are not benefiting from pre-school education in Ghana (4).

Moreover, although there are efforts to reduce disparities among the population in accessing education, they continue to exist along regional, socio-economic and gender lines (8,9). For example, the likelihood of a child from the poorest quintile never having gone to school is about six times greater than for a child from the wealthiest quintile. The chances that a child from a rural area has not attended school are more than twice as high as for a child from an urban area. A child in the Northern region is four times more likely not to have attended school compared with a child in the Ashanti region. In 2008, girls from the poorest households in the Northern region were nearly three times more likely to be out of school compared to the national average (10).

The National Education Assessment (NEA) of 2013 revealed marked lower performance for pupils in the three regions of northern Ghana compared to pupils in other regions of the country. This was evident in the less than 25% of the pupils achieving proficiency in English in the three northern regions compared to 25%-50% for the rest of the country, except Greater Accra where > 50% achieved proficiency in English. However for P6 mathematics, the trends across the ten regions were similar, with the lowest percentage of pupils achieving proficiency in the northern regions (and the Western region) (11). It is important to note that;

‘…public schools in the northern regions and deprived areas are less likely to have qualified teachers, access to materials and minimal physical infrastructure. The higher dependency on public schools and lower levels of literacy in these poor and hard-to-reach regions, combined with inequities in public school inputs, may account in part for the lower scores in the most impoverished regions of the country, particularly the three regions of northern Ghana’ (11).

In the light of these, UNICEF as part of its 2012-2017 programme of cooperation with the government of Ghana supported the Ghana Health Service (GHS) and the Ghana Education Service (GES) in 6 selected districts in the Upper East and Northern Regions of Ghana (Chereponi, Sawla Tuna Kalba, Karaga, and Central Gonja in the Northern region and Builsa North and South in the Upper East region) to develop and implement a package of interventions focusing at maternal, newborn and child health and education within the framework of the life cycle approach.

The project has two main components – health and basic education. UNICEF in collaboration with KOICA and through the GHS provided intensive and comprehensive support to maternal, neonatal
and child health (MNCH) services in the six selected districts. Similarly, through the GES UNICEF supported in early childhood development, improving access to quality basic education and empowering adolescents with life skills.

1.2 Purpose and Scope of the Evaluation
The purpose of the evaluation was to determine to what extent the programme objectives have been met and the major lessons learnt going forward. The evaluation was limited to the interventions’ timeframe of July 2013 to December 2016 and the geographic focus of the evaluation covered two selected districts, the Builsa North district in the Upper East Region and Karaga district in the Northern Region. The results highlighted lessons for creating more effective, efficient and sustainable systems and structures to improve the quality of health and education services -with particular relevance to the three Northern Regions, where UNICEF with funding support from KOICA and in partnership with the GHS and GES in implementing a package of interventions to improve maternal, neonatal and child health and education within the framework of the life cycle approach. The lessons and recommendations would be used by UNICEF Ghana and its programme partners to inform programme design in other settings.
Chapter 2

2.1 Study Setting

The study was carried out in the Builsa North and the Karaga Districts of the Upper East and Northern Regions of Ghana. The Builsa North district is located in the Upper East Region of Ghana and has a population of 56,477 (12). In 2012, the then Builsa district was divided into two-Builsa North and South Districts. The Builsas constitute about 83 percent of the entire population. The remaining 17 percent is made up of minor ethnic groups (12). The district is served by a district hospital located at Sandema, the district capital and three health centres and 19 functional CHPS zones with resident CHO (13). The district has 55 KG-schools, 53 Primary, 28 JHS and 2 SHS.

The Karaga District is one of the twenty six (26) districts in the Northern Region. Karaga is the administrative capital, which is approximately 94km away from Tamale. The Karaga District has a population of 77,706 made up of mostly Dagombas who constitute about 90 percent of the total population (12). Eighty two percent of the population of the district resides in rural localities. However, there are a few other people of different ethnic origins like Konkombas, Fulanis, Frafras, Ashantis, and Ewes (12). The districts’ health infrastructure is made up of 2 health centres and 11 functional CHPS zones with resident CHO (13). The Karaga also have 120 KG- schools, 95 primary schools, 18 JHS and 1 SHS.

2.2 Study Design and Methodology

The evaluation used the quantitative and qualitative methods. We interviewed service providers and carried out a facility assessment survey, in-depth interviews and focus group discussions with health and education professionals and use of secondary data from Ghana Health Service statistics as documented on the District Health Information Management System (DHIMS2) and Demographic and Health Survey (DHS) and EMNIS for the education component.

2.3 Evaluation Questions

To this end, the following four key questions of interest were examined:

▪ To what extent have the interventions under the KOICA partnership been able to meet the overall programme objectives for health and education?
▪ What were the conducive/enabling factors for achieving programme outputs/targets in health and education?
▪ What were the barriers/bottlenecks that did not allow for achievement of programme outputs/targets in health and education?
▪ What are some of the major lessons/recommendations that can be distilled from this partnership in relation to health and education?

2.4 Sampling Strategy

A multistage random sampling technique was used. First, four sub-districts in each study district were sampled. In each sampled sub-district, two CHPS zones were selected and health
professionals (CHOs, CHNs, other nurses and midwives) randomly selected for in-depth interviews. We used the purposive sampling method to select other health professionals (District focal person, regional focal person) and community stakeholders for the focus group discussions (FGDs) and In-depth Interviews (IDIs) to explore their views about the interventions.

Sixteen (16) IDIs were conducted with health professionals, four (4) IDIs with pregnant women and four (4) IDIs with women with children aged two weeks or below. Four (4) FGDs be conducted with mothers of children less than one year of age and another eight (8) FGDs with mother-to-mother support groups, community volunteers, pregnant women and other community members. A total number of 24 IDIs and 12 FGDs were conducted in the two districts.

For the education component, we randomly sampled 4 circuits and in each circuit educational professionals at the primary, kindergarten and executives of SMCs and PTAs were interviewed: In addition we interviewed some staff of GES at district and regional level. The respondents include (2) regional education management teams, (4) district education management teams, (2) district technical support teams, (4) head teachers, (4) teachers-lower primary/KG, (4) circuit supervisors and (4) FGDs with SMC/PTA leaders, (4) parents/guardian of children of lower primary and (4) upper primary. A total of 20 IDIs and 12 FGDs were conducted with educational professionals and parents/guardians. A purposive sampling method was used to select the parents/guardians for the discussions and the head teachers helped to identify eligible parents/guardians for the FGDs.

Each FGD comprised of about 8-12 eligible individuals who consented to participate in the discussions.

2.4.1 Participants Interviewed for the Health Component

The IDIs were conducted with the following stakeholders; Regional Health Management Teams, District Health Management Teams, Sub-District Health Management Teams, health professionals (Doctors, nurses, midwives and CHO/CHN) in the district hospitals, health centres and CHPS compounds. All these categories of participants were purposefully sampled to participate in the interviews. The invitation to participate in the health sector study was in a form of an official letter addressed to the Regional Directors of Health Services for permission to interview them. We used the principle of snow ball sampling techniques to identify women who delivered within two weeks prior to the conduct of the in-depth interviews. We employed the purposive sampling method in recruiting the community members, women to women support groups, pregnant women, community volunteers and Red Cross mothers for the interviews.

We recruited the community stakeholders through speaking with community volunteers. We gathered names of those in each group, (community members, community volunteers, women to women support group members, pregnant women and Red Cross mothers) who were most
knowledgeable about the programme. Among those identified as potential interviewees were conveniently selected one in each group to participate in the interview in each district.

2.4.2 Health Facility Assessment Survey
We assessed all the facilities in the two districts: the categories of facilities assessed were the hospitals, health centres and the CHPS compounds in the two districts.

2.4.3 Education Component
Since there was no baseline survey before the implementation of the interventions, we reconstructed the baseline indicators by reviewing existing documents and reports as well as making use of available secondary data sources including EMIS, SRC, CFS Checklist, District Activity reports etc. Using some of these secondary data sources, we assessed yearly progress of some of the indicators before and after the intervention. Those indicators that we were not able to obtain from the secondary data sources, we assessed the situation before and after the intervention in the key informant interviews with the officials of Ghana Education Service in the two districts (i.e. Karaga and Builsa North). Some of the education indicators assessed using the secondary data sources are the following.

2.4.4 Education Indicators Assessed from Secondary Data Sources:
1. Pre-school (from 4-5 years of age) enrolment rate
2. Proportion of primary school teachers with proper professional training
3. Pupil-teacher ratio in the two districts
4. Pupil-trained teacher ratio

Other issues we assessed for both baseline and after the intervention using the key informant interviews with the education authorities included:
1. The existence of systems in schools to make teachers more accountable
2. The existence of systems to promote more parental involvement in school management.
3. The presence of safeguards to avoid corporal punishment in schools

The analysis of the collated statistical data on key education performance indicators from Karaga and Builsa North Districts were done mainly through quantitative analyses. The actual statistical analyses employed was descriptive summaries of key education performance indicators at the kindergarten (KG), primary (Pr.) and Junior High School (JHS) levels of Basic Education (BE). The main data source used for analysis is the Education Management Information System (EMIS) of the ministry of Education, augmented with district specific data from the Annual District Education Performance Report (ADPR), School Report Card (SRC) and the Child Friendly School (CFS) Check List database. It is important to add that the sampled districts did not have up-to-date ADPRs, SRCs and CFS check list database, hence a heavy reliance on EMIS data of the Ministry of Education, Ghana.
2.5 Methods of Data Collection

2.5.1 Development of Data Collection Tools

Prior to actual field activities, two sets of data collection tools were developed - a structured questionnaire (for health facility assessment) and interview guides the qualitative component. The questionnaire included questions on health care utilization and access (i.e. maternal and child health care services and essential newborn care services); facility staffing; infrastructure; health worker MNCH skills; sustainable emergency referral system; health management and information systems, transportation, medical equipment, consumables and supplies, etc. The themes for the qualitative guides on the both the health and education included questions on the relevance, effectiveness, efficiency and sustainability of the KOICA-UNICEF interventions and the lessons learnt.

2.5.2 Recruitment and Training of Field Staff

Research assistants with graduate level training from the study districts were recruited and trained for four days. The data collectors were trained on two different sets of tools - the health facility questionnaire and interview guides for the various targeted respondents for the qualitative component (Health and Education). The contents of the training centred on overview of the study, rationale/objectives of the study, methodology, research ethics, role of interviewer/note taker, strategies for recruiting participants for IDI/FGD, techniques in transcription etc.

As part of the training, a field test was conducted in two facilities (Pungu CHPS and Nayagenia CHPS) in the Kassena-Nankana Municipality. The purpose of the field test was to assess content, clarity and appropriateness of the data collection tools in eliciting the required information to meet evaluation objectives as well as offer trainees the opportunity to administer the health facility assessment questionnaire before field work. The qualitative data collection guides could not be pre-tested because the interventions were not implemented in the Kassena-Nankana district, where the field test was conducted. However, data collectors for the qualitative data were made to observe the facility assessment exercise. Lessons learnt from the field test were used to revise and finalize the questionnaire for data collection.

2.5.3 Data Collection Processes

Data collection commenced on 13th February, 2017 across the study districts and completed by 5th March, 2017. The data collection process required making prior appointments with respondents before conducting the interviews. A six-member team was formed in each district for the field activities. Each district team comprised a district coordinator/supervisor, 2 interviewers each for the education and health components and 1 interviewer for the health facility assessment. The district coordinator/supervisor provided oversight responsibility during data collection. They assisted data collectors in locating sampled communities and organized focus group discussions and in-depth interviews. They also reviewed the health facility questionnaires to identify possible inconsistencies or missing data. As much as possible, the principal investigator and the co-investigators/coordinate/supervisor observed FGDs, IDIs and interviews when administering the
health facility assessment questionnaire to make sure that they were asking the right questions and recording data correctly on the questionnaires and offered suggestions where necessary on how best to engage respondents during FGDs. Where the interviewers had challenges, support was given by their supervisors.

2.6 Data Management and Analysis

2.6.1 Data Management

The quantitative data were double entered using EpiData 6.0 and cleaned using STATA 13.1. Inconsistencies in entries were identified and reconciled. All the variables were labeled for analysis.

2.6.2 Quantitative Data Analysis

For the quantitative data analyses of the health component, we used both primary data collected through interviews with health providers and from the health facility assessment survey. We extracted data from DHIMS2 and used some mortality rates from the Ghana Demographic and Health Survey (DHS) reports from 1993 to 2014 to assess mortality trends. The primary data were entered in Epidata and analyzed using STATA 13.1. Data were analyzed according to the type of facility- hospital, health centre and CHPS. Group mean scores were calculated by summing up individual scores and dividing by total number of group members.

The analysis of the collated statistical data on key education performance indicators from Karaga and Builsa North Districts were carried out using excel spreadsheet. The statistical analyses was mainly descriptive summaries of key education performance indicators at the kindergarten (KG), primary (Pr.) and Junior High School (JHS) levels of Basic Education (BE). The main data source used for the analysis is the Education Management Information System (EMIS) of the Ministry of Education, augmented with district specific data from the Annual District Education Performance Report (ADPR), School Report Card (SRC) and the Child Friendly School (CFS) Check List database. The sampled districts, however, did not have up-to-date ADPRs, SRCs and CFS check list database, hence a heavy reliance on EMIS data of the Ministry of Education, Ghana.

2.6.3 Qualitative Data Analysis

The FGDs and IDIs with community stakeholders were conducted in the local languages and tape recorded, transcribed and translated into English. For both the health and education professionals, the interviews were conducted in English and transcribed. The transcripts were organised into thematic areas and analysed using QSR NVIVO software version 10.

2.6.4 Content Analysis of Documents

Review of documents (desk review) was a major part of the evaluation excises. The team obtained from the DHMTs and the GES all relevant project related documents. The list of documents
reviewed is provided in (Appendix 4). The documents were sorted by types: annual reports, Ghana DHS 2014 final report and analyzed by objective across each document.

2.7 Sample Characteristics

2.7.1 Health facilities visited

In all, a total of 38 public health facilities from Karaga and Builsa North districts were visited for the Health Facility Assessment (HFA) survey. These include 13 and 25 health facilities in the Karaga and Builsa North districts respectively. The 13 facilities in the Karaga district consisted of one (1) hospital, two (2) health centers and 10 CHPS compounds. In the Builsa North district one (1) hospital, three (3) health centers and 21 CHPS compounds were visited (Table 3.1).

Table 2.1: Health facilities visited in the Karaga and Builsa North Districts for the endline Health Facility Assessment survey

<table>
<thead>
<tr>
<th>KARAGA (N=13)</th>
<th>BUILSA NORTH (N=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. KARAGA H/C</td>
<td>2. CHUCHULIGA H/C</td>
</tr>
<tr>
<td>3. PISHIGU H/C</td>
<td>3. St. LUCAS H/C</td>
</tr>
<tr>
<td>4. NYONG CHPS</td>
<td>4. SINIENSI H/C</td>
</tr>
<tr>
<td>5. SAKULO CHPS</td>
<td>5. YEMONSA CHPS</td>
</tr>
<tr>
<td>6. SUNG CHPS</td>
<td>6. YIKPIENG CHPS</td>
</tr>
<tr>
<td>7. TAMALGU CHPS</td>
<td>7. YIPAALA CHPS</td>
</tr>
<tr>
<td>8. TONA CHPS</td>
<td>8. ZARING CHPS</td>
</tr>
<tr>
<td>9. ZANDUA CHPS</td>
<td>9. ZUNDEMA CHPS</td>
</tr>
<tr>
<td>10. BAGURUGU CHPS</td>
<td>10. ACHANYIRE GOAYIE CHPS</td>
</tr>
<tr>
<td>11. KOMOAYILI CHPS</td>
<td>11. AZUG-YERI CHPS</td>
</tr>
<tr>
<td>12. NAKUNDUGU CHPS</td>
<td>12. BILINSA CHPS</td>
</tr>
<tr>
<td>13. NAMBURUGU CHPS</td>
<td>13. YIPAALA CHPS</td>
</tr>
<tr>
<td>14. FARINSA CHPS</td>
<td>15. KAASA CHPS</td>
</tr>
<tr>
<td>16. KADEMA CHPS</td>
<td>17. KALIJISA CHPS</td>
</tr>
<tr>
<td>18. KANDEMA CHPS</td>
<td>19. KOM CHPS</td>
</tr>
<tr>
<td>20. KORI CHPS</td>
<td>21. MUTENSA CHPS</td>
</tr>
<tr>
<td>22. NAMONSA CHPS</td>
<td>23. NANJOPIUNG CHPS</td>
</tr>
<tr>
<td>24. SANSEC CHPS</td>
<td>25. MUTENSA CHPS</td>
</tr>
</tbody>
</table>

2.7.2 Maternal, Neonatal and Child health care services in the facilities assessed

All the hospitals and the Health Centres assessed were providing MNCH services except in St. Lucas Health Centre in the Builsa North district where post abortion care services were not provided (Table 3.2). Many of the CHPS compounds were not providing MNCH services. However, among the CHPS compounds that provide MNCH services, most of them provided routine MNCH services including ANC (14/14), emergency obstetric care (13/14), post-natal, newborn and immunization services (14/14). However, only a few CHPS compounds were conducting delivery services (8/14) and post abortion care (6/14) (Table 3.2).
Table 2.2: MNCH services available in the facilities at Karaga and Buiisa North Districts

<table>
<thead>
<tr>
<th>Maternal health services available</th>
<th>Hospital n=2</th>
<th>Health Centre n=5</th>
<th>CHPS n=14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal care</td>
<td>2</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Emergency obstetrical care</td>
<td>2</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Routine delivery</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Postnatal care for new mothers</td>
<td>2</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Newborn care</td>
<td>2</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Child immunization</td>
<td>1</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Child weighing</td>
<td>1</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Family planning</td>
<td>2</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Treatment of Sexually Transmitted Infections</td>
<td>2</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Counselling on HIV/AIDS</td>
<td>2</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Post abortion care</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

2.7.3 Characteristics of providers interviewed
This section provides information on the background characteristics of the health providers who were interviewed in the survey. A total of 29 MNCH service providers were interviewed, and most of them were midwives (17/29), followed by community health nurses (6/29) and enrolled nurses (3/29). There were no Doctors (obstetrician/gynaecologists) interviewed in any of the study facilities visited. Six (6) health providers were from the hospitals, nine (9) from the health centers and fourteen (14) from CHPS compounds (Table 3.3). The providers indicated that they had received some refresher training in the various components of MNCH after their basic training. All providers interviewed in the hospitals indicated that they had received refresher training in newborn care, and over 80% received refresher training in postnatal care, but zero percent received refresher training in routine antenatal care. Majority of the providers across the different categories of health care delivery system received some refresher training in the various components of the MNCH after their basic training (Table 3.3).
Table 2.3: Characteristics of staff interviewed by type of facility

<table>
<thead>
<tr>
<th>Staff</th>
<th>Hospital</th>
<th>Health Centre</th>
<th>CHPS</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=6</td>
<td>%</td>
<td>n=9</td>
<td>%</td>
</tr>
<tr>
<td>Midwife</td>
<td>5</td>
<td>83.3</td>
<td>6</td>
<td>66.8</td>
</tr>
<tr>
<td>Medical Assistant</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>CHO</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CHN</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>11.1</td>
</tr>
<tr>
<td>Enrolled Nurse</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>16.7</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Refresher Training</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANC</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>77.8</td>
</tr>
<tr>
<td>Basic emergency obstetric care</td>
<td>4</td>
<td>66.7</td>
<td>7</td>
<td>77.8</td>
</tr>
<tr>
<td>Comprehensive abortion care</td>
<td>1</td>
<td>16.7</td>
<td>5</td>
<td>55.6</td>
</tr>
<tr>
<td>Delivery</td>
<td>3</td>
<td>50</td>
<td>7</td>
<td>77.8</td>
</tr>
<tr>
<td>Newborn care</td>
<td>6</td>
<td>100</td>
<td>8</td>
<td>88.9</td>
</tr>
<tr>
<td>Postnatal care</td>
<td>5</td>
<td>83.3</td>
<td>9</td>
<td>100</td>
</tr>
</tbody>
</table>

2.8 Limitations of the study

Sampled districts did not have up-to-date ADPRs, SRCs and CFS check list database, hence a heavy reliance on EMIS data of the Ministry of Education, Ghana.
Chapter 3
Results of the Health Component

3.1 Relevance and Appropriateness of the KOICA-UNICEF project

We explored the relevance and appropriateness of the KOICA-UNICEF interventions within the context of the health priorities of the two regions as well as the study districts. We learnt that the KOICA-UNICEF interventions were guided by the national health priorities which are the same at the regional and district levels except that the magnitude of the problems differ between regions and districts. Prioritization within the districts therefore focused more on capacity building and the allocation of resources to the various health interventions being pursued by the districts. In both districts, maternal and neonatal health were of high priority. The current practice of auditing all maternal deaths by a regional team particularly made the focus on maternal health paramount. The focal persons identified capacity building needs and the lack of financial resources and equipment for the management of maternal and child complications as critical issues confronting the region. To this end, they were of the view that the interventions were relevant, timely and appropriate.

"Oh surely, they were relevant and appropriate for the region because the main issue always has to do with the funding and so getting the funds from the UNICEF-KOICA program to implement the interventions was a blessing for us and I think that if these interventions can be done on a large scale, it would help the region to achieve better results because in those communities, the closeness of education, health and the community, in terms of relationship was very cordial and good. They could feedback to each other; education will make a presentation that these were the number of people they enrolled, the difficulties that they had, and how they have been able to address them with the community support and the community and health too will make their presentations. That way, all parties become more involved as their awareness are drawn to the state of the community; what the pressing issues are and the necessary steps to take to move forward." (IDI, Focal Person, Upper East)

The feedback from the regional focal people was confirmed at the district and sub-district levels. Similar health priorities were identified and the KOICA-UNICEF interventions were reported to be useful in improving health care for mothers and babies. They identified the trainings on home visitations, post-natal care at the community level, active community engagement as some of the interventions that honed their skills as community health professionals. They also recognized that the interventions came with new equipment and logistics that were critical for service delivery. A district level staff had this to say;

"Yes please, the interventions were very appropriate and are still very appropriate and will continue to be appropriate. That is to me as an individual and a staff because we really don’t know as and when we will encounter a case that needs special attention. For instance, somewhere last month, we had a case where a woman delivered a child that needed resuscitation. If we had not had those things that we received from the UNICEF-KOICA team like ambo bag and other things, it would have been difficult for us to resuscitate that child. But fortunately on our part, it was
there, staff were well equipped as to how to use such items and the child was saved before referral and that was very appropriate and important to our service.” (IDI, sub-district staff, Chuchuliga, Builsa North District)

Although the health professionals pointed out that the KOICA-UNICEFF program was able to address the needs of the intervening communities, the coverage of the interventions was limited. The problems that the interventions sought to tackle are widespread in the various districts and therefore implementing the interventions in only two sub-districts did not significantly alter the maternal and child health indicators in the districts. Also, the focal persons had a preference for the interventions to be implemented in remote communities where access to health care is a major challenge. These issues were highlighted by key a stakeholder in the following excerpt;

......”Well I can say yes and no. Yes in the sense that almost half of our facilities have the AG motorbikes to render services in the communities, but some of the facilities still do not have motorbikes for service delivery. Besides, only the two sub-districts have the newborn care corner, therefore we are advocating for four sub-districts to have the newborn care corner.” (IDI, DHTM staff, Karaga District)

3.2 Implementation of the Interventions

The approach to stakeholder engagement is critical to the success of any intervention. The nature of the engagement process could either encourage or discourage participation in the interventions. For the KOICA-UNICEF interventions, the engagement process varied between regions. While the Northern region reported a bottom-up approach, the Upper East region reported a top-down approach. In the Northern Region, districts planned their interventions based on their priorities in maternal and child health and these plans were then integrated into the regional plans. KOICA-UNICEF bought into those plans and a comprehensive plan that served the needs of the stakeholders was drawn. The success of the interventions was partly attributed to this initial participatory approach that ensured that the interest of all stakeholders was taken into consideration before launching the interventions.

.....”Ooh we had the planning right from district level upwards. The district people met and took their plans and the region too had its plans, but these two were integrated into a plan and then, the UNICEF-KOICA came to sit with us so that we could take a comprehensive plan because they alone could not impose their plans (interventions) on us. They could only buy into our priorities (ideas) and implement the interventions. These plans are reviewed annually.” (IDI, Focal Person, Northern Region)

In the Upper East Region however, the engagement process started with an attempt by the regional team to learn what KOICA-UNICEF wanted to promote within the region. The regional team then worked with the district teams to draw their plans based on guidelines provided by KOICA-UNICEF. The district team also supported the sub-districts to draw their plans. After that, the regional, district and sub-district teams met with community members and the education service and informed them about their plans.
Our involvement at the regional level was to support the planning at the district level because before they started we had this inception meeting at the regional level aimed at knowing what actually UNICEF wanted to promote and we later moved to the district level where we had joint meeting to communicate to the community what we wanted to focus on because per the UNICEF guidelines, we needed to work with the community and the Ghana Education Service. So together, we helped them to draw their plans at the district level and then the district people went down to the sub-district level to plan and meet with the community. (IDI, Focal person, Upper East Region)

It was not clear why different approaches were used in the two regions to engage stakeholders in the planning of the interventions. As noted earlier, both settings reported that the interventions were relevant and appropriate apparently because the KOICA-UNICEF interventions were anchored on the national guidelines for promoting the health of mothers and new borns which were the same protocols being implemented by the regions and the districts. So regardless of the approach used for the planning of the interventions, the health staff were likely to give them the same support and attention.

Besides, the interventions had a community entry and mobilization component that ensured that, as beneficiaries of the interventions, community members played a key role in their success. Community durbarfs that brought together the chiefs, elders and community members ensured that the aims and objectives of the interventions were widely disseminated in order to invite their support and patronage of the interventions. The formation of mother-to-mother support groups, the holding of pregnancy schools and the use of community health volunteers ensured that target beneficiaries participated in the interventions as the following quotes illustrate:

……Oh yes, before the programme started, we went and sensitized the opinion leaders on the program and the fact that the intervention is to help bring health services to their doorsteps. I remember [name withheld] and I went to meet the chiefs and their elders to inform them about the program which they warmly welcomed and promised to support us in any way they could and in fact they have lived up to their promise because without them, it would have been difficult for the program to succeed. In the implementation stage, that is where we talk of training the health staff, volunteers and mother-to-mother support groups to enable them conduct home visits to promptly identify and refer mothers and newborns with danger signs to the next level. (IDI, Sub-District Staff, Ka-Pishigu, Karaga District)

After the successful community engagement process and the launch of the interventions, the next critical concern was how the interventions were managed in the various regions. Reports from the interviews indicated that resources for the implementation were often passed through the region to the district and then to the sub-district. This included both financial resources and equipment. Control of these resources was at the district level. The district distributed the equipment to the intervention facilities and administered funds for the day to day running of the intervention
activities. The regional team had oversight responsibilities for activities at the district level while the district monitored interventions at the sub-district level. Technical direction was provided by the regional teams which also participated in review meetings and training sessions at the regional, district and sub-district levels. At the sub-district level, communities led the community mobilization efforts, owned and managed the mother support groups, supported the home visitation efforts and mobilized themselves to provide prompt referral for mothers and new borns in need of emergency care.

…… “We were also involved in some of their review meetings. We took part in the trainings; for the training of the health staff, we facilitated the process, and we offered technical support to the trainings that were conducted at the community level by the district because we were around as at the time of training and we carried out monitoring and supervision”. (IDI, Focal person, Upper East Region)

3.3 Effect of Interventions on Knowledge and Skills of Stakeholders
Health professionals and community stakeholders affirmed that the capacity building component of the KOICA-UNICEF interventions taught them new things as well as refreshed their knowledge and honed their skills on critical areas related to their practice. The health professionals revealed that they were given a series of trainings that included home-based postnatal care, neonatal and maternal health care, facility-based neonatal care, resuscitation, early initiation and exclusive breastfeeding, good positioning and attachment in breastfeeding, the referral system, danger signs, kangaroo mother care and hygienic cord care, infection prevention and control, etc. Participants associated the capacity building component to the improvements in maternal and child health care in their districts. These quotes illustrate what we learned:

….. “Majority of us have been trained by KOICA-UNICEF even though we learnt in school through training. We learnt new things from this program and it has helped in the way we attend to our newborn children. Just like the resuscitation, majority of us did not know how to do it. Also like putting baby skin-to-skin to mother, we did not know these things, but through the KOICA-UNICEF intervention, the training we had has helped us to acquire new knowledge and skills and it is really helping us to deliver our services. The resuscitation was actually a problem for majority of us and truly this life saving skills we have acquired from this training is helping us a lot as midwives. Most of us were not taught in school most of the things we learnt here.” (IDI, Health Staff, Karaga District)

The trainings were conducted at different levels. District representatives were trained by the regional team at the regional capitals while the sub-district trainings were facilitated by the district teams with some support from the regional teams, at the sub-district levels. At the sub-district level, community health workers such as the community volunteers, mother-to-mother support groups and pregnant women (community health agents) were trained on basic information on maternal and child health. Community volunteers were trained on a range of topics that included conducting home visits for pregnant women and nursing mothers, early identification and
registration of pregnancies, the use of Insecticide treated Bed nets (ITNs), early initiation and exclusive breastfeeding, the referral system, maternal and neonatal danger signs among others. Mother-to-mother support groups were also trained to provide coaching sessions to their colleagues on newborn care as part of the KOICA-UNICEF intervention strategies. Health professionals acknowledged the relevance of these trainings in improving the knowledge of these support groups and equipping them with the necessary skills to assist with health service delivery as narrated by a stakeholder:

"... "For the mother-to-mother support groups, we have been meeting them periodically and during this period, we give them training on identification of early pregnancy at the community level and we urge them to refer them early to the health facility for prompt services and with the pregnant women, we give them our contact numbers to contact us when they are in labor and if they cannot get to the health facility, we will go to the community to deliver the women." (IDI, SDHMT member, Builsa North District)

3.4 Challenges with Capacity Building

Although the health professionals and the community stakeholders commended KOICA-UNICEF for the capacity building initiative, newly posted nurses and tutors were not empowered to deliver quality health care as existed in the intervention sub-districts. Thus, these newly posted nurses and tutors of the nursing training institution also need to benefit from the training programs. In the Northern region, the health authorities revealed plans to institute in-service training programs in order to reach staff outside the intervention areas, but acknowledged that actualizing those plans would depend greatly on the availability of resources.

"... "Staff constrain is also a problem, so if in one way or the other they could have future programs, I wish to appeal to them to train some of the staff of the health training institutions, so that when they come out they would be able to provide some basic skills to community members to improve on service delivery in the sub-district and the district as a whole." (IDI, Sub-District Level Staff, Karaga District)

"..."Yes we have a plan for in-service training of our staff and also we intend to give on the job training at the service delivery points to equip our staff with the required capacity that is needed to help improve the health of people but all these are dependent on the availability of accommodation for the people and training materials." (IDI, Focal Person, Northern Region)

As part of capacity building at the community level, pregnancy schools were established to ensure that pregnant women received the needed information to keep them healthy and to prepare them for child birth. The women were given tutorials on maternal and child health related issues and the health professionals also addressed any questions concerning their pregnancies. These women and the mother-to-mother support groups, who came for the training, served as peer educators and mentors to other women in the communities. Although this intervention was implemented across the two regions, reports in the Northern region suggested that it was not an integral part of the
interventions but where the midwives felt the need to set up the schools, they did so by integrating it into the program. This quote illustrates what we learned:

"..."The pregnancy schools were organized by the midwives at the health center because there is no midwife at the CHPS compound. The pregnancy school was organized weekly during ANC but then some topics were usually selected and discussed with the pregnant women. They at times invited the representatives of the mother-to-mother support groups to come and listen to their lectures so that when they go back, they will also teach their colleagues so that together they can continue to educate the pregnant women. Basically the pregnancy school was all about informing the pregnant women to know everything about their pregnancies so that they could make informed choices." (IDI, DHMT Staff, Builsa North District)

The survey assessed the proportion of health personnel trained on new born care. We observed that more health workers were trained on new born care. For instance, a desk review of available documents shows that majority of the staff - CHO's, CHN's and Midwives participated in capacity building training workshops both in the Builsa North and Karaga Districts.

3.5 Management and community level activities
Tangible improvements were observed at the end of project implementation on the development and availability of management tools (Table 3.4). About 95% (36/38) of all facilities visited had in place an action plan and activities focused on newborn health care compared to the baseline indicators where 57 percent (8/14) of the facilities had an action plan and 50 percent (7/14) had activities related to newborn health. In terms of MNCH training centres, two health centres and two CHPS compounds in addition to the hospitals had established MNCH training centres after the project intervention.

Furthermore, the human resource capacity building efforts of the project resulted in improved sharing of knowledge and learning across districts and regions through exchange visits compared to before the project intervention where no facility had organized any exchange visits to other facilities (Table 3.4). There were more community durbars on MNCH activities organized by health centres and CHPS compounds in the past 6 months prior to the survey compared to before the intervention. There were also increased supervisory visits carried out by midwives (81% (31/38)), establishment of mother support groups (Red Cross Mothers) meetings (85% (34/38)) and home based postnatal care (HBPN) visits by CHO/CHN at all level of the health facilities.
Table 3.4: Management tools and community level activities at baseline and endline

<table>
<thead>
<tr>
<th>Indicator</th>
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<th></th>
<th>Endline</th>
<th></th>
<th></th>
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</thead>
<tbody>
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<td>Health</td>
</tr>
<tr>
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<td>3</td>
<td>5</td>
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</tr>
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<td>0</td>
<td>0</td>
<td>5</td>
</tr>
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<td>10</td>
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<td>4</td>
</tr>
<tr>
<td>Community level activities (in past 12 months)</td>
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</tr>
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<td></td>
</tr>
<tr>
<td>Mother Support group meetings organized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Home based Postnatal care (HBPNC) visits by CHO/CHN</td>
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</table>

3.6 Effect of Capacity Building on Practice

According to the stakeholders, the training and logistics given to health workers by the KOICA-UNICEF program helped to improve service delivery as the following quote illustrates:

"It has really helped the mothers and the children as a whole with the trainings we share with the mother during our counseling sections, the mothers get to learn how to initiate early breastfeeding immediately after birth within the first 30 minutes to 1 hour. We teach them how to provide warmth to babies and exclusively breastfeed their children and the importance of exclusive breastfeeding. They are also taught how to initiate complementary feeding and prepare complementary feeding with their locally available foods." (IDI, Health staff, Karaga District)

The volunteers who went through the trainings were reported to be efficient in giving health education and identifying danger signs in mothers and newborns and referring them to health facilities for care. They support and accompany pregnant women to deliver in health facilities and
encourage the mothers to initiate and exclusively breastfeed their newborns for six months. The following quote from participant illustrate the effect of the trainings on the community health volunteers;

……”So like I said in my earlier submission, our volunteers are based within the community and any woman whether pregnant or not is known by them and based on this knowledge they are able to identify pregnant women at their first trimester and refer them to the health facility for ANC registration. They also monitor them until the day they will deliver and they either bring them for delivery or they ask the mothers-in-law to send them to the clinic for delivery. They are able to detect mothers or children with complications and refer them promptly.” (IDI, Health Staff, Karaga District).

As noted earlier, the mother-to-mother support groups provide peer support and mentoring to pregnant women. Their role complements that of the community volunteers and because they are experienced mothers, their clients tend to follow their counsel. According to the health authorities, the groups have been effective in encouraging pregnant women to go for antenatal care and to deliver in a health facility. They groups also identify and refer women with danger signs for care. They also provide education to mothers on their own nutrition and hygiene as well as breastfeeding and care for the new born. Women are told not to give concoctions to the newborn, taught how to care for the cord and how to hold the baby for optimal breastfeeding. The groups were reported to be active across the two regions.

The mother-to-mother groups were effective in the sense that they do weekly and monthly meetings. And we had quarterly meetings with them at the district level. We meet with all the sub-districts, give them feedback on the progress of work so far, then information would also be sent back to the community. Also with the registration that I spoke about, they brought that idea on board and register all suspected pregnancies so that when the CHOs/CHNs go for outreach, they too will register them and invite them to the facility for examination and when you find a pregnant woman, they will start to give her the needed health care services.” (IDI, DHMT Staff, Builsa North District)

Women who benefitted from the support given by the mother-to-mother support groups confirmed the reports by the health authorities. They explained how the education they received from the groups have benefited them and addressed conflicts that usually arise from lack of use of maternal and child health services. These issues are highlighted in the following excerpt:

…..” Because of the education the support groups and the community health volunteers give us about the importance of ANC, we now know the benefits of these services and as a result, when we attend ANC as required, when we go to deliver we do not encounter problems with the nurses and we usually have safe delivery” (IDI, Woman who have delivered in the Past 2 Weeks, Karaga District)
3.7 Setting performance target for individual service providers

The endline survey also assessed whether facilities had performance targets, and the individuals and departments responsible for setting up those targets. In addition, health personnel were asked about their opinion on whether it was easy or difficult to achieve those targets. The baseline and endline findings were compared to assess the effects of the intervention project. Performance targets are normally set at facility, district, regional and national levels. However, more emphasis are being made for setting facility and district level targets based on local priorities and needs. In the GHS, targets are usually set on the basis of district level targets and on previous performance. Other considerations for target setting are regional and national targets. The project intervention supported annual work planning process to include increased focus on scaling-up interventions for maternal and neonatal health. To this end, Community Health Management Committees (CHMCs) were formed at all CHPS Zones to approve and review progress on annual work plans.

Majority of the facilities (72%) indicated that they set MNCH targets based on previous performance compared to 43% at baseline (Figure 3).

**Figure 2: Comparison of bases upon which MNCH targets are set for Baseline and Endline**

At baseline, about 57% of the facilities set their targets based on district targets. The targets are mostly set for the individual providers by the facility in-charges (65.5%) and the DHMTs (44.8%).

42
About 79% of respondents at endline agreed with the targets set compared with 57% at baseline. More than 14% of respondents at baseline were not sure whether they agreed with the targets, and this dropped to 4.2% at endline (Figure 5).

**Ease of achieving targets**

On ease of achieving targets, 62% of respondents at endline indicated that it was difficult to achieve targets compared to 43% at baseline (Figure 6). Even though we did not ask for the specific reasons for the difficulty in achieving the set targets, the results could be an indication that the targets set now may be higher than before. As previously shown, most of the MNCH targets set recently are based on previous performance.
3.8 Job expectation – providers’ perspective
About 83% (24/29) of providers in the endline survey indicated the prevention of child morbidity to be their main task. This is however lower than 93% (28/30) of providers in the baseline survey who considered prevention of child morbidity to be their main task. Approximately 62% (18/29) at endline and 47% (14/30) at baseline indicated the prevention of maternal morbidity to be their main task (Figure 7).

3.9 Assessment of Provider opinion on job description and clarity of targets
Writing job descriptions is an important step in planning staffing programs, carrying out performance management and evaluations, and setting goals and staff promotions. In addition, they clarify and enhance communication between supervisors and employees, and are critical in improving staff job efficiency and effectiveness. A written job description allows health personnel
to focus on their core responsibilities thereby improving on the provision of health care services. In order to assess the proportion of personnel who had written job description, health providers were asked whether they had written job description and MNCH specific targets set for them. Generally, there were substantial improvements in the use of written job description, and setting of MNCH specific targets by the health providers (Table 3.5). About 83% (24/29) of the health staff interviewed reported having written job description compared to the baseline where only 4.8 percent (1/21) had written job description. Similarly, 83% (24/29) of health providers had MNCH specific targets compared to 66.7 percent (14/21) at baseline. Most of the health staff (83%) reported of clarity of targets at the end of the intervention compared with 52% before the project intervention.

Table 3.5: Provider opinion on their job description for baseline and Endline indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th></th>
<th>Endline</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>Health</td>
<td>Total</td>
<td>Hospital</td>
<td>Health</td>
<td>CHPS</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>n=9</td>
<td>Centre n=21</td>
<td>n=21</td>
<td>n=6</td>
<td>Centre n=9</td>
<td>n=14</td>
<td>n=29</td>
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<td>9</td>
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<td>24</td>
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<tr>
<td>MNCH specific targets</td>
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<td>14</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>Clarity of targets (n=14)</td>
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<td>9</td>
<td>11</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>24</td>
</tr>
</tbody>
</table>

3.10 Knowledge and availability of reference material and protocols

In Ghana, the Safe Motherhood programme is a major component of the National Reproductive Health Service delivery system. The programme aims to improve women's health in general, and specifically to reduce maternal and newborn morbidity and mortality. The National Safe Motherhood service protocol outlines a step-by-step action for identifying and treating common pregnancy-related complications, and it is intended as a reference guide to ensure that all health workers know what is expected of them and what they should do when providing maternal and newborn health services. It is expected to be used by all personnel involved in the care of pregnant women, and newborns (doctors, midwives, nurses and medical assistants) at all levels of the health care system.

