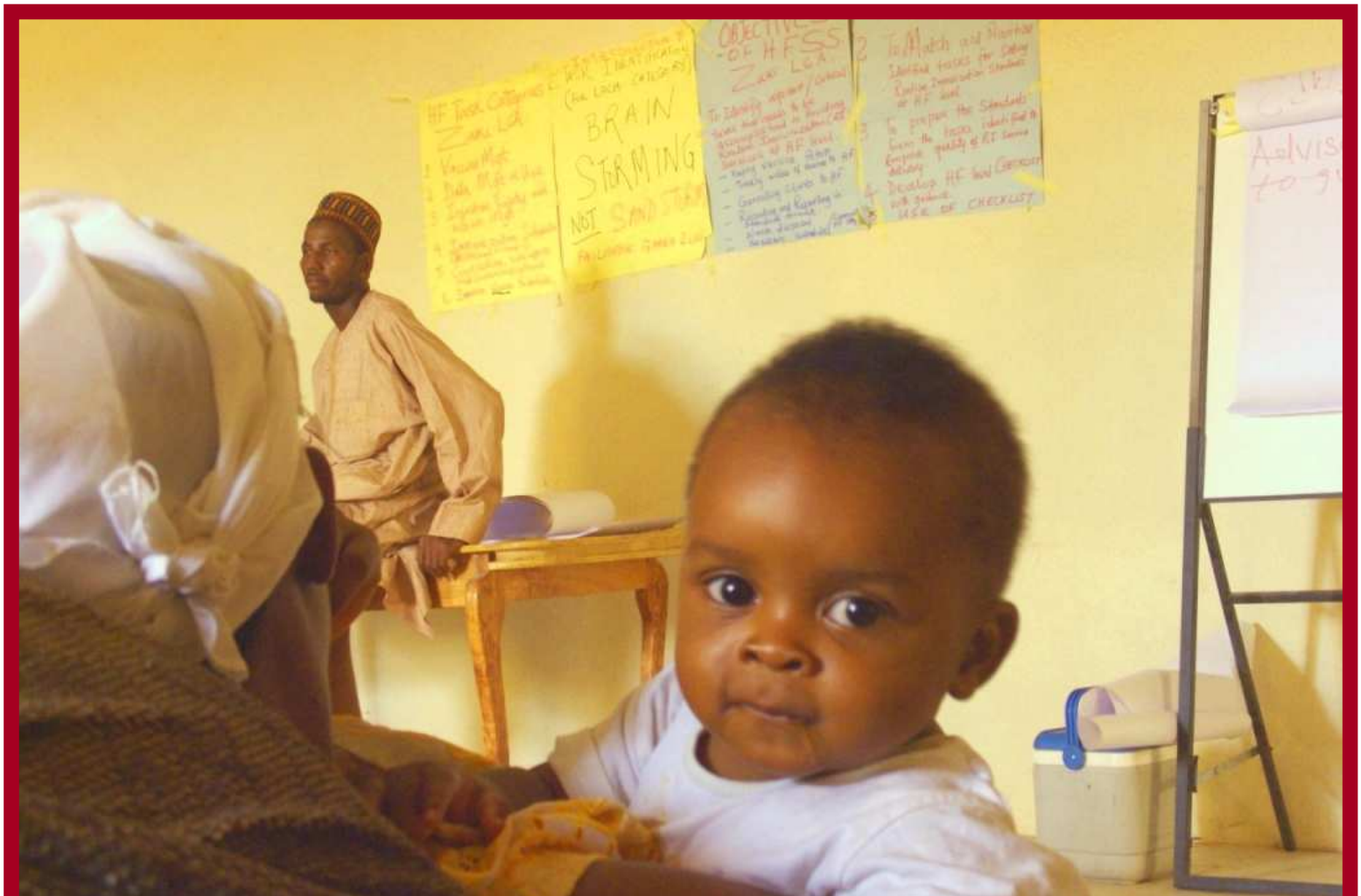
Statewide Assessment on Routine Immunization System in Bauchi and Sokoto States Nigeria

BASELINE REPORT

2007



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ACRONYMS

BCG	Bacillus Calmette-Guerin vaccine
CCO	Cold Chain Officer
CHEW	Community Health Extension Worker
CHO	Community Health Officer
DPT	Diphtheria, Pertussis and Tetanus
EHO	Environmental Health Officer
EHT	Environmental Health Technician
GAVI	GAVI Alliance, formerly the Global Alliance for Vaccines and Immunization
GIVS	Global Immunization and Vision Strategy
HF	Health facility
IMMbasics	IMMUNIZATIONbasics
IPDs	Immunization Plus Days
JCHEW	Junior Community Health Extension Worker
LGA	Local Government Area
LIO	LGA Immunization Officer
MDG	Millennium Development Goal
MO	Medical Officer
MOH	Ministry of Health
MOLG/DOLG	Ministry of Local Government/Department of Local Government Affairs
NIDs	National Immunization Days
NPHCDA	National Primary Health Care Development Agency
OPV	Oral Polio Vaccine
PEI	Polio Eradication Initiative
PHC	Primary Health Care
PMP	Performance Monitoring Plan
RED	Reaching Every District
REW	Reaching Every Ward
RI	Routine Immunization
SMOH	State Ministry of Health
TT	tetanus toxoid vaccine
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States Government
YF	Yellow Fever
WHO	World Health Organization

I. EXECUTIVE SUMMARY

IMMUNIZATIONbasics (IMMbasics) is a two and a half year USAID-funded project providing technical assistance to the Government of Nigeria with support to strengthening the routine immunization (RI) systems in two Northern Nigerian states. The project works closely with government agencies at national, state and local levels in Bauchi and Sokoto States and alongside international partners to develop the human and institutional capacity needed to strengthen delivery of quality RI services. IMMbasics will work in all 43 Local Government Areas (LGA) of Bauchi and Sokoto States using a phased methodology.

The project includes four key objectives: 1) increase service delivery points that provide RI; 2) promote systematic distribution of vaccine and vaccination supplies to service delivery points; 3) increase and sustain optimal attendance during immunization sessions; 4) improve data quality and use at LGA and health facility levels.

This document describes baseline findings prior to intervention and identifies the monitoring/evaluation methodology which will be implemented over the life of the project. Initially, the IMMbasics team conducted a rapid statewide assessment to identify the structure of the RI system in each of the 43 LGAs and determine the contribution of the RI system to the number of infants (< one year) immunized with the third dose of antigens diphtheria, pertussis and tetanus (DPT3) as a primary indicator. In order to focus the lens deeper on the individual LGAs, the IMMbasics team, State Ministries of Health (SMOH), LGA and partner representatives will perform comprehensive reviews of each LGA upon entry. The rapid statewide assessments and the early comprehensive LGA reviews coupled together form the baseline findings and set the direction for IMMbasics.

Key findings from the rapid assessment showed that by disaggregration of the RI system data[1] from Immunization Plus Days (IPD) data during the period of January-December 2006, the approximate number of infants immunized with DPT3 was 57,063 and 42,510 in Bauchi and Sokoto States respectively. However for purposes of determining the baseline for project implementation , the 12 months preceding introduction of IPDs (March 05-April 06) will be used; Bauchi 40,447 and Sokoto 35,648. In this case a clear trend is established without the need for disaggregration and still takes in seasonality and other factors that may affect children being immunized. In both states a shortage of qualified personnel was evident and a mal-distribution of existing staff commonly found. In Bauchi, 44% of health facility staff were health professionals while in Sokoto only 40% were. A majority of workers at the health facilities assessed were non-professional staff (e.g. cleaners, security guards, and messengers). Only a handful of facilities provided regular RI services in 2006; the greater number of facilities provided RI services on an intermittent and ad hoc basis. In Bauchi, about 28% or 247/888 health facilities provided immunization services during four or more months in 2006. Of the 558 functioning government facilities in Sokoto, 43% or 241 health facilities, provided RI services for 4 months or more out of the year.

Additionally, according to LGA reviews, LGAs did not regularly schedule distribution of vaccine and vaccination supplies, provide details of planned immunization sessions within each LGA or project the necessary quantity of vaccine and icepacks required. Recurring monitoring and use of data to guide planning, an important component of the national "Reaching Every Ward" (REW) approach, was rarely found evident. Findings from this assessment highlight the need to focus on strengthening the routine immunization system in both states, including increasing access and utilization of immunization services.

Nigeria is one of few countries delivering DPT in campaign-like events. While campaigns reach children with vaccines, risks of inaccurate individual record-keeping and systematic data recording are extremely high; risks include potential for little follow-up to ensure children complete their immunization schedule. In order to determine what the routine immunization system is capable of delivering, it is critical that disaggregated data are routinely available at all levels. In the future, standard coverage survey methods may not be able to distinguish children immunized through the regular system and those through periodic campaigns.

Overall results of the statewide baseline assessment reveal a weakened RI system in Bauchi and Sokoto States, with many constraints facing human and organizational capacity. Despite the many challenges, with communities eager for health facilities to deliver reliable, accessible and regular services, and all partners working together with the States toward improving the delivery of quality health services, IMMbasics expects modest yet lasting progress toward strengthening routine immunization over the life of the project.

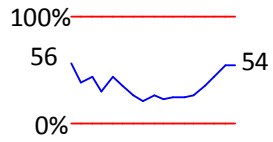
[1] SMOH, WHO Administrative Data, 2006.

II. INTRODUCTION

USAID/Nigeria awarded funding to JSI Research & Training Institute, Inc., IMMUNIZATIONbasics Project to assist the Government of Nigeria in improving the RI system in Northern Nigeria. IMMbasics is working closely with government agencies (at Federal, State and LGA levels) and international partners in the two northern states of Bauchi and Sokoto to develop the human and organizational capacity needed to strengthen delivery of quality RI services.

Over the next two years, the project will focus on achieving measurable and sustainable results in all 43 LGAs of Bauchi and Sokoto States. The key objectives of IMMbasics are to:

- increase service delivery points (fixed and outreach) that provide RI
- promote systematic distribution of existing vaccine and vaccination supplies to service delivery points
- increase and sustain optimal attendance during routine immunization sessions
- improve data quality and use at LGA and health facility levels.



Trendline of DPT3 Coverage, 1990-2003

Available information indicates that the RI system in Nigeria has operated with little support or supervision since early 1990. From that time immunization coverage across the nation has gradually fallen to the 20% level or less (see graph on right). In some northern states, coverage fell to single digits. The IMMbasics project, working in partnership with the Bauchi and Sokoto State Governments and their LGAs, has begun to strengthen the RI systems in these states. The general strategy is to use the World Health Organization (WHO) Reaching Every District (RED) methodology, now adopted by the National Primary Health Care Development Agency (NPHCDA) and renamed the "Reaching Every Ward (REW)" approach. To put the REW "operational components" in place, both States are undertaking a systematic start-up effort at State and LGA administrative levels using NPHCDA's *Basic Guide for Routine Immunization Service Providers* as a guide for health staff.

Acting on baseline findings, Bauchi and Sokoto States and LGA health staff, with the assistance of IMMbasics, are working to build a methodical RI initiative to strengthen the RI system. The project approach focuses first on strengthening LGA RI management and then moving on to health facility level to strengthen their capacity to provide better quality and perhaps more extensive services. To facilitate the improvement of LGA management and health facility service delivery, the project builds competence at first in the State/IMMbasics team, then the LGA management team and finally, health facility staff. When a minimum standard of service regularity and quality is in place, the State/LGA/IMMbasics team will move strongly to encourage community support and use of services (see Appendix 1 for a graphic depiction).

This RI initiative is organized as a step-by-step effort to create a sustainable system that can serve as a model for rebuilding the RI system in Nigeria at a particularly pertinent time when the NPHCDA is being revitalized.

This document describes baseline findings grouped according to the IMMbasics Project Results Framework found in Appendix 2 and as detailed in the project's Performance Monitoring Plan (PMP).

III. BACKGROUND

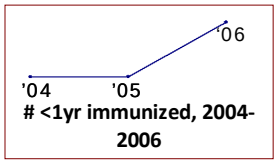
Nigeria is one of the largest and most populous countries in Africa, with approximately 140 million inhabitants[2]. The population is predominantly young; approximately 45% are under 15 years of age, 20% are under five years of age, and women of child bearing age (15-49 years) account for 22% of the total population. Nigeria's population growth has slowed somewhat in recent years (2% per year); yet the World Bank estimates that more than 3.4 million additional inhabitants were added in 2006 alone. This rapid increase in population makes it difficult for the Nigerian government's development efforts, including its health sector development efforts, to keep pace.

Routine immunization session, Gwadabawa, Sokoto State, 2006. Photo courtesy of J. Sequeira, IMMUNIZATIONbasics.

The performance of Nigeria's health system declined appreciably in the closing decade of the last century, resulting in poor health outcomes. Recent assessments have shown modest improvements in the maternal mortality ratio (948/100,000 in 2003 to 800/100,000 in 2006), stagnation in the under-five mortality rate (201/1000 live births in 2003 to 197/1000 live births in 2006), and slight improvement in the infant mortality rate (114/1000 live births in 2000 to 100/1000 live births in 2006). The rate of improvement in these indicators is much too slow to guarantee achievement of the Millennium Development Goals (MDG) for maternal and child health by 2015.

Health sector reform initiatives from 2004 – 2007 were designed to address the weak health system and thereby meet the MDGs. Despite increases in government funding and support from development partners, funding gaps remain. Lack of funding for day-to-day operation of the public health system, shortages and mal-distribution of human resources, decaying health infrastructure, lack of a harmonized and efficient logistics system, and a weak national health management information system are all major challenges. These deficiencies are further exacerbated by inadequate health program management capacity.

