




Birth Registration in Nigeria: Making Children Count

A Bottleneck Analysis Of The National Birth Registration System

unicef

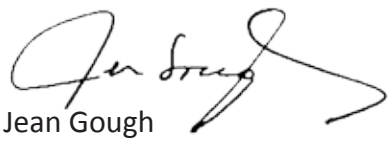
FOREWARD

This report on Bottleneck Analysis of the National Birth Registration System in Nigeria is part of UNICEF's accelerated effort in narrowing the disparities among children. The profiles of children without birth registration highlight some significant inequities: Birth Registration rates are approximately 2 times lower in northern zones than in southern zone, and registration rates for children in rural areas are 2-3 times lower compared to children in urban areas. Similarly, registration rates are up to 7 times lower for children in poor families, compared to rich families.

Reaffirming our commitment for use of data for improved outcomes for the most disadvantaged children, UNICEF has assisted the National Population Commission (NPopC) to implement decentralized monitoring using a mobile - phone based platform called RapidSMS since January 2011. Every two weeks, over 4,000 registrars from 774 Local Government Areas report the number of birth registration cases using Short Message Service (SMS) to a central database. Raw data are posted on a website, which is also accessible to general public. The introduction of RapidSMS has been helping NPOpC to monitor birth registration service performance using a "higher resolution lens" – it became much easier and faster to detect some specific (local government) areas of Nigeria that have especially low birth registration rates that would otherwise be "averaged out" by the other, higher birth registration rate areas.

This Bottleneck Analysis report provided us valuable information to identify and analyze bottlenecks and to guide deciding corrective action and tracking progress. NPopC has already made notable progress to remove identified bottlenecks in the past months since the completion of the Bottleneck Analysis. With innovative technology like RapidSMS, NPopC managers are able to identify real-time birth registration disparities centre - by - centre, and facilitate prompt interventions to make the principle of "equity focus" into actual practice and action for children.

It is my hope that the Bottleneck Analysis of the National Birth Registration System will further contribute to making every child count!



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1. INTRODUCTION

Birth registration is an essential starting point for recognizing a child's rights to existence, identity, and protection. In Nigeria, only 30% of all children under age 5 years (U5) are registered.[1] Improved birth registration is critical for national planning and governance objectives and serves as a foundation for achieving progress in wider child protection domains.

Research to assess the status of birth registration in Nigeria is limited to national-level statistics based on periodic household surveys including the National Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS), as well as limited data from the birth registry, which is maintained by the National Population Commission (NPopC). Disaggregation and sub-group analysis focuses predominantly on the association of birth registration with traditional demographic and socioeconomic factors, such as sex or household wealth. The NPopC and UNICEF have made efforts to expand birth registration coverage, however, there has been no systematic assessment of what factors are most responsible for effective or ineffective birth registration programming. There are no best-practice models or evidence-based interventions recorded for the local context.

In order to understand gaps in birth registrationat the local level and provide a platform for ongoing monitoring, the NPopC and UNICEF have recently implemented RapidSMS, a mobile phone-based mechanism to report birth registration activities in real-time. It is designed to help identify disparities in service delivery, facilitate prompt intervention in areas where birth registration levels are low, and measure how changes in programming affect registration levels. Until now, baseline data from RapidSMS reporting has not been presented in an integrated manner.

The purpose of this report is to examine the situation of birth registration in Nigeria, including:

- Integrating existing data, including RapidSMS data, regarding the scale of non-registration
- Outlining the profiles of unregistered children and highlighting key inequities
- Identifying the barriers to registration
- Proposing new data collection methods designed to fill gaps in existing data
- Suggesting interventions to overcome barriers
- Providing a framework for assessing improvements and guiding subsequent analyses

[1] The analysis presented in this report is based on birth registration data from MICS 2007 and DHS 2008, as MICS 2011 was not available. Since the analysis was conducted, emerging MICS 2011 results suggest 42% U5 birth registration coverage overall.

Methods

A bottleneck analysis was used to understand how specific factors contribute to service delivery. This approach is based on a method developed by Tanahashi, which describes service delivery as process including supply, demand, and quality factors (Figure 1).[2] In addition to those traditional factors, this analysis also includes information regarding the relevant legal and policy environment.

Data was collected and processed in two phases:

Phase 1: January – April 2012

The goal of Phase 1 was to explore the existing system for birth registration and to document how it operates, to understand at a decentralized (local) level using RapidSMS and other data the pattern of birth registration in Nigeria, to broadly evaluate the capacity of the current birth registration system to deliver a comprehensive service, and to identify in consultation with a variety of stakeholders at all administrative levels the bottlenecks that hinder service delivery.

This initial work included the following tasks:

- Desk review of existing legislation and policy documents to describe the structure of the current birth registration system
- Analysis of existing quantitative data regarding current registration levels include household survey data, RapidSMS, and other national registration statistics
- Evaluation of national capacity for decentralized registration including registration workforce structure and function, budget, physical infrastructure, and monitoring systems
- Workshop with key stakeholders from federal and state NPopC to propose bottlenecks, indicators, monitoring plan, and targets
- Workshop with key stakeholders from the federal health sector to identify areas for collaboration

Phase 2: October – December 2012

Phase 2 of this analysis was triggered based on the findings of Phase 1, which indicated:

- Gaps in the supply and distribution of birth registration services
- Sporadic flow of birth registration data from local to federal levels and limited accountability mechanisms
- An absence of data regarding demand for birth registration services
- Minimal utilization of intersectoral collaboration to advance birth registration goals

In order to explore these issues in more depth and propose relevant interventions, NPopC initiated a second, more focused analysis. The goals of Phase 2 were to:

- Collect additional data to clarify and confirm the proposed bottlenecks
- Support a formal collaboration between the NPopC and the health sector that would harmonize some aspects of service delivery
- Work with state and local NPopC to begin identifying possible pilot interventions that address bottlenecks
- Confirm in consultation with NPopC stakeholders the bottleneck indicators and targets
- Develop a monitoring framework to assess progress towards bottleneck targets

Phase 2 included the following components:

- Qualitative assessment using targeted site visits to facilities relevant for birth registration services, including regional data processing centers (DPCs), state offices, and local registration centers in the northwest geographic zone to further evaluate NPopC capacity for comprehensive, decentralized birth registration services
- Community-based consultations including surveys and focus group discussions in one rural community in the northern and southern regions, as well as several communities near Abuja, designed to investigate reasons for non-registration including demand factors
- Regional (north/south) participatory workshops with key stakeholders from NPopC and the health sector at state and local government area (LGA) levels to discuss the proposed bottlenecks and suggest solutions, as well as to promote intersectoral knowledge sharing and collaboration
- Analysis of NPopC supply chain management with identification of possible intersectoral (i.e. health) partnerships for improved procurement and delivery

[2] Tanahashi T. 1978. Health services coverage and its evaluation. Bulletin of the World Health Organization. 56(2): 295-303.

- Development of a consensus national plan of action to formalize collaboration between the NPopC and various health sector actors, including the Ministry of Health and the National Primary Healthcare Development Agency

Data sources and limitations

Information regarding civil registration in Nigeria was derived from multiple recent sources, each with specific methods, variables, and limitations (Table 1).

Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS) are nationally representative household surveys designed to collect data on children and women, specifically for health, nutrition, and education, but also on birth registration, family environment, child work, and knowledge of HIV/AIDS. Both surveys provide data for a wide range of demographic, socioeconomic, and health indicators that are linked to birth registration status for each child. The most recent MICS and DHS results were available in 2007 and 2008, respectively.

Analyses of household survey data are the primary source for current dialogue concerning birth registration in Nigeria. Data collection methods and variables differ slightly between these surveys and each is associated with slightly different results. Both surveys ask all mothers and caretakers of children under five to respond to questions regarding previous registration and possession of a birth certificate. MICS is the only existing data source that addresses reasons for non- registration and (adult) knowledge of how to register a child's birth.

In addition, the NPopC recently published an independent analysis of national birth registration activities from 1994 to 2007. This report uses information collected on the birth registration application to generate disaggregated analysis according to a number of demographic variables, including sex, state, rural/urban status, parental education level, maternal age, and birth order.

RapidSMS

Several countries including Nigeria have implemented decentralized monitoring using a mobile phone-based platform called RapidSMS. This system allows real-time tracking of local and regional birth registration activities. It is designed to help identify disparities in service delivery and facilitate prompt, evidence-based responses to target areas where birth registration levels are low.

According to the RapidSMS method, birth registration centers across Nigeria use SMS messages to input twice-monthly registration statistics including the number of cases registered according to sex and age: boys and girls under age 1 year, age 1 to 4 years, age 5-9 years, and age 10-17 years. Every two weeks, each registrar sends an SMS message to an automated database. The SMS message uses a standard format with a unique identifier (assigned to each registrar / registration center) followed by registration statistics for each age group for boys and girls. These statistics are compiled automatically and electronically and are reported as monthly figures using an open website: www.rapidsmsnigeria.org. Results are coded for each participating registration center, LGA, state, and geographic zone. The website does not include population figures

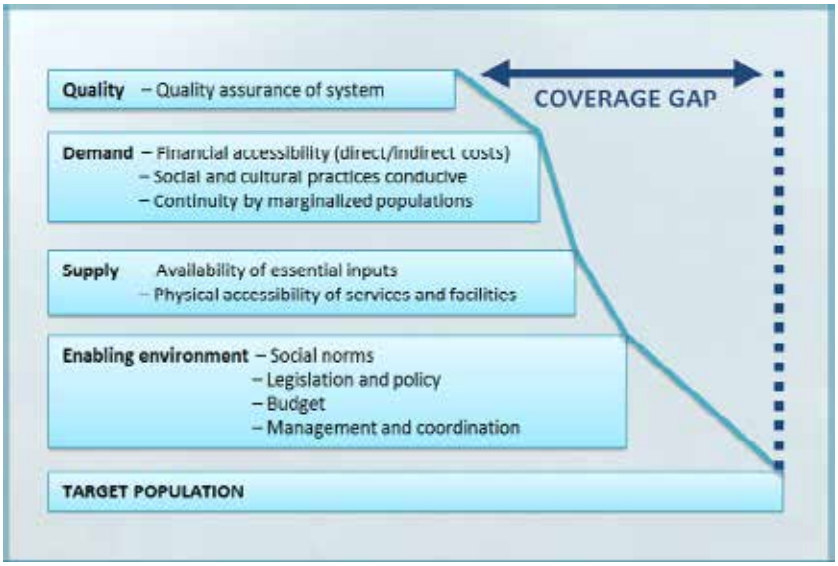

Figure 1. *Bottleneck analysis methodology.*

The bottleneck analysis is based on a previous model described by Tanahashi et al. This type of analysis describes the delivery of birth registration services as a process with multiple steps including supply, demand, and quality factors. Each step in the process excludes a segment of the target population, leading to a coverage gap. The purpose of the bottleneck analysis is to assess for each step what factors are most significant for limiting service delivery.

(necessary to calculate birth registration coverage) or any analytical tools.

The website is managed by a local software development company who also provide technical support directly to registrars and other NPopC staff. There is no error-checking mechanism, so any mistaken entries must be manually identified (by NPopC staff) and changed in the database (by the technical support company). Similarly, there is no automated mechanism to identify registrars who provide late or inaccurate reports.

The RapidSMS system was introduced in January 2011 as a pilot initiative in Kaduna state. Since then, with UNICEF support, RapidSMS technology has been gradually introduced nationwide through an intensive training process involving all tiers of NPopC administration. As of October 2012, RapidSMS has been implemented in all 774 LGAs including more than 3000 birth registration centers.

The analysis presented in this report includes all available RapidSMS data collected in 2011 originating from 1582 birth registration centers in 382 LGAs representing 19 states from all 6 regional zones.[3] In order to convert RapidSMS data to registration coverage (the number of children under age 1 who were registered, compared to the total number of children born), the estimated number of births per LGA in 2011 was determined based on data from the 2006 national census.

	Data Source	Description
Household survey data	2007 MICS 2008 DHS	Reports at the state level birth registration status plus comprehensive household demographic and socioeconomic information.
Civil Registration data	1994-2007 NPopC	Reports at the state level all variables on the birth registration application form including several demographic and socioeconomic indicators.
RapidSMS data	2011 RapidSMS	Reports for each registration center level the number of new registration cases per month.
Other data	2006 Nigeria Census	Includes population and crude birth rate data per LGA.

Table 1. *Description of data sources.*

[3] Based on the recommendations of this analysis, a new dashboard was developed in November 2013 to improve monitoring and management functions.

2. BOTTLENECK ANALYSIS

Legal framework

Bottleneck #1: Parallel systems for birth registration

There are two legal documents that describe two distinct systems for birth registration:

The Births, Deaths, Etc (Compulsory) Registration Act, No. 69 (1992) (The Act) establishes birth registration as a compulsory event for every child, outlines in detail the structure for administering vital registration services (Part I) (Figure 2, Appendix 1), and appoints authority for registration activities to the federal NPopC, under the Registrar-General. This document describes in detail the series of linked administrative levels from local to federal and their respective functions, including collection (Part II), processing, and reporting of birth registration data (Part VI). The Act does not specify the necessary amount or distribution of registration services, but suggests that the NPopC is responsible for establishing registration centers and appointing registrars in a manner that ensures successful service delivery (Part I.6). NPopC registration should be free of charge.

The Constitution of the Federal Republic of Nigeria (1999) also indicates that birth registration is one of the main functions of all 774 LGA governments. As a result, many LGAs maintain an independent system of birth registration in parallel to the NPopC system. In contrast to the NPopC system, the Constitution provides no additional details to describe how birth registration should take place at the LGA level. Each LGA can develop distinct work patterns, forms, and registries. In addition, LGA systems are able to charge a fee for conducting registration activities.