The endline findings show remarkable improvements in the availability and application of MNCH protocols as recommended by the GHS/UNICEF/WHO in the intervention facilities. Almost 66% (19/29) of facilities had the National SM protocols in comparison to 42.9 (9/21) at baseline (Table 3.6). About 28% at the end of project implementation compared with 33% of the providers at baseline indicated that they did not know the protocol very well.

Table 3.6: Availability and knowledge on reference MNCH material (guidelines)

<table>
<thead>
<tr>
<th>Reference Material</th>
<th>Baseline</th>
<th>Endline</th>
</tr>
</thead>
</table>
3.11 Performance feedback

Essentially, performance feedback is a structured formal interaction between a subordinate and supervisor that usually takes the form of a periodic interview (annual or semi-annual), in which the work performance of the subordinate is examined and discussed, with a view to identifying weaknesses and strengths as well as opportunities for improvement and communication to the subordinate. It is a suspensory tool describing the quality of work done by the person.

Participants in the endline survey were asked if they received feedback on their performance in the last six months, who provided the feedback, the mode, timing and frequency of the feedback and frequency. In all, about 76% (22/29) of the health personnel interviewed indicated that they received some form of feedback about their performance in the 6 months prior to the interview (Table 3.7).

Feedback was often given by the DHMT; 80% (18/22), followed by the facility in-charge; 50% (14/22) and then clients 41% (15/22). A similar pattern was reported at baseline where feedback was given by facility in-charge 64% (14/22), DHMT 50% (11/22), and clients 68% (15/22). In terms of the mode of feedback given, most of the providers reported verbally 45% (10/22), in writing 27% (6/22) or both 27% (6/22). Feedback was usually given during staff meetings 68% (15/22) and majority reported that it was normally infrequent 68% (15/22). There seem to be no major differences in the patterns and levels of performance feedback between baseline and endline as shown in Table 3.7.

<table>
<thead>
<tr>
<th>Performance Feedback</th>
<th>Hospital n=9</th>
<th>Health Centre n=21</th>
<th>Total N=30</th>
<th>Hospital n=6</th>
<th>Health Centre n=9</th>
<th>CHPS n=14</th>
<th>Total n=29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received feedback in last 6 months</td>
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<td>18</td>
<td>22</td>
<td>4</td>
<td>8</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Source of feedback (most) n=22</td>
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<td>18</td>
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<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>Clients</td>
<td>4</td>
<td>12</td>
<td>15</td>
<td>0</td>
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<td>2</td>
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<td>0</td>
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<tr>
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<td>1</td>
<td>1</td>
<td>2</td>
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<td></td>
</tr>
<tr>
<td><strong>Mode of feedback</strong>&lt;br&gt;n=22</td>
<td></td>
<td></td>
<td></td>
<td>n=4</td>
<td>n=8</td>
<td>n=10</td>
<td>n=22</td>
</tr>
<tr>
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<td>18</td>
<td>22</td>
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<td>4</td>
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<tr>
<td>In writing</td>
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<td></td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
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<tr>
<td>Both</td>
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<td>1</td>
<td>4</td>
<td>6</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Time of feedback</strong>&lt;br&gt;n=22</td>
<td></td>
<td></td>
<td></td>
<td>n=4</td>
<td>n=8</td>
<td>n=10</td>
<td>n=22</td>
</tr>
<tr>
<td>Immediately during supervisory visits</td>
<td>2</td>
<td>9</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Following supervisory visits</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>During staff meetings</td>
<td>2</td>
<td>10</td>
<td>12</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Other</td>
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<td>1</td>
<td>3</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When clients revisit</td>
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<td>3</td>
<td>3</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Feedback frequency</strong>&lt;br&gt;n=22</td>
<td></td>
<td></td>
<td></td>
<td>n=4</td>
<td>n=8</td>
<td>n=10</td>
<td>n=22</td>
</tr>
<tr>
<td>Very often</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Not very often</td>
<td>4</td>
<td>10</td>
<td>14</td>
<td>3</td>
<td>3</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td><strong>Performing as expected</strong>&lt;br&gt;n=22</td>
<td></td>
<td></td>
<td></td>
<td>n=4</td>
<td>n=8</td>
<td>n=10</td>
<td>n=22</td>
</tr>
<tr>
<td>Yes</td>
<td>6</td>
<td>9</td>
<td>8</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>If yes, how do you know?</strong>&lt;br&gt;n=22</td>
<td></td>
<td></td>
<td></td>
<td>n=4</td>
<td>n=8</td>
<td>n=10</td>
<td>n=22</td>
</tr>
<tr>
<td>Self-assessment</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services outputs</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisor satisfaction/appraisal</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clients satisfaction</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**3.12 Provider opinion on motivation for their work**

About 66% (19/29) of providers indicated that they had received some form of recognition for their performance in the year preceding the study (Figure 8). This percentage is lower than the 73% (22/30) reported at baseline. Approximately 79% of providers reported that recognition was mainly given verbally (15/19) compared to 79% at baseline. When asked for the source of their work motivation, majority of the providers at endline (63%) indicated DHMT and 53% said the source of the reward was the client.
Whereas providers suggested other forms of rewards which would be better appreciated, including training opportunities (13), infrastructure enhancement (8) and certificate or citations (6), none of these forms of rewards were mentioned during the endline survey. Only one out of the twenty nine (1/29, 3.4%) of providers at the health centre had ever been sanctioned for poor performance compared to (4/21, 19.4%) at baseline. Sanction for poor performance was mainly in the form of a verbal query.

3.13 Supervision
Almost all the providers indicated that their MNCH work is supervised (Table 3.8). Supervision is mostly done by DHMT (21/29) followed by facility in-charges (17/29) and DDHS (10/29). The DHMT and DDHS tend to supervise more at health centres and CHPS compounds than hospitals.

Table 3.8: Supervision

<table>
<thead>
<tr>
<th>MNCH work supervised at facility</th>
<th>Supervisor</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital n=9</td>
<td>Health Centre n=21</td>
<td>Total n=30</td>
<td>Hospital n=6</td>
<td>Health Centre n=9</td>
<td>CHPS n=14</td>
</tr>
<tr>
<td>Facility in-charge</td>
<td>7</td>
<td>12</td>
<td>19</td>
<td>5</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>DDHS</td>
<td>4</td>
<td>13</td>
<td>17</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>DHMT</td>
<td>3</td>
<td>13</td>
<td>16</td>
<td>1</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>RDHS</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
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<tr>
<td>RHMT</td>
<td>4</td>
<td>9</td>
<td>13</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Ward in-Charge</td>
<td>6</td>
<td>9</td>
<td>15</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
3.14 Equipment and Supplies
The evaluation assessed the status, availability and level of basic MNCH equipment and supplies at all health facilities in the study districts. As indicated in the National Reproductive Health Service Policy and Standards, facilities providing MNCH service should have basic equipment for providing maternal and child health services. The end line Health Facility Assessment shows some remarkable improvement in the availability of essential medical equipment and consumables in the hospitals and the health centres providing MNCH services. However, most of the CHPS compounds lack some essential medical equipment and consumables for provision of MNCH services. Table 3.9 and Table 3.10 shows the detail percentage distribution of health facilities that lack specific equipment and consumables.

Table 3.9: Number of Health Facilities lacking selected Equipment and Supplies at baseline and endline

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Baseline</th>
<th></th>
<th>Endline</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>Health Centre</td>
<td>Total</td>
<td>Hospital</td>
</tr>
<tr>
<td></td>
<td>n=4  %</td>
<td>n=10   %</td>
<td>N=14</td>
<td>n=2   %</td>
</tr>
<tr>
<td>Blood pressure apparatus (Sphygmomanometer)</td>
<td>2  50</td>
<td>2  20</td>
<td>4</td>
<td>0  0</td>
</tr>
<tr>
<td>Stethoscope</td>
<td>1  25</td>
<td>2  20</td>
<td>3</td>
<td>0  0</td>
</tr>
<tr>
<td>Urine testing kit/Albumin sticks for testing for proteinuria</td>
<td>2  50</td>
<td>6  60</td>
<td>8</td>
<td>0  0</td>
</tr>
<tr>
<td>Tourniquets</td>
<td>1  25</td>
<td>0  0</td>
<td>1</td>
<td>0  0</td>
</tr>
<tr>
<td>Straight Catheter (metal urethral)</td>
<td>0  0</td>
<td>8  80</td>
<td>8</td>
<td>1  50</td>
</tr>
<tr>
<td>Foley catheter</td>
<td>2  50</td>
<td>6  60</td>
<td>8</td>
<td>0  0</td>
</tr>
<tr>
<td>Urine collection bags</td>
<td>0  0</td>
<td>8  80</td>
<td>8</td>
<td>0  0</td>
</tr>
<tr>
<td>Sponge forceps</td>
<td>1  25</td>
<td>1  10</td>
<td>2</td>
<td>0  0</td>
</tr>
<tr>
<td>Forceps bowl &amp; receiver</td>
<td>0  0</td>
<td>4  40</td>
<td>4</td>
<td>0  0</td>
</tr>
<tr>
<td>Vaginal speculum</td>
<td>2  50</td>
<td>4  40</td>
<td>6</td>
<td>0  0</td>
</tr>
<tr>
<td>Thermometer</td>
<td>3  75</td>
<td>3  30</td>
<td>6</td>
<td>0  0</td>
</tr>
<tr>
<td>Padded tongue blade or spatula</td>
<td>2  50</td>
<td>10 100</td>
<td>12</td>
<td>1  50</td>
</tr>
<tr>
<td>Haemoglobin test kit</td>
<td>2  50</td>
<td>7  70</td>
<td>9</td>
<td>0  0</td>
</tr>
<tr>
<td>Suture needles and suture materials</td>
<td>0  0</td>
<td>1  10</td>
<td>1</td>
<td>0  0</td>
</tr>
<tr>
<td>Suture set - needle holder, scissors, non-toothed dissecting forceps</td>
<td>1  25</td>
<td>5  50</td>
<td>6</td>
<td>0  0</td>
</tr>
<tr>
<td>Sterile sanitary pads</td>
<td>3  75</td>
<td>10 100</td>
<td>13</td>
<td>0  0</td>
</tr>
<tr>
<td>Sterile gauze pads or swabs</td>
<td>1  25</td>
<td>4  40</td>
<td>5</td>
<td>0  0</td>
</tr>
<tr>
<td>Device for amniotomy - such as amnitone, or sterile allis clamp</td>
<td>2  50</td>
<td>10 100</td>
<td>12</td>
<td>1  50</td>
</tr>
<tr>
<td>Delivery set - cord scissors, cord clamp, 2 Mayo clamps</td>
<td>1  25</td>
<td>5  50</td>
<td>6</td>
<td>0  0</td>
</tr>
<tr>
<td>Manual vacuum aspirator (MVA)</td>
<td>2  50</td>
<td>6  60</td>
<td>8</td>
<td>0  0</td>
</tr>
</tbody>
</table>
Table 3. 10: Number of Health Facilities lacking selected Equipment and Supplies at baseline and endline

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Baseline</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>Health Cent</td>
<td>Total</td>
<td>Hospital</td>
<td>Health Cent</td>
<td>CHPS</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n=4</td>
<td>n=10</td>
<td>N=14</td>
<td>n=2</td>
<td>n=5</td>
<td>n=31</td>
<td>N=38</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Delee catheters (suckers)</td>
<td>2</td>
<td>50</td>
<td>10</td>
<td>100</td>
<td>12</td>
<td>1</td>
<td>33</td>
<td>2</td>
<td>40</td>
<td>30</td>
<td>33</td>
</tr>
<tr>
<td>Oxygen tank, tubing, and face mask or nasal cannula</td>
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<td>25</td>
<td>8</td>
<td>80</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>31</td>
<td>32</td>
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<tr>
<td>Fetal stethoscope</td>
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<td>50</td>
<td>2</td>
<td>20</td>
<td>4</td>
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<td>0</td>
<td>31</td>
<td>11</td>
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<tr>
<td>Vacuum extraction apparatus</td>
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<td>6</td>
<td>60</td>
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<td>0</td>
<td>0</td>
<td>3</td>
<td>60</td>
<td>11</td>
<td>34</td>
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<tr>
<td>Antenatal forms</td>
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<td>30</td>
<td>5</td>
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<td>0</td>
<td>4</td>
<td>80</td>
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<td>0</td>
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<td>20</td>
<td>23</td>
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<tr>
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<td>40</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
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<tr>
<td>Stretchers/wheel chairs</td>
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<td>50</td>
<td>3</td>
<td>30</td>
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<td>0</td>
<td>2</td>
<td>40</td>
<td>8</td>
<td>32</td>
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<td>Angle poised light or torch light</td>
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<td>7</td>
<td>70</td>
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<td>0</td>
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<td>20</td>
<td>30</td>
<td>25</td>
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<td>Height measure</td>
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<td>10</td>
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<td>0</td>
<td>0</td>
<td>24</td>
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<td>20</td>
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<tr>
<td>Not included at baseline</td>
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<td>0</td>
<td>0</td>
<td>24</td>
<td>20</td>
<td>20</td>
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<tr>
<td>IV fluid giving sets</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>IV cannulae</td>
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<td>0</td>
<td>1</td>
<td>20</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
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<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Gloves</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Needles and syringes for IM and IV injections</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Scrub basin / sink</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Ambu bag</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Towels or cloth to dry baby</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>11</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Implants kits</td>
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<td>0</td>
<td>1</td>
<td>20</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>IUD kit</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>80</td>
<td>11</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

At baseline, as many as 7 out of the 10 health centres (70%) visited did not have haemoglobin testing kits. This has reduced to 20% i.e. 1 out of 5 health centres at the end of the intervention.
3.15 MNCH staff in the study facilities at baseline and endline

Table 3.11 summarizes the category of staff available in the facilities visited at both baseline and endline. The average number of staff was calculated by adding the total number of each category of personnel and dividing by the number of facilities. The endline findings show some improvement in the number staff in the facilities proving MNCH services compared to baseline indicators. Each of the two districts hospitals had a Doctor at post during the endline survey. As expected in most health centres across the country, there were no doctors at any of the health centres visited.

There were nine (9) nurses in the two hospitals making the average number of nurses per facility 4.5 compared to an average of 1.3 at baseline. Midwives constitute the majority of health staff at the hospital and health centres. On average there were 8 midwives in each of the two hospitals and about three midwives in each of the five health centers. Community health nurses represent the majority of the personnel in both the health centres (15/5) and CHPS compounds (29/19) (Table 3.11)

Table 3.11: Summary of MNCH staff in the study facilities at baseline and endline

| Maternal Health Personnel | Baseline | |  |  | Endline | |  |  |  |  |
|---------------------------|----------|---|---|---|-----------------|---|---|---|---|
|                           | Hospital | Health Centre | Total | Hospital | Health Centre | CHPS | Total |
| Doctor -GP                |          |              |       |          |              |     |       |
| Availability (number of facilities) | 3 | 0 | 0 | 2 | 0 | 0 | 2 |
| Total number of staff     | 3 | 0 | 3 | 2 | 0 | 0 | 2 |
| Average number of staff per facility | 0.8 | 0 | 0.3 | 1 | 0 | 0 | 0 |
| Nurse                     |          |              |       |          |              |     |       |
| Availability (number of facilities) | 4 | 9 | 13 | 2 | 5 | 6 | 12 |
| Total number of staff     | 11 | 13 | 24 | 9 | 18 | 6 | 34 |
| Average number of staff per facility | 2.8 | 1.3 | 1.7 | 4.5 | 3.6 | 0.2 | |
| Midwife                   |          |              |       |          |              |     |       |
| Availability (number of facilities) | 4 | 7 | 11 | 2 | 4 | 8 | 14 |
| Total number of staff     | 15 | 10 | 25 | 16 | 13 | 9 | 38 |
| Average number of staff per facility | 3.8 | 1 | 1.8 | 8 | 2.6 | 0.3 | |
| Community Health Nurse    |          |              |       |          |              |     |       |
| Availability (number of facilities) | 2 | 10 | 12 | 1 | 5 | 19 | 25 |
| Total number of staff     | 3 | 28 | 31 | 1 | 15 | 29 | 45 |
| Average number of staff per facility | 0.8 | 2.8 | 2.2 | 0.5 | 3 | 0.9 | |
| Physician/Med Assistant   |          |              |       |          |              |     |       |
| Availability (number of facilities) | 3 | 3 | 6 | 1 | 3 | 0 | 4 |
| Total number of staff     | 4 | 3 | 3 | 1 | 3 | 0 | 4 |
| Average number of staff per facility | 1 | 0.3 | 0.4 | 0.5 | 0.6 | 0 | |
| Pharmacist                 |          |              |       |          |              |     |       |
3.16 Training in Leadership Development Programme (LDP) and Home based Postnatal care (HBPNC)

An important component of the intervention was to build leadership capacity of district and sub-district staff to scale-up interventions for maternal, neonatal and child health in the intervention districts. Based on this commitment, Leadership Development Programmes (LDP) and Home-Based Post-natal care (HBPNC) capacity building training workshops were organized for health personnel providing MNCH service at all levels of the health care system. The end-line health facility assessment findings show that the doctors at the two hospitals had received training in both LDP and HBPNC (Table 3.12). However, nurses and midwives at the hospitals did not participate in LDP or HBPNC capacity building training. Majority of the community health officers at the health centres and CHPS had received training in both LDP and HBPNC.

Table 3.12: In-service Training in LDP and HBPNC for at endline

<table>
<thead>
<tr>
<th>Health Personnel</th>
<th>Total Number</th>
<th>Number trained in LDP</th>
<th>Number trained in HBPNC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>HC</td>
<td>CHPS</td>
</tr>
<tr>
<td>Doctor – GP</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nurse</td>
<td>9</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Midwife</td>
<td>16</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Community Health Nurse</td>
<td>1</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Physician/Med Assistant</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

3.17 Percentage distribution of maternal services available in the health facilities

Table 3.13 shows the percentage distribution of maternal services available in the health facilities surveyed. The hospitals provided all maternal health services, followed by the health centers and then the CHPS compounds. Only 65% of the CHPS compounds had a staff always available at night and 30% of them had maternity services available 24 hours. Figure 9 shows the availability of health personnel and maternal services in the health facilities surveyed.

Table 3.13: Percentage distribution of maternal services available in the health facilities surveyed

<table>
<thead>
<tr>
<th>Availability of personnel and maternal services</th>
<th>Hospital</th>
<th>Health Centre</th>
<th>CHPS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel take care of all obstetric emergencies</td>
<td>100</td>
<td>60</td>
<td>61</td>
<td>63</td>
</tr>
<tr>
<td>Personnel take care of all neonatal emergencies</td>
<td>100</td>
<td>60</td>
<td>52</td>
<td>55</td>
</tr>
</tbody>
</table>
Maternity services available 24 hours  
Staff member always available at night  
Staff member live or stay at the facility when on night duty

<table>
<thead>
<tr>
<th>Services</th>
<th>Baseline</th>
<th>Endline</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternity services available 24 hours</td>
<td>100</td>
<td>100</td>
<td>39</td>
</tr>
<tr>
<td>Staff member always available at night</td>
<td>100</td>
<td>100</td>
<td>65</td>
</tr>
<tr>
<td>Staff member live or stay at the facility when on night duty</td>
<td>100</td>
<td>100</td>
<td>95</td>
</tr>
</tbody>
</table>

Figure 8: Availability of health personnel and maternal services in the health facilities surveyed

3.18 Health provider knowledge on antenatal care services
An important component of the intervention was to strengthen the capacity of health care providers to deliver the package of interventions to improve maternal and neonatal morbidity and mortality outcomes. In this regards, health care providers were assessed on their knowledge of the package of antenatal (ANC) services. Respondents were asked to mention the actions they would take when a woman came for the first and subsequent visit to receive ANC services. Some basic ANC services include: taking medical history, carrying out a general exam, obstetric exam, vaginal exam, undertake or refer for laboratory investigations and provide routine medications and education the on relevant health issues.

Table 3.14 shows a comparison of baseline and endline summary scores of provider knowledge on services to provide during ANC and subsequent ANC visits. Overall, there was some improvement in the mean score of provider knowledge on first ANC services from 4.3 at baseline to 5.8 at endline. For the subsequent ANC visit, the mean score of provider knowledge also increased from 3.4 at baseline to 5.8 at the end of the intervention. Remarkably, there were no much differences in the mean scores for the provider knowledge on ANC services for hospitals, health centres and CHPS compounds.
Table 3.14: Summary scores for provider knowledge on ANC for baseline and endline

<table>
<thead>
<tr>
<th>First ANC visit</th>
<th>Baseline indicators</th>
<th>Endline indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>Health Centre</td>
</tr>
<tr>
<td>Mean</td>
<td>4.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Minimum</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Maximum</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Subsequent ANC visit

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.4</td>
<td>2.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

3.19 Health provider knowledge on labour and delivery

To assess the knowledge of providers on labour and delivery, health providers answered questions on the key activities they would undertake at admission of a woman in labour, during the first, second and third stages of labour, the immediate post-partum period and the routine care for a baby at birth. If a provider mentions an activity he/she gets a score of 1. So if a provider mentions 3 out of 6 expected activities, he/she gets a score of three out of six. The average scores were then calculated by dividing the total score by the number of providers in a group - hospital and health centre and CHPS (Table 3.15).

There were general improvements on the average scores on knowledge on labour management and delivery. For instance, the average score on actions to take at admission of labouring mother increased from 1.7 at baseline to 3.2 at endline for hospitals, and from 1.7 to 3.4 for health centres (Table 3.15, Figure 10). Knowledge on actions to take during the first stage of labour also increased remarkably at the end of the intervention for both health centres and hospitals. Similar improvements in knowledge scores were recorded for most of the indicators (Table 3.15).

Table 3.15: Average score for main actions taken during the routine management of labour and immediate postpartum period; comparing baseline and endline indicators

<table>
<thead>
<tr>
<th>Actions</th>
<th>Baseline indicators</th>
<th>Endline indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expected score</td>
<td>Hospital</td>
</tr>
<tr>
<td>At admission of labouring mother</td>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td>Taking comprehensive medical or obstetric history First stage of labour</td>
<td>5</td>
<td>2.6</td>
</tr>
<tr>
<td>First stage of labour</td>
<td>18</td>
<td>8.6</td>
</tr>
<tr>
<td>Second stage of labour Third stage of labour</td>
<td>18</td>
<td>5.7</td>
</tr>
<tr>
<td>Third stage of labour</td>
<td>12</td>
<td>4.7</td>
</tr>
<tr>
<td>Immediate post-partum period</td>
<td>7</td>
<td>3.4</td>
</tr>
</tbody>
</table>
Among health providers at the hospitals, the average knowledge score on key activities they would undertake during the first stage of labour was 8.6, second stage 5.7 and third stage 4.7 compared to the average score at endline of first stage (10.5), second stage (11) and third stage (8) (Figure 11).

Figure 9: Comparison baseline and endline average scores of knowledge of routine management of labour and immediate postpartum period of staff in Health Centre

Figure 10: Comparison of baseline and endline average scores of knowledge of routine management of labour and immediate postpartum period of staff in hospitals
3.20 Effects of Interventions on Knowledge of Maternal and Newborn Care Practices
In the qualitative interviews, we explored client knowledge on maternal, newborn and child health by talking to mothers who have children aged less than one year old in focus group discussions as well as in-depth interviews with mothers who had delivered within two weeks prior to the data collection period and pregnant women. We explored issues relating to pregnancy recognition, skilled delivery, newborn care; kangaroo mother care; hygienic cord care and feeding practices.

3.20.1 Pregnancy recognition
We asked pregnant women and nursing mothers about the signs of pregnancy and they revealed that they usually use missed period as an indicator for pregnancy. They said they usually follow that with a confirmatory test at the health facility.

"..."No problem is involved. But the only thing needed is when your menses have not come before you go to the health facility, the health professionals would request a pregnancy test to determine whether you are pregnant or not before they will decide when you come for ANC services." (FGD with women with children less than one year old, Kori, Builsa North District)

Others also suspect pregnancy by the changes that occur in their bodies. These include firmness of the breast, oedema of the feet, dizziness, laziness, body weakness, vomiting and general malaise. One pregnant woman put it this way:

"..."You get to know you are pregnant when you feel dizzy and you also feel bored then you can go for a test and through it you will know you are pregnant or not. When I eat I will be vomiting and from there I will go for a medical checkup and you will be referred to the laboratory and after the check they will tell you, you are pregnant." (FGD, Pregnant women, Ka-Yapalsi Fong, Karaga District)

Some discussants were of the view that some women could be pregnant and yet have their regular menstrual cycle. They shared various experiences women encounter during pregnancy. Vomiting and loss of appetite were the most commonly mentioned side effects during pregnancy. For normal pregnancies, they identified good appetite and the absence of illness as the experiences of women with normal pregnancies. For some women, normal pregnancies can only be determined by a nurse in a health facility.

"..."When a pregnancy is normal, the lady involved will still be doing her daily duties. She does not complain of any problems and also she eats well." (FGD, Mother-to-mother support group, Ka-Nyingali, Karaga District)

"..."Before one can know that this is normal pregnancy, unless the person goes to the hospital because sometimes one can miss her period for one month and have miscarriage the next month, but once you miss your period and you go to the hospital, the test would help you know whether this is a normal pregnancy I am carrying or is a miscarriage." (FGD with pregnant women, Wiaga central, Builsa North District)
3.20.2 Feeding practices

In order to understand the extent to which community health workers, pregnant women, mothers and other community members knew about the feeding practices of pregnant women and nursing mothers, we asked the discussants what they had learned and the kind of feeding advice the community health agents offer to pregnant women and nursing mothers. The women listed foods that help to improve the volume and flow of breast milk in lactating mothers and women in their third trimester and others that are believed to have healing properties especially for wounds sustained in the abdomen during delivery.

"We eat anything that will help keep us healthy and also help us produce breast milk for our babies. We eat tuo zaafi, ayoyo, bra, okro, and fruits like mangoes, oranges, pineapples and local grapes called sinsaba which are all good for our health. We don’t take alcoholic beverages as I earlier on indicated." (IDI, Pregnant woman, Karaga District)

"We would recommend “zaamonta nyiem” (red millet flour water), sorghum flour water and drinking mashed kenkey water. These will provide them with blood and breastmilk.” (FGD, Mother-to-mother support group, Farensa, Builsa North District)

Almost all the community stakeholders from the Karaga and Builsa North districts knew about early initiation and exclusive breastfeeding. Health staff, mothers and the community health agents explained that through the training and home visitations, most nursing mothers now initiate breastfeeding early and they exclusively breastfeed their babies for 6 months.

"Now immediately after delivery, you will breastfeed the baby not as it was during the olden days. You will breast feed the baby for six months without water or food and after the six months you can start giving the baby porridge.” (FGD, Pregnant women, Kape-Pishiigu, Karaga District)

One woman who had insufficient breast milk reported using traditional medicine to treat herself.

Infrastructure for the provision of MNCH services in health facilities surveyed in Builsa North and Karaga districts

Table 3.16 describes the available infrastructure in the health facilities surveyed. As expected, the infrastructures for the provision of MNCH services are more available in the hospitals and health centres compared to CHPS Centres. Most of the facilities have antenatal and labour rooms that are in good condition. Some of the labour beds will however need some repair or replacement. Three out of the 5 Health Centres visited had running tap as their source of the drinking water, and the remaining two use other sources.
Table 3. 16: Available infrastructure for the provision of MNCH services in health facilities surveyed in Builsa North and Karaga districts

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Hospital n=2</th>
<th>Health Centre n=5</th>
<th>CHPS n=31</th>
<th>Total N=38</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Numb</td>
<td>%</td>
<td>Numb</td>
</tr>
<tr>
<td>Examination room or area providing client privacy</td>
<td>100</td>
<td>3</td>
<td>100</td>
<td>7</td>
</tr>
<tr>
<td>Storage area or cupboard for drugs and other supplies</td>
<td>100</td>
<td>2</td>
<td>100</td>
<td>8</td>
</tr>
<tr>
<td>Toilet facilities or latrine</td>
<td>100</td>
<td>6</td>
<td>100</td>
<td>7</td>
</tr>
<tr>
<td>Vaccine Refrigerator or cold storage system</td>
<td>50</td>
<td>1</td>
<td>100</td>
<td>9</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>50</td>
<td>3</td>
<td>40</td>
<td>2</td>
</tr>
</tbody>
</table>

ANTENATAL ROOMS

| Number of antenatal exam rooms                      | 100     | 2     | 100     | 5     | 71      | 22     | 76      | 29     |
| Do all antenatal rooms have at least one working window | 100     | 100   | 71      |       | 76      |        |         |       |
| Sufficient lighting to see the mother's or baby's condition | 100     | 100   | 61      |       | 68      |        |         |       |

LABOUR ROOMS

| Availability of labour rooms                        | 100     | 2     | 100     | 5     | 39      | 12     | 50      | 19     |
| Labour rooms have windows                           | 100     | 2     | 100     | 7     | 100     | 13     | 50      | 26     |
| Labour rooms have a flow of air                     | 100     | 100   | 100     |       |         |        |         |       |

Source of light supply to labour rooms

| Have Electricity                                    | 100     | 100   | 67      |       | 39      |        |         |       |
| Have Solar lamp                                     | 0       | 2     | 80      | 5     | 8       | 1      | 13      | 6      |
| Have Kerosene lamp                                  | 0       | 0     | 0       | 0     | 0       | 0      | 68      | 0      |
| Have Battery torch with working batteries available | 100     | 2     | 80      | 5     | 25      | 3      | 24      | 10     |
| Have Generator                                      | 100     | 2     | 20      | 1     | 0       | 0      | 8       | 3      |
| Is the labour room floor cracked?                   | 100     | 0     | 33      |       | 16      |        |         |       |
| If yes, does dirt come through?                     | 50      | 0     | 17      |       | 50      |        |         |       |
| Are the labour room walls cracked?                  | 50      | 0     | 25      |       | 11      |        |         |       |
| Are the labour room walls dirty?                    | 50      | 20    | 17      |       | 11      |        |         |       |
| Does labour room provide protection from rain and sun?| 50      |       | 60      | 58    |         |        |         |       |
| Is there a surgical/operating room to conduct CS deliveries? | 100     | 2     | 0       | 0     | 0       | 0      | 5       | 2      |
| Does the operating room have an adequate fixed or portable operating room light? | 100     |       | 0       |       | 0       |       | 5       |        |
| Median approximate distance to the nearest water supply (in meters) | 50      |       | 50      |       | 100     |       | 100     |       |

Source of water for facility

| Running tap in/at facility                          | 100     | 2     | 60      | 3     | 6       | 3      | 18      | 8      |
| Well within 50 yards of facility                   | 0       | 0     | 0       | 0     | 0       | 0      | 0       | 0      |
| Other                                               | 0       | 0     | 40      | 2     | 94      | 28     | 82      | 30     |
### Condition of labour beds

<table>
<thead>
<tr>
<th>Availability of labour beds</th>
<th>100</th>
<th>5</th>
<th>100</th>
<th>13</th>
<th>42</th>
<th>13</th>
<th>53</th>
<th>31</th>
</tr>
</thead>
<tbody>
<tr>
<td>In good condition</td>
<td>100</td>
<td>3</td>
<td>80</td>
<td>6</td>
<td>26</td>
<td>8</td>
<td>37</td>
<td>17</td>
</tr>
<tr>
<td>In need repair</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>In need of replacement</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>1</td>
<td>13</td>
<td>4</td>
<td>13</td>
<td>5</td>
</tr>
</tbody>
</table>

### How does this facility sterilize its equipment?

<table>
<thead>
<tr>
<th>Autoclaving</th>
<th>100</th>
<th>60</th>
<th>3</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot air sterilization</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Boiling</td>
<td>0</td>
<td>20</td>
<td>19</td>
<td>18</td>
</tr>
</tbody>
</table>

### 3.21 Volume of service provided on selected indicators in the districts.

Table 3.17 gives a summary of the volume of service as recorded on the DHIMS from 2013 to 2016. The various indicators examined are recorded at different service delivery points. Indicators listed under ANC and labour and delivery are recorded at ANC clinics and the maternity units of the health facilities. The indicators listed under ‘Place of delivery’ and ‘Postnatal Care’ are recorded at postnatal/child welfare clinics. In both districts, the volume of service is higher at the lower levels of care (health centres and CHPS compounds) than at the hospital level. The total number of health facility deliveries recorded from 2013 to 2016 in Karaga district was 3417, and this was less than the number of deliveries that occurred with a TBA (5,439) as recorded at postnatal clinic.

Even though a sizeable proportion of pregnant women in the two districts still had less than four ANC visits, the proportion of ANC registrants who had at least four ANC visits has been increasing over the years, except in 2016 when there was a dip in the rates (44.7% in 2013; 59.8% in 2014; 66.9% in 2015; 57.8% in 2016). In Karaga district, majority of the mothers do not turn up for postnatal care compared to Builsa north.
Table 3. 17: Table 3.19: Volume of service provided on selected indicator in the districts

<table>
<thead>
<tr>
<th>Indicators</th>
<th>NORTHERN REGION</th>
<th>UPPER EAST REGION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Karaga District</td>
<td>Builsa District</td>
</tr>
<tr>
<td><strong>ANC</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antenatal registrations</td>
<td>3902</td>
<td>4076</td>
</tr>
<tr>
<td>ANC attendance</td>
<td>9907</td>
<td>12357</td>
</tr>
<tr>
<td>Mother making 4th ANC visit</td>
<td>1744</td>
<td>2439</td>
</tr>
<tr>
<td>TT2+ vaccination at ANC</td>
<td>2650</td>
<td>2927</td>
</tr>
<tr>
<td>IPT2</td>
<td>2316</td>
<td>947</td>
</tr>
<tr>
<td>Haemoglobin</td>
<td>1620</td>
<td>1764</td>
</tr>
<tr>
<td><strong>Labour and Delivery</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of deliveries</td>
<td>660</td>
<td>679</td>
</tr>
<tr>
<td>Birth weight&lt;2.5kg</td>
<td>94</td>
<td>73</td>
</tr>
<tr>
<td><strong>Place of delivery</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBA</td>
<td>1719</td>
<td>1298</td>
</tr>
<tr>
<td>Government HC/HP</td>
<td>463</td>
<td>436</td>
</tr>
<tr>
<td>Government hospital</td>
<td>203</td>
<td>341</td>
</tr>
<tr>
<td>Private hospital</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Private midwife's</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CHAG</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Quasi-Government</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Postnatal care</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postnatal registrants</td>
<td>750</td>
<td>2405</td>
</tr>
<tr>
<td>Initiating breast feeding within 1 hour of delivery</td>
<td>689</td>
<td>583</td>
</tr>
<tr>
<td>1st PNC on day 1 or 2</td>
<td>560</td>
<td>526</td>
</tr>
<tr>
<td>2nd PNC on day 6 or 7</td>
<td>465</td>
<td>0</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----</td>
<td>---</td>
</tr>
<tr>
<td><strong>Referrals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>labour referrals in</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>labour referrals out</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td>PNC referrals in</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PNC referrals out</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td><strong>Perinatal deaths</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>still birth</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Neonatal deaths</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>maternal deaths</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
3.22 Utilization of Maternal and Neonatal Health Care Services

3.22.1 Antenatal Care (ANC)

The health staff acknowledged that prior to the KOICA-UNICEF newborn care program, women often reported late for ANC but this changed after the interventions. The health providers explained that improvements in ANC attendance was largely due to the home visits and the health education they conducted in the communities. The improved quality of health education during the interventions encouraged attendance because pregnant women learnt how to care for themselves during pregnancy, prepare for delivery and care for themselves during the postpartum period. According to the pregnant women, they were motivated to attend ANC due to their desire to know whether their babies were “alive in the womb”, “lying well in the womb” and whether they were “breathing quickly”. It was also to check for complications and their general health. Below are a few highlights from the health staff and the women:

……. “The ANC services have also improved greatly due to the fact that proper home visits are well done and women are well educated. In addition, all pregnant women identified during home visits are encouraged to come to the facility. So the ANC services are largely improved.” (IDI, Midwife, Chuchuliga, Builsa North District)

……. “You will come and the doctors will check you to see how the baby is lying and also see whether the baby is living or dead and also check for complications during the pregnancy and ensure that you and the baby are saved.” (FGD, Pregnant women, Ka-Pishiigu, Karaga District)

3.22.2 Facility-Based Delivery

Participants reported that the interventions increased the utilization of health facilities for delivery services. Some of the reasons offered were that health professionals promptly treated sick children, there was constant supply of blood infusions, increased capacity of health professionals to detect and promptly manage complications which guaranteed good health for both mother and child. Women also increasingly became aware that they could not guarantee that birth attendants such as traditional birth attendants would be able to identify an emergency and promptly refer them for care.

……. “The health facility is better than the old women because if you go and you do not have blood, the old women will not know and also if there are abnormalities with the child, the old women would not know but with the facilities, the nurses will be able to test to know what is wrong with you and the pregnancy and they will treat you appropriately.” (FGD, Women with children under one year, Yipala, Builsa North district)

Participants were able to describe vividly the process of giving birth in a health facility as captured in the following quote:

……. “When you arrive at the health centre during labour, the nurses would tell you to remove your cloths and cover yourself with cover cloth only. They would spread the plastic material on the bed and you lie on it, then they will assess you through the birth canal to see if the baby is in the position to deliver. They will then allow you to walk around if you are not nearer delivery time and if you are also weak they will ask whoever came with you to the hospital to get you food to eat. After that you are made to lie again for reassessment when you are ready to deliver, they connect some “water” we don’t know the importance of it though, as they urge you to push. A nurse is always ready to receive the baby with the cloth you brought.” (FGD, Pregnant Women, Wiaga Central, Builsa North)
In order to reduce infection, the midwives were reported to wear gloves throughout the birthing process. They also disinfect the area around the vagina before encouraging the pregnant woman to push. After delivery, the cord is cut and the baby is placed immediately on the mother to initiate breastfeeding.

…….”When a woman is in labor the midwife will put on gloves then put the woman on the delivery bed and brings water close and add Dettol to the water and dip cotton in the water and wipe the vagina with it and then ask the woman to push. When the head comes out she holds it gradually and encourage the woman to push until the baby comes out completely. After that, she then cuts the cord with scissors and put the baby on the mother to breastfeed.” (FGD, Community health volunteers, Ka-Bagurugu, Karaga District)

3.22.3 Postnatal Care
Postnatal care is an important step in the maternal and newborn care continuum and formed part of the services provided in the two districts. Postnatal care usually takes place both at home and at the hospital. The interventions impacted positively on PNC as most mothers were attended to by a health professional within 48 hours after giving birth. Activities during the PNC include the examination of mother and baby for danger signs of illness and health education especially on newborn feeding guidelines.

…….”The women at first did not want to come for postnatal services, but now we have spoken to them and they come for the services. Whenever they deliver and they are discharged, they come here for postnatal care and this makes us monitor their babies.” (IDI, Health Staff, Com CHPS, Wiaga Sub-District, Builsa North District)

…….”After delivery, the midwife and the nurses who visit your homes educate you on how to take care of the baby to be healthy and they teach you on how and when to give the child food.” (FGD, Women with children under one year, Yipala, Builsa District).