Over the past few years the number of children under one year of age immunized, as reported by DPT3, increased considerably—from 1,653,812 in 2004 to 4,118,754 in 2006 (see trendline).[3]



 # <1yr immunized, 2004-2006

However, coverage improvements have been primarily due to Nigeria's decision in May 2006 to add DPT and other child survival interventions to the polio eradication rounds that are held every 4-6 weeks in the northern states. While these regular IPDs dramatically impact reported coverage (as illustrated by trendline difference in number of children immunized from 2005 to 2006), data quality remains a critical on-going concern. IPDs initially targeted children under the age of two for DPT, unlike the routine system which targets children less than 12 months of age. It remains vital to ensure that IPD/campaign results for children less than 12 months of age are accurately recorded and reported in a disaggregated manner to distinguish infant coverage from coverage of children one- to -four years of age at each level. From 2007 onwards, there has been a concerted effort to limit vaccination to children under one even during the campaigns. Nonetheless, as currently

[2] Nigeria National Population Commission, Census, 2006.
[3] WHO/Nigeria database for, 2004 and 2006.

reported by the country, IPD and RI system data are merged or aggregated from the health facility level up, making it difficult to ascertain and utilize information from the system's contributions to immunization coverage.

Based on our preliminary baseline findings and following recommendations elsewhere on the need to strengthen routine immunization (Expert Review Committee, GAVI Alliance (GAVI) Data Quality Assessment (DQA), etc.), IMMbasics is working with the two States and LGAs to build a methodical approach to system strengthening. The project approach focuses first on strengthening LGA RI management and then moves on to the health facility level to strengthen capacity to provide better quality and eventually more extensive services. To facilitate the improvement of LGA management and health facility service delivery, the project builds skills at first in the State/IMMbasics team, then the LGA management team and finally health facility staff. When a minimum standard of service regularity/quality is in place, the State/LGA/IMMbasics team moves towards encouraging community support and use of services (See Appendix 1 illustrating project steps to strengthen RI).

Discussing and setting routine immunization standards for supportive supervison in Kirfi, Bauchi State, 2007. Photo courtesy of A.P. Bassi, IMMUNIZATIONbasics.

The RI initiative is organized in such a way as to create a sustainable system that can serve as a model for rebuilding routine immunization in the context of primary health care in Nigeria. The project strongly endorses and utilizes participatory approaches at all levels. It does not provide funds to carry out new or supplemental activities; rather it provides technical assistance to support the government in improving and operationalizing already-existing strategies for strengthening routine immunization.

IV. RAPID STATEWIDE ASSESSMENT METHODOLOGY

The methodology for the rapid statewide assessment incorporated project principles in working through existing systems and supporting all LGAs in a phased manner over the life of the project.

The assessment included all 43 LGAs in both Bauchi and Sokoto State and a desk review of reports from 1,427 functional health facilities (879 Bauchi, 548 Sokoto) with 451 (262 Bauchi, 189 Sokoto) providing RI services a minimum of 4 times a year for 2006 as of the time of the assessment[4]. Since IMMbasics works with all facilities capable of providing RI services, an in-depth review is conducted in all LGAs and health facilities to assess reported information upon phased entry into each LGA. The statewide assessment also looked how many facilities in an LGA have potential to provide RI services but currently are not**.**

Objectives of the rapid statewide assessment were to:

- identify the structure of the RI system in each of the 43 Bauchi and Sokoto State LGAs
- determine the contribution of the RI system to the number of infants less than one year of age immunized with the primary antigens (using DPT3 as an indicator).

The rapid assessment focused on the following two components:

- structure of the RI system
    - health facility (name, type, ownership and functionality(provision of any kind of health service) by ward
    - reported staffing of these health facilities
    - assessment of the number of health facilities that actually provide RI services
    - the reported amount of outreach services conducted from these health facilities
- relative contribution of the RI system, Child Health Weeks/Pulses and IPDs to the reported number of infants immunized for the primary immunizations.

At the conclusion of the assessment, IMMbasics reviewed the collected and analyzed information in three ways:

- by state when developing its work plan to strengthen RI
- by LGA when developing its workplan to strengthen RI management and service delivery
- by state/IMMbasics team and LGA partners as a cross-check when the project enters, or phases into, an LGA and conducts in-depth mini-reviews and work planning with the LGA.

Preparatory and implementation steps of the assessment included:

- develop and pre-test instruments
- brief and train consultants
- practice with the forms in one LGA
- ensure directive to the LGAs from the Ministry/Department of Local Government Affairs (MOLG/DOLG) is issued informing of the review and intervention
- deliver letter of introduction from the State Ministry of Health to the LGA Director of Primary Health Care
- work with the MOLG/DOLG to schedule assessments in each LGA through radio and telephone contact
- arrive in each LGA and carry out courtesy visits to key officials
- obtain required information in the appropriate offices of the LGA headquarters
- concurrently enter data into spreadsheets (data collation and analysis)
- submit data entry forms, spreadsheets and date-wise activity report.

[4] WHO/SMOH administrative data, 2006.

Pre-assessment stage The pre-assessment stage focused on the development and field testing of instruments with the SMOH and MOLG. The IMMbasics team conducted a field test in one urban and one rural LGA in Bauchi; after which assessment instruments were reviewed. The next step involved IMMbasics recruiting and training of consultants. Training focused on practical demonstrations and a field visit to one LGA to gather information using the two data tools; St-1 Statewide Baseline Assessment, Public Health Facilities & Staff and St-2 Statewide Baseline Assessment, Coverage Data Entry. (See Appendix 3.)

Assessment stage Following the successful LGA field visit and additional on-site training, IMMbasics introduced the consultants to the SMOH and MOLG. Data tools St-1 and St-2 were dispersed to the LGAs' department of Primary Health Care (PHC) to review in preparation for the arrival of IMMbasics consultants. Advocacy visits were conducted with the consultants to the LGA caretaker chairman and other relevant officers. The visits focused on formal introduction of the organization and its objectives and solicited support in gathering relevant baseline data. MOLG, LGA officers & consultants engaged in a data gathering process involving painstaking removal of IPD/campaign data at each RI system level.

Post-assessment stage The post-assessment stage included entry, collation and analysis of data using Microsoft Excel and SPSS 11.

Data Collection Instruments As mentioned above, the IMMbasics team used two data tools for the statewide assessment in all 43 LGAs:

St 1: Statewide Baseline Assessment: Public Health Facilities & Staff (Appendix 3);

St 2: Statewide Baseline Assessment: Coverage Data Entry (Appendix 3).
If selected data was not available (e.g., had been lost) at the LGA level, the team made a good attempt to collect the missing data from state and/or WHO archives and marked the data as coming from the state-level archives.

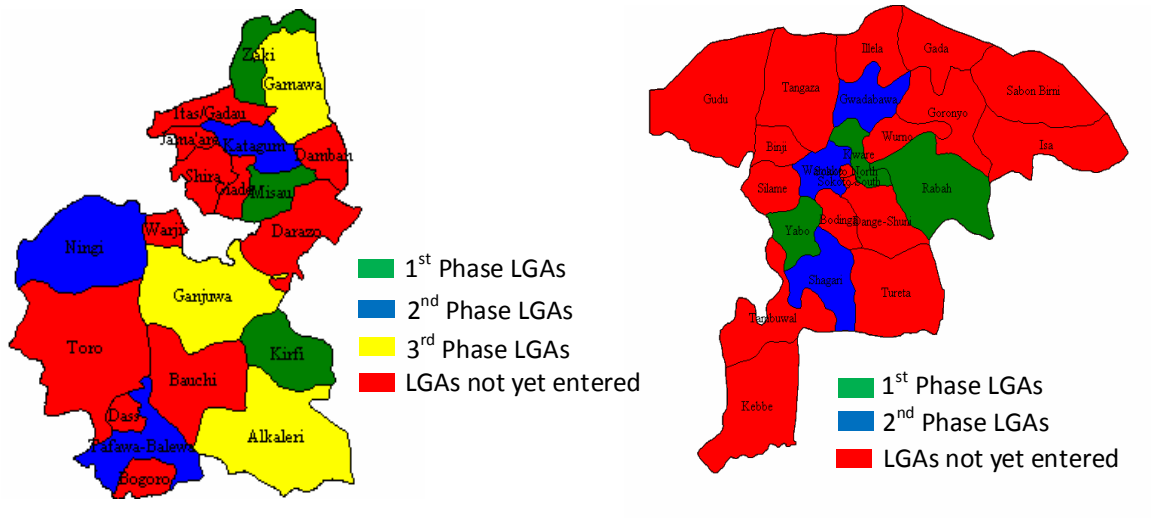
V. RI STRENGTHENING SYSTEM; PHASED METHODOLOGY

The SMOH and State Ministry/Department of Local Government Affairs (MOLG/DOLG) are strengthening the routine immunization system in Bauchi and Sokoto States with the technical assistance of key partners such as WHO, UNICEF and IMMbasics.

Phased Methodology

Because project resources do not allow start-up in all 43 LGAs simultaneously, each State/IMMbasics team initiates RI strengthening in a phased manner. The process currently occurs in groups of three LGAs at a time (one LGA from each Senatorial Zone)—starting one group of three LGAs approximately every quarter. The following maps show examples of phases 1 – 3 LGAs in Bauchi and phases 1 and 2 LGAs in Sokoto.

FIGURE 1: Bauchi and Sokoto States and sample phasing of project entry into LGAs



Map showing the LGA phases in each state, with Bauchi (left), and Sokoto (right).

RI Strengthening System

As the IMMbasics initiative to strengthen the RI system begins in a group of three LGAs, the State/IMMbasics team organizes a sequence of "entry" activities.

Advocacy and pre-planning for first level meetings and activities

Sensitization meeting held for the 3 LGAs together during which the State/IMMbasics team introduces LGA partners to the coming effort

In-depth LGA review of the status of selected components of the RI system

RI planning workshop in each LGA to identify objectives, targets, steps, schedule and responsibilities for the strengthening effort

The strength of this step-by-step, inclusive approach is that LGAs will undertake a review of their RI activities at the time they actually begin the strengthening effort. As a result, the output from the review is current and can be used as their baseline in developing an LGA work plan for strengthening RI. (See Appendix 1.)

Rapid, State-wide Assessment

In order to provide a comprehensive picture of the RI systems and baseline status in Bauchi and Sokoto States, the State/IMMbasics team conducted a rapid state-wide assessment in April/May 2007 in Bauchi and May/June 2007 in Sokoto.

The rapid assessment team compiled all relevant national, state and LGA documents and recruited consultants to collect a specific set of health systems information. This information, coupled with data already available through both states and WHO, informed the basis of the state work plan to strengthen RI and provided baseline data the project used in the PMP.

The assessment exercise included collecting and analyzing basic baseline information from all the LGAs at the beginning of the project. One of the critical pieces of information that was collected during the baseline collection period, and needed to calculate selected indicators for the project's PMP, was health facility level performance from 2006 and 2007 for facilities reporting to be providing RI services. (Note: Health facilities not offering RI services are assessed in more detail when the project enters an LGA and conducts an in-depth review).

In examining available reports and documents, IMMbasics took care to cross check data and put it into context as much as possible. Because the project focuses on routine immunization, baseline data was derived from routine administrative data ensuring as best as possible a view of the RI system data and IPDs DPT data. A review of RI LGA summary reports was conducted, covering a 12 month period preceding the start of IPDs (May 2006) or Supplemental Immunization Activities funded through the polio eradication initiative in May 2006. The analysis of the summary reports took into consideration possible fluctuations due to seasonality and temporary or singular interruptions in services. Due to data quality concerns, baseline data was cross checked with other sources as much as possible. Although administrative data cannot be directly compared with survey-based data, coverage data was indirectly triangulated with data obtained through survey-based methodologies, such as the National Immunization Coverage Survey (NICS) 2006.

In-depth LGA Reviews

As the project continues to enter LGAs by phases, the in-depth reviews provide RI system details in each LGA in addition to the findings of the rapid assessment conducted at the commencement of the project implementation. Staff will use a monitoring system to capture the new data comparable to the baseline and will conduct an end-of-project assessment including all state-wide information looking at trends in individual LGAs and comparing performance between LGAs.

Every quarter in Bauchi and Sokoto States, the RI strengthening initiative begins in six new LGAs. After approximately seven quarters, all 43 LGAs will have been initiated into the process. An implication of the phased process is that the LGAs initiated earlier in the project will have older data compared to data collected from LGAs initiated later in the project. Consequently, a phased in-depth data review is being employed by the project. Like the state-wide rapid assessment conducted to collect baseline information, phased LGA reviews performed when the project enters an LGA also look at RI-related data, but in greater depth. The LGA review focuses on the two operational issues of LGA management of the RI system and health facilities that are capable of providing RI services. Through support supervision visits by a team consisting of SMOH/MOLG officials, LGAs, partner agencies and IMMbasics staff shortly after entering an LGA, health facilities already providing RI services are assessed. Detailed information for other operational issues is obtained through systematic support supervision and local-area monitoring.

Objectives of the phased LGA review are to:

- introduce the idea that the RI strengthening initiative will reveal every detail of the status of RI service management in the LGA
- establish a detailed systems-management baseline
- create recognition of the need to change the way RI services are currently managed;
- identify health facilities that do not provide RI services but which could (and should) provide such services.

In-depth reviews are as much for the LGAs themselves as they are for the IMMbasics, since they provide a valuable starting point for LGAs in self-assessing RI system gaps.