A specific legal framework does not exist to govern the relationship between NPopC and LGA registration systems. As a result of these parallel mandates and systems, the process of birth registration can be confusing for parents. In discussions with local families, most parents were unable to distinguish whether they had NPopC or LGA certificates, or both. No parents were able to articulate any difference between the two. As the Births, Deaths, Etc (Compulsory) Registration Act clearly establishes NPopC's roles, responsibilities and authority over the country's civil registration, naturally NPopC registration should be the only form recognized for official purposes (for example- issuance of passports, national identity document, etc). However, in practice birth registration documents from LGAs and Age Declaration/Sworn Affidavit of Age are still acceptable by most institutions requiring evidence of age/ birth certificate.

The Constitution does not articulate a rationale for maintaining an LGA-specific birth registration system. Birth registration activities by LGA governments may be motivated by planning objectives (i.e. local population statistics) and financial incentives, including local fees associated with birth registration and certification. In addition, there are reports that LGA registrars exact personal fees for the birth registration service. There is no available data to suggest which LGAs are involved in these activities or how much revenue is generated.

The monetization of birth registration by LGAs creates further complications. LGA registrars who generate income from birth registration have incentive to compete with NPopC registrars for new registration cases. There are reports that LGA registrars withhold information regarding new births in order to prevent NPopC registrars from offering free registration services. Several NPopC registrars suggested that LGA registrars have exclusive access to comprehensive, community-level birth records maintained by local leaders. LGA registrars are able to use these to actively target new births for registration.

In other cases, the cost attached to LGA registration is viewed as a marker of value. Some families reject NPopC birth certificates because these are offered without charge and therefore are assumed to have no value.

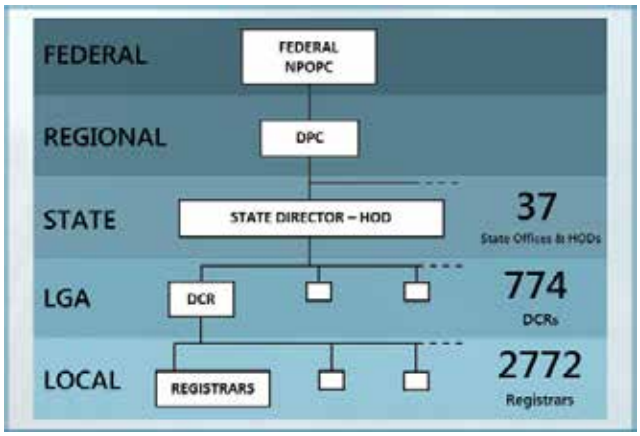

Figure 2. *National Population Commission organizational structure.*

The Births, Deaths, Etc. (Compulsory) Registration Act, No. 69 establishes the basic structure for administering vital registration services via a centralized system and appoints authority for registration activities of the NPopC. Registrars at the local level report to Deputy Chief Registrars at the LGA level, who in turn report to the State Director or Head of Department at the state level.

Indicator #1: ***Availability of a framework to govern the NPopC-LGA relationship and clarify mandates for birth registration***

Definitions / Calculations: Presence of appropriate national legislation.

Data source: National policy documents.

Periodicity of monitoring: 6 months.

Disaggregation: N/A.

Target: Available legal framework for NPopC-LGA relationship.

Workforce

Bottleneck #2: In some states and LGAs, the number of registrars / registration centers is insufficient to cover designated catchment areas or populations.

Based on data from the 2006 national census there are approximately 5.5 million births per year in Nigeria. If all births were distributed evenly, each full-time registrar (2772) would be required to register 1,958 births per year, or 8 to 9 births per day, in order to achieve full coverage.[4]

Even though this workload seems achievable overall, this target is not necessarily appropriate for every circumstance or location. Service delivery depends on multiple local factors, including geographic (size, terrain),

[4] Calculation assumes 46 working weeks per year, 5 working days per week.

demographic (total population, population density, birth rates), economic (poverty, urban vs. rural), and social (education level, community sensitization). In rural areas, for example, up to 70% of births occur at home. Birth registration for these children will be more difficult than for children born at health centers or hospitals. In order to register, NPopC registrars would be required to identify the birth and travel to the location, which may be technically difficult, costly, and time-consuming. In these cases, 1 registrar may not be able to register 8 to 9 new births per day.

In contrast, in densely populated areas many children may present to a single location for services (such as hospital-based births or immunization programming) and 1 registrar may therefore feasibly register more than 8 to 9 new births per day.

Data analysis from the local level is important for identifying local variations in birth registration coverage and the local factors that affect this. This information can help determine which interventions would be useful to improve birth registration programming in a specific local context and help prioritize which locations should receive interventions first.

At this time, the NPopC has no systematic method to match the number of centers to local service needs. For example, one large LGA can have the same number of registration centers as another small LGA. Similarly, one LGA with difficult terrain and poor road networks can have the same number of registration centers as another LGA in an easily accessible urban location.

Two basic and easily available factors to consider in planning the distribution of registration centers are LGA geographic size and LGA population. At the time of this analysis, because the distribution of registration centers does not account for LGA geographic size or population, there is wide variation in the expected catchment per registrar. For example, on average, one registration center may be responsible for less than 400 (Abaji LGA, Federal Capital Territory; Bakassi and Calabar South LGAs, Cross River state; Kolokuma/Opokuma LGA, Bayelsa state; Ukwa East, Abia state) to more than 9000 births (Bakura and Gummi LGAs, Zamfara state) per year. Population per center tends to be higher in urban compared to rural areas. Similarly, registration centers in some LGAs cover large geographic area. For example, one registration center may provide birth registration services for less than 10 km^2 (Aba North and Aba South LGAs, Abia state; Gombe LGA, Gombe state; Nkwerre LGA, Imo state; and Port Harcourt LGA, Rivers state), whereas another center may have a catchment of more than 3500 km^2 (Maru LGA, Zamfara state). In contrast to population per center, geographic area per center is higher in rural compared to urban areas.

Geographic size and population are not the only factors that affect service needs at the LGA level. In discussions with NPopC employees, local poverty, poor transportation, difficult terrain, and armed conflict were consistently identified as other reasons that access to registration centers might be limited. This means that even in LGAs where the geographic and population catchment might appear appropriate, there may be too few registration centers to realistically deliver an effective birth registration service for all.

With so many complex factors affecting local needs and access to registration centers, it can be difficult to determine which LGAs should be candidates for increased support. One target group includes LGAs that have fewer than 3 registration centers. According to NPopC policy, each LGA should have at least functional 3 registration centers, however, even this baseline target is unmet in 5% of all LGAs (39/774) in 9 states. In general, LGAs with at least three registration centers have higher registration rates (Table 2). LGAs with 3 or more registration centers have registration levels up to 7 times higher than LGAs with fewer centers. Expanding to have 3 registration centers to in these LGAs would satisfy NPopC rules and likely improve local birth registration rates.

Another target group should include LGAs where the geographic or population catchment figures are so high that full coverage is impossible. In these settings, additional registration centers may be warranted irrespective of other factors. For example, according to RapidSMS data, 11% of LGAs have a catchment area of more than 900 km^2/center (30 km x 30 km), with some centers in some LGAs covering nearly 3500 km^2 (Figure 3a). Similarly, other LGAs have too few centers to cover a large population (Figure 4a). In 4% of LGAs, registrars are each responsible for covering at least 5000 births per year, or 22 births per working day. In these cases, one registration center cannot realistically provide services to the catchment, even if other factors are favorable. As additional centers are added to these LGAs, subsequent data plots should show improvement in both catchment area / population and registration level (Figure 3b, 4b).

Based on this type of analysis, Zamfara state would be one example of an appropriate target for immediate evaluation and support. Thirteen (of 14 total) LGAs in Zamfara state do not have at least 3 functional registration centers. Eight LGAs have a geographic area per center of more than 900 km^2. Of the 15 LGAs in Nigeria with the highest population coverage, 9 are located in Zamfara state (Table 3). In

total, 9 of 14 LGAs in Zamfara have a population catchment of more than 5000 births per center. Registration levels in LGAs with fewer than 3 centers, high geographic catchment, or high population catchment are low (1.5-7.9%) and might be improved by expanding the local birth registration service.

Developing a strategy for NPopC workforce expansion

The federal NPopC also provides funding for a small number of ad hoc registrars in certain LGAs. Ad hoc registrars non-permanent employees who are trained and can perform registration duties. They are used to provide short-term relief in the setting of an immediate human resource shortage. These registrars are hired in non-renewable positions using funding mobilized from capital sources.

Occasionally, specific states and LGAs provide funding to pay for additional ad-hoc registrars. In Ondo state, for example, state funding pays salary for more than 10 ad hoc registrars. In general, these registrars are also hired in non-renewable positions.

There has been no study to determine how ad hoc registrars contribute to registration coverage. This bottleneck analysis shows that there are significant workforce gaps and calls for widely expanded birth registration services, inferring that in most locations additional registrars would be beneficial. For example, NPopC employees from Ondo state suggest that the addition of ad hoc registrars was associated with marked improvements in registration levels from approximately 35% to more than 55% in the U1 age group.

State	Total LGAs	LGAs with <3 centers		LGAS with 3+ centers		Ratio 3+ : <3
		Number (%)	% U1 Registration	Number (%)	% U1 Registration	
Cross River	18	2 (11%)	15.4	16 (89%)	61.1	3.96
Delta	25	6 (24%)	31.9	19 (76%)	36.4	1.14
Edo	18	1 (6%)	85.9	17 (94%)	48.9	0.57
Gombe	11	6 (55%)	26.7	5 (45%)	46.3	1.73
Jigawa	27	7 (26%)	22.3	20 (74%)	20.0	0.90
Katsina	34	1 (3%)	48.2	33 (97%)	34.4	0.71
Niger	25	2 (8%)	19.8	23 (92%)	18.2	0.92
Ondo	18	1 (6%)	17.0	17 (94%)	28.7	1.69
Zamfara	14	13 (93%)	4.1	1 (7%)	28.6	6.99
SUMMARY	190	39	--	151	--	--

Table 2. LGAs with fewer than 3 registration centers per LGA – RapidSMS.

Even though NPopC regulations suggest that there should be at least 3 registration centers per LGA, still there are LGAs in 9 states that have fewer than 3 centers. These LGAs typically have lower registration rates compared to LGAs with 3 or more centers (ratio = green). Rarely (in Edo state, for example) an LGA with fewer centers has a higher registration rate (ratio = red).

LGA	State	Births per center		Area per center (km^2)	Number of centers	% U1 registration
		Per year	Per day			
Gummi	Zamfara	9224	40	2720	1	1.5
Bakura	Zamfara	9029	39	1432	1	3.9
Shomgom	Gombe	8250	36	947	1	11
Akko	Gombe	7506	33	1353	2	29
Zurmi	Zamfara	6971	30	1490	2	2.4
Maru	Zamfara	6953	30	3461	2	2.4
Kaura-Namoda	Zamfara	6931	30	455	2	7.5
Tsafe	Zamfara	6416	28	886	2	3.2
Bukkuyum	Zamfara	6231	27	1675	2	3.5
Bungudu	Zamfara	5637	25	1198	2	1.7
Funakaye	Gombe	5530	24	732	2	23
Billiri	Gombe	5452	24	379	2	17
Lere	Kaduna	5449	24	744	3	11
Talata-Mafara	Zamfara	5168	22	748	2	7.9
Balanga	Gombe	5068	22	835	2	22

Table 3. LGAs with highest population coverage - Rapid SMS.

In some states/LGAs the geographic or population catchment figures are so high that full coverage is impossible. Identifying these locations can help target NPopC attention. For example, among 15 LGAs in Nigeria with the highest population coverage, 9 are located in Zamfara state (red), suggesting that this state might be a candidate for immediate support.

At the national level, there are multiple concerns regarding the current system of hiring and allocating ad hoc registrars. The hiring mechanism depends on capital budget surplus and therefore inherently unpredictable. The number of active ad hoc registrars varies with the amount of surplus for any given fiscal year.

Similarly, the process of allocating ad hoc support is unclear. States that require additional registrars can request ad hoc support, however, there is no established application, no formal decision criteria, and no clear indication of how many ad hoc registrars will be available. In some cases, the NPopC hires and allocates ad hoc registrars to help with activities where the registration workload is predicted to increase, such as Maternal-Newborn Child Health Weeks (MNCHWs). There is no other indication that allocations are designed to optimize impact.

The NPopC should seek to improve planning and transparency around the use of ad hoc registrars. In particular, NPopC leadership should develop an overall strategy that clearly outlines the priority roles of ad hoc support. Allocation of ad hoc registrars should be justified in the context of that strategy and, when possible, should be based on registration data available from NPopC sources and the RapidSMS database. If using an application-based method, applications and instructions should be available to all potential applicants.

Optimizing work patterns

Critics of workforce expansion describe a phenomenon of inadequate workload whereby registrars have too few registration cases and therefore significant idle time. This argument continues that because the Nigerian population is widely distributed, the marginal input of adding registrars will be small and that a workforce sufficient to provide full coverage will be too expensive.