3.23 Effect of Interventions on Kangaroo Mother Care
IDI and FGD participants across both study sites agreed on the importance of Kangaroo mother care with IDI participants, in particular, stating that through the KOICA-UNICEF intervention program, health workers have conducted the kangaroo mother care with new mothers. Additionally, mothers receive information on the importance of the practice. A participant explained how the kangaroo mother care is carried out:

…….”When I gave birth the child was put on my chest for the child to suck after that the nurse told me they wanted my body heat to enter the child and also that the first milk that comes out was essential for the child health. (FGD, Mothers with children under 1 year, Kori, Builsa North District)

3.24 Effect of Intervention on Umbilical Cord Care
Management of the cord is critical in the prevention of infections. Therefore, as part of efforts to promote hygienic cord care, KOICA-UNICEF trained both health staff and community health agents how to manage the cord hygienically. Through health education at health facilities and during home visits, the health staff were able to guide mothers to follow the hygienic practices they learned. The health staff acknowledged that substances that were hitherto used by community members to treat the cord contributed negatively to neonatal health but this was changing due to the impact of the interventions.
…… “Back in the days when a mother delivered, they put all sort of things on the cord hoping that it will heal the wounds without realizing its negative impact on the baby which led to tetanus within the communities in our catchment area. But since KOICA-UNICEF interventions came, it has reduced drastically as I am talking to you now, I cannot remember the last time we recorded a tetanus case in this sub district. These are all indications that our volunteers and staff are really doing their work well during the home visits.” (IDI, Health Staff, Ka-Pishigu, Karaga District)

Data from the focus group discussions with mothers revealed what mothers were actually taught on cord care and how that has changed current practices. These quotes illustrate what we learned:

…… ”We were taught to care for the cord and that we should not use anything to treat the cord, except spirits till it falls off itself. This is what we were taught concerning newborns and we are practicing that.” (FGD, Member of a mother-to-mother support group, Farensa, Builsa North)

…… ”we used to put shea butter on the umbilical cord which causes infections and when you send the baby to the health facility they will advise you not to put it again, they will also give you a water-like drug [spirit] and cotton which you will use to clean the cord and we now use the water-like drug and cotton to clean the cord.” (FGD, Pregnant woman, Ka-Yapalsi Fong, Karaga District)

3.25 Effect of Intervention on Home-Based Care
Home-based care is an integral part of health service delivery. The relevance of this approach to health care delivery lies in the wide coverage of services to both mothers and children in the comfort of their homes. The approach brings health to the doorsteps of the people and its effect was acknowledged by participants across the study districts. According to the health authorities, the home-based care component of the interventions helped health workers to reach out to many mothers and children promptly and improved ANC attendance, defaulter tracing, and family planning uptake and health education.

…… “I will say KOICA-UNICEF have helped in achieving the objectives of the sub-district. You know newborn care is mainly on home visits and during our home visits we have been able to reach out to mothers early and it has help to improve our ANC attendance and defaulter tracing has also helped to reduce drop-out-rate because some mothers after taking the first injection will not come for the rest of the injections so during home visit, you capture and refer them back for the immunizations and also family planning. Also, our objectives have been met due to the education given during home visits.” (IDI, SDHMT member, Chuchuliga, Builsa North District)

The reports from the health authorities were corroborated in the interviews and discussions with the women. Across the two districts, the women reported the benefits of the home-based care to include increased access to health staff in the comfort of their homes, confidentiality in the consultation content, improved nurse-client relationship, more focused health education and better attention from health staff with regards to their peculiar needs.

3.26 Effect of Equipment and Logistics on Service delivery
The health professionals in the intervention districts acknowledged receipt of some equipment and logistics from KOICA-UNICEF which helped them render comprehensive and quality services to the people. These included motorbikes, ambu bags (bag & mask), weighing scales and pants, thermometers, gloves, fuel, home visiting bags, posters and cot sheets for preterm babies. The motorbikes for instance, helped nurses to access hard to reach communities to run maternal and child welfare clinics, carry out home visits and monitor the activities of volunteers. The (bag & mask) replaced the mouth-to-mouth
resuscitation method while the crude method of weighing mother alone and mother and baby together and finding the difference between the two weights in order to determine the child’s weight became a thing of the past with the availability of baby weighing scales and pants. This helped health staff identify malnourished children for focused interventions. The health staff had this to say:

......”Now we have a lot of logistics at hand and we have the infant scale which we were not having initially, we have the hanging one, we have a lot of weighing pants there, we have thermometers, we have gloves and we have ambo bags. So all those things enhance our service delivery. Initially, when we got a child that we needed to resuscitate, we were not having ambo bags, so we used to refer the child to the next level or do mouth-to-mouth resuscitation, but now when we get a case like that, we have ambo bags at hand and we can use it. And those days when a woman came and stood on the scale, we used to take the woman’s weight and also take weight of the woman with the child and we subtract but now that we have the infant scales we just put the child on the scale and weigh it to get the weight. In all, they gave us the following items: Ambo bags, weighing scale, thermometers, weighing pants, gloves, fuel, home visiting bag, mosquito nets and posters.”” (ID, Health Professional, Ka-Tindang, Karaga District)

In the Northern region for instance, newborn care units were established and equipped with incubators, thermal warmers, oxygen among others to ensure quality health care to neonates. This was reported to have made a significant difference between life and death for neonates.

3.27 Effect of Interventions on access to Maternal Health Care Services

Even though geographical access to health facilities is usually a major challenge in rural communities, this was not the case in the intervention districts. The siting of CHPS compounds in the communities increased access to basic maternal and child health care services. This was augmented by community ambulances for transferring women in need of emergency obstetric care to secondary and tertiary facilities. The widespread availability of motorbikes that are owned by some community members also eased the referral process. A tricycle which is popularly known as “motor-king” is common in both districts and is used to transport people across and between communities. Women and children in need of health can either walk to CHPS compounds close to them or use the ambulance or motor-king to the nearest health facility for care.

......”If I am referred to Sandema, the facility has an ambulance unless the ambulance is gone to attend to another case that I will have to look for my own means of transport. But if the ambulance is available, it will send me to the hospital. I cannot sit on a motorbike to Sandema, for that matter if the ambulance is not available we sometimes use a “motor-king” (tricycle) to carry the pregnant woman. The woman will sit in the bucket of the tricycle because it has a broad base like the ground to the hospital. Sometimes, we use cars too but if the ambulance is available, we use that one.”” (IDI, pregnant woman, Yemonsa, Wiaga sub-district, Builsa North District)

Financial access to maternal healthcare services have been improved by the government’s introduction of the free maternal health care policy. However, where women have to hire a motor-king or an ambulance to transport them to the next level of care, cost becomes a limiting factor. The participants said that because they are poor, paying 15 to 50 Ghana cedis in the case of the Builsa district and 40 to 80 Ghana cedis in the case of the Karaga district, for either the motor-king or ambulance depending on the referral point, is catastrophic to them
If it’s a motor-king, he can charge you like GH₵15.00 to the Wiaga facility but if it’s the ambulance, they charge GH₵15.00 from the Wiaga facility but if it is to Sandema hospital the cost is GH₵25.00 per trip, but you know we are poor.” (IDI, Pregnant woman, Yemonsa, Wiaga sub-district, Builsa North District)

“...The cost will depend on the distance between your community and the health facility. If the distance is long then you will spend more and when the distance is less you will also spend less. If it is long you can spend about Ghc80.00 and when it is less you can spend about Ghc40.00.” (FGD, Pregnant Women, Ka-Yapalsi Fong, Karaga District)

3.28 Attitudes of Health Professionals and utilization of health services
The community members who participated in the interviews and discussions had mixed reports on the attitude of health workers and its effect on utilization of health facilities. Here is what some participants had to say.

“Some of the health professionals respect human beings a lot, but some of them do not treat pregnant women very well which make some of the pregnant women not wanting to go to the health facilities to give birth. So because of the attitude of some health professionals, some pregnant women do not want to go to the health facilities. They prefer going to the older women who are patient and will handle them very well.” (FGD, Women with children under one year, Yipala, Builsa North district)

However, apart from a few isolated reports of health staff who were friendly and respectful towards their clients, generally, health staff were seen as disrespectful and verbally abusive and the non-utilization of health facilities for maternal and neonatal health services were attributed to their negative attitudes towards their clients.

“It is only difficult sometimes when you meet a difficult midwife who may not handle you well. I must say that some of them will make your body ‘hot’ whiles others will receive you warmly like you are their daughter and make you always feel like going to give birth at the health facility. The attitude of some of the midwives scares some of us from going to the health facility to give birth because the way they will maltreat you, giving birth at home will be better.” (FGD, Women with children under one year, Yipala, Builsa North district)

The women recommended a change in the attitude of nurses. They were particularly concerned about the abusive language used in interactions with pregnant women and nursing mothers. The discussants suggested that health professionals’ good and encouraging words could go a long way to improve the health of their clients. They emphasized the need for health professionals to have good attitudes towards their clients in order to encourage them to continue to patronize their services and to convince their colleagues to do the same. Here is what one pregnant woman had to say:

“When we arrive at the facilities, they should understand what we are going through for them not to handle us with “hard hands” (roughly). They should not shout at us or do something for us to be angry, otherwise when we give birth and meet them anywhere, we will label them as difficult midwives. They should be persuasive in the attempt to make you push for the baby to come so that she can catch the baby for you the mother to be “Nyn-yoksa” [to feel well or fine].” (IDI, Pregnant woman, Yemonsa, Wiaga sub-district, Builsa North District)
3.29 Effects of Interventions on Health Seeking Behaviour

3.29.1 The decision-making process

The decision-making process prior to seeking health care for women and children could be complex. It was therefore the target of health education especially during home visits. Women from both study sites had varied reports about who makes decisions at the household level. Some respondents indicated that they make the decisions together with their husbands and families while others said decisions are solely taken by their husbands and household heads.

......"Our husbands and household heads are those making decisions for us. We do not really have the power to make decisions." (FGD, Pregnant women, Ka, Yapalsi Fong, Karaga District)

......"When the labour started, I called my brother-in-law, who lives in a different house at midnight and he came and then called the ambulance to come and pick me. I took the decision to go to the hospital." (IDI, Woman who has delivered in the past 2 weeks, Bandema- Yimonsa, Builsa North District)

3.30.2 Preference for health facilities for maternal and child health care services

Some aspects of the health education component were aimed at discouraging negative cultural practices that limit utilization of health facilities. Participants in our interviews and discussions acknowledged the role that sociocultural factors play in women’s decisions to use maternal and child health care services. However, due to the health information they received from both the health professionals and the community health agents, they were convinced that regardless of the nature of the maternal or child health problem, the health facility should be the first point of call.

......"We now know that the health facility is better than the older women because if you go and you don’t have blood, the older women will not know and also if there are abnormalities with the child, the old women would not know but with the facilities, the nurses will be able to test to know what is wrong with you and the pregnancy and they will treat you appropriately.” (FGD, Women with Children under One Year, Vipala, Builsa North district)

Christian participants in the Builsa district reported that they usually combine treatment at health facilities with prayers in the church with the hope that the combination will bring healing. Others only turn to the church when the health facilities fail. They were however of the view that seeking traditional remedy was a thing of the past. This summed them all:

......"Most of us attend church, in case a problem arises, we go to the hospital for treatment before we go to the church for prayers. Unlike the previous days where our fathers would have to consult the gods and perform some other rituals. When there’s a problem we first get to the hospital or the church for help.” (FGD, Pregnant women, Builsa North District)

3.31 Effect of Interventions on Community Engagement

One of the most noticeable themes that most participants stressed was community engagement; that is the role communities play in ensuring the good health of mothers and babies in their communities. The community engagement component of the KOICA-UNICEF interventions included active community mobilization and participation in health programs and capacity building for community health agents, which culminated into better collaboration between the communities and the health sector as a health official narrated:

......“I would say that it has helped in community mobilization and participation because those days community involvement in health issues used to be very poor, but the partnering with UNICEF-KOICA
has brought about improvement of community involvement in health programs. Also it has built the capacity of community health agents like; the mother-to-mother support groups, community volunteers and the others and so these people now have better knowledge to serve their people well at the community level.” (IDI, Regional Director Health, Northern Region)

Community members also acknowledged the community engagement component of the KOICA-UNICEF intervention program as a major contributor to effective health service delivery. Communities owned the interventions as reported by a DHMT staff.

……”I think one thing that the intervention sought to do and has achieved is making the community to take their health issues into their own hands. Once they have their own health issues at heart, they are able to mobilize and act in a way to their own benefits.” (IDI, DHMT Staff, Builsa North District)

Through community durbars, the health providers were able to communicate health messages more effectively to the community members. It was also a platform for encouraging community members to buy into the various initiatives and to solicit their support in the implementation of the interventions. Some participants reported that the KOICA-UNICEF model of community engagement that included the setting up of mother-to-mother support groups and the community volunteers was effective and is currently altering unhealthy practices in the community. In the Builsa district, the community leadership instituted by-laws to deter women from delivering at home and also mobilized funds from community members to provide fuel for emergency transport. Temporary CHPS compounds were also constructed to house community health officers pending the construction of more permanent structures.

……”You know before you can enter a community to do anything, you have to ensure that you get all the people together through durbars or other means. So the community mobilization was meant to foster a smooth community entry so that the people can be well sensitized on what you intend to do, and their area of involvement so that they can make informed choices prior to arrival of whatever message or implementation you intend to embark on. Hence mobilization was key and that was what the [KOICA-UNICEF] support was helping us to do. We could buy fuel and go to the community to engage them and sell our ideas for them to understand very well before finally engaging them in implementing them.” (IDI, Regional Director Health, Northern Region)

Traditional leaders and men were seen as key partners in maternal and child health service delivery. The implementation of the interventions raised men’s awareness and knowledge of maternal and child health care issues. They were also actively engaged in the implementation of the interventions as reported in the FGD.

………”A woman was experiencing excessive bleeding after delivery and I referred her to our nurse for treatment afterwards I went to visit her and I realized that the child was not sucking well so I took the mother through exclusive breastfeeding, good positioning and attachment.” (FGD, Males, KA-Tindang Community, Karaga District)

Participants emphasized the difficult nature of community engagement evidenced by some community members’ apathy towards some health programs. According to them, community stakeholders sometimes refuse to participate in activities implemented by some groups or individuals because of their suspicion that these programs are meant to benefit only few individuals as contained in the excerpt below:
…..”Sometimes we hear about the health programs, but we at times doubt the credibility of this information because many a time, some people will only come and use us for their personal interest and since we don’t know the outcome of these programs, it is always difficult for us to get ourselves involved.” (FGD, Male in the KA-Tindang Community, Karaga District)

3.32 Effect of the Intervention on Monitoring
Effective monitoring is important for a program to succeed. It is important for a program to be tracked from the planning stages to its implementation and evaluation. According to the health workers in the two districts, effective monitoring was carried out to ensure the success of the KOICA-UNICEF program implementation using checklists, routine visits to the communities and regular meetings and supervision of community volunteers, CHO’s, staff at the sub-district and district levels. Community volunteers also actively monitored and supervised pregnant women, mothers and newborns at the grassroots level. Currently, an integrated approach is being used to monitor and implement the interventions in the communities.

We will rely on an integrated approach in order to ensure continuous monitoring and implementation of the interventions. By this approach, what we will be doing is that, when you are given funds to undertake any activity on the field, you integrate that with newborns and mothers care activities and execute. In otherwise, your activity schedule now becomes a multi-tasked one where you don’t intend to do one thing at a time but multi-purpose. For instance; if you are given funds to carry out an activity on malaria, you add newborn and mother care issues as part of your plan before you go to the field either than that, it will not be easy for you. You see, when we started with the interventions, we had to sit down and develop a basic reporting tool, so that is what we use in tracking some of the indicators. Aside that we also have a monitoring tool or checklist for the monitoring of our activities. The tracking of the indicators is done in an orderly manner, starting from the CHO’s where the information is picked from the lower level and passed to the district for their perusal and then from the district to the region where the information is now stored for future usage. And the monitoring is usually carried out from a district level to the sub-district level and then to the community level. (IDI, Regional Director Health, Northern Region)

3.33 Effect of the Intervention on Achieving Maternal and Child Health Targets
3.33.1 Effect of Intervention on overall health service delivery
The capacity building component of the interventions equipped health providers with skills to better care for mothers and babies and therefore saved lives. Health providers emphasized the contribution of the maternal and child health education given to women’s groups and individuals in improving the health indicators. Specifically, the active home visits improved ANC attendance and skilled delivery. Participants also acknowledged that the home visits improved defaulter tracing, early case detection of pregnancies and tracking to ensure that complications are attended to promptly. Below is an excerpt from the interviews:

…..”Initially, we were having problems with the skilled delivery but as soon as KOICA, and UNICEF newborn care programme came in, we were able to increase early ANC attendance and skilled delivery has also been increased based on our indicators. So it has helped us to increase those indicators particularly because the health staff now have the requisite knowledge to conduct home visits together with the volunteers. They have been bringing the pregnant women to the facility as early as possible for ANC services and encouraging them to come back for skilled delivery.” (IDI with DHMT member, Ka, Karaga District).
Across the intervention districts, the health staff reported improvements in their indicators relative the years prior to the interventions. Almost all the maternal and child health indicators showed some improvements and the sub-districts generally fared better than other sub-districts and thereby reduced maternal and infant mortality in the districts. The following comments reflect this theme:

Some of our targets have been achieved and actually our authorities expect that by the end of the year or maybe mid-year, we should be able to achieve zero neonatal deaths. When it comes to newborn care, I can tell you that all the newborns, the children that need resuscitation are resuscitated. I can tell you all, out of the number of women who have delivered here, all are undergoing this Kangaroo mother care, initiation of breastfeeding as early as possible. Things have improved and most of our targets when it comes to newborn care, have been achieved and I think it is as a result of the knowledge almost all the staff here again through the training from UNICEF-KOICA. This has brought us close to the mothers and their families and like somebody mentioned somewhere that has actually propelled our sub-district to the highest or the first among the six (6) sub-districts who did very well at our end of year performance review. And I can tell you that, key to our contributions is those interventions, where we learned a lot from.” (IDI, Health Staff, Builsa North District)

"...’The UNICEF, KOICA support, especially the Korea government intention was to ensure that there is maternal mortality free within the district; in Karaga district, by God’s grace and goodness, we have not recorded any maternal and infant mortality in 2016, so we have achieved gold for ensuring that Karaga district has maternal mortality free.” (IDI, DHMT member, Ka, Karaga Health Centre, Karaga District)

Health authorities at the regional level saw the improvements in the quality of care which obviously reflected in the indicators. However they were of the view that the changes were not significant as it takes time for a critical mass of professionals to be trained to have the needed impact. A health official had this to say:

"...Yes, I will say that it contributed to the improvement of quality health care even though not much. The interventions didn’t bring much increase in the indicators, but I will say that it brought improvement in the sense that they were transparent in all that they did. Hence, the community was aware of all that they were doing; the health workers were fully in-charge, they could access their data to know whether there was progress or not. This was not part of the system and the health workers didn’t have that privilege to actuality access information and know what was going on within the system. Their only work was to submit their monthly reports to their superiors. But through the interventions, even the CHOs had the opportunity to make presentations with the data they were gathering so I see it good and it added quality to the health care that they deliver to the people because they were taught to understand that it was not about collecting any information and passing it to others but to study the data and read meaning into whatever data you have collected. This made every health worker put in his/her best in both the information gathering and analysis and consequently improved the quality of health care.” (IDI, Deputy Director of Nursing Service in-Charge of Public Health, Upper East Region)

3.34 Newborn Care Corners
Prior to the setting up of the newborn corners, selected staff in the two regions were trained to manage them effectively. The training focused on live saving skills and essential newborn care. After the training, focal persons from the various regions assisted the district teams to set up the corners. Existing structures in selected facilities were used to create the corners. Although there were serious constraints in terms of space in some of the facilities, because of the importance of the initiative, heads of the institutions were willing to create the needed space in their facilities to host the corners. The corners were equipped with
baby cots, delivery beds, baby warmers, delivery sets, adult and baby ambu bags, thermometers and weighing scales. The newborn corners were reported to be functioning in the two districts.

"In the newborn corner, we make sure that women who are pregnant are visited twice during the pregnancy and make sure that during labour she is brought to the facility to deliver and monitored three times in the first 20 days. If the mother delivers at the facility and the baby is having problems we resuscitate the baby at the corner."

(IDI with a Midwife in Karaga Health Centre, Karaga District).

3.34.1 Impact of the newborn corners on the health of the Newborns
In addition to that, all newborns are brought to the corners immediately after delivery for cleaning and examinations. This has contributed significantly to the early detection of danger signs and resuscitation of babies that are asphyxiated at birth at the community level. Here is an excerpt from a midwife on the effect of the newborn corners.

"We have achieved a lot because as I said earlier on, we have reduced neonatal deaths in the facility to as low as 2% per 1000 births in the facility since the creation of the corner, home visiting too has been improved resulting in high facility delivery. More to that, we as a district for the first time ever since the creation of the district was first during the just ended end of year performance and a midwife in this facility emerged as the best midwife in the region due to the results we had in terms of facility and newborn management."

(IDI with a Midwife in Chuchuliga Health Centre, Builsa North District)

3.34.2 Challenges of the Newborn Corners
A midwife at Karaga summarized the challenges with the newborn corners as follows:

"We have few challenges with regards to the newborn corner. We use our labour room as the newborn corner making it uncomfortable to manage the neonates because two to three women can come to deliver so when one has resuscitating problems you have to be managing the baby in the same room with the other women on the delivery beds, also we do not have baby warmers which really bothers us a lot because there are several occasions that we badly need it to worm the new borns especially during the cool period."

(IDI with a Midwife in Karaga Health Centre, Karaga District)

3.34.3 Suggestions to Improve the Newborn Corners
Some suggestions to improve the newborn corners included extensions within maternity wards to host the corners in order to decongest the wards. They also requested additional warmers to keep babies warm after delivery. The respondents also suggested the regular servicing of motorbikes to facilitate the tracking of pregnant women in communities to encourage them to deliver in health facilities. A longer duration for the training program with more practical sessions was also recommended.

3.34.4 Sustainability of the Newborn Corners
In terms of sustainability, respondents said they had every intention to maintain and protect the equipment that were provided them. Plans for refresher trainings were also underway to ensure that health professionals who were not trained also benefit from the training in order to ensure continuity in the maintenance of the corners. Some engagement with the District Assembly to ensure regular stock of equipment at the corners is also underway.

3.35 Newborn Care Units
According to the respondents, challenges with the handling of newborns in labour rooms led KOICA-UNICEF to establish the newborn care units. Health professionals had observed over time that keeping
newborns with other maternity patients in the same room did not allow newborns to receive the special attention that they required. The health facilities therefore designated a ward, which KOICA-UNICEF equipped as newborn care units. The idea was to have babies with peculiar problems sent to the newborn unit for proper management. Skin to skin with mothers is practiced at the newborn care units and neonates with infections are also managed at the unit. Children who are delivered through caesarean sections are kept in the unit until the mothers are stable enough to take care of them. A doctor at the Karaga hospital recounted the process in setting up the units in the quote below:

“Ok, when I came here initially, when the mothers gave birth the newborns were having problems, which we managed at the maternity ward until KOICA-UNICEF came in and said they wanted to help us set up a newborn care unit. So we picked one of the wards as our newborn care unit and some of the staff were picked to Tamale to undergo a one-week training to equip them to manage the unit. The support aspect were in two categories that is to say our staff were trained on how to take care of the newborns and also equipment were brought and equipped the unit for us.” (IDI with a Doctor, Karaga Hospital, Karaga District)

Respondents mentioned the equipment that were bought by KOICA-UNICEF for the newborn units and the items included baby cots, incubators, phototherapy devices, weighing scales, radiant warmers, suction catheters, N-G tubes, dust bins, veronica buckets, cot sheets and computers.

As with the newborn corners, staff who were identified to work in the units were taken through different training regimes. Even though all the nurses involved in newborn care were trained, the focus was more on the midwives who attended all the trainings offered by KOICA-UNICEF. Staff capacities were built to help babies’ breath, to know how to identify danger signs in newborns and to resuscitate babies as captured in the quote below:

“They built the staff capacity on how to help babies’ breath. They organized a series of workshops also on how to identify danger signs in newborns. In relation to the staff trained, all staff at the hospital had the chance to attend one or two workshops on newborn care making it easier to assign anybody to the unit. However the midwives were special cases because for them they attended all the trainings that were organized at the region and the district level. With regards to the improvement, it has helped a lot in improving the staff ability because all of them couldn’t resuscitate a new baby but now they do it any time they encounter such problems.” (IDI with a Doctor, Karaga Hospital, Karaga District)

The newborn care units were reported to be functional in both districts. In each district hospital, the units were deliberately located near the maternity wards to facilitate the transfer of babies from the maternity room to the units and also to share the limited number of staff in the two wards. Apart from being used to manage babies after delivery, the facilities are used to train nurses from the nursing and midwifery colleges.

3.35.1 Impact of the Newborn Units on the Health of the Newborns

Interviewees reported improvements in the survival of newborns especially for preterm babies who were always bound to die due to the absence of incubators. The conventional method of treating neonatal jaundice which involved letting the baby face the sun also gave way to the use of the phototherapy machine. Also, general congestion in the maternity ward reduced which also led to a reduction in cross infections. As a result of the newborn units, babies can now be separated for better intensive care. Here is what a nursing officer in the Sandema hospital had to say.
"It has reduced the congestion in the maternity ward, and it has also reduced cross infections because the kids are separated from the mothers; from the open ward, so that infection prevention is introduced. This leads to reduction in neonatal deaths and morbidity, and then the staff too have the chance to learn in a smaller place. The students also get the chance to learn in a smaller place. Preterm babies too survive because there is intensive care for them.” (IDI Nurse Administrator, Sandema Hospital, Builsa North District)

3.35.2 Challenges of the Newborn Units
The creation and operation of the newborn units was not without challenges. The unit in Sandema for instance was carved out of the existing maternity ward and therefore the space is too small to work in. As a referral facility, the hospital receives patients from peripheral facilities and this tends to make the wards congested. The hospital also has no reliable standby generator and so in times of lights-off from the national grid, they are unable to function. Where the generator works, fueling it becomes a huge challenge especially when they have babies in the warmers. They also do not have overhead lamps to help set IV lines. On the part of staff, only one midwife, one pediatric nurse and two doctors participated in the training. These numbers were seen as inadequate and therefore require an increase in them to make the units more effective. Also, consumables such as cannulas and gloves run out very quickly but the facilities do not have the required funds to keep replacing them. Payments from the national health insurance scheme have not been consistent and this has dried up the funds of the facility, thus preventing it from being effective. Some of the challenges with the newborn units in the Karaga hospital were summarized in the excerpt below;

"...As I said earlier on, we have problems with staff so the unit doesn't have its own staff. The staff from the maternity ward work in both wards putting more pressure on the maternity wards especially when there are more than two women at the labour ward to deliver. The very staff attending to them will be attending to the babies in the unit. Another challenge has to do with follow ups due to lack of transport for the unit. When a baby is discharged, the ideal thing is we should visit the baby and the mother at home but because we don’t have means to get to them we advise them to return with the babies for further check-ups and most often we lose these children to follow ups. Our home visiting activities is also very poor or I will even just say we don’t perform the home visiting at all and it all boils down to lack of the transport.” (IDI with a Doctor, Karaga Hospital, Karaga District)

3.35.3 Suggestions to Improve the Newborn Units
Respondents were of the view that the trained staff should be increased to ensure that both the maternity and newborn wards have their own staff. Specifically, they called for an increase in the training of pediatric nurses by making available incentives to entice more people to go for the training. They also requested more motorbikes to enable them carry out home visits and follow ups of their patients. The volume of admissions in the wards consistently outnumbers the number of baby cots in the unit and so respondents were of the view that more cots should be purchased. Suggestions for standby generators for the units were also made.

3.35.4 Sustainability of the Newborn Units
In order to sustain the newborn unit initiative, the facilities are ensuring knowledge transfer to new staff who join the unit. Experienced staff take their colleagues through the same trainings that they went through under the KOICA-UNICEF capacity building initiative. The hospitals are also able to buy some of the equipment and consumables especially those that are not expensive. Efforts are also being made to obtain support from some NGOs when the KOICA-UNICEF support runs out. Beyond this was a
strong conviction that the new born units had come to stay and that nothing could halt their sustainability as contained in the excerpt below.

"I think the unit has come to stay and there is nothing that can take it away. We will do our very best to maintain it. We have an equipment engineer employed here by Ghana Health Service; he checks on the equipment so that they will last, and then the little funds that we get from insurance and IGF (internal generated fund) will be used. But actually, the unit has come to stay, there is nothing that can take it away."

(IDI with Nurse Administrator, Sandema Hospital, Builsa North District)

3.36 Relevance of KOICA-UNICEF Interventions to Ghana National Health Policy

In order to understand how the KOICA-UNICEF interventions were relevant to Ghana national health policy, health workers were asked whether the program was in line with the national policy of Ghana. The discussants listed a number of policy-related activities that KOICA-UNICEF promoted. These included ANC attendance, skilled delivery, PNC services and newborn care that includes kangaroo mother care, hygienic cord care, early initiation and exclusive breastfeeding, introducing food after 6 months and a reduction in maternal and infant mortality and morbidity. According to them the capacity building of health workers and community members was also relevant to the national health policy. The following quotes from health professionals illustrate how they described the program’s contributions to the national health policy:

"KOICA-UNICEF have contributed to the national policies and priorities in Ghana, in the sense that, programs that are dear to the Ghana Health Service are those that KOICA-UNICEF have intervened to help improve the indicators. As I already mentioned, skilled delivery is one typical example. Home visits was one of the key areas that we were trying to put in place, which KOICA-UNICEF has come to intensify in that regard, where we have community volunteers and even health staff also making sure that they go into the communities. So I think the KOICA-UNICEF interventions have contributed to Ghana Health Services policies and our service delivery."

(IDI, DHMT member, Builsa North District)

3.37 Effect of the Intervention on the Visibility of the Donors

A question about the visibility of the donors met with unequivocal responses. KOICA/UNICEF’s presence and contributions to the regions is widely felt and known. Respondents revealed that KOICA-UNICEF are ranked first in the Upper East region for their contribution to health service delivery and portray a good image as a health official from the Upper East region puts it.

"When we come to visibility, I think in our region, say Upper East region, I am sure every district and for that matter the sub-districts are now aware of KOICA/UNICEF, and so their visibility is not in doubt. They are well known, they are well accepted, but I do not know how to put it but when it comes to visibility, you can tell, maybe you can ask for the first three prominent entities in terms of donors, I think KOICA/UNICEF will come up first before you look for the second and third ones. So they are well accepted, they are well known region-wide and I am sure, nationwide. For the nationwide you can talk of UNICEF, it is a world body as you were saying, there is no doubt about their visibility or maybe how people may accept them and KOICA is doing very well and that is why we see them throughout our region. I can tell you that they have facilities KOICA-UNICEF is supporting in every aspect and we wish they will do same to all our facilities."

(IDI, head, sub-district, Chuchuliga health centre, Builsa North District)
3.38 Lessons Learnt from the KOICA-UNICEF Intervention Programme

We asked stakeholders about their views of the KOICA-UNICEF intervention and lessons they learned from the program. The health professionals replied that the capacity building workshops showed the need for routine in-service training as people tend to forget things they learned in school or skills they do not use frequently.

Another lesson learned was that constant interaction between community members and health professionals could help in addressing pertinent health issues that relate to the community. They reported that getting the community health agents to work effectively could increase demand for maternal and child health care services. Specifically, the model would help in effective monitoring of pregnant women from the early stages of the pregnancy until birth in order to promptly detect complications and make referral.

Other lessons learned were that alternative planning for domiciliary delivery could be the best alternative in emergency situations, home visitation is necessary to avert complications, intervening within one month after delivery is critical to preventing neonatal mortality and frequent follow-up to the service delivery points to supervise and correct those trained is critical for effective and efficient service delivery and community engagement is an important component of service delivery and utilization. They reiterated the critical components for strong collaboration among stakeholders and better service delivery: capacity building, constant interaction among stakeholders, effective monitoring and home visitation for newborn care, constant supervision and community engagement.

Other important lessons learnt were that before any intervention, it is necessary to plan, learn, practice and be ready to serve. The health professionals also concluded that it was possible for health services to be delivered evenly between rural areas and urban settings because of the decentralization and grassroots approach KOICA-UNICEF and the Ghana Health Service used for health service delivery in communities. In respondents own words

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"The lesson learned is that there is equity in service delivery to those in rural communities and urban settings because, in both areas, they receive almost the same services."(IDI, Health staff, Ka-Namburugu CHPS, Karaga District)
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"From maternal and newborn care: we have learnt to plan before implementation. We should plan and prepare or prepare and plan. (1) Plan and wait for the unforeseen is key to me (2) learn and practice and (3) be ready to serve. So basically to me, these are the lessons learnt from these interventions. If we did not learn from them and put it to good use, we would not have become first in our district. So if you go to learn and not practice, you will certainly not achieve the aim or targets that you so desire to achieve. Those are the lessons that can be learned from the interventions."

(IDI, head, sub-district, Chuchuliga health centre, Buialsa North District)
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3.39 Suggestions for Future Interventions

A question on suggestions to improve the implementation of future programs received varied proposals. Suggestions included the need to decentralize training and allocation of resources to the districts, timing for implementation of interventions should take into consideration the dry and wet seasons since they affect accessibility and community participation in the interventions, timely release of funds for program implementation, more refresher trainings, handy training manuals, electronic presentations and more logistical support from the implementation agency.
3.40 Efforts to Ensure Sustainability of the Program

It was important for project managers to understand the views of stakeholders about ways of sustaining the activities, after the KOICA-UNICEF project ends. Thus, we asked community members and health professionals about ways the Ghana Health Service and the communities could sustain the activities of the project. Interestingly, the discussants came up with the following strategies:

One way was to engage communities more to contribute to their health care. According to interview participants, this could be done either in kind or in cash. Community members could provide labour for the maintenance of the CHPS compounds or contribute money for the same purpose.

"At our sub-district of level, there are 3 CHPS compounds and we have made the community members to understand that CHPS compounds are for the community. They could provide labour to maintain the CHPS compounds or contribute small money for the maintenance of the CHPS compounds. It is through KU that we are able to bring these people together. We know through this it will go forward." (IDI, Sub-District level Staff, Builsa North District).

The health workers indicated that to ensure sustainability, there is a continuous provision of health services and orientation of both old and newly posted health staff and volunteers on the program. Also, a respondent from the Builsa district disclosed that resource persons are trained to help in future training and a focal person identified in each district to coordinate the program.

"So like I said, any newly posted staff who comes within the district is given orientation on the programme so that the staff can equally render the services to the mothers. Also, we trained new and old volunteers who did not receive the training and as part of the training we talk about the newborn care activities. So we keep orienting new staff and volunteers to continue to apply their knowledge to achieve results." (IDI, DHMT member, Ka-Karaga, Karaga District)

Currently we have about 22 resource persons who were trained that can do the trainings so when it comes to training to build capacity, we can rely on them to facilitate the training processes. We also have some other supporters willing to support. Again UNICEF through MBFHI has given a lot of equipment to other districts so when it comes to scale up we wouldn’t need that much as we would have required, if they had not come in. (IDI, Focal Person, and Upper East Region)
Chapter 4

Results of the Education Component

4.1 Education Status in Karaga and Builsa North District

This theme focuses on the status of education in Karaga and Builsa North Districts. Specifically, the section examines the number of schools, enrolment levels, teacher population, classroom infrastructure and school age population. We also examine trends of these variables over four school years in the case of the Karaga district (i.e. from 2012/2013 to 2015/2016 academic year) and three school years for the Builsa North District (i.e. from 2013/2014 to 2015/2016 academic year).

4.2.1 Number of Schools in Karaga and Builsa North Districts

Table 4.1 presents the number of schools in Karaga and Builsa North Districts. Karaga District recorded a total of 215 basic schools (i.e. Kindergarten, primary and Junior High Schools) in 2015/2016 academic year. This corresponds to 22 (10.2%) increase in the total number of basic schools recorded in the 2012/2013 academic year (i.e. the baseline). The current number of schools also revealed an increase of 13 (6%) and 6 (2.8%) over the number of schools recorded in 2013/2014 and 2014/2015 academic years respectively.

Builsa North also recorded a total of 136 basic schools in the 2015/2016 academic year, which corresponds to 18 (13.2%) increase in the total number of schools in the district over the number in 2013/2014 academic year (i.e. the baseline). Again, the 2015/2016 academic year’s number of schools (136) also showed an increase of 18 (13.3%) over the number of schools recorded in 2013/2014 academic year and a decrease of 3 (-2.2%) over the number of schools recorded in 2014/2015 academic year. Table 4.1 shows the distribution of basic schools in the Karaga District in the Northern and the Builsa District in the Upper East Regions of Ghana over the last four and three school years respectively.

Table 4.1 indicates that public basic schools in Karaga District increased by 5.5% (i.e. 10 schools from 181 in 2012/2013 academic year to 191 in 2015/2016 academic year). This was almost evenly spread over the three levels of basic education (i.e. kindergarten, primary and Junior High School). Table 1.1 also shows that Builsa North District recorded an increase of 14.1% in the number of public school from 110 in 2013/14 academic year to 128 public schools in 2015/2016 academic year. This occurred mostly at the kindergarten (KG) level compared with the other two levels of basic education.

On the other hand, the number of private schools in Karaga District rose by 12 (50%) from 12 to 24 over the period under review. Builsa North District did not record any increase in the number of private basic schools over the period in view (i.e. the number of private basic school remained eight (8) for both the base year 2013/2014 and 2015/2016 academic years).

A cursory study of Table 4.1 reveals that on balance there are more primary school in both district than there are JHSs. This situation could have negative implication on access to JHSs given that the demand for JHS education far exceeds the supply of JHS education. In specific terms Karaga District in 2012/2013 had a primary to JHS ratio of 6:1 which marginally decreased to 5:1. These ratios clearly show the gap in demand for and supply of JHS education. The situation was found to be quite better in
Builsa North District as the ratio for both 2013/2014 and 2015/2016 academic years were found to be 2:1 which implies on the average two primary school feed one JHS.

**Table 4: 1: Number of Schools in Karaga and Builsa North Districts**

<table>
<thead>
<tr>
<th>District</th>
<th>Level</th>
<th>2012/2013</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Private</td>
<td>Total</td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>Karaga</td>
<td>Kindergarten</td>
<td>82</td>
<td>7</td>
<td>89</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>84</td>
<td>5</td>
<td>89</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>JHS</td>
<td>15</td>
<td>0</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>181</td>
<td>12</td>
<td>193</td>
<td>182</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Kindergarten</td>
<td>40</td>
<td>3</td>
<td>43</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>46</td>
<td>3</td>
<td>49</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>JHS</td>
<td>24</td>
<td>2</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>110</td>
<td>8</td>
<td>118</td>
<td>134</td>
</tr>
</tbody>
</table>


4.3 Pupil/Student Enrolment in School

The increase in the number of basic school in Karaga and Builsa North Districts have resulted in a corresponding increase in the number of pupils/students enrolled at all levels of basic education by 4,366 (16.6%) and 1,417 (7%) within the last four and three years respectively. It is further seen from Table 4.2 that private school enrolment for Karaga and Builsa North increased respectively by 817 (49.8%) and 279 (27.1%). Similarly, Table 4.3 indicates that public school enrolment for both districts also increased by 3,549 (14.4%) and 1,138(5.9%) respectively. In a focus group discussion with parents of lower primary, parents confirmed that pupils are now motivated to attend school without being coerced within the period of the interventions introduced by KOICA-NICEF partnership have created a conducive environment which entices children to go to school compared to the past. A parent had this to say:

“**R6: Some time ago, it was difficult to get a child to go to school. But nowadays before you wake up from sleep, they are already prepared to go to school without being coerced. All these is due to the friendly school environment made possible by UNICEF interventions. FGD_Parents_Lower Primary_Sung_KD’**.
Table: 4: 2: Number of Pupils/Students in Karaga and Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Level</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Private</td>
<td>Total</td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>Karaga</td>
<td>Kindergarten</td>
<td>6,682</td>
<td>480</td>
<td>7,162</td>
<td>7,372</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>12,422</td>
<td>343</td>
<td>12,765</td>
<td>13,437</td>
</tr>
<tr>
<td></td>
<td>JHS</td>
<td>1,965</td>
<td>0</td>
<td>1,965</td>
<td>2,315</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>21,069</td>
<td>823</td>
<td>21,892</td>
<td>23,124</td>
</tr>
</tbody>
</table>

Builsa North

<table>
<thead>
<tr>
<th>Level</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>Private</td>
<td>Total</td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>4,819</td>
<td>248</td>
<td>5,067</td>
<td>4,933</td>
</tr>
<tr>
<td>Primary</td>
<td>9,793</td>
<td>468</td>
<td>10,261</td>
<td>10,070</td>
</tr>
<tr>
<td>JHS</td>
<td>3,460</td>
<td>33</td>
<td>3,493</td>
<td>3,684</td>
</tr>
<tr>
<td>Total</td>
<td>18,072</td>
<td>749</td>
<td>18,821</td>
<td>18,687</td>
</tr>
</tbody>
</table>


In segregating the data by levels of education it can be observed from Figure 12 that Kindergarten and JHS have had some consistent increases in enrolment over the period under review but the primary level showed an erratic trend over the same period. The reason for the rather irregular trend remained unexplained.