Phased LGA review Data Collection Instruments:

LGA Level Instruments

The instruments for the mini-review at LGA level are seven (7) worksheets in one excel workbook(SEE APPENDIX 6):

LGA-1: 2006/07 LGA Vaccine Usage & Coverage Worksheet

Purpose: obtain HF-by-HF data of DPT vaccine and numbers immunized for 2006 and 2007
Output: frequency of service, coverage, dropout and vaccine-usage data by HF

LGA 2: LGA or LGA Zonal Cold Store

Purpose: obtain information on the structure (availability and condition) of the vaccine distribution system
Output: status report on the vaccine distribution system (capacity, condition, and current documentation of the distribution system) in the LGA

LGA 3: LGA Level Review: Equipment & Supplies

Purpose: obtain information on the availability and storage condition of immunization supplies
Output: inventory and condition of available and/or reserve supply items (for routine use and in preparation for expanding RI services to additional HFs)

LGA 4: LGA Level Review: Data Management

Purpose: identify how the LGA RI team is managing (collecting, reporting, analyzing and using) routine immunization data
Output: status report on the LGA RI unit's organization, management and use of data (to include population data)

LGA 5: LGA Level Review: Support Supervision

Purpose: identify how the LGA RI team is organizing supervision of activities (planning, content and reporting)
Output: description of the current RI supervision system

LGA 7: LGA Level Review: Health Staff Worksheet

Purpose: understand staff distribution by ward and facility for planning strengthening of service provision
Output: staff listed by name, sex and qualification by health facility

Selected LGA review findings from the start-up LGAs in Bauchi State are:

- none of the LGAs provide regular running costs for RI service management (e.g., vaccine/supply distribution, supervisory visits, review meetings)

- none of the LGAs provide necessary generator fuel for icepack freezing essential for RI vaccine distribution (generators generally function only during IPDs)
- none of the LGAs maintain complete and/or accurate vaccine transaction or immunization performance records
- none of the LGAs use data for feedback and decision making
- vaccine and supply handling are below minimum standards
- immunization supplies are not regular and sometimes are not appropriate
    - shortage of Bacillus, Guerin-Calmette (BCG) vaccine
    - no reconstitution syringes/needles found
    - syringes/needles used in some areas for BCG have 23g needles, 1 inch needles
    - syringes/needles used in some area for DPT/tetanus toxoid (TT) have 25g, ½ inch needles which do not permit deep intramuscular injection and are therefore associated with greater soreness at the injection site
- supportive supervision is not taking place at any level.

Selected LGA review findings from the start-up LGAs in Sokoto State are similar to those found in Bauchi:

- none of the LGAs provide regular running costs for RI service management (e.g., vaccine/supply distribution, supervisory visits, review meetings)
- LGAs do not provide necessary generator fuel for icepack freezing essential for RI vaccine distribution (generators generally function only during IPDs)
- none of the LGAs maintain complete and/or accurate vaccine transaction or immunization performance records or use data for feedback and decision making
- vaccine and supply handling below minimum standards
    - immunization supplies not regular and sometimes not appropriate (see Bauchi findings above)
- supportive supervision is not taking place at any level.

VI. INDICATORS AND BASELINE FINDINGS

All indicators for the IMMbasics project relate to USAID/Nigeria's strategic objectives and intermediate results, and as such are sometimes defined in terms of "US Government (USG) supported". Readers unfamiliar with USAID should take note of this, particularly as it relates to baseline numbers. The project's indicators are summarized in a Results Framework in Appendix 2.

All ten indicators reflect the intention of the project to strengthen the routine immunization system in Bauchi and Sokoto States through partnering with the SMOH and MOLG to:

- operationalize all five components of the REW approach (planning and management of resources; improving access to immunization service delivery; supportive supervision; linking services with community; monitoring for action)
- increase utilization of services
- improve quality of services
- improve quality and use of data.

A. KEY INDICATOR: Number of children less than 12 months of age who received DPT3 from USG-supported programs

Nigeria is one of the only countries in the world that has been institutionalizing the delivery of DPT through mass campaign-like events. The genesis of this approach is the desire to meet community needs and provide a wider array of services than just oral polio vaccine (OPV) during National Immunization Days (NIDs). The consequence is that the quality of data to measure routine immunization by 12 months of age – the standard indicator used in all countries and globally – can be compromised unless great care is taken to ensure that campaign results for children less than 12 months of age are accurately recorded and reported in a disaggregated manner to distinguish infant coverage from coverage of children 1-4 years of age at each level.

In addition, because IPDs and any such campaign events can attract large and impatient crowds, health workers often provide doses without taking the step of obtaining the child's immunization status from his/her card. However, cards are not always brought either because polio and measles campaigns were considered supplementary; they were forgotten at home or were never issued to clients in the first place. Doses would then only be recorded on tally sheets rather than on individual cards.

Since administrative reports currently combine or aggregate routine and supplemental data from the health facility level up, the IMMbasics project is putting effort into programmatically measuring and monitoring routine data separately (disaggregated) from supplemental data in its target states. The project aims to help strengthen the RI system in both states, but the mixing of IPD and RI system data means that the massive IPD-related, short-term increase in the coverage of selected antigens (e.g., DPT and measles) hides the true picture of faltering or stagnant RI services.

The 2006 preliminary NICS reports DPT3 coverage of infants (by card plus history at 52 weeks of age) in Bauchi State to be **25%** and in Sokoto State **5%**. DPT3 coverage by card only was reported to be **11%** and **2%** respectively.

Baseline Findings

From the statewide assessment of disaggregated data IMMbasics found January to December 2006 DPT3 coverage through the RI system of approximately **34%** in Bauchi and **31%** in Sokoto.

In order to focus on the actual trend outside the IPDs our baseline numbers for this indicator are based on March 2005- April 2006 (12 month) disaggregated data previous to IPDs taking into consideration the NICS 2006 preliminary results[5]. Although the baseline technically is zero for both states (following the definition of "from USG-supported programs") the number of children less than 12 months of age who received DPT3 at baseline is:

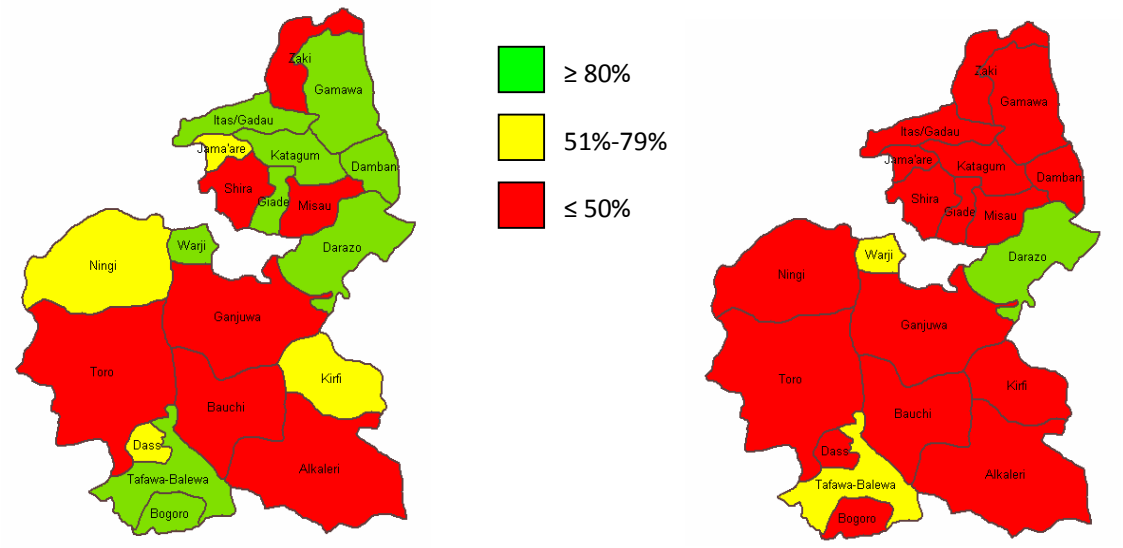
Bauchi: 40,447
Sokoto: 35,648.

Bauchi

The maps below show DPT3 coverage that includes IPD coverage in comparison to coverage rates that do not include IPD data.

FIGURE 2: Bauchi 2006 DPT3 RI and IPD Coverage only

Bauchi 2006 DPT3 RI System Coverage



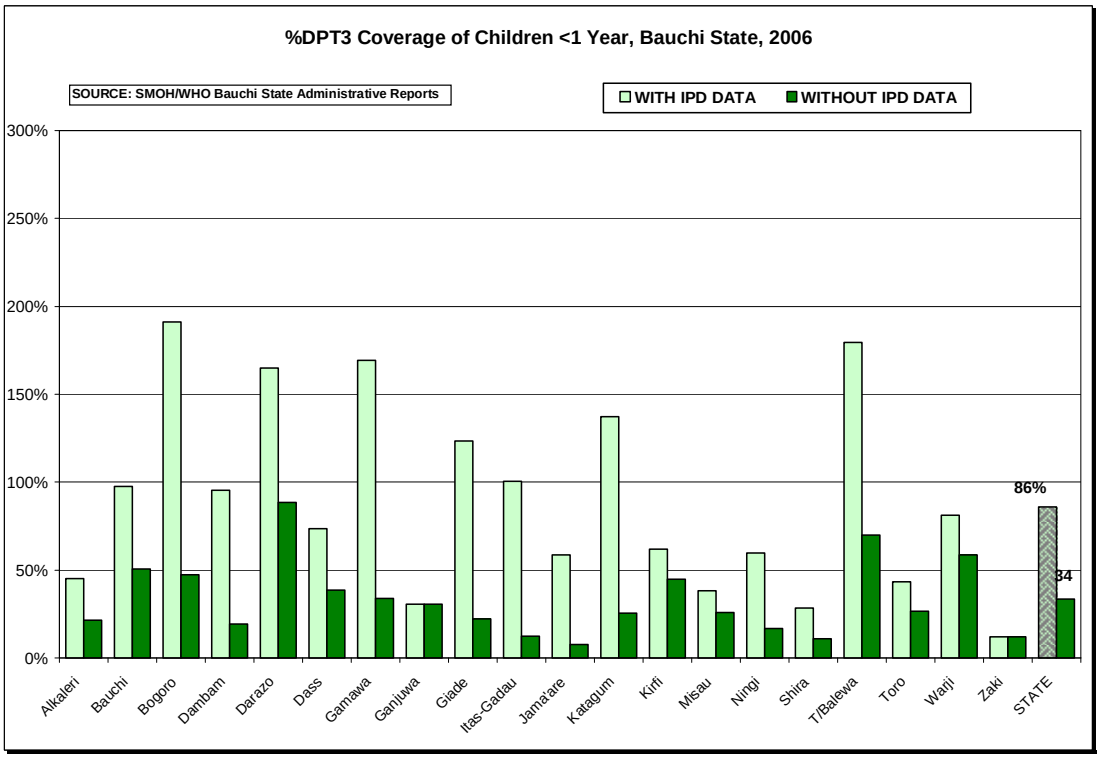
SMOH/WHO Bauchi, based on their 2006 administrative reports.

In 2006, reported DPT3 coverage in Bauchi State for children <one year (IPD plus RI system data) was **86%**[6]**;** no separated or disaggregated data was reported. In April 2007, the State/IMMbasics rapid assessment of records in all 20 LGAs showed that 2006 RI system coverage of children <one year of age with DPT 3 was **34%** (See Figure 3).

[5] Ibid.

[6] This is SMOH administrative data. WHO National data records 89% for the 06 year.

FIGURE 3: Bauchi State DPT3 Coverage, 2006

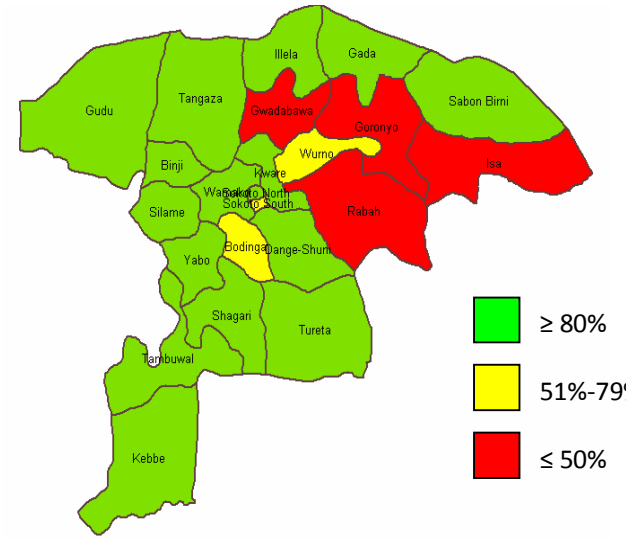


Source: IMMbasics based on SMOH Bauchi State Administrative Reports, 2006.

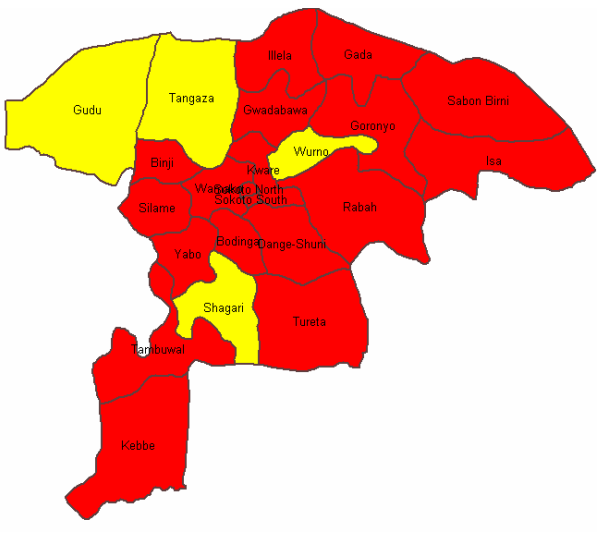
Sokoto

The 2006 National Immunization Coverage Survey reports that valid DPT3 coverage of infants (by card plus history at 52 weeks of age) in Sokoto State was **5%**. Coverage by card only for DPT3 was reported to be **2%**. The maps below show 2006 DPT3 coverage that includes IPD coverage in comparison to coverage rates that do not include IPD data.

