

Towards a Grand Convergence for child survival and health:

A strategic review of options for the future building on lessons learnt from IMNCI

COUNTRY ASSESSMENT: NIGERIA

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List of abbreviations

ACTs	Artemisinin Combination Treatments
ANC	Antenatal care
ARI	Acute respiratory infections
CBNC	Community-Based Newborn Care
BMGF	Bill and Melinda Gates Foundation
CHEW	Community Health Extension Worker
CHO	Community Health Officer
C-IMNCI	Community-level component of IMNCI strategy
CORPs	Community-Oriented Resource Persons
DFID	Department for International Development (U.K.)
DHS / MICS	Demographic and Health Surveys / Multiple Indicator Cluster Survey
ENAP	Every Newborn Action Plan
FMOH	Federal Ministry of Health
GAVI	Global Vaccine Alliance
GIS	Geographic Information Systems
HMIS	Health Management Information System
ICATT	IMNCI Computerized Adaptation and Training Tool
iCCM	Integrated Community Case Management of Childhood Illnesses
IMNCI	Integrated Management of Newborn and Childhood Illnesses
ISS	Integrated Supportive Supervision
IYCF	Infant and young child feeding
KFP	Key Family Practices
LGA	Local Government Area
LiST	Lives Saved Tool
MDGs	Millennium Development Goals
NCHTWG	National Child Health Technical Working Group
NGO	Non-Governmental Organization
NPHCDA	National Primary Health Care Development Agency
ORS	Oral Rehydration Salts
PATHS	Partnership for Transforming Health System
PEESP	Polio Eradication and Endgame Strategic Plan
PHC	Primary Health Care
PPMV	Proprietary Patent Medicine Vendors
RDT	Rapid Diagnostic Test
RMNCAH	Reproductive Maternal Newborn Child and Adolescent Health
SBCC	Social Behavior Change Communication
SDGs	Sustainable Development Goals
SFH	Society for Family Health
SMOH	State Ministry of Health
SPA / SARA	Service Provision Assessment / Service Availability and Readiness Assessment (WHO)
SPHCDA	State Primary Health Care Development Agency
UHC	Universal Health Coverage
UNCoLSC	United Nation Commission on Life Saving Commodities
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

I. Introduction

Nigeria reduced its under-five mortality rate (U5MR) from its 1990 level of 213 per 1,000 live births to 109 per 1,000 live births in 2015, missing the country's Millennium Development Goal (MDG) on child survival of 71 [1]. This corresponds to an average annual reduction of 2.7%, adding up to an overall reduction in child