Figure 11: Enrolment trend of Karaga District


Also, from Figure 13, only Junior High School (JHS) level recorded consistency in increases in enrolment over the period under review. However the trend for Kindergarten and Primary school enrolment remain irregular.
4.3.1 Number of Teachers/Teacher Population
The teacher population in Karaga increased marginally by 7 teachers (1.1%) over the 2012/13 academic year in 2015/2016 academic year. The situation was no different in Builsa North which also registered a marginal increase of 11 teachers (1.5%) in 2015/2016 academic year over 2013/2014 teacher population. A further study of Table 4.3 shows that teacher population in public school in both districts (i.e. Karaga and Builsa North) respectively declined by 24 teachers (-4.1%) and 3 teacher (-0.4%) in 2015/2016 academic year compared to the situation in 2012/13 and 2013/2014 academic years respectively.

A further study of Table 4.3 reveals that the percentage change in teacher population in private schools was quite significant in both districts. The Karaga district recorded an increase of 31 teacher (55.4%) over the number recorded in 2012/2013 school year, while Builsa North district recorded an increase of 14 teachers (31.1%) over the number recorded in 2013/2014 school year.

Again, Table 4.3 establishes that the percentage of teachers in the public education sector at all levels in Karaga have been reducing from 96.1% in 2012/2013 to 91.3% in the 2015 2016 academic year. On the other hand, the proportion of teachers in private schools increased from 3.9% in 2012/2013 to 8.7% in 2015/2016. It was also established that in Builsa North the trend of the percentage of public school teacher population was erratic as it was 95.8% in 2013/2014, then rose to 98% and finally declined to 94% in 2015/2016, the reverse trend is true for private schools.
These findings in the reduction of teacher population especially for public schools appear to be inconsistent with views shared in focus group discussions where parents intimated that the era of the interventions have seen more teachers in the districts which has boosted teaching and learning activities compared the previous years.

“R4: Before the interventions, I can remember the number of teachers was woefully inadequate and children used to play in school the whole day, as such, teaching and learning activities was low. But the interventions has coincided with a regime of more teachers in the school which has helped a lot. This time pupils now worry us a lot about frequent home works which is also an indicator of more teaching now than before. FGD_Parents_Lower primary_Sung_KD”.

4.3.2 Number of Classrooms in Public Schools
A cursory study of Table 4.4 shows that both district recorded increases in number of classrooms by 18 (14.6%) and 15 (3.3%) in 2015/2016 academic year over the base years of 2012/2013 and 2013/2014 academic years respectively for Karaga and Builsa North Districts.

The total number of classroom in Karaga have consistently increased over the period under review. The major contributors to this consistent increases was found to be at kindergarten and primary levels. The situation was, however, different at JHS level as Karaga recorded a reduction from 73 classrooms in 2013/2014 school year to 58 classrooms in 2014/2015 school year. On the other hand Builsa North rather showed an erratic trend as the number of classroom increased from 440 (2013/14) to 504 (2014/15) and then reduced to 455 (2015/16). A closer examination of Table 4.4 reveals that the number of classrooms at all levels reduced in 2015/2016 when compared with the situation in 2014/2015.

Despite increases in the number of classrooms especially at the Kindergarten level in the Karaga District over the years, school management committee members in a focus group discussion in the district disclosed that there are still not enough classrooms to accommodate pupils at the KG level and this is affecting instructional hours and the quality of education particularly in the rainy seasons: An assistant headmaster and a member of the SMC had this to say:

“R4: I want to make an appeal as the Assistant headmaster and a member of the SMC. We have already talked about it but I want to reiterate on it. It concerns the classroom block of the KG pupils. They sit under the trees for their lessons and when it starts to rain, they usually miss school for several days.

Also during bad weather, we combined them to other classrooms which greatly affects teaching and learning in a negative way. So we are appealing to UNICEF to support us in that direction. FGD_SMC-PTA_Tong_KD”.

Table: 4:1 4: Number of Classrooms by Levels in Karaga and Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Level</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Kindergarten</td>
<td>71</td>
<td>84</td>
<td>94</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>350</td>
<td>372</td>
<td>374</td>
<td>385</td>
</tr>
<tr>
<td></td>
<td>JHS</td>
<td>51</td>
<td>73</td>
<td>58</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>472</td>
<td>529</td>
<td>526</td>
<td>553</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Kindergarten</td>
<td>75</td>
<td>105</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>276</td>
<td>294</td>
<td>281</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JHS</td>
<td>89</td>
<td>105</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>440</td>
<td>504</td>
<td>455</td>
<td></td>
</tr>
</tbody>
</table>


4.3.3 School Age Population

The school age population is determined by national policy or is legally defined by a country. In Ghana the school age as defined by policy for Kindergarten (KG), Primary (Pr.) and Junior High School (JHS) is given respectively as 4-5 year old, 6-11 year old and 12-14 year old.

Table 4.5 presents the school age group for the three levels of basic education for the period under review and the distribution of basic school-age population of Karaga District and Builsa North District. We observed that the proportion of school population who are males was generally a little over 50% of the total population except in few instances where the female school age population exceeds 50%. Those specific instance could be seen in Karaga at the KG level in 2012/2013 where the proportion of female school age population exceeds 50%. Those specific instance could be seen in Karaga at the KG level in 2012/2013 where the proportion of female school age population was 50.4%, while the male proportion was 49.6% as well as in Builsa North at all level in 2015/2016 academic year where the proportion of female school age population exceeded 50% respectively at the KG (51.8%), primary (52.3%) and JHS (50.6) levels.

Table: 4: 5: School Age Population for the Karaga and the Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Level</th>
<th>Sch. Age Pop</th>
<th>2012/2013</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Karaga</td>
<td>Kindergarten</td>
<td>4-5</td>
<td>3,580</td>
<td>3,631</td>
<td>7,211</td>
<td>2,914</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>6-11</td>
<td>7,538</td>
<td>7,362</td>
<td>14,900</td>
<td>7,958</td>
</tr>
<tr>
<td></td>
<td>JHS</td>
<td>12-14</td>
<td>2,289</td>
<td>1,943</td>
<td>4,232</td>
<td>2,898</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10,007</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Kindergarten</td>
<td>4-5</td>
<td>1,503</td>
<td>1,418</td>
<td>2,921</td>
<td>1,503</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>6-11</td>
<td>4,677</td>
<td>4,456</td>
<td>9,133</td>
<td>4,616</td>
</tr>
<tr>
<td></td>
<td>JHS</td>
<td>12-14</td>
<td>2,201</td>
<td>2,202</td>
<td>4,403</td>
<td>2,239</td>
</tr>
</tbody>
</table>

4.4 Kindergarten (KG)
The Education Act of 2008 (Act 778) defines kindergarten education to consist of two years of formal education with an official school aged of 4-5 years. Under this sub-theme the emphasis will be focused on examining the performance of key education performance indicators as presented in Table 4.6 on KG for Karaga District from 2012/2013 to 2015/2016 academic year and Builsa North from 2012/2013 to 2015/2016 academic year.

Table: 4: 6: Kindergarten Indicators on Access and quality

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>Karaga District</th>
<th>Builsa North District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Enrolment Rate (GER)</td>
<td>99.3%</td>
<td>144.6%</td>
</tr>
<tr>
<td>Gender Parity (GPI) on GER</td>
<td>0.79</td>
<td>0.83</td>
</tr>
<tr>
<td>Pupil Teacher Ratio in Public Schools</td>
<td>54:1</td>
<td>56:1</td>
</tr>
<tr>
<td>Net Enrolment Rate (NER)</td>
<td>95.8%</td>
<td>141.7%</td>
</tr>
<tr>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>191:1</td>
<td>164:1</td>
</tr>
<tr>
<td>% of Teacher Trained in Public Schools</td>
<td>28.2%</td>
<td>34.1%</td>
</tr>
<tr>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>101:1</td>
<td>100:1</td>
</tr>
<tr>
<td>% of Pupils with sitting places</td>
<td>40.3%</td>
<td>37.4%</td>
</tr>
<tr>
<td>% of pupils with writing places</td>
<td>40.6%</td>
<td>37.0%</td>
</tr>
</tbody>
</table>


4.4.1 Improving Access to Kindergarten Education Indicators

Gross Enrolment Rate (GER)
The GER as presented in Figure 14 indicates a significant improvement over the base year’s (i.e. 2012/2013 school year) GER. Specifically, the Figure revealed that the overall GER increased from 99.3% in (2012/2013) to 150% (2015/2016) which represents 33.8% increase over the baseline value. A similar trend was observed for the male and female GERs which respectively increased by 38% and 29.9% in 2015/2016 school year over the baseline school year GER. Apart from the boys GER which dropped from 163% (2014/2015) to 158.9% (2015/2016), the girls GER and the overall GER have shown consistent increases over the period under review.
An assessment of the GER as presented in Figure 15 reveals an erratic growth pattern. Figure 15 shows that the 2013/14 overall GER declined from 173% to 170% which represents a reduction of 2.2 percent over the base years GER (2013/2014 school year). The sharp rise and fall of all the curves (i.e. GER for boy, girls and the overall GER) in 2014/2015 and 2015/16 respectively could not be explained by officials of the District Directorate of Education.

Gender Parity Index (GPI) on GER
The GPI at the KG level as depicted in Figure 16 is erratic over the period under review. It is however, refreshing to note that the GPI improved from 0.79 in 2012/2013 to 0.89 in 2015/2016 academic year which represents 11.4% improvement over the 2012/2013 academic year’s GPI. Karaga could not reach parity at the KG level because the proportion of males in school slightly outnumbered their female colleagues.
In Builsa North District as depicted in Figure 17 the GPI at KG declined from 1.05 in 2013/14 to 0.99 in 2015/16 which represents a reduction of 6.5% over the 2013/2014 GPI. This is however, a little below the national target of 1.00 to be achieved by 2015. The district could not reach parity at the KG level because the proportion of males in school slightly outnumbered their female counterparts.

Net Enrolment Rate (NER)

The NER as depicted in Figure 18 revealed that the 2015/2016 NERs have increased significantly over the 2012/2013 school year by 31.6% for boys, 38.6% for girls and 34.5% for the overall NER. A closer study of the results revealed a marginal decline in the girls NER by 1.3% point from 129.2% in 2014/2015 academic year. Similarly a decline of 0.6% point was also observed in boys NER in 2015/2016 academic year. It is important to note that the maximum theoretical attainable NER is expected to be equal to 100% in view of which the district will be expected to work toward bringing the NER to 100%. However, whenever NER exceeds 100% it is partly as a result of children within the prescribed school age outside the district in question enrolling in school in this district and also due to poor projection of target population figures. Again due to poor record keeping in schools, disaggregating enrolment data by ages of pupils become becomes problematic thereby affecting the accurate estimation of NER.
The NER, the GER for Builsa North shows an erratic growth pattern. Figure 19 shows that the 2013/14 overall NER declined from 120% to 106% which represent a decline of 13.5 percent over the baseline year’s NER (2013/2014 school year). The sharp rise and fall of all the curves (i.e. NER for boy, girls and the overall NER) in 2014/2015 and 2015/16 respectively like in the case of the GER, could not be explained by official of the District Directorate of Education.

4.4.2 Improving Quality of Kindergarten Education Indicators

**Pupil Classroom Ratio (Class size averages) PCR**

In examining Table 4.7 in respect of the PCR for Karaga, it was observed that the classroom sizes had recorded marginal reduction over the period under review resulting in a reduction in the average class size of KG from 101 pupils (2012/13) to 85 pupils (2015/2016) which represents 18.8% reduction over the base school year. The PCR gives an indication of overcrowding in classrooms, with a consequent effect of compromising quality of teaching and learning.

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**Figure 17: Trend of NER for the Karaga District**

**Figure 18: Trend of NER for the Builsa North District**

**Source: Based on EMIS, MoE, 2013, 2014, 2015 & 2016**
Builsa North shows an erratic trend, as the average class size rose from 68 pupils per classroom in 2013/2014 to 74 pupils per classroom in 2014/2015 and finally reduced marginally to 73 pupils per classroom. Although, the recorded average class sizes for Builsa North were smaller compared to the case of Karaga, there is a downward trend in the average size of classes in the case of Karaga compared to Builsa North District.

Table: 4: 7: Pupil Classroom Ratio (PCR) for the Karaga and the Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Indicator</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>101:1</td>
<td>100:1</td>
<td>92:1</td>
<td>85:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>68:1</td>
<td>74:1</td>
<td>73:1</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Based on EMIS, MoE, 2013, 2014, 2015 & 2016*

**Pupil-Teacher Ratio (PTR)**

The trend of PTR as presented in Table 4.8 clearly shows that teachers at the KG level in Karaga and Builsa North Districts were overburdened since on average teachers manage large class sizes. The PTRs indicates that, the demand for teachers at the KG level far exceeds the supply of teachers. If this gap in demand for and supply of teachers is not bridged within the short to the medium term the effect on the entire basic education system could be devastating given that KG constitute the basic foundation of the Ghanaian educational system. Again comparing the PTRs to the national norm of 35 pupils to a teacher (i.e. 35:1) clearly confirms the need to increase teacher supply to match with the demand for teachers manifested in the increasing class sizes year on year.

Table: 4: 8: Trend of KG Pupil-Teacher Ratio in the Karaga and the Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Indicator</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2015/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>54:1</td>
<td>56:1</td>
<td>67:1</td>
<td>72:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>38:1</td>
<td>35:1</td>
<td>39:1</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Based on EMIS, MoE, 2013, 2014, 2015 & 2016*

It was further observed from Table 4.8 that instead of the Karaga’s PTR reducing over time it was rather increasing. A comparison of the baseline (2012/2013) and end line (2015/2016) ratio of Karaga revealed a difference of 25 percentage point. A cursory study of the PTRs of Builsa North relative to that of Karaga gives an impression that the situation in Builsa North appear better given the small absolute difference between the District’s PTR and the national norm of 35 pupils per teacher (35:1), which are respectively given as three, zero and four for the 2013/2014, 2014/2015 and 2015/2016 school years as depicted in Table 4.8.

**Pupil-Trained-Teacher Ratio (PTTR)**
A study of Table 4.9 show marginal improvement in Karaga’s PTTR over the period under review. Notwithstanding the consistency in the reduction of PTTR over the period, the PTTR over the entire period remained extremely large when compared with the national norm of 35:1. The size of the PTTR as shown is an indication of shortage of trained teacher supply to meet the large demand at the KG level in terms of the enrolment size.

It is also clear from Table 4.9 that the PTTR of Builsa North for all the three years being examined are also far larger than the national norm of 35:1. The large PTTR recorded over the years indicates that teachers are being overwhelmed with work, which has the potential of affecting the quality of teaching and learning.

Table 4:9: Trend of KG Pupil-Trained-Teacher Ratio in the Karaga and the Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Indicator</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>191:1</td>
<td>164:1</td>
<td>152:1</td>
<td>126:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>130:1</td>
<td>88:1</td>
<td>82:1</td>
<td></td>
</tr>
</tbody>
</table>


Percentage of Teacher Trained in Public Schools

Figures 20 and 21 indicate that the percentage of trained teachers at the KG level was generally low relative to the total number of teachers. It is, however, encouraging to observe that the proportion of teacher trained has been increasing consistently over the year. This consistent rise in the proportion of trained teachers at the KG level could be attributed to the highly liberalised teacher education and training which comes in various forms including; distance learning, sandwich education programmes, top-up programme, etc.

From figure 20, it is observed that the proportion of trained teacher rose from 28% in 2012/2013 to 58% in 2015/2016 academic year which represents 20 percentage point gain over the period under review. The percentage points gained represents 51% increase over the base year’s proportion of trained teachers.
Figure 19: Trend of the % of trained teacher in Public Schools in Karaga District


Figure 21 presents a similar trend as seen in figure 20. Specifically, the proportion of teacher as at 2013/2014 gained 17.9 percentage point in 2015/2016 (from 29.1% to 47%) which represent 44.8% rise in the proportion of teachers trained.

Figure 20: Trend of the Percent of Trained Teacher in Public Schools in Builsa North District

Source: Based on EMIS, MoE, 2014, 2015 & 2016

Percent of Pupils with Sitting and Writing Places
This indicator is estimated by expressing the total number of pupils with sitting or writing places as a percentage of the total number of pupils enrolled in school at a given level. This indicator is aimed at assessing how conducive the classroom environment is towards facilitating quality teaching and learning. The ideal situation as far as this indicator is concerned is to have 100% of pupils having sitting and writing places.

Figure 22 presents the percentage of pupils with sitting and writing places in Karaga. From the Figure it was observed that in 2012/2013 and 2013/2014 academic years the proportion of pupils with sitting and writing places were equal. However, in 2014/2015 and 2015/2016 academic years the proportion of pupils with sitting places was found to be greater than the proportion of pupils with writing place. Figure 22 also reveals an irregular trend over the period under review. Furthermore, it is obvious that for all the years under review except 2014/2015 school year the proportion of pupils without sitting and writing places exceed 50% of the entire number of pupils enrolled at the KG level. A comparative of the base
year (2012/2013) percentage of pupils with sitting and writing places to the end year (2015/2016) reveal a 2% point increase of the proportion of pupils with sitting places (i.e. from 40% to 42 percent), while the proportion of pupils with writing places reduced by 1% percentage point (i.e. from 41% to 40%).

Figure 21: Percentage (%) of Pupils with Sitting & Writing Places in the Karaga District


Figure 23 is a presentation of the percentage of pupils sitting and writing places. A cursory view of the Figure show that in all the three years under review there are differences in the proportion of children with sitting places compared to those with writing places. Again, figure 22 shows a reversed trend (i.e. both percentage of pupils with sitting and writing declined and later rose again). Figure 23 also revealed a significant improvement in the proportion of pupils with sitting and writing places from 34% and 24% in 2013/2014 academic year respectively to 96% and 79% in 2015/2016 academic year which represent 65% and 69% change over the base year situation.

Figure 22: Percentage of Pupils with Sitting & Writing Places in the Builsa North District

Source: Based on EMIS, MoE, 2014, 2015 & 2016

Consistent with findings in the quantitative survey, parents and guidance in focus group discussions in the Builsa North district confirmed that the proportion of pupils with the requisite teaching and learning materials including reading and sitting and writing materials has improved over the period. A respondent in a focus group discussion in the Builsa North District had this to say:

90
“R4: Also though the interventions of KOICA –UNICEF our school teachers are now able to teach with ease because of the books and other teaching and learning materials they have provided. All these have help improved on the academic performance of the children. When government compares the academic performance of our children and then now, I think there is an improvement than those days. This is what I have to add. FGD_Parents-guardians_Suwuarensi_BND”

4.5 Primary School Level

The Education Act of 2008 (Act 778) defines primary education to consist of six years of formal education with an official school aged of 6-11 years. This sub-section discusses the performance indicators on access and quality for primary education in Karaga and Builsa North Districts respectively from 2012/2013 to 2015/2016 and 2012/2014 to 2015/2016 over the past four and three years. Table 4.10 is presentation of primary level education key performance indicator.

Table: 4.10: Primary School Indicators on Access and Quality

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>Karaga District</th>
<th>Builsa North District</th>
<th>Karaga District</th>
<th>Builsa North District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Admission Rate (GAR)</td>
<td>81.9%</td>
<td>101.5%</td>
<td>99.0%</td>
<td>168.9%</td>
</tr>
<tr>
<td>Net Admission Rate (NAR)</td>
<td>80.4%</td>
<td>98.6%</td>
<td>93.4%</td>
<td>163.3%</td>
</tr>
<tr>
<td>Gross Enrolment Rate (GER)</td>
<td>85.7%</td>
<td>87.1%</td>
<td>91.8%</td>
<td>97.6%</td>
</tr>
<tr>
<td>Gender Parity Index (GPI) on GER</td>
<td>0.72</td>
<td>0.72</td>
<td>0.87</td>
<td>0.88</td>
</tr>
<tr>
<td>Net Enrolment Rate (NER)</td>
<td>84.9%</td>
<td>86.8%</td>
<td>90.9%</td>
<td>96.9%</td>
</tr>
<tr>
<td>Completion Rate (CR)</td>
<td>101.0%</td>
<td>72.0%</td>
<td>88.0%</td>
<td>103.7%</td>
</tr>
<tr>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>35:1</td>
<td>37:1</td>
<td>43:1</td>
<td>41:1</td>
</tr>
<tr>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>92:1</td>
<td>95:1</td>
<td>93:1</td>
<td>76:1</td>
</tr>
<tr>
<td>% of Teacher Trained in Public Schools</td>
<td>37.9%</td>
<td>38.9%</td>
<td>45.8%</td>
<td>53.9%</td>
</tr>
<tr>
<td>% of pupils with core textbooks (English Lang)</td>
<td>87.7%</td>
<td>84.9%</td>
<td>56.5%</td>
<td>42.4%</td>
</tr>
<tr>
<td>% of pupils with core textbooks (Maths)</td>
<td>75.9%</td>
<td>54.1%</td>
<td>59.2%</td>
<td>42.6%</td>
</tr>
<tr>
<td>% of pupils with core textbooks (Science)</td>
<td>79.3%</td>
<td>72.7%</td>
<td>44.5%</td>
<td>24.7%</td>
</tr>
<tr>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>35:1</td>
<td>36:1</td>
<td>37:1</td>
<td>36:1</td>
</tr>
<tr>
<td>% of Pupils with sitting places</td>
<td>81.1%</td>
<td>81.1%</td>
<td>88.4%</td>
<td>85.2%</td>
</tr>
</tbody>
</table>
4.5.1 Improving Access to Primary Education Indicators

Gross Admission Rate (GAR)
Generally, Figure 24 indicates an irregular trend of boys GAR, while the trend of girls GAR remain on the trajectory of growth year on year. The cumulative effect of the GAR for boys and girls resulted in a relatively erratic trend of the overall GAR, which was largely influenced by the nature of the boys GAR. The observed percentage point difference in GAR from 2012/2013 to 2015/2016 for boys, girls and overall was respectively 87.8%, 86.3% and 87.5%. These huge percentage points difference resulted in significant increases in all the variables of interest (i.e. boys 48.4%, girls 55% and overall 51.5) over the 2012/2013 academic year. It is also important to point out that these large increases observed could be partly as a result of a backlog of over-aged children who have not entered school when they were at the official primary school-entry age or under age children enrolling in school.

Figure 23: Trend of GAR for the Karaga District

Figure 25 showed an irregular trend of GAR for all the variable (i.e. boys, girls and overall) under consideration. Another worrying observation from the Figure was the sharp decline of GAR (boys, girls and overall) from the highest level in 2014/2015 to lowest level in 2015/2016 school year. A further analysis of Figure 25 shows that a percentage decrease of GAR of boys, girls and overall by 14.3%, 14.5% and 14.4% respectively over the 2013/2014 school year’s GAR.
**Figure 24: Trend of GAR in for the Builsa North District**

Source: Based on EMIS, ADPR, 2014, 2015 & 2016

**Net Admission Rate (NAR)**

The trend of NAR as presented in figure 26 reflect the trend described earlier in relation to GAR for Karaga as shown in figure 24. This reflects a positive relationship between GAR and NAR which implies that as GAR rises NAR also rises and as GAR declines NAR also declines. This relationship indicates that targeting of prescribed school entry age has been improving over the years. It is however expected that GAR will plateau at a point when all over aged children in the district are mopped into the school system and admissions of under aged stops or reduces to the barest minimum. A close study of figure 26 revealed significant increase of NAR by 47.6%, 54.5% and 50.8% for boys, girls and overall in 2015/2016 academic year respectively over the rates recorded in 2012/2012.

**Figure 25: Trend of NAR for Karaga District**


The trends of NARs of Builsa North as shown in figure 27 reflect the relationship as discussed relative to Figure 25 on the GAR for the Builsa North District, which was indicative of a somewhat positive relationship between NAR and GAR. It is also indicative of the fact that targeting during enrolment drives and sensitization programmes was improving over the years under review. It was however disturbing to observe a sharp decline in NAR for all the variable under consideration from 2014/2015 (boys 210.8%, girls 169.5% and overall 191.1%) to 2015/2016 (boys 76.3%, girls 73.5% and overall 75%) Academic year.
Gross Enrolment Rate (GER)
An examination of Figure 28 reveals that the trend of GER for boys could best be described as assuming a zigzag trend over the period under investigation. The GER for girls on the other hand assumed a more predictable growth trend over the period under review. It is however, important to indicate that over the entire period under review, the GER of boys has always been higher than the GER of girls. A comparative of the 2012/2013 and the 2015/2016 GERs revealed that the GER for boy grew by 3.7%, GER for girls grew by 22.1% and the overall GER grew by 12.3% over the 2012/2013 school year.

Figure 29 reveals a reverse ‘V’ trend for all the variable of interest (i.e. boys, girls and overall), which is indicative of the fact that each of the variables rise and then after it falls. A comparison of 2013/2014 school year to 2015/2016 school year reveals that the boys GER reduced by 1.5%, while the girls GER and the overall GER increased marginal by 2.3% and 0.4% respectively.
Gender Parity Index (GPI) on GER

The trend of Karaga GPI as shown in Figure 30 reveals marginal to moderate increases over the period in view. The GPIs as shown in this Figure is indicative of the fact that the primary education system favour boys than it does for girls. Simply put, the primary education system in Karaga is not equitable to both sex as there more boys than girls in primary schools in the district. A comparison of the base year’s GPI of 0.72 (i.e. 2012/2013) to the end year’s GPI of 0.88 (i.e. 2015/2016) reveals quite a significate percentage change of 18.8%.

Figure 31 reveals a reverse ‘V’ curve, which depicts that the GPI for Builsa North rises to a point and then takes a deep. Once the GPI is not equal to one, it implies primary education in Builsa North is not equitable as there are more boys than girls in the primary school system. Generally, the GPIs of district over the years are generally considered to be quite good but the issue of concern is the failure to keep the GPI on the trajectory consistent increases. Notwithstanding, the deep of the GPI in 2015/2016 school year, it represented 1.3% increase over the base year GPI of 0.95.
Figure 30: Gender Parity Index (GPI) on GER for the Builsa North District

Source: Based on EMIS, ADPR, 2014, 2015 & 2016

Net Enrolment Rate (NER)
Figure 32 is a presentation of the trends of NER for boys, girls and overall NER. The trend of boys NER as depicted in Figure 32 was quite irregular and thus unpredictable. On the other hand, the trend of girls NER showed a degree of consistency in its rise year on year. The overall NER like the girls NER rose consistently in each of the years under review.

An examination of the NER performance over 2012/2013 and 2015/2016 academic years, showed that girls recorded higher percentage increase in NER (22.1%), compared with the percentage increase in NER recorded by boys (3.7%). The overall NER also recorded a percentage increase of 12.3% over the same period.

Figure 31: Trend of NER for the Karaga District


The trend of NER as shown in Figure 33 is irregular and thus difficult to predict the behaviour of any of the variable of interest due to the rise-and-fall nature of the bars. A further study of Figure 33 indicated that there were some percentage changes in the NERs from 2013/2014 to 2015/2016 academic years. Specifically, the Figure showed percentage decline of 1.5% in the boys NER compared with 4.3 percentage increase in girls NER. The overall NER also recorded 0.4% percentage increase.
A cursory view of Figure 33 revealed that in 2013/2014 NER of boys and girls for Karaga District in relative terms have been greater than Builsa North’s NERs for boys and girls. However, in the same year Builsa North District’s overall NER was found to be greater than Karaga’s overall NER. In 2014/2014 academic year on the other hand showed that Builsa North District’s NER for all the three variables of interest were found to be greater than those of Karaga District’s NERs of all the variables of interest. The trend reversed in 2015/2016 wherein Karaga all the variables of interest were relatively greater than Builsa North in all three variables (i.e. boys, girls and the overall NER).

4.5.2 Improving Quality of Primary Education Indicators

Pupil Classroom Ratio/Class size averages (PCR)

Generally, the PCRs presented in Table 4.11 for Karaga and Builsa North Districts were smaller than the national target of 45 pupils per a classroom. The implication of the PCRs in Table 4.11 shows that Karaga and Builsa North District still have more room to accommodate increased primary enrolment within the short to medium term. Notwithstanding the fact that the districts may have more room to enroll more pupils, they are unable to because they lack other complementary supplies like textbooks, furniture, etc. to service normal class sizes.

**Table: 4.11: Pupil Classroom Ratio in Public Schools**

<table>
<thead>
<tr>
<th>District</th>
<th>Key Indicators</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>35:1</td>
<td>36:1</td>
<td>37:1</td>
<td>36:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>35:1</td>
<td>34:1</td>
<td>36:1</td>
<td></td>
</tr>
</tbody>
</table>


Completion Rate (CR)

Figure 34 and 35 are a presentation of number of pupils completing primary 6 irrespective of their ages expressed as a percentage of the population expected to complete grade six (i.e. 11 year old children in the Ghanaian context).
From Figure 34 it is observed that the completion rate was highest in 2012/2013 for all the key variables being examined (i.e. for boys, girls and overall) and dropped to its lowest point in 2013/2014 again for all the three variables, thereafter it be gain to rise again. The cumulate effect of observed trend was 23.7% (boys), 7.1% (girls) and 2.6% (overall) reduction in the growth of completion rate over the 2012/2013 school year.

Figure 33: Trend of Completion Rate (CR) for Karaga

The trend of completion rate of Builsa North District as presented in Figure 35 shows that the completion rate for boys and the overall completion rate respectively rose from their initial lowest points of 98.7% and 98.4 in 2013/2014, peaked respectively at 131.1% and 136.2% in 2014/2014 and declined respectively to 114.1% and 105.9% in 2015/2016. An end point assessment (i.e. 2013/2014 and 2015/2016) of the aforementioned variables (i.e. boys and the overall) showed growth of 14.1% and 7.1% respectively in 2015/2016 over the completions recorded in 2013/2014 academic year. On the other hand the completion rate for girls registered a negative growth of 1.3% over the same period as illustrated in Figure 35.

Figure 34: Trend of Completion Rate (CR) for Builsa North

Pupil-Teacher Ratio (PTR)
Generally, the PTRs as presented in Table 4.12 were all found to be below the national norm of 45 pupils per teacher (45:1) for primary school, which implies teachers at the primary school level are generally underutilized while their counterparts at the KG level are overloaded. Generally, the PTR values of Karaga are relatively better than the PTR values for Builsa North for the same period.
Table: 4:12: Pupil-Teacher Ratio (PTR) for the Karaga and the Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Key Indicators</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>35:1</td>
<td>37:1</td>
<td>43:1</td>
<td>41:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>35:1</td>
<td>34:1</td>
<td>36:1</td>
<td></td>
</tr>
</tbody>
</table>


Pupil-Trained-Teacher Ratio (PTTR)
The PTTR as presented in Table 4.13, looks at the number of pupils with access to professionally trained teachers in Karaga and Builsa North Districts. An examination of the PTTRs presented in Table 4.13 against the national norm of 45 pupils per one professionally trained teacher (45:1), which is indicative of an inadequate supply of professionally trained teachers.

Table: 4:13: Pupil-Trained-Teacher Ratio (PTTR) for the Karaga and the Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Key Indicators</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>92:1</td>
<td>95:1</td>
<td>93:1</td>
<td>76:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>86:1</td>
<td>82:1</td>
<td>78:1</td>
<td></td>
</tr>
</tbody>
</table>


A closer study of the PTTRs revealed that Karaga District’s PTTR improved from PTTR of 92 pupils per one professionally trained teacher in 2012/2013 school year to 76 pupils to one professionally trained teacher in 2015/2016, which represents 21.1% reduction in the number of pupils per professional trained teacher. Similarly, Builsa North District’s PTTR also improved from 86 pupils per one professionally trained teacher in 2013/2014 school year to 78 pupils to one professionally trained teacher in 2015/2016, which represents 10.3% reduction in the number of pupils per professional trained teacher.

Percentage of Trained Teacher (PTT) in Public Schools
The percentage of trained teacher in Karaga as presented in Figure 36 reveals that the majority of teacher at the primary school level from 2012/2013 to 2014/2015 are untrained, which could negative impact on the quality of teaching and learning and ultimately on pupils’ learning outcomes. The situation however reversed in 2015/2016 where the proportion of trained teacher at the primary level exceeded the proportion of untrained teacher. Karaga faces a major challenge in retaining the few professionally trained teacher in the district as the attrition level of professionally trained teacher out of the district according education administrators remain at unacceptable levels. Comparing the proportion of trained teacher in the Karaga district to the national target of 95% as of 2012 clearly shows the level of professionally trained teach deprivation in the district.
The results from the Builsa North District as depicted in Figure 37 appears worse than in the case of the Karaga district, given that the proportion of trained teacher over the period in view at the primary level remained lower than 40%, the closest it has gotten to the 40% mark was in 2015/2016 where the district registered 37.8% trained teachers teaching in public schools. The reasons for this rather poor situation are no different from those advanced in the case of Karaga. Examining the Builsa North case against the national target of 95% of teacher in public school being trained teachers as far back as 2012 revealed the magnitude of the challenge towards delivering quality education given that the districts in themselves are dependent on Ghana Education Service (GES) for supply of trained teacher as this function remains centralized and thus are unable to recruit independently without receiving expressed directive form GES, Accra.

Irrespective of whether or not the teacher is trained, community people interpret the increase in the proportion of teachers in the school as a healthy development. Further, parents interpret the fact that their wards are now engaged with assignments in school instead of loitering about as an improvement in the pupil-teacher-ratio.

“R4: Before the interventions, I can remember the number of teachers was woefully inadequate and children used to play in school the whole day, as such, teaching and learning activities was low. But the interventions has coincided with a regime of more teachers in the school which has helped a lot. This time pupils now worry us a lot about frequent home works which is also an indicator of more teaching now than before. FGD_Parents_Lower primary_Sung_KD”.

"Source: Based on EMIS, ADPR, 2013, 2014, 2015 & 2016"
**Percentage (%) of pupils with core textbooks**

This indicator examines the total number of pupils at a given educational level (say Primary level) with the nationally prescribed core textbooks as a percentage of the total number of pupils enrolled at that same educational level (i.e. primary level). The national target is to have 100% of pupils enrolled at the primary level with core textbooks, which is made up of English Language, mathematics and science. In essence the nation targets that each pupil at the primary school level will have three core textbooks.

The core textbooks situation in the Karaga district for all three core textbooks has been deteriorating over the year, this was evident in the observed negative average percentage change over the four year period of 28.9% for English Language, 23.5% for mathematics and 51% for science. The level of deterioration was better appreciated on examining the percentage change from 2012/2013 to 2015/2016, which revealed gargantuan percentage decreases of 106.6%, 78% and 221.6% respectively for English Language, mathematics and science.

**Figure 37: Percentage of pupils with core textbooks**

<table>
<thead>
<tr>
<th>Year</th>
<th>English</th>
<th>Mathematics</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>88%</td>
<td>76%</td>
<td>79%</td>
</tr>
<tr>
<td>2013/14</td>
<td>85%</td>
<td>54%</td>
<td>73%</td>
</tr>
<tr>
<td>2014/15</td>
<td>56%</td>
<td>59%</td>
<td>43%</td>
</tr>
<tr>
<td>2015/16</td>
<td>42%</td>
<td>44%</td>
<td>25%</td>
</tr>
</tbody>
</table>

*Source: Based on EMIS, ADPR, 2013, 2014, 2015 & 2016*

Figure 39 compares the core textbook status of Builsa North over the last three years. A close study of the trends revealed that apart from the percentage of pupils with science textbooks which consistently declined over the three year period, English and mathematics showed an erratic trend of rising in the second school year and declining in the third school year. The cumulative effect of the observed trend, was a negative average annual percentage change of 14.5% for English Language, 7.9% mathematics and 7.2% science. An examination of the percentage change from 2013/2014 to 2015/2016 academic year revealed relatively higher percentage declines of 24.2%, 10.9% and 14.8% respectively for English Language, mathematics and science. Figure 38 further show that in 2014/2015 Builsa North district had more textbooks for English and mathematics than they need.

**Figure 38: Percent of pupils with core textbooks for the Builsa North District**

<table>
<thead>
<tr>
<th>Year</th>
<th>English</th>
<th>Mathematics</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/14</td>
<td>98%</td>
<td>93%</td>
<td>95%</td>
</tr>
<tr>
<td>2015/15</td>
<td>110%</td>
<td>110%</td>
<td>90%</td>
</tr>
<tr>
<td>2015/16</td>
<td>98%</td>
<td>84%</td>
<td>82%</td>
</tr>
</tbody>
</table>

*Source: Based on EMIS, ADPR, 2013, 2014, 2015 & 2016*
**Percentage (%) of pupils with sitting and writing places**

This indicator, like was argued earlier, is estimated by expressing the total number of sitting and writing places available for primary school pupils as a percentage of the total primary school enrolment. This indicator gives a general idea of the classroom situation and whether it is conducive for teaching and learning.

Figure 40 shows that the percentage of pupils with sitting and writing places ranged respectively from 81.1% to 88.4% and 81.1% to 85.3%, which on the flip side implies 18.9% to 11.6% and 18.1% to 14.7% respectively do not have access to sitting and writing places. This shortage obviously implies pupils are forced under the prevailing circumstances to share their sitting and writing places with their colleagues in classroom. The situation further deteriorates when the children without access to both sitting and writing places have to share the limited sitting and writing places with their classmates.

**Figure 39: Percent of pupils with sitting and writing places**

A comparative of sitting and writing places in Figure 41 show a gap between the two which ideally should have been equal. Specifically, 24.2%, 18.3% and 8.1% of the pupils with sitting places had no writing places respectively in 2013/2014, 2014/2015 and 2015/2016 academic years. Again it could be observed from Figure 40 that the percentage of pupils with sitting places over the period under review ranged from 47.8% to 73.4% and the percentage of pupils with writing places ranged from 39.7% to 53.6% which on the flip side respectively imply the percentage of pupils without sitting places ranged from 26.6% to 52.5% and those without writing places ranged from 46.6% to 60.3%.

**Figure 40: Percent of pupils with sitting and writing places**

*Source: Based on EMIS, ADPR, 2013, 2014, 2015 & 2016*
4.6 Junior High School (JHS)
The Education Act of 2008 (Act 778) also defines JHS education to consist of three years of formal education after completing six years of primary education, with an official school aged of 12-14 years. Under this sub-theme the emphasis will be focused on examining the performance of key education performance indicators as presented in Table 4.13 on KG for Karaga District from 2012/2013 to 2015/2016 academic year and Builsa North from 2012/2013 to 2015/2016 academic year.

Table: 4.14: JHS School Indicators on Access and Quality

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>Karaga District</th>
<th>Builsa North District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Enrolment Rate (GER)</td>
<td>46.4%</td>
<td>39.9%</td>
</tr>
<tr>
<td>Gender Parity Index (GPI) on GER</td>
<td>0.62</td>
<td>0.54</td>
</tr>
<tr>
<td>Net Enrolment Rate (NER)</td>
<td>42.8%</td>
<td>38.7%</td>
</tr>
<tr>
<td>Completion Rate (CR)</td>
<td>44.8%</td>
<td>35.3%</td>
</tr>
<tr>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>15:1</td>
<td>20:1</td>
</tr>
<tr>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>19:1</td>
<td>26:1</td>
</tr>
<tr>
<td>% of Teacher Trained in Public Schools</td>
<td>78.8%</td>
<td>76.9%</td>
</tr>
<tr>
<td>% of pupils with core textbooks (English Lang)</td>
<td>87.7%</td>
<td>84.9%</td>
</tr>
<tr>
<td>% of pupils with core textbooks (Maths)</td>
<td>75.9%</td>
<td>54.1%</td>
</tr>
<tr>
<td>% of pupils with core textbooks (Science)</td>
<td>79.3%</td>
<td>72.7%</td>
</tr>
<tr>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>39:1</td>
<td>32:1</td>
</tr>
<tr>
<td>% of Pupils with sitting places</td>
<td>81.1%</td>
<td>81.1%</td>
</tr>
<tr>
<td>% of pupils with writing places</td>
<td>81.2%</td>
<td>81.1%</td>
</tr>
</tbody>
</table>


4.6.1 Improving Access to JHS Education Indicators

Gross Enrolment Rate (GER)

Figure 42 presents the trends of GER for boys, girls and the overall GER for the Karaga district. A cursory view at Figure 42 shows a rather irregular trend of GER for all the variable of interest. The overall GER ranged from 39.9% to 54.3% with the least occurring in 2013/2014 and the highest
occurring in 2015/2016 academic year. Also the least GER for boys (49.3%) and girls (28.2%) occurred respectively in 2013/2014 and 2014/2015, while the highest GER for boys (60.7%) and girls (47%) both occurred in 2015/2016 academic year. A comparative of the GERs for 2012/2013 and 2015/2016 showed quite a significant percentage increase of 7.2% (boys), 26% (girls) and 14.5% (overall). The general observation from these trends was that there was generally low participation at this level of education compared to the KG and primary levels. This was found to be largely as a result of the high primary school-Junior high school ratio of 6 primary schools to one JHS as discussed earlier in this review.