FIGURE 4: Sokoto 2006 DPT3 RI and IPD Coverage



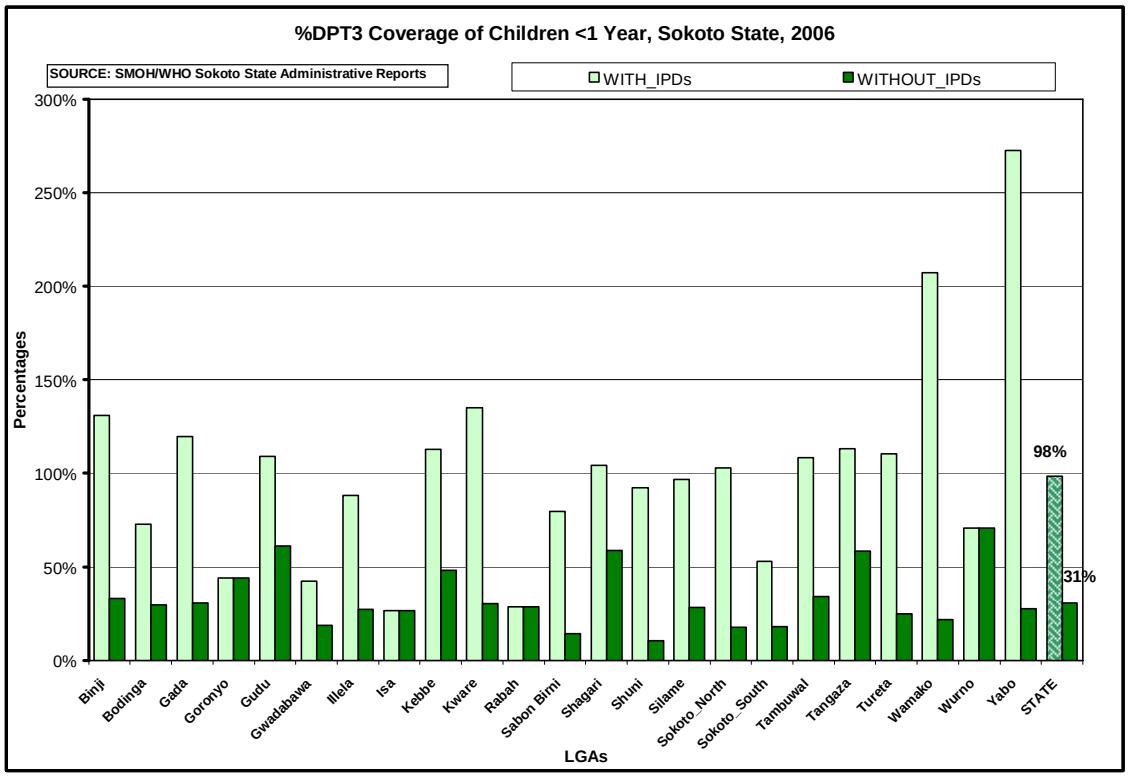
Sokoto 2006 DPT3 RI System Coverage Only



Source: IMMUNIZATIONbasics based on SMOH Sokoto administrative reports, 2006.

In Sokoto State, for 2006, reported DPT3 coverage of children <one year (IPD plus RI system data) was **98%**[7]; no separated or disaggregated data was reported. In May 2007, a State/IMMbasics rapid assessment of records in all 23 LGAs showed that 2006 RI system coverage of children <one year of age with DPT 3 was **31%.** (See Figure 5).

FIGURE 5: Sokoto State DPT3 Coverage, 2006



Source: Based on SMOH Sokoto administrative reports, 2006

Under normal circumstances DPT as described below may indicate the following:

> **DPT1:** the RI system's ability to initiate service—to mobilize the community; overall availability of and access to immunization services;
>
> **DPT3:** continuity of use by parents, quality of services, client satisfaction with services, and capability of the system to deliver a series of vaccinations.

However, as reported in Nigeria, IPD data aggregated with RI system data masks weaknesses of the RI system. Without disaggregation DPT1, DPT3 and dropout indicators cannot be interpreted as defined above. The 2006 data in Table 1 illustrates the point, and shows a remarkable difference in achievement for DPT and measles provided during IPDs as compared to BCG, yellow fever (YF), and OPV3—doses not given during IPDs.

[7] Figure is based on available reports in the state as of time of assessment .Updated SMOH administrative reports show 108% for 2006 period. From the WHO national data 2006 period for Sokoto is recorded as 115% coverage

TABLE 1: Reported Immunization Coverage (Children < 1 Year), Sokoto, 2006

LGAs	Antigens Given during IPDs (IPD + RI service data)			Antigens not Given or not Recorded during IPDs		
	DPT1	DPT3	Measles	BCG	OPV3	YF
Binji	88%	152%	171%	24%	34%	42%
Bodinga	154%	81%	179%	42%	32%	42%
Dange-Shuni	94%	94%	98%	22%	16%	13%
Gada	114%	114%	293%	45%	33%	41%
Goronyo	124%	94%	190%	30%	40%	25%
Gudu	173%	110%	217%	36%	58%	67%
Gwadabawa	89%	100%	159%	24%	38%	13%
Illela	124%	85%	287%	29%	31%	58%
Isa	120%	83%	220%	30%	30%	44%
Kebbe	141%	125%	193%	33%	43%	32%
Kware	127%	144%	114%	36%	38%	19%
Rabah	143%	84%	155%	19%	26%	17%
Sabon Birni	117%	83%	96%	26%	18%	13%
Shagari	115%	106%	203%	19%	34%	18%
Silame	107%	113%	229%	32%	27%	42%
Sokoto North	106%	124%	45%	25%	29%	16%
Sokoto South	85%	53%	35%	28%	30%	20%
Tambuwal	130%	107%	179%	20%	45%	20%
Tangaza	142%	104%	212%	20%	40%	50%
Tureta	139%	97%	268%	32%	31%	14%
Wamako	213%	201%	204%	26%	26%	21%
Wurno	156%	188%	226%	33%	68%	19%
Yabo	136%	93%	237%	35%	24%	38%
STATE	**126%**	**108%**	**174%**	**29%**	**33%**	**28%**

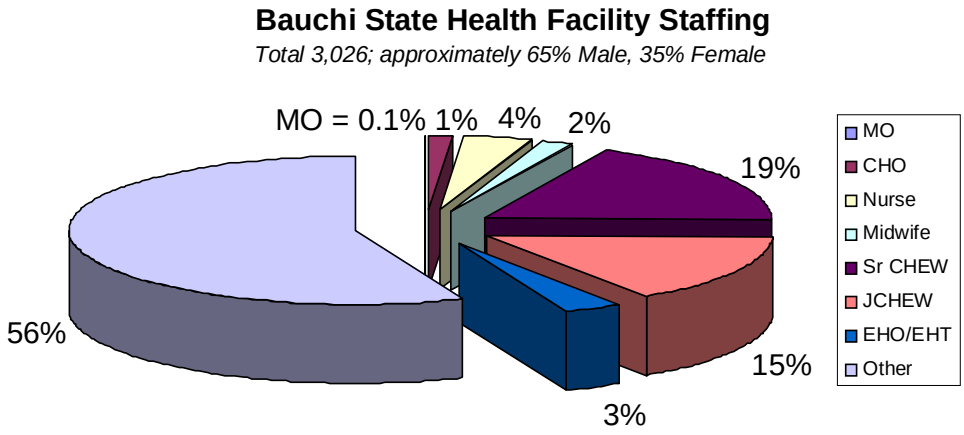
Source: SMOH/WHO Sokoto administrative reports, 2006.

B. KEY INDICATOR: Number of people trained in child health and nutrition through USG-supported health area programs

A shortage of qualified health staff in northern Nigeria is an often-cited challenge. While IMMbasics did not conduct an in-depth assessment of the spread of qualified health staff per functional facility, data revealed a clear mal-distribution of staff in both Bauchi and Sokoto States. Not surprisingly, the majority of shortages were found in rural LGAs. Less than half of all health facility staff are categorized as "qualified". Health staff categorized as "qualified" included Medical Officers (MO), Community Health Officers (CHO), nurses, midwives, Senior Community Health Extension Workers (Sr. CHEW), Junior Community Health Extension Workers (JCHEW), Environmental Health Officers (EHO) and Environmental Health Technicians (EHT).

As illustrated below, in Bauchi out of the reported 3,026 health workers for 2006, only **44%** or 1,337 are health professionals of any kind; the remaining 56% being cleaners, watchmen, messengers etc. Out of the total staff, only **35%** were female; this is of importance due to linkage of routine immunization services to reproductive health services. The review found that most maternity centers provide RI services, though not always on the same day of antenatal care sessions.

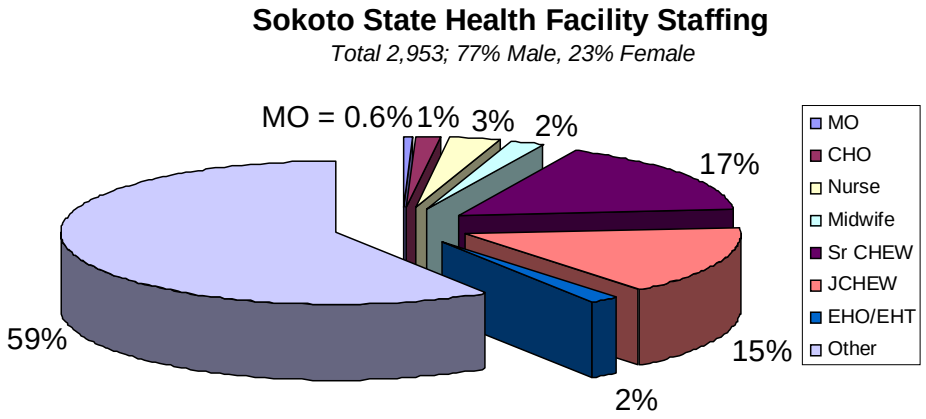
FIGURE 6: Bauchi State Health Facility Staffing, 2006



Source: Based on LGA records, 2006.

In Sokoto of the 2,953 health workers on record for 2006, only **40%** or 1,181 are health professionals, the remaining 60% are categorized as non-health, non-professional staff. Another finding of interest in a setting with a predominant Muslim population, is that only 690 or **23%** of these health workers are female—similar to what other sources have found in Northern Nigeria. Staffing per facility, especially in rural LGAs, was inadequate; many facilities had only one trained health person. The ratio of qualified health professional staff to non-health professional staff was found to be 2:3.

FIGURE 7: Sokoto State Health Facility Staffing, 2006



Source: Based on LGA records, 2006.

In both Bauchi and Sokoto States we found the SMOH, MOLG/DOLG and LGAs taking creative steps to address staff mal-distribution and inadequate numbers of qualified personnel. One method being employed is dividing the state into health zones. In Bauchi's case division of health zones corresponds with the three senatorial zones; in Sokoto's case the state has been divided into four health zones. Qualified staff are tasked with oversight of their health zone, including provision of support supervision and on-the-job training. IMMbasics will partner with these staff in particular in promoting training, capacity building and support supervision activities for RI strengthening.

LOW COST SOLUTIONS ALEADY BEING USED

Gudu LGA in Sokoto State successfully advocated with their LGA Chairman for monthly funds in the amount of naira 30,000 to be used for RI services. They now use a portion of these monthly funds to pay stipends to qualified health staff from a neighboring LGA to assist in conducting outreach services.

Bauchi and Sokoto States are currently supporting legislation for a small monthly allocation of a minimum fixed amount of funds to be set aside by LGAs for RI purposes. IMMbasics will support LGA health management staff in advocating with LGA Chairmen for RI funds that will be disbursed on a monthly basis for supporting activities such as vaccine distribution, support supervision, conducting outreach services and running cold store generators to ensure proper icepack production.

The indicator of "number of people trained in child health and nutrition through USG-supported health area programs" related to IMMbasics refers to specific training on routine immunization topics only with involvement of USG funds. This reflects the project's on-site training focus and mandate to work in all LGAs in both states over the life of the project. Because the project focuses on RI system strengthening and building human capacity, the indicator refers to health workers in each state.

Baseline Findings
IMMbasics plans to train at least one qualified health staff per health facility offering RI services, particularly in rural settings and in line with the REW strategy. Because this USAID indicator refers to people trained on routine immunization through **USG-supported programs**, baseline numbers for both States are zero.

C. Strengthened distribution of vaccine and vaccine-related equipment; % of LGAs with a vaccine distribution plan

Consistent distribution of vaccines has been highlighted as a major weakness in the delivery of immunization services in Northern Nigeria[8] [9] [10] [11]. In Bauchi and Sokoto states the situation is not much different from other parts of the North.

IMMbasics will focus on vaccine security from states to LGAs and LGAs to service delivery points (fixed and outreach). The project will not have control over national vaccine supplies and deliveries to the states (e.g. all required vaccines, syringes and safety boxes). Consequently stock outs at the national level or inadequate distribution from Abuja or the zonal stores, will disrupt supplies at the service delivery level. However, both WHO and United Nations Children's Fund (UNICEF) have placed advisors at national and state levels and NPHCDA is committed to improving national to state vaccine logistics. It is critical to note that continued use of multi-antigen campaigns may deplete antigens intended for routine immunization if appropriate forecasting at the national level is not carried out.