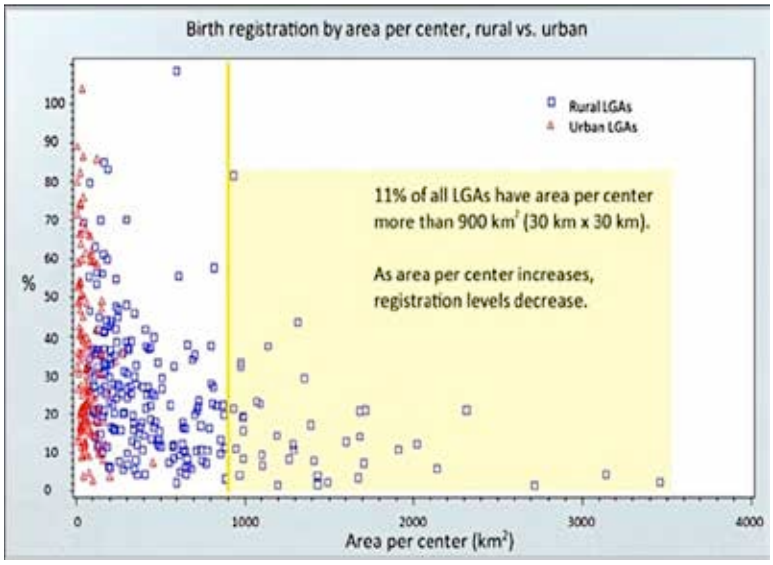

Figure 3a. *Birth registration and catchment area*

Birth registration coverage decreases as catchment area increases. Eleven percent of LGAs have area per center >900 km2 (yellow box).

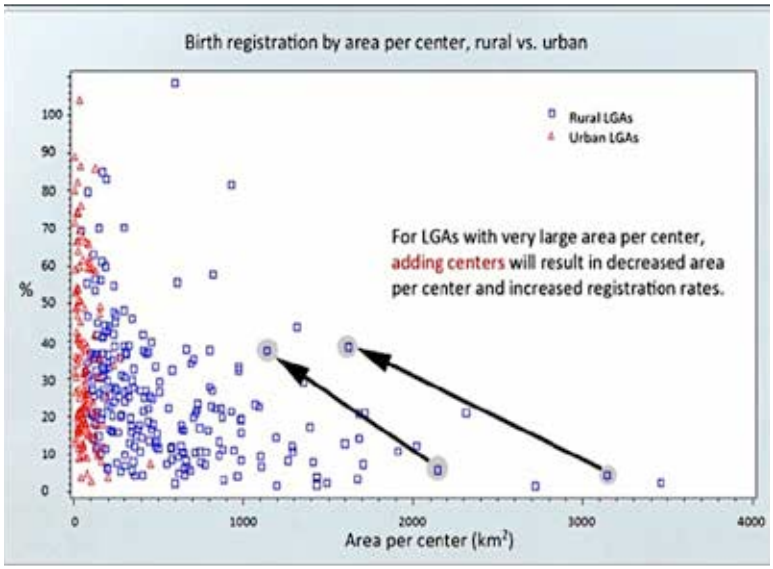

Figure 3b. *Improving catchment area*

For LGAs with high area per center, adding centers will result in decreased area per center. For LGAs with the highest area per center, where the catchment area is impossible to cover with the current number of centers, additional centers are likely to increase the registration rate.

This argument is difficult to reconcile against the level of registration coverage, which shows that nearly 70% of Nigerian children remain unregistered. Registration rates are low even in catchment areas where registrars are observed to have idle time. Why are registrars idle if there are so many children to register? Why is there a perception of inadequate workload?

One answer is that many registrars perform only fixed (passive) rather than mobile (active) registration activities in their given catchment areas. A work pattern that uses only fixed activities is likely to miss many possible registration opportunities. Even in a small catchment area, not all births occur at the same place or the same time. Children and families might ultimately present to one of many local institutions for accessing basic services or never present for services at all. In other words, the distribution of births occurs not only on a macro-scale at the level of states and LGAs, but also on a micro-scale at the level of individual communities.

The expansion of registration services does not refer to increasing the overall size of the registration workforce, but rather ensuring that registration services are offered at a wider distribution of centers. In many locations, there may be "sufficient" registrars to meet demands, but with fixed work patterns these registrars are idle despite many unregistered children across the catchment. Expanding services depends on optimizing the work pattern by encouraging mobile registration activities.

Emphasizing mobile registration activities for these registrars is a solution on a similar spectrum to the scheduling solutions utilized by some registrars who already collaborate with multiple health centers to improve the distribution of registration services in their catchments (see Bottleneck 3). Data from these registrars suggests that a mobile pattern improves registration coverage.

Optimizing work patterns will not address all distribution issues, however. In some LGAs the geographic area or population per center is too large for the current registration infrastructure and more registrars should be hired, trained, and allocated to these locations. Collaboration with other sectors may be a useful way to mobilize additional human resources.

Even as the NPopC hires new registrars, optimizing work patterns for cost-effective birth registration programming means that not all registrars necessarily require full-time employment. Full-time registrars who attend only fixed and not mobile registration services may not have adequate workload. This means that registrars with fixed assignments could be employed and remunerated to provide registration services part-time at a pro-rated cost. Similarly, this implies that people who are not registrars but otherwise have access to children and families (such as health workers) could be task-shifted to provide part-time registration services.

Developing a personalized workplan that optimizes coverage for each registrar should be a deliberate, integrated part of registration activities at the local level. Registrars and DCRs should periodically review local circumstances, including expected catchment, current workplan, current coverage, barriers to increasing coverage, and strategies for improvement. Workplans should then be revised to reflect that information.

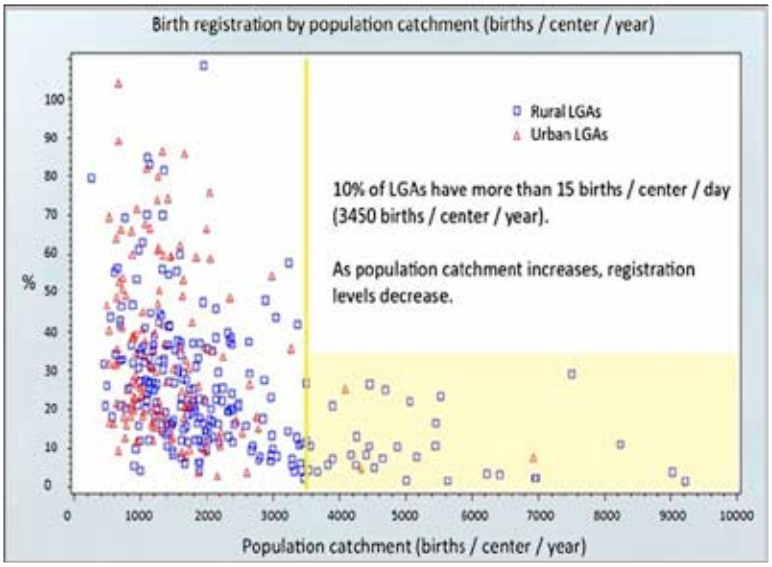

Figure 4a. *Birth Registration and population catchment*

Birth registration coverage decreases as population catchment increases. Ten percent of LGAs have more than 1450 births per center per year (yellow box).

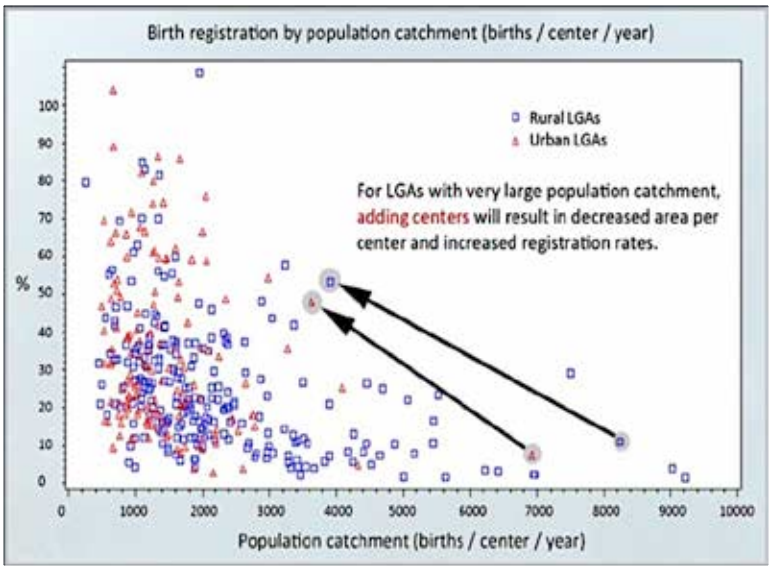

Figure 4b. *Improving population catchment*

For LGAs with high population per center, adding centers will result in decreased population per center. For LGAs with the highest population per center, where the population catchment is impossible to cover with the current number of centers, additional centers are likely to increase the registration rate.

The situation of birth registration in Nigeria is deeply heterogeneous and central control of local workplans is unrealistic. State or federal NPopC technical support might be necessary in cases where local circumstances are particularly difficult and locally developed workplans fail or where birth registration coverage is stagnant. HODs should have the capacity to identify these specific cases using information from DCRs and registration coverage data.

Matching financial resources to workforce needs

Each state NPopC office receives approximately N 150,000 (1,000 USD) per month, irrespective of population, geographic, or other factors that may affect the cost of delivering birth registration services. State allocations are disbursed to NPopC State Directors. This allocation is designed to cover all non-personnel (i.e. non-salary) costs associated with NPopC activities at state, LGA, and local levels, and can be reallocated to LGAs or local areas at the discretion of the State Director. Although DCRs and registrars receive birth registration supplies from the federal NPopC, they do not receive any direct financial support to cover other operational costs.

A more appropriate funding model would take into account workforce size, operational costs (such as transportation), and infrastructure costs. At this time, the budget limitations at the federal level are so significant that reallocation of the existing funding would provide minimal benefit. However, if federal funding increases, allocation should be arranged according to an assessment of need, rather than a standard payment to each state office.

Indicator #2: ***Percentage of LGAs with inappropriate catchment or less than 3 total registration centers.***

2a. Percentage of LGAs with catchment area > 900km2 per center.
2b. Percentage of LGAs with catchment population > 3000 births/year per center.
2c. Percentage of LGAs with < 3 total registration centers.

Definitions / Calculations:

2a, b. Percentage with inappropriate catchment = $\frac{\text{number LGAs meeting criteria x 100\%}}{\text{total number of LGAs}}$

2c. Percentage with less than 3 centers = $\frac{\text{number of LGAs with <3 centers x 100\%}}{\text{total number of LGAs}}$

Data source: RapidSMS and administrative data.

Periodicity of monitoring: 6 months.

Disaggregation: LGA.

Target: 5% – 0% of LGAs with inappropriate catchment / 5% – 0% of LGAs with <3 centers.

Bottleneck #3: Limited mobilization of health clinics/ health workers to expand integrated basic services, including birth registration programming.

Bottleneck #4: Absence of formal policies and a plan of action to guide NPopC-health partnership hinders collaboration at state, LGA, and local levels.

International best practices in birth registration point to coupling of registration activities with other basic services.[5] In many countries, birth registration activities are linked to health and immunization or education services. The primary advantage is that health, education, and birth registration services target the same population (i.e. children and families), so a partnership approach can help improve access.

In terms of workforce planning and distribution, experience in health in Nigeria suggests that linking birth registration to health activities may have significant benefits. In many locations, the network of birth registration centers is too small to provide adequate coverage (Bottleneck #2). The health sector has widely distributed networks for service delivery including more than 25,000 health centers as well as many groups of community health workers. In contrast, there are less than 3,000 birth registration centers.[6] Even if each registration center was located at a health center[7], there are up to 22,000 health centers that provide health and immunization services for children but have no concomitant birth registration activities (Figure 5a). The ideal system for birth registration would include dedicated registration services at all health centers (Figure 5b).

Data from areas that have developed functional partnerships with local health programming suggests that birth registration levels are increased. Registrars in cooperation with health centers have developed creative strategies that maximize coverage across multiple health centers using specific scheduling algorithms (Figure 5c). In some cases registrars engage health workers to help collect registration applications and distribute certificates (Figure 5d).

Collaboration for special health events, such as maternal newborn child health weeks (MNCHWs) are particularly valuable for improving registration coverage. These events are heavily publicized and widely distributed. For many hard-to-reach and marginalized families, this may be the only time children access basic services. NPopC records show significant increases in the number of children

[5] UNICEF Innocenti Research Center. 2002. Birth registration: Right from the start. Innocenti Digest No. 9. UNICEF, Florence.

[6] Based on NPopC data available at the time of this analysis, there were 2,772 official birth registration centers in Nigeria. Since then this number has increased.

[7] And they are not – many registration centers are not associated with health centers.

registered associated with the timing of MNCHW programs. These results are corroborated by records from the health sector, which highlight the importance of MNCHWs for immunization coverage. Resource shortages during these events can result in critical lost opportunities for improving registration coverage, especially among vulnerable groups.

There are also benefits of birth registration for health programming. In some countries, birth registration is considered "the first immunization". Accurate information regarding a child's identity is important for health programming such as immunization, where the timing of doses is important for efficacy. Birth registration information is also important for understanding demographic information for effective public health planning at all administrative levels.

Anecdotal evidence in Nigeria indicates that including birth registration with health programming increases public uptake of health interventions. For various health events in Kaduna state in 2011, for example, registrars suggested that birth registration (rather than health programming) was a popular reason for children and families to attend. This information suggests that linking birth registration and health activities may ultimately improve uptake of both types of services.