Figure 41: Gross Enrolment Rate (GER) for the Karaga District

![Gross Enrolment Rate (GER) for the Karaga District](image)


Figure 42 unlike Figure 41 show some level of regularity in the trend of GER for Builsa North for all the variables of interest (i.e. boys, girls and the overall GER). Again, in for all the variables of interest the least GER occurred in 2013/2014 and the highest occurred in 2015/2016 academic year. A comparative of the variables of interest between 2013/2014 and 2015/2016 revealed percentages increases in all the variables under consideration of 4.6 for boys, 8.7% for girls and 6.6% for the overall GER in 2015/2016 school year. From these trends it was obvious that participation in JHS education in Builsa North was quite high. This was found out to be as a result of the favourable primary school-JHS ratio of 2 primary schools to one JHS.

Figure 42: Gross Enrolment Rate (GER) for the Builsa North District

![Gross Enrolment Rate (GER) for the Builsa North District](image)

Source: Based on EMIS, ADPR, 2014, 2015 & 2016
Gender Parity Index on GER

An assessment of the GPI as presented in Figure 44 reveals inequity in JHS education in Karaga in favour of boys to the disadvantage of girls. Again, the trend of the GPI was found erratic and unpredictable year on year. In respect of the lower and upper range of the GPI, 2013/201 recorded the lowest GPI of 0.54, which literally means for every 100 boys enrolled in JHS there is a corresponding 54 girls enrolled. 2014/2015 on the other hand recorded the highest GPI of 0.82, which could be interpreted to mean there ratio of 100 boys to 82 girls in JHS. The GPI was found to have increased by 20.3% in 2015/2016 (0.77) over the 2012/2013 GPI of 0.62. Generally, with all district targeting a GPI of 1, Karaga cannot be said to be committed to achieving such a target with the trend seen in Figure 44.

Figure 43: Gender Parity Index on GER for the Karaga District


Figure 45 shows a consistent improvement in the proportion of girls in JHS relative to boys. However, in 2015/2016 the GPI of 1.01 reveal that the JHS educational system became inequitable in favour of girls to the disadvantage of boys. A GPI of 1.01 is basically interpreted to mean that for every 100 boys in school, there are a corresponding 101 girls in school. In examining the least and highest rang of the GPI, it was found that the least GPI of 0.93 occurred in 2013/2014 and the highest of 1.01 occurred in 2015/2016. A comparative of the base year and the end year revealed an 8.5% increase over the base years GPI of 0.93. Generally, the GPIs recorded by Builsa North clearly showed progress towards achieving parity in JHS between boys and girls. The Challenge left to be addressed by education managers is to ensure they continue to work towards ensuring party in JHS.

Figure 44: Gender Parity Index on GER for the Builsa North District

Source: Based on EMIS, ADPR, 2014, 2015 & 2016
Net Enrolment Rate (NER)
An assessment of the NERs as presented in Figure 46, revealed that the enrolment of children within the prescribed school age of 12-14 year old was relatively low in Karaga. It was however curious to notice that the NER compares quite well with the GER as shown in Figure 42, given that the difference between them was quite insignificant, which basically means that targeting for enrolment was quite good. What remains outstanding is how to get the 12-14 year olds who are not enrolled in school to enrol. In examining the NER for boys it was observed that the least NER of 48.2% was recorded in 2014/2015 and the highest NER of 60.5% was recorded in 2016. A similar assessment of the NER for girls revealed that the lowest NER of 26.9% was recorded in 2012/2013 with the highest of 46.9% recorded in 2015/2016. A comparative of the base year NERs against the end year NERs revealed percentage increases of 13.6% for boys, 32.5% for girls and 21% for girls.

Figure 45: Net Enrolment Rate (NER) for the Karaga District


Figure 47 is a presentation of Builsa North NERs. The trend of the NER as observed from the findings is irregular as it shows a rise and fall in 2014/2015 and 2015/2016 school years respectively. Just like was indicated earlier, school participation by the JHS target population age 12-14 years is very low as all the NERs recorded were found to be below 50%, which implies over 50% of the target population are not enrolled in school. Again a comparison of the NER to the GER as presented in Figure 42 reveals a huge difference, which is indicative of the fact that there a lot more over-age and under age students enrolled into JHS in Builsa North. It also means the strategies employed for targeting 12-14 years ought to be reviewed to have the desire impact on the NER.

Figure 46: Net Enrolment Rate (NER) for the Builsa North District

4.6.2 Improving Quality of JHS Education Indicators

Pupil-Classroom Ratio (PCR) in Public Schools

The recommended minimum and maximum class size for the JHS level given as 35 students per classroom and 40 students per classroom respectively. Based on these recommended class sizes, it could be concluded that the PCRs as presented in Table 4.15 are generally within or marginally outside the recommended class sizes.

Table: 4:15: Pupil-Core Classroom Ratio (PCR) in Public Schools for the Karaga and the Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Key Indicators</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Classroom Ratio in Public Schools</td>
<td>39:1</td>
<td>32:1</td>
<td>42:1</td>
<td>46:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>39:1</td>
<td>35:1</td>
<td>41:1</td>
<td></td>
</tr>
</tbody>
</table>


Completion Rate (CR)

The observed trend of completion rate for Karaga for the first three years (i.e. 2012/2013, 2013/2014 and 2014/2015) for boys and the overall completion rate showed consistent drop year on year. The completion rate for girls behaved slightly differently as it dropped in the second year and edged up by 0.1 percentage point. It was quite encouraging to observe that in 2015/2016 the completion rate for all the variables of interest rose to their higher level yet i.e. 58.5% for boys, 45.7% for girls and 52.5% as the overall completion rate. This indicator generally assessed the efficiency of an educational system to ensure uninterrupted flow of students through a certain level of education with the requisite knowledge and competencies. If this is one of the critical aims of this indicator then, one could infer that education at the JHS level in Karaga could be considered as not being efficient. See Figure 48.

Figure 47: Completion Rate (CR) for the Karaga District


In comparative terms the completion rate for Builsa North as presented in Figure 49 showed a consistent rise over the three years under review. The range of completion rate was 68.5% to 79.9 for boys, 68% to 76.4% for girls and 68.3% to 78.2% as the overall completion rate from 2013/14 to 2015/2016 academic
year. Based on these positive trends of enrolment, it could be argued that JHS education in Builsa North district is moderately efficient over 60% to 70% of all students in JHS 3 complete successfully.

**Figure 48: Completion Rate (CR) for the Builsa North District**

![Completion Rate (CR) for the Builsa North District](image)

*Source: Based on EMIS, ADPR, 2014, 2015 & 2016*

**Pupil Teacher Ratio (PTR) in Public Schools**

Comparing the PTRs as presented in Table 4.16 to the national norm for JHS of 35 pupils to a teacher, it is quite clear that at the JHS live in Karaga and Builsa North District there are more teacher than they are need at the JHS school level. The excess teacher supply could have been better utilised at the Kindergarten level where demand for teachers far exceed the supply of teacher as shown by the very teacher pupil rations.

**Table 4:16: Pupil Teacher Ratio (PTR) in Public Schools for the Karaga and Builsa North Districts**

<table>
<thead>
<tr>
<th>District</th>
<th>Key Indicators</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>15:1</td>
<td>20:1</td>
<td>18:1</td>
<td>20:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Teacher Ratio (PTR) in Public Schools</td>
<td>15:1</td>
<td>16:1</td>
<td>17:1</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Based on EMIS, ADPR, 2013, 2014, 2015 & 2016*

**Pupil Trained Teacher Ratio (PTTR) in Public Schools**

The PTTR like the PTRs for JHS discussed earlier is far lower than the prescribed national PTTR norm for JHS of 35 students to a teacher. Table 4.17 clearly shows that there are more trained teachers than they are required at the JHS level. Yet the trained teacher situation at the KG level in particular and the primary level was found to be very low.
Table: 4.17: Pupil Trained Teacher Ratio (PTTR) in Public Schools for the Karaga and Builsa North Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Key Indicators</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaga</td>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td>19:1</td>
<td>26:1</td>
<td>22:1</td>
<td>23:1</td>
</tr>
<tr>
<td>Builsa North</td>
<td>Pupil Trained Teacher Ratio (PTTR) in Public Schools</td>
<td></td>
<td>24:1</td>
<td>24:1</td>
<td>23:1</td>
</tr>
</tbody>
</table>


Percentage of Trained Teacher in Public Schools

The percentage of trained teacher in public schools at the JHS level as presented in Figure 50 shows an inverse relationship between the proportions of teachers trained and those not trained. The percentage of trained teachers over the four year period ranged from 76.9% in 2013/2014 to 84.2% in 2015/2016.

Figure 49: Percent of Teacher Trained in Public Schools for the Karaga District


Figure 51 revealed that as the percentage of trained teachers increased there is an observed corresponding decrease in the percentage of teacher not trained. The percentage of teacher increased from 62.7% in 2013/2014 to 77.1% in 2015/2016 which represents an increase of 4.4 percentage point.

Figure 50: Percent of Teacher Trained in Public Schools for the Builsa North District

Source: Based on EMIS, ADPR, 2014, 2015 & 2016
**Percentage of Pupils with Core Textbooks**

This indicator seeks to examine how accessible core textbooks (i.e. English Language, mathematics and science) are to students at the JHS level. Nationally, the expectation is that each student should have a copy each of the three core textbooks at any given point in time. However, the reality in the case of the Karaga and the Builsa North districts are as presented in Figure 52 and Figure 53 respectively.

The core textbooks situation in the Karaga district for all three textbooks appeared to be very bad as the percentage of students with access to each core textbook kept declining. Comparing the 2012/2013 and 2015/2016 textbook situation revealed significant percentage decreases of 106.6%, 78% and 221.6% for English Language, mathematics and science respectively. Evidence of the declines are as shown in Figure 52.

**Figure 51: Percent of Pupils with Core Textbooks for the Karaga District**

![Bar Chart](chart.png)

*Source: Based on EMIS, ADPR, 2013, 2014, 2015 & 2016*

Generally, the English and Mathematics textbook situation in Builsa North was considered to be good, until 2015/2016 academic year where the available English and Mathematics textbooks could not go round all the students enrolled at the JHS level because access to English and mathematics textbooks dropped below 100%. However, accessibility of students to science textbooks kept dropping from 107.3% in 2013/2014 to 70.5% in 2015/2016. The trends shown in Figure 53 indicated a shortage of core textbooks in the district.

**Figure 52: Percent of Pupils with Core Textbooks for the Builsa North District**

![Bar Chart](chart.png)

*Source: Based on EMIS, ADPR, 2014, 2015 & 2016*
**Percentage (%) of Pupils with sitting and writing places**

Figure 54 revealed that between 21.6% and 28.9% of students enrolled do not have access to sitting and writing places. This implies that the classroom situation generally would not be conducive for effective teaching and learning to occur.

Figure 53: Percent of Pupils with Sitting and Writing Places in the Karaga District

Accessibility to sitting and writing places in Builsa North range between 73.6% and 79.2%, which clearly depicts a shortage of sitting and writing places relative to the number of pupils requiring them. The worse access to sitting and writing places were recorded in 2015/2016 academic year as 73.6% and 74.3% respectively for sitting and writing places. Figure 55 presents the trends of the percentage of pupils with access to sitting and writing places in Builsa North at the JHS level.

Figure 54: Percent of Pupils with Sitting and Writing Places in Builsa North District

**4.7 Child-Friendly School Status**

**Percentage of Schools that Meet Child Friendly School (CFS) Standards**

Generally, Karaga and Builsa North have made significant progress on all the six dimensions of the CFS check list as is reflected in Figure 56 and Figure 57 respectively.
In 2012/2013 academic year the percentage of schools that met the CFS standard was found to be generally low, the worse performing indicator was dimension three (Healthy School), which had only 7.7% meeting CFS standard, while the highest performing indicator was dimension 1 (inclusive school) and dimension 2 (effective teaching and learning), which both had only 29.2% of schools in the district meeting CFS standard on that dimension. The situation, however, changed quite significantly as all the six dimensions recorded significant changes resulting in an average percentage increase of 65.5 in 2015/2016 over the status in 2012/2013. Again the CFS overall score recorded 71.8% increase from 20% in 2012/2013 to 70.9% in 2015/2016 academic year.

Figure 55: Percent of Schools that Meet CFS Standard in the Karaga District

![Figure 55: Percent of Schools that Meet CFS Standard in the Karaga District](image)

*Source: Based CFS Check list database, 2013 & 2016*

Figure 57 shows that the worse performing dimension in 2013/2014 had only 7.6% of schools meeting the CFS standard for dimension six (community involvement) and the highest performing was dimension five (gender), which had 49.4% school meeting the CFS standard on that dimension. An assessment of the percentage changes that occurred from 2013/2014 to 2015/2016 academic year revealed an average percentage change of 57.4% over the performance of all the dimensions in 2013/2014 academic year. Also, an evaluation of the CFS overall score over the same period revealed a percentage increase of 50.7% in 2015/2015 academic year over the situation in 2013/2014 academic year.

Figure 56: Percentage of Schools that Meet CFS Standard in the Builsa North District

![Figure 56: Percentage of Schools that Meet CFS Standard in the Builsa North District](image)

*Source: Based CFS Check list database, 2014 & 2016*
4.8 Appropriateness, Adequacy and Suitability of KOICA-UNICEF Interventions

In determining the relevance of any intervention, it is important to assess the appropriateness, adequacy and suitability of the interventions in addressing the needs of the people. To examine the relevance of the KOICA-UNICEF interventions in improving quality teaching and learning in Karaga and Builsa North districts, we conducted focus group discussions and in-depth interviews with community members and managers of education in the districts and regions respectively. There is a general positive perception that the interventions introduced by KOICA-UNICEF play a significant role in addressing the needs of the schools and improving the quality of teaching and learning and overall standard of education in the districts.

While most people reported that the KOICA-UNICEF interventions were appropriate and suitable in improving the standard of education in the intervening schools, there were others who maintained that there is still a gap that remains to be filled in the quest to completely address the educational needs of the schools. It was the opinion of such people that if the interventions could be scaled up to cover many communities and schools, it would in the long run resolve the perennial educational needs of the communities and the people as a whole. This is a statement from a participant.

„We needed monitoring and supervision courses and programs. We have gained adequate knowledge in terms of supervision and monitoring, likewise the head teachers. We can now also prepare local teachings and learning materials to use in teaching our children and where children now wash their hands after toilet it keeps them healthy. Also with the child friendly issues, schools are now beginning to make their schools environment child friendly for children to want to be in school and remain.” (IDI, Circuit Supervisor, Builsa North District)

4.9 Usefulness of training on interventions

We also elicited the views of participants in focus group discussions and in-depth interviews with parents/guardians of primary school children and PTA/SMC executives, education management teams at district and regional level, the district technical support team, circuit supervisors, head teachers and teachers to determine the extent to which the education program met the overall goal of improving quality teaching and learning and uplifting the standard of education in the intervening areas. There was a general perception among participants that the training programs were very useful and had improved the skills of teachers and invariably their ability to impart knowledge in a more practical way and sustain the interest of pupils throughout instructional hours.

„To me as a teacher it was good and helpful; it has also improved teaching and learning. This is because it makes the children pay attention in class since they are aware they will be writing exercises and tests at the end of the day and by so doing they pass at the end of the day and the term as well. They are given report cards also at the end of the term where their grades and positions on various subjects are recorded so when they see their performance, the weak once are compelled to work hard and it makes the child happy too.” (IDI, Primary school teacher, Sandema, Builsa North District)

M – So how useful has the training program been to enhancing quality of teaching and learning

„The program has been very useful because most of the teachers’ now better way of teaching and learners do understand what the teachers teach with the help of the TLMs. (IDI, DTO, Karaga, and Karaga District)
4.10 Effectiveness of the Interventions

The goal of the KOICA-UNICEF interventions was to improve the quality of education in some selected districts in the Northern and Upper East regions of Ghana. To assess to what extent the interventions have met the overall project objective of improving the quality of education in the intervening communities, we sought the opinions of persons involved in the management of the schools at all levels including executives of PTA and SMC, Circuit Supervisors, Senior School Management Team members at the district and regional level and the community people. FGD and IDI participants found the interventions very effective and useful in improving the quality of teaching and learning in the schools and the standards of education as a whole in the intervention areas. In both districts (Karaga and Builsa North), community members asserted that the interventions have fostered collaboration among teachers and parents in the management of the schools and this has resulted in effective teaching and learning and the overall performance of the children in school. Additionally, managers of schools attributed the performance of the pupils and the schools in recent times to improvement in teaching and learning emanating from the teaching methodologies and strategies introduced by UNICEF. This is an excerpt from an FGD:

…..”It has helped a lot to improve quality teaching and learning in our schools. Teachers who could not teach certain topics are now empowered to do so and hence improved learning by pupils. Also teachers who are untrained will be empowered through these trainings to deliver effectively in the classroom, thereby improving on the quality of teaching and learning.” (FGD, SMC, Gunayili, Karaga District)

4.11 Efficiency

4.11.1 Impact of Teaching and Learning Materials on Performance (TLM)

One of the strategies for determining the efficiency of the interventions was to assess the impact of the teaching and learning materials (TLMs) on performance. In doing this we assessed whether or not the introduction of TLMs have had any impact on the quality of teaching and learning and the overall performance of the pupils. We sought the opinions of the district directors, circuit supervisors, SHEP/guidance and counselling coordinators, head teachers, and the teachers whose capacities were built to implement the interventions. We also had in-depth interviews with regional level staff involving UNICEF projects coordinators, Early Childhood Education Coordinators, regional training officers and Special Education Coordinators. There is a general perception across districts that the capacity building training on preparation and use of TLMs and the supply of same to the schools has enhanced teaching and learning and improved school performance.

…….”Yes, their understanding of the things we teach has improved. Using the TLMs has made it easier for them to understand and that has also improved their performance. The TLMs have helped to improve teaching and learning in the school. For example, because of the furniture, the children can now sit comfortably to learn and that too enhances their performance. Also with the availability of TLMs for teaching, teachers now know how to teach better and children are more attentive and are eager to learn and this has improved school performance too. When you don’t have TLMs you can only teach abstract things and unless you bring things to the class for children to see, they may not understand what you are trying to communicate to them. When the children see the TLMs, they become happy and are interested in what the teacher is doing.” (IDI, KG Teacher, Karaga District)

Even though use of TLMs was acknowledged to be an effective method of facilitating teaching and learning, enhancing quality of teaching and learning and improving performance, availability and
accessibility of these materials have become a challenge in some schools in the intervention districts. Resources for the acquisition of these TLMs pose serious challenges for teachers and heads of schools. The capitation grand has been the main source of procuring TLMs for use by the schools. However, capitation is not as regular as it should be, and heads of schools and teachers sometimes have to rely on their own resources to procure TLMs to facilitate teaching and learning. In contrast some regional level staff lamented over the hoarding of teaching and learning materials by heads of schools and encouraged teachers to improvise TLMs using local materials.

"...Like I was saying, the TLMs sometimes is the challenge. Sometimes, we use capitation grant and when that money is not readily available, we use our own money to buy the TLMs. So sometimes when you are to buy pencils or crayons or cardboards it’s difficult, we have to just sacrifice to use our own money to buy so that teaching and learning can be smooth for us." (IDI, KG Teacher, Karaga, Karaga District)

4.12 Impact

4.12.1 Effects of KOICA Interventions on Attitude

In the past few years, Ghana has made significant progress towards achieving universal primary education for all children of school going age. Despite the effort in this direction, a considerable number of children are still outside the classroom and the situation is further festered by regional and gender disparities. Also the attitude of parents and teachers play a significant role in the formation of the child especially at the early childhood development stages. Thus, we examined the impact of the KOICA-UNICEF interventions on attitude of parents and teachers in improving quality of teaching and learning in their respective communities. In some group discussions community people asserted that the attitude of both parents and teachers has changed significantly since the inception of the interventions. Thus, parents reported that the community engagement processes with KOICA-UNICEF and the training sessions have made them aware of their role in the progress of their wards academically and they would not renege on this responsibility whether or not they are part of the management of the schools. Both parents and managers of the schools have also observed the change in the attitude of teachers as they pointed out that negative virtues such as lateness to school, absenteeism, unwillingness to prepare lesson notes and schemes of work and caning of pupils have become a thing of the past. Teachers now make follow-up visits to the homes of pupils who absent themselves in school and all these have contributed to the improvement in the academic work of the children.

"In the past most of these teachers usually get drunk and when they come to school what they know is caning of children, nothing else. They leave the school to ‘top up’ [for more drink] only to return when it is time to close. Currently I have not seen any teacher in this school who drinks before or during school hours, so to me, at present teaching and learning is better because now the kids pay attention to what is being written on the blackboard. And with this, pupils have good results now anytime they are given a test. The help from UNICEF has been positive." (FGD, PTA, Kori, Builsa North District)

While the majority of community people contend that there has been a positive change in the attitude of teachers and parents, a cross section of people indicated that the attitude of some parents and school pupils could be derailing the efforts UNICEF is putting in to improve the quality of teaching and learning and general performance of pupils. They maintain that some parents engage the children with a lot of household chores that prevent them from studying at home. They suggested that such parents should be advised to refrain from engaging the children to the extent that it affects the time they need to study.
I have been a regular visitor of this school and most of my visits, I have found that the teachers don’t report to school early in the morning. Most times I will be in the school at 8:00am without a single teacher present in the school. So I think one of the needs of the school is for the teachers to be up and doing. Again some of the teachers view this community as a village and leave the community on Friday before school hours only to return on Monday. This reduces the instructional time. So there is the urgent need for the teachers to take their work serious. That is what I have to say and I believe we need to encourage one another to do the right thing.” (FGD, Parents, Upper Primary, Pishigu, Karaga District).

4.13 Effects of KOICA-UNICEF Interventions on Quality of Teaching and Learning

In assessing the impact of the interventions on improving the quality of teaching and learning, we found that the package of interventions have had a positive impact on teaching and learning outcomes as asserted by beneficiaries of the interventions.

In the in-depth interviews held among managers of education and focus group discussions with community stakeholders there was a general notion that the training programmes for the teachers exposed them to new teaching methodologies which has enhanced their teaching skills. It is further believed that the community engagement activities had helped to galvanize the support of the communities towards improving teaching and learning, and all these have culminated in quality of teaching and learning in the schools. In FGDs, it was revealed that the Builsa North district was one of the worse performing district in the region, but had improved in its performance rate from 13.6% in 2013 to 26% by 2016. This was partially attributed to the interventions by KOICA-UNICEF over the period.

“...It was good but with the intervention of KOICA-UNICEF through the training programs they organized, teaching and learning has now improved. Because it has helped the teachers to know things that they used not to know. So these things have motivated the teachers and encouraged them to teach well. Although they were challenges they were going through but now these challenges have been rectified and now teaching and learning is going on well.” (FGD, PTA-SMC, Azenaab, Builsa North District)

Even though majority of participants reported that teaching and learning has improved over the period with the inception of KOICA-UNICEF interventions, there were a few people who thought the situation has not changed much. They attributed this to the behavior of some of the teachers and the pupils especially at the upper primary and JHS level. They emphasized the use of mobile phones among school children, high patronage of social events in the communities as factors affecting the performance of children. On the other hand, those who maintain that the KOICA-UNICEF interventions have been useful and have contributed to improving standards of education in the districts cited school performance rates as basis for their assertion.

“...I think the teachers in this school are doing well. But I am not satisfy with their efforts. When the head teacher said five girls from Primary six were impregnated, I think the blame is on them. If a child is to go wayward in this school, it is the fault of the teachers. I have observed that, the fault is mostly from the teachers. There is the need for the teachers to be doing home visits of school children to curb absenteeism and truancy.” (FGD, Parents, Upper primary, Pishigu, Karaga District)

4.14 Effect of capacity building on practice

Another way to assess the efficiency of the interventions was to determine whether or not the capacity building component of the interventions has enhanced the skills of the teacher and other targeted groups to play their roles efficiently in mobilizing the communities to support in the delivery of quality teaching
and learning towards improving pupils’ performance and standards of education in their respective communities and schools. Beneficiaries reported that the capacity building program has enlightened and exposed them to various roles that they can play to improve standards of education in their communities.

In another perspective, circuit supervisors and other officials of GES responsible for monitoring the delivery of school curriculum maintain that their involvement in the training programs gives them the opportunity to be able to monitor how teachers transfer the knowledge they gained on the ground. Also, in a focus group discussion in the Karaga district, participants mentioned that the menace of teenage pregnancies among young girls in the communities has reduced drastically due to the capacity building programs involving both parents and teachers to collectively fight the menace.

…….”Two years ago, there used to be several cases of teenage pregnancy among our girls in the school. But after we had our capacity building training, ensured that parents are included in the implementing of some key strategies that menace has drastically reduced.” (FGD, Parents, Lower Primary, Sung, Karaga District)

…….”As a circuit supervisor I know that if I go to visit my school there are certain things I look out for and those things are things I learnt from KOICA/UNICEF capacity building program. One of the things I look out for is how teachers interact with the children, does the school offer friendly opportunity for the child to learn, or how are people with disability handled. Are they open to the children to come up and learn? When I get to the classroom too, I look at the methodology that the teachers use to teach, are they child centered. Do they emphasize that learning and teaching should be child centered especially the primary up to class 6. It should be more of child centeredness. Are they applying those methodologies in teaching the children, those are the things I look at for and always I emphasize that they use the training they have acquired.” (IDI, Circuit Supervisor, Builsa North District)

Despite the fact that beneficiaries of the capacity building programs have commended UNICEF and their partners for helping to build their capacities to enable them play a critical part in advancing the course of education in their respective districts, they still maintain that there is still the need to continue with the training programs especially in the area of empowering the teachers with the requisite teaching skills and community liaison skills to deliver their lessons and increase enrolment.

…..”The teachers need more training to perfect their ability to deliver in the classroom. But I think one area that they need more training on is the skills to increase enrollment in this school. Skills on how to convince more parents to send their wards to school.” (FGD, SMC, Gunayili, Karaga District)

…..” UNICEF has helped us a lot. The money they provided is used to purchase teaching aids to help the teachers in teaching and also they have provided for the children with special needs and have given uniforms and the urinals pit you see around where provided by UNICEF. We appreciate them and we ask for more to enhance teaching and learning.” (FGD, Parents-guardians, Lower primary, Suwuarensi, Builsa North District)

4.15 Effect of interventions on the overall performance of pupils

The strategies for measuring the impact of the interventions was to assess the effect of the interventions on the overall performance of the pupils. In doing this we held focus group discussions with parents/guardians, PTA/SMC executives and in-depth interviews with teachers, circuit supervisors, senior officers at the district and regional levels to explore their experiences and perceptions regarding general performance of the pupils and the schools since the inception of KOICA-UNICEF interventions in their respective districts. Most respondents from both districts acknowledged that there has been some
improvement in the performance of the pupils and the schools in general and this was attributed to the training that teachers received and the TLMs as part of the intervention package which enhanced their skills in delivering their lessons. Parents were particularly enthused about the pupils’ ability to speak English compared to the pre-intervention period when the pupils could hardly communicate in English.

…..”Also though the interventions of KOICA –UNICEF our school teachers are now able to teach with ease because of the books and other teaching and learning materials they have provided. All these have help improved on the academic performance of the children. When government compares the academic performance of our children and then now, I think there is an improvement than those days. This is what I have to add.” (FGD, Parents-guardians, Suwuarensi, Builsa North District)

Even though most people had a positive perception about the impact of the interventions on the performance of the pupils, there were a few descending voices who thought the interventions had not helped much in the performance of the children. They conceded that the policy of discouraging corporal punishment among individual pupils who breach the laws is breeding indiscipline among pupils and this has the tendency of affecting their performance.

….. “Not using the cane to discipline the children end up making them disrespectful, so it would be good if that method of discipline through the cane is introduced, because punishing children by sending them of the class or work to do during classes hours is a waste of time of that child but when he/she is discipline through the cane, it only takes just a few minutes and then they get back to the class to study. So on my point of using the cane would be very helpful.” (FGD, PTA, Kori, Builsa North District)

Some other parents hold the opinion that to experience the level of performance of the pupils does not solely depend on the teacher. They indicated that parents have a role to play in the overall performance of their wards in school by taking keen interest in the affairs of the children by visiting the schools and interacting with the teachers. They stated that by this way, the teachers would be able to discuss the performance of the children with them and this can help to boost the overall performance of the pupils

…..”I want to touch on what [names withheld] said. The teacher might feel uncomfortable to tell a parent that your ward is not doing well. So if you as a parent is not paying regular visits to the school as said by [name withheld], you cannot tell whether your ward is doing well or not. Your ward cannot also come home to tell you that he/she is not doing well in school except in few cases. So as a parent if you regularize your visit to the school, it creates a good rapport between you and the teacher to the extent that he can discuss your wards performance with you.”(FGD, Parents, Upper primary, Nyong, Karaga District)

4.16 Effect of in-service education and training on professional development
The research team also sought to examine the efficiency of the interventions at improving quality of teaching and learning by assessing the effect of training on professional development of teachers. In focus group discussions with community members and in-depth interviews with various stakeholders concerned with promoting education, respondents pointed out that the training that teachers received has improved the relationship between teachers and their pupils and even the parents for the common good of the child. They emphasized that pupils now feel free to contact their teachers if they have any problem and the teachers are now also encouraged to visit the pupils homes and discuss pupils performance with parents and any other problem that the pupils might be going through in school that has the potential to affect the pupils and all these are very productive for enhancing the academic output of the child.
The teachers took part in the UNICEF trainings and that improved the relationship between the children and their teachers. It is very common to see children enjoying the company of their teachers without being intimidated or being caned or punished. And all these are as a result of the series of trainings they have received.” (FGD, Parents, Lower primary, Sung, Karaga District)

4.17 Extent to which the interventions have met the overall programme objective

There is a general positive perception that the interventions introduced by KOICA-UNICEF play a significant role in addressing the needs of the schools and improving the quality of teaching and learning and overall standard of education in the districts. Both teachers and circuit supervisors and managers of education maintain that the interventions have improved their monitoring and supervision skills and has helped them to make and improvise teaching and learning materials. They also said that the WASH initiatives and child friendly environment keeps their wards healthy and motivates them to want to go to school and remain in school.

“….. We have gained adequate knowledge in terms of supervision and monitoring, likewise the head teachers. We can now also prepare local teachings and learning materials to use in teaching our children and where children now wash their hands after toilet it keeps them healthy. Also with the child friendly issues, schools are now beginning to make their schools environment child friendly for children to want to be in school and remain.” (IDI, Circuit Supervisor, Builsa North District)

We also elicited the views of participants in focus group discussions and in-depth interviews with parents/guardians of primary school children and PTA/SMC executives, education management teams at district and regional level, the district technical support team, circuit supervisors, head teachers and teachers to determine the extent to which the education program met the overall goal of improving quality teaching and learning and uplifting the standard of education in the intervening areas. There was a general perception among participants particularly teachers that the training programs were very useful and had improved the skills of teachers and invariably their ability to impart knowledge in a more practical way and sustain the interest of pupils throughout instructional hours.

“…..”To me as a teacher it was good and helpful; it has also improved teaching and learning. This is because it makes the children pay attention in class since they are aware they will be writing exercises and tests at the end of the day and by so doing they pass at the end of the day and the term as well. They are given report cards also at the end of the term where their grades and positions on various subjects are recorded so when they see their performance, the weak ones are compelled to work hard and it makes the child happy too.” (IDI, Primary school teacher, Sandema, Builsa North District).

4.18 Barriers/bottlenecks that affected implementation of the interventions?

One of the objectives of the evaluation was to document factors that did not allow for achievement of programme outputs. In view of this, we sought the opinions of community people through focus group discussion and conducted in-depth interviews with educational managers, members of SMC, individual teachers and circuit supervisors on the barriers/bottlenecks that have prevented the program from meeting its intended target. Results from these interviews show that challenges for the successful implementation of the interventions were multifaceted-cutting across the lack of resources, the role of parents and teachers and failure of the educational system. Parents lamented that their own inability to support their children to go to school and remain in school could derail the effort UNICEF and their partners are putting in to ensure that children go to school at the right ages and remain in school especially at the early years of their development. Parents attributed their inability to fully support their wards to a
number of factors including poverty emanating from the lack of job opportunities in their communities or even their inability to assist their wards in their homework because of their lack of education since the teachers cannot do it all alone. In the Karaga district particularly some parents cited the lack of water in the communities as a major issue that affects school attendance. They explained that children stay out of school for fear of being asked by their teachers to use instructional hours to fetch water for them instead of learning.

“R: GES on its own is not able to do much because most of these teachers who are not trained are voluntary teachers they are volunteering and in some areas some organizations are supporting them. GES comes in where it is able but not taking much responsibility because if they are to come in much it will require some level of financial commitments which the directorate does not have. For example, if you take West Mamprusi and Mamprugu Moaduri, we have over 400 volunteer teachers in the system there and VSO is supporting them, so they don’t give them any allowances, they just volunteered to be in the system, if you go region wide we have a lot of volunteer teachers and even some of them are even junior high school dropouts. Of course we are doing our bit to try to replace all but as much as we do not have the staff we have to make do with what we have. IDI_REMT_GES_NR”

On the other hand, managers of education cited the inability of the educational system to post and maintain trained teachers especially in the deprived communities as a major challenge. They explained that most of the teachers in the rural areas are either untrained teachers or national service personnel who may leave when they have better opportunities or when their period of service is over. Furthermore, acquisition of TLMs was also seen as a major concern that poses challenges to the implementation of the interventions. Teachers pointed out that they sometimes have to fund the acquisition and use of TLMs from their own resources. Other bottlenecks they cited included lack of classrooms especially for nursery children, and lack of accommodation for teachers. They indicated that all these could have repercussions for the sustainability of the interventions when the donor pulls out.

“……All what have been said are actually real challenges for us in this school. The KG children sit under trees and during bad weather, they are usually combined in one class which affects the quality of teaching and learning. Also the lack of accommodation for all teachers, affects the punctuality of teachers. Also the lack of portable water is a serious problem. Even today, teachers have not been able to bath as a result of the water shortage. What I will like to also add is the fact that the parents of the children are poor farmers who, most of the time cannot provide the basic needs of their children to come to school.” (FGD, SMC, Tong, Karaga District).

4.19 Conducive/enabling factors
While some aspect of the evaluation sought to document the impediments to the successful implementation of the project, we were also interested in the conducive or enabling factors for achieving programme outputs in education. In some in-depth interviews with stakeholders including senior management team members at the regional and district levels, Circuit supervisors, teachers, PTA and SMC executives, they demonstrated sufficient knowledge and active participation in the interventions and indicated that they were some of the reasons that would account for the success or otherwise of the project. They emphasized that for any project to succeed, they is the need to actively involve all stakeholders since they are a critical component of the project.

……”We were part of the team that embarked on an educational tour to best performing schools in Tamale. And we learned from the trip that as parents we should have interest in whatever goes on in this school and should pay regular visits to the schools to help monitor how the children are being taught.
We were also urged to visit the schools to check on the attendance of both pupils and teachers, check on how new enrollment is done and how children transition from one level to the other. We were also advised to keep our children at home in the night and to ensure that they revisit their books after they close from school.” (FGD, SMC, Gunayili, Karaga District)

Both parents and managers of schools have also observed the change in the attitude of teachers since the implementations of the interventions as they pointed out that negative virtues such as lateness to school, absenteeism, unwillingness to prepare lesson notes and schemes of work and caning of pupils have become a thing of the past. They said that teachers now make follow-up visits to the homes of pupils who absent themselves in school and all these have contributed to the improvement in the academic work of the children.

“.... in the past most of these teachers usually get drunk and when they come to school what they know is caning of children, nothing else. They leave the school to ‘’top up’’ [for more drink] only to return when it is time to close. Currently I have not seen any teacher in this school who drinks before or during school hours, so to me, at present teaching and learning is better because now the kids pay attention to what is being written on the blackboard. And with this, pupils have good results now anytime they are given a test. The help from UNICEF has been positive. FGD_PTA_Kori_BND”

4.20 Efforts at Sustainability
To ensure sustainability, policies and programs targeted at poor rural communities must be effective and efficient. The UNICEF/KOICA led interventions were designed to enhance local participation, ownership and sustainability. Thus, we explored key stakeholders views on how best to ensure sustainability after the intervention comes to an end.

Members of the various PTAs and SMCs identified several ways by which their efforts could help sustain the interventions in the various schools. These included periodic financial contributions, embarking on occasional visits to schools to monitor teachers and pupils, organizing school based INSETS as refresher training to teachers, personal donations, providing communal labour, and using innovative ways to improve internal generated funds through farming and sale of admission forms. Of all these, the most frequently identified way of sustaining the various interventions was by levying parents to cater for the urgent needs of schools such as procuring TLMs, construction of tables and chairs or sheds for class room as support school. The text below highlight views on efforts towards sustaining the interventions.

…… “We had a meeting at the end of last term and we have committed ourselves to be contributing little by little at the beginning of this term for contingency purposes; so we hope with God’s help we will be able to start that soon.” (FGD, PTA/SMC, Ayieta Primary, Sandema, BND)

…… “We as PTA and SMC have already supported with temporarily sheds which was destroyed by cattle. At the moment, we are planning through contributions and talking to each other to see how best we can support the school to get a structure for the KG. But at the same time, we are appealing to the NGOs, especially UNICEF to support.” (FGD, SMC/PTA, Tong D/A Primary school, KD)

Teachers’ views were also explored on actions or steps put in place to ensure continuous provision of quality education after the completion of the KOICA-UNICEF project. The teachers intimated that continuous learning through refresher training workshops and putting into practice knowledge and skills
gained would be key in sustaining the intervention. In addition, peer learning and willingness of trained teachers to impact the knowledge and skills gained through the project on their colleague teachers would be very useful in sustaining the project. Teachers also indicated that they were committed to keeping all study materials well and to maintain or even improve upon their current performance. The texts below captures the views of the teachers on the subject quite succinctly.

…… “Sometimes, I meet with my colleagues to exchange ideas and remind ourselves about the things we have learned from the training. Also, I pass the knowledge gained from the training to those who have not had the opportunity to attend the UNICEF training program.” (IDI, KG Teacher, KD)

…… “The materials UNICEF has given us, we must ensure that they are used properly. Through the UNICEF training, some of us have become very serious in our work. We will continue like that. We will also make sure that the children learn.” (IDI, Primary Teacher, Sandema, BND)

4.21 Challenges with sustainability
Sustainability of any program is an important component of the design of the program. Although in the focus group discussions, parents identified various strategies they could adopt to sustain the program, they equally identified other bottlenecks that could derail their effort to sustain the program. One of the biggest hindrances that could critically affect the sustenance of the program as identified by both parents and senior management team members as well as teachers was the issue of resources. They maintained that since parents were just peasant farmers who do not have any other source of income, it would be difficult for them to be able to sustain the program after the KOICA-UNICEF intervention comes to an end.

…… “I also think poverty might be a challenge. We are peasant farmers and our produce is mostly affected by natural phenomenon such as drought or heavy rains. So in such circumstances it may be difficult to support a plan with financial commitments.” (FGD, Parents, Lower, primary, Sung, Karaga District)

…… “Some of us are poor and besides we have no jobs but we really help our children with their studies. With the previous head of the school after a workshop she had in Tamale, she returned with the idea of parents meeting to find a way to help maintain the school when the need arises because there might come a time when UNICEF might withdraw or can’t continue with their support to the school. With the new head we are yet to hold a meeting to discuss about that.” (FGD, PTA, Kori, Builsa North District)

In the same vein, the managers of education reiterated the issue of lack of resources to be able to monitor project activities and explained that that could lead to the activities being neglected. They explained that the intervention requires mobilizing community resources “including human resources” to support in realizing the goal of the project.

…… “The resources like fuel, to go round to monitor some TLM’s which cannot be produced locally or are not within the locality. For instance we can’t make a ball by ourselves if we don’t get the resources we can’t get the balls to buy. We know the capitation might continue to come and we will capitalize on that. The human behavior is also a potential challenge. Some teachers are not committed you will talk and talk and talk and still they will not do the right thing.” (IDI, District Official, GES, Builsa North District)
Despite the challenges that might hinder the sustenance of the program after KOICA-UNICEF implementation activities come to an end, few community members reported that they were encouraged by the prospects of the program and have resolved to sustain it by whatever means possible.