Thus an important assumption of this project is that vaccines will be made available by the Federal Government of Nigeria, without lingering shortages in the states. Needless to say, without vaccines and vaccine equipment there can be no immunization. The distribution situation in the past has been addressed through various initiatives such as private public partnership. These efforts were met with unsustainable results.

IMMbasics will work to strengthen distribution of vaccines from state level down, using a sustainable approach of working with the LGAs to develop management capacity and functional distribution plans. Other opportunities that the states and LGAs will be encouraged to use include funding options from the GAVI funds, as well as systematic budgeting and utilization of LGA funds for RI operations in the state, through advocacy with LGA Chairmen. A clear delineation of responsibilities of government tiers to date awaits the passage of the National Health Bill, which clearly outlines financing responsibilities for primary health care at the LGA levels.

Baseline Findings
At baseline, none of the LGAs in Bauchi or Sokoto met the IMMbasics definition of having a proper vaccine distribution plan. A "proper" vaccine distribution plan consists of a work plan (See sample below.) showing vaccine requirements, distribution points, responsible persons and dates corresponding with immunization sessions at health facilities. The plan should be updated at least once every quarter.

[8] *Reviving Routine Immunization in Northern Nigeria*, Battersby et al., DFID, December 2005.
[9] *The State of Routine Immunization Services in Nigeria and Reasons for Current Problems*, Fielden Battersby Health Systems Analysts, DFID, PATHS, June 2005.
[10] *A Blueprint for Strengthening Nigeria's Routine Immunization Delivery System,* NPI, July 2005.
[11] Joint WHO-UNICEF Mission on Vaccine Security in Nigeria, 24 October – 4 November 2005, Mission Report, November 2005.

FIGURE 8: Sample Vaccine Distribution Plan developed by SMOH/IMMbasics team

Vaccine Distribution Plan: _____ LGA, 2007												
Ward	Health Facility	Target Pop	Days of Service	Day of Collection	Vaccine Carriers	Ice Packs needed each collection	VaccineVials Needed					Respon-sible
							BCG	OPV	DPT HepB	YF & Mea	TT	
							20*	20	10	10	10	

** denotes number of doses in a vial*

D. Strengthened distribution of vaccine and vaccine related equipment; % of health facilities that are sent vaccine supplies monthly

As outlined in the introduction, one of IMMbasics four key objectives is to "promote the regular distribution of vaccine and vaccination supplies to service delivery points". As noted in the previous section, a critical assumption of the project is that there are no (or limited) stock-outs of vaccines and vaccination supplies at federal and state levels.

This indicator tracks availability and distribution of vaccines at service delivery points. The lack of vaccines at service delivery points has often been cited as a reason for children not being immunized. A portion of the phased LGA reviews focuses on vaccine distribution, assisting LGA management in analyzing systemic gaps and working together with IMMbasics to begin addressing these gaps.

The procedure for vaccine delivery differs from one LGA to another. In some, the LGA Immunization Officer (LIO) arranges and delivers the vaccines to health facilities; whilst others come to the LGA cold store to collect the vaccines. Documentation of health facilities provided/receiving vaccines monthly will be tracked by IMMbasics. See Appendix 4 for a sample Vaccine Distribution Calendar.

Baseline Findings

At baseline in the first phase LGAs, none of the LGAs in Bauchi or Sokoto had proper vaccine records of deliveries to health facilities. While vaccine stock ledgers existed, they were not being put to use or updated regularly. Instead, findings showed records of vaccines sent on loose paper that was neither filed nor stored systematically together. Health facilities that provided vaccines monthly did not provide data that correspond with quantities of vaccines received in the LGA or to immunization session days. Based on post-baseline findings from several LGA in-depth reviews, in Bauchi an average of 31% of health facilities in the first two phases of LGAs were sent vaccines monthly. While in Sokoto an average of 66% of the health facilities in the first phase LGAs were sent vaccines monthly.

E. Increased access to services, commodities, and materials; % of health facilities that offer RI services

Baseline information on this indicator was collected during the rapid statewide assessments; and is reviewed in-depth as the project enters an LGA.

This indicator reflects the cumulative number of government facilities offering RI services. This refers to the total number of health facilities offering RI services out of the total number of reported *functioning* facilities*(health facilities providing any kind of health service)* in the state. From baseline we expect to gradually expand the number of health facilities offering RI services through technical support while also promoting community involvement and advocacy - bearing in mind that IMMbasics does not have funds to renovate or provide hardware to facilities; as such targets set by the project are conservative. Additionally, the project focuses on first strengthening and stabilizing fixed RI services before moving to support outreach services.

IMMbasics defines routine immunization as *regularly scheduled immunization services provided at a health facility or at a scheduled outreach site.* The intention is to achieve at least four contacts per year to deliver full immunization. This goal is guided by the Global Immunization and Vision Strategy 2006-2015 (GIVS). GIVS, jointly developed in 2005 by WHO and UNICEF in consultation with a broad range of partners, including USAID, aims to achieve a minimum of four immunization contacts with all infants. See:
http://www.who.int/vaccines-documents/DocsPDF05/GIVS_Final_EN.pdf.

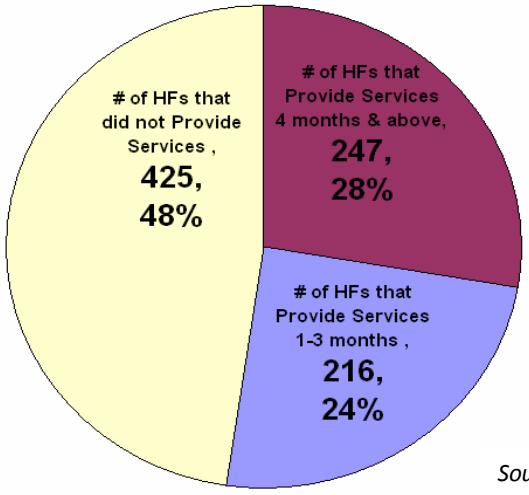
Baseline Findings

Bauchi

The total number of government health facilities reported to be providing any kind of health service in Bauchi State in 2006 was 888 in 323 wards of 20 LGAs. Of these facilities (See Figure 8) approximately 216 provided RI services for only one-three months. Another 247 provided immunization services during four or more months in 2006. 48% *or 425 health facilities did not provide RI services during any month of the year.*

By these records approximately 313 health facilities provided intermittent services and 575 facilities provided no RI services at all. What emerges from this data is that only a handful of facilities provide regular RI services; the greater number of facilities provide RI services on an intermittent and ad hoc basis.

FIGURE 8: BAUCHI No of Times Health Facilities are Reporting RI Services in Bauchi State (Jan-Dec, 2006)

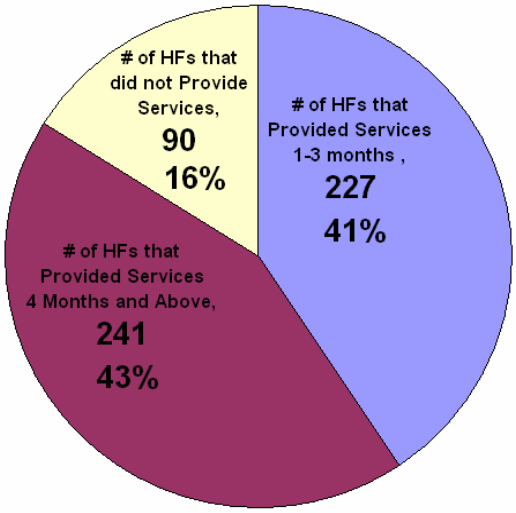


Source: SMOH, Bauchi, 2006.

Sokoto

A total of 558 government health facilities in 244 wards of 23 LGAs were reported as providing any kind of health service in Sokoto in 2006. However, not all wards in the state offered RI services. The ten wards not providing RI services in 2006 were located in Bodinga, Yabo, Sokoto North and Sokoto South LGAs. Of the 558 functioning government facilities, approximately 227 provided immunization services for only one to three months. 43% *or 241 health facilities, provided RI services for 4 months and above out of the year.* A total of 90 health facilities did not provide any RI services throughout the year, while 317 provided intermittent and adhoc immunization services.

FIGURE 9: SOKOTO No of Times Health Facilities are Reporting RI Services in Sokoto State (Jan-Dec, 2006)



Source: SMOH, Sokoto, 2006.

F. Improved quality of immunization service delivery; % of LGAs actively monitoring health facility immunization services

This indicator tracks LGAs with personnel involved in monitoring health facility immunization services. An LGA is considered "actively monitoring" when it applies the standard checklist in monitoring and assessing services (providing support supervision) at least once in a quarter. The project has merged two of the components of REW together in this package: active monitoring and supportive supervision. When support supervision is effectively carried out, the feedback and follow up should be done to improve quality of service delivery.

Active monitoring: Active monitoring refers to "the continuous and regular use of selected data to assess program (or activity or task) performance for feedback and action." It is the key to improving quality of service through standard setting and continuous monitoring and feedback. The standards are described in a checklist used for regular monitoring.

Support supervision: Several steps are involved in the process of support supervision. The IMMbasics' approach describes it as a process whereby *supervisors and staff together*:

1. Identify the critical tasks that need to be conducted.
2. Set standards for those tasks for initial "do-able" actions.
3. Document the status of current program activities in relation to the standards.
4. Correct the revealed deficiencies of practice and knowledge that can be addressed immediately (on-the-job).
5. Plan who will and how to address issues that can not be addressed immediately (both at the local and higher management levels).
6. Use the documented "status" (#3) for reporting, feedback, measuring progress over support-supervision cycles and follow-up action (supervisors of the supervisors).
7. Revise the checklist over time to match standard state or national checklists, using a participatory process.

Baseline Findings
At baseline, none of the LGAs in Bauchi or Sokoto were actively monitoring health facilities, defined as the use of a standardized checklist utilized at least once per quarter during support supervision. Through the first phased LGA in-depth reviews, no LGA was found to be using a standard checklist to monitor quality of services in the health facilities in a systematic and timely way (occurring at least once a quarter). In addition, no LGA was found with a detailed and operational supervisory plan containing names of responsible persons, dates and places of planned supervisory visits.

G. Improved quality of immunization service delivery; number of health workers trained by topic

This indicator refers to specific training in RI-related topics and tracks immunization topics and number of health workers (participants, not persons) trained by topic. The number reflects IMMbasics' on-site training focus and mandate to work in all LGAs in Bauchi and Sokoto States over the life of project. It also demonstrates the ability of the project to provide on the job training at the health facility level.

Baseline Findings
Because this indicator measures participants trained through project support, baseline for both states is zero.

H. Improved quality of immunization service delivery; health facilities DPT vaccine use rate (proportion of vaccine supply administered to a child; # injections given / # vials)

Whereas the most useful and reliable RI system indicator for most countries is dropout monitoring, in Bauchi and Sokoto States it currently is not of practical value as a result of the mix of IPD and RI data. DPT1 to DPT3 dropout typically measures quality of service as perceived by parents and the quality of communication between health workers and parents; this is the classic dropout indicator. However, an alternative is to use less common indicators (e.g., vaccine distribution and vaccine use-rate indicators) to monitor RI system progress. IMMbasics has included all these indicators in the project's PMP. Use of vaccine wastage rates was also considered since it is supposed to be currently in use. IMMbasics however opted for the use rate because it more accurately gauges the capacity of the service provider (actual vaccine administration, proper vaccine stock and vaccination record keeping) as it is not influenced by external factors like poor vaccine storage and or/forecasting at higher levels.

An example of LGA review data collected on the "use-rate" indicator is given in Table 2 on the following page. In this table, vaccine "use-rate" is calculated using data from the Kware LGA Vaccine Stock Ledger and immunization reports from health facility level. None of the health facilities have refrigerators, so none should hold vaccines from previous months. As the DPT vials used for routine immunization contain a maximum of 10 doses, results from the 2006 data (right hand column) show that all but two health facilities reported giving more immunizations per vial than is possible (range 13.2 - 228 average immunizations per vial received). The implication is that the target should not be a hypothetical use-rate (e.g., 7 doses per vial) but rather the target should be that a certain % of use-rates falls into a believable range (i.e. between 0.5 and 10 doses per vial). This indicator measures the quality of service delivery as it expresses clients' use of the health facility RI service and is a critical assessment of accuracy in immunization-related recording. It also points to the need of ensuring disaggregated reporting of campaign data from vaccinations attributed to the routine immunization system.

TABLE 2: Kware LGA 2006 DPT3 Coverage and Use Rate by HF

Ward	Name of HF	HF Provides RI?	No. of Times Vials Received	Total No. of Vials Received	Total DPT Given	Use rate
Bankanu	Bankanu Dispensary	Yes	2	20	368	18.4
	Kalalawa Dispensary	Yes	4	36	1074	29.8
	Runji Dispensary	Yes	3	30	594	19.8
	Fed. Med. Centre	Yes	4	50	688	13.8
Basansan	Basansan Disp.	Yes	4	37	915	24.7
	Lemi Dispensary	Yes	1	4	284	71.0
Durbawa	Durbawa Dispensary	Yes	4	60	483	8.1
G/Modibbo	Siri Jalo Dispensary	Yes	2	11	303	27.5
	Mallamawa Disp.	No	0	0	0	0.0
	Hausawa Dispensary	No	0	0	0	0.0
Hamma Ali	Hamma Ali Dispens.	Yes	4	70	925	13.2
	Karandai Comm. Disp	No	0	0	0	0.0
Kabanga	Kabanga Dispensary	Yes	4	43	895	20.8
Kware	PHC Kware	Yes	4	50	1217	24.3
	FNPH Kware	No	0	0	0	0.0
More G/ Rugga	Ruggar Liman Disp.	Yes	2	10	184	18.4
	FSAS Clinic	No	0	0	0	0.0
S.Birni/ G. karma	Sabon Birni Disp.	No	0	0	0	0.0
	G/karma Disp.	Yes	1	5	105	21.0
	Gundunga Disp.	Yes	4	36	698	19.4
	Ihi Comm Disp.	Yes	2	20	0	0.0
	MPHC Balkore	Yes	0	0	0	0.0
Tsaki/Wallakae	Lambo Comm Disp.	No	0	0	0	0.0
	Tsaki Comm Disp.	Yes	2	13	75	5.8
	Wallakae Dispensary	No	0	0	0	0.0
	Zamau Comm Disp	Yes	3	30	738	24.6
Tunga/ Mallamawa	Tunga Dispensary	Yes	2	13	391	30.1
	Mallamawa Yari Disp	Yes	1	3	684	228.0
MEAN				541	10621	19.6

Source: SMOH LGA records, 2006.

Baseline Finding

Because this indicator is being introduced by the project, the baseline for both states is zero.

However, based on post-baseline findings, the project found 65 % of health facilities in the first six LGAs entered in Bauchi had a vaccine use rate of <10, while in Sokoto 57% of health facilities providing RI services had a use rate of <10 in the first three LGAs entered.

I. Improved immunization data quality & use; % LGAs who have an up-to-date coverage & dropout monitoring chart visible on wall

This indicator refers to cumulative DPT monitoring and dropout charts. It indicates that the data is being used to assess progress and that regular updates are made using RI systems data and the standard WHO chart (see Appendix 5). Use of aggregated data (IPD and RI system) results in great jumps in coverage information during IPD dates, and often manifests as above 100% coverage as well as negative dropout rates. While dropout measurement is currently not sensitive enough to satisfy the needs of the LGAs due to the ongoing IPDs (e.g. very high negative dropout rates), building capacity of the LGAs to chart this is an important step enabling them to utilize the information in the future.

Quality of data has been a recurring issue identified through various assessments.[12] [13] The *use* of data to guide action has also been suboptimal. Data use revolves around advocacy, decision making, mobilization of resources, monitoring and planning. The use of data is a key component of the REW approach and is a powerful tool for activating engagement of communities, health facilities, LGAs and states.

In the project, the display of up-to-date monitoring coverage and dropout charts is considered a minimum proxy for good quality monitoring. The charts can only be considered as evidence of improved data quality if they are accurate and up-to-date. The data is expected to form the basis for decision making and actions by the LGA team in order to address problems and improve performance.

Baseline Finding
At the time of the rapid assessment, none of the LGAs in either Bauchi or Sokoto had disaggregated up-to-date RI monitoring coverage and dropout charts displayed in the LGA Health Department.

J. Improved immunization data quality and use; % LGAs who disseminate RI data to LGA Chairmen

Fulfillment of this indicator is evident by the graphic display of current RI coverage on the wall in the Chairman's office. It links to ensuring that key stakeholders have and use of the RI systems data as an advocacy tool for regular monthly allocation of funds for RI services.

Baseline Finding
At the time of the rapid assessment, none of the LGAs in either Bauchi or Sokoto had disaggregated up-to-date RI monitoring coverage and dropout charts displayed in the LGA Chairman's office.

[12] GAVI Draft Data Quality Audit; Nigeria from 16 October to 6 November 2006, LATH UK and Euro Health Group Denmark.
[13] 10th Meeting of the Expert Review Committee on Polio Eradication in Nigeria, Kano, Nigeria, 12-13 July 2006.

VII. CONCLUSION

In order to provide a comprehensive picture of the RI systems and baseline status in Bauchi and Sokoto States, the State/IMMbasics team conducted a rapid state-wide assessment in April/May 2007 in Bauchi and May/June 2007 in Sokoto. The rapid assessment team compiled all relevant national, state and LGA documents and recruited consultants to collect a specific set of health systems information. This information, coupled with data already available through both states and WHO, informed the basis of the state work plan to strengthen RI and provided baseline data the project used in the PMP.

The assessment exercise included collecting and analyzing basic baseline information from all the LGAs at the beginning of the project. One of the critical pieces of information that was collected during the baseline collection period, and needed to calculate selected indicators for the project's PMP, was health facility level performance from 2006 and 2007 for facilities reporting to be providing RI services.

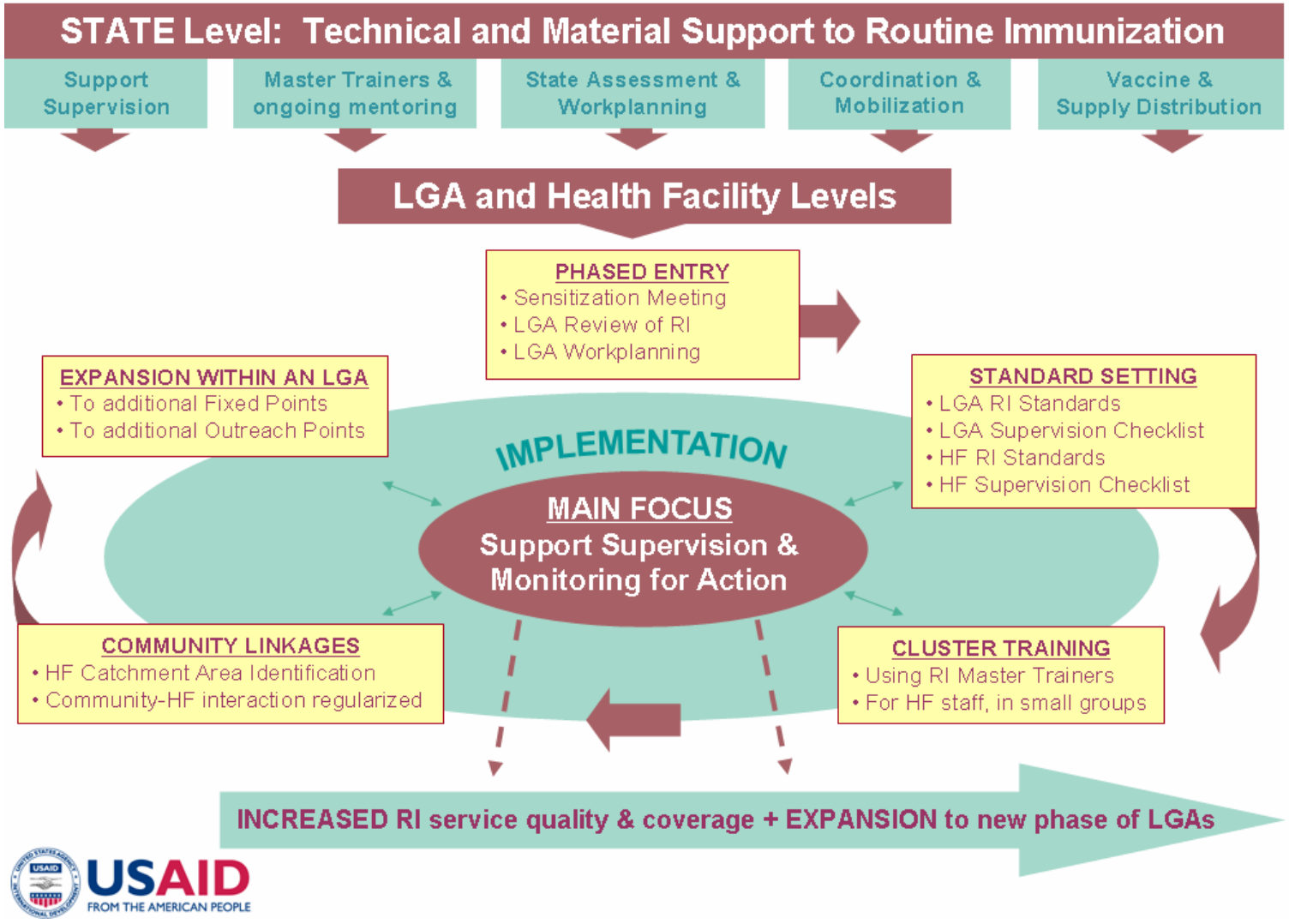
As the project continues to enter LGAs by phases, in-depth reviews provide additional RI system details in each LGA. Staff are using a monitoring system to capture the new data comparable to the baseline and will conduct an end-of-project assessment in mid-2009 including all state-wide information looking at trends in individual LGAs and comparing performance between LGAs.

This baseline assessment report covers findings from Bauchi and Sokoto States that largely reflect the situation of routine immunization in 2006, with some additional information from early 2007. Preliminary review information from the first few LGAs entered in both states has been included to provide an idea of the LGA review process as the project continues to expand entry into new LGAs. At time of publication of this report, March 2008, the project has entered four phases of LGAs in Bauchi State (12 LGAs total) and three phases of LGAs in Sokoto State (9 LGAs total).

Overall results of the statewide baseline assessment reveal a weakened RI system in both Bauchi and Sokoto States, with many constraints facing human and organizational capacity. Despite the many challenges, with communities eager for health facilities to deliver reliable, accessible and regular services, and all partners working together with the states towards improving the delivery of quality health services, IMMbasics expects modest yet long-lasting progress toward strengthening routine immunization over the next two years.

APPENDIX 1

Immunization basics SUMMARY OF RI SYSTEM STRENGTHENING PROCESS



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SUMMARY OF RI SYSTEM STRENGTHENING PROCESS IN NIGERIA

APPENDIX 1 (cont)

STATE LEVEL

State-wide Assessment: baseline information from all LGAs is collected when the project enters the State
State Workplanning: project assists in preparing/updating State Workplan for strengthening the routine immunization system
Continued work: to promote partner coordination, support supervision, State capacity to maintain strong RI system

LGA & HF LEVELS

PHASED ENTRY: RI strengthening effort initiated in groups of 3 LGAs per phase until all LGAs are covered

Sensitization Meeting: introduce LGA partners to the coming effort, clarify the role/responsibilities of LGAs in providing services, introduce steps to begin the process for strengthening the RI system, plan the RI review in each of the LGAs
LGA Review of the status of RI: establish an RI system baseline including management review of the LGA and identification of health facilities that could potentially provide RI services; collation and analysis of data
LGA Workplanning**:** using Review results, identify next steps and responsibilities for the RI strengthening effort

IMPLEMENTATION STEPS FOR RI STRENGTHENING

Standard Setting
- LGA Level: a series of exercises in which LGA staff are supported by State/IMMbasics staff to identify and prioritize basic RI management tasks, set standards and develop detailed support supervision and self assessment check-lists
- HF Level: same as above but with HF staff and focus on RI service delivery, supported by LGA staff

Cluster Training: identify and train a group of RI Master Trainers using the National "Basic Guide for Service Providers" and REW Guidelines; support the RI Trainers to provide basic training to health staff in each LGA; support-supervision system follows up on-site and assists newly trained staff to use their new skills (including on-job training)

Establish community linkages:
- Participatory identification of HF catchment areas: all settlements identified with total population estimate, clear maps, including joint planning on how to ensure immunization coverage of infants and women
- Regularize community-HF linkages: promote regular contacts between community & HFs to exchange feedback & review progress, listen to concerns/suggestions of each, plan ways to overcome obstacles to health service utilization

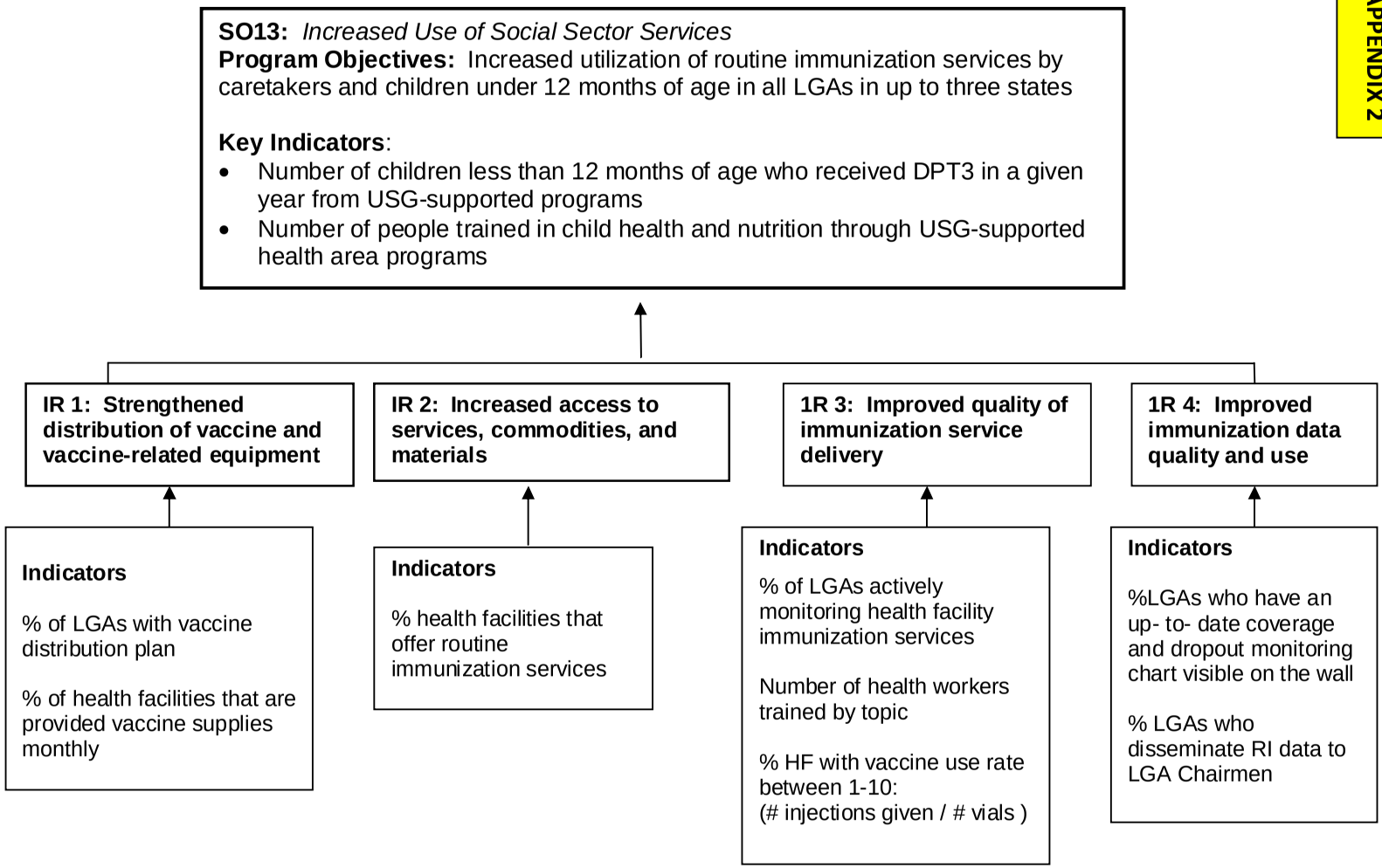
Expansion within an LGA: once RI system is sufficiently mature, expand services to HFs not currently providing RI

MAIN FOCUS: SUPPORT SUPERVISION & MONITORING FOR ACTION

All implementation steps lead towards the State, LGAs, and HFs conducting regular support supervision, with LGAs and HFs also conducting regular self assessment. Each level must also use RI data to advocate for improved RI services and to guide decisions based on local data.

APPENDIX 2: IMMUNIZATIONbasics' Project Results Framework

APPENDIX 2



APPENDIX 3: St-1 Statewide Baseline Assessment, Public Health Facilities & Staff

APPENDIX 3

This tool required the use of multiple sources of information at the LGA Headquarters to compile the data. We:

- Obtained a current and official list of the number, names and total population of every Ward in the LGA, whether or not it has a health facility;
- Collected a list of the names of all government health facilities in each Ward and the type of HF (e.g., Dispensary, Maternity, MCH, PHC etc.);
- Identified which of these Health Facilities are currently "functional" (providing health services of any kind);
- Identified which Health Facilities are "said to be" providing RI services (see documentary information from the LGA Immunization Officer (LIO) and Cold Chain Officer);
- From the personnel/human resource section, obtained the required staffing information (numbers, gender, qualification) of health system staff at each health facility listed AND at the LGA office.

Data tool template:

Statewide Baseline Assessment of Public (Government) Health Facilities & Staff (St-1)

LGA:

Name of EVERY Ward (alphabetically) in the LGA	Total Population (2006)	Name of EVERY Health Facility (alphabetically) in each Ward	Type of Facility (e.g., Disp)	Func-tional (Yes/No)	Provided RI Services in 2006 (Yes/No)	Total Number of Staff	Number by Gender		Number by Designation								
							Female	Male	Junior CHEW	CHEW	EHO, EHT	Nurse	Mid-wife	CHO	MO	Cleaner	Other

APPENDIX 3 (cont): St-2 Statewide Baseline Assessment, Coverage Data Entry

This required reviewing monthly immunization reports at LGA level (starting from October 2005) to record the number of immunizations given (DPT 1 and DPT 3) to children under one year of age each month disaggregated by RI, Child Health Weeks and IPDs. Description:

- Available information was found in the LIO's office but was not easy to collate (required search and organization of old files);
- The information was disaggregated (RI, Child Health Weeks, IPDs) by close reading and comparison of monthly reports. Where reports showed a major surge in a month's comparative results, a calendar and local knowledge were used to identify the months in which the returns could be ascribed to Child Health Weeks and IPDs as opposed to RI results (NOTE: the issue of Child Health Weeks and special campaigns other than IPDs was particularly appropriate in Bauchi UNICEF-supported LGAs of Giade, Darazo and Dass LGAs but also applied to other LGAs where special "catch-up" campaigns have been held);
- The number of immunizations given (DPT1 and DPT3 under 1 year) were entered under the appropriate sections of St-2.

Data tool templates for St-2a and St-2b on following pages.

APPENDIX 3 (cont); St-2a Statewide Baseline Assessment

Statewide Baseline Assessment: Coverage Data Entry (St-2a)

Name of LGA _____ Name of Reviewer: _____ Date: _____

ROUTINE IMMUNIZATION SERVICES ONLY						CHILD HEALTH WEEKS & PULSES ONLY				IPD RESULTS ONLY			
Months/Year	Annual LGA Population < 1	Number of Facilities Reporting this Month	Number of Outreach Sessions Reported this Month	DPT-1 Given to Children < 1 Year of Age	DPT-3 Given to Children < 1 Year of Age	Months/Year	Number of Sites Used	DPT-1 Given to Children < 1 Year of Age	DPT-3 Given to Children < 1 Year of Age	Months/Year	Number of Sites Used	DPT-1 Given to Children < 1 Year of Age	DPT-3 Given to Children < 1 Year of Age
October 2005						October 2005				October 2005			
November 2005						November 2005				November 2005			
December 2005						December 2005				December 2005			
January 2006						January 2006				January 2006			
February 2006						February 2006				February 2006			
March 2006						March 2006				March 2006			
April 2006						April 2006				April 2006			
May 2006						May 2006				May 2006			
June 2006						June 2006				June 2006			
July 2006						July 2006				July 2006			
August 2006						August 2006				August 2006			
September 2006						September 2006				September 2006			
October 2006						October 2006				October 2006			
November 2006						November 2006				November 2006			
December 2006						December 2006				December 2006			
January 2007						January 2007				January 2007			
February 2007						February 2007				February 2007			

APPENDIX 3 (cont); St-2b Statewide Baseline Assessment

State Assessment: DPT Coverage--3 Tables (St-2b)

Name of LGA:

ROUTINE IMMUNIZATION SERVICES ONLY						Cumulative: Start October 2005					Cumulative: Start January 2006					Cumulative: Start October 2007				
Months/Year	Annual Population < 1	Number of Facilities Reporting this Month	Number of Outreach Sessions Reported this Month	DPT-1 Given to Children < 1 Year of Age	DPT-3 Given to Children < 1 Year of Age	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout
October 2005						0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
November 2005						0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
December 2005						0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
January 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
February 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
March 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
April 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
May 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
June 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
July 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
August 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
September 2006						0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
October 2006						x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
November 2006						x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
December 2006						x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
January 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
February 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
March 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
April 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
May 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
June 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
July 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
August 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
September 2007						x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
October 2007																				
November 2007																				
December 2007																				

APPENDIX 3 (cont): Continuation (p2) of St-2b Statewide Baseline Assessment

CHILD HEALTH WEEKS & RI PULSES ONLY					Cumulative: Start October 2005					Cumulative: Start January 2006					Cumulative: Start October 2006				
Months/Year	Annual Population < 1	Number of Sites Used	DPT-1 Given to Children < 1 Year of Age	DPT-3 Given to Children < 1 Year of Age	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout
October 2005					0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
November 2005					0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
December 2005					0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
January 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
February 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
March 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
April 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
May 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
June 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
July 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
August 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
September 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
October 2006					x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
November 2006					x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
December 2006					x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
January 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
February 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
March 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
April 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
May 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
June 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
July 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
August 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
September 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
October 2007																			
November 2007																			
December 2007																			

APPENDIX 3 (cont): Continuation (p3) of St-2b Statewide Baseline Assessment

IPD RESULTS ONLY					Cumulative: Start October 2005					Cumulative: Start January 2006					Cumulative: Start October 2006				
Months/Year	Annual Population < 1	Number of Sites Used	DPT-1 Given to Children < 1 Year of Age	DPT-3 Given to Children < 1 Year of Age	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout	DPT-1	% DPT-1	DPT-3	% DPT-3	% Dropout
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November 2005					0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
December 2005					0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x	x	x	x	x	x
January 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
February 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
March 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
April 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
May 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
June 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
July 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
August 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
September 2006					0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!	x	x	x	x	x
October 2006					x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
November 2006					x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
December 2006					x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	0	#DIV/0!	#DIV/0!
January 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
February 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
March 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
April 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
May 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
June 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
July 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
August 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
September 2007					x	x	x	x	x	x	x	x	x	x	0	#DIV/0!	0	#DIV/0!	#DIV/0!
October 2007																			
November 2007																			
December 2007																			

APPENDIX 4: Vaccine Distribution Calendar

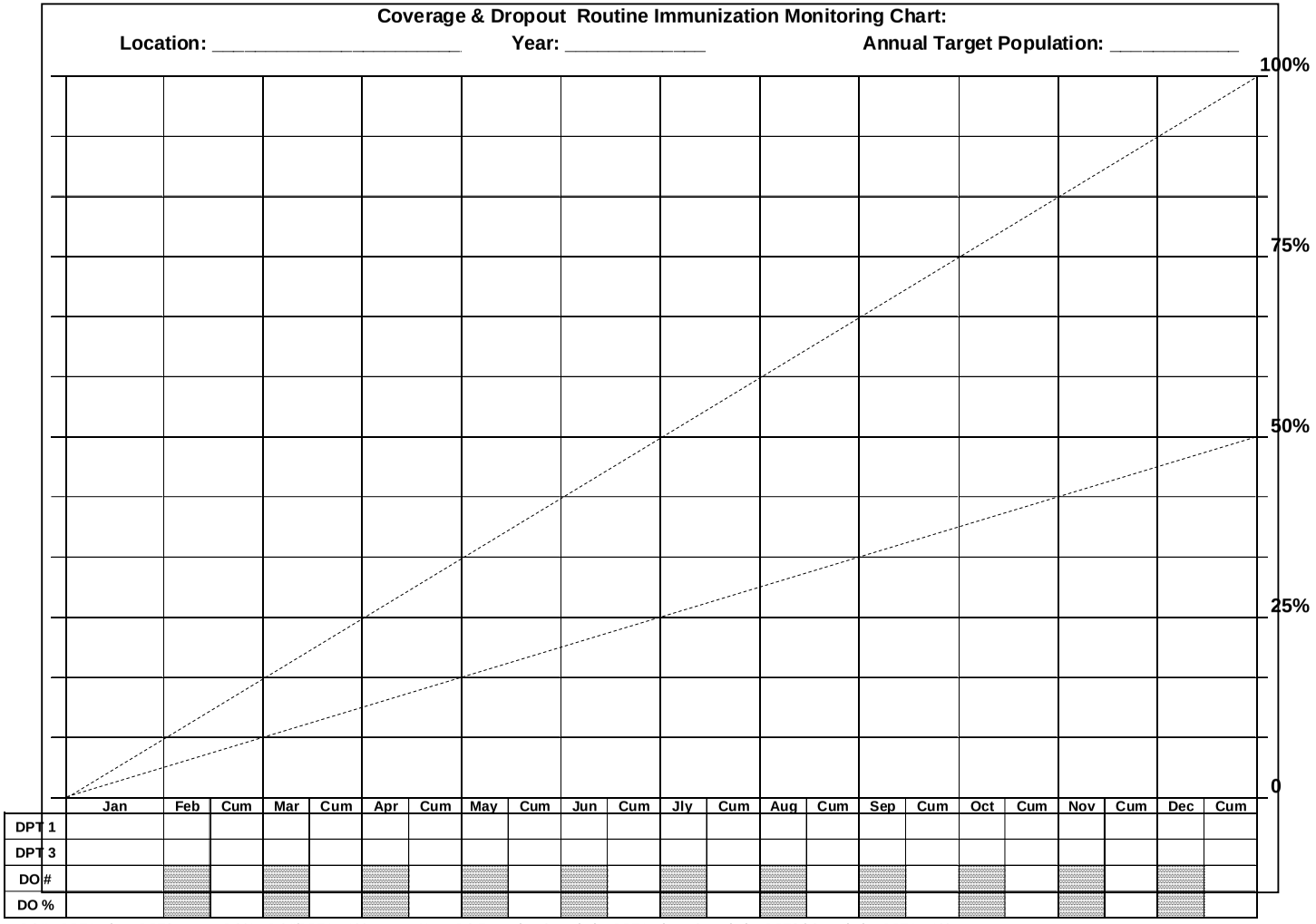
APPENDIX 4

Vaccine Distribution Calendar: _____LGA (April 2007)

Health Facilities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue
Total HFs	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Number received																															

APPENDIX 5: Coverage and Dropout RI Monitoring chart

APPENDIX 5



	Jan	Feb	Cum	Mar	Cum	Apr	Cum	May	Cum	Jun	Cum	Jly	Cum	Aug	Cum	Sep	Cum	Oct	Cum	Nov	Cum	Dec	Cum
DPT 1																							
DPT 3																							
DO #																							
DO %																							

DO# = DPT1 minus DPT3 DO% = DO#/DPT1 x 100 Note: DO Formula: Cumulative DPT1 minus Cumulative DPT3 / Cumulative DPT1 x 100

APPENDIX 6 **Guideline for the Mini Review of the Routine Immunization System in an LGA**

APPENDIX 5

Introduction:

As the resources available do not allow start-up in all 43 LGAs of the state simultaneously, the State/IB team will initiate the effort in a phased manner. Current plans call for initiating the strengthening process in groups of three LGAs at a time (one LGA from each Senatorial District) to start one group of three LGAs approximately every quarter.

As the initiative to strengthen the RI system begins in a group of three LGAs (on a phased basis), the State/IB team organizes a sequence of "entry" activities. They are:

- a "Sensitization Meeting" held for the 3 LGAs together (for the State/IB team to introduce LGA partners to the coming effort)
- a "Mini-Review" of the status of RI in each LGA (selected components)
- a "RI Planning Workshop" in each LGA (to identify objectives, targets, steps, schedule and responsibilities for the strengthening effort)

The purpose of this document is to describe, in brief, the "Mini-Review" activity.

Objectives and Scope of the RI Mini-Review:

The objectives of the RI mini-review are to:

1. Instill the idea that the initiative to strengthen RI will reveal every detail of the status of RI service management in the LGA
2. Establish a systems-management baseline
3. Create a recognition of the need to change the way RI services are currently managed
4. Identify health facilities (HF) that do not provide RI services but which could (and should) provide such services.

The RI review will focus on only two operational issues:

- LGA management of the RI system
- HFs that should provide (but currently do not provide) RI services

Baseline information for the other operational issues will be obtained through the soon-to-be established:

- support supervision system; and
- local-area monitoring system

APPENDIX 6(Cont):Organization of the RI Review:

The RI review is to take place in each LGA immediately after the initiative to strengthen RI reaches that LGA (in the week following the introductory "Sensitization Meeting"). As soon as the Review is concluded, the collected information will be used by the LGA and partners during the LGA RI planning exercise.

The review is expected to take approximately seven (5-8) working days (depending on number of health facilities and terrain). It will be conducted by a team composed of at least four LGA staff, one IB staff (LGA Zonal Coordinator) and one staff from state level. The team will break into two sub-teams when reviewing service organization at HF level.

The preparatory and implementation steps of the review include:

- Briefing/discussion with key LGA staff during the "Sensitization Meeting" and scheduling of the review;
- Arrival in the LGA and courtesy visits to key officials
- Management review at the LGA RI office, Cold Store and RI Store
- Concurrent efforts to obtain listing of all settlements (with population) by Ward from the LG Population Commission
- Identification (using data obtained through the LGA management review) of HFs that could potentially provide RI services
- Review visits to LGA zonal cold stores (if any)
- Review visits to HFs selected as potential candidates for expansion of RI services
- Collation and analysis of data

Data Collection Instruments:

LGA Level Instruments(see following pages)

APPENDIX 6(Cont): **LGA-1**: 2006/07 LGA Vaccine Usage & Coverage Worksheet

Purpose: obtain HF-by-HF data of DPT vaccine and numbers immunized for 2006 and 2007
Output: frequency of service, coverage, dropout and vaccine-usage data by HF
Method:

1. "DPT Vaccine Vials" section of the form (left-hand columns):
   1a) Visit the vaccine cold store.
   1b) Obtain the vaccine stock book.
   1c) Turn to the section in the stock book for DPT.
   1d) Find where January 2006 vaccine distribution is recorded [or the earliest month in 2006 vaccine distribution is recorded].
   1e) Using one form per Health Facility, record ALL DPT vaccine distribution to each Health Facility.
   1f) Record each time vaccine was distributed in a month in a different column (example, if vaccine was distributed 4 times in January, record the number of vials for each distribution in the first four columns; if vaccine was distributed to the HF only two times in that month, record the number of vaccine vials distributed each time in the first two columns).
2. "DPT Immunizations Given" section of the form (right-hand columns)
   2a) Go to the LIO Office.
   2b) Obtain copies of the Health Facility reports and/or copies of LGA reports to the State for 2006 and 2007.
   2c) Find the report for each Health Facility by month.
   2d) Record all DPT immunizations given (by age group) by month on the assessment form for the specific Health Facility.

LGA 2: LGA or LGA Zonal Cold Store

Purpose: obtain information on the structure (availability and condition) of the vaccine distribution system
Output: status report on the vaccine distribution system (capacity, condition, and current documentation of the distribution system) in the LGA
Method:
NOTE: this form is to be used only in the actual cold store for equipment presently in use or present in the cold store room; it is not for use in the "dry store" (supply storeroom).

1. Tick the appropriate box at the top of the form (LGA Cold Store or LGA Sub-Cold Stores)
2. Fill each row as requested to include the comments section

APPENDIX 6(Cont): **LGA 3**: LGA Level Review: Equipment & Supplies

Purpose: obtain information on the availability and storage condition of immunization supplies
Output: inventory and condition of available and/or reserve supply items (for routine use and in preparation for expanding RI services to additional HFs)
Method:
NOTE: this form is to be used only in the "dry store" (storeroom) for unused equipment and supply and/or materials not presently in use.

1. Tick the appropriate box at the top of the form (LGA RI Store or RI Sub-Stores)
2. Fill each row as requested to include the comments section

LGA 4: LGA Level Review: Data Management

Purpose: identify how the LGA RI team is managing (collecting, reporting, analyzing and using) routine immunization data
Output: status report on the LGA RI unit's organization, management and use of data (to include population data)
Method:

1. The reviewer and LGA staffs read each question in turn and physically observe what is present or how the matter is being conducted.
2. If the answer to the question is a "no," the reviewer should write an explanatory note (use the back of the form as necessary)

LGA 5: LGA Level Review: Support Supervision

Purpose: identify how the LGA RI team is organizing supervision of activities (planning, content and reporting)
Output: description of the current RI supervision system
Method:

1. The reviewer and LGA staffs read each question in turn and physically observe what is present or how the matter is being conducted.
2. If the answer to the question is a "no," the reviewer should write an explanatory note (use the back of the form as necessary)
3. If the LGA uses an RI checklist, attach a copy

LGA 6: LGA Level Review: Waste Disposal

Purpose: know how the LGA is organizing the disposal of used vaccination materials
Output: description of the waste disposal system and its adherence to minimum standards
Method:

1. The reviewer and LGA staffs read each question in turn and physically observe what is present or how the matter is being conducted.
2. If the answer to the question is a "no," the reviewer should write an explanatory note (use the back of the form as necessary)
3. The reviewer and staff will physically visit any disposal site identified

LGA 7: LGA Level Review: Health Staff Worksheet

Purpose: understand staff distribution by ward and facility for planning strengthening of service provision
Output: staff listed by name, sex and qualification by health facility
Method:

1. The reviewer and LGA staffs will obtain the names, sex and qualification of each health staff and record them legibly by health facility, by ward.
2. Wards and health facilities are to be arranged alphabetically and staff attributed to each facility AND the LGA health office.

L1-V&C
Name of LGA: _____

1a) Visit the vaccine cold store. 1b) Obtain the vaccine stock book. 1c) Turn to the section in the stock book for DPT. 1d) Find where January 2006 vaccine distribution is recorded [or the earliest month in 2006 vaccine distribution is recorded]. 1e) Using one form per Health Facility, record ALL DPT vaccine distribution to each Health Facility. 1f) Record each time vaccine was distributed in a month in a different column (example, if vaccine was distributed 4 times in January, record the number of vials for each distribution in the first four columns). 2a) Go to the LIO Office. 2b) Obtain copies of the Health Facility reports and/or copies of LGA reports to the State in 2006 and 2007. 2c) Find the report for each Health Facility by month. 2d) Record all DPT immunizations given (by age group) by month on the assessment form for the specific Health Facility.

Ward: _____ **Health Facility: _____** **Type: _____**

Months	DPT Vaccine Vials								TOTAL		DPT Immunizations Given					
	Number (#) of Vials Received										DPT1		DPT2		DPT3	
	1st Time	2nd Time	3rd Time	4th Time	5th Time	6th Time	7th Time	8th Time	Times	Vials	<1	12 to 23	<1	12 to 23	<1	12 to 23
January 06																
February 06																
March 06																
April 06																
May 06																
June 06																
July 06																
August 06																
September 06																

October 06																
November 06																
December 06																
January 07																
February 07																
March 07																

LGA Level Review: LGA or LGA Zonal Cold Store (LGA-2)

Check Appropriate Box: ☐ **LGA Cold Store** ☐ **Zone Cold Store**

NOTE: This form is for use in the cold chain only. It is not for use in the store/supply room

LGA:_____ **Ward:**_____ **Location:** _____

Item	Available		TOTAL Number of Units	Condition		Additional Description & Comment
	Yes	No		# Func-tioning	# Not Func-tioning	
1) Freezer						
2) Refrigerator, solar						
3) Refrigerator, electricity, gas or kerosene						
4) Cold Box						
5) Vaccine carrier, geostyle						
6) Generator						

7) Connected to the national grid?						

Vaccine Distribution and Handling:		
Issue	**Yes**	**No**
1. Is there a Vaccine Stock Ledger available and in use for all the RI vaccines?		
2. Are the columns in the Vaccine Stock Ledger for the previous month filled correctly and is it up-to-date?		
3. Is the number of vials/doses recorded in the balance column the same number of vials/doses on hand?		
4. Is the temperature in the refrigerator between +2 and +8 degrees C. ?		
5. Is the vaccine in the refrigerator stored neatly according to shelf arrangement in the Basic Guide?		
6. Are all the vaccines in the refrigerator NOT expired and all VVMs in Stage 1 or Stage 2?		
7. Is there a functioning thermometer in the refrigerator?		
8. Atr there sufficient frozen icepacks in the refrigerator or freezer for the next days vaccine distribution?		
9. Is there an up-to-date temperature monitoring chart on the vaccine refrigerator?		
10. Is there a vaccine distribution plan/schedule in the LGA/Zone? NOTE: to answer YES the distribution plan must show all Health Facilities providing RI, the day of vaccine distribution, estimated number of vials to be distributed and the responsible person for the distribution.		
TOTAL		

Comments on vaccine distribution and handling:

LGA Level Review: Dry Store Equipment & Supplies (LGA-3)

LGA: _____ **Ward:** _____ **Location:** _____

NOTE: this form is for use only at the LGA Dry Store Room (DO NOT list equipment currently in use in the Cold Store).

Is there an up-to-date inventory of the listed equipment? _____

Is there an up-to-date Supply Stock Ledger of the listed supplies? _____

Ate the supplies stored neatly and organized by kind? _____

	Equipment or Suppy	Yes/No	#	Description and Condition
1.	Freezer. Chest type			
2.	Refrigerator, solar			
3.	Refrigerator, electric			
4.	Refrigerator, gas/kerosene			
5.	Cold Box			
6.	Vaccine Carrier, Geostyle			
7.	Icepacks (0.3 & 0.4)			
8.	Icepacks (0.6)			
9.	Reconstitution syringes/needles			
10.	Syringe/needle (for DPT)			

11.	Syringe/needle (for BCG)				
12.	Safety Boxes				
13.	RI Posters (english)				
14.	RI posters (hausa)				
15.	RI registers (health facility)				
16.	RI tally sheets (pad)				
17.	Road to Health Cards				
18.	HF Reporting forms (pad)				
19.	LGA Reporting forms (Monthly Summary Book)				
20.	Motorcycles				
21.	Bicycle				
22.	Generator				
23.					
24.					
25					

Additional Comments:

LGA Level Review: Data Management (LGA-4)

LGA: _____

	Issue	YES	NO	Description/Explanation
1.	Does the LGA have a "report-receipt" monitoring chart prepared and in use for 2007 that uses the date-of-receipt system?			
2.	Is there a systematic method for filing copies of monthly reports coming from health facilities?			
3.	Is there a system established for filing copies of LGA monthly reports sent to the State?			
4.	Are there copies of health facility reports available for every HF recorded on the LGA report to the state for last month?			
5.	Is the data in the HF reports the same as the data in the LGA report to the state for last month? NOTE: check three health facility reports for the previous month (one antigen) comparing the data.			
6.	Does the LGA calculate vaccine usage by Health Facility on a monthly basis?			

7.	Does the LGA have a map showing all Health Facilities by Ward that shows which HFs provide RI services?			
8.	Is there a list of settlements by catchment area of each HF showing the population that is to be covered?			
9.	Does the LGA have an annual (by month) coverage/dropout monitoring chart for DPT prepared and on the wall for 2007?			
10.	Is any tabular or graphic analysis (feed-back) given to HFs and/or officials at LGA level on a monthly or quarterly basis?			
TOTAL				

LGA Level Review: Support Supervision (LGA-5)

LGA: _____

	Issue	YES	NO	Description/Explanation
1.	Is there a RI supervision plan for 2007 showing schedule of supervision and responsible official?			
2.	Does the LGA have a RI checklist that is used during supervision?			
3.	Are there any RI supervision reports/checklists on file showing results of supervision during the last 6 months?			
	TOTAL			

Further Comments:

LGA Level Review: Waste Disposal (LGA-6)

LGA:_____

	Issue	YES	NO	Description/Explanation
1.	Does the LGA have a written plan or system for receiving or picking up used syringes/needles from HFs?			
2	Does the LGA have a plan or system for receiving or picking up used vaccine vials from HFs?			
3	Has the LGA collected any used RI syringes/needles and/or used vaccine vials in the last three months?			
4	Does the LGA have a place for incineration of RI syringes, needles and used vials?			
5	Is the LGA place for incineration of RI syringes, needles and vaccine vials in use?			
6	Is the LGA place for incineration of syringes, needles and vacine vials up to standard (walled/fenced, material in the pit at least one meter below ground level)?			
7	Is the material in the pit completely burned or buried with no unburned syringes/needles seen in the pit or surrounding the pit?			

Further Comments:

LGA Level Review: Health Staff Worksheet (LGA-7)

LGA:

Write the Ward Name* then list all Health Facilities under that Ward (alphabetically) leaving sufficient rows to write the staff names	Type of Facility (e.g., Disp)	RI Service in 2006 (Yes or No)	Name of Health Staff		Male or Female	Designation								
			Surname	First and Middle Names		Junior CHEW	CHEW	EHA EHT	Nurse	Mid-wife	CHO	MO	Cleaner	Other

NOTE: ensure all wards and Health Facilities are recorded whether they are providing RI not