In July 2012, the NPopC presented an argument for improved collaboration between registration and health services to the National Council on Health, resulting in a formal commitment to expand birth registration activities in partnership with the National Primary Health Care Development Agency (NPHCDA), and the Ministry of Health (MOH) (Appendix 2). This communiqué called for birth registration to be included in all health intervention programs, for health personnel to be trained in a way that allows them to perform registration-related tasks, and for birth registration information to be part of routine health records. Nevertheless, functional collaboration at any administrative level has been difficult to achieve. In most centers, registrars have little or no working relationship with the health centers in their catchment areas. Few centers have been willing to mobilize health workers or infrastructure to aid birth registration programming. There are no

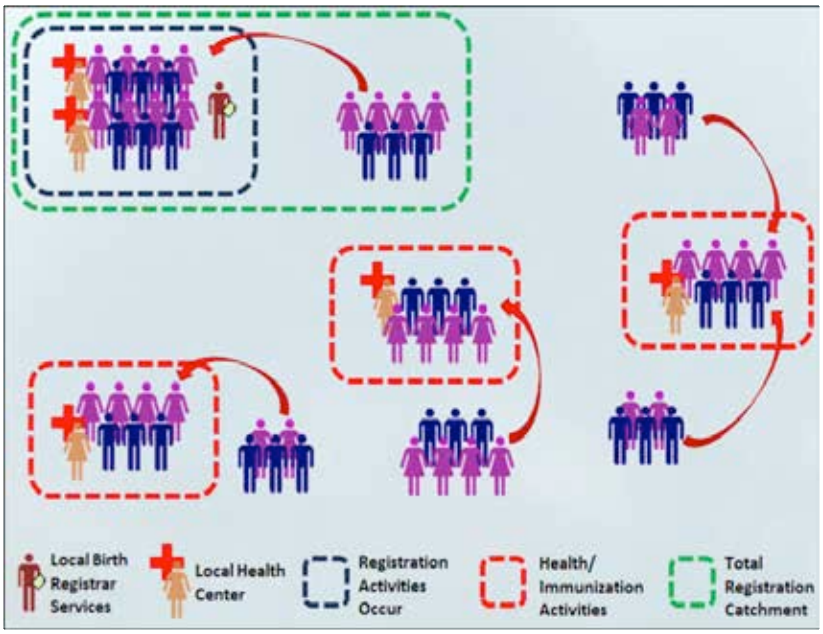

Figure 5a. *Collaborating with the health sector: Current model*

In the current system birth registrars typically work with a single health center to provide registration services. As a result, children who attend other health centers have access to primary health care and other basic services but still lack access to birth registration.

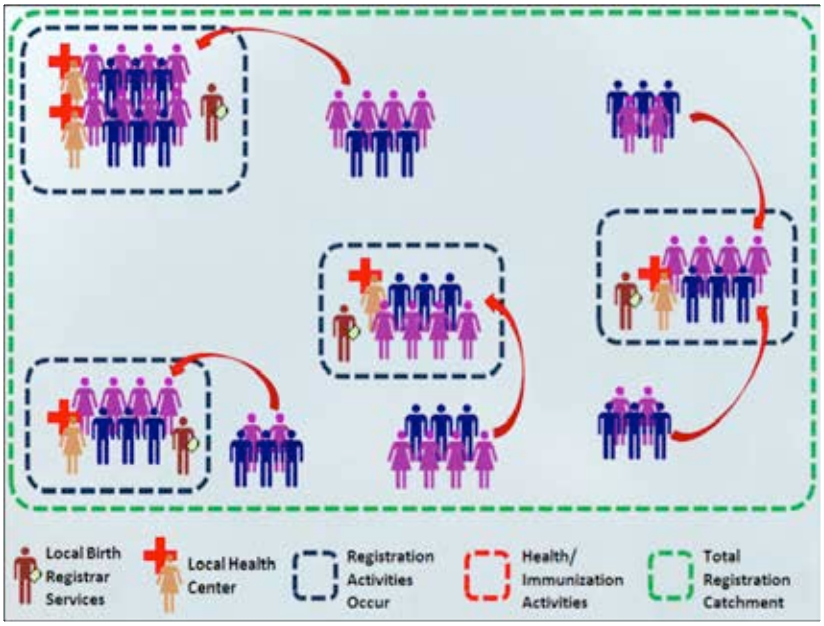

Figure 5b. *Recommendation 1: Increased number of registrars*

Adding new birth registrars can be a useful strategy to improve access to registration services. There is no realistic mechanism to provide dedicated NPopC registrars at all 25,000 primary health centers.

policies to indicate how health workers can contribute (i.e. which tasks would be appropriate, what additional qualifications or training are necessary).

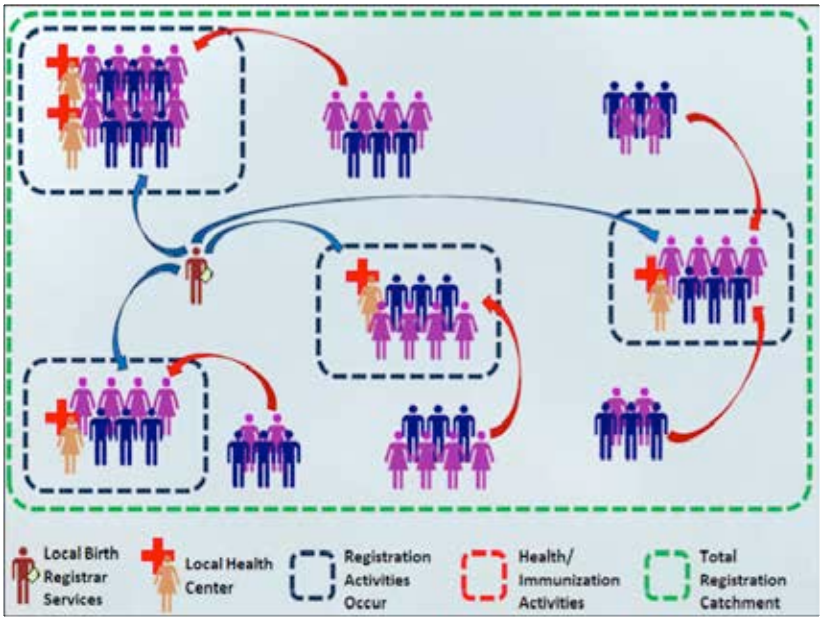

Figure 5c. Recommendation 2: Mobile registration activities

Access to birth registration services in some areas can be improved if registrars are mobile. Mobilizing existing registrars to visit underserved areas requires few systemic changes.

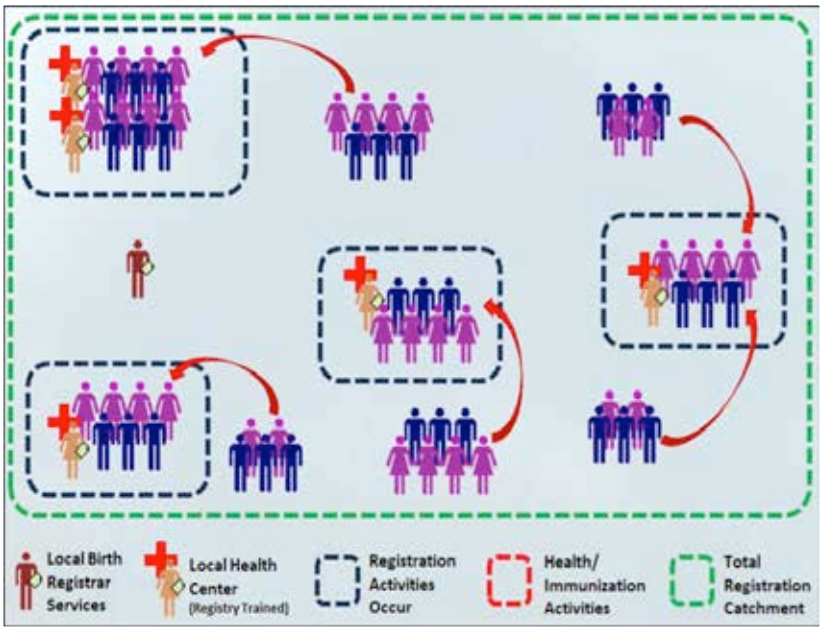

Figure 5d. Recommendation 3: Train local health practitioners

The registration catchment can be increased by training local health care workers to carry out activities that support birth registration, such as filling in birth registration applications.

As follow up to the National Council on Health, in October 2012 the NPopC engaged stakeholders from the NPHCDA and the MOH to develop a National Plan of Action (NPA) that outlines priority actions to integrate birth registration into all health activities (Appendix 3). The consultation was divided into two regional meetings and included representatives from all states. By consensus method, the NPA identified seven priority areas:

1. Development of policy and implementation frameworks[8]
2. Inclusion of NPopC leadership in planning for health and other activities relevant to birth registration
3. Harmonization of personal records for birth registration and immunization
4. Inclusion of birth registration with routine health care for children
5. Expansion of birth registration services to special health programs
6. Development of a focused communication and advocacy program
7. Improved mechanisms for monitoring, management, and accountability

The next step towards realizing the NPA requires the development of operational plans at state and LGA levels. These plans should emphasize what concrete changes will enable an expanded registration service and indicate how long any proposed changes will take to achieve. In many cases, the first meeting between state representatives from birth registration and health occurred during the NPA planning process. In each state there is a need for time and resources dedicated to improving and maintaining this collaboration.

[8] In July 2013 NPopC and Ministry of Health officials at the state level commenced signing of a Memorandum of Understanding to operationalize integration of birth registration into health programmes. As of October 2013, 12 states (Anambra, Bauchi, Enugu, Benue, Bayelsa, Ondo, Niger, Plateau, Ebonyi, Edo, Borno, Jigawa) have signed.

Indicator #3: ***Percentage of health centers with any birth registration activities***

Definitions / Calculations:

$$\text{Percentage health centers with BR} = \frac{\text{number health centers with registration activities} \times 100\%}{\text{total number of health centers}}$$

Data source: DCR administrative data.

Periodicity of monitoring: 6 months.

Disaggregation: LGA and state.

Target: 25% – 50% – 75% of health centers with any registration activities.

Indicator #4A: ***Availability of a policy to establish interim partnership between the NPopC and the NPHCDA/MOH***

Definitions / Calculations: Presence of appropriate national policy.

Data source: National policy documents.

Periodicity of monitoring: 6 months.

Disaggregation: N/A

Target: Available interim policy for partnership with health

Indicator #4B: ***Availability of a national plan of action and monitoring framework to support operationalization of NPopC / Ministry of Health / NPHCDA partnership***

Definitions / Calculations: Presence of appropriate national legislation and plan of action.

Data source: National policy documents.

Periodicity of monitoring: 6 months.

Disaggregation: N/A

Target: Available national plan of action to support partnership.

Supply

Bottleneck #5: Registrars and DCRs report insufficient supply of birth registration forms and birth certificates, preventing registration events.

Supply stockouts of birth registration applications and birth certificates are a common concern among registrars and DCRs. Stockouts represent a breakdown in the supply chain, which involves both national NPopC mechanisms for procuring and distributing materials, as well as state, LGA, and registrar level actions to assess request and obtain new stock. When the supply chain breaks down, all registration activities stop.

Birth registration is not the only public service that struggles to plan and distribute material supplies. For this analysis, the NPopC and UNICEF solicited advice from various agencies in the health sector that encounter similar (and in many cases more complex) supply issues. The supply concerns in birth registration arise from multiple factors:

Structure: Birth registration materials are supplied via a system that involves centralized production (at the federal NPopC) and largely decentralized mechanisms for distribution to states, LGAs, and local registrars. In most locations, the usual transfer of materials occurs following a pattern where employees at lower administrative levels travel to meet employees at higher administrative levels (Figure 6a). State offices are responsible for obtaining forms and certificates from the federal NPopC headquarters in Abuja and for distributing these to LGAs. In most states,

LGA administrators including DCRs come to state offices to retrieve materials. Similarly, in most LGAs, local registrars are responsible for coming to DCR offices to retrieve materials. Although federal, state, LGA, and local levels are all involved, it is not clear which of these administrative levels is ultimately responsible for ensuring that the birth registration supply system functions effectively.

In comparison, supply systems for routine immunization programs in Nigeria are arranged in a different way. Federal offices are responsible for delivering vaccines to states. Vaccines are stockpiled at the state level. Representatives from a ward (sub-LGA) health committee retrieve vaccines and deliver them to local immunization officers[9] (Figure 6b). Each local immunization officer is responsible for coordinating immunization delivery at a specific health center, but is not responsible for any part of the distribution of vaccines.

The supply plan used for immunization may have slight advantages compared to the supply plan for registration. For example, rather than each state sending a representative and transportation to Abuja, the federal NPopC could arrange a single convoy to deliver materials to multiple states. This mechanism would require transport personnel and funding, but would allow NPopC employees at the state level previously engaged in transportation tasks to stay focused on more technical work, such as managing DCRs and registrars. Similarly, using a dedicated supply service at the distributed level would allow NPopC DCRs and registrars to focus on providing registration services, rather than obtaining supply. In some cases, there may be possible synergies.

Ultimately, the NPopC requires a full review of the current supply structure and would benefit from proposals to improve the efficiency of this system.

Financial support: Financial issues hinder the supply process. At the federal level, the NPopC has experienced periodic funding shortfalls and has been unable to print birth registration applications and certificates. In some cases, the NPopC relies on external funding from state and LGA government to produce necessary registration materials.

In addition, transportation of supplies to state, LGA, and local levels relies on finances at those administrative levels, rather than secured federal NPopC funding. NPopC employees at any level may be financially unwilling or unable to financially ensure a continuous and adequate supply.

Planning and Management: Federal NPopC can refuse to release additional resources to states that have not submitted evidence of completed registration applications to indicate that the state supply is exhausted. For example, if the federal NPopC provides 10,000 registration applications and certificates, they should receive 10,000 completed applications before providing more supplies. This approach depends on the presence of efficient mechanisms for submitting applications. In the current system, there are concerns that some states have submitted completed applications, but these have been delayed at regional data processing centers (DPCs) before returning to the federal level. As a result of these delays, even states that submit materials in a timely fashion may be excluded from accessing new supplies.

Photo credit: 14 October 2012 Kristopher Kang

Hazardous conditions or disorganized travel can complicate supply management, leading to more frequent stockouts.

[9] Each LGA is divided into 10-15 wards, which each include many communities.

On a broader level, the system for supply management does not include measures to anticipate the number of registration materials needed for a particular area based on local population, historical registration levels, or other parameters. Although RapidSMS provides a means to monitor the use of registration materials in a decentralized way, the supply management system does not yet account for this information. In some cases, NPopC at federal or state levels anticipates situations where the number of registration events will be greatly increased, such as MNCHWs. For these situations the NPopC will provide extra registration materials, if possible.