…… ”This is what I have to say “You see when you keep fishing for a child, he/she will keep waiting for you to fish for him/her to always eat instead of you teaching that child how to fish” When the Whiteman (KOICA–UNICEF) is tired of helping us what do we do? We have to learn how to fish ourselves that is the measures we will put in place to support our school and that is we put money together so that the school management can use these money to provide the needs of the school this way we are helping sustain the school. So that tomorrow our colleagues’ children can also have access to the school. This is what I have to add.”(FGD, Parents-guardians, Suwuarensi, Builsa North District).
Chapter 5

5.1 Conclusions and Recommendations

5.1.1 Health Component

**MNCH Services:** Most of the facilities offer MNCH services namely antenatal care, delivery, postnatal care for mothers and newborns, child immunization, child welfare (weighing), family planning, counseling on HIV/AIDS and post abortion care. Karaga hospital does not carry out child welfare (weighing) and immunization activities. All the hospitals and health centres offer post abortion care services except St. Lucas Health Centre in the Builsa North district.

**Provision of Equipment and supplies:** There was vast improvement in the availability of basic equipment and consumables in the hospitals and health centres in the two districts involved in the endline evaluation compared to the baseline indicators. Health workers confirmed that they received motorbikes and other supplies from the UNICEF interventions.

**Newborn care units/corners:** Newborn care units and corners were set up in health centres and CHPS compounds that had midwives and equipped with incubators, thermal warmers, oxygen, nasal prong, etc and basic logistics such as towels for wrapping the babies and keeping them warm. Care providers at these departments were trained in neonatal resuscitation, essential care for newborns and care for sick newborns and infection prevention. Health care providers reported that these newborn care units and corners are functioning well and have played a significant role in the improvement of newborn health and general child survival.

**Staffing:** Hospitals were better staffed with critical staff (midwives and Doctors) in MNCH than Health Centres. General medical practitioners (Doctors) were available only at the District hospitals. There were no specialists in pediatrics, obstetrics and gynaecology in any of the hospitals.

**Refresher training:** Over 72% of all the health staff interviewed received refresher training on basic emergency obstetric care with 78% of all health centre staff receiving training.

**Training in leadership development programme and home based postnatal care:** UNICEF facilitated capacity building training workshops in Leadership Development Programmes (LDP) and Home-Based Postnatal care (HBPNC) for health personnel providing MNCH service at all levels of the health care system. The endline survey showed that doctors at the two hospitals received training in both LDP and HBPNC. About 86% of the community health officers at the health centres and CHPS compounds also received training in both LDP and HBPNC.

**Availability of action plans, performance feedback:** Across the two districts, there were remarkable improvements in the availability of action plans and community level activities in the health facilities compared to baseline indicators. For instance, all the hospitals and health centres assessed had action plans focused on newborn health care. Annual performance targets were mostly set for individual providers by the facility in-charges and the DHMTs, and Community Health Management Committees (CHMCs) were formed in all CHPS Zones to approve and review annual work plans.
Availability of written Job descriptions: Generally, there were substantial improvements in the use of written job descriptions, and setting of MNCH specific targets for health providers and facilities following the project intervention. About 83 percent of the health staff interviewed reported having written job descriptions compared to the baseline of 5 percent. Similarly, 83 percent of health providers had MNCH specific targets compared to 66.7 percent at baseline. Most of the health staff (83%) reported of clarity of targets at the end of the intervention compared to 52% at baseline.

Joint monitory and supervision: Health providers reported improvements in joint monitoring and supervisory visits carried out by health managers at the facility, sub-district and district levels. Furthermore, there were notable improvements in the sharing of knowledge and learning across districts and regions through exchange visits.

Improved performance feedback: Performance feedback was often given by the DHMT (80%), the facility in-charge (50%) and clients (41%). Feedback was usually given verbally during staff meetings (68%).

Availability of National Safe Motherhood (SM) protocol at facility: The endline findings showed remarkable improvements in the availability, application and knowledge of MNCH protocols as recommended by the GHS/UNICEF/WHO in the intervention facilities. Almost 66% of all facilities had the National SM protocols in comparison to 42.9% (9/21) at baseline.

Provider knowledge on ANC, management of labour and delivery Services: There was general improvement on health providers’ knowledge score on ANC, management of labour and delivery services. Provider knowledge on ANC increased from a mean score of 4.3 at baseline to 5.8 at endline. Knowledge on the management of first, second and third stages of labour also improved at endline. For instance, knowledge on management of the second stage of labour among hospital staff increased from an average score of 5.7 at baseline to 11 at endline. Among staff in health centres, it increased from an average score of 4 to 11.4.

Antenatal Care: Data from DHIMS showed increasing trends in the number of pregnant women who patronized ANC services from 2013 to 2016 in the two districts. The proportion of ANC registrants who had at least four ANC visits has been increasing over the years. The qualitative findings revealed that ANC attendance was high particularly among pregnant women in their 1st trimester.

Delivery Services: Generally, skilled delivery was reported to have improved compared with previous years in both the Karaga and Builsa North districts. Even in some sub-districts, there were reports of absence of TBA deliveries.

Postnatal Care: There was improvement in home based postnatal care (HBPNC) visits by CHO/CHN. The qualitative results revealed that the postnatal home-based care initiative has had an impact in the communities. The health professionals and community health volunteers were active in providing postnatal care in communities and that contributed immensely to improving health service delivery, particularly newborn care in the two districts.

Early initiation and exclusive breastfeeding: The community stakeholders indicated that most of the babies attended to at postnatal care were put to breast immediately after delivery and majority of respondents reported exclusive breastfeeding in the first 6 months.
Kangaroo mother practices and cord care: Community members and health care providers have reported improvements in kangaroo mother and cord care practices among mothers. The respondents attributed the improvements to the KOICA-UNICEF interventions.

5.1.2 Education Component

Access to basic education, quality of education and child friendly schools: The results after the implementation of the UNICEF interventions showed an improvement in access to basic education over the period. For instance, at the primary level, net enrolment rate (NER) increased from 84.9% in 2012/13 to 96.9% in 2015/16 in the Karaga district. The NER for kindergarten increased by 50% from 2012/13 to 2015/16, but quality of education service delivery had not changed much over the period. There was marked improvements in the child friendly school status as all the six dimensions of the child friendly school check list improved. Karaga recorded an increase in the overall child-friendly school score from 20% in 2013 to 71% in 2016, and Builsa North District recorded an increase from 37% in 2014 to 74% in 2016.

Capacity building and community involvement in service delivery: The capacity building (trainings) on how to prepare teaching and learning materials (TLM), provision and use of TLMs in the schools was viewed by stakeholders in education (teachers, circuit supervisors and district directors of education) to have helped to enhance teaching and learning and improved school performance in the two districts. There was a general view among participants that the training programs were very useful as they had improved the skills of teachers to impart knowledge in a more practical and holistic way during instructional hours. Parents reported that the community engagement processes with KOICA-UNICEF and the training sessions made them aware of their roles in promoting the academic well-being of their wards.

Relevance and appropriateness of the KOICA-UNICEF Initiatives: Improving maternal, neonatal and child health indicators as well as facilitating access to quality basic education are top priorities of the GHS and GES. In this regard, the KOICA-UNICEF initiatives which focused on capacity building of health and education staffs, strengthened planning, monitoring and supervision at regional, district and sub-district/circuit levels, and supported some engagement between GHS and GES through school-based activities, were laudable initiatives for meeting project outcomes. Moreover, the support for community based health interventions (home visits by CHO/CHN) and school enrolment drive have contributed to improving access to quality maternal, neonatal and child health as well as basic education services. The community, management of health and education services and focal persons of the UNICEF-KOICA initiatives viewed the interventions as relevant, appropriate and timely.

Effectiveness and efficiency of the Interventions: There was active community entry, mobilization and sensitization and engagement that brought on board various stakeholders including community health volunteers, mother-to-mother support groups, pregnant women, traditional leaders, school management committees, parent-teacher associations and other community members in the service delivery process and that helped to make the interventions more effective.

The interventions helped to build the capacities of teachers and health care providers as well as community stakeholders and provided equipment and supplies for efficient and effective service
delivery. Health care providers were trained and equipped to provide services to pregnant women, nursing mothers and newborns. Pregnant women through the pregnancy schools were given basic information and training on care for pregnancy and danger signs of pregnancy and neonates for safe delivery and healthy babies. Community health volunteers were trained for home visitation and early registration and referral of clients to the next level of care. Mother-to-mother support groups were also trained to provide mentorship to their colleagues on newborn care. Teachers and their supervisors, PTAs and SMCs were given basic skills in effective teaching and learning and supportive roles in improving access to quality education particularly at the basic level.

There was also effective monitoring of the program by both health and education authorities. All these activities contributed to improving the maternal and child health indicators, particularly ANC attendance, skilled delivery, postnatal care, home-based care, kangaroo mother care and early exclusive breastfeeding. Education indicators including access to basic education, quality of education and child friendly schools were also improved.

Sustainability of the project: The community is an important stakeholder in project implementation and its involvement is critical in ensuring the sustainability of an initiative. The KOICA-UNICEF project ensured community engagement from the inception of the project to the end. This strategy created the platform for active community participation and ownership of the project. Community stakeholders pledged their commitment and willingness to play their respective roles in ensuring the success of the project. The Ghana Health Service and the Ghana Education Service are committed to improving access to maternal, neonatal and child health services as well as providing quality basic education which are in line with the KOICA-UNICEF initiatives which are of national priority. The involvement of GHS and GES as key stakeholders and implementers of the interventions is the best strategy for the interventions to be continued and sustained.

5.1.3 Challenges
The respondents pointed to challenges with the health system such as attitude of some health professionals that included disrespect, neglect and mistreatment of patients/clients. The second challenge is the mobilization of resources and the commitment and dedication of health and education authorities to ensure continuity of the programs with similar intensity as was done under the KOICA-UNICEF project.

5.1.4 Lessons Learnt
The capacity building workshops shows the need for routine in-service training for health and educational professionals and community stakeholders. Community engagement is an important component of service delivery and utilization. Interaction between community members and health professionals could help to address pertinent health issues that relate to the community.

Home visitation is necessary to avert complications, and intervening within one month after delivery is critical to preventing neonatal mortality. In addition, monitoring and supervision at the service delivery points is critical for effective and efficient service delivery.

Another important lesson learnt was that the decentralization and grassroots approach KOICA-UNICEF, the Ghana Health Service and Ghana Education Service adopted made it possible for health and education services to be delivered evenly between rural and urban settings.
Availability of equipment and supplies for project implementation is key in the successful execution of that project. This project provided the requisite equipment and logistics which enhanced service delivery and improved project outcomes.

5.1.5 Conclusion
In general, the KOICA-UNICEF interventions have helped to improve maternal, neonatal and child health services in the intervention districts. Most of the staff providing MNCH services and the key stakeholders in the communities benefited from the capacity building programme of the project. The interventions on education have contributed to the observed increases in net enrolment rates at the basic education level and improved access and child friendly school status indicators in the intervention districts.

The study yields key recommendations to further enhance program implementation and effectiveness:

- Continuous training by the Ghana Health Service is required to ensure that both old and newly posted health professionals receive the necessary information for newborn care.
- The Ghana Health Service should continue to provide equipment and logistics to sustain the gains made by the KOICA-UNICEF interventions.
- Continuous monitoring and supervision of MNCH service providers is critical to improve newborn care.
- Continuous community engagement is crucial in sustaining community participation in the programme.
- The Ghana Education Service should work to address the large Pupil-Classroom Ratio by building more classrooms in the two districts to cater for the increasing number of pupils being enrolled.
- The Ghana Education Service should increase the proportion of trained teachers to improve the Pupil Trained-Teacher Ratio in basic schools.
- The Ghana Education Service should make core textbooks available in primary schools to guarantee effective teaching and learning.
- Finally, leadership and commitment from the health and education authorities are required to ensure the sustainability of the KOICA-UNICEF intervention activities.
Reference


Appendix 1: Some results from the health surveys

### Target setting for baseline and endline indicators

<table>
<thead>
<tr>
<th>MNCH target setting</th>
<th>Baseline</th>
<th></th>
<th>Endline</th>
<th></th>
<th>CHPS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>Health Centre</td>
<td>Total</td>
<td>Hospital</td>
<td>Health Centre</td>
<td>CHPS</td>
</tr>
<tr>
<td>Previous performance</td>
<td>n=3</td>
<td>n=11</td>
<td>n=14</td>
<td>n=6</td>
<td>n=9</td>
<td>n=1</td>
</tr>
<tr>
<td>Based on district target</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Based on regional targets</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Based on National targets</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

| Who sets targets                            |          |                      |         |                     |      |       |
| Facility in-charge                          | 1        | 5                    | 6       | 6                    | 6    | 7     | 19    |
| DHMT                                        | 2        | 7                    | 9       | 2                    | 5    | 6     | 13    |
| RHMT                                        | 1        | 0                    | 1       | 0                    | 0    | 0     | 0     |
| National (GHS/MOH)                          | 1        | 0                    | 1       | 2                    | 0    | 0     | 2     |
| Other staff                                 | 0        | 3                    | 3       | 0                    | 1    | 0     | 1     |
| Yourself                                    |          |                      |         |                     |      |       |

| Ease of achieving targets                   |          |                      |         |                     |      |       |
| Easy                                        | 0        | 3                    | 3       | 1                    | 0    | 5     | 6     |
| Difficult                                   | 2        | 4                    | 6       | 5                    | 8    | 5     | 18    |
| Not sure                                    | 1        | 2                    | 3       | 0                    | 1    | 4     | 5     |

| Agreement with targets                      |          |                      |         |                     |      |       |
| Agree                                       | 2        | 6                    | 8       | 6                    | 4    | 9     | 19    |
| Disagree                                    | 1        | 3                    | 4       | 0                    | 4    | 0     | 4     |
| Not sure                                    | 0        | 2                    | 2       | 0                    | 0    | 1     | 1     |

### Provider opinion on motivation for their work for baseline and endline

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th></th>
<th>Endline</th>
<th></th>
<th>CHPS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital</td>
<td>Health Centre</td>
<td>Total</td>
<td>Hospital</td>
<td>Health Centre</td>
<td>CHPS</td>
</tr>
<tr>
<td>Recognition for work</td>
<td>n=9</td>
<td>n=21</td>
<td>n=30</td>
<td>n=6</td>
<td>n=9</td>
<td>n=1</td>
</tr>
<tr>
<td>Type of recognition</td>
<td>n=4</td>
<td>n=17</td>
<td>n=22</td>
<td>n=4</td>
<td>n=8</td>
<td>n=7</td>
</tr>
<tr>
<td>Verbal</td>
<td>4</td>
<td>13</td>
<td>17</td>
<td>3</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Token gift</td>
<td>0</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Money</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

| Satisfaction with reward                    |          |                      |         |                     |      |       |
| Satisfied with rewards                      | 2        | 12                   | 14      | 4                    | 6    | 7     | 17    |
| Not satisfied with rewards                  | 3        | 5                    | 8       | 0                    | 2    | 0     | 2     |

| Reason for dissatisfaction                  |          |                      |         |                     |      |       |
| Inadequate/not visible (Endline: Deserve better) | 3    | 4                    | 7       | 0                    | 1    | 0     | 1     |
| Not received yet (Endline: Wanted a citation) | 0    | 1                    | 1       | 0                    | 1    | 0     | 1     |

| Other suggested rewards                     | n=9      | n=21                 | n=30    | n=6                  | n=9  | n=14  | n=29  |
| Appreciation/encouragement | 5 | 11 | 16 | 2 | 3 | 6 | 11 |
| Logistics/equipment/supplies | 5 | 10 | 15 | 3 | 4 | 7 | 14 |
| Training opportunities | 3 | 10 | 13 | 0 | 0 | 0 | 0 |
| Infrastructure enhancement | 3 | 5 | 8 | 0 | 0 | 0 | 0 |
| Certificates/testimonials/citations/gifts | 3 | 3 | 6 | 0 | 0 | 0 | 0 |
| Monitoring and supportive supervision | 0 | 1 | 1 | 1 | 2 | 1 | 4 |
| Good interpersonal relationship with co-workers and clients | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| Adequate staff/midwives | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| **Source of rewards** | | | | | | | |
| Facility in-charge | 8 | 10 | 18 | 1 | 5 | 4 | 9 |
| DHMT | 2 | 17 | 19 | 1 | 5 | 6 | 12 |
| RMHT | 1 | 2 | 3 | 0 | 1 | 0 | 1 |
| Colleagues | 1 | 5 | 6 | 0 | 1 | 0 | 1 |
| Clients | 2 | 6 | 8 | 1 | 2 | 7 | 10 |
| Unit head | 3 | 5 | 8 | 2 | 2 | 0 | 4 |
| **Sanctions** | | | | | | | |
| Received sanctions | 0 | 4 | 4 | 0 | 1 | 0 | 1 |
| **Type of sanctions** | | | | | | | |
| Rebuked/verbal query | 0 | 4 | 4 | 0 | 1 | 0 | 1 |
| **Source of sanctions** | | | | | | | |
| Facility in-charge | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| DHMT | 0 | 3 | 3 | 0 | 0 | 0 | 0 |
| colleagues | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Clients | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Other | 0 | 1 | 0 | 1 | | | |

**Checklist for infant resuscitation**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Proportion indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GETTING READY</strong></td>
<td></td>
</tr>
<tr>
<td>Places the baby on its back on a clean, warm surface.</td>
<td>84.6</td>
</tr>
<tr>
<td>Cover the baby’s head with a hat</td>
<td>38.5</td>
</tr>
<tr>
<td>Quickly wraps or covers the baby, except for the face and upper chest.</td>
<td>46.2</td>
</tr>
<tr>
<td>Tells the mother what is happening.</td>
<td>19.2</td>
</tr>
<tr>
<td><strong>RESUSCITATION</strong></td>
<td></td>
</tr>
<tr>
<td>Positions the head in a slightly extended position to open the airway</td>
<td>92.3</td>
</tr>
<tr>
<td>Clears the airway by suctioning the mouth and nose.</td>
<td>100</td>
</tr>
<tr>
<td>Places the mask on the baby’s face so that it covers the chin, mouth and nose.</td>
<td>96.2</td>
</tr>
<tr>
<td>Forms a seal between the mask and the baby’s face.</td>
<td>76.9</td>
</tr>
<tr>
<td>Checks the seal by ventilating two or three times and observing the rise of the chest.</td>
<td>80.8</td>
</tr>
<tr>
<td>Ventilates at a rate of 40 breaths per minute for 1 minute and then stops and quickly assesses if the baby is breathing spontaneously.</td>
<td>69.2</td>
</tr>
<tr>
<td><strong>If breathing is normal, and there is no in-drawing of the chest and no grunting</strong></td>
<td></td>
</tr>
<tr>
<td>Puts baby in skin-to-skin contact with mother.</td>
<td>57.9</td>
</tr>
</tbody>
</table>
If baby is not breathing, or breathing is less than 30 breaths per minute or severe chest in-drawing is present

<table>
<thead>
<tr>
<th>Description</th>
<th>Proportion indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continues ventilating, gives oxygen if available, and arranges immediate transfer for special care.</td>
<td>65.4</td>
</tr>
</tbody>
</table>

If there is no gasping or breathing at all after 20 minutes of ventilation

<table>
<thead>
<tr>
<th>Description</th>
<th>Proportion indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stops ventilating.</td>
<td>96.2</td>
</tr>
</tbody>
</table>

**POST PROCEDURE TASKS (what do you do with the equipment/instruments/items after use)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Proportion indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Places reusable bulb syringe in a decontamination solution.</td>
<td>100</td>
</tr>
<tr>
<td>Washes in water and detergent</td>
<td>100</td>
</tr>
<tr>
<td>High level disinfects in bleach solution</td>
<td>57.7</td>
</tr>
<tr>
<td>Cleans and decontaminates the valve and mask and check for damage.</td>
<td>88.5</td>
</tr>
<tr>
<td>Washes hands thoroughly with soap and water and dries them</td>
<td>100</td>
</tr>
</tbody>
</table>

**Checklist for the Routine Management of Cord Sepsis**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Proportion indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains to the mother the condition of the baby</td>
<td>70.8</td>
</tr>
<tr>
<td>Encourages mother to continue breastfeeding</td>
<td>91.7</td>
</tr>
<tr>
<td>Examines for signs of systemic infection</td>
<td>37.5</td>
</tr>
</tbody>
</table>

**Checklist for Management of Foetal Distress**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Proportion indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Places woman on her left side (left lateral position) and gives oxygen (if available)?</td>
<td>13.0</td>
</tr>
<tr>
<td>Starts IV infusion (normal saline or Ringers)</td>
<td>8.7</td>
</tr>
<tr>
<td>Monitors foetal heart every 15 minutes</td>
<td>21.7</td>
</tr>
<tr>
<td>Performs assisted delivery (episiotomy or vacuum extraction if trained) if fully dilated</td>
<td>73.9</td>
</tr>
<tr>
<td>Prepares to receive an asphyxiated baby</td>
<td>60.9</td>
</tr>
<tr>
<td><strong>If delivery does not occur within 1 hr after admission</strong></td>
<td></td>
</tr>
<tr>
<td>Refer woman or call doctor</td>
<td>96.2</td>
</tr>
</tbody>
</table>

**Checklist for Cord Prolapse**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Proportion indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask woman not to push</td>
<td>95.7</td>
</tr>
<tr>
<td>checks for foetal heart</td>
<td>91.3</td>
</tr>
<tr>
<td>checks to see if cord is pulsating</td>
<td>26.1</td>
</tr>
<tr>
<td>Positions mother on her left side and raises hips by putting pillows underneath</td>
<td>91.3</td>
</tr>
<tr>
<td>Places pad or a piece of clean cloth on vulva</td>
<td>82.6</td>
</tr>
<tr>
<td>Inserts catheter and instils 300-500mls of normal saline in bladder</td>
<td>30.4</td>
</tr>
<tr>
<td>Administers oxygen if available</td>
<td>0</td>
</tr>
<tr>
<td><strong>If cervix is fully dilated with descent 0/5 and baby is alive</strong></td>
<td></td>
</tr>
<tr>
<td>does vacuum extraction (if trained)</td>
<td>91.3</td>
</tr>
<tr>
<td>refers woman if not trained to do vacuum extraction or if cervix is not fully dilated, or cases of malpresentation or malposition</td>
<td>69.6</td>
</tr>
</tbody>
</table>
If cord is not pulsating

<table>
<thead>
<tr>
<th>Checks for signs of obstruction</th>
<th>34.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>If obstruction, gives antibiotics and refers</td>
<td>13</td>
</tr>
</tbody>
</table>

*If no signs of obstruction, and presentation is favourable*

| Allows normal delivery of a dead baby | 39.1 |

---

**Appendix 2: Checklist and Operationalization of Key Concepts**

**a. Gross Enrolment Rate (GER)**

The GER examines the total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school year (UNESCO Institute of Statistics, 2009). In Ghana the GER is expressed as the number of pupils enrolled at any level of Basic Education, regardless of the official school age for that level, expressed as a percentage of the district population of the official school age for the relevant level of basic education.

In Ghana, Basic Education is defined by the Education Act of 2008 (Act 778) to include the following levels and age group categories: Kindergarten with targeted age group of 4-5 years; Primary School with targeted age group of 6-11 years; and Junior High School (JHS) with targeted age group of 12-14 years.

A high GER indicates a high degree of participation, whether the pupils belong to the official age group or not. A GER value approaching or exceeding 100% indicates that a country is, in
principle, able to accommodate all of its school-age population. The achievement of a GER of 100% is therefore a necessary but not sufficient condition for enrolling all eligible children in school. When the GER exceeds 90% for a particular level of education, the aggregate number of places for pupils is approaching the number required for universal access of the official age group. However, this is a meaningful interpretation only if one can expect the under-aged and over-aged enrolments to decline in the future to free places for pupils from the expected age group.

b. Gender Parity Index (GPI) on GER
Gender Parity Index (GPI) is the ratio of female GER to male GER. This index measures progress towards gender parity in education participation for females in relation to their male counterparts. If the GPI is equal to 1 indicates parity between females and males. In general, a value less than one indicates disparity in favour of boys/men and a value greater than one indicates disparity in favour of girls/women.

c. Net Enrolment Rate (NER)
NER refers to the enrolment of the official age group for a given level of education expressed as a percentage of the corresponding population. In Ghana the KG NER is expressed as the number of pupils enrolled in at the KG level, at the official school age of 4-5, expressed as a percentage of the district population of age 4-5 years.

A high NER denotes a high degree of coverage for the official school-age population. The theoretical maximum value is 100%. Increasing trends can be considered as reflecting improving coverage at the specified level of education. When the NER is compared with the GER, the difference between the two highlights the incidence of under-aged and over-aged enrolment.

d. Pupil-Teacher Ratio (PTR)
This indicator is obtained by expression the total number of pupils/students as a ratio of the total number of teachers irrespective of whether they are professionally trained or not. In other words, PTR is an average number of pupils (students) per teacher at a specific level of education in a given school year. It measure the level of human resources input in terms of the number of teachers in relation to the size of the pupil enrolled in school. This gives education administrators and policy makers an idea of the workload of teachers and also gives an idea of whether the teachers in the system are being efficiently utilised.

Theoretically a high PTR suggests that each teacher has to be responsible for a large number of pupils. In other words, the higher the PTR, the lower the relative access of pupils to teachers. It is generally assumed that a low PTR signifies smaller classes, which enables the teacher to pay more attention to individual students, which may in the long run result in a better performance of the pupils.

e. Percentage of Trained Teacher (PTT) in Public Schools
The PTT in public school is estimated by expressing the number of teachers who have received the minimum teacher training required for teaching at any specified level of education, as a percentage of total number of teachers at that level of education.

When the category of teachers in schools are analysed according to their academic and professional backgrounds, it reveals which schools among the lot are better endowed in terms teacher qualification and professional background. Such information could assist education managers and administrators embark on an evidenced based staff rationalization in favour of less endowed school in terms of professionally trained teacher.

\( f. \) Pupil-Trained-Teacher Ratio (PTTR)
The ratio of pupils/students to trained teaching staff is also an important indicator of the resources devoted to education. This indicator is obtained by dividing the total number of pupils/students by the total number of trained teachers. That is teachers who have acquired teaching certificate that qualifies them as professional teachers. It gives an idea of the workload of teachers and shows if they are being efficiently utilized. For the purpose of decision making on teacher supply situation, it is important for planners to consider the national norm (35: 1 for KG 45:1 for primary and 35:1 for the JHS).

Theoretically a high PTTR suggests that each trained teacher has to be responsible for a large number of pupils. In other words, the higher the PTTR, the lower the relative access of pupils to trained teachers. It is generally assumed that a low PTTR signifies smaller classes, which enables the trained teacher to pay more attention to individual students, which may in the long run result in a better performance of the pupils.

\( g. \) Pupil Classroom Ratio (Class size averages) PCR
Class size averages are calculated by dividing the total number of students enrolled in school by the total number of classroom available and habitable. In this respect, class size may be viewed as an indicator of the quality of the school system. The average class size norm for the various levels of basic education in Ghana are: at the KG level the average class size is 35 pupils, at the primary level, the average class size is 45 pupils, and at the JHS level the average class size is 45.

\( h. \) Gross Admission Rate (GAR)
Gross Admission Rate (GAR) is defined as the total number of new entrants in the first grade of primary education regardless of age, expressed as a percentage of the population at the official primary school-entrance age. This indicator indicates the general level of access to primary education as well as the capacity of the education system to provide access to grade 1 for the official school-entrance age population.

A high GAR indicates a high degree of access to primary education, as its estimation includes all new entrants to the first grade (regardless of age), the ratio can exceed 100%, due to over-aged and under-aged children entering primary school for the first time. It is worthy to caution that a high GAR may be the effect of a backlog of over-aged children who have not entered school when they were at the official primary school-entrance age.
i. **Net Admission Rate (NAR)**
The NAR involves the total number of pupils entering the first grade at a given level for the first time at the prescribed official school entry age expressed as a percentage of the total population of the prescribed official school entry age for the level of education in question. A high NAR indicates a high degree of access to education, as its estimation includes all new entrants to the first grade (at the prescribed school entry age), the ratio theoretically cannot exceed 100%, due to the exclusion of over-aged and under-aged children entering primary school for the first time. It is important to mention that it is possible for NAR to exceed 100%. This is where children at the prescribed entry school age enroll from none target catchment areas.

j. **Completion Rate (CR)**
Educational attainment is measured in terms of learners’ achievement. Learners’ achievement may also be measured through the use of completion rate. There are broadly three approaches to estimating completion rate. The first, is done through expression the total number of children completing an educational level as a percentage of initial enrolment in the first grade of that level.

The second, is estimated through expression the total number of students/pupils completing an given education level (say P6) of a prescribed school age (say pupils in P6 aged 11 year old) expected to complete as a percentage to the total prescribed school age expected to complete the level in question (say population age 11 years expected to complete a given level).

The third, is to express the total number of pupils/students completing an educational level including repeaters, over-age and under age as a percentage a percentage to the prescribed population expected to complete the educational level in question. An examination of the EMIS data set revealed that the approach used to estimate the completion rate was the third approach as discussed above

**Child Friendly School**
A child-friendly school is a school with an aim to develop a learning environment in which children are motivated and able to learn free of any form of treat or intimidation. It is a school characterized as being inclusive, healthy and protective for all children, effective with children, and involved with communities/families and children (Shaeffer, 1999). A child-friendly school is directly linked to the support, participation and collaboration it receives from communities/families. A child-friendly school is a school which recognizes, encourages and supports children's growing capacities as learners by providing a school culture, teaching behaviour and curriculum content that are focused on learning and the learner or that are child centred in nature and orientation.

**Child Friendly School (CFS) Check List**
The CFS check list is school’s self-assessment monitoring tool that tracks the progress of schools toward becoming CFSs or improving its status of being a CFS. The assessment
involving the use of the CFS check list is a collaborative process between school administration and the School Management Committee (SMC) or Parent-Teacher Association (PTA). The CFS check list is organized around six main thematic areas also referred to as dimensions. Each dimension has five question item, requiring making a choice of response out of three pre-weighted responses given as: Yes which is equated to Two (2) points, Needs Improvement which is equated to One (1) point and No which is equated to zero (0) point. Based on these responses, the maximum score obtainable per dimension by any school is ten (10) points and for all six dimension sums up to sixty (60) point per school and the minimum attainable points per dimension is zero (0) point and also zero (0) for all six dimensions put together per school.

The scoring system per dimension is organized into five distinct ranges given as: (0-2), (2-4), (5-6), (7-8) and (9-10). Similarly the overall CFS score per school (i.e. the sum of points earn for all six dimensions) is also organized in five distinct ranges given as: (0-12), (13-24), (25-36), (37-48) and (49-60). A school was deemed to have met the CFS standard per dimension if it obtained a minimum score of seven points per dimension. Any score per dimension lower than seven points meant that the school needed to work toward improving such a dimension. Similarly, a school was considered to be a CFS, if the sum of the scores of all six dimensions totaled to a minimum of 37 points, such a school was deemed as satisfying the basic CFS standard and thus is considered as a child friendly school. The six dimensions of the CFS checklist are as follows:

a. **Dimension 1 (D1) an inclusive school.** An inclusive school is a school open for every child and does not exclude, discriminate, or stereotype on the basis of difference. An inclusive school provides education that is free and compulsory, affordable and accessible, especially to families and children at risk. An inclusive school also respects diversity and ensures equality of learning for all children (i.e. girls, working children, children of ethnic minorities and affected by HIV/AIDS, children with disabilities, victims of exploitation and violence). Finally, an inclusive school responds to diversity by meeting the differing circumstances and needs of children (i.e. based on gender, social class, ethnicity, and ability level).

b. **Dimension 2 (D2) Effective teaching and learning.** A CFS promotes good quality teaching and learning processes with individualized instruction appropriate to each child's developmental level, abilities, and learning style and with active, cooperative, and democratic learning methods. Such a school also provides structured content and good quality materials and resources. Furthermore, it enhances teacher capacity, morale, commitment, status, and income and their own recognition of child rights. Finally, it promotes quality learning outcomes by defining and helping children learn what they need to learn and teaching them how to learn.

c. **Dimension 3 (D3) Healthy school.** A CFS must ensures a healthy, hygienic, and safe learning environment, with adequate water and sanitation facilities and healthy classrooms, healthy policies and practices (i.e. a school free of drugs), and the provision of health services such as nutritional supplementation and counselling. Such a school should also provide life skills-based health education (i.e. learn about HIV/AIDS).
Finally, the school promotes both the physical and the psycho-socio-emotional health of teachers and learners.

d. **Dimension 4 (D4) Safe and protective school.** A CFS is a school that has a clear policy against criminal, violent, or sexual activities and could defend and protect all children from abuse and harm and also such a school should provide positive experiences for children especially the vulnerable through providing special support and guidance.

e. **Dimension 5 (D5) Friendly school for both girls and boys.** A CFS promotes gender equality in enrolment and achievement, eliminates gender stereotypes, guarantee girl-friendly facilities, curricula, textbooks, and teaching-learning processes as well as ensuring that girls and boys socialise in a non-violent environment. Finally, such a school should encourages respect for each other’s' rights, dignity, and equality.

f. **Dimension 6 (D6) Community involvement in the school.** A CFS should encourage local (i.e. SMC, PTA, and community) partnership in education, acting in the community for the sake of children, and working with other actors to ensure the fulfilment and protection of children’s rights.

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**Appendix 3: Survey questionnaires**

**INSTRUCTIONS TO DATA COLLECTOR:** This inventory should be completed by observing the facilities that are available and through discussions with the person in charge of facility on the day of the visit. In all cases you should verify that the items exist and are functional by actually observing them yourself - if you are not able to observe them, then code accordingly. Remember that the objective is to identify the equipment and facilities that currently exist and not to evaluate the performance of the staff or clinic. For each item, circle the response or describe, as appropriate.

<p>| 1. Name of Facility |  |
| 2. Facility code |  |
| 3. Date of Interview (day-month-year) |  |
| 4. Time of Interview |  |
| 5. Interviewer Name |  |
| 6. Respondent Name |  |
| 7. Position of Person Interviewed: | Check one 1=Yes 2=No |
| OB/GYN | 1 |
| General Physician | 2 |
| General Nurse or SRN | 3 |
| Midwife | 4 |</p>
<table>
<thead>
<tr>
<th>Medical Assistant</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician Assistant</td>
<td>6</td>
</tr>
<tr>
<td>CHO</td>
<td>7</td>
</tr>
<tr>
<td>CHN</td>
<td>8</td>
</tr>
<tr>
<td>Enrolled nurse</td>
<td>9</td>
</tr>
<tr>
<td>Other, specify</td>
<td>10</td>
</tr>
</tbody>
</table>

8. Type of facility:
- District hospital 1
- Health Centre 2
- CHPS 3

9. Sub-district Name

10. Sub-district Type
   - 1 = Urban
   - 2 = Rural

11. District

12. Region

13. If Health Centre, Approximate Distance from the District Hospital (km)

14. Approximate Distance from the Regional Hospital (km)

15. If Health Centre, Approximate Transport Time to District Hospital <1 Hour?

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**Service Provider Interview Guide**

*Interview all MNCH providers at post in the maternity wing of the facility. Make sure you include providers who attended MNCH training in the past year.*

Health facility (name): __________________________ Facility code: _________

Type of health facility: 1 = District Hospital  2 = Health Centre  3 = CHPS

Region: 1 = Northern  2 = Upper East

District: 1=Karaga  2= Builsa North

Provider interview number: ______________________

Designation of provider: 1=Nurse  2=Midwife  3=Medical/Physician Assistant
   4=Doctor  5 = CHN  6 = Other (specify)_______________________

Date of interview: Day Month Year ____ ________ Name of Interviewer: ______________________

Start Time _________________________ End Time _____________________

First I would like to ask you some questions about your training and work experience
1. When did you complete your basic medical training?  
Year: __________
No of yrs: __________
(Years prior to interview)

2. How long have you worked at this facility?  
1 ------ Less than 1 year  
2 ------- 1 to 5 years  
3 ------5 years and above

3. Which of the following services are offered at this facility?  
   | Yes | No |
--- | --- | --- |
   a. Antenatal care | 1 | 2 |
   b. Emergency obstetrical care | 1 | 2 |
   c. Routine delivery | 1 | 2 |
   d. Postnatal care for new mothers | 1 | 2 |
   e. Newborn care | 1 | 2 |
   f. Child immunization | 1 | 2 |
   g. Child weighing | 1 | 2 |
   h. Family planning | 1 | 2 |
   i. Treatment of Sexually Transmitted Infections | 1 | 2 |
   j. Counselling on HIV/AIDS | 1 | 2 |
   k. Post abortion care | 1 | 2 |

4. Since your basic training, have you had any refresher training in the following? If yes, how many years ago?  
   | Yes | No |
--- | --- | --- |
   Routine antenatal care? | 1 | 2 |
   b. Emergency obstetrical care? | 1 | 2 |
   c. Comprehensive abortion care? | 1 | 2 |
   d. Delivery? | 1 | 2 |
   e. Newborn health care? | 1 | 2 |
   f. Postnatal care? | 1 | 2 |

Number of years ago  
(indicate 1 year if less than 1 year)

Now I would like to ask you some questions about routine antenatal care services.

5. What are the actions that you should take with a woman coming in for her first antenatal care visit? DO NOT PROMPT  
   | Mentioned | Not mentioned |
--- | --- | --- |
   a. Take medical history? | 1 | 2 |
   b. Carry out a general exam? | 1 | 2 |
   c. Carry out an obstetric exam? | 1 | 2 |
   d. Carry out a vaginal exam? | 1 | 2 |
   e. Undertake or refer for laboratory investigations? | 1 | 2 |
   f. Provide routine medications? | 1 | 2 |
   g. Educate the client on relevant health issues? | 1 | 2 |
   h. Other (specify): | 1 | 2 |

6. What are the actions that you should take with a woman coming in for a subsequent antenatal care visit? DO NOT PROMPT  
   | Mentioned | Not mentioned |
--- | --- | --- |
   a. Take medical history? | 1 | 2 |
   b. Carry out a general exam? | 1 | 2 |
   c. Carry out an abdominal/obstetric examination? | 1 | 2 |
   d. Carry out a vaginal exam? | 1 | 2 |
   e. Undertake or refer for laboratory investigations? | 1 | 2 |
   f. Provide routine medications? | 1 | 2 |
1. Labour and delivery abnormalities

Next I would like to ask you some questions about managing routine labour and delivery.

14. How many women coming in for delivery do you personally manage on the average each month? Number __________

15. At admission, what are the key activities that need to be undertaken? DO NOT PROMPT

| a. Review antenatal records? | 1 | 2 |
| b. Relevant history for the period of labour and delivery (intrapartal care)? | 1 | 2 |
| c. Targeted physical examination? | 1 | 2 |
| d. Encourage support and emotional response? | 1 | 2 |
| e. Orientation to the ward? | 1 | 2 |

16. When taking a comprehensive medical/obstetrical history, what are the key issues that should be asked? DO NOT PROMPT

| a. Personal medical history? | 1 | 2 |
| b. Allergies? | 1 | 2 |
| c. Family medical history? | 1 | 2 |
| d. Any problems with previous pregnancy(s)? | 1 | 2 |
| e. History of present pregnancy? | 1 | 2 |

17. During the first stage of labour, what are the main things you monitor? DO NOT PROMPT

| a. History taking? | 1 | 2 |
| b. Physical assessment? | 1 | 2 |
| c. Monitor of labour using the partograph? | 1 | 2 |
| d. Give emotional support and reassurance? | 1 | 2 |
| e. Carry out a vaginal exam? | 1 | 2 |
| f. Undertake laboratory investigations? | 1 | 2 |
| g. Provide routine medications? | 1 | 2 |
| h. Check for pre-eclampsia (BP, Urine for protein, reflexes)? | 1 | 2 |
| i. Check for maternal wellbeing (temperature, pulse, urine ketones)? | 1 | 2 |
| j. Check for well-being of the baby (baby’s movements, foetal heart beat)? | 1 | 2 |
| k. Check hydration? | 1 | 2 |
| l. Check urination? | 1 | 2 |
| m. Educate the client on relevant health issues? | 1 | 2 |

**-- Check for progress in labour:**

| n. Cervical dilatation? | 1 | 2 |
| o. Status of the bag of waters? | 1 | 2 |
| p. Colour of the amniotic fluid? | 1 | 2 |
| q. Descent of the head? | 1 | 2 |
| r. Uterine contractions? | 1 | 2 |
18. During the second stage of labour, what are the main activities that should be undertaken? DO NOT PROMPT

- **Monitor the following parameters:**

  a. Blood pressure every 30 minutes?  
  b. Maternal pulses every 15 minutes?  
  c. Descent of the foetal descending part: after every contraction?  
  d. Uterine contractions every 15 minutes?  
  e. Urge to push: with every contraction?  
  f. Foetal heart rate: after every contraction?  
  g. Maternal voiding: as necessary?  
  h. Maternal hydration: continuously?  
  i. Maternal emotional response: continuously?  
  j. Status of the bag of waters?  
  k. Colour of the amniotic fluid?  
  l. Descent of the head?  
  m. Uterine contractions?  
  n. Urge to push with every contraction?  
  o. Communicate with her?  
  p. Explain what is happening?  
  q. Encourage her as she pushes?  
  r. Other

- **Check for progress in labour:**

  a. Emotional response (emotional support)?  
  b. Estimate blood loss?  
  c. Check Vital Signs every 15 minutes (BP, pulse)?  
  d. Monitor vaginal bleeding and make sure uterus is well contracted?  
  e. After delivery of the anterior shoulder or within one minute after delivery of the whole baby, give oxytocin 10 units IM?  
  f. If oxytocin is not available, give ergometrine 0.5 mg IM or syntometrine 1ml IM?  
  g. If none of these are available, suckling the infant at the breast causes of release of oxytocin which helps the uterus to contract and expel the placenta?  
  h. Control of the cord (CCT)?  
  i. Delivery and examination of the placenta?  
  j. Check hydration?  
  k. Inspect for tears or haematomas?  
  l. Assess and monitor breastfeeding?

19. During the third stage of labour, what are the main activities that should be undertaken? DO NOT PROMPT

**Steps of active management:**

- a. Emotional response (every 1 hour)?  
- b. Check Vital Signs?  
- c. Monitor temperature and respirations (every 4 hours)?  
- d. Check the bladder, & help the woman to urinate if full (every 1h)?  
- e. Check hydration (every 1 hour)?

20. During the immediate postpartum (0-6 hours), what are the main activities that should be undertaken? DO NOT PROMPT

- a. Emotional response (every 1 hour)?  
- b. Check Vital Signs?  
- c. Monitor temperature and respirations (every 4 hours)?  
- d. Check the bladder, & help the woman to urinate if full (every 1h)?  
- e. Check hydration (every 1 hour)?
### 21. During the routine care of baby at birth what are the main activities that should be undertaken? DO NOT PROMPT

<table>
<thead>
<tr>
<th>Mentioned</th>
<th>Not mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Deliver baby on to mother’s abdomen</td>
<td>1 2</td>
</tr>
<tr>
<td>b. Dry the baby with dry, clean towel or piece of cloth?</td>
<td>1 2</td>
</tr>
<tr>
<td>c. Note time of birth?</td>
<td>1 2</td>
</tr>
<tr>
<td>d. Assess baby’s breathing while drying?</td>
<td>1 2</td>
</tr>
<tr>
<td>e. Put baby skin to skin on mother’s chest and cover mother and baby with another clean dry cloth?</td>
<td>1 2</td>
</tr>
<tr>
<td>f. Assess and monitor breastfeeding (every 1 hour)?</td>
<td>1 2</td>
</tr>
<tr>
<td>g. Observe for vaginal bleeding?</td>
<td>1 2</td>
</tr>
<tr>
<td>h. Other (specify) _____________________________</td>
<td>1 2</td>
</tr>
</tbody>
</table>

### Now I would like to ask you some questions about your MNCH work

#### A. Job expectations and feedback on performance

<table>
<thead>
<tr>
<th>QUESTION AND FILTERS</th>
<th>CODING CATEGORIES</th>
<th>SKIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. When you are offering MNCH services, what do you consider to be your three main tasks?</td>
<td>_____________________________</td>
<td>1 2</td>
</tr>
<tr>
<td>23. Do you have a written job description that describes your MNCH job and tasks?</td>
<td>Written job description shown: Yes ..................................................... 1 No ..................................................... 2</td>
<td></td>
</tr>
<tr>
<td>24. Do you have any set targets specifically for MNCH activities?</td>
<td>Yes ..................................................... 1 No ..................................................... 2</td>
<td>[Q30]</td>
</tr>
<tr>
<td>25. If yes, are the targets clear to you in terms of what you are expected to achieve?</td>
<td>Yes ..................................................... 1 No ..................................................... 2</td>
<td></td>
</tr>
<tr>
<td>26. How are the MNCH targets set for the facility?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>a) Previous performance</td>
<td>1 2</td>
<td></td>
</tr>
<tr>
<td>b) Based on district target</td>
<td>1 2</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>27. Who set these targets? (MULTIPLE RESPONSES)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Facility in-charge</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b) DHMT</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c) RHMT</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d) National (GHS/MOH)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e) Yourself</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f) Other (specify)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28. Do you think the set targets are easy or difficult to achieve?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Difficult</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>29. Do you agree with the targets?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>30. Does this health facility have a copy of the National Safe Motherhood Service Protocol (2008) ASK TO SEE IT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM Service protocol (2008) shown</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>31. If yes, how well do you know this protocol?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very well</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fairly well</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not very well</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Have seen them but not read them</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>32. If yes, in which circumstances do you use them?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>33. Do you think you are performing as expected?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>34. If yes, how do you know? DO NOT PROMPT (Multiple responses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Self-assessment</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b) Services outputs</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c) Supervisor satisfaction/appraisal</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d) Clients satisfaction</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e) Other (specify)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>35. Performance feedback is the information describing the quality of work done by a person. Have you received any feedback on your performance in the last 6 months?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>36. Who give you feedback most often? (Multiple responses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Facility in-charge</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b) DHMT</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c) RHMT</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d) Colleagues</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e) Clients</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f) Unit Head</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>g) Other (specify)</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
37. How was feedback given to you in this period?  
- Verbally……………………………..1  
- In writing…………………………….2  
- Both …………………………………….3  

38. When did you receive the feedback? (Multiple responses)  
- a) Immediately, during supervisory visit 1 2  
- b) Following supervisor visit 1 2  
- c) During staff meetings 1 2  
- d) Other (specify) 1 2  

39. Please assess how often you think you are given feedback on your performance  
- a. Very often (including immediately after performing a specific or important activity); 1 2  
- b. Not very often /infrequently 1 2  
- c. Never / hardly ever 1 2  

Motivation  
*Now we are going to ask you about motivation. Motivation means that people can receive from their supervisors’ recognition for their work in several forms: words of appreciation; public recognition in front of colleagues or the public; small tokens; small rewards.*

<table>
<thead>
<tr>
<th>QUESTION AND FILTERS</th>
<th>CODING CATEGORIES</th>
<th>SKIP</th>
</tr>
</thead>
</table>
| 40. Have you been given any recognition for your work in the last year? | Yes …………………… 1  
No …………………… 2 | 🔄 Q41  
เหมาะสมข้อ 44 |
| 41. If yes, what type of reward or recognition have you received? | 1. …………………………  
2. ………………………… | 🔄 Q44 |
| 42. If yes, are you satisfied with this type of reward? | Yes ……………………. 1  
No ……………………. 2 |
| 43. If no, please explain why? | | |
| 44. Besides monetary incentives, what other ways would motivate providers like you to offer good quality MNCH services? (List up to three) | 1. …………………………  
2. …………………………  
3. ………………………… |
| 45. Who recognizes or offers rewards for good performance most often? (Multiple responses) | a. Facility in-charge 1 2  
b. DHMT 1 2  
c. RHMT 1 2  
d. Colleagues 1 2  
e. Clients 1 2  
f. Unit Head 1 2  
g. Other (specify) 1 2 |
| 46. Have you ever been sanctioned for poor performance? | Yes ……………………. 1  
No…….……………….. 2 | 🔄 Q47  
เหมาะสมข้อ 49 |
| 47. If yes, what type of sanction? | | |
| 48. Who sanctions you most often? (Multiple responses) | a. Facility in-charge 1 2  
b. DHMT 1 2  
c. Regional Program Coordinator 1 2 |
<table>
<thead>
<tr>
<th>Support systems</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. Colleagues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Clients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Other (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

49. At this facility, is your MNCH work itself supervised?

- Yes ................................................. 1
- No ............................................... 2

If ans=no skip to 56
<table>
<thead>
<tr>
<th></th>
<th>50. If yes, Who supervises you?</th>
<th>51. What activities does this person supervise?</th>
<th>52. How many times have you been supervised in the last 6 months?</th>
<th>53. Has your supervisor helped you to improve your work?</th>
<th>54. Do you think your supervisor(s) appreciate your MNCH work?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes .... 1</td>
<td>Clinical aspects ........ 1</td>
<td>Yes .......... 1</td>
<td>Yes .......... 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No...... 2</td>
<td>Stock taking/logistics ..3</td>
<td>Stock taking/logistics ..3</td>
<td>No .......... 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Just visits ............4</td>
<td>N/A..................9</td>
<td>Just visits ............4</td>
<td>N/A..................9</td>
<td></td>
</tr>
<tr>
<td>a. Facility in-charge</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. District health supervisor</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. DHMT</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. R Health Director</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e. RHMT</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>f. Unit/ward in charge</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Question</td>
<td>Promoting</td>
<td>Discouraging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. During supervisory visits, is there any emphasis from your supervisor(s) on promoting or discouraging some of your MNCH activities?</td>
<td>Yes ---1</td>
<td>No ....2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. Do you participate in decision-making in your worksite/institution?</td>
<td>Yes .............................. 1</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No ........................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57. Does your institution favour/promote rotations (interchange) between wards/departments in this facility?</td>
<td>Yes ............................... 1</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No ........................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. Do you think your institution provides good leadership?</td>
<td>Yes ........................................</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No ........................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59. Do you experience any constraints in providing MNCH services at this facility?</td>
<td>Yes ........................................</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No ........................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. If yes, what constraints do you experience? (Please circle spontaneous answers).</td>
<td></td>
<td>If ans= no skip to Q61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DO NOT PROMPT</td>
<td>1. Lack of equipment</td>
<td>6. Poor infrastructures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Lack of supplies</td>
<td>7. Shortage of staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Lack of drugs/medicines</td>
<td>8. Other(s) (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Lack of reference documents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Storage facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. What type of support from your institution would help you improve your performance in MNCH work? (Please list up to three)</td>
<td>1. ____________________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. ____________________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. ____________________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To end with, I would like to ask you a few questions about yourself

<table>
<thead>
<tr>
<th>Question</th>
<th>Age:</th>
<th>Marital status</th>
</tr>
</thead>
<tbody>
<tr>
<td>62. How old are you (in years)?</td>
<td></td>
<td>Married</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Single</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Widow</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Divorce/separated</td>
</tr>
<tr>
<td>63. What is you marital status?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64. Do you feel comfortable working in this district?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>65. Why?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66. What suggestions do you have for improving quality of care in your facility? Please mention three.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Provider Knowledge Assessment

*(To be filled out by respondent for “Interview guide for MNCH service providers”)*

Region (name) __________________ District (name) ___________________

Facility (Name) _________________ Facility Code _____________

Provider Interview number __________

Checklist for Assessing Provider Skills in Labour, Delivery and Newborn Care

*Interview all MNCH providers at post in the maternity wing of the facility. Make sure you include providers who attended MNCH training in the past year.*

Health facility (name): ___________________ Facility code: _________

Provider interview number: ______

Type of health facility: 1 = District Hospital 2 = Health Centre 3 = CHPS

Region: 1 = Northern 2 = Upper East

District: 1 = Karaga 2 = Builsa North

Designation of provider: 1 = Nurse 2 = Midwife 3 = Medical Assistant 4 = Doctor 5 = CHN 6. Other (specify) __________________________

Date of interview: Day Month Year ______ Name of interviewer: ___________________

CHECKLIST FOR MANAGEMENT OF FOETAL DISTRESS

1. **Scenario:** Mrs. K has come to your facility, 9cm dilated with ruptured membrane, meconium stained liquor. You determine a foetal heartbeat of 140/min, and irregular.

**Question 1a: Describe how you will manage this woman.**

<table>
<thead>
<tr>
<th>CHECKLIST FOR MANAGEMENT OF FOETAL DISTRESS</th>
<th>Yes = 1</th>
<th>No = 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Places woman on her left side (left lateral position) and gives oxygen (if available)?</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. starts IV infusion (normal saline or Ringers)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3 Monitors foetal heart every 15 minutes</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. performs assisted delivery (episiotomy or vacuum extraction if trained) if fully dilated</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. prepares to receive an asphyxiated baby</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>If delivery does not occur within 1 hr after admission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. refer woman or call doctor</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Question 1b:** Madam Amina was brought to your facility by a TBA. The TBA has indicated that she feels something soft in the vagina. On examination of Amina, you saw the umbilical cord in the vagina. What steps would you take?
CHECK LIST FOR CORD PROLAPSE  

<table>
<thead>
<tr>
<th>Steps</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask woman not to push</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. checks for foetal heart</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. checks to see if cord is pulsating</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Positions mother on her left side and raises hips by putting pillows underneath</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Places pad or a piece of clean cloth on vulva</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. inserts catheter and instils 300-500mls of normal saline in bladder</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. administers oxygen if available</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>If cervix is fully dilated with descent 0/5 and baby is alive</strong></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. does vacuum extraction (if trained)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. refers woman if not trained to do vacuum extraction or if cervix is not fully dilated, or cases of malpresentation or malposition</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>If cord is not pulsating</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Checks for signs of obstruction</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. If obstruction, gives antibiotics and refers</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>If no signs of obstruction, and presentation is favourable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Allows normal delivery of a dead baby</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

CHECKLIST FOR ACTIVE MANAGEMENT OF THE THIRD STAGE OF LABOUR

6. **Scenario:** Madam K has just given birth to a healthy baby girl of 3.5 kg. Madam K is doing well and you have assisted her throughout labour and delivery of the baby.

**Question 2a:** Demonstrate the steps you will follow for the active management of the third stage of labour, explaining each step.

<table>
<thead>
<tr>
<th>ACTIVE MANAGEMENT OF THIRD STAGE</th>
<th>Yes=1</th>
<th>No =2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Leaves the baby in skin-to-skin contact on the mother’s abdomen or chest, covered by a clean, dry towel/cloth.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Palpates the mother’s abdomen to exclude second baby</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Gives an oxytocic intramuscularly.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Tells the woman and her support person what is going to be done and encourages them to ask questions.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Provides emotional support and reassurance.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Places a sterile receptacle (e.g., kidney basin) against the woman’s perineum.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Controlled cord traction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Clamp the cord close to the perineum with forceps. Uses one hand to grasp the forceps</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Waits for the uterus to contract.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Places the other hand above the level of the symphysis pubis, on top of the drape covering the mother’s abdomen, with the palm facing toward the mother’s umbilicus and gently applies pressure in an upward direction (counter traction).</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. At the same time, firmly applies traction to the cord, in a downward direction, using the hand that is grasping the forceps.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
11. Applies steady tension by pulling the cord firmly and maintaining pressure
12. If the manoeuvre is not immediately successful, stops pulling and waits for the next contraction and repeats.

Delivery of the placenta

13. When the placenta is visible at the vaginal opening, delivers the placenta.
14. Places the placenta in the receptacle (e.g., kidney basin) provided.

Care of the woman after delivery of the placenta

15. Gently massages the uterus and makes sure that the uterus is well contracted.
16. Inspects the lower vagina and perineum for lacerations/tears.
17. Examines the placenta for completeness.
18. Removes soiled bedding and makes the woman comfortable.
19. Places a clean cloth or pad on the woman’s perineum.

Post-procedure tasks (what do you do with the equipment/instruments/items after use)

20. Before removing gloves, disposes of waste materials in a leak-proof container or plastic bag.
21. Places instruments in 0.5% chlorine solution for 10 minutes for decontamination.
22. Disposes of syringe and needle:
23. Immerses both gloved hands in 0.5% chlorine solution. Removes gloves by turning them inside out.
24. Washes hands thoroughly with soap and water and dries them.
25. Records procedure on woman’s record.

CHECKLIST FOR INFANT RESUSCITATION

7. Scenario: A newborn has the following signs at birth: blue or pale skin, breathing absent, does not cry and is limp/inactive.

Question 3a: Demonstrate how you would resuscitate the newborn baby, explaining each step.

INFANT RESUSCITATION YES NO

GETTING READY

26. Places the baby on its back on a clean, warm surface.
27. Cover the baby’s head with a hat
28. Quickly wraps or covers the baby, except for the face and upper chest.
29. Tells the mother what is happening.

RESUSCITATION

30. Positions the head in a slightly extended position to open the airway
31. Clears the airway by suctioning the mouth and nose.
32. Places the mask on the baby’s face so that it covers the chin, mouth and nose.
33. Forms a seal between the mask and the baby’s face.
34. Checks the seal by ventilating two or three times and observing the rise of the chest.
35. Ventilates at a rate of 40 breaths per minute for 1 minute and then stops and quickly assesses if the baby is breathing spontaneously.

| 1 | 2 |
---|---|
If breathing is normal, and there is no in-drawing of the chest and no grunting

36. Puts baby in skin-to-skin contact with mother.

| 1 | 2 |
---|---|
If baby is not breathing, or breathing is less than 30 breaths per minute or severe chest in-drawing is present

37. Continues ventilating, gives oxygen if available, and arranges immediate transfer for special care.

| 1 | 2 |
---|---|
If there is no gasping or breathing at all after 20 minutes of ventilation

38. Stops ventilating.

| 1 | 2 |
---|---|
POST PROCEDURE TASKS (what do you do with the equipment/instruments/items after use)


| 1 | 2 |
---|---|
40. Washes in water and detergent

| 1 | 2 |
---|---|
41. High level disinfects in bleach solution

| 1 | 2 |
---|---|
42. Cleans and decontaminates the valve and mask and check for damage.

| 1 | 2 |
---|---|
43. Washes hands thoroughly with soap and water and dries them

**CHECKLIST FOR THE ROUTINE MANAGEMENT OF CORD SEPSIS**

**8. Scenario:** You delivered baby A 7 days ago. In the second (1 week) PNC examination you realize baby has a temperature of more than 38° C. the area around the cord is draining pus and the skin around it is reddish. The baby is not feeding well and is lethargic. What will you do?

| MANAGEMENT OF CORD SEPSIS | Yes =1 | No =2 |
---|---|---|
44. Explains to the mother the condition of the baby

| 1 | 2 |
---|---|
45. Encourages mother to continue breastfeeding

| 1 | 2 |
---|---|
46. Examines for signs of systemic infection

Thank the provider for his/her time

Complete

Incomplete
Appendix 4: Interview Guides for Health and Education programs
IDI for User of a health facility or Home-based care (Delivered in the past two weeks)

IDNO: |||||____|____|____|____|____|____|____|____|

Date of interview: ___/___/___ District: Community:

Region:

Category of Respondent:

Interviewer:

Duration of Interview:

A. DEMOGRAPHIC INFORMATION

<table>
<thead>
<tr>
<th>Respondent ID</th>
<th>Gender</th>
<th>Age</th>
<th>Occupation</th>
<th>Level of Education</th>
<th>Religion</th>
<th>Ethnicity</th>
</tr>
</thead>
</table>

B. ACCESSIBILITY

1. When was the last time you visited the health with your last born child? What was the visit for?

2. How did you get here/there (type of transportation)? How was it hard for you to find transportation? Probe for means of transport, access and ownership of the means of transport.

3. How long did it take for you to get here/there (this health facility) today? What do you think of the length of time it took you to get here/there? What other means of transport are available to you? Why did you choose this one?

4. How do you usually get around?

5. How much did it cost you in terms of transport, to arrive here? Probe for transport fare, tokens for lifts etc.

6. What work do you do for a living (job/occupation)?

7. What else does your household (or family) do to make money for living costs?

8. Who is taking care of your job responsibilities while you are here?

9. Who takes/took care of your household while you are here/there?
C. PROCESS OF ARRIVING AT THE DECISION TO VISIT THE HEALTH FACILITY

1. How did you arrive at the decision to seek care at a health facility?

2. Why did you choose this particular health facility (health centre, hospital, etc.) over other facilities?

3. What were your expectations for your visit? Were your expectations met? Why? and how?

4. Who recommended you to come here for your ________?

5. Who decided that you would come here today for your________?

6. What were some problems or barriers, if any, that may have discouraged you from making a visit to this health facility today or in the past?

D. SATISFACTION OR DISSATISFACTION WITH THE HEALTH FACILITY

1. What services did you receive at this facility?

2. Who are the people who took care of you?

3. Tell me about your experience conversing or interacting with the service providers such as doctors, nurses, or other staff here? Did you encounter any problems or trouble? How was your interaction with the health staff you consulted? What did you talk about? Are you satisfied with the discussion you had? Why?

4. What are some things you liked about your visit?

5. What are some things you did not like about your visit?

Can probe with the following questions if answers to #3 and 4 are unrevealing:

- Did you experience any problems or discomfort with the services (e.g. injection, examination, etc.) you received here today?

- Did you experience any problems or discomfort with the health care facilities (e.g., clinic room, sick bed, delivery table, surgery room, toilet, waiting room, or restaurant) you used here today?

- Did you have any difficulty finding the clinic, reception desk, or pharmacy at this hospital? Have you ever gotten lost in the hospital?

- Did you have to wait long before seeing the doctor? How long?

6. Overall, would you say you are happy or unhappy with your visit here today?

What can be done to make your next visit better?

E. SERVICE FEE

1. Do you have health insurance? Why?

What are some of the expenses that you incurred at the health facility during this visit? Probe for amounts paid on all expenses. Were you prepared to pay for any services? Why?

2. Are you satisfied with the service fees that this facility charges?
3. Who paid for the services you received today? If self, probe for how money was got for the expenditures.

4. Is there any other program or project that helped pay for your fee?

5. How do you know what your insurance covers? (If they have insurance)

F. HEALTH CONCERNS & BELIEFS

1. What are your thoughts about traditional medicine (Probe for their perspective/opinions on comparisons between traditional and modern medicine techniques)

2. Tell me about your thoughts and beliefs about visiting a health facility like this one for check-ups during pregnancy. (Probe for thoughts on frequency and timing of visits.)

3. Did anything about your daily routine change when you became pregnant? (Probe for eating habits, smoking, and drinking.) What sorts of things?

4. What are your thoughts on smoking and drinking alcohol during pregnancy?

5. Did you receive (or have you ever received) vitamin A supplementation (injection, pills, etc.) from this or another health facility?

6. How do you hear about new health services (i.e. vaccinations, MNCH, ANC, skilled delivery PNC, vitamin A etc.)?

7. What kind of health information did you receive about your pregnancy? And how did you hear about this information?

8. What kind of health information did you receive about your delivery? And how did you hear about this information?

9. What kind of health information did you receive about your postpartum period? And how did you hear about this information?

G. POSTPARTUM CARE (Including Home-Based Care)

1. Where did you receive the postnatal care? *Probe for hospital, home, TBA home etc. Probe for why PNC was received at that place, number of days after delivery before PNC and how often thereafter.*

2. If health facility, tell us what the nurses did for you on the first and subsequent visits

3. If home, tell us what the nurses did for you on your first and subsequent visits

4. What are the benefits of the postnatal care?

5. What are the advantages in receiving postnatal care at home?

6. What do you do to keep yourself healthy after giving birth? Probe with the following questions if answer is unrevealing:

   - Did you have changes in your eating habits? **If so, obtain list of foods the woman eats or avoids eating.

   - Are there changes in any particular behaviour (e.g. smoking, drinking, sleeping positions, head loading or hard work etc.)?
5. How long do you rest before going back to your normal daily activities (including work) after giving birth? What are the traditional prescriptions?

6. What plans do you have in using contraception after giving birth?
   Can probe with the following questions if answer is unrevealing:
   - Did you have plans to get pregnant again soon after giving birth? If no, what did you do about it?

H. KANGAROO MOTHER CARE
1. Did you have skin-to-skin contact with your last child immediately after delivery?
2. If yes, can you describe the skin-to-skin contact you had with your baby?
3. Who helped you to have the skin-to-skin contact with your baby? Did the nurse explain the skin-to-skin contact with you?
4. What do you think are the benefits of the skin-to-skin contact with your baby?

I. NEWBORN FEEDING AND CARE
1. How are problems for babies at birth usually managed? (Attitude towards and adherence to referrals)
2. How soon after birth did you breastfeed your baby?
   
   **How often do you breastfeed your baby?**
   
   **Apart from breast milk, what else do you feed your baby on? Why?**
   
   **What do you think are the benefits of breast milk?**
   
   **What do you think are the benefits of exclusive breastfeeding?**
3. What do you experience when breastfeeding your baby. Do you have challenges with breast feeding?
   Can probe with the following questions if answer is unrevealing:
   - Are there any problems?
   - What methods/techniques are you using to ensure proper feeding?
4. Did you receive instructions on how to breastfeed? (If so, what are the instructions you receive and from whom?)

J. HYGIENIC CORD CARE
1. Did the nurse care for the cord of the baby after delivery?
2. Can you describe how it was cared for?
3. Did the nurses teach you how to handle the cord?
4. What do you think are the reasons why the cord should be cared for properly?

K. LESSONS LEARNED
Finally, I’d like to end by talking about what lessons you have learned from the KOICA-UNICEF intervention project.

L. WRAP-UP

a. Are there any services that you would like to know more about? Like what?

b. what can be done to make things better at the hospital, health facilities, or in receiving care near/in your community?
Focus Group Discussion Guide

FGD with women with children less than one year old

IDNO: |||__|__|__|__|__|__|__|

Date of Discussion: ___/___/___           District:             Community:

Category of Participant:

Moderator:

Duration of Discussion:

A. DEMOGRAPHIC INFORMATION

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B. HEALTH CONCERNS & BELIEFS

1. How do women find out about their pregnancy in this community?

- How can one tell she is pregnant? How can one tell whether a pregnancy is normal? What are some of the problems that can arise in pregnancy?

2. What do women do to keep healthy while pregnant?

Probe for change in eating habits;
- Did anything change any other particular behaviours?
- smoking and drinking alcohol during pregnancy

3. What are your opinions about visiting a health facility or hospital for check-ups during pregnancy?

(Probe for thoughts on frequency and timing of visits, level of facility – District Hospital, Health Centre,
CHPS compound or outreach, community visit). Which other places do people go for checkups during pregnancy?

4. What are your opinions about check-ups during pregnancy with a trained health provider? Which other providers provide checkups during pregnancy?

5. How do women decide on where to go for health care during pregnancy in this community? (The local health facility, the hospital, or traditional birth attendant)? *Probe for who makes the final decision.*

6. What do people think about traditional medicine in your community? (*Probe for their perspective/opinions on comparisons between traditional and modern medicine techniques*). *Probe for which one they prefer and why.*

7. How do people use traditional medicine during pregnancy?

C. DELIVERY

1. Do women get to know the time they are due for delivery from ANC visits with the doctor or midwife? (Probe on accuracy of due date).

2. Where do women deliver in this community?

Can probe with the following questions if answer is unrevealing:

- Where would they want to deliver?

DECISION MAKING

1. Now let us discuss how decisions are made in this community. Generally who makes decisions in the family, household or community at large? (Probe: gender power relations at the family and community level)

2. How are decisions made as to whether a woman should deliver at home or at the hospital? Are these decisions made during pregnancy or during labor? Who makes the decisions? If not the woman, why?

3. Is it easy to get to the health facility once a decision is made to seek care in an emergency? What means of transport are available? How much does it cost? (Probe: barriers to decision-making, community support for transport and referral.)

4. Who assists women with delivery?

5. What are the reasons some women prefer to deliver at home or with a TBA? Why would someone prefer to deliver in the hospital/health center even when the pregnancy has been normal? (Probe: for cultural beliefs in delivery care compared to those mentioned earlier for prenatal care)

- Do women encounter problems during delivery or immediately after giving birth?
- If so, what are the problems and what is done about the problems?
3. How do women decide when to go to the hospital or local health facility for delivery?
4. What are the reasons women do not want to deliver at the hospital/health center? What would encourage women to deliver in the hospital/health center?
   - should placenta be given to them to take home.
   - How would you define good services?

D. POSTPARTUM CARE
1. What do women do to keep themselves healthy after giving birth?
   Can probe with the following questions if answer is unrevealing:
   - Do they have changes in their eating habits? **If so, obtain list of foods the women eat or avoid eating.
   - Are there changes in any particular behaviour (e.g. smoking, drinking, sleeping positions, head loading or hard work etc.)?
2. How long do women rest before going back to their normal daily activities (including work) after giving birth? What are the traditional prescriptions?
3. Where do women visit for a health check after giving birth? (A health facility (health centre, hospital, CHPS etc.) or other healer). Why do they choose those providers?
4. What plans do women have for using contraception after giving birth?
   Can probe with the following questions if answer is unrevealing:
   - Did you have plans to get pregnant again soon after giving birth? If no, what did you do about it?

E. KANGAROO MOTHER CARE
1. Do women usually have skin-to-skin contact with their children immediately after delivery?
2. Did any of you have skin-to-skin contact with your baby immediately after delivery?
3. Can you describe the skin-to-skin contact you had with your baby?
4. Who helped you to have the skin-to-skin contact with your baby? Did the nurse explain the skin-to-skin contact with you?
5. What are the benefits of the skin-to-skin contact with your baby?

F. NEWBORN FEEDING AND CARE
1. How are problems for babies at birth usually managed? (Attitude towards and adherence to referrals)
2. How soon after birth are babies’ breastfed? Probe for how many months they are breastfed?
3. When breastfeeding your child for the first six months, did you give him/her anything other than breastmilk? If yes, what
4. What do women experience when breastfeeding their babies. Can probe with the following questions if answer is unrevealing:
- Are there any problems?
- What methods/techniques are used to ensure proper feeding?

5. Do women in this community receive instructions on how to breastfeed? (If so, from whom?)

G. HYGIENIC CORD CARE
1. Why should the cord of the baby be hygienically cared for after delivery?
2. Did the nurse care for the cord of your babies after delivery?
3. Did the nurse teach you how to take care of the cord?
4. Can you describe how it was cared for?
5. What do you think are the reasons why the cord should be cared for properly?

H. HEALTH COMMUNICATION NETWORK AND CHANNELS
1. What kind of health information do women receive about pregnancy in this community? Probe for delivery and the postpartum period? (Content of information, source, frequency, usefulness etc.)

J. REASON FOR NON-OR INFREQUENT USE OF SERVICES
1. What are your thoughts and beliefs about visiting a health facility for check-ups during pregnancy? (Probe for thoughts on frequency and timing of visits.)
2. What are your thoughts and beliefs about delivering a baby at a health facility or with a skilled birth attendant (SBA)? (Define SBA for the woman—clarify the difference from TBA.)
3. Why do people deliver at home or other non-health facility location?
4. What are some things people like about visiting the HC, DH, or local health visits?
5. What are some things people don’t like about visiting the HC, DH, or local health visits?
Can probe with the following questions if answers to #4 and 5 are unrevealing:
- Do people experience any problems or discomfort with the services (e.g. injection, examination, etc.) they received?
- Do women experience any problems or discomfort with the health care facilities (e.g., clinic room, sickbed, delivery table, surgery room, toilet, waiting room, or restaurant) they use?
- Are there difficulties in finding the clinic, reception desk, or pharmacy at this hospital? Do people get lost in the hospital?
6. Do people have to wait long? How long does a woman have to wait?
7. Overall, are women happy or unhappy when visiting those facilities, or when being visited?

**J. UNMET NEEDS OR BARRIERS**

*Follow up questions for those who express need for services (above) but were unable to obtain them.

1. Please describe the problems or difficulty women experience in obtaining:
   - Family planning method
   - Antenatal care services
   - Delivery at a health facility or with an SBA
   - Postpartum services
   - Vaccinations for your baby

2. What things would have better helped women to obtain these services?

**K. WRAP-UP**

1. Are there any services that women in this community would like to know more about? Like what?

2. What ideas do you think would have made things better at the hospital, health facilities, or in receiving care near/in your community?
In-depth Interview Guide

IDI with Women Support Groups/Community Health Volunteers/ Pregnant women/Community Members

IDNO: ||_||_|_|_|_|_|_||_|_|

Date of interview: ___/___/___           District: Community:

Region:

Category of Respondent:

Interviewer:

Duration of Interview:

A. DEMOGRAPHIC INFORMATION

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B. BECOMING A WOMEN TO WOMEN SUPPORT GROUP MEMBER OR COMMUNITY HEALTH VOLUNTEER OR PREGNANT WOMEN

1. How long have you lived in this community?

2. Tell me about how your support group was formed?

Can probe with the following questions to help guide the answer:

- When did you join this group?
- What skills and knowledge did you gain from this group?
- Who taught you these skills?

3. Do you usually have workshop on maternal health? If yes, what did you learn during these workshops?

Do you usually have workshops on neonatal health? If yes, what did you learn during these workshops?

C. JOB PERFORMANCE

1. Please describe your involvement with a pregnant woman’s care prior to delivery.

Probe with the following questions, if necessary:
- Do you seek the help or advice from other women for health problems during your pregnancy?
- Do you help pregnant women with their prenatal care too?
- Do women also seek your help or advice for health problems during their pregnancy?

3. What is your involvement with a woman and newborn after giving birth? What happens if her baby is experiencing problems after birth?

D. PREGNANCY

1. I believe you have had experience with pregnancy. Let us discuss the signs of pregnancy.
   - How can you tell a woman is pregnant?
   - How can you tell whether a pregnancy is normal?
   - What are some of the problems that can arise in pregnancy?

2. What are some of the reasons why you will go for antenatal care?
   - What are the antenatal care procedures they perform on you?
   - What do you do when a complication or problem arises during the pregnancy? (Probe: for any rituals, spiritual healing, and herbal preparations, health facility)
   - What will you do if you suddenly have complication during pregnancy? (Probe: for any rituals, spiritual healing, and herbal preparations, health facility)

3. Now let’s talk about labor. What are some of the signs of labor?
   - What are some of the problems that can arise during labor?
   - What are the i) causes, ii) symptoms (danger signs), and ii) treatment of these problems?

4. What do you do when a woman you are attending to suddenly develops a life-threatening complication?
   - Wait for the response before asking them where they will want to be taken to?
   - Where do you usually take them to?
   - Do they accompany the women to a facility?
   - How was the reception by the doctors/nurses like?

5. Is it easy to get to the health facility once a decision is made in an emergency to refer?
   - What means of transport are available?
   - How much does it cost? (Probe: barriers to decision-making, community support for transport and referral.)

6. Is it appropriate for you to make preparations for delivery such as deciding where to give birth, getting the necessary items for delivery, saving money for delivery, and getting someone to donate blood in advance in case it is needed?

E. DELIVERY PROCESS

1. Who attend to deliveries in this community? Probe for TBAs, older women, trained midwives etc.
2. How many people attend the delivery on average? What do they do during delivery?
3. Please describe the process of delivery step by step.
4. What are the specific responsibilities of the nurses during delivery?
5. What sorts of tools or instruments do they use for delivery?
7. Do they perform any ceremonies during and/or after delivery? What do they entail?

**F. DELIVERY SKILLS AND KNOWLEDGE**

1. What do they do when a delivery does not go smoothly?
2. What are the signs indicating that you are in danger during labor?
3. What do you do if you feel that you are in danger?
4. Have you ever witness a case where a woman in labour needed the help of medical professionals like doctors or nurses? (Woman’s life at risk NB: should be narrated)
5. What are the signs indicating that a newborn baby is ill or has a problem?
6. What do you do with a newborn baby who are ill or having problems?

**G. COMMUNITY WOMEN’S BELIEFS AND PRACTICES ABOUT MNCH**

**Pregnancy and prenatal care**

1. In your experience, how do most women keep themselves healthy during pregnancy? *Probe for behaviours they change or avoid*
2. What are your main concerns or fears as a pregnant women?
3. Tell me about the diet/eating practices and beliefs of pregnant women in your support group or community.

Can probe with the following questions if answer is unrevealing:
- What food or drinks do you try to eat?
- What food or drinks do you avoid eating?
4. What are your dietary recommendations for yourself when you are/were pregnant?

**H. DELIVERY**

1. We understand that some women give birth alone without anyone’s help. If you know of such a case, Please describe what happened.
2. Can you list the main places where you gave birth or might give birth?
3. What are the reasons you would prefer to go to the TBA for delivery? (Probe: for culture beliefs in delivery care compared to those mentioned earlier for prenatal care, cost of their services compared to hospital fees)
4. What are the reasons you may not want to deliver at the hospital/health center?
5. What are some of things that can be (or should be) done to improve delivery care services?

I. NEWBORN FEEDING AND CARE

1. In your experience, how long do you generally breastfeed your baby? Probe for exclusive breastfeeding
2. What are some of the reasons why you would not breastfeed your newborn?
3. What do you do if you experience problems with breastfeeding?
4. What do you do in order to successfully breastfeed your baby?
5. What were you taught about breastfeeding? And who taught you?
6. What kind of advice do you have on breastfeeding?

J. POSTPARTUM CARE

1. In your experience, what are the main concerns or fears you have after giving birth?
2. How do you keep yourself healthy during the postpartum period? (Probe for behaviours she changes or avoids.)
3. How long after delivery do you rest from work?
4. Tell me about your diet/eating practices and beliefs after giving birth. Can probe with the following questions if answer is unrevealing:
   - What food or drinks do you try to eat or drink?
   - What food or drinks do you avoid eating or drinking?
5. What are your dietary recommendations for yourself after giving birth?

K. KANGAROO MOTHER CARE

1. Did you have skin-to-skin contact with your baby immediately after delivery?
2. If yes, can you describe the skin-to-skin contact you had with your baby?
3. What are the benefits of the skin-to-skin contact with your baby?

L. HYGIENIC CORD CARE

1. Why should the cord of the baby be hygienically care for after delivery?
2. What do you think are the reasons why the cord should be care for properly?

M. POTENTIAL KNOWLEDGE GAPS BETWEEN TBAs AND COMMUNITY WOMEN

1. In your opinion, what do you think you know about ANC, child delivery, and postpartum care?
2. Are there some behaviours or practices you think you should change for better ANC, delivery, and postpartum care?
N. GENERAL INFORMATION

1. How has your relationship with the nurses/doctors at the hospitals been like? Has it been cordial? What are some of the problems they pose to you?

2. Now let us discuss how decisions are made in your family? Generally who makes decisions in the family and household? (Probe: gender power relations at the family level)

3. How are decisions made as to whether you should go to a TBA for delivery or deliver at the hospital? Are these decisions made during pregnancy or during labor? Who makes the decisions? (Probe: how decisions are made when there is a life-threatening complication, barriers to decision-making.

O. COMMUNITY ENGAGEMENT

1. As a member of a support group, what is your relationship with the Ghana Health Service? *Probe for their working relations with the DHMT and health facilities*

2. What collaboration already exists between your group and the District Health Administration? Probe for training of the community based volunteers and equipping them to provide the services, referring of clients, providing health education to the women to women support groups, pregnant women, etc.

3. What role do you think your group will continue to play in providing maternal and newborn health care? *Probe for referral of clients, health education and promotion, assist in outreach programs.*

P. BENEFITS AND CHALLENGES OF COMMUNITY ENGAGEMENT

4. What do you think are the benefits your community got for being involved in the KOICA-UNICEF project implementation? *Probe for health service delivery, community acceptance of the programme, improvement of health indicators?*

5. What do you think are the challenges your community encountered for participating in health programs?

6. What are the benefits of providing ANC, skilled delivery and PNC services in your community? *Probe for improvement in the health status of women and children, community engagement and ownership of the program, etc.*

7. What are the limitations of providing health services in your community? *Probe for limited equipment and logistics, scarce human resources and infrastructure weaknesses etc.*

Q. WRAP-UP

1. Are there any services that you would like to know more about? Like what?
2. What ideas do you think would have made things better at the hospital, health facilities, or in receiving care near/in your community?

**R. LESSONS LEARNED**

8. Finally, I’d like to end by talking about what lessons you have learned from the KOICA-UNICEF intervention project?
Focus Group Discussions Guide
FGD with Women Support Groups/Community Health Volunteers

IDNO: ||||| ||| |||

Date of interview: ___/___/___           District:                                Community:

Region:

Category of Respondent:

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Duration of Interview:

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B. BECOMING A WOMEN TO WOMEN SUPPORT GROUP MEMBER OR COMMUNITY HEALTH VOLUNTEER OR PREGNANT WOMEN and OTHER COMMUNITY MEMBERS

1. How long have you lived in this community?

2. Tell me about how this women support group was formed?

Can probe with the following questions to help guide the answer:

- When did you join this group?
- What skills and knowledge did you gain from this group?
- Who taught you these skills?
3. Do you usually have workshops on maternal health? If yes, what did you learn during these workshops?

Do you usually have workshops on neonatal health? If yes, what did you learn during these workshops?

C. JOB PERFORMANCE

1. Please describe your involvement with a pregnant woman’s care prior to delivery.

Probe with the following questions, if necessary:

- Do you seek the help or advice from other women for health problems during your pregnancy?
- Do you help pregnant women with their prenatal care too?
- Do women also seek your help or advice for health problems during their pregnancy?

3. What is your involvement with a woman and newborn after giving birth? What happens if her baby is experiencing problems after birth?

D. PREGNANCY

1. I believe you have all had experience with pregnancy. Let us discuss the signs of pregnancy.

- How can one tell she is pregnant?
- How can one tell whether a pregnancy is normal?
- What are some of the problems that can arise in pregnancy?

2. What are some of the reasons a pregnant woman come go for antenatal care?

- What are the antenatal care procedures they perform on them?
- What do people do when a complication or problem arises during the pregnancy? (Probe: for any rituals, spiritual healing, and herbal preparations, health facility)
- What will you advise them to do when a woman suddenly have complication during the pregnancy? (Probe: for any rituals, spiritual healing, and herbal preparations, health facility)

3. Now let’s talk about labor. What are some of the signs of labor?

- What are some of the problems that can arise during labor?
- What are the i) causes, ii) symptoms (danger signs), and ii) treatment of these problems?

4. What do you usually do when a woman you are attending to suddenly develops a life-threatening complication?

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- Where do you usually take them to?
- Do they accompany the women to a facility?
- How was the reception by the doctors/nurses like?

5. Is it easy to get to the health facility once a decision is made in an emergency to refer?

- What means of transport are available?
-How much does it cost? (Probe: barriers to decision-making, community support for transport and referral.)

6. Is it appropriate for a pregnant woman to make preparations for delivery such as deciding where to give birth, getting the necessary items for delivery, saving money for delivery, and getting someone to donate blood in advance in case it is needed?

E. DELIVERY PROCESS
1. Who attend to deliveries in this community? Probe for TBAs, older women, trained midwives etc.
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3. Please describe the process of delivery step by step.
4. What are the specific responsibilities of the nurses during delivery?
5. What sorts of tools or instruments do they use for delivery?
7. Do they perform any ceremonies during and/or after delivery? What do they entail?

F. DELIVERY SKILLS AND KNOWLEDGE
1. What do they do when a delivery does not go smoothly?
2. What are the signs indicating that a woman in labour is in danger?
3. What do you do about the woman if you think she is in danger?
4. Have you ever witness a case where a woman in labour needed the help of medical professionals like doctors or nurses? (woman’s life at risk NB: should be narrated)
5. What are the signs indicating that a newborn baby is ill or has a problem?
6. What do you do with newborn babies who are ill or having problems?

G. COMMUNITY WOMEN’S BELIEFS AND PRACTICES ABOUT MNCH
Pregnancy and prenatal care
1. In your experience, how do most women keep themselves healthy during pregnancy? Probe for
   behaviours they change or avoid
2. What are the main concerns or fears of pregnant women among your group?
3. Tell me about the diet/eating practices and beliefs of pregnant women in your support group or community.

Can probe with the following questions if answer is unrevealing:
- What food or drinks do they try to eat?
What food or drinks do they avoid eating?

4. What are your dietary recommendations for pregnant women?

**H. DELIVERY**

5. We understand that some women give birth alone without anyone's help. If you know of such a case, Please describe what happened.

6. Can you list the main places where a pregnant woman might give birth?

7. What are the reasons some women prefer to go to the TBA for delivery? (Probe: for culture beliefs in delivery care compared to those mentioned earlier for prenatal care, cost of their services compared to hospital fees)

8. What are the reasons women do not want to deliver at the hospital/health center?

9. What are some of things that can be (or should be) done to improve delivery care services?

**I. NEWBORN FEEDING AND CARE**

1. In your experience, how long do mothers generally breastfeed their babies? Probe for exclusive breastfeeding

2. What are some of the reasons why a woman would not breastfeed her newborn?

3. What do mothers do if they experience problems with breastfeeding?

4. What do you think mothers should do in order to successfully breastfeed their babies?

5. What were you taught about breastfeeding? And who taught you?

6. What kind of advice do you give to women about breastfeeding?

**J. POSTPARTUM CARE**

1. In your experience, what are the main concerns or fears women have after giving birth?

2. How do most women keep themselves healthy during the postpartum period? (Probe for behaviours they change or avoid.)

3. How long after delivery do they rest from work?

4. Tell me about the diet/eating practices and beliefs of the postpartum women in your community.

Can probe with the following questions if answer is unrevealing:

- What food or drinks do they try to eat or drink?

- What food or drinks do they avoid eating or drinking?

5. What are your dietary recommendations for postpartum women?

**K. KANGAROO MOTHER CARE**

4. Did women usually have skin-to-skin contact with their children immediately after delivery?
5. Did any of you had skin-to-skin contact with your baby immediately after delivery?
6. Can you describe the skin-to-skin contact you had with your baby?
7. What are the benefits of the skin-to-skin contact with your baby?

**L. HYGIENIC CORD CARE**

3. Why should the cord of the baby be hygienically cared for after delivery?
4. What do you think are the reasons why the cord should be care for properly?

**M. POTENTIAL KNOWLEDGE GAPS BETWEEN TBAs AND COMMUNITY WOMEN**

1. In your opinion, what should the local women know about ANC, child delivery, and postpartum care?
2. Are there some behaviours or practices you think they should change for better ANC, delivery, and postpartum care?

**N. GENERAL INFORMATION**

4. How has your relationship with the nurses/doctors at the hospitals been like? Has it been cordial? What are some of the problems they pose to you?
5. Now let us discuss how decisions are made in this community. Generally who makes decisions in the family, household or community at large? (Probe: gender power relations at the family and community level)
6. How are decisions made as to whether a woman should go to a TBA for delivery or deliver at the hospital? Are these decisions made during pregnancy or during labor? Who makes the decisions? (Probe: how decisions are made when there is a life-threatening complication, barriers to decision-making.

**O. COMMUNITY ENGAGEMENT**

9. As community support groups, what is your relationship with the Ghana Health Service? *Probe for their working relations with the DHMT and health facilities*

10. What collaboration already exists between your groups and the District Health Administration? Probe for training of the community based volunteers and equipping them to provide the services, referring of clients, providing health education to the women to women support groups, pregnant women, etc.

11. What role do you think your groups will continue to play in providing maternal and newborn health care? *Probe for referral of clients, health education and promotion, assist in outreach programs.*

**P. BENEFITS AND CHALLENGES OF COMMUNITY ENGAGEMENT**

1. What do you think are the benefits communities will get from their involvement in the KOICA-UNICEF project implementation? *Probe for health service delivery, community acceptance of the programme, improvement of health indicators?*
2. What do you think are the challenges in getting communities to participate in health programs?

3. What are the benefits of providing ANC, skilled delivery and PNC services in your communities? *Probe for improvement in the health status of women and children, community engagement and ownership of the program, etc.*

4. What are the limitations of providing health services in your communities? *Probe for limited equipment and logistics, scarce human resources and infrastructure weaknesses etc.*

**Q. WRAP-UP**

1. Are there any services that women in this community would like to know more about? Like what?

2. What ideas do you think would have made things better at the hospital, health facilities, or in receiving care near/in your community?

**R. LESSONS LEARNED**

1. Finally, I’d like to end by talking about what lessons you have learned from the KOICA-UNICEF intervention project?
In-depth Interview Guide
IDI with Health Professionals (CHOs/CHNs and Other Health Providers)

IDNO: |||||_|_|_||

Date of interview: ___/___/___ District: Health Facility

Community: Region:

Category of Respondent:

Interviewer:

Duration of Interview:

A. DEMOGRAPHIC INFORMATION

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B. Relevance and appropriateness of KOICA intervention

1. Have your health facility ever participated in or benefited from any KOICA-UNICEF intervention program?
2. If YES Probe for interventions such as exclusive and early initiation of breastfeeding, thermal care, including kangaroo mother care hygienic cord care, postnatal newborn care, management of sick newborn, including sepsis, asphyxia and prematurity, capacity building of health staff and other resource persons, orientation of community based volunteers, mother to mother support groups and pregnancy schools on community mobilization, etc.
3. If yes, how closely does KOICA-UNICEF interventions relate to what is expected to be achieved at the health facility level?
4. How useful were the KOICA-UNICEF interventions to your health facility?
5. How did the interventions fit into the objectives of your health facility?
6. How has the training and mentorship component of the KOICA-UNICEF interventions responded to the capacity building needs of your sub-district level?
7. In what ways have you specifically benefited from the training on basic new-born care including kangaroo mother care and postnatal home based care etc.? Probe for how the capacity building and training helped to improve their knowledge and skills?
8. Has anything in your practice changed after the KOICA-UNICEF capacity building program? If yes what changed? If no explain? Probe for enabling/constraining factors that facilitated/hindered the application of the learned skills.
9. How did your skills change after the KOICA-UNICEF capacity building program? Please, mention the changes you experienced after the training program
10. In which ways did the KOICA-UNICEF interventions help improve the quality of health service delivery in your health facility? *Probe for improvement in providing ANC, skilled delivery and PNC services, exclusive and early initiation of breastfeeding, thermal care, including kangaroo mother care hygienic cord care, postnatal newborn care, management of sick newborn, including sepsis, asphyxia and prematurity, capacity building of health staff and other resource persons, community mobilization, etc.*

C. **EFFECTIVENESS**
1. What are the enabling/constraining factors that facilitated/hindered service delivery? *Probe for logistics, supplies, drugs, skilled staff, transportation, staff motivation, etc.*
2. Do you think the time spent and content of the program was appropriate for your training and capacity building? If yes, explain how, if no, why?
3. Do you think the resource persons and trainees/trainers ratio were appropriate for your training and capacity building? If yes, explain how, if no, why?

D. **EFFICIENCY**
1. What kind of training did you receive from the KOICA-UNICEF program?
2. How have you used the training you received? *Explain how the acquisition of new skills have improve the delivery of maternal and newborn services.*
3. How has your new skills helped to improve the health of mothers and newborns in your catchment area? *Probe for how new skills have improved ANC services, skilled delivery and PNC services and newborn care? Tell us how that changed*
4. Can you match the training and capacity building you received with the intended results of the project? If yes, how and if no, why do you think so?
5. What kind of supply items did the KOICA-UNICEF project provide? Please, list them:

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6. Did the items help to improve the quality of health services, if yes, how and if no, why do you think so?

E. **SUSTAINABILITY**
1. Have you ever collaborated with Ghana Education Service (GES)? If yes, how has your collaboration with GES helped to improve health services in your catchment area?
2. In what ways has the capacity building component of the intervention strengthened the health system for service delivery?
3. What are the bottlenecks and barriers that hinder the capacity of service providers to continuously provide quality and equitable services?
4. Do you want to continue providing home-based services to mothers and their newborn babies? If yes why, if no why not?
5. What are the benefits of providing home-based services to mothers and their newborn babies?
6. And what are the barriers to providing home-based services to mothers and their newborn babies?
7. In what ways are you motivated to continue to provide home-based services to mothers and their newborn babies?

F. LESSONS LEARNED

Finally, I’d like to end by talking about what lessons have been learned from the KOICA-UNICEF intervention project?

1. What do you see as the lessons that can be learned from the KOICA-UNICEF maternal and newborn care interventions?
2. What do you see as the lessons that can be learned from the KOICA-UNICEF training and capacity building program?
3. What suggestions will you make for other future programs aimed at improving maternal and neonatal health?
In-depth Interview Guide

IDI with Regional, District and Sub-District Level staff (Regional Director, Head of Maternal and child Health Unit, Public Health Nurse, Sub-District Health)

IDNO: ||||| ||| |

Date of interview: ___/___/___ District: Sub-District: 
Region: 
Category of Respondent: 
Interviewer: 
Duration of Interview: 

A. DEMOGRAPHIC INFORMATION

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B. Relevance and appropriateness of KOICA intervention

1. Has your region, district, sub-district and health facilities ever participated in or benefited from any KOICA-UNICEF intervention program? *Probe for interventions such exclusive and early initiation of breastfeeding, thermal care, including kangaroo mother care hygienic cord care, postnatal newborn care, management of sick newborn, including sepsis, asphyxia and prematurity, capacity building of health staff and other resource persons, orientation of of community based volunteers, mother to mother support groups and pregnancy schools on community mobilization, etc.*

2. Were the KOICA-UNICEF interventions appropriate and adequate for region, district and health facilities?

3. How suitable and adequate were the interventions to achieve the objectives of your region/district?

4. How has the training and mentorship component of the KOICA-UNICEF interventions responded to the capacity building needs of your regional, district and sub-district level?

5. In which ways did the KOICA-UNICEF interventions help improve the quality of health service delivery in your regional, district and sub-district level? *List the intervention activities and ask respondent about each one of the strategies*

6. If yes, how closely does KOICA-UNICEF interventions relate to what is expected to be achieved at the regional and district levels?

7. How did the objectives of the KOICA-UNICEF programme address local needs and priorities of health at the regional, district and sub-district level?
B. **EFFECTIVENESS**

1. In what ways did the KOICA-UNICEF interventions (mention the interventions) help to improve health services of women and children in this district/region? Were the overall programmes and interventions adequate to realize the programme objectives?

11. Can you tell me how the interventions were planned, managed and implemented in this regional, district and sub-district level?

2. How did you coordinate the activities of the intervention?

3. To what extent do you think service providers were adequately equipped to deliver quality health at the regional, district, and community/facility? Explain more.

In which ways has the project contributed to strengthening the capacity of regional health management teams and district health management teams for planning, informed decision making and prioritization of newborn health as per the National Newborn Strategy and Action plan *(2014-2018)* and other national guidelines and protocols?

4. What monitoring mechanisms have you put in place to ensure effective and continuous monitoring of the program?

5. Can you explain how the KOICA-UNICEF project contributed to the strengthening of districts capacities to track changes in key determinants of maternal, neonatal and child health? *Probe for the training of district health information officers and other key staff at sub-district and facility level on bottleneck analysis approach*

6. In which ways does the KOICA-UNICEF project strengthen districts ‘capacities to carry out monitoring of the project?’

C. **EFFICIENCY**

1. How were the allocations of resources by UNICEF used to achieve the project objectives?

2. Considering the resources and the intervention activities, were they adequate to meet the project needs? If yes, explain, if no, why?

3. Do you think the interventions were cost-effective to obtain the needed results? (especially in reference to professional development of service providers and support at the district and facility level) If yes, why, and if no, why?

D. **SUSTAINABILITY**

1. What plans do you have to continue the capacity building of staff to improve health services in this region? *Probe for plans to scale-up the good practices of this KOICA-UNICEF project*

2. How will you ensure that this program is sustained over the years?

3. What have you put in place to support the continued implementation of the interventions at the regional and district level?

4. How prepared are you to be able to mobilize resources to self-support and continue the KOICA-UNICEF interventions?

E. **COHERENCE**

1. In which ways is the KOICA-UNICEF project in line with the national policies and priorities for health programming in Ghana?

2. In what ways is the project contributing to the national policies and priorities for health programming in Ghana?
3. In what ways can you say this project has given due importance on donor’s visibility in Ghana (Korea Government)?

F. LESSONS LEARNED

Finally, I’d like to end by talking about what lessons have been learned from the KOICA-UNICEF intervention project?

1. What do you see as the lessons that can be learned from the KOICA-UNICEF maternal and newborn care interventions?

2. What do you see as the lessons that can be learned from the KOICA-UNICEF training and capacity building program?

3. What suggestions can you make to improve any such future programs?
Interview Guides for the Education Program
In-depth Interview Guide
IDI with KG Teachers and Head teachers

IDNO: |||||...|||

Date of interview: ___/___/___           School:                               District

Community:

Category of Respondent:

Interviewer:

Duration of Interview:

A. DEMOGRAPHIC INFORMATION

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Note: Please, clarify to the interviewee that the training received from the DEO (through UNICEF) was funded by KOICA.

1. Have you or your school ever participated in or benefited from any KOICA-UNICEF intervention program? *Probe for interventions such as curriculum, teaching methodologies, assessment tools, screening, teaching and learning materials (TLM)*

B. Curriculum

1. What do you know about curriculum? What new things did you learn about the curriculum during the KOICA-UNICEF training?
2. Which aspects of the curriculum have you been able to implement? *Probe: How did you do it?*
3. What have been the challenges in implementing what you learnt from the UNICEF training on the curriculum? What have you done to overcome the challenges?
4. How useful was the training you received on the curriculum. *Probe for how useful it was for him/her as a teacher and to the child?*
5. Have you received other trainings on the curriculum apart from the KOICA-UNICEF training? *Probe for the person or institution that provided the training and how useful the training was.*
6. How will you ensure the continuous use of the knowledge you gained on the curriculum?

C. Teaching Methodologies
   1. What do you know about teaching methodologies? What new things did you learn about these teaching methodologies during the UNICEF training?
   2. Which aspects of the teaching methodologies have you been able to implement? Probe: How did you do that?
   3. What have been the challenges in implementing these aspects of the teaching methodologies? What have you done to overcome the challenges?
   4. How useful was the training you received on the teaching methodologies? Probe for him and pupils.
   5. Have you received other training on teaching methodologies apart from the KOICA-UNICEF training? Probe for the person or institution that provided the training and how useful the training was.
   6. In what ways have your methods used for teaching achieved the desired learning objectives by pupils?
   7. How will you ensure the continuous use of the knowledge you gained on the curriculum?

D. Assessment tools
   1. What do you know about assessment tools? What new things did you learn about assessment tools during the KOICA-UNICEF training?
   2. Mention some of the assessment tools you know.
   3. Which assessment tools have you been able to use to assess your pupils? Probe how he/she did it?
   4. What have been the challenge using these assessment tools? What have you done to overcome the challenges?
   5. How useful was the training you received on the different assessment tools. Probe for how useful it was for him/her as a teacher and to the child?
   6. Have you received other training on these tools apart from the KOICA-UNICEF training? Probe for the person or institution that provided the training and how useful the training was.
   7. In what ways have the assessment tools helped to inform teaching?
   8. In what ways have the assessment tools helped to improve learning?
   9. How will you ensure the continuous use of the knowledge you gained on the assessment tools?

E. Screening
   1. What do you know about screening? What new things did you learn about screening during the KOICA-UNICEF training?
   2. How useful was the training you received on screening?
   3. How do you screen a kindergarten pupil? Probe: for steps involved in screening
4. What have been the challenges in implementing your new skills on screening? What have you done to overcome those challenges?

5. Have you received other training on screening apart from the KOICA-UNICEF training? *Probe for the person or institution that provided the training and how useful the training was.*

6. In what ways are the methods used in screening beneficial to both the pupils and the school?

7. In your school, what have you achieved in the area of improving young children’s school readiness? What gaps still exist?

8. How will you ensure the continuous use of the knowledge you gained on screening?

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**F. Teaching and Learning Materials**

1. Have you ever received teaching and learning materials (TLM) and play equipment in this school from UNICEF? If yes, can you mention the materials, play equipment and other logistics received?

2. What other local resources for teaching and learning are you using?

3. What skills did you gain to prepare TLMs on your own?

4. In what way/s have these materials helped enhance teaching and learning?

5. What results have been achieved in the area of increasing the availability of TLMs in your school?

6. In what ways have the TLMs impacted on the overall performance of your pupils?

7. What challenges do you have in making teaching and learning materials available? What have you done to overcome those challenges?

8. What gaps exist in increasing the availability of TLMs in your school?

9. What additional TLMs do you need to make teaching and learning more effective?

10. How will you ensure that the required TLMs are always available?

---

**G. Relevance and appropriateness of KOICA intervention**

1. What are the needs and priorities of your school?

2. Were the KOICA-UNICEF interventions appropriate and adequate for your school?

3. How suitable and adequate were the interventions to achieve the objectives of your school?

4. Can you tell us what new knowledge /skills you acquired from the KOICA-UNICEF interventions you participated in or benefited from?

5. What are the capacity building needs of your school?

6. How has the KOICA-UNICEF training program helped to meet those needs?

7. How will you describe the quality of teaching and learning in your school?

8. How was the quality of teaching and learning before the KOICA-UNICEF intervention?

9. How has the KOICA program helped you to meet those needs and priorities?

---

**H. Effectiveness of KOICA Interventions at the School Level**
1. Can you explain how the KOICA-UNICEF interventions have affected your attitude as a teacher in this school?

2. In which ways did the KOICA-UNICEF interventions help to improve your knowledge and skills?

3. How has the KOICA-UNICEF capacity building program changed your practice?

4. Has anything in your practice changed after the KOICA-UNICEF capacity building program? If yes, what changed?

5. How did that change? If no explain? Probe for enabling/constraining factors that facilitated/hindered the application of the learned skills.

6. Can you tell me how the interventions have contributed to improving the quality of teaching and learning in this school? Probe for enabling/constraining factors that facilitated/hindered service delivery.

7. Do you think the time and content of the KOICA-UNICEF program were appropriate for you? If yes, explain how, if no, why?

8. Do you think the resource persons and trainees/trainers ratio were appropriate?? If yes, explain how, if no, why?

9. What do we have to do to get children more ready for school?

10. What are the challenges in getting children ready for school?

11. Do REO and DEO staff members have the skills they need to help improve children’s school readiness? Why/How?

12. How have the interventions helped to improve quality of pre-school education?

13. Has school intake increased or decreased? Why?

14. Has the intervention strategies helped to increase access to quality pre-school education? If yes, how did that happen? If no, why?

I. Efficiency of KOICA Interventions at the School Level

1. How are the in-service education and trainings (INSETs) held by trained teachers at your cluster or school organized?

2. In which ways has the INSET training programmes helped to improve the quality of teaching and learning in this school?

3. Can you tell us how useful the INSET training programmes has been towards your professional development?

4. How useful has the INSET training programmes been to enhancing the quality of teaching and learning?

5. What results have been achieved in practicing child-centred, activity based teaching at the pre-school?

6. What challenges exist in practicing child-centred, activity based teaching at the pre-school?

7. Does REO and DEO have the capacity to support the practicing child-centred, activity based teaching at the pre-school?

8. What are the challenges in building your capacities?

J. Sustainability:

1. In which ways are you committed to the KOICA-UNICEF approach to providing quality education?
2. What specific actions/steps have you put in place to ensure continuous provision of quality education after completion of the KOICA-UNICEF intervention? Probe for anticipated challenges for each of the interventions and how they plan to deal with them.

3. What are the potential challenges that might hinder the continuous provision of quality education service?
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Note: Please, clarify to the interviewee that the training received from the DEO (through UNICEF) was funded by KOICA.

1. Have you or your school ever participated in or benefited from any KOICA-UNICEF intervention program? *Probe for interventions such as child-centred and gender sensitive teaching methodologies as well as school-based assessment and positive discipline etc.*

B. Teaching Methodologies

1. What do you know about teaching methodologies? What new things did you learn about these teaching methodologies during the UNICEF training?
2. What were the child-centred methodologies you learned from the KOICA-UNICEF training?
3. What are the gender sensitive methodologies you have learned from the KOICA-UNICEF training?
4. Which aspects of these teaching methodologies have you been able to implement? *Probe to know whether the teaching methodologies implemented were gender sensitive and child-centred.*
5. What have been the challenges in implementing these aspects of the teaching methodologies? *Probe for challenges in implementing child-centred and gender sensitive teaching methodologies. What have you done to overcome the challenges?*
6. How useful was the training you received on the teaching methodologies?
7. Have you received other training on teaching methodologies apart from the KOICA-UNICEF training? Probe for the person or institution that provided the training and how useful the training was.
8. In what ways have your methods used for teaching achieve the desired learning by pupils?
9. **How will you ensure the continuous use of the knowledge you gained on teaching methodologies?**

C. **School-Based Assessment**

1. What do you know about school-based assessment? What new things did you learn about school-based assessment during the UNICEF training?
2. How is school-based assessment conducted? *Probe for all the processes involved in conducting school-based assessment and the characteristics which distinguish it from other forms of assessment*
3. How have you used the school-based assessment techniques you learned from the KOICA-UNICEF training to assess your pupils? *Probe: How he/she did it?*
4. What have been the challenges in conducting school-based assessments? What have you done to overcome the challenges?
5. How useful was the training you received on the school-based assessment. *Probe for how useful it was for him/her as a teacher and to the child?*
6. Have you received other training on these tools apart from the UNICEF training? *Probe for the person or institution that provided the training and how useful the training was.*
7. In what ways have the school-based assessment helped to inform teaching?
8. In what ways have the school-based assessment helped to improve learning?
9. How will you ensure the continuous use of school-based assessments to improve learning?

D. **Positive discipline**

1. What do you know about positive discipline? What new things did you learn about positive discipline during the KOICA-UNICEF training?
2. How have you used positive discipline to manage your pupils in class? *Probe how he/she did it?*
3. In what ways have you used your skills in positive discipline to empower you pupils to improve their academic achievements? *Probe for instances where positive discipline was used to improve class performance*
4. In what ways have you used your skills in positive discipline to prepare your pupils for successful living? *Probe for instances where positive discipline was used to empower and prepare pupils for success*
5. Have you received other trainings on the positive discipline apart from the KOICA-UNICEF training? *Probe for the person or institution that provided the training and how useful the training was.*
6. What have been the challenges in introducing positive discipline in your school? What have you done to overcome the challenges?
7. How will you ensure the continuous use of the knowledge you gained on positive discipline?
E. **Teaching and Learning Materials**
   1. Have you ever received teaching and learning materials (TLM) and play equipment in this school from UNICEF? If yes, can you list the materials, play equipment and other logistics received?
   2. What other local resources for teaching and learning are you using?
   3. What skills did you gain to prepare TLMs on your own?
   4. In what way/s have these materials helped enhance teaching and learning?
   5. What results have been achieved in the area of increasing the availability of TLMs in your school?
   6. In what ways have the TLMs impacted on the overall performance of your pupils?
   7. What challenges have you had in making TLMs available to pupils? What have you done to overcome those challenges?
   8. What additional TLMs do you need to make teaching and learning more effective?
   9. How will you ensure the continuous availability of TLMs to improve teaching and learning in your schools?

F. **Relevance and appropriateness of KOICA intervention**
   1. What are the needs and priorities of your school?
   2. Were the KOICA-UNICEF interventions appropriate and adequate for your school?
   3. How suitable and adequate were the interventions to achieve the objectives of your school?
   4. Can you tell us what information you obtained on KOICA-UNICEF interventions you participated in or benefited from?
   5. What are the capacity building needs of your school?
   6. How has the training KOICA-UNICEF training mentorship program helped to meet those needs?
   7. How will you describe the quality of teaching and learning in your school?
   8. How was the quality of teaching and learning before the KOICA-UNICEF intervention?
   9. How has the KOICA program helped you to meet those needs and priorities?

G. **Effectiveness of KOICA Interventions at the School Level**
   1. Can you explain how the KOICA-UNICEF interventions have affected your attitude as a teachers in this school?
   2. In which ways did the KOICA-UNICEF interventions help to improve your knowledge and skills?
   3. How has the KOICA-UNICEF capacity building program changed your practice?
   4. Has anything in your practice changed after the KOICA-UNICEF capacity building program? **If yes what changed?**
   5. How did that change? **If no explain?** Probe for enabling/constraining factors that facilitated/hindered the application of the learned skills.
   6. Can you tell me how the interventions have contributed to improving the quality of teaching and learning in this school? **Probe for enabling/constraining factors that facilitated/hindered service delivery.**
7. Do you think the time and content of the KOICA-UNICEF program were appropriate for you? *If yes, explain how, if no, why?*
8. Do you think the resource persons and trainees/trainers ratio were appropriate?? *If yes, explain how, if no, why?*

H. **Efficiency of KOICA Interventions at the School Level**
1. How are the In-service education and trainings (INSETs) held by trained teachers at the cluster and school levels organized?
2. In which ways has the INSET training programmes helped to improve the quality of teaching and learning in this school?
3. Can you tell us how useful INSET training programmes has been towards your professional development?
4. How useful has the INSET training programmes been to enhancing the quality of teaching and learning?

I. **Life skills including HIV prevention and reproductive health for adolescents**
1. What life skills training in HIV prevention for adolescents did you receive?
2. What life skills training in reproductive health for adolescents did you receive?
3. How have you been able to use the training you received?
4. What have been the challenges in implementing the knowledge you received?
5. What other life skills education is given to adolescents in your school?
6. What way/s have these life skills education helped improve HIV prevention awareness creation among adolescents in your school?
7. What additional knowledge is required to ensure effective application of knowledge acquired
8. Does REO and DEO have the capacity to support the application of life skills knowledge in real life situations?

J. **Sustainability:**
1. In which ways are you committed to the KOICA-UNICEF approach to providing quality education?
2. What specific actions/steps have you put in place to ensure continuous provision of quality education after completion of the KOICA-UNICEF intervention?
3. What are the potential bottlenecks or barriers that might hinder the continuous provision of equitable education service?

K. **Coherence:**
1. In which way can the knowledge and skills acquired by teachers and students on key health behaviour (health screening, hand washing with soap, de-worming) and life skills be sustained over a long period? What are the potential barriers?
2. In which ways are the KOICA-UNICEF interventions contributing towards the realization of your school’s goals and priorities?
In-depth Interview Guide

IDI with District Level staff (District Director, Circuit Supervisors, SHEP, Guidance and Counselling Coordinators)

IDNO: ||||-||-||-||-||-||

Date of interview: ____/____/____ Region: District: Community:

Category of Respondent:

Interviewer:

Duration of Interview:

A. DEMOGRAPHIC INFORMATION

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<th>Respondent ID</th>
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Note: Please, clarify to the interviewee that the training received from the DEO (through UNICEF) was funded by KOICA.

B. Relevance and appropriateness of KOICA intervention

1. Have the schools in your district ever participated in or benefited from any KOICA-UNICEF intervention program? *Probe for interventions such as child-centred and gender sensitive teaching methodologies as well as school-based assessment and positive discipline for primary schools and curriculum, teaching methodologies, assessment tools, screening, teaching and learning materials (TLM) for pre-school and capacity building for resource persons.*

2. Were the KOICA-UNICEF interventions appropriate and adequate for your school?

3. How suitable and adequate were the interventions to achieve the objectives of your school?

4. Can you tell us what information you obtained on KOICA-UNICEF interventions you participated in or benefited from?

5. What are the capacity building needs of your district?

6. How has the training KOICA-UNICEF training mentorship program helped to meet those needs?

7. How will you describe the quality of teaching and learning in your district?
8. How was the quality of teaching and learning before the KOICA-UNICEF intervention?
9. What are the needs and priorities of your district?
10. How has the KOICA program helped you to meet those needs and priorities?
11. How responsive are the objectives of the KOICA-UNICEF programme to addressing local needs and priorities of education at the district level?

C. Effectiveness of KOICA Interventions
1. Are the overall interventions adequate to realize the programme objectives? *If yes, in which ways? If no, why?*
2. Can you explain how the KOICA-UNICEF interventions have affected attitudes of teachers in this district? How/why?
3. In which ways did the KOICA-UNICEF interventions help to improve the knowledge and skills of teachers in this district?
4. How has the KOICA-UNICEF capacity building program changed your practice? *Probe for enabling/constraining factors that facilitated/hindered the application of the learned skills*
5. Can you tell me how the interventions have contributed to improving the quality of teaching and learning in this district? *Probe for enabling/constraining factors that facilitated/hindered service delivery.*
6. Can you tell me how the interventions were planned, managed and implemented in this district? How did you coordinate the activities of the intervention?
7. Do you think the time and content of the KOICA-UNICEF program were appropriate for you? *If yes, explain how, if no, why?*
8. Do you think the resource persons and trainees/trainers ratio were appropriate?? *If yes, explain how, if no, why?*
9. In which ways has the project contributed in strengthening of district capacity to carry out decentralized planning and monitoring through the development and implementation of ADEOPs, SPAMs and SPIPs?

D. Efficiency of KOICA Interventions at the School Level
1. How are the CBIs and SBIs organized? [*CBI=Cluster-based INSET; SBI=School-Based INSET]*
2. In which ways has the INSET training programmes helped to improve the quality of teaching and learning in this district?
3. Can you tell us how useful INSET training programmes has been towards your professional development?
4. How useful has the INSET training programmes been to enhancing the quality of teaching and learning?
5. What results have been achieved through programming to enhance the capacity of service providers?
6. What gaps challenge capacity building of service providers?
E. **Sustainability:**
   1. In which ways are you committed to the KOICA-UNICEF approach to providing quality education?
   2. What specific actions/steps have you put in place to ensure continuous provision of quality education after completion of the KOICA-UNICEF intervention?
   3. What are the potential bottlenecks or barriers that might hinder the continuous provision of equitable education service?

F. **Coherence:**
   1. In which ways are the KOICA-UNICEF interventions contributing towards the realization of district goals and priorities as contained in the ADEOP?
In-depth Interview Guide

IDI with Regional Level staff (Regional Director, UNICEF projects Coordinator, Early Childhood Education Coordinator, Regional Training Officer and Special Education Coordinator)

IDNO: |||||_|_|_|_|_|_|_||_|

Date of interview: ___/___/___ Region:

Category of Respondent:

Interviewer:

Duration of Interview:

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Note: Please, clarify to the interviewee that the training received from the DEO (through UNICEF) was funded by KOICA.

B. Relevance and appropriateness of KOICA intervention

1. What are the needs and priorities of your region?
2. How has the KOICA program helped you to meet those needs and priorities?
3. Have the schools in your region ever participated in or benefited from any KOICA-UNICEF intervention program? *Probes for interventions such as child-centred and gender sensitive teaching methodologies as well as school-based assessment and positive discipline for primary schools and curriculum, teaching methodologies, assessment tools, screening, teaching and learning materials (TLM) for pre-school and capacity building of resource persons*.
4. Were the KOICA-UNICEF interventions appropriate and adequate for your region?
5. How suitable and adequate were the interventions to achieve the objectives of your region?
6. Can you tell us what information you obtained on KOICA-UNICEF interventions you participated in or benefited from?
7. What are the capacity building needs of your region?
8. How has the training KOICA-UNICEF training mentorship program helped to meet those needs?
9. How will you describe the quality of teaching and learning in your region?
10. How was the quality of teaching and learning before the KOICA-UNICEF intervention.
C. Effectiveness of KOICA Interventions

10. Are the overall interventions adequate to realize the programme objectives? If yes, in which ways? If no, why?
11. Can you explain how the KOICA-UNICEF interventions have affected attitudes of teachers in this region?
12. In which ways did the KOICA-UNICEF interventions help to improve the knowledge and skills of your teachers?
13. How has the KOICA-UNICEF capacity building program changed your practice?
14. Has anything in your practice changed after the KOICA-UNICEF capacity building program? If yes what changed?
15. How did that change? If no explain? Probe for enabling/constraining factors that facilitated/hindered the application of the learned skills.
16. Can you tell me how the interventions have contributed to improving the quality of teaching and learning in this school? Probe for enabling/constraining factors that facilitated/hindered service delivery.
17. Do you think the time and content of the KOICA-UNICEF program were appropriate for you? If yes, explain how, if no, why?
18. Do you think the resource persons and trainees/trainers ratio were appropriate? If yes, explain how, if no, why?
19. In which ways has the project contributed in strengthening of district capacity to carry out decentralized planning and monitoring through the development and implementation of ADEOPs, SPAMs and SPIPs?

D. Efficiency of KOICA Interventions

1. In which way were the allocated resources used to achieve the KOICA-UNICEF project objectives? Were the available resources adequate to meet KOICA-UNICEF project needs?
2. Are there any other influences of the amount of resources spent on a project apart from technical considerations?
3. What factors influence the cost of an intervention? Is this a cost-effective way to obtain the expected results, especially with reference to professional development of service providers and support at the district and school level?

E. Sustainability:

1. What systems have been put in place by the Regional Directorate of Education to mainstream the different interventions implemented under the KOICA-UNICEF programme to address educational issues?
2. Has the GES adapted the CFS and child-centred and gender-sensitive teaching methodologies at the regional and district levels? If yes, how was that done?
3. Has the KOICA-UNICEF programme been able to establish systems to support the continued implementation of the strategy and interventions at the regional and district levels? If yes, how was that done? If no, why?
4. Who are the key actors, sectors and partnerships with potential to play a more significant role in supporting quality education delivery at the regional and district level?
5. To what extent do RCC/GES, District Assembly demonstrate the ownership and capacity for resource mobilization to be able to self-support and consolidate the achievement and expansion of the intervention?

6. What gaps challenge capacity building of institutions, decision makers, service providers and parents?

7. Does REO and DEO staff members have the knowledge and skills to meet current internal and external capacity-building needs and prepare to meet future capacity building needs?

8. What results have been achieved in the area of increasing the availability of trained teachers at the regional, district and school levels?

9. What gaps exist in increasing the availability of trained teachers at the various levels?

10. Does REO and DEO have the capacity to support increasing the availability of trained teachers at the various levels?

11. What mechanism have you put in place for effective and continuous monitoring of the program?

F. Coherence:

1. What are the national policies and priorities that are benefiting from the KOICA programming in education?

2. What is the donor’s assistance policy? How does the KOICA-UNICEF project fit into that policy?

3. To what extent has the KOICA-UNICEF project given due importance on donor’s (Government of Korea) visibility in line with UNICEF’s donor visibility guidelines?

G. Lessons Learned

Finally, I’d like to end by talking about what lessons have been learned from the KOICA-UNICEF intervention project?

1. What do you see as the lessons that can be learned from the KOICA-UNICEF interventions?

2. What do you see as the lessons that can be learned from the KOICA-UNICEF training and capacity building program?

3. What suggestions can you make to improve any such future programs?
Focus Group Discussion Guide

FGD with School Management Committees and Parents-Teachers Association

IDNO: ____________

Date of interview: ___/___/___ Region: District:

Community:

Category of Respondent:

Interviewer:

Duration of Interview:

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Note: Please, clarify to the interviewee that the training received from the DEO (through UNICEF) was funded by KOICA.

B. Relevance and appropriateness of KOICA intervention

1. What are the needs and priorities of your school?
2. Have you ever participated in or benefited from any KOICA-UNICEF intervention program? *Probe for interventions such as child-centred and gender sensitive teaching methodologies as well as school-based assessment and positive discipline etc.*
3. Were the KOICA-UNICEF interventions appropriate and adequate for your school?
4. Can you tell us what information you obtained on KOICA-UNICEF interventions you participated in or benefited from?
5. What are the capacity building needs of your school?
6. How has the KOICA-UNICEF training mentorship program helped to meet those needs?
7. How will you describe the quality of teaching and learning in your school?
8. How was the quality of teaching and learning before the KOICA-UNICEF intervention?

C. Effectiveness of KOICA Interventions at the School Level

1. Can you explain how the KOICA-UNICEF interventions have affected attitudes of teachers in this school?
2. In which ways did the KOICA-UNICEF interventions help to improve your knowledge and skills?
3. How has the KOICA-UNICEF capacity building program changed your operations?
4. Has anything in your practice changed after the KOICA-UNICEF capacity building program? If yes what changed? How did that change? If no, explain? Probe for enabling/constraining factors that facilitate

D. Efficiency of KOICA Interventions at the School Level

1. What items did UNICEF supply to support teaching and learning? Could you explain how the items supplied (TLMs and furniture) have helped towards improving the quality of teaching and learning in this school?
2. How are the INSETs held by trained teachers at the cluster and school levels organized?
3. In which ways has the INSET training programmes helped to improve the quality of teaching and learning in this school?
4. Can you tell us how useful INSET training programmes has been towards your professional development?
5. How useful has the INSET training programmes been to enhancing the quality of teaching and learning?

E. Sustainability:

1. In which ways are you committed to the KOICA-UNICEF approach to providing quality education?
2. What specific actions/steps have you put in place to ensure continuous provision of quality education after completion of the KOICA-UNICEF intervention? What are the potential bottlenecks or barriers that might hinder the continuous provision of equitable education service?

F. Coherence:

1. How has the KOICA program helped you to meet those needs and priorities?
2. In which ways are the KOICA-UNICEF interventions contributing towards the realization of your school’s goals and priorities?
Appendix 4: Reviewed Documents