TARGETED STATES HIGH IMPACT PROJECT

Advancing Health in Bauchi and Sokoto States

Bauchi and Sokoto States
Health Facility Rapid Assessment
BASELINE SURVEY REPORT

TSHIP Central Project Office, Bauchi
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Table of Contents

List of Tables

List of Figures

List of Abbreviations and Acronyms

ACT	Artemisinin-based Combination Therapy
ANC	Antenatal Care
BACATMA	Bauchi State Agency for the Control of HIV/AIDS, Tuberculosis, and Malaria
BCC	Behavior Change Communications
CBO	Community Based Organization
CHEW	Community Health Extension Worker
CHO	Community Health Officer
CIET	Community Information and Epidemiological Technologies
CPR	Contraceptive Prevalence Rate
FMOH	Federal Ministry of Health
FP	Family Planning
GH	General Hospitals
HMIS	Health Management Information System
IDSR	Integrated Disease Surveillance and Response
IMCI	Integrated Management of Childhood Illness
INGO	International Non Government Organization
IPT	Intermittent Preventive Treatment
IUCD	Intra-uterine Contraceptive Device
JCHEW	Junior Community Health Extension Worker
LAM	Lactation Amenorrhea Method
LGA	Local Government Authority
LLIN	Long Lasting Insecticide Treated Nets
LMIS	Logistics Management Information System
LNGO	Local Non Governmental Organization
MCH	Maternal Child Health
MCHC	Maternal Child Health Clinic
M&E	Monitoring and Evaluation
MICS	Multi Indicator Cluster Survey
MLSS	Modified Life Saving Skills
NDHS	Nigeria Demographic Health Survey
NGO	Non Governmental Organizations
NHMIS	National Health Management Information System
NPI	National Program for Immunization
ORS	Oral Rehydrate Salts
PC	Private Clinic
PHC	Primary Health Center
PMP	Performance Management Plan
PNC	Postnatal Care
RH	Reproductive Health
SMLGA	State Ministry of Local Government Affairs
SMOH	State Ministry of Health
SPHCDA	State Primary Health Care Development Agency
TBA	Traditional Birth Attendant
TSHIP	Targeted States High Impact Project
TT	Tetanus Toxoid
USAID	United States Agency for International Development
VDC	Village Development Committee
WHO	World Health Organization

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TSHIP also acknowledges the dedication of its project staff in the Bauchi and Sokoto offices for their many contributions to survey design, sampling, logistics management, and data collection, analysis, and report writing. We would also like to thank other implementing partner organizations that were consulted during the planning stages of the survey.

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Executive Summary

Targeted States High Impact Project (TSHIP) is a five year project funded by the United States Agency for International Development (USAID) and implemented in Bauchi and Sokoto States. TSHIP's objective is to increase use of high impact interventions in two the states of Bauchi and Sokoto. With close partnership from the Bauchi State Ministry of Health, Bauchi State Primary Health Care Development Agency, the Bauchi State Agency for the Control of HIV/AIDS, Tuberculosis, and Malaria, Bauchi State Ministry of Local Government Affairs as well as the Sokoto State Ministry of Health and the Sokoto State Ministry of Local Government Affairs, TSHIP implemented a health facility rapid baseline assessment in a sample of health facilities in the two states from January to April 2010.

The purpose of the assessment was to:

- Determine the extent to which health facilities in each state provide quality and integrated FP/RH and MCH services;
- Assess the human resource capacity and infrastructure at the health facility and LGA levels;
- Serve as baseline for the project towards the achievement of the overall project objectives;
- Aid work planning for strategic project activities; and
- Serve as reference in dialogue with policy and decision-makers on the current situation of FP/RH and MCH in Bauchi and Sokoto states with a view to forging stronger collaboration and partnership building.

Due to a richness of existing documentation in Nigeria, TSHIP decided not to conduct an elaborate baseline survey. Instead, in order to get rapid and reliable data, multi-stage sampling was employed working off of the lists of functional health facilities established in each state; 733 health facilities in Bauchi and 637 health facilities in Sokoto. A total of 129 health facilities in Bauchi and 124 health facilities in Sokoto were surveyed.

The main areas assessed in each health facility were staffing, infrastructure, maternal health, family planning, nutrition, routine immunization, treatment of childhood illnesses, communication with communities, health management information system, and supportive supervision. Overall, the assessment results seem to confirm the appropriateness of TSHIP's tri-focus approach, which focuses on the community, health services, and health system levels.

The highlight section below details key findings by main technical area.

Highlights

The table below shows key indicators from the findings of the health facility assessment in Bauchi and Sokoto States.

	Indicator	Bauchi		Sokoto	
		%	Sample Size	%	Sample Size
Staffing					
1	**% of health facilities that have CHEWs on staff**	**93.8%**	**129**	**91.1%**	**124**
2	**% of health facilities that have nurses/midwives on staff**	**17.8%**	**129**	**16.1%**	**124**
Infrastructure					
3	**% of health facilities that have access to five key infrastructure (water source, functioning latrine or toilet, electricity, availability of a generator as a back up power source, and medical waste disposal)**	**7.8%**	**129**	**13.7%**	**124**
Maternal Health Services					
4	**% of health facilities that offer maternal services**	**59.7%**	**129**	**58.1%**	**124**
5	**% of health facilities that offer ANC services, of those that offer maternal services**	**98.7%**	**77**	**98.6%**	**72**
6	**% of health facilities that offer delivery and postnatal care services, of those that offer maternal services**	**98.7%**	**77**	**84.7%**	**72**
7	**% of health facilities that provide AMTSL (use of oxytocin, uterine massage and control cord traction), of those that offer PNC/delivery services**	**36.8%**	**76**	**47.5%**	**61**
8	**% of health facilities that provide treatment of eclampsia (use of magnesium sulphate, diazepam, and anti-hypertensive drugs), of those that offer PNC/delivery services**	**19.7%**	**76**	**1.6%**	**61**
9	**% of health facilities that provide treatment of postpartum hemorrhage (use of egometrin, oxytocin, and antishock garment), of those that offer PNC/delivery services**	**5.3%**	**76**	**8.2%**	**61**

10	**% of health facilities that perform essential newborn care (use of clean cord care, drying and wrapping, and immediate breast feeding), of those that offer PNC/delivery services**	**77.6%**	**76**	**77.0%**	**61**
Family Planning					
11	**% of health facilities that provide family planning services**	**55.8%**	**129**	**39.5%**	**124**
12	**% of health facilities that provide oral pill family planning method, of those that provide FP services**	**86.1%**	**72**	**87.8%**	**49**
13	**% of health facilities with any stock out of oral pills in the last three months prior to the assessment date, of those that provide oral pills**	**35.5%**	**62**	**51.2%**	**43**
14	**% of health facilities that provide injectables, of those that provide FP services**	**79.2%**	**72**	**95.9%**	**47**
15	**% of health with any stock out of injectables in the last three months prior to the assessment date, of that provide injectables**	**42.1%**	**(57)**	**51.2%**	**(43)**
14	**% of health facilities with condom provision, of those that provide FP services**	**52.8%**	**72**	**36.7%**	**49**
15	**% of health facilities with any stock out of condoms in the last three months prior to the assessment date, of those that provide condoms**	**28.9%**	**38**	**50.0%**	**18**
16	**% of health facilities that provide family planning counseling together with provision of commodity, of those that provide FP services**	**50.0%**	**72**	**30.6%**	**49**
Nutrition Services					
17	**% of health facilities that provide nutrition services**	**41.9%**	**129**	**46.8%**	**124**
18	**% of health facilities that provide vitamin A supplement services, of those that provide nutrition services**	**66.7%**	**54**	**69.0%**	**58**
19	**% of health facilities that provide exclusive breastfeeding services, of those that provide nutrition services**	**77.8%**	**54**	**56.9%**	**58**
Childhood Illness					
20	**% of health facilities that provide treatment of childhood diseases**	**93.8%**	**129**	**97.6%**	**124**
21	**% of health facilities that provide treatment of diarrhea with ORS, of those that provide treatment of childhood diseases**	**100.0%**	**121**	**99.2%**	**121**

22	**% of health facilities that provide treatment of diarrhea with ORS and zinc, of those that provide treatment of childhood diseases**	**17.4%**	**121**	**3.3%**	**121**
23	**% of health facilities that provide LLIN for malaria prevention in children U5 years, of those that provide treatment of childhood diseases**	**24.8%**	**121**	**33.9%**	**121**
24	**% of health facilities that provide ACTs for malaria treatment, of those that provide treatment of childhood diseases**	**62.8%**	**121**	**71.9%**	**121**
Routine Immunization					
25	**% of health facilities that provide routine immunization services**	**89.9%**	**129**	**83.1%**	**124**
26	**% of health facilities providing the full range of immunizations, of those providing RI services**	**84.5%**	**116**	**96.1%**	**103**
27	**% of health facilities that have any stock out of BCG in the last 3 months prior to the day of assessment, of those that offer BCG**	**32.4%**	**108**	**34.3%**	**100**
28	**% of health facilities that have any stock out of polio vaccine in the last 3 months prior to the day of the assessment, of those that offer polio vaccine**	**27.7%**	**112**	**28.4%**	**102**
Involvement with Communities and Supportive Supervision					
29	**% of health facilities that have active health development committees**	**59.7%**	**129**	**64.5%**	**124**
30	**% of health facilities that have all BCC/IEC materials**	**15.0%**	**129**	**4.0%**	**124**
31	**% of health facilities that received support supervision visit in the last six months prior to the day of the assessment**	**82.9%**	**129**	**91.1%**	**124**

1.0 Introduction

1.1 Background

Targeted States High Impact Project (TSHIP) is a five year project funded by the United States Agency for International Development (USAID) and implemented in Bauchi and Sokoto States. TSHIP's objective is to increase use of high impact interventions in two the states of Bauchi and Sokoto. Within the Project Objective, there are four Sub-Objectives.

1. Strengthen state and local government capacity to deliver and promote use of high impact Maternal Child Health (MCH)/Family Planning (FP)/Reproductive Health (RH) interventions;
2. Strengthen delivery and promotion of high impact MCH/FP/RH interventions at the primary health care facilities and establish essential referral levels;
3. Strengthen roles of households and communities in promotion, practice, and delivery of high impact MCH/FP/RH interventions; and
4. Improve policies, programming, and resource allocation at the state and federal levels.

TSHIP will achieve its objective of increased use of high impact interventions through a tri-focus approach, focusing on three levels: community, health services, and health systems. The *first focus* is supporting the active engagement of an empowered community with the health sector through partnerships with community-based structures and organizations. The *second focus* is ensuring quality integrated Maternal Child Health (MCH)/Family Planning (FP)/Reproductive Health (RH) services at the PHC level and at maternity sites in both states. The *third focus* is strengthening the functioning of health systems at both the state and local government authority (LGA) levels in health planning, funding, logistics for health commodities, and management functions such as human resource development, supportive supervision, coordination with donors and partners, and monitoring, evaluation and use of information for decision-making.

The tri-focus approach is supported by *technical and material inputs* from TSHIP including: capacity building for health workers, government agencies, and community institutions; development of mass media and Behavior Change Communications (BCC) materials; implementation of evidence-based policies and procedures; procurement of appropriate commodities and equipment; renovation of health facilities; collaboration with other donors and Non-Governmental Organizations (NGOs) including leveraging of funds, and; sustainable improvements in planning at both the state and LGA levels.

Further, six key *over-arching strategies* will guide and shape all aspects of TSHIP implementation: 1) applying standards-based management to improve quality and performance; 2) forging partnerships in all aspects of TSHIP; 3) targeting the "weakest links" and building on existing strengths; 4) integrating MNCH/FP/RH health services; 5) harmonizing methods for community engagement and mobilization; and 6) transforming gender relations.

Due to a richness of existing documentation and surveys in Nigeria, TSHIP decided not to conduct an elaborate baseline survey. Instead, the Project utilized existing sources such as the Nigeria Demographic Health Survey (NDHS) and UNICEF's Multi Indicator Cluster Survey (MICS) and as a compliment conducted a rapid health facility assessment in both Bauchi and Sokoto between January and April 2010. The purpose of the assessment was to:

- Determine the extent to which health facilities in each state provide quality and integrated FP/RH and MCH services;
- Assess the human resource capacity and infrastructure at the health facility and LGA levels;
- Serve as baseline for the project towards the achievement of the overall project objectives;
- Aid work planning for strategic project activities; and
- Serve as reference in dialogue with policy and decision-makers on the current situation of FP/RH and MCH in Bauchi and Sokoto states with a view to forging stronger collaboration and partnership building.

2.0 Literature Review

In preparation for the health facility assessment, TSHIP reviewed existing data. The 2008 NDHS provides findings for individual states within the different geopolitical zones. This provides the opportunity to compare FP/RH and MCH indicators of TSHIP states with other states in their respective geopolitical zones and the national average. The two TSHIP states share similar characteristics in terms of health indices, including high maternal and infant and child mortality rates. The under-five mortality in the North East Zone (includes Bauchi) is 222/1,000 and in the North West Zone (includes Sokoto) it is 217/1,000 live births compared to 171/1,000 at the national level. These rates are the highest in the country. The acceptance of and use of FP services is very low (contraceptive prevalence rate (CPR) equals 2.0% and 1.9% for Bauchi and Sokoto respectively). In the two states, childbearing starts very early and births are very closely spaced. Coupled with the low CPR, there are high fertility rates (Bauchi 8.1 and Sokoto 8.7).

In **Bauchi** state, the uptake of maternal health care is low. Less than half (44.9%) of women received antenatal care (ANC) from a health professional (skilled provider) for their last birth, compared to 57.7% of women across Nigeria. Similarly, few women in Bauchi benefit from skilled assisted delivery; only 15.7% of women had a health professional assist during their last delivery with only 13.0% of births occurred in a health facility comparing to the national average of 38.9% and 35.0% respectively. Furthermore, only 21.2% of women reported a post-natal check-up compared to the national average of 43.7%. According to the 2008 NDHS, less than one-quarter (24.1%) of women report that their last birth was protected by neo-natal tetanus compared to nearly half of women across Nigeria (48.0%). In addition, less than one in ten women (8.7%) who had a live birth in the two years preceding the survey reported receiving any anti-malarial drug during their pregnancy. This compares to 18.4% of women across Nigeria.

In **Sokoto** state, the maternal health situation, as reported in the 2008 NDHS, shows that 95.3% of women of reproductive age (15-49 years) who delivered within five years of the survey had home delivery and only 4.4% in a health facility. Furthermore, over 91.0% of women never had a postnatal visit to any health facility following delivery. Also only 2.0% had intermittent preventive treatment (IPT) in pregnancy, 13.0% had iron supplements in the previous pregnancy, and 0.3% had antihelminths. Only 18% of pregnant women who attended ANC had information on the danger signs of pregnancy and 6.8% had two doses of Tetanus Toxoid (TT) in their last pregnancy. Related to service utilization, 60% of women (15 – 49 years) had one or more challenges accessing healthcare. These included the lack of money to pay for services, non-availability of provider at the facility and where a male provider is

available there is reluctance to visit such a provider, and the perennial lack of essential drugs in the facilities[1].

The poor indices are largely due to a weak health system and healthcare services, a result of the myriad of issues ranging from inadequately trained personnel, dilapidated facilities lacking infrastructural essentials such as potable water, electricity, and minimal equipment and job aids. These problems are compounded by poor supervision and support, lack of effective referral systems, and inadequate supplies and funding. As such, the health facility rapid assessments were designed to gain a more in depth understanding of each state's existing service delivery assessing key areas such as personnel, infrastructure, equipment, service availability, and commodities.

As part of the review, TSHIP has compiled a state profile document for each state in order to provide a quick reference for key FP/RH/MCH data and to present state data in relation to comparative national figures. For Bauchi, data sources include the NDHS, the National Reproductive Health and HIV/AIDS study, the MICS, and a survey on maternal health outcomes conducted by CIET. For Sokoto, data sources include the NDHS, the National Reproductive Health and HIV/AIDS study, and the MICS.

3.0 Methodology

With close partnership from the SMOH, a health facility baseline assessment was implemented from January to April 2010 to measure access to and quality of MCH, FP, and RH services in a sample of health facilities in Bauchi and Sokoto States. Results were used to inform project strategy, work planning, and targets for project year one.

3.1 Questionnaire Preparation

During the design phase, TSHIP worked together with health officials in Bauchi and Sokoto first identifying and discussing the need to assess the current status of service delivery and then in developing the assessment protocol and questionnaire. Also, the National Health Management Information System (NHMIS) desk was consulted regarding the assessment design.

In Bauchi, officials from the SMOH, the State Ministry of Local Government Affairs (SMLGA), the State Primary Health Care Development Agency (SPHCDA), and the Bauchi State Agency for the Control of HIV/AIDS, Tuberculosis, and Malaria (BACATMA) were involved in the design, planning, and implementation of the assessment to foster a sense of project ownership from inception. Further, the Community Information and Epidemiological Technologies (CIET) Project funded by Canadian International Development Agency (CIDA) was also co-opted to partner. CIET previously conducted a facility census in Bauchi focused primarily on maternal health and TSHIP consulted with them to learn from their experience. Based on discussions with Bauchi State health officials and CIET, it was decided that it would be effective for TSHIP to conduct a rapid assessment in a sample of facilities. Similarly, officials from the SMOH and SMLG in Sokoto were involved in the design, planning, and implementation of the assessment.

[1] Nigeria Demographic and Health Survey, 2008.

After preliminary discussions with partners and building off of a variety of health facility assessment tools previously used in Nigeria and other countries, an initial draft of the survey design was developed by TSHIP and then refined based on detailed feedback from partners; a team including staff from the various State departments and agencies. The final questionnaire has fourteen sections and contains a total of 187 questions. These sections are: 1) health facility background information, 2) staffing, 3) general infrastructure, 4) maternal services, 5) family planning, 6) operating theater, 7) laboratory services, 8) nutrition, 9) routine immunization, 10) treatment of childhood illnesses, 11) communication with communities, 12) Health Management Information System (HMIS), 13) supportive supervision, and 14) drug store.

During the field testing of the questionnaire, which was done together by TSHIP and State staff, several adjustments were made to the questionnaire to allow the questions to better fit the context. All adjustments were done in consultation with the State staff, who were to be involved in the assessment as supervisors.

3.2 Training

The TSHIP Monitoring and Evaluation (M&E) Officers together with the Directors of Planning, Research, and Statistics Departments of the SMOH conducted training for data collectors and supervisors in each state to introduce them to the assessment objectives, questionnaire, and process. Regarding data collectors, there were two collectors assigned per LGA for a total of 40 in Bauchi and 46 in Sokoto. It was determined that two data collectors for each facility interviewed was the optimal number for it allowed one collector to ask the questions and the other to record the answers. The data collectors in Bauchi were health facility staff that were carefully selected based on a performance recommendation by the SMOH while in Sokoto the data collectors selected were a mix of both LGA and health facility staff based on the recommendation of the LGAs.

SMOH staff, together with TSHIP staff, served as supervisors in view of their clinical experience and level of authority. The role of the supervisors was to review data collected in the health facilities to ensure that assessment forms were filled out consistently, that all applicable questions were answered, and that data was verified, collated, and submitted for data entry. In Bauchi, there was a supervisor per LGA for a total of 20 supervisors. For larger facilities, supervisors would assist the team of two data collectors in the data collection and served as primary data collectors for LGA level data. In Sokoto, LGAs were grouped into six zones and each zone was assigned two supervisors for a total of 12 supervisors. The reason that Sokoto chose to organize supervisors by zone as opposed to LGA was that the zonal approach allowed supervisors to collaborate during data review and the team in Sokoto believed that this additional layer of support was necessary.

In Bauchi, the training was conducted within one full day following initial field testing of the questionnaire while two full days were allowed for the training in Sokoto. Two days for the training is ideal, but the given the conflicting schedule of the immunization day it was decided to shorten the schedule to one day. Both trainings consisted of an introductory section which detailed the assessment's objectives and the process and logistics related to data collection, quality assurance, collation, and entry. Next, the questionnaire was reviewed in detail going section by section to ensure that participants understood all nuances of the tool. The training also explained the assessment's sampling methodology and participants with support from the trainers then selected the participating health facilities based on this methodology. Finally, a half day was devoted to role playing in both states and testing the tool resulting in some minor final revisions.

3.3 Health Facility Sampling

At the time of sampling, the SMOH in Bauchi and Sokoto States reported an estimated total of 989 and 800 health facilities respectively. Out of these 733 in Bauchi and 637 in Sokoto were listed as functional. In order to get rapid and reliable data, multi-stage sampling was employed working off of the lists of functional health facilities. TSHIP deemed it important to have both comprehensive geographic coverage, meaning inclusion of all 20 LGAs in Bauchi and 23 in Sokoto, and to include representation of all the different types of health facilities. After first clustering the facilities by LGAs, health facilities were then randomly selected by facility type (general hospitals, PHCs, MCHs, and dispensaries) from the total sampling frame of 733 in Bauchi and 637 in Sokoto. A fifth health facility type, private sector clinic, was added for Sokoto based on lessons learned during the Bauchi assessment, which was conducted first.

Table 1 below displays the total survey sample for each state by to health facility types.

Table 1: Sampling Frame for Bauchi and Sokoto States

Type of Facility	Total Number	Total Sample Size (Proportion)	Number Per LGA
Bauchi			
General Hospitals	23	10 (43%)	-
Primary Health Centers	45	21 (47%)	1
Maternal & Child Health Clinics	75	43 (57%)	2
Dispensaries	590	57 (10%)	3
Total	**733**	**131**	
Sokoto			
General Hospitals	16	10 (63%)	-
Primary Health Centers	59	30 (51%)	1 – 2
Maternal & Child Health Clinics	4	4 (100%)	-
Dispensaries	534	71 (13%)	3
Private Clinics	24	10 (42%)	-
Total	**637**	**125**	

For the health facility types in both states where there were fewer total facilities than number of LGAs (i.e., hospitals in Bauchi and hospitals and private clinics in Sokoto), the LGA was not factored into the sampling but instead the selected facilities were chosen at random for a total list of facility type. For MCH clinics in Sokoto, all facilities were assessed since the total number was only four. While 131 health facilities were selected in Bauchi, a total of 129 were assessed because two of the dispensaries turned out to be closed down. In Sokoto, 124 of the 125 selected facilities were assessed for one private clinic refused to be interviewed.

The study population included all adults, both male and female, above 18 years of age working in the selected health facilities in Bauchi and Sokoto.

3.4 Data Collection

Data was collected by teams of three people. Each team consisted of a supervisor and two other team members who focused on interviewing the health facility staff. Each team collected data from one to

two facilities per day. The teams generally arrived at 9:00 AM when facilities opened completing the facility background information first and then interviewing the personnel on all remaining sections. Collection was generally finished by mid-day.

3.5 Quality Assurance and Control

During the design phase, each health facility was assigned a unique identification number prior to the assessment to ensure that each facility could be traced. The list of health facilities with their codes was shared with the data collectors and supervisors during the training. During data collection, the supervisors were assigned the responsibility of first reviewing the administered questionnaires on daily basis as they came in and probing the data collectors for any inconsistencies before passing to the next level, the TSHIP state level office. An assessment coordinator at the state level, which was a TSHIP senior technical staff member, performed a second level review of the administered questionnaires and filed them by LGA. Data entry clerks from the SMOH were hired and trained on the Excel template developed to capture the data, which was designed in a way to ensure that specific values were entered into each cell.

3.6 Ethical Consideration

Before administering the health facility questionnaire, health care providers' consent was sought through a written consent form and interviewees were informed that they had the right not to participate and that they could also withdraw from the research at anytime during the assessment. With the exception of staff in one private clinic in Sokoto state, no one declined involvement in the survey.

3.7 Data Sources and Analysis

All data collected from the assessment was compiled on a daily basis, edited, and reviewed by the site supervisor for errors and missing data. If any missing data or questions arose, the supervisor would then discuss and resolve the issue with the data collector. The data was then submitted to the TSHIP state office at the end of collection. The raw data was then entered into Excel worksheet for analysis by a team of data entry consultants that were thoroughly trained and supervised by the TSHIP M&E Officer in each state. After TSHIP cleaned the data, all frequencies and indicators were constructed as per the assessment questionnaire. Summary tables of indicator frequencies were prepared by the data analysis team and shared with the TSHIP and SMOH staff. After receiving feedback and requests for further analysis, secondary analysis was undertaken. For data storage and analysis purposes, TSHIP decided to transfer and house the data in SPSS and conducted secondary analysis using this program. Detailed analysis tables can be found in Annex 1.

3.8 Limitations

It is important to note that during the preparation and rolling out of the survey the TSHIP Performance Management Plan (PMP) was not yet finalised. As such, some additional indicators like those related to polio were later added and thus are not fully represented in this assessment. While results are often disaggregated by type of health facility, the sample of health facilities per LGA was too small for this disaggregation by LGA to be meaningful. Furthermore, the health facility rapid assessments were not conducted simultaneously in both Bauchi and Sokoto states. The assessment was conducted first in Bauchi and afterwards in Sokoto. The questionnaire and approach for Sokoto were slightly modified in

view of of lessons learned by the team in Bauchi. One such lesson was the inclusion of private clinics to Sokoto's sampling frame.

Finally, the assessments are cross sectional studies of 131 and 129 health facilities selected from Bauchi and Sokoto respectively. While it can be difficult to draw conclusions for the whole state based on a small sample, findings here will be generalized across the states for the primary purpose of project planning and programming. This generalization is warranted due to the cluster random sampling, and the care taken to include representation from each unique type of health facility. Also, findings are the result of a given point in time and thus some findings could vary depending on the day. Thus, all data relates to the time of the assessment.

4.0 Findings

This section provides an analysis of the findings in each program area for the information that was collected on the health facility assessment. The sample size used in calculating proportions against every reported indicator in this report is represented by 'n'. Also, Table 1 in the above section details the total number of health facilities in each state broken down by the type of facility and can be used as a reference during review of the findings. Please note that due to further data cleaning some of the indicator data have been updated from the preliminary data that was presented in Annex 3 of the TSHIP's Quarter Two Report.

4.1 Staffing

The ability of Bauchi and Sokoto states to meet their health goals depends largely on the knowledge, skills, motivation, and deployment of the people responsible for organizing and delivering health services. According to the World Health Organization (WHO), a number of studies have shown evidence of a direct and positive link between the number of health workers and a population's health outcomes.[2] As shown in Table 2, a human resources capacity assessment conducted on Nigeria's public health sector showed the following breakdown of staff per 100,000 population.

Table 2: Number of Health Workers per 100,000 Population (2005 data)

Location	Doctors	Nurses and Midwives	Pharmacists	CHOs/CHEWs
Nigeria	28	170	5	91
North West zone (includes Sokoto)	15	68	9	60
North East zone (includes Bauchi)	7	90	3	76

Nigeria has one of the largest stocks of human resources for health in Africa comparable only to Egypt and South Africa. There are about 35,000 doctors and 210,000 nurses registered in the country, which as shown above translates to 28 doctors and 170 nurses per 100,000 population. This compares to a Sub-Saharan average of 15 doctors and 72 nurses per 100,000 population. While the health staff numbers are generally adequate in Nigeria, the report states the allocation of staff to the different states may not

[2] "Toolkit on Monitoring Health Systems Strengthening: Human Resources for Health," WHO, May 2009.

be fully equitable[3]. As shown in Table 1, with the exception of pharmacists, the numbers of health workers per 100,000 population in the North West and North East zones are well below the figures for the country as a whole.

At the LGA level, primary health care facilities are classified into four types: general hospitals (GHs), primary health centers (PHCs), primary health/maternal and child health clinics (MCHCs), and dispensaries/health posts. According to the Ward Minimum Health Care Package, health facilities are recommended to have the following staffing levels.

- PHCs should have a total of 16 staff (1 community health officer (CHO), 1 public health nurse, 3 CHEW, 6 junior CHEW (JCHEW), 4 nurse/midwives, and 1 medical assistant).
- MCHCs should have 6 staff (2 CHEWs and 4 JCHEWs).
- Dispensaries should have 2 staff (1 JCHEW and 1 traditional birth attendant (TBA)).

In both Bauchi and Sokoto, staffing levels vary widely by the type of facility as well as within a given type of facility.

Bauchi

In Bauchi, the average number of staff (health worker and support staff) for general hospitals, PHCs, MCHCs, and dispensaries surveyed was 144 (standard deviation = 64.8), 25 (standard deviation = 9.6), 7 (standard deviation = 6.3), and 4 (standard deviation = 2.8) respectively. Given the variance, Table 3 below provides additional detail breaking down the number of facilities by range of staffing levels.

Table 3: Number of Staff by Type of Health Facility in Bauchi

Hospitals (n = 10)		PHC (n = 21)		MCHC (n = 43)		Dispensary (n = 55)	
Range of Staff	No. of Facilities	Range of Staff	No. of Facilities	Range of Staff	No. of Facilities	Range of Staff	No. of Facilities
50 – 96	3	5 – 12	2*	1 - 2	6*	1	7*
124 – 190	5	14 -15	3*	3 - 5	13*	2	17
203 – 263	2	20 – 25	4	6 - 10	17	3	12
		26 – 30	5	11 - 12	5	4	7
		31 – 35	3	23	1	5 – 10	9
		36 – 41	4	38	1	11 – 14	3

Note: * refers to the health facilities which have staffing levels below the recommended levels set out in the Ward Minimum Health Care Package.

In Bauchi, more than three quarters of the PHCs surveyed (76.2%, n = 21) were above the 16 staff recommendation in the Ward Minimum Health Care Package while the remaining fell below this guideline. Only half of the MCHCs (53.7%, n = 43) had at least six staff. The majority of the dispensaries surveyed (87.3%, n = 55) met the standard of two staff with 30.9% at exactly two staff.

Regarding specific staff positions in Bauchi, the majority of all health facilities (93.8%, n = 129) surveyed had CHEWs on staff. For nurses/midwives, more than half (60.0%, n = 10) of the hospitals, one third of the PHCs (38.1%, n = 21), and few MCHCs and dispensaries (18.6%, n = 43 and 1.8%, n = 55) had this

[3] "A Situation Assessment of the Human Resources for Health in Public Health Sector in Nigeria," Joint Federal Government of Nigeria (FMOH/NACA) Report, September 2006.

position on staff. For doctors, the majority of hospitals (90%, n = 10) had this position on staff while one quarter of the PHCs (28.6%, n = 21) and a minority of the MCHCs (2.3%, n = 43) did.

Approximately two thirds of total staff were male (70.7%, n = 2,474) while almost a third of the staff were female (29.3%, n = 2,474). Further, approximately half of the total staff was health workers (doctors, nurses, midwives, CHEWs, medical assistants, etc.) (47.9%, n = 2,474) while the remaining (52.1%, n =2,474) was support staff (administration, drivers, cleaners, etc.). Health facilities were asked to identify key training needs. Of the health facilities surveyed, 79.1% identified maternal health as a training need followed by 76.7% for child health and 58.9% for family planning/reproductive health.

Sokoto

In Sokoto, the average number of staff for GHs, PHCs, MCHCs, and dispensaries surveyed was 69 (standard deviation = 33.4), 26 (standard deviation = 15.1), 27 (standard deviation = 21.4), and 7 (standard deviation = 5.9) respectively. For private facilities surveyed in Sokoto, the average number of staff was 25 (standard deviation = 15.7). Given the variance, Table 4 below provides additional detail breaking down the number of facilities by range of staffing levels.

Table 4: Number of Staff by Type of Health Facility in Sokoto

Hospitals (n = 10)		PHC (n = 30)		MCHC (n = 4)		Dispensary (n = 71)	
Range of Staff	No. of Facilities	Range of Staff	No. of Facilities	Range of Staff	No. of Facilities	Range of Staff	No. of Facilities
34 – 44	3	5 - 10	3*	10	1	1	3*
56 – 65	4	11 -15	7*	17	1	2	7
85 – 94	2	17 -27	10	22	1	3	12
148	1	32 – 42	8	58	1	4	15
		55 – 76	2			5 – 10	24
						11- 15	5
						21 -31	3

Note: * refers to the health facilities which have staffing levels below recommended levels set out in the Ward Minimum Health Care Package.

In Sokoto, two thirds of the PHCs surveyed (66.0%, n = 30) had above the 16 staff recommended in the Ward Minimum Health Care Package while one third (33.0%, n = 30) fell below this guideline. All four MCHCs (100.0%, n = 4) had at least six staff. The majority of the dispensaries surveyed (95.8%, n = 71) met the standard of two staff.

Regarding specific staff positions in Sokoto, all MCHCs (n = 4) had CHEWs on staff while the majority of the PHCs and dispensaries surveyed (96.7%, n = 30 and 94.4%, n = 71 respectively) and half of the hospitals (50.0%, n = 10) had CHEWs on staff. For nurses/midwives, approximately three fourths of the hospitals (70.0%, n = 10), less than a quarter of the PHCs (16.7%, n = 30), half of the MCHCs (50.0%, n = 4), and a minority of the dispensaries (2.8%, n = 71) had this position on staff. For doctors, the majority of the hospitals (90.0%, n = 10) had this position on staff while less than a quarter of the PHCs (16.7%, n = 30) and a quarter of the MCHCs (25.0%, n = 4) did. Related to the private sector clinics, 88.9% and 44.4% (n = 9) of the facilities surveyed reported having doctors and nurses/midwives on staff respectively.

Approximately two thirds of total staff were female (64.8%, n = 4,026) while a third of the staff were male (35.2%, n = 4,026). Further, more than three fourths of total staff was health workers (doctors,

nurses, midwives, CHEW, medical assistants, etc.) (75.6%, n = 4,026) while less than a quarter (24.4%, n = 4,026) was support staff (administration, drivers, cleaners, etc.).

Health facilities were asked to identify key training needs. 84.7% of the health facilities surveyed identified nutrition, 83.1% malaria, 78.2% family planning, 76.6% modified life saving skills (MLSS), and 75.8% routine immunization.

4.2 Infrastructure

In preparation of the sampling for this assessment, TSHIP consulted with the SMOH in Bauchi and Sokoto, the Bauchi SPHCDA, and various implementing partners to determine the list of the total number of health facilities in each state. There have been inconsistencies in the numbers reported by each state at different periods. For instance, the numbers given during the time of the sampling and the numbers listed in the State Strategic Health Plans (SSHP) are different. For reporting purposes, TSHIP has decided to go with the official number listed in each SSHP. As a note, this number is different from the one used to determine the assessment's sample for the SSHPs were not yet available at the time of the sampling. According to the SSHPs, there are a total of 875 and 638 health facilities in Bauchi and Sokoto respectively whereas 733 and 637 respectively are listed in the assessment's sample.

The assessment reviewed availability of basic infrastructure necessary to providing high quality services in health facilities. Key basic infrastructure included five main items: 1) water source (tap, borehole, well, or river), 2) functioning latrine or toilet, 3) electricity (connection to national grid), 4) availability of a generator as a back up power source, and 5) medical waste disposal. In Bauchi, a minority of the health facilities (7.8%, n = 129) had access to the five key infrastructure items (50.0% of the hospitals (n = 10), 19.0% of the PHCs (n = 21), 2.3% of the MCHCs (n = 43), and 0% of the dispensaries (n = 55) had access). In Sokoto, a minority of the health facilities (13.7%, n = 124) had access to the five key infrastructure items (30.0% of the hospitals (n = 10), 16.7% of the PHCs (n = 30), 0% of the MCHCs (n = 4), and 1.4% of the dispensaries (n = 71) had access). However, 88.9% of the private clinics (n = 9) in Sokoto had access to the five key infrastructure items.

Of the 71 health facilities surveyed providing family planning in Bauchi, more than half of the facilities (54.9%, n = 71) reported that their commodity storage room was in good condition, 18.3% (n = 71) reported that it was in poor condition, 4.2% (n = 71) reported that it was under renovation, and 22.5% (n = 71) did not have a storage room. For facilities providing delivery and PNC services in Bauchi, almost half of the facilities (46.7%, n = 75) reported that their delivery rooms were in good condition, 38.7% (n = 75) reported that it was in poor condition, 12.0% (n = 75) reported that it was under renovation, and 2.7% (n = 75) did not have a delivery room.

Of the 49 health facilities surveyed providing family planning in Sokoto, almost three quarters of the facilities (69.4%, n = 49) reported that their commodity storage room was in good condition, 12.2% (n = 49) reported that it was in poor condition, 4.1% (n = 49) reported that it was under renovation, and 14.3% (n = 49) did not have a storage room. Related to facilities providing delivery and PNC services in Sokoto, a majority of the facilities (83.1%, n = 59) reported that their delivery rooms were in good condition, 10.2% (n = 49) reported that it was in poor condition, 1.7% (n = 49) under renovation, and 5.1% (n = 49) did not have a delivery room.

4.3 Maternal Services

Bauchi

In the 2008 NDHS, over one-quarter (27.1%) of women of reproductive age in Bauchi reported problems in getting permission to go for treatment compared to 13.6% nationally. Over half (54.8%) of women reported problems in getting money for treatment and likewise one-third (34.3%) reported difficulty in accessing care due to distance to the facility. More than one-quarter (28.0%) of women reported a concern of non availability of female providers as a barrier to accessing health care while two thirds (65.6%) of women reported a concern that the lack of availability of drugs at the facility will limit their service uptake.

More than half of the health facilities (59.7%, n = 129) surveyed reported offering maternal services. Of the health facilities providing ANC and PNC services, 94.7% and 30.3% and (n = 76) reported having CHEWs and midwives/nurses on staff respectively.

Table 5 below shows the breakdown of material services offered by health facility type in Bauchi. As a note, for each facility type, percentages are given within the total of the particular type of health facility as opposed to the percentage within the total of all health facilities.

Table 5: Percentage of Health Facilities in Bauchi Providing Maternal Services

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	Total HF % (N)
% of facilities that offer maternal services	100.0 (10)	95.2 (21)	90.7 (43)	14.5 (55)	**59.7** (129)
Antenatal Care Services					
% of facilities that offer ANC services, of those that provide maternal services	100.0 (10)	100.0 (20)	100.0 (39)	87.5 (8)	**98.7** (77)
% of facilities that monitor all four key components (growth of fetus, mother's weight gain, blood pressure, hemoglobin) during pregnancy during ANC, of those that provide ANC services,	100.0 (10)	95.0 (20)	100.0 (39)	100.0 (7)	**98.7** (76)
% of facilities that offer all of the following (vitamin A, iron, folic acid, tetanus toxoid, intermittent preventative therapy (IPT)) during ANC, of those that provide ANC services	100.0 (10)	100.0 (20)	100.0 (39)	100.0 (7)	**100.0** (76)
Postnatal Care Services					
% of facilities that offer delivery and PNC services, of those that provide maternal services	100.0 (10)	100.0 (20)	100.0 (39)	87.5 (8)	**98.7** (77)
% of facilities that provide active management of third stage labor (AMTSL) (uterine massage, oxytocin, controlled cord traction), of those that provide PNC services,	70.0 (10)	40.0 (20)	30.8 (39)	14.3 (7)	**36.8** (76)
% of facilities that treat eclampsia (magnesium sulphate, diazepam, anti-hypertensive drugs), of those that provide PNC services	70.0 (10)	30. (20)	5.1 (39)	0 (7)	**19.7** (76)
% of facilities that treat sepsis with antibiotics, of those that provide PNC services	90.0 (10)	95.0 (20)	92.3 (39)	100.0 (7)	**93.4** (76)
% of facilities that perform manual removal of placenta, of those that provide PNC services	90.0 (10)	85.0 (20)	94.9 (39)	100.0 (7)	**92.1** (76)
% of facilities that provide post-abortion care – manual vacuum aspiration, of those that provide PNC services	90.0 (10)	45.0 (20)	20.5 (39)	14.3 (7)	**35.5** (76)
% of facilities that provide essential newborn care	100.0	65.0	79.5	71.4	**77.6**

(clean cord care, drying and wrapping, immediate breast feeding), of those that provide PNC services	(10)	(20)	(39)	(7)	(76)
% of facilities that provide postpartum hemorrhage care (ergometrine/misoprostol, oxytocin, antishock garment), of those that provide PNC services	40.0 (10)	0 (20)	0 (39)	0 (7)	**5.3** (76)

As shown in Table 5, approximately one third of the health facilities (36.8%) that offered PNC services provide AMTSL, which is defined as providing all three components (uterine massage, oxytocin, and controlled cord traction). Of those that provided AMTSL, 75.0% of these facilities (n = 28) reported that oxytocin was in stock the day of the assessment. For the remaining 48 health facilities that did not provide AMTSL, the majority (91.7%) did provide at least one or two services. Looking at the three services individually, controlled cord traction and uterine massage were practiced the least among facilities offering PNC services (61.8% and 63.2% respectively, n = 76) while 77.6% use oxytocin.

As shown in Table 5, more than three quarters of the facilities (77.6%, n = 76) that offered PNC services provide ENC, which is defined as providing all three components (clean cord care, drying and wrapping, and immediate breast feeding). For the remaining 17 facilities that did not provide ENC, 94.1% provided at least one to two services. Looking at the three services individually, 97.4%, 89.5%, and 82.9% (n = 76) of the health facilities provided clean cord care, exclusive breastfeeding, and drying and wrapping respectively.

Sokoto

In the 2008 NDHS, 13.2% of women of reproductive age in Sokoto reported problems in getting permission to go for treatment compared to 13.6% nationally. Three quarters (65.9%) of women reported problems in getting money for treatment and approximately one quarter (23.7%) reported difficulty in accessing care due to the distance to the facility. More than half (58.3%) of women reported a concern of non availability of female providers as a barrier to accessing health care while almost two thirds (60.0%) of women reported a concern that the lack of availability of drugs at the facility would limit their service uptake.

More than half of the health facilities (58.1%, n = 124) surveyed reported offering maternal services. Table 6 below shows the breakdown of material services offered by health facility type in Sokoto.

Table 6: Percentage of Health Facilities in Sokoto Providing Maternal Services

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	PC % (N)	Total HF % (N)
% of facilities that offer maternal services	100.0 (10)	93.3 (30)	100.0 (4)	31.0 (71)	88.9 (9)	**58.1** (124)
Antenatal Care Services						
% of facilities that offer ANC services, of those that provide maternal services	90.0 (10)	100.0 (28)	100.0 (4)	100.0 (22)	100.0 (8)	**98.6** (72)
% of facilities that monitor all four key components (growth of fetus, mother's weight gain, blood pressure, hemoglobin) during pregnancy during ANC, of those that provide ANC services	88.9 (9)	46.4 (28)	25.0 (4)	22.7 (22)	100.0 (8)	**49.3** (71)
% of facilities that offer all of the following (vitamin A, iron, folic acid, tetanus toxoid,	11.1 (9)	10.7 (28)	0 (4)	22.7 (22)	25.0 (8)	**15.5** (71)

intermittent preventative therapy (IPT)) during ANC, of those that provide ANC services						
Postnatal Care Services						
% of facilities that offer delivery and PNC services, of those that provide maternal services	100 (10)	100.0 (28)	50.0 (4)	59.1 (22)	100.0 (8)	**84.7** (72)
% of facilities that provide active management of third stage labor (AMTSL) (uterine massage, oxytocin, controlled cord traction), of those that provide PNC services	70 (10)	53.6 (28)	100 (2)	15.4 (13)	37.5 (8)	**47.5** (61)
% of facilities that treat eclampsia (magnesium sulphate, diazepam, anti-hypertensive drugs), of those that provide PNC services	10 (10)	0 (28)	0 (2)	0 (13)	0 (8)	**1.6** (61)
% of facilities that treat sepsis with antibiotics, of those that provide PNC services	100 (10)	100 (28)	100 (2)	100 (13)	100 (8)	**100** (61)
% of facilities that perform manual removal of placenta, of those that provide PNC services	100 (10)	100 (28)	100 (2)	84.6 (13)	100 (8)	**96.7** (61)
% of facilities that provide post-abortion care – manual vacuum aspiration, of those that provide PNC services	100 (10)	42.9 (28)	50.0 (2)	30.8 (13)	87.5 (8)	**55.7** (61)
% of facilities that provide essential newborn care (clean cord care, drying and wrapping, immediate breast feeding), of those that provide PNC services	80 (10)	78.6 (28)	50.0 (2)	61.5 (13)	100.0 (8)	**77.0** (61)
% of facilities that provide postpartum hemorrhage care (ergometrine/misprostol, oxytocin, antishock garment), of those that provide PNC services	30 (10)	0 (28)	0 (2)	0 (13)	25.0 (8)	**8.2** (61)

As shown in Table 6, almost half of the health facilities (47.5%, n = 61) that offered PNC services provide AMTSL, which is defined as providing all three components (uterine massage, oxytocin, and controlled cord traction). Of those that provided AMTSL, 79.3% of these facilities (n = 29) reported that oxytocin was in stock the day of the assessment. For the remaining 32 health facilities that did not provide AMTSL, the majority (78.2%) did provide at least one or two services. Looking at the three services individually, uterine massage was practiced the least among facilities offering PNC services (62.3%) as opposed to controlled cord traction (68.9%) and use of oxytocin (80.3%).

As shown in Table 6, more than three quarters of the facilities (77.0%, n = 61) that offered PNC services provide ENC, which is defined as providing all three components (clean cord care, drying and wrapping, and immediate breast feeding). For the remaining 14 facilities that did not provide ENC, three quarters (64.3%) provided two services. Looking at the three services individually, there were no real differences in the frequencies.

4.4 Family Planning

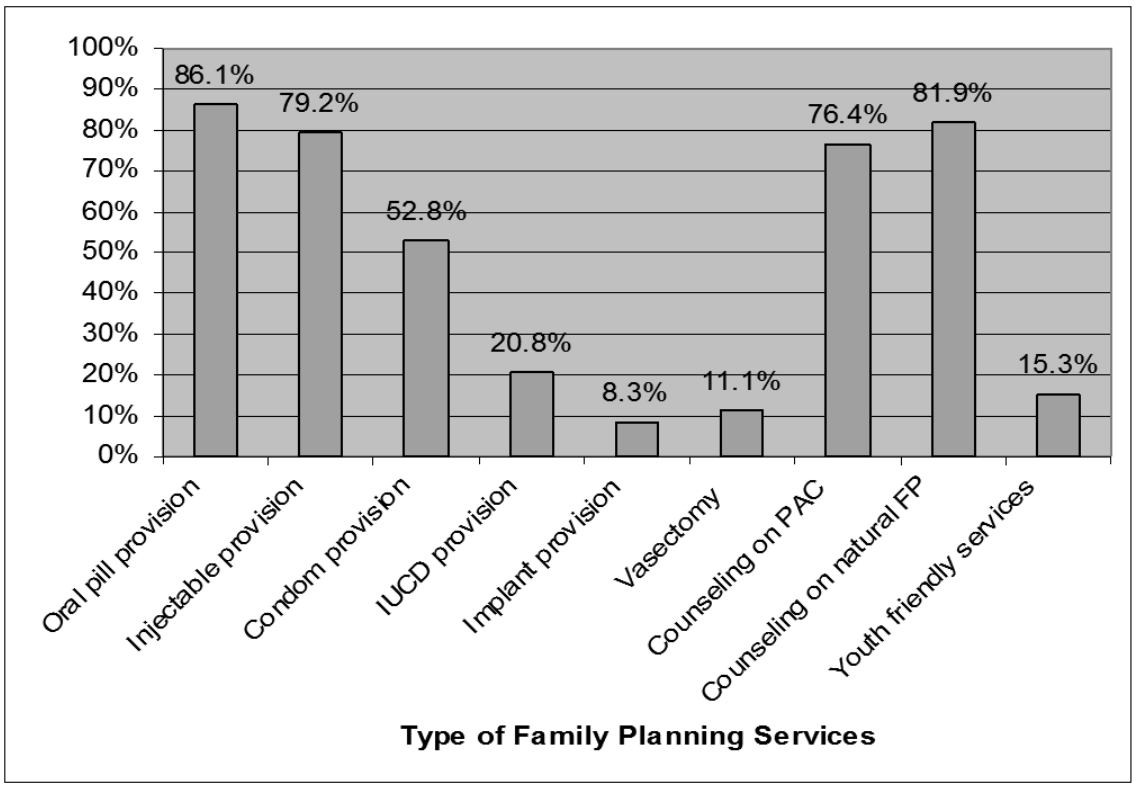
Bauchi

According to the 2008 DHS, knowledge of at least one contraceptive method among women of reproductive age was as low as 67.2%, which is similar to the national figure. Only 2.0% of women reported currently using any modern method compared 9.7% nationally. Related to youth aged 15 – 19, there was a high incidence of teenage pregnancy of 41.3%.

More than half of all the health facilities (55.8%, n = 129) surveyed offered family planning services (90.0% of the hospitals (n = 10), 90.5% of the PHCs (n = 21), 83.7% of the MCHCs (n = 43), and 14.5% of the dispensaries (n = 55) did so). Within those facilities that provided family planning services, less than half (48.6%, n = 72) provided at least three services (77.8% of the hospitals (n = 9), 57.9% of the PHCs (n = 19), 38.9% of the MCHCs (n = 36), and 37.5% of the dispensaries (n = 8) did so). Of those facilities that provided family planning services, 94.4% and 29.2% (n = 72) reported having CHEWs and midwives/nurses on staff respectively.

As stated in the 2008 NDHS, the three most known family planning services provided in Nigeria are condoms, oral pills, and injectables. Less than half of the health facilities (43.1%, n = 72) surveyed provided all three of these most common services. Figure 1 below indicates the availability of different types of family planning services at the health facilities surveyed. Annex 1 provides additional information on service provision by type of facility.

Figure 1: Percentage of Health Facilities Providing Family Planning Services in Bauchi by Type of Service



Related to availability of commodities, health facilities were assessed on any stock outs within the three months prior to the assessment. For those that provided a particular family planning service, the following health facilities in Bauchi experienced stock outs within this time period.

- Oral pill provision: 35.5% of total facilities (n = 62).
- Injectable provision: 42.1% of total facilities (n = 57).
- Condom provision: 28.9% of total facilities (n = 38).
- IUCD provision: 53.3% of total facilities (n = 15).

In regards to providing counseling at the time of commodity provision, half of all the health facilities (50.0%, n = 72) reported doing so (44.4% of the hospitals (n = 9), 63.2% of the PHCs (n = 19), 50.0% of the MCHCs (n = 36), and 25.0% of the dispensaries (n = 8) reported this).

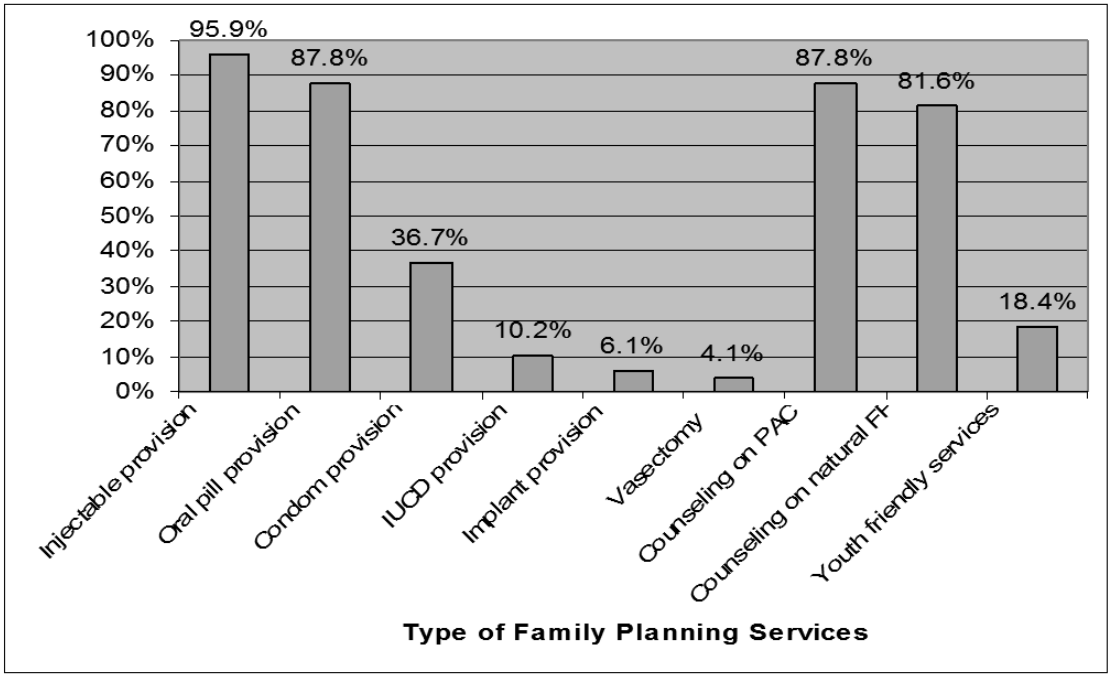
Sokoto

According to the 2008 DHS, knowledge of at least one contraceptive method among women in Sokoto was as low as 44.5% compared to 67.0% nationally. Only 1.9% of women reported currently using any modern method compared to 9.7% nationally. Related to youth aged 15 – 19, there was a high incidence of teenage pregnancy of 37.4%.

Less than half of all the health facilities (39.5%, n = 124) surveyed offered family planning services (100.0% of the hospitals (n = 10), 60.0% of the PHCs (n = 30), 75.0% of the MCHCs (n = 4), 16.9% of the dispensaries (n = 71), and 66.7% of the private clinics (n = 9) did so). Within those facilities that provided family planning services, approximately three quarters of all facilities (34.7%, n = 72) provided at least three services (40.0% of the hospitals (n = 10), 22.2% of the PHCs (n = 18), 33.3% of the MCHCs (n = 3), 33.3% of the dispensaries (n = 12), and 66.7% of the private clinics (n = 6) provided this). Of those facilities that provided family planning services, 87.8% and 36.7% of the health facilities (n = 49) reported having CHEWs and midwives/nurses on staff respectively.

According to the 2008 NDHS, the three most known family planning services provided in Nigeria are condoms, oral pills, and injectables. One third of the health facilities (34.7%, n = 49) surveyed provided all three of these most common services. Figure 2 below indicates the availability of different family planning services at the health facilities surveyed. Annex 1 provides additional information on service provision by type of facility.

Figure 2: Percentage of Health Facilities Providing Family Planning Services in Sokoto by Type of Service



Related to availability of commodities, health facilities were assessed on any stock outs within the three months prior to the assessment. For those that provided a particular family planning service, the following health facilities in Sokoto experienced stock outs within in this period.

- Injectable provision: 53.2% of total faculties (n = 47).
- Oral pill provision: 51.2% of total facilities (n = 43).
- Condom provision: 50.0% of total facilities (n = 18).
- IUCD provision: 80.0% of total facilities (n = 5).

In regards to providing counseling at the time of commodity provision, less than three quarters of all the health facilities (30.6%, n = 49) reported doing so (30% of the hospitals (n = 10), 33.3% of the PHCs (n = 18), 0% of the MCHCs (n = 3), 25.0% of the dispensaries (n = 12), and 50.0% of the private clinics (n = 6).

4.5 Operating Theater and Laboratory Services

In **Bauchi**, a minority of health facilities (7.8%, n = 129) surveyed offered operating theater services. More specifically, 80.0% of the hospitals (n = 10) and 9.5% of the PHCs (n = 21) provided these services while the lower level facilities did not. Related to laboratory services, less than a quarter of all the facilities (19.4, n = 129) offered these services. All hospitals (100.0%, n = 10) and 71.4% of the PHCs (n = 21) provided laboratory services while the lower level facilities did not.

In **Sokoto**, less than a quarter of all the facilities (20.2%, n = 124) surveyed offered operating theater services. More specifically, 100.0% of the hospitals (n = 10), 30.0% of the PHCs (n = 30), 25.0% of the MCHCs (n = 4), and 55.6% of the private clinics (n = 9) provided these services. Related to laboratory services, a quarter of all the facilities (26.6%, n = 124) offered these services. All hospitals (100.0%, n =

10), 56.7% of the PHCs (n = 30), 25.0% of the MCHCs (n = 4), and 55.6% of the private clinics (n = 9) provided laboratory services.

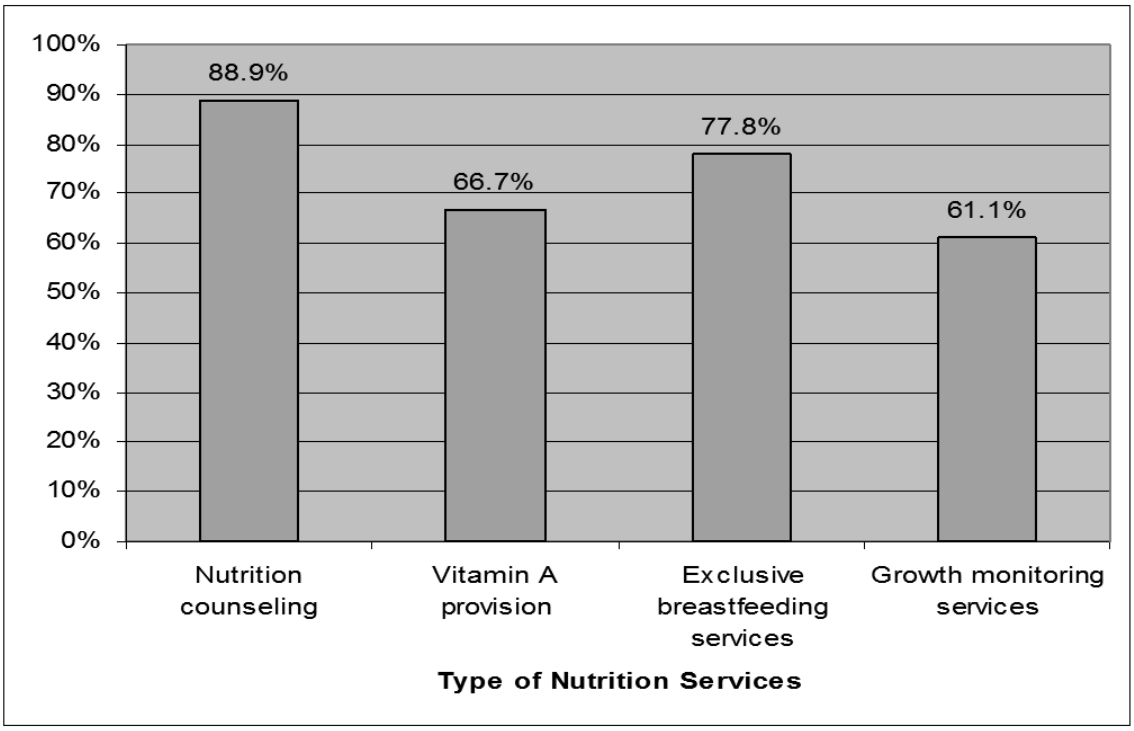
4.6 Nutrition

Bauchi

According to the 2008 NDHS, among last-born children ever breastfed, 8.6% and 38.6% started breastfeeding within one hour of birth and within one day of birth respectively. This is compared to the respective national figures of to 38.4% and 67.5%. In Bauchi, less than half of all the health facilities (41.9%, n = 129) surveyed offered nutrition services (80.0% of the hospitals (n = 10), 42.9% of the PHCs (n = 21), 46.5% of the MCHCs, and 30.9% of the dispensaries (n = 55) did so). Of those facilities providing nutrition services, 94.4% and 25.9% of the health facilities (n = 54) had CHEWs and midwives/nurses on staff respectively.

Among health facilities providing nutrition services, Figure 3 below presents the availability of specific nutrition services. Annex 1 provides additional information on service provision by type of facility.

Figure 3: Percentage of Health Facilities Providing Nutrition Services in Bauchi by Type of Service



Among health facilities that provided vitamin A supplementation services, 38.9% of these facilities (n = 36) reported having vitamin A in stock on the day of the assessment.

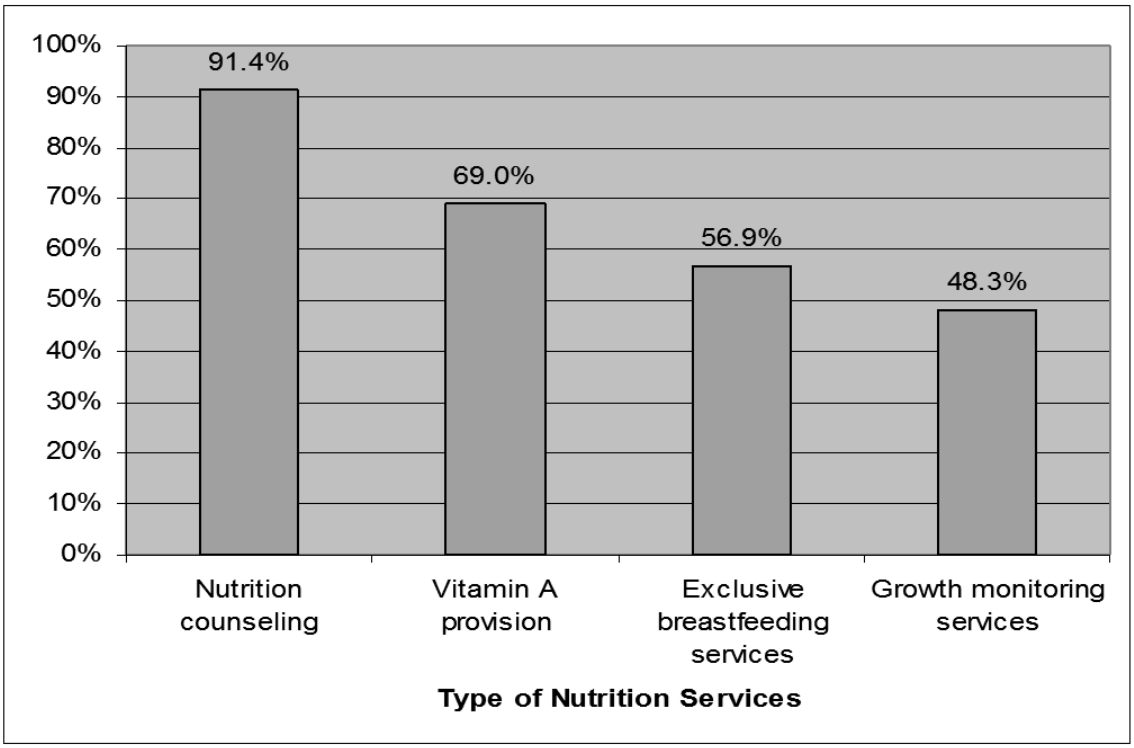
Sokoto

According to the 2008 NDHS, among last-born children ever breastfed, 38.4% and 54.6% started breastfeeding within one hour of birth and within one day of birth respectively. This is compared to the respective national figures of to 38.4% and 67.5%. In Sokoto, less than half of all the health facilities (46.8%, n = 124) surveyed offered nutrition services (50.0% of the hospitals (n = 5), 60.0% of the PHCs (n

= 30), 50.0% of the MCHCs (n =4), 35.2% of the dispensaries (n = 71), and 88.9% of the private clinics (n = 9) did so). Among health facilities providing nutrition services, 96.6% and 24.1% (n = 58) of them had CHEWs and midwives/nurses on staff respectively.

Among health facilities providing nutrition services, Figure 4 below presents the availability of specific nutrition services. Annex 1 provides additional information on service provision by type of facility.

Figure 4: Percentage of Health Facilities Providing Nutrition Services in Sokoto by type of Service



Among health facilities that provide vitamin A supplementation services, 32.5% of these facilities (n = 40) reported having vitamin A in stock on the day of the assessment.

4.7 Childhood Illness

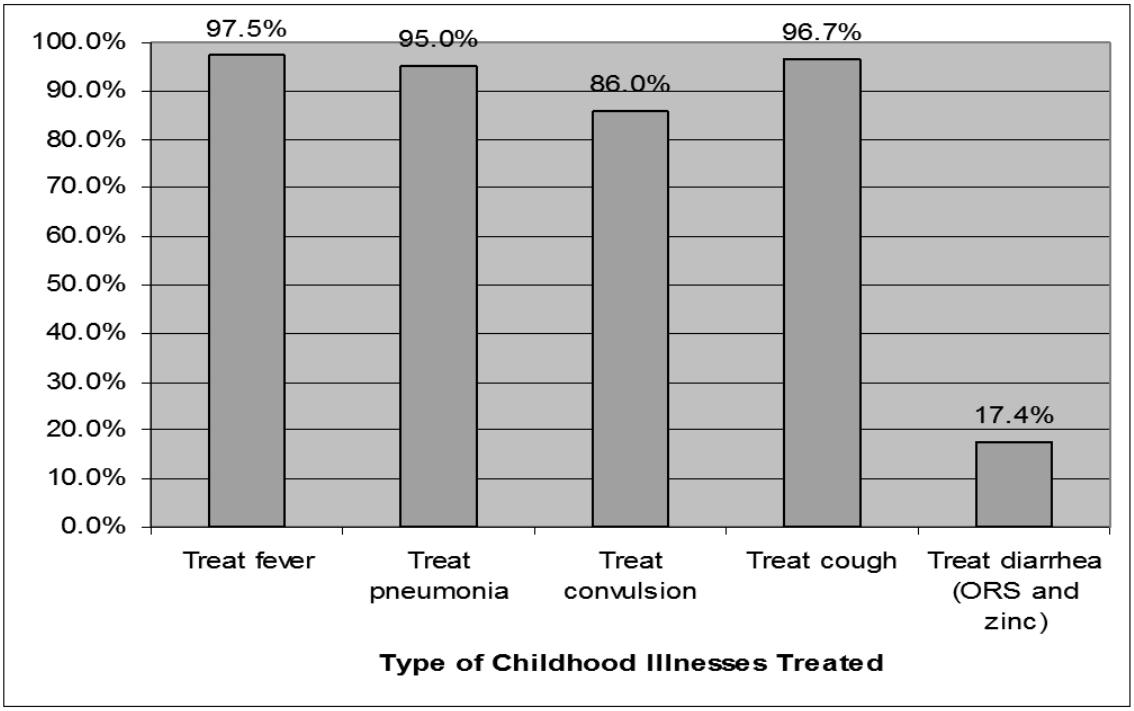
Bauchi

As shown in the 2008 NDHS, among children under age five, 36.4% had a fever in the two weeks preceding the survey and 47.8% of children under five with fever sought advice or treatment from a health facility or provider. This is compared to the respective national figures of 15.9% (fever two weeks prior) and 54.1% (sought treatment of fever). 32.0% of the children under five reported diarrhea in the two weeks preceding the survey while 68.9% of women aged 15 - 49 years with a birth in the five years preceding the survey knew about oral rehydrate salts (ORS) packets.

In Bauchi, a majority of all the health facilities (93.8%, n = 129) surveyed offered treatment for childhood illnesses (100.0% of the hospitals (n = 10), 100.0% of the PHCs (n = 21), 97.7% of the MCHCs (n = 43), and 87.3% of the dispensaries (n = 55) did so). Of those facilities treating childhood illnesses, 94.2% and 19.0% of them (n = 121) had CHEWs and midwives/nurses on staff respectively. Among those that offered treatment to childhood illnesses, Figure 5 below shows those that treated fever, pneumonia,

convulsion, cough, and diarrhea (treated with ORS and zinc). Annex 1 provides additional information on service provision by type of facility.

Figure 5: Percentage of Health Facilities Providing Treatment of Childhood Illnesses in Bauchi by Type of Illness



As shown above, only 17.4% of the facilities treated diarrhea with both ORS and zinc. However, all health facilities (100.0%, n = 121) surveyed treated diarrhea with ORS. Of those facilities that treated diarrhea with ORS, half of them (54.2%, n = 120) had ORS in stock the day of the assessment. Of those facilities that treated diarrhea with zinc, less than a quarter of them (19.0%, n = 21) had zinc in stock the day of the assessment.

For malaria, more than half of the health facilities (62.8%, n = 121) surveyed provided artemisinin-based combination therapy (ACT) for the treatment of malaria. Of those that provided ACT, 43.4% of these facilities (n = 76) had it in stock the day of the assessment. As for prevention of malaria, less than a quarter of the facilities (24.8%, n = 121) provided long lasting insecticide treated bed nets (LLIN).

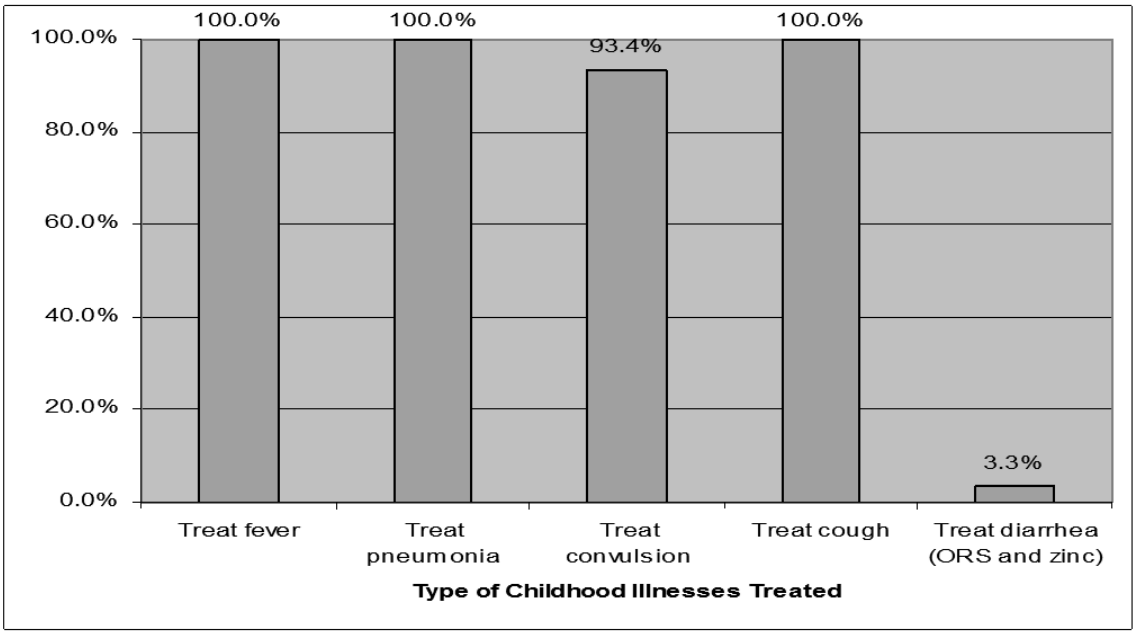
Sokoto

As shown in the 2008, among children under age five, 9.7% had a fever in the two weeks preceding the survey and 30.4% of children under five with fever sought advice or treatment from a health facility or provider. This is compared to the respective national figures of 15.9% (fever two weeks prior) and 54.1% (sought treatment of fever). 14.0% of children under five reported diarrhea in the two weeks preceding the survey while 23.0% of women aged 15 - 49 with a birth in the five years preceding the survey know about ORS packets.

In Sokoto, a majority of all the health facilities (97.6%, n = 124) surveyed offered treatment for childhood illnesses (100.0% of the hospitals (n = 10), 100.0% of the PHCs (n = 30), 100.0% of the MCHCs (n = 4), 95.8% of the dispensaries (n = 71), and 100.0% of the private clinics (n = 9) did so). Of those facilities treating childhood illnesses, 90.9% and 16.5% (n = 121) of them had CHEWs and

midwives/nurses on staff respectively. Among those that offered treatment to childhood illnesses, Figure 6 below shows those facilities that treated fever, pneumonia, convulsion, cough, and diarrhea (treated with ORS and zinc). Annex 1 provides additional information on service provision by type of facility.

Figure 6: Percentage of Health Facilities Providing Treatment of Childhood Illnesses in Sokoto by Type of Illness



As shown above, only 3.3% of the facilities treated diarrhea with both ORS and zinc. However, the majority of the health facilities (99.2%, n = 121) surveyed treat diarrhea with ORS. Of those facilities that treat diarrhea with ORS, half of them (45.8%, n = 120) had ORS in stock the day of the assessment. Of those facilities that treated diarrhea with zinc, half of them (50.0%, n = 4) had zinc in stock the day of the assessment.

For malaria, almost three quarters of the health facilities (71.9%, n = 121) surveyed provided ACT for the treatment of malaria. Of those that provided ACT, 52.9% of these facilities (n = 87) had it in stock the day of the assessment. As for prevention of malaria, one third of the facilities (33.9%, n = 121) provided LLINs.

4.8 Routine Immunization

According to the 2008 NDHS, in both Bauchi and Sokoto States, 1.0% of children age 12 – 23 months received all basic vaccinations (BCG, measles, and three doses each of DPT and polio vaccine) at any time before the survey compared to the national figure of 22.7%.

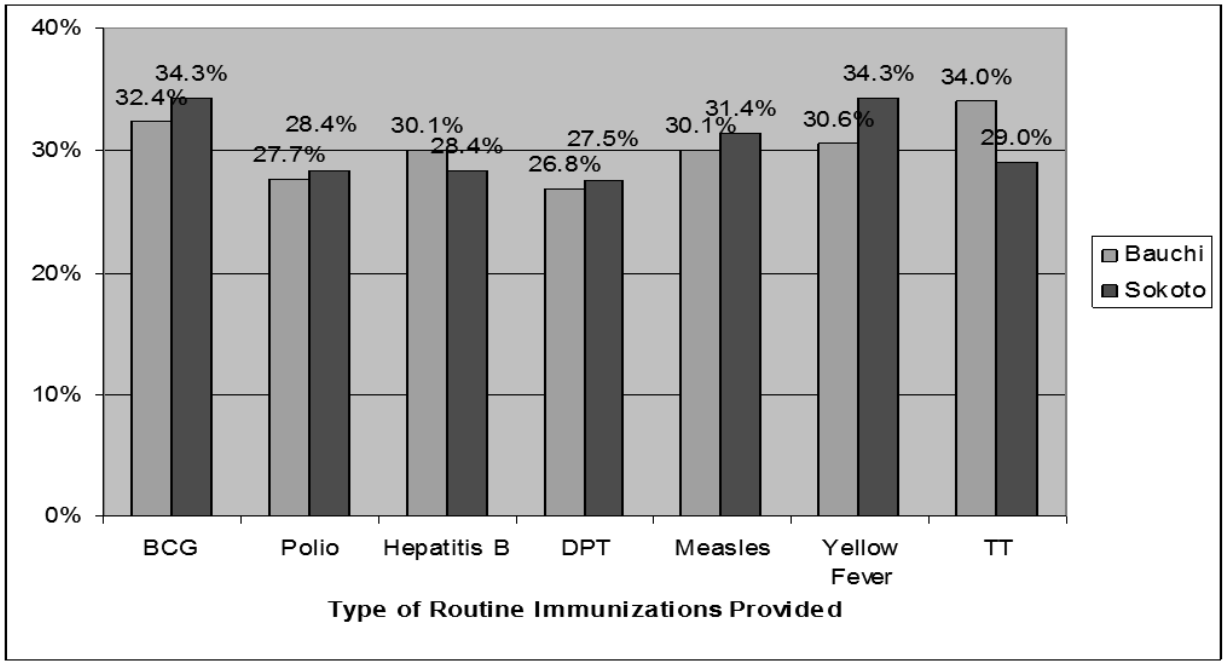
In Bauchi, the majority of all the health facilities (89.9%, n = 129) surveyed offered routine immunization services (100.0% of the hospitals (n = 10), 100.0% of the PHCs (n = 21), 93.0% of the MCHCs (n = 43), and 81.8% of the dispensaries (n = 55) did so). Of those providing routine immunization services, the

majority of these (84.5%, n = 116) provided the full range of immunizations[4] (100.0% of the hospitals (n = 10), 95.2% of the PHCs (n = 21), 85.0% of the MCHCs (n = 40), and 75.6% of the dispensaries (n = 45) provided this). Among those facilities providing immunization services, 95.7% and 19.8% of them (n = 116) had CHEWs and midwives/nurses on staff respectively.

In Sokoto, the majority of all the health facilities (83.1%, n = 124) surveyed offered routine immunization services (70.0% of the hospitals (n = 10), 100.0% of the PHCs (n = 21), 75.0% of the MCHCs (n = 4), 83.1% of the dispensaries (n = 71), and 44.4% of the private clinics (n = 9) did so). Of those providing routine immunization services, the majority of these (96.1%, n = 103) provided the full range of immunizations[5] (100.0% of the hospitals (n = 7), 95.2% of the PHCs (n = 30), 100.0% of the MCHCs (n = 3), 93.2% of the dispensaries (n = 59), and 100.0% of the private clinics (n = 4) provided this). Among those facilities providing immunization services, 92.4% and 18.4% of them (n = 103) had CHEWs and midwives/nurses on staff respectively.

Regarding stock outs of specific immunizations, Figure 7 below details the percentage of health facilities in Bauchi and Sokoto reporting any stock outs of routine immunizations three months prior to the day of the assessment.

Figure 7: Percentage of Health Facilities in Bauchi and Sokoto Reporting Any Stock Outs of Routine Immunizations Three Months Prior to the Assessment by Type of Immunization



[4] The full range of immunizations for this assessment includes BCG, polio, hepatitis B, DPT, measles, yellow fever, and TT.
[5] The full range of immunizations for this assessment includes BCG, polio, hepatitis B, DPT, measles, yellow fever, and TT.

4.9 Communication with Communities

Bauchi

Within the health facilities that reported the dissemination of BCC materials, less than a quarter of all the health facilities (15.0%, n = 107) surveyed covered all focus topics[6] (22.2% of the hospitals (n = 9), 33.3% of the PHCs (n = 21), 19.4% of the MCHCs (n = 36), and 0% of the dispensaries (n = 41) did so). However, a majority of the facilities (99.1%, n = 107) have at least one BCC material.

More than half of all the health facilities (59.7%, n = 129) reported involvement with an active health development committee (e.g. community based organization (CBO), village development committee (VDC)) (30.0% of the hospitals (n = 10), 95.2% of the PHCs (n = 21), 58.1% of the MCHCs (n = 43), and 52.7% of the dispensaries (n = 55) reported this involvement).

Related to outreach visits to neighboring communities, more than three quarters of all the facilities (79.4%, n = 126[7]) reported making such visits (40.0% of the hospitals (n = 10), 76.2% of the PHCs (n = 21), 81.4% of the MCHCs (n = 43), and 86.5% of the dispensaries (n = 52) reported doing so). Almost half of all the facilities (48.1%, n = 129) reported having a mechanism in place to capture client feedback (30.0% of the hospitals (n = 10), 61.9% of the PHCs (n = 21), 46.5% of the MCHCs (n = 43), and 47.3% of the dispensaries (n = 55) reported this).

Sokoto

Within the health facilities that reported the dissemination of BCC materials, a minority of all the health facilities (4.0%, n = 99) surveyed covered all focus topics[8] (12.5% of the hospitals (n = 8), 0% of the PHCs (n = 28), 33.3% of the MCHCs (n = 3), 3.6% of the dispensaries (n = 55), and 0% of the private clinics (n = 5) did so). However, a majority of the facilities (94.9%, n = 99) have at least one BCC material.

More than half of all the health facilities (64.5%, n = 124) reported involvement with an active health development committee (50.0% of the hospitals (n = 10), 90.0% of the PHCs (n = 30), 75.0% of the MCHCs (n = 4), 60.6% of the dispensaries (n = 71), and 22.2% of the private clinics (n = 9) reported this involvement).

Related to outreach visits to neighboring communities, more than half of all the facilities (55.6%, n = 124) reported making such visits (30.0% of the hospitals (n = 10), 66.7% of the PHCs (n = 30), 25.0% of the MCHCs (n = 4), 60.6% of the dispensaries (n = 71), and 22.2% of the private clinics (n = 9) reported so). Less than a quarter of all the facilities (18.5%, n = 124) reported having a mechanism in place to capture client feedback (30.0% of the hospitals (n = 10), 20.0% of the PHCs (n = 30), 25.0% of the MCHCs (n = 4), 14.1% of the dispensaries (n = 71), and 33.3% of the private clinics (n = 9) reported this).

[6] BCC focus topics for this assessment included safe motherhood, newborn care, family planning, lactation amenorrhea method (LAM), Integrated Management of Childhood Illness (IMCI), nutrition, HIV/AIDS, malaria, immunization, hygiene/sanitation, and exclusive breast feeding.

[7] Three health facilities in Bauchi were not asked this question reducing the denominator to 126.

[8] BCC focus topics for this assessment included safe motherhood, newborn care, family planning, lactation amenorrhea method (LAM), Integrated Management of Childhood Illness (IMCI), nutrition, HIV/AIDS, malaria, immunization, hygiene/sanitation, and exclusive breast feeding.

4.10 HMIS

Bauchi

More than half of all the facilities (60.5%, n = 129) reported using any HMIS reporting forms[9] (40.0% of the hospitals (n = 10), 90.5% of the PHCs (n = 21), 62.8% of the MCHCs (n = 43), and 50.9% of the dispensaries (n = 55) reported this). Of those that used HMIS forms, two thirds of the facilities (64.1%, n = 78) reported submitting NHMIS Form 001 sometimes or on a monthly basis (75.0% of the hospitals (n = 4), 73.7% of the PHCs (n = 19), 63.0% of the MCHCs (n = 27), and 57.1% of the dispensaries (n = 28) reported doing so).

For the health facilities that did not use HMIS forms, 62.7%, 29.4%, 21.6%, and 19.6% of them (n = 51) reported using another type of reporting form such as a state-based reporting form or blank sheet of paper for routine immunization, ANC, family planning, and nutrition respectively.

Sokoto

More than half of all the facilities (64.5%, n = 124) reported using any HMIS reporting forms[10] (80.0% of the hospitals (n = 10), 76.7% of the PHCs (n = 30), 50.0% of the MCHCs (n = 4), 63.4% of the dispensaries (n = 71), and 22.2% of the private clinics (n = 9) reported this). Of those that used HMIS forms, the majority of the facilities (83.8%, n = 80) reported submitting NHMIS Form 001 sometimes or on a monthly basis (100.0% of the hospitals (n = 8), 82.6% of the PHCs (n = 23), 100.0% of the MCHCs (n = 2), 80.0% of the dispensaries (n = 45), and 100.0% of the private clinics (n = 2) reported doing so).

For the health facilities that did not use HMIS forms, 63.8%, 29.5%, 14.3%, and 9.1% of them (n = 44) reported using their own reporting form for routine immunization, ANC, family planning, and nutrition respectively.

4.11 Supportive Supervision

Bauchi

Regarding supportive supervision, more than three quarters of all the health facilities (82.9%, n = 129) surveyed reported receiving a visit in the six months prior to the assessment (100.0% of the hospitals (n = 10), 85.7% of the PHCs (n = 21), 88.4% of the MCHCs (n = 43), and 74.5% of the dispensaries (n = 55) reported visits). Of those facilities that received visits, 79.4%, 49.5%, and 31.8% of them (n = 107) received visits from LGA, State, and non-governmental implementing project (INGOs, LNGOs, and donor funded projects) staff respectively.

Sokoto

Regarding supportive supervision, a majority of all the health facilities (91.1%, n = 124) surveyed reported receiving a visit in the six months prior to the assessment (90.0% of the hospitals (n = 10), 100.0% of the PHCs (n = 30), 100.0% of the MCHCs (n = 4), 91.5% of the dispensaries (n = 71), and 55.6% of the private clinics (n = 9) reported visits). Of those facilities that received visits, 93.8%, 46.0%, and 59.3% of them (n = 113) received visits from LGA, State, and NGO staff respectively.

[9] For the purposes of this assessment, HMIS reporting forms are defined as NHMIS, National Program for Immunization (NPI), or Integrated Disease Surveillance and Response (IDRS) Forms.

[10] For the purposes of this assessment, HMIS reporting forms are defined as NHMIS, National Program for Immunization (NPI), or Integrated Disease Surveillance and Response (IDRS) Forms.

4.12 Drug Store

Table 7 below lists the proportions of health facilities in Bauchi and Sokoto that reported stock outs of key drugs three months prior to the assessment in relation to a particular health service. For ANC, key drugs refer to ACTs and IPTs. For PNC and delivery, key drugs are oxytocin, atrophine, adrenaline, hydrocortisone, diazepam, ergometrine, magnesium sulphate, and hydralazine. Drugs related to childhood illnesses include ACTs, ORS, zinc, and vitamin A. For nutrition, key drugs include vitamin and zinc.

Table 7: Percentage of Health Facilities in Bauchi and Sokoto Reporting Any Stock Outs of Key Drugs Three Months Prior to the Assessment by Type of Service

State	Key Drugs - ANC	Key Drugs - PNC	Key Drugs - CI	Key Drugs – Nutrition
Bauchi	38.2% n = 76	3.9% n = 76	1.7% n = 121	5.6% n = 54
Sokoto	49.3% n = 71	8.2% n = 61	2.5% n = 121	3.4% n = 58

4.13 HMIS baseline data

As part of the LGA assessment, which will be compiled into LGA profiles by the TSHIP zonal teams, health facility level HMIS data on TSHIP indicators was collected for baseline purposes. The results are in Table 8 below.

Table 8: HMIS Baseline Data[11]

Indicator	Bauchi	Sokoto	Total	% of LGAs Reporting through HMIS & Data Source
1. Number of children under 12 mo. who receive DPT3	111,735	76,431	188,166	Bauchi: 95%: NPI/NHIMS Sokoto: 100%; NPI/NHMIS
2. Number of deliveries with a SBA	42,358	1,657	44,105	Bauchi: 80%:State MCH Sokoto: 52%; NHMIS
3. CYP in USG-supported programs	2,588.36	Not available	2,588.36	Bauchi: 100%: Deliver
4. Modern contraceptive rate (2008 NDHS)	19%	2%	-	-
5. Number of people trained in FP/RH	N/A	N/A	N/A	-
6. Number of people trained in malaria treatment and prevention	N/A	N/A	N/A	-
7. Number of people trained in M/N health	N/A	N/A	N/A	-
8. Number of people trained in CH/nutrition	N/A	N/A	N/A	-
9. Percentage of HMIS indicators reported on in a timely manor	Not available	Not available	-	-
10. Number of facilities receive at least 1 supervisory visit during reporting period	N/A	N/A	N/A	-
11. Number of counseling visits for FP/RH (proxy	15,006	2,326	17,332	Bauchi: 55%: State MCH

[11] Note: Unless otherwise noted, baseline data is from the six month period of July – December 2009.

Indicator	Bauchi	Sokoto	Total	% of LGAs Reporting through HMIS & Data Source
indicator)				forms/NHMIS Sokoto: 50%; NHMIS
12. Number of SDPs providing FP or counseling services*	232	21	253	Bauchi: 90% State MCH Forms/NHMIS Sokoto: 33%; NMHIS
13. Number of ANC visits by skilled providers	166,000	18,055	184,055	Bauchi: 75%: State MCH Forms/NHMIS Sokoto: 59%; NHMIS
14. Number of pregnant women who attend at least one ANC visit	45,124	6,048	51,172	Bauchi: calculated from # of SP-1 drugs consumed by pregnant women during ANC1 visit. (BACATMA) Sokoto: 59%; NHMIS
15. Number of women receiving AMTSL	0	0	0	No data in HMIS
16. Number of newborns receiving ENC	0	0	0	No data in HMIS
17. Number of children under 5 years of age who received vitamin A	370,902	578,795	949,697	IPD data for both states
18. Number of cases of childhood diarrhea treated	11,585	8,540	20,125	Bauchi: 45%: IDSR forms Sokoto: 59%; NHMIS
19. Rate of non-polio acute flaccid paralysis cases	23.0	10.06	-	For Jan – Dec 09; WHO data for both states
20. Number of wild polio virus cases in USG-assisted states	44	16	60	For Jan – Dec 09; WHO data for both states
21. Number of women who receive IPT in prenatal care	45,124	9568	54692	Calculated from # of SP-1 drugs consumed by pregnant women during ANC1 visit Bauchi: BACATMA Database Sokoto: Yakubu Gowon Centre database
22. Number of cases of malaria in children treated with ACT	3,957	38689	42646	Calculated from # of ACT-1 children under 5) consumed Bauchi: BACATMA Database Sokoto: Yakubu Gowon Centre database.
23. Number of LLINs distributed or sold	600	0	600	-
24. Proportion of WDCs that are active during the reporting quarter	Not available	Not available	-	-
25. Percentage of people that report attending health services due to exposure to health messages via BCC materials and advocacy	N/A	N/A	N/A	-
26. Number of policies developed or adapted to support improved RH/FP/MCH services	N/A	N/A	N/A	-
27. Number of local organizations provided w/ technical assistance to leverage additional resources for RH/FP/MCH services	N/A	N/A	N/A	-

5.0 Challenges and Lessons Learned

One major challenge was related to data quality issues with the initial data collection in Sokoto state. The health facility assessment, in which all health facilities were interviewed, was initially conducted between December 2009 and January 2010 in Sokoto. During the data cleaning phase, significant data discrepancies were identified and, as a result, TSHIP decided to repeat data collection and thereby to utilize this opportunity to further improve Project and State capacity in data collection. In terms of feasibility and in order to validate earlier census data, it was decided to use a sample this time as opposed to repeating the census. A sample of 125 health facilities representing all LGAs in the state was selected and the assessment was conducted in March 2010.

The assessment process including the initial challenges faced in Sokoto provided many learning opportunities. First, it is critical to allow for sufficient time in the data collection training to ensure sufficient understanding of all questions and instructions by the data collectors including adequate amount of time for testing and revising the questionnaire. Second, the use of a sufficient number of supervisors to aid data collectors and provide initial quality control support is critical both in terms of data quality and efficiency. Third, while leading to some delays and the inability to compare some data across states, the unintended staggering of the assessment in the states allowed for key lessons learned to be shared between the states, which has also helped to set an overall standard for information sharing between the two states for future assessments and activities.

LGA and State involvement in the planning and execution of the health facility assessment activities helped to promote ownership of the activity by the State. Partnership between the State and TSHIP has also been enhanced by the State providing their staff and time in the utilization of the entire methodology. Finally, the use of a rapid assessment in collaboration with other survey results available in each state as opposed to the more cumbersome census served as a good example to the State of a feasible approach to collecting key health facility level data in the future.

6.0 Conclusions and Recommendations

6.1 Conclusions

Overall, the assessment results seem to confirm the appropriateness of TSHIP's tri-focus approach, which focuses on the community, health services, and health system levels.

The ability of Bauchi and Sokoto states to meet their health goals depends largely on the knowledge, skills, and deployment of the people responsible for organizing and delivering health services. Assessment results suggest that staffing levels vary across the states and there are a number of health facilities in both states that do not meet the minimum staffing requirement levels laid out in the Ward Minimum Health Care Package; for instance, a quarter of the PHCs and a half of the MCHCs in Bauchi and a third of the PHCs in Sokoto do not meet these requirements. This finding suggests that this will be a key advocacy area for TSHIP to work on with the states in order to ensure that human resources planning, budgeting, and training reflect actual needs.

Assessment results suggest that health facilities in both Bauchi and Sokoto tend to lack infrastructure essentials. Few facilities in either state had access to the five key infrastructure items (water source,

toilet, electricity, generator, and medical waste disposal). However, the majority of the private clinics in Sokoto had access to the five items. In addition to supporting renovations to improve the physical structure of most in need health facilities, these findings suggest that there is a need to collaborate with the two states and other implementing partners to advocate and ensure that more health facilities gain access to these five essential infrastructure items.

Approximately half of all health facilities in both states provide maternal services with the vast majority of general hospitals, PHCs, and MCHCs doing so. Of those facilities that provided maternal services in both states, the vast majority provided both ANC and PNC services. However, the availability of specific ANC and PNC services varies depending on the type of service. Less than half of the facilities in both states provided AMTSL while three quarters of the facilities in both states provided ENC. Further, there were few facilities in both states that provided postpartum hemorrhage care. This calls for the need to strengthen maternal health service delivery and improve providers' skills in high impact interventions such as AMTSL, ENC, and postpartum hemorrhage care.

In Bauchi, 55.8% of the facilities provided family planning services with the majority of hospitals, PHCs, and MCHCs doing so. However, when looking at those that provided the three most known family planning services (condoms, oral pills, and injectables), the proportion drops to 43.1%. In Sokoto, one third of all health facilities provided family planning services with two thirds of the PHCs and three fourths of the MCHCs doing so. Further, approximately one third of the facilities in Bauchi and a half of the facilities in Sokoto reported any stock outs of oral pills in the three months prior to the assessment. These findings suggest that the reliable availability of family planning commodities will be essential in order for the states to make desired improvements in family planning provision.

Less than half of the health facilities in both states provided nutrition services. While two thirds of the facilities in both states reported that they provide vitamin A, only one third of those that provided vitamin A had it in stock the day of the assessment. Given that less than half of the facilities in both states currently provide nutrition services, TSHIP may want to explore strengthening nutrition referral systems. Further, findings seem to suggest that consistent availability of vitamin A is needed.

The majority of the health facilities in both states offered treatment of childhood illnesses. While the vast majority of facilities in both states provide ORS in the treatment of diarrhea, few provided both ORS and zinc. Of those that provided ORS, only half in both states had ORS in stock the day of the assessment. As a key to expanding to service provision, findings seem to suggest that there is a need to strengthen the availability of ORS and, to a larger extent, zinc in both states.

The majority of the health facilities in both states provided routine immunization services. However, on average, almost one third of the facilities in both states reported any stocks outs of immunizations three months prior to the assessment. While immunization is the area of child health that seems to have the most support from the states, findings suggest that there is a need to continue to strengthen its service delivery.

The majority of the health facilities in both states reported receiving a supportive supervision visit in the six months prior to the assessment. While the majority of facilities did report visits, there is a need to further analyze the extent of the support in these visits and the related follow up involved. Related to outreach visits to neighboring communities, three quarters of the facilities in Bauchi and half of the

facilities in Sokoto reported providing these visits. However, there is a need to further assess the regular availability and quality of community-based services.

Related to HMIS reporting, approximately two thirds of the health facilities in both states reported using HMIS forms. However, based on availability of forms in the health facilities at the time of the assessment, findings seem to suggest that health facilities do not necessarily report on a regular basis or on all types of required HMIS forms. This suggests that there is a need for the states to both streamline the HMIS reporting system and provide technical support to improve the completeness and timeliness of reporting.

6.2 Recommendations

Given the current levels of service provision, survey results suggest that there is a need in both Bauchi and Sokoto to expand MCH/FP/RH service provision at the primary health care level. TSHIP and other development partners need to work to support the states in increasing the number of health facilities implementing evidence-based interventions and incorporating best practices. The following recommendations are organized by the main headings covered in the assessment.

Staffing:

- TSHIP and other implementing partners need to advocate at the state and federal levels to ensure that the necessary human resources planning and budgeting takes place that meets each state's actual needs. Further, there is a need to provide training and capacity building at both the local government and state levels in the areas of human resource management and development.
- In order to further understand existing performance gaps, it is recommended that TSHIP assess training needs of service providers and set their training plans accordingly.
- Given the large number of CHEWs and the shortage of midwives and doctors in the existing health workforce in both states, TSHIP should target CHEWs and adapt successful models to their context.

Infrastructure:

- This assessment and the follow up health facility profiling that TSHIP is doing will catalogue the status of health facilities' existing infrastructure and equipment. It is recommended that these findings are used to prioritize and target the health facility renovation and equipment provision that TSHIP will facilitate. Related to equipment, there is a need for basic equipment at the health facility level as well as equipment at the local government level such as cold storage equipment.
- There is also a need for TSHIP and other implementing partners to collaborate in order to advocate and ensure that more health facilities have access to the five essential infrastructure items (water source, functioning latrine or toilet, electricity, generator, and medical waste disposal). For instance, water and sanitation could be an area for TSHIP to target in its granting component.

Maternal and Child Health/Family Planning/Reproductive Health:

- There is a need to train service providers in necessary clinical skills in order to provide key high impact interventions. Findings show that certain interventions such as AMTSL, ENC, and

postpartum hemorrhage care are not widely provided and could be an area targeted for training. The proposed training needs assessment would further guidance in this area.

- Trainings will need to be reinforced with job aids, on the job training, targeted technical assistance, and supportive supervision.
- As is shown in the assessment findings, current availability of a specific health service can vary within the same type of facility in a given state. In addition to expanding services into new facilities, it also important to strengthen referral systems across health facilities and between the community and facility levels.

Health Systems:

- There is a need to strengthen commodity security for the assessment results have shown many cases where a health facility may have the capacity in terms of staffing but not the key drugs and supplies to provide a specific service on a given day. Finding results suggest that stock outs are currently a large barrier that will need to be addressed. In particular, there is a need to address the issue of the weak logistics management information system (LMIS) and the irregular supply of contraceptives.
- TSHIP will need to collaborate with other implementing partners to support the states and its agencies in developing and implementing its M&E and HMIS strategies including the improvement and integration of existing systems as well as rolling out the new NHMIS registers and forms. Further, the availability of printed HMIS forms at both the LGA and health facility level remains an issue and TSHIP will need to work with the states to find a long term solution to this problem.
- There is an opportunity to expand and strengthen supportive supervision in order to ensure compliance with approved standards. Supportive supervision should also be set up in a way that goes beyond the focus of a check-in visit, but also incorporates training, mentoring, and coaching.

Communication with Communities:

- Building off of existing infrastructure such as health development committees, there is a need to strengthen and expand community level infrastructure as well as links between communities and health facilities in order to increase availability and utilization of outreach services. For instance, related to family planning, findings suggest that there is an opportunity for health facilities to link with community-based distributors.
- TSHIP will need to implement mobilization and behavior change activities with traditional, religious, and community leaders and civil society organizations in order to increase community involvement and participation in service promotion and utilization.

Annex: Detailed Analysis Tables

As a note for all annex tables, for each facility type, percentages are given within the total of the particular type of health facility as opposed to the percentage within the total of all health facilities.

Family Planning - Bauchi

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	Total HF % (N)
Service Provision					
% of facilities that provide family planning	90.0 (10)	90.5 (21)	83.7 (43)	14.5 (55)	**55.8** (129)
% of facilities that provide oral pill planning method, of those that provide FP services	100.0 (9)	84.2 (19)	88.9 (36)	62.5 (8)	**86.1** (72)
% of facilities with injectable provision, of those that provide FP services	89.9 (9)	78.9 (19)	80.6 (36)	62.5 (8)	**79.2** (72)
% of facilities with condom provision, of those that provide FP services	87.5 (9)	57.9 (19)	44.4 (36)	50.0 (8)	**52.8** (72)
% of facilities with IUCD provision, of those that provide FP services	55.6 (9)	23.5 (19)	17.1 (36)	0 (8)	**20.8** (72)
% of facilities with implant provision, of those that provide FP services	11.1 (9)	17.6 (19)	5.7 (36)	0 (8)	**8.3** (72)
% of facilities that provide vasectomy, of those that provide FP services	11.1 (9)	15.8 (19)	8.3 (36)	12.5 (8)	**11.1** (72)
% of facilities that provide counseling on PAC, of those that provide FP services	100.0 (9)	78.9 (19)	75.0 (36)	50.0 (8)	**76.4** (72)
% of facilities that provide counseling on natural family planning, of those that provide FP services	88.9 (9)	78.9 (19)	83.3 (36)	75.0 (8)	**81.9** (72)
% of facilities that provide youth friendly services, of those that provide FP services	44.4 (9)	10.5 (19)	13.9 (36)	0 (8)	**15.3** (72)
Stock Outs					
% of facilities that reported any stock out of oral pills in the last three months prior to the assessment, of those that provide oral pill provision	33.3 (9)	56.3 (16)	28.1 (32)	20.0 (5)	**35.5** (62)
% of facilities that reported any stock out of injectables in the last three months prior to the assessment, of those that provide implants	37.5 (8)	33.3 (15)	48.3 (29)	40.0 (5)	**42.1** (57)
% of facilities that reported any stock out of condoms in the last three months prior to the assessment, of those that provide condom provision	28.6 (7)	36.4 (11)	25.0 (16)	25.0 (4)	**28.9** (38)
% of facilities that reported any stock out of IUCDs in the last three months prior to the assessment, of those that provide IUCD services	60.0 (5)	50.0 (4)	50.0 (6)	0 (0)	**53.3** (15)

Family Planning - Sokoto

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	PC % (N)	Total HF % (N)
Service Provision						
% of facilities that provide family planning	100.0 (10)	60.0 (30)	75.0 (4)	16.9 (71)	66.7 (9)	**39.5** (124)
% of facilities that provide oral pill planning method, of those that provide FP services	10.0 (10)	72.2 (18)	100.0 (3)	100.0 (12)	83.3 (6)	**87.8** (49)
% of facilities with injectable provision, of those that provide FP services	100.0 (10)	94.4 (18)	100.0 (3)	91.7 (11)	100.0 (6)	**95.9 (49)**
% of facilities with condom provision, of those that provide FP services	40.0 (10)	22.2 (18)	100.0 (3)	33.3 (12)	50.0 (6)	**36.7** (49)
% of facilities with IUCD provision, of those that provide FP services	10.0 (10)	5.6 (18)	33.3 (3)	0 (12)	33.3 (6)	**10.2** (49)
% of facilities with implant provision, of those that provide FP services	0 (10)	0 (18)	33.3 (3)	0 (12)	33.3 n = 6	**6.1** (49)
% of facilities that provide vasectomy, of those that provide FP services	10.0 (10)	0 (18)	33.3 (3)	0 (12)	0 (6)	**4.1** (49)
% of facilities that provide counseling on PAC, of those that provide FP services	10.0 (10)	94.4 (18)	100.0 (3)	58.3 (12)	100.0 (6)	**87.8** (49)
% of facilities that provide counseling on natural family planning, of those that provide FP services	90.0 (10)	83.3 (18)	66.7 (3)	66.7 (12)	100.0 (6)	**81.6** (49)
% of facilities that provide youth friendly services, of those that provide FP services	40.0 (10)	11.1 (18)	0 (3)	16.7 (12)	16.7 (6)	**18.4** (49)
Stock Outs						
% of facilities that reported any stock out of oral pills in the last three months prior to the assessment, of those that provide oral pill provision	20.0 (10)	61.5 (13)	100.0 (3)	58.3 (12)	40.0 (5)	**51.2** (43)
% of facilities that reported any stock out of injectables in the last three months prior to the assessment, of those that provide implants	40.0 (10)	47.1 (17)	100.0 (3)	72.7 (11)	33.3 (6)	**53.2** (47)
% of facilities that reported any stock out of condoms in the last three months prior to the assessment, of those that provide condom provision	0 (4)	50.0 (4)	66.7 (3)	75.0 (4)	66.7 (3)	**50.0** (18)
% of facilities that reported any stock out of IUCDs in the last three months prior to the assessment, of those that provide IUCD services	100.0 (1)	100.0 (1)	100.0 (1)	0 (0)	50.0 (2)	**50.0** (5)

Nutrition – Bauchi

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	Total HF % (N)
Service Provision					
% of facilities that provide nutrition services	80.0 (10)	42.9 (21)	46.5 (43)	30.9 (55)	**41.9** (129)
% of facilities that provide nutrition counseling, of those that provide nutrition services	87.5 (8)	88.9 (9)	100.0 (20)	76.5 (17)	**88.9** (54)
% of facilities provide vitamin A supplementation services, of those that provide nutrition services	75.0 (8)	66.7 (9)	65.0 (20)	64.7 (17)	**66.7** (54)
% of facilities that provide exclusive breast feeding services, of those that provide nutrition services	87.5 (8)	77.8 (9)	85.0 (20)	64.7 (17)	**77.8** (54)
% of facilities that provide growth monitoring services, of those that provide nutrition services	50.0 (8)	77.8 (9)	85.0 (20)	29.4 (17)	**61.1** (54)

Nutrition – Sokoto

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	PC % (N)	Total HF % (N)
% of facilities that provide nutrition services	50.0 (10)	60.0 (30)	50.0 (4)	35.2 (71)	88.9 (9)	**46.8** (124)
% of facilities that provide nutrition counseling, of those that provide nutrition services	100.0 (5)	94.4 (18)	50.0 (2)	96.0 (25)	75.0 (8)	**91.4** (58)
% of facilities provide vitamin A supplementation services, of those that provide nutrition services	100.0 (5)	55.6 (18)	50.0 (2)	68.0 (25)	87.5 (8)	**69.0** (58)
% of facilities that provide exclusive breast feeding services, of those that provide nutrition services	100.0 (5)	61.1 (18)	50.0 (2)	40.0 (25)	75.0 (8)	**56.9** (58)
% of facilities that provide growth monitoring services, of those that provide nutrition services	100.0 (5)	50.0 (18)	50.0 (2)	40.0 (25)	37.5 (8)	**48.3** (58)

Childhood Illness – Bauchi

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	Total HF % (N)
Service Provision					
% of facilities that provide treatment of childhood diseases	100.0 (10)	100.0 (21)	97.7 (43)	87.3 (55)	**93.8** (129)
% of facilities that treat fever, of those that treat childhood diseases	100.0 (10)	100.0 (21)	95.2 (42)	97.9 (48)	**97.5** (121)
% of facilities that treat pneumonia, of those that treat childhood diseases	90.0 (10)	100.0 (21)	97.6 (42)	91.7 (48)	**95.0** (121)
% of facilities that treat convulsion, of those that treat childhood diseases	100.0 (10)	95.2 (21)	83.3 (42)	81.3 (48)	**86.0** (121)
% of facilities that treat cough, of those that treat childhood diseases	90.0 (10)	100.0 (21)	95.2 (42)	97.9 (48)	**96.7** (121)
% of facilities that treat diarrhea with ORS and	30.0	23.8	19.0	10.4	**17.4**

zinc, of those that treat childhood diseases	(10)	(21)	(42)	(48)	(121)
% of facilities that treat diarrhea with ORS, of those that treat childhood diseases	100.0 (10)	100.0 (21)	100.0 (42)	100.0 (48)	**100.0** (121)
% of facilities that provide ACTs for malaria, of those that treat childhood diseases	46.9 (10)	69.7 (21)	80.0 (42)	50.0 (48)	**62.8** (121)
% of facilities that provide LLINs, of those that treat childhood diseases	20.0 (10)	28.6 (21)	26.2 (42)	22.9 (48)	**24.8** (121)

Childhood Illness – Sokoto

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	PC % (N)	Total HF % (N)
Service Provision						
% of facilities that provide treatment of childhood diseases	100.0 (10)	100.0 (30)	100.0 (4)	95.8 (71)	100.0 (9)	**97.6** (124)
% of facilities that treat fever, of those that treat childhood diseases	100.0 (10)	100.0 (30)	100.0 (4)	100.0 (68)	100.0 (9)	**100.0** (121)
% of facilities that treat pneumonia, of those that treat childhood diseases	100.0 (10)	100.0 (30)	100.0 (4)	100.0 (68)	100.0 (9)	**100.0** (121)
% of facilities that treat convulsion, of those that treat childhood diseases	100.0 (10)	100.0 (30)	100.0 (4)	88.2 (68)	100.0 (9)	**93.4** (121)
% of facilities that treat cough, of those that treat childhood diseases	100.0 (10)	100.0 (30)	100.0 (4)	100.0 (68)	100.0 (9)	**100.0** (121)
% of facilities that treat diarrhea with ORS and zinc, of those that treat childhood diseases	10.0 (10)	3.3 (30)	0 (4)	2.9 (68)	0 (9)	**3.3** (121)
% of facilities that treat diarrhea with ORS, of those that treat childhood diseases	100.0 (10)	100.0 (30)	100.0 (4)	98.5 (68)	100.0 (9)	**99.2** (121)
% of facilities that provide ACTs for malaria, of those that treat childhood diseases	80.0 (10)	90.0 (30)	100.0 (4)	57.4 (68)	100.0 (9)	**71.9** (121)
% of facilities that provide LLINs, of those that treat childhood diseases	40.0 (10)	43.3 (30)	75.0 (4)	23.5 (68)	55.6 (9)	**33.9** (121)

Routine Immunization – Bauchi

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	Total HF % (N)
Stock Outs					
% of facilities that have any sock out of BCG in the last 3 months prior to the day of the assessment, of those offer BCG	40.0 (10)	38.1 (21)	32.4 (37)	27.5 (40)	**32.4** (108)
% of facilities that have any sock out of polio vaccine in the last 3 months prior to the day of the assessment, of those offer vaccine	50.0 (10)	35.0 (20)	25.0 (40)	21.4 (42)	**27.7** (112)
% of facilities that have any sock out of hepatitis B in the last 3 months prior to the day of the assessment, of those offer hepatitis B	40.0 (10)	38.1 (21)	27.5 (40)	26.2 (42)	**30.1** (113)
% of facilities that have any sock out of DPT in the last 3 months prior to the day of the assessment, of those offer DPT	30.0 (10)	38.1 (21)	25.6 (39)	21.4 (42)	**26.8** (112)
% of facilities that have any sock out of measles	40.0	38.1	27.4	26.2	**30.1**

vaccine in the last 3 months prior to the day of the assessment, of those offer vaccine	(10)	(21)	(40)	(42)	(113)
% of facilities that have any sock out of yellow fever vaccine in the last 3 months prior to the day of the assessment, of those offer vaccine	40.0 (10)	40.0 (20)	30.0 (40)	24.4 (41)	**30.6** (111)
% of facilities that have any sock out of TT in the last 3 months prior to the day of the assessment, of those offer TT	30.0 (10)	40.0 (20)	33.3 (39)	32.4 (37)	**34.0** (106)

Routine Immunization – Sokoto

Indicator	GH % (N)	PHC % (N)	MCHC % (N)	Disp. % (N)	PC % (N)	Total HF % (N)
% of facilities that have any sock out of BCG in the last 3 months prior to the day of the assessment, of those offer BCG	42.9 (7)	30.0 (30)	66.7 (3)	32.8 (58)	50.0 (4)	**34.3** (100)
% of facilities that have any sock out of polio vaccine in the last 3 months prior to the day of the assessment, of those offer vaccine	14.3 (7)	20.0 (30)	66.7 (3)	31.0 (58)	50.0 (4)	**28.4** (102)
% of facilities that have any sock out of hepatitis B in the last 3 months prior to the day of the assessment, of those offer vaccine	28.6 (7)	23.3 (30)	66.7 (3)	29.3 (58)	25.0 (4)	**28.4** (102)
% of facilities that have any sock out of DPT in the last 3 months prior to the day of the assessment, of those offer DPT,	42.9 (7)	23.3 (30)	66.7 (3)	25.9 (58)	25.0 (4)	**27.5** (102)
% of facilities that have any sock out of measles vaccine in the last 3 months prior to the day of the assessment, of those offer vaccine	28.6 (7)	23.3 (30)	100.0 (3)	32.8 (58)	25.0 (4)	**31.4** (102)
% of facilities that have any sock out of yellow fever vaccine in the last 3 months prior to the day of the assessment, of those offer vaccine	28.6 (7)	26.7 (30)	100.0 (3)	34.5 (58)	50.0 (4)	**34.3** (102)
% of facilities that have any sock out of TT in the last 3 months prior to the day of the assessment, of those offer TT	14.3 (7)	16.7 (30)	100.0 (3)	35.7 (56)	0 (4)	**29.0** (100)

TSHIP Consortium: JSI Research & Training Institute, Inc., JHPIEGO, Futures Group International, LLC, Center for Development and Population Activities (CEDPA), and Management Strategies for Africa (MSA).

TSHIP

Targeted States High Impact Project

Advancing Health in Bauchi and Sokoto States

Bauchi State Office
Plot 8 Off Danfodio Street
GRA Bauchi, Bauchi state, Nigeria
P.O.Box 4037 Bauchi State, Nigeria
Tel: +234 (0) 77 830 741
Dr. Habib Sadauki, Deputy Chief of Party

Sokoto State Office
Block 14 Shehu Kangiwa Secretariat
Ahmed Daku Road, Sokoto State, Nigeria
PMB 2314 Sokoto State, Nigeria
Tel: +234 (0) 803 317 4117
Dr. Abubakar Maishanu, Deputy Chief of Party

Central Project Office
Plot 8 Off Danfodio Street
GRA Bauchi, Bauchi state, Nigeria
P.O.Box 4037 Bauchi State, Nigeria
Tel: +234 (0) 77 830 741
Marc A. Okunnu, Sr., Chief of Party

www.tshipnigeria.org, info@tshipnigeria.org