On a broader level, the system for supply management does not include measures to anticipate the number of registration materials needed for a particular area based on local population, historical registration levels, or other parameters. Although RapidSMS provides a means to monitor the use of registration materials in a decentralized way, the supply management system does not yet account for this information. In some cases, NPopC at federal or state levels anticipates situations where the number of registration events will be greatly increased, such as MNCHWs. For these situations the NPopC will provide extra registration materials, if possible.

Supply planning is another aspect of birth registration that would benefit from improved collaboration with the health sector. Health programs use projected values for the number of births to estimate how many supplies are needed for routine immunization, for example, which is the same number of children who require birth registration. Accessing this information would help the federal NPopC understand how many supplies are needed and how these must be distributed to achieve full coverage.

Monitoring: The lack of specific regulations to guide the distribution of registration materials from central to state, LGA, and local levels results in variable distribution practices, which in turn require a complex system for monitoring how materials flow. At this time, formalized supply monitoring is limited to the federal NPopC, which counts the number of registration materials distributed and outstanding for each state. There is no standing record of how many registration materials are available in specific state, LGA, or local stocks.

The absence of standardized, systematic monitoring at distributed sites prevents effective supply planning and management and increases the risk of stockouts. Without monitoring, there are no standard "early warning" indicators that trigger registrars to communicate the need for additional supplies. Even where NPopC employees may keep informal supply records, they receive no specialized

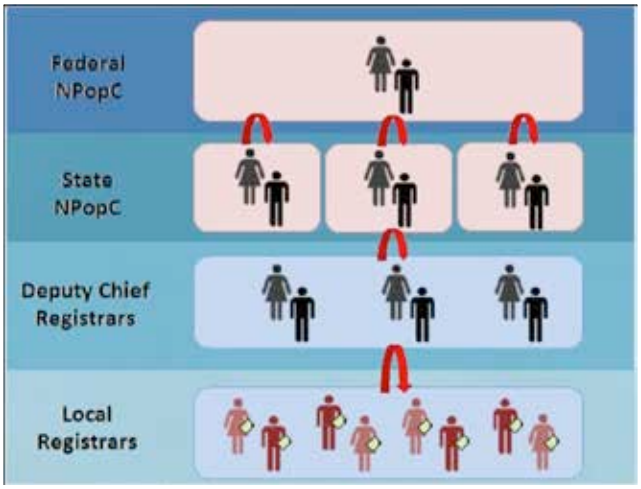

Figure 6a. *Current National Population Commission supply distribution model.*

The NPopC system for supply distribution requires that employees at lower administrative levels travel to obtain materials from employees at higher administrative levels. Each state NPopC office is therefore responsible for arranging methods to retrieve materials from the federal headquarters in Abuja. Similarly, DCRs and local registrars are responsible for obtaining materials from the state and LGA offices, respectively. There is no employee who maintains a specific supply management role.

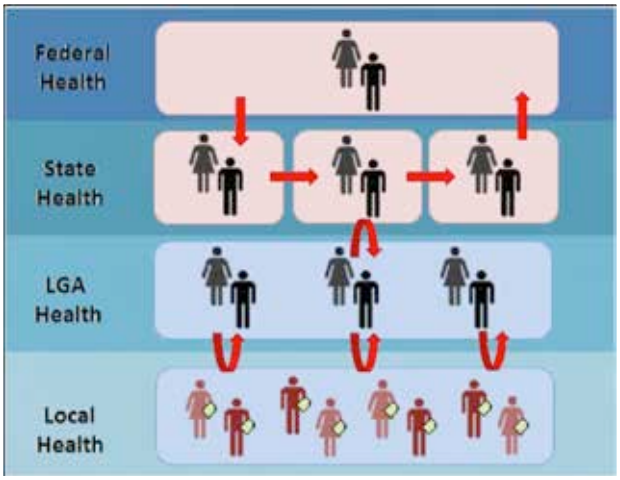

Figure 6b. *Alternative supply distribution model – health sector.*

The health sector uses a different model for supply distribution. Federal mechanisms deliver materials to state offices (typically this occurs on a single trip to multiple neighboring states). State offices store materials. LGA or ward level representatives are responsible for obtaining materials from state offices and disbursing these to local representatives, as needed. Supply management is a primary job responsibility of the LGA/ward representative.

training on supply management and therefore may not have the technical skills to perform this function in a way that limits stockouts and maximizes birth registration activities.

Monitoring will be difficult, particularly in the context of the variable distribution patterns observed for the NPopC at state, LGA, and local levels. However, similar systems have been developed for supply monitoring in health and other sectors in Nigeria, and the NPopC may have opportunities to learn from their experience. RapidSMS currently provides an electronic platform with registration data disaggregated at the LGA level and may provide opportunities to integrate a supply monitoring function.

Communication: There is no system for early identification of low supplies or impending stockouts. One stockouts occur, registrars typically respond by communicating with DCRs, who then arrange for registrars to obtain additional materials. If DCRs have no available materials, information regarding a stockout at the LGA level is then communicated to the HOD and state director, who in turn either provide supplies or contact the federal NPopC for restocking. Responding to a stockout can take weeks or months, depending on how many administrative levels (and how much coordination and transportation) are necessary to delivery new materials.

Indicator #5:* *Percentage of LGAs reporting certificate stockouts

Definitions / Calculations:

$$\text{Percentage LGAs with stockouts} = \frac{\text{number LGAs with stockout} \times 100\%}{\text{total number LGAs in state}}$$

Data source: Verbal reports from DCRs to HODs.

Periodicity of monitoring: 1 month.

Disaggregation: State.

Target: 10% – 5% – 0% LGAs reporting stockouts.

Demand

Bottleneck #6: Poor awareness of birth registration services reduces public demand.

HODs, DCRs, and registrars in all states indicated that low awareness of birth registration is an important reason for low registration rates. According to MICS 2007 data, ignorance of registration or the benefits of registration accounted for approximately 29% of non-registration cases. Low demand secondary to low awareness was the most common cause of non-registration identified in the MICS analysis.

These findings were corroborated by information from questionnaires and focus group discussions at the community level. When asked, many families initially denied any knowledge about birth registration and certification, including families whose children were already registered. No families were aware of the difference between NPopC and LGA registration.

One aspect of poor awareness relates to the presence of meaningful demand incentives. If birth registration conferred specific significant advantages, demand might increase. In Nigeria, access to some services in some communities depends on birth registration. For example, during focus group discussions at the local level, many parents indicated that a birth certificate was necessary for primary school enrolment.

In some countries there are more deliberate uses of demand incentives. For example, some countries link social transfers to birth registration. Birth registration in this context is important for identifying recipients. The advantage from a birth registration perspective is that the social transfers increase incentive and, in theory, uptake. Moreover, because these transfers target the poorest and most vulnerable groups, equity in registration might improve as well.

Working together with the health care sector to maximize birth registration

Site visits to LGAs with high and low registration rates revealed that improved collaboration with the health sector at the local level contributes to higher registration rates.

In Chikun LGA, which has the highest U1 registration level in Kaduna state (37.8%), the DCR and registrars identified several strategies for partnership with health that improve their registration activities:

1. Scheduling for maximum access to children.

Rather than covering only one health center, each registrar in Chikun covers 2-4 health centers, corresponding with local weekly immunization days.

- Registrars in all LGAs routinely indicate that immunization days are associated higher numbers of children presenting to health centers. The number of children registered on immunization days is 2-5 times greater than on non-immunization days.
- By covering multiple health centers, each registrar increases catchment population.
- Effective scheduling requires knowledge of local immunization day schedules and appropriate planning at the DCR / registrar level to arrange coverage.
- Health centers in the same birth registration catchment area can assist by staggering immunization days so that registrars can attend. In some LGAs, immunization days at all health centers occur on the same day. With optimal scheduling, registrars could attend 5 different centers per week.

2. Task shifting for health workers to include birth registration activities.

In Chikun, a strong partnership between registrars and health centers results in some health centers mobilizing health workers to assist with birth registration.

- Health workers are trained by registrars to help fill out registration applications, expanding the effective registration workforce.
- Registrars liaise with health workers to collect applications and distribute certificates.
- In particular, Chikun registrars suggest that health center recorders have opportunities to assist with registration activities.

Other strategies were also identified, although these are not currently in use:

3. Integrated recording of immunization and birth certification on immunization cards.

There are stockouts of immunization cards at health centers in Zaria LGA – currently, immunization records for each child are maintained on looseleaf paper at each health center. In order to facilitate inclusion of birth registration with other basic services, new immunization cards could also include a record of birth certification.

Demand incentives should be used with care. Although benefits contingent on birth registration here benefits are dependent on birth registration, children who (for whatever reason) cannot be registered will be excluded. In this way, misplaced demand incentives can actually exacerbate issues for marginalized groups.

At this time there is no programming to advertise the availability or benefits of birth registration. There is consensus among NPopC employees at all administrative levels that previous awareness campaigns have resulted in substantial increases in community interest and the number of children registered. Targeted advocacy may be a useful method for improving demand for registration services. In order to monitor and quantify the results of an awareness campaign, RapidSMS provides one way to measure and compare registration coverage before and after.

Learning more about demand factors at the community level

Phase 2 of the bottleneck analysis aimed to investigate in more detail how demand factors affect registration rates (see Introduction). No demand analysis had been performed previously in Nigeria. The research team used written questionnaires and focus group discussions to assess demand factors for birth registration, including incentives and disincentives, in seven communities in Katsina state, Edo state, and FCT.

Although originally intended to evaluate demand factors in marginalized communities, NPopC employees who arranged site visits had limited options. In general, communities were selected based on access to local leadership necessary to assemble groups for questionnaires and discussions. All of the communities included in this assessment had an NPopC presence.

Questionnaires and focus group discussions were designed for adult participants. Questionnaires asked for basic information relating to registration for all children under age 18 years in the household.

Sixty-five adult participants completed the questionnaire. There were 206 children under age 18 years included in the dataset. The median household size was six people (range: 3-22 people) and the median number of children per household was four (range: 1-10 children). Focus group discussions were performed in three locations with approximately 40 women and 10 men in total.

Knowledge of birth registration: On initial contact, knowledge of birth registration and certification was limited. Almost all focus group participants initially claimed to have no knowledge of registration or certification. When repeatedly asked for records, participants eventually showed immunization cards and insisted that these were birth certificates. Finally, after further prompting, one participant showed an NPopC certificate. Using this as an example, other families were able to find and produce NPopC birth certificates for their children as well. In other words, no parent was able to name or identify a birth certificate without prompting.

Photo credit: 17 October 2012 Kristopher Kang

The most common reason parents decided not to register their children were that the benefits were either insufficient or unrealistic, which was reported in eight respondents (32%). Other reasons include cultural practices (8%), distance to and from registration centers (8%), and the feeling of exclusion due to political views.

In contrast, the awareness of registration was high, with only 15% of households reporting no awareness of registration previously. Among those who were aware of registration, only 4% did not know the location of a registration center. Based on questionnaires, the cumulative reported registration coverage among children under at 18 years was 56%. Only three cases reported registration without certification

Distinguishing NPopC and LGA systems: Focus group participants did not appreciate the difference between NPopC and LGA registration. Some families had LGA certificates. These families felt that LGA certificates conferred the same benefits as NPopC certificates. There was no experience where LGA certification rather than NPopC certification resulted in exclusion from services.

Access to registration services: Questionnaires showed that for families who were aware of registration services, travel to and from the registration center was most commonly by walking (57%). The median time necessary to go from home to the registration center by the respondent's preferred transportation was 5 minutes (range: 1-120 minutes).

Demand incentives: All questionnaire respondents except for 10 who had no knowledge of birth registration and 1 who had knowledge of birth registration cited demand incentives for registering children. The most common incentive was access to primary school, which was selected by 70%. This finding was surprising, because primary school participation is not contingent on birth registration, so the significance of this result was not clear. Some mothers suggested that if a child did not have a birth certificate at the time of school enrolment, the teacher would encourage the parents to register that child. Using primary school as a means to ensure that all children are registered would be useful, but children should not be excluded from basic services as a result of non-registration.

Access to work and secondary school were considered incentives for 63% and 61% of respondents, respectively. The least common incentives were international travel documents and voter registration for 26% and 24% of respondents, respectively.

Reasons for non-registration: Twenty-five questionnaire respondents indicated reasons for non-registration. The most common reason was that the benefits were either insufficient or unrealistic, which was reported in eight respondents (32%). In these communities, which all access to NPopC services, only two respondents (8%) indicated that registration centers were too far away.

In terms of social and cultural barriers, two respondents (8%) noted that cultural practices regarding delayed naming for babies prevented early registration. No respondents indicated that stigma was a reason for non-registration. This result was corroborated in focus group discussions. In addition, focus group participants suggested that there was no particular exclusion at the household level based on age, sex, or birth order.

One discussion in Ikoro village in Edo state revealed that certain cultural groups might be excluded from birth registration as a result of discrimination by state and LGA governments. There were concerns among community members that some villages whose political views were clashing with those of the current government received less funding and worse services. There was no additional research to independently assess the validity of those claims.

Indicator #6A: ***Availability of advocacy campaign in selected LGAs***

Definitions / Calculations: Presence of campaign, including strategy and materials.

Data source: State NPopC records.

Periodicity of monitoring: 6 months.

Disaggregation: N/A.

Target: Active advocacy campaigns in selected LGAs.

Indicator #6B: ***U1 registration level pre- and post-campaign in selected LGAs***

Definitions / Calculations: U1 registration level.

Data source: RapidSMS.

Periodicity of monitoring: Pre- and post-campaign.

Disaggregation: N/A.

Target: 25% – 50% – 100% increase pre- to post awareness campaign.

Equitable Service Delivery

Bottleneck #7: There is no NPopC strategy to target marginalized groups for birth registration services.

In most countries, including Nigeria, there are known disparities in birth registration coverage patterns according to broad demographic and social indicators, such as sex, geographic location, and household wealth. In addition, particular socio-cultural groups experience severe limitations for birth registration and other services.

- Some children are restricted for religious or cultural reasons from accessing any public services, including birth registration. For example, in Orlu LGA in Imo state, one cultural group refuses birth registration services because of a perceived risk of harm associated with registration.
- Particular ethnic or linguistic groups are unwilling to accept registration services from registrars unfamiliar with their ethnic or linguistic communities.

The goal of any birth registration system is to provide universal coverage regardless of demographic or social status. Equity in birth registration is especially important given the gatekeeping function, where certification may be necessary for access to other basic services such as health or education.

Special measures to provide access may be necessary to ensure that registration services reach marginalized groups. Currently the NPopC has no formal strategy to improve equity in birth registration.

In general, the best path to inclusive coverage depends on the existing status of birth registration. For countries where overall registration coverage is low, expanded programming without targeting specific populations typically effects the greatest change, even among vulnerable groups. In contrast, where overall registration coverage is relatively high, expanded programming should target specific populations where coverage is low.

Nigeria at this time has low overall coverage and therefore, a strategy that prioritizes generalized, non-targeted expansion of birth registration services is likely to be the most efficient. As coverage eventually improves, programming should anticipate a shifting focus to groups where registration lags.

The NPopC should begin developing and testing a process to identify and reach marginalized groups. Assessment tools should be standardized nationally and involve a broad data-driven and consultative process. RapidSMS provides detailed information which, combined with other development statistics and local knowledge, can help show which populations have the lowest coverage and the greatest equity concerns. Ultimately, these assessment tools would be used at state, LGA, or local levels to identify particular populations that warrant specialized birth registration efforts. These tools would be used to provide justification to federal or state NPopC for increased financial or human resource allocations, new collaborations, or other innovative programming solutions, as well as to prioritize which populations should be addressed first.

Although national household survey data may provide the most comprehensive or reliable information, these reports do not capture specific local factors that contribute substantially to equity concerns. For example, difficult terrain or local customs might prevent registration services in one community, while another community in the same LGA or state without those issues has high registration coverage.

Indicator #7A: ***Availability of a standardized assessment tool for identifying and prioritizing marginalized groups for enhanced birth registration programming.***

Definitions / Calculations: Presence of standardized assessment tool.

Data source: Federal NPopC reports.

Periodicity of monitoring: 6 months.

Disaggregation: N/A.

Target: Draft – implement assessment tool.

Indicator #7B: ***Ratio of U1 registration level in specific group vs. overall U1 registration level***

Definitions / Calculations:

$$\text{Ratio} = \frac{\text{percentage U1 registration in specific group}}{\text{percentage U1 registration overall}}$$

$$\text{Example} = \frac{\text{12\% U1 registration in ethnic minority group}}{\text{30\% U1 registration overall}} = \text{Ratio} = 0.4$$

Data source: U1 registration in specific groups using household-level surveys.

Periodicity of monitoring: Baseline survey. Consider pre- and post-intervention surveys if tracer interventions utilized.

Disaggregation: Specific socio-cultural groups.

Target: 1.0 – 0.75 – 0.5 ratio.

Monitoring and accountability

Bottleneck #8A: Irregular RapidSMS reporting or non-reporting by registrars limits management of decentralized registration services.

Bottleneck #8B: Data from the RapidSMS system is not integrated with the federal birth registry.

The RapidSMS online database system was introduced in 2010 as a tool for monitoring birth registration cases at the registrar level. Initially, RapidSMS reporting was implemented in 19 states including 382 LGAs and covering 1,582 registration centers / registrars. By the end of 2012, RapidSMS reporting was available in all of 774 LGAs nationwide.

All levels of the NPopC administration can utilize RapidSMS data to promote improved registration activities and to provide an evidence base for programming and advocacy. Some managers have used this to monitor results, advocate for support, and optimize registrar activities.

Site visits to LGAs with low registration rates show that data generated using the RapidSMS system has been useful to advocate for service expansion. For example, Zaria LGA has the lowest U1 registration level in Kaduna state (4.9%). Using evidence from the RapidSMS system, the Kaduna HOD argued that there were insufficient registrars to provide adequate coverage in Zaria. At that time, 4 registrars were each responsible for an estimated catchment population of 4,300 births per year. In response, the Zaria Emir promised support for 39 additional ad hoc registrars. Using monthly RapidSMS reports, the Kaduna HOD and the NPopC will be able to closely monitor the results of this service.

The integrity of the RapidSMS system and its usefulness as a management tool depends on maintaining a complete, continuous, and accurate record of birth registration activities in Nigeria. On review of the existing RapidSMS data, there are consistent patterns of irregular reporting or non-reporting in many LGAs. Late or non-reporting results in RapidSMS data that is inaccurate and therefore may lead to inappropriate programmatic responses. At the current time, the RapidSMS dashboard does not automatically detect and reflect which registrars have reported late or not reported. For registrars who do report, the RapidSMS system is not designed to recognize or correct erroneous entries.

The NPopC has recognized that improvements to the RapidSMS system are needed and there are already plans to integrate this function and others. Recently, the NPopC has engaged an independent technical support group to strengthen the RapidSMS database and dashboard. The goal of this process is to streamline the reporting process, reduce reporting errors, and simplify the dashboard interface in a way that promotes more effective management at the LGA, state, and federal levels.[10]

Proposed changes include:

Automatic notification for registrars who submit late reports. Late reporting prevents effective management. The RapidSMS dashboard should also integrate automatic

[10] Based on the recommendations of this analysis, a new dashboard was developed in November 2013 to improve monitoring and management functions.

functions that monitor for timely reporting, with alerts that identify registrars who report late.

Automatic error checking for incorrect reports. Registrars occasionally submit reports that are inaccurate due to typing errors. These inaccurate reports usually suggest that huge number of registration events took place – orders of magnitude higher than would be expected. A simple error-checking function should be integrated to ensure that extremely large values are flagged for verification.

Dashboard customizations to promote better management. The RapidSMS system currently reports raw data only (the number of registration events) rather than registration coverage – the percentage of children who were registered. Without information about coverage, it is impossible to compare registration data across different catchments, LGAs, or states. The RapidSMS dashboard should be updated to reflect U1 coverage data, with the projected U1 population determined (as for this analysis) based on the 2006 national census data or whatever other data are available.

Furthermore, the RapidSMS dashboard should be customized to focus on relevant information for each administrative level. For example, at the state level, the HOD would be concerned primarily with summary data at the LGA level, rather than data for each registrar. The HOD should have an option to select LGA summary information. A similar option should be available for DCRs, HODs, and the federal NPopC.

Finally, including simple automated data analysis (for example, coverage over time) would be useful for managers to track progress. Integrated export functions to spreadsheet or database format would be useful for more advanced analysis.

Auditing the RapidSMS database to ensure accuracy. Another issue that potentially affects the accuracy of the RapidSMS system is the possibility that data are falsely submitted to the RapidSMS database – that is, the number of registration cases submitted to RapidSMS is not equal to the actual number of registration events achieved. At this time, RapidSMS data collection operates completely independent of NPopC records. There is no mechanism to assess whether RapidSMS reports correlate to actual registration cases logged in the federal registry. This comparison has never been attempted.

From a quality assurance perspective, matching RapidSMS reports to the birth registry is important for three main reasons.

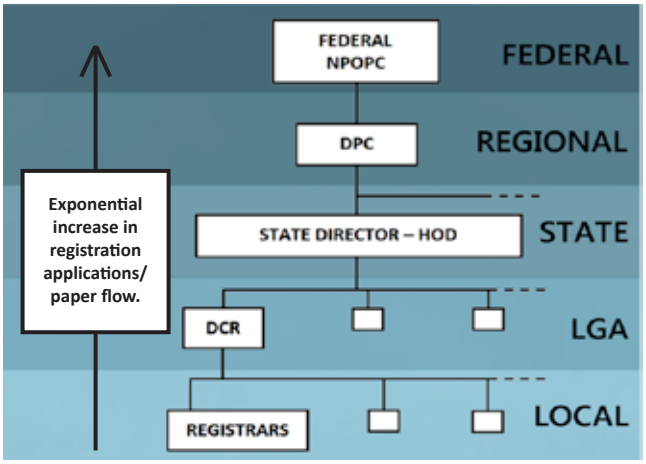

Figure 7. *National Population Commission organizational/paper flow.*

The current system for error checking stipulates that all applications should be reviewed by DCRs at LGA level on initial receipt from registrars and erroneous applications returned. In addition, HODs are responsible for conducting a second review at state level once applications are received from DCRs and before submitting to DPCs. The large number of erroneous applications submitted to DPCs suggests that no error checking occurs prior to this point.

Error checking is best performed as close to the local level as possible. Registrars are usually necessary to clarify mistakes. DCRs have frequent contact with registrars and can discuss or return erroneous applications for corrections, as necessary. In comparison, the process of returning an application from DPC to HOD to DCR to registrar is relatively complex.

Additionally, error checking is important early in the information flow in order to balance the workload. The structure of the information flow from local to central means that each successive level has an exponential increase in the number of registration applications to be processed. While DCRs may have thousands of applications to review each month, HODs and DPC employees must review many more. If errors are not addressed early in the information flow, the workload at successive levels increases substantially and causes delayed processing.

Photo credit: 17 October 2012 Kristopher Kang

Unprocessed birth registration applications are a major issue. Though not verified, some sources report significant rates of erroneous registration.

Identifying processing and monitoring issues. The comparison of RapidSMS data and the birth registry serves as a way to assess their respective functions. In other words, if there are discrepancies between these systems, the NPopC should seek to identify the underlying source. Higher RapidSMS reports than actual registration cases might indicate inaccurate RapidSMS reporting. In contrast, this finding might also represent actual registration cases that are delayed or lost. The solution necessary to fix the issue and correlate the reporting systems depends on the underlying issue.

Determining the approximate accuracy of the RapidSMS system. The purpose of RapidSMS system is to inform management decisions. A method to continuously assess the intrinsic fidelity of the RapidSMS system is fundamental.

Improving personnel management. RapidSMS reports are one way to assess registration activities. As the RapidSMS dashboard evolves and management functions improve, there may be incentives and penalties for registrar performance. "Spot checks" to assess whether registrar reports correlate to actual cases will be useful to identify registrars who falsely report.

The NPopC requires a mechanism to perform this comparison. Ideally this would occur continuously for all locations using an electronic system with automated outputs to identify obvious discrepancies. The NPopC should begin to investigate the feasibility of this type of system.

In the interim, the NPopC should develop and implement a protocol to perform periodic comparison of RapidSMS and birth registry data for all locations. Monitoring of this type should initially occur approximately every 3 to 6 months.

Indicator #8A: ***Percentage of blank RapidSMS reports in a given state***

Definitions / Calculations:

$$\text{Percentage blank reports} = \frac{\text{number of blank reports} \times 100\%}{\text{total number of reports}}$$

Data source: RapidSMS data.

Periodicity of monitoring: 1 month.

Disaggregation: LGA and state.

Target: 20% – 10% – 0% blank reports.

Indicator #8B: ***Availability of monitoring mechanism to compare cases reported in RapidSMS and birth registry entries.***

Definitions / Calculations: Presence of monitoring mechanism and comparison data.

Data source: Federal NPopC reports.

Periodicity of monitoring: 6 months.

Disaggregation: N/A.

Target: Plan – pilot – implement internal monitoring mechanism.

Bottleneck #9: Erroneous registration applications reaching proximal levels, causing processing delays and accumulation of unprocessed applications.

DPC representatives report significant accumulation of unprocessed registration applications, with up to 8 million applications pending. The primary reason cited for this accumulation is the high number of illegible or erroneous applications (Form B1), which substantially delays or prevents processing at the DPC level. Federal NPopC officials indicated that 14,922 out of 7,811,189 birth registration applications could not be processed at the DPCs in 2009 due to illegible handwriting/erroneous applications. Though not verified, some others estimated much higher rates for rejected/erroneous applications at LGA and state office levels.

The NPopC management structure indicates that applications should be checked for completeness and accuracy at multiple levels prior to reaching the DPCs. Because this structure involves exponential increases in the number of registration applications that must be reviewed at each stage of processing, upstream processing centers (i.e. DPCs) may be required to handle thousands of applications per month (Figure 7).

Interviews with DCRs and HODs suggested that this does not occur. There are few instances that DCRs or HODs return applications to registrars for clarification. As a result, registrars who submit illegible or erroneous forms do not receive feedback on the quality of their work and are not encouraged to improve. Instead, DPCs receive applications that prevent effective functioning of the entire registration system.

***Indicator #9:* Percentage of rejected registration applications at DCR/HOD/DPC levels, and registration cases successfully processed by DPC:**

9a. Percentage of rejected registration applications - DCR level.
9b. Percentage of rejected registration applications - HOD level.
9c. Percentage of rejected registration applications - DPC level.
9d. Percentage of registration cases successfully processed by DPC.

Definitions / Calculations:

$$\text{Percentage rejected applications} = \frac{\text{number of rejected applications} \times 100\%}{\text{number of total applications received}}$$

$$\text{Example: HOD level:} \quad \frac{100 \text{ rejections} \times 100\%}{1{,}000 \text{ applications}} = 10\%$$

$$\text{Percentage processed cases} = \frac{\text{number of cases successfully through DPC} \times 100\%}{\text{total number of cases by RapidSMS}}$$

Data source: RapidSMS and DCR, HOD, and DPC administrative data.

Periodicity of monitoring: 1 month.

Disaggregation: By level of processing (DCR, HOD, DPC), as per indicators.

3. MOVING FORWARD

Recommendations

This bottleneck analysis is an early step towards investigating the current structure and operations of the birth registration system in Nigeria, identifying aspects of the current birth registration system that prevent full coverage, and in some cases, suggesting possible solutions to address these. There are 9 primary bottleneck areas, interventions, and indicators for monitoring progress.

In summary:

Legal frameworks

- Perform a detailed review of the NPopC-LGA relationship, including efforts to understand the rationale for LGA registration and advocate for a harmonized national registration service under the NPopC

Workforce

- Ensure that every LGA has at least 3 registration centers, in accordance with NPopC policy
- Where possible, add full-time registrars/ registration centers in LGAs with high catchment area or population and monitor changes in registration coverage pre- and post-addition
- Revise the federal policy for hiring and placing ad-hoc registrars to reflect a priority for underserved areas
- Explore possibility of a merit-based system for states and LGAs to apply to the federal NPopC for additional ad-hoc support
- Explore strategies for identifying registrars whose coverage would benefit from a mobile approach or other innovative workplans, and develop a pilot project to implement individual workplans and monitor results
- Support concrete actions between the NPopC and relevant stakeholders in the health sector at the state and LGA level in accordance with the NPA to promote expanded birth registration services in health activities

Supply

- Propose alternative supply mechanisms with the goal to improve efficiency and reduce cost, possibly in collaboration with the health sector, and implement pilot programs

- Investigate the feasibility of a supply monitoring system, possibly linked to RapidSMS, to help anticipate, communicate, and prevent stockouts of birth registration materials

Demand

- Develop advocacy to improve public awareness of birth registration
- Continue research to understand demand factors as a primary cause for non-registration

Equitable service delivery

- Draft and pilot a standardized assessment tool for identifying and prioritizing marginalized groups for enhanced birth registration programming, and using this tool, carry out special initiatives to improve birth registration coverage in marginalized groups

Monitoring and accountability

- Integrate mechanisms in the RapidSMS database to identify registrars who do not report regularly
- Develop a system for periodic audits of the RapidSMS database to ensure that entries are consistent with the federal registry
- Strengthen error-checking functions at decentralized (LGA and state) levels to improve data processing.

Photo credit: 16 October 2012 Kristopher Kang

The paper-based registration system is inefficient and difficult to manage. Electronic application and registry management may be a better option.

Which bottleneck is the most important?

Each of the bottlenecks identified in this analysis is paired with sample interventions aimed to address the underlying issues. Previous similar analyses have attempted to generate tools that prioritize which bottlenecks should be addressed first. These tools are commonly based on factors including available projected benefits and necessary resources. Priority is usually assigned to alleviating bottlenecks to achieve maximal output with minimal effort.

This analysis will not attempt to develop a similar prioritization tool. Each bottleneck identified here covers a critical area of the birth registration system. All of these areas should receive attention. Improving birth registration in Nigeria requires a broad, systems-strengthening approach.

In terms of benefits, bottlenecks (and interventions) are not easily comparable. While some bottlenecks focus directly on increasing registration coverage, others highlight key issues with reaching marginalized groups or improving service quality. Measuring registration coverage is simple; determining other measures of "success" is more difficult. Assigning value to these benefits is ultimately arbitrary – is it better to have higher coverage with a compromised registry or lower coverage and strong registry functions? Both are essential for improving the system as a whole.

Similarly, the effort, resources, or time necessary to alleviate a particular bottleneck should have no impact on the decision to intervene. This analysis only includes issues that are essential to effective birth registration programming. Again, all of these bottlenecks should be addressed and overcome.

Rather than choosing to focus on specific bottlenecks based on benefit or cost, the strategy for intervention should be based on alignment with the overall national development trajectory. In other words, where opportunities arise for funding, human resources, collaboration, or policy change, there should be a strong push by the NPopC to advance an appropriate component of the birth registration agenda.

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This research makes every attempt to ensure that all information is as current and accurate as possible. All data are publically available.

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Appendix 1:
NPopC responsibilities at local, LGA, state, and federal levels

Local: At the time of this analysis, there were 2772 NPopC registrars who are responsible for NPopC activities at the local level. Their primary responsibilities include:

1. Obtaining registration information for children and filling out and issuing birth certificates with fixed post and mobile birth registration activities for a given catchment area
2. Meeting with Deputy Chief Registrars (DCRs) at the LGA level to deliver completed registration applications and collect new registration materials every 2 weeks
3. Reporting registration statistics via mobile phone to the RapidSMS database every 2 weeks

Registrars are typically located at birth registration centers, which range from standalone offices to desks at other facilities (i.e. health centers).

In order to accomplish registration duties, each registrar requires blank registration applications, blank birth certificates, an official NPopC stamp, and a register to document cases. Each registrar may or may not have office space, office materials, or transportation provided by the NPopC.

In addition, NPopC also provides funding for a small number of ad-hoc registrars in certain LGAs. Ad-hoc registrars are used to provide short-term relief for immediate human resource shortages. Whereas NPopC registrars are typically paid from a recurrent personnel budget, ad-hoc registrars are hired in non-renewable positions using funding mobilized from federal capital sources.

LGA: DCRs are responsible for NPopC activities at the LGA level. There is 1 DCR per LGA, or 774 DCRs in total. Their primary responsibilities include:

1. Meeting with registrars at the local level to obtain completed registration applications and provide additional registration materials every 2 weeks
2. Reviewing all completed registration applications and checking these for errors
3. Meeting with the state NPopC Head of Department (HOD) and Chief Registrar at state level to deliver completed, checked registration applications and collect new registration materials every 3 months
4. Reviewing RapidSMS records to ensure that registrars are reporting in a timely fashion and to evaluate individual registrar performance

In some cases, DCRs are required to perform registration duties. Typically, DCRs are former registrars who are assigned an additional supervising role. Each DCR may or may not have office space, office materials, and transportation provided by the NPopC.

State: HODs are responsible for NPopC activities at the state level. There is one HOD per state. They work in close association with the NPopC State Directors, who are the highest-ranking NPopC employees at the state level. Their primary responsibilities include:

1. Meeting with DCRs to collect completed registration applications and provide additional registration materials every month
2. Reviewing all completed registration applications and checking these for errors
3. Submitting completed registration applications and a certified copy of every entry in the birth register to the federal Registrar-General via regional data processing centers (DPCs) every 3 months
4. Reviewing RapidSMS records to ensure that DCRs are enforcing RapidSMS reporting guidelines (i.e. that registrars are submitting reports in a timely fashion) and to evaluate individual LGA performance

Regional: Originally, 6 DPCs were established to provide regional data processing and analysis services for NPopC registration activities. Each DPC has multiple NPopC employees. The primary responsibilities of the DPCs are:

1. Reviewing all birth registration applications and checking these for errors
2. Collating data at the regional data
3. Submitting collated data to the federal NPopC

Federal: The federal NPopC is located in Abuja. Federal NPopC responsibilities include:

1. Overseeing the function of the national system for birth registration, including policy and finances
2. Ensuring standard forms, procedures, and methods for all birth registration activities
3. Ensuring effective supply of birth registration materials to registrars (see Supply)
4. Collecting, analyzing, and reporting summary birth registration data annually in a written report
5. Maintaining the national birth registry (paper-based)

Appendix 2:
National Council on Health: Council Communique

55th National Council on Health (NCH) Meeting, Sheraton Hotel & Towers,

Abuja, Federal Capital Territory, 16-20 July 2012

COUNCIL COMMUNIQUE

29. The proceedings and the report of the implementation status of the 54th NCH were adopted as amended by Council. Following extensive deliberations by the Council, 12 memos were approved, 57 memos noted. A detailed compilation of the memos deliberated on by Council are reflected in the proceedings of the 55th National Council on Health Meeting.

…

Key Council resolutions noted:

…

xiv. Council noted the importance of registration of births and deaths as a veritable tool for effective planning and monitoring development goals. Council approved the institutionalization of registration of births & deaths in all health facilities at the State & LGA levels with the assistance of the health personnel; inclusion of messages on births & deaths registration in public health advocacy and enlightenment programmes at the State, LGA & Community levels; that birth registration should form a component of all health intervention programmes; the inclusion of birth registration information in immunization cards, registers and other vital health information records; that Health Community and Social Mobilization teams should advocate effectively at ward, LGAs, Community and State levels to ensure that the births of all children are registered; that the capacity of health worker/s attached to each team involved in, house-to-house immunization (IPDs) be built to register births of children immunized; and implement integration through local authorities, Midwives Service Scheme (MSS), CSOs, the private sector, networks and other actors to enhance capacity and increase outreach on births & deaths registration

Appendix 3:
Expanding birth registration in Nigeria through partnership with the health sector: National Plan of Action – 2012-2015

Introduction

In April 2012 a bottleneck analysis was performed to investigate factors limiting BR coverage in Nigeria. The results of this analysis suggested several key bottleneck areas that might be improved through collaboration with partners across the health sector (Box 1).

Since that time, decentralized partnerships between population and health have been broadly defined and supported by the National Council on Health, who approved that birth registration activities should be conducted in partnership with all health intervention programs.

Using the findings of the bottleneck analysis as a framework, the purpose of this document is to highlight strategic priorities and provide an operational roadmap for all aspects of the collaboration.

Box 1: Birth registration bottlenecks and partnership with the health sector

Global best practices in BR show that integration of BR in health services improves access and provides mutual benefits, including planning for health activities and documentation of age of provision of age-appropriate care.

The bottleneck analysis suggested that the BR system in Nigeria should:

1. Develop a Federal policy framework for partnership with health actors to facilitate collaboration at decentralized levels.
2. Expand the number of health workers and clinics providing integrated BR services to increase BR workforce and coverage.
3. Use existing health networks to improve access for BR services among marginalized and excluded groups.
4. Use lessons from health and other partners to promote efficient supply allocation and distribution to decrease supply stock outs.

Objectives

Integrate BR into routine and periodic health activities, which will:

1. Facilitate progress towards shared objectives in population and health, including effective planning at Federal, State, and LGA levels; accurate and appropriate timing of health events; and access to other basic services essential for child development.

2. Capitalize on existing capacity in the health system, including workforce supply, distribution networks, and access to children, especially excluded and marginalized groups, to overcome critical bottlenecks in the BR system and increase BR coverage.

Priorities for integration

1. Development of policy and implementation frameworks

A successful and durable partnership between FMoH, NPHCDA and NPopC depends on formalized policies that outline the goals of the collaboration and, in general, the roles that each partner will take. A Memorandum of Understanding (MOU) developed in consultation with state representatives from NPopC and NPHCDA should be developed and submitted for ratification at Federal level. The MOU should be adapted and undergo a similar process of submission and ratification in each state.

The MOU will not address specific issues of implementation, however, supporting documents should be prepared for this. The content of these documents should also be guided by consultation with NPopC and NPHCDA partners at federal and state levels. In general, implementation should be state-based to allow for collaboration that reflects local circumstances, including existing BR systems and services.

2. Inclusion of NPopC leadership in planning for health and other activities relevant to birth registration

Administrative partnerships at Federal, State, and LGA levels are necessary to support communication and coordination in the expanded BR program. Effective collaboration requires that NPopC be aware of and have a stake in all relevant activities.

Although the NPopC in some areas already has strong administrative links to health, in others NPopC has not been involved. As such, NPopC should seek inclusion in all health fora relevant to birth registration activities, including committees for health services, logistic planning and support, public awareness and social mobilization, monitoring and evaluation, and local governance.

The specific nature of this involvement will depend on what structures exist at the federal, state, and local government levels.

3. Harmonization of personal records for birth registration and immunization

There is need for a system to rapidly and reliably identify at point-of-care which children require registration and certification. Given the planned integration with primary health care services including immunization, fields for birth registration and certification on immunization records should be added to allow health workers and registrars to rapidly assess registration and certification status. When children are unregistered or certificates remain outstanding they should be referred for appropriate BR activities.

Improvement of immunization forms requires mobilization of Federal government structures necessary for modifying, preparing, printing, and distributing official documents. Cooperation between NPopC and NPHCDA at all administrative levels and a coordinated lobby effort can help generate Federal support.

4. Inclusion of birth registration with routine health care for children

NPHCDA provides health care services in about 20,000 primary health centers in all 774 LGAs. A major goal of the NPopC-NPHCDA collaboration involves an expansion of registration activities to include all primary health centers that provide primary care and immunizations for infants and children. To encourage effective partnership and planning, state health committees covering primary health services should include NPopC representatives.

BR activities should also be expanded to include Midwifery Service Scheme (MSS), an initiative of the NPHCDA with midwives posted to approximately 1000 primary health centers in all states.

Expanding BR to routine health care facilities will require a basic framework including:

A. Rapid assessment. Expansion of BR activities will take place using a staged approach that varies according to state circumstances, with initial implementation in select LGAs. State NPopC and NPHCDA should identify LGAs for initial scale up. LGAs appropriate for expanded BR activities should have strong NPopC services and motivated staff, as NPopC at the LGA level will be integral to developing and managing the expanded system.

B. Capacity building. Health workers require training to perform BR duties. Existing NPopC HODs, DCRs, and registrars should provide training for health workers to carry out BR activities at local and LGA levels. Training should include all necessary information for completing BR forms accurately. Training should also reference a plan for ongoing support.

C. Support, monitoring, and management. Ongoing support will be necessary for health workers involved in BR activities, including regular processing of BR forms and restocking of BR materials. BR activities should be managed at the LGA level by DCRs, who are ultimately responsible for ensuring timely and accurate reporting to RapidSMS and state HODs.

D. Planning for BR paper flow. Decentralization will cause the system for distributing, collecting, and processing BR forms to become increasingly complex. There are multiple possible mechanisms for paper flow from health centers to DCRs that may involve NPopC, NPHCDA, or other structures. Mechanisms will be discussed and adopted at state and LGA levels. A monitoring system (see clause 6, below on 'Improved mechanisms for monitoring, management, and accountability') should be in place to assess for effectiveness of the paper flow systems and prompt modification when these are not effective. HODs and DCRs are responsible for describing and coordinating paper flow at state and LGA levels, respectively.

E. Adequate supply of BR materials. There are reports of frequent material stock-outs for basic BR supplies. Effective BR expansion will depend critically on effective supply management. NPopC should provide BR materials to states via HODs and State Directors. States will be responsible for distributing materials to LGAs via DCRs, who in turn will be responsible for distributing to health centers. Where appropriate, feasible, and effective, paper flow may utilize health or other logistics systems to complete the supply chain. At each administrative level there will be records for the number of forms dispensed/returned/outstanding. The number of forms provided should be based on a quantitative projection of expected registration events as well as the supply of unused forms remaining in each particular state.

F. Improved central processing. There is a significant backlog of BR applications at the level of the regional NPopC data processing centers (DPCs). In addition to efforts aimed to alleviate that backlog, as BR services expand, additional capacity may be necessary to process applications and collate data at central level.

5. Expansion of birth registration services to special health programs

There are several forms of special health programs that provide intermittent access to large groups of children, especially marginalized or excluded populations. These programs include Maternal, Newborn, and Child Weeks (MNCHWs), Supplemental Immunization Activities (SIAs) including Immunization Plus Days (IPDs), and Community Management of Acute Malnutrition (CMAM) centers, as well as other similar programs.

Where BR activities have been integrated with these programs previously, the RapidSMS dashboard shows dramatic increases in the number of BR events. BR should be expanded to include as many special programs as possible.

A. MNCHWs. In some centers, there are existing links between BR activities and MNCHWs, however, BR is not recognized as a formal component of MNCHW programming. Even where MNCHWs include BR activities, anecdotal evidence suggests that the cases for BR at MNCHWs are too numerous for a single registrar and that additional support may be necessary to maximize BR activities.

NPopC officials at the State, LGA, and local levels should coordinate with health sector colleagues to develop strategies for integrating BR in all MNCHW activities, including planning, communication and advocacy, and outreach to hard-to-reach communities. Birth registrars and community health teams should work together to promote birth registration as part of the package of services delivered at the MNCHWs.

For health facilities where registrars are available to participate in MNCHW activities, these registrars should provide BR services. Based on demand for BR, health workers trained in BR may be necessary.

For health facilities where no registrars are available, health workers trained in registration activities and/or short-term ad hoc registrars may be appropriate.

B. SIAs. At this time, there are limited links between SIAs and BR. NPopC officials at the state, LGA, and local levels will coordinate with health sector colleagues for house-to-house, fixed post, and special teams SIA groups to involve BR activities.

Workflow for immunization activities is different than for BR. For example, mobile immunization teams move quickly between houses, but will not have time or capacity to administer BR services as well. Alternative means will be necessary in order to coordinate their activities (Box 2).

Box 2: Options for incorporating BR activities in mobile health activities

Mobile health activities are an important part of the continuum of health services in Nigeria. In particular, these activities are often effective for reaching groups that may be excluded from traditional fixed-point activities. In addition, because mobile health teams often follow a house-to-house workflow, these teams have already identified houses with children.

In terms of collaboration with BR, mobile health activities are often “too mobile” to allow for concomitant BR. For example, house-to-house immunization programming requires rapid transition from one location to the next, while the BR process requires more time to collect and record information.

Possible options for incorporating BR activities in these missions include:

House-to-house registration. Registrars follow mobile health teams through a house-to-house workflow to conduct BR. Mobile health teams have access to information that allows a planned course including only houses with children who require health services. Registrars follow the same course. Although registrars will lag behind, their work will be streamlined because all houses on the course include families with children who may require BR.

Temporary fixed-point registration centers. Registrars accompany mobile health teams. On arrival, registrars establish a temporary fixed-point registration center. Mobile health teams notify community members that registration services are available at the fixed-point and encourage unregistered children to attend.

C. CMAM centers. In the Northern geographic zones, NPHCDA has established fixed-point CMAM centers for treatment of severe acute malnutrition (SAM) in children. There are approximately 400 CMAM centers operating in 11 Sahelian States of Katsina, Zamfara, Jigawa, Gombe and Borno, Sokoto, kebbi, Adamawa, Kano, Bauchi and Yobe . CMAM centers provide access to children that otherwise have poor access to health, education, and other basic services, and also face significant food insecurity. Although age is a critical criterion for determining appropriate SAM therapy, verification of the precise age of the child remains a challenge due to widespread non-registration in these areas. NPopC and NPHCDA should ensure that whenever possible CMAM centers also receive BR activities.

6. Development of a focused communication and advocacy program

Clear, consistent communication is important for generating support for BR among LGAs and state level stakeholders, as well as the public. Many formal and informal administrative structures are not aware of the importance or relevance of birth registration. Even with federal and state-level MOUs that outline the partnership between NPopC and NPHCDA many stakeholders will require sensitization. Expanding BR coverage through health actors requires inclusive consultation with a wide range of partners for political buy-in and planning for logistical support. Key messages should be developed in consultation with the NPopC and NPHCDA. Additional partners including the Ministry of Information and the National Orientation Association should be contacted to assist with developing and implementing a strategy for dissemination.

Religious and traditional leaders are an important component of the messaging effort. They have social and political influence, are a source of credible information for their followers, provide motivation to act for the wider social good, can sanction certain behaviors or actions, can become allies in dispelling rumors, and are often willing to act on their own with minimum support. A systematic engagement of religious and traditional leaders across Nigeria may contribute to improving awareness, acceptance, and demand for BR services.

7. Improved mechanisms for monitoring, management, and accountability

A. Monitoring management indicators using the RapidSMS dashboard. The current RapidSMS system provides a method for real-time monitoring of BR activities in all states. With the expansion of BR activities to health centers and other settings, adjustments are necessary for the monitoring mechanism to function effectively.

RapidSMS coverage areas. NPopC registrars are currently assigned to a coverage area in their respective LGAs. These registrars should report through RapidSMS all BR activities in their coverage areas. Health workers performing registration duties should not be responsible for interacting with the RapidSMS system. A DCR in each LGA should ensure that registrars are reporting appropriately.

State monitors. At the state level, HODs are responsible for the operation of all BR activities, including those performed by DCRs and registrars. In order to accomplish this, HODs are also responsible for regularly accessing the RapidSMS system for monitoring. NPopC statisticians should be assigned to provide support in monitoring functions. Routine monitoring should include an evaluation of LGA BR rate and timely RapidSMS reporting. In addition, HODs and statisticians should conduct “spot check” monitoring to determine whether RapidSMS reporting accurately corresponds to BR forms received, as well as to assess for erroneous BR forms (Box 3).

In addition, HODs are also responsible for processing and submitting completed BR forms to zonal or federal structures for processing, as per NPopC regulations. As part of this duty HODs should verify the correctness and consistency of the entries received from the LGAs. Forms submitted by HODs should be reviewed for errors at the level of zonal Data Processing Centers (DPCs). HOD performance should be evaluated with “spot check” monitoring for quality at the level of the DPC.

Federal NPopC should provide support to state officers regarding RapidSMS, with one federal officer assigned per geographic zone.

B. Supply monitoring. The RapidSMS system does not include information for supply monitoring. Supply management was previously identified as a significant and complex issue for NPopC. With the expansion of BR services to primary health centers and other health services, supply management including allocation and distribution will be increasingly complex.

Currently, the NPopC maintains a system for supply monitoring and allocation at the federal-state level that depends primarily on state demands for additional forms and state returns of previously issued forms. There are reports of frequent supply stockouts with the current system and progressive monitoring of this indicator should be used to objectively assess the effectiveness of the current system and advocate for improvements (Box 3).

Health sector partners will be important for guidance in supply management for BR. At this time, the NPHCDA delivers materials to a network of more than 25,000 health centers. Partnership provides an opportunity for learning about how health systems determine resource allocation and replenishment.

Box 3. Monitoring for improved management

The bottleneck analysis suggested several issues relating to BR system management and accountability. Evaluation of specific indicators based on RapidSMS and other data will assist management at all administrative levels to:

1. Ensure that registrars and DCRs are meeting BR targets. Registrars should meet baseline BR coverage targets. The RapidSMS dashboard will be modified to clearly demonstrate coverage for children less than age 1 year. Coverage data can be color-coded based on BR targets, i.e. red = below target, green = above target.

2. Ensure that registrars are reporting appropriately:
   A. On time. Registrars should report BR data on time in order to facilitate effective monitoring by NPopC officials and international partners. The RapidSMS dashboard will be modified to flag registrars who have not reported within 48 hours of the reporting deadline. Data on non-reporting and late reporting will be collected longitudinally.

   B. No errors. In order to overcome backlogs at DPC (zonal) levels due to delayed processing for erroneous forms, an error-checking protocol and monitoring mechanism should be implemented. Forms should be error-checked by DCRs prior to submission to HODs. Erroneous forms should be returned to DCRs for correction. In order to monitor, HODs will conduct periodic monitoring to assess for erroneous forms at the state level.

   C. Accurate records. As BR targets are set and monitored using RapidSMS, there will be incentives to report more registration events. There is a possibility that RapidSMS reports will be falsely elevated. HODs will conduct periodic monitoring at the state level to ensure that RapidSMS reports correlate with submitted BR forms.
3. Ensure on-going progress towards optimal supply management. Supply stock outs of birth registration forms and certificates occur at all administrative levels. Preliminary supply chain analysis revealed multiple areas to improve supply management, including partnership with existing health supply systems and mechanisms for early reporting of imminent supply shortages. Because each state has different baseline mechanisms in place, solutions will be determined at the state level. Monitoring will measure the presence of continued supply stock outs to assess the effectiveness of state-level improvements.

C. Federal monitoring systems. There are plans in place at the federal level to implement in January 2012 the second iteration of the District Health Information System (DHIS), a comprehensive system for evaluating health events and interventions at the community level. Until now, NPopC has not been involved in this initiative. Federal NPopC should seek to have a stake in the development and implementation of this monitoring system. Ideally, this monitoring tool would also include indicators relevant to BR and would complement monitoring via internal NPopC mechanisms and RapidSMS.

8. Ensuring equitable provision of registration services

Household survey data suggest that BR is associated with sociodemographic factors including sex, wealth status, and education level. In some areas, there are reports of variations in BR rates associated with tribal status and cultural practices. There are on-going efforts by UNICEF and other partners to understand and reverse these inequities.

As the network of BR activities expands to include all primary health care facilities, BR services will be available to a wider group of people. Nevertheless, there is no specific provision for accessing hard-to-reach or marginalized groups.

There is a need to begin identifying and responding to groups that do not receive equitable BR services. In the context of scaling BR services through the health system, some of these groups will be addressed through collaboration with periodic special health programs such as IPDs, which are designed to reach groups that otherwise have poor access to health and other basic services (Box 4).

In many cases, groups that are considered excluded or marginalized from a BR perspective have similar limitations in regards to other services. For example, focused polio immunization efforts in some LGAs fund and mobilize teams to reach highly vulnerable groups that may also be excluded from BR services. In this instance, additional collaboration with polio immunization teams may facilitate access for BR.

9. Integrating birth registration services with other actors including private medical practitioners

The health sector includes many groups that are not administered by the public system for primary health care. Some of these groups have strong connections at the community level and access to children who otherwise may not contact formal structures for health or registration. For example, there is a growing cadre of Community Health Extension Workers (CHEWs) and Junior Community Health Extension Workers (JCHEWs) who liaise directly with traditional birth attendants (TBAs) and have knowledge of new births/mothers. In addition, in some areas, Community Based Newborn Care (CBNC) programs have access to newborns and perform follow up newborn home visits. There is a need to investigate further what and where these community structures may be available for collaboration with BR services.

Private health facilities are another aspect of the health sector that may provide BR services. Private facilities are more likely to provide care for children in wealthy groups that have better access to BR and other services overall. BR coverage among wealthy groups is usually high. As a partner for collaboration, private health facilities are unlikely to provide substantial increases in BR coverage, especially for marginalized groups. The option should still be explored, since most children registered in private clinics and hospitals deserves to have birth certificates from National Population Commission.

10. Increasing financial support for BR activities

As BR activities expand, financial resources must also increase. Additional resources will be needed to produce and ship forms and certificates, provide support to the workforce, and improve monitoring systems.

In some cases, strategic partnerships with health can provide net cost savings. For example, coordinated transportation of workers and supplies for joint BR-health activities may prevent duplicating efforts and cost. Functional partnerships at this level will require strong partnerships between NPopC and health actors, as well as accurate costing analysis to determine whether cooperative solutions provide financial or other benefits.

Certain factors can improve the likelihood increased internal (federal) and external funding being allocated for BR activities. Clear strategy and workplans that involve serial consultation with both population and health sectors should be developed at all administrative levels. Workplans should have measurable milestones or indicators. RapidSMS and other monitoring mechanisms should be used to document BR rates. Demonstrated commitment to partnership, an organized approach to scaling, and the ability to set and achieve measurable outcomes are favorable in advocating for additional resources.

Box 4: Using special health programs to reach marginalized & excluded groups

There are communities in Nigeria that are not effectively served by routine services including health and BR. In many cases, special health programs receive increased resources and are specifically designed to include groups that have access to routine services as well as those who do not.

NPopC and NPHCDA both aim to provide equitable services. Special health programs may be one of the only ways to reach certain marginalized and excluded groups. Where BR resources are limited and may not be sufficient to support all special health programs simultaneously (i.e. MNCHWs), NPopC, NPHCDA, and other partners should consider specifically focusing BR efforts to target communities that may not receive BR services otherwise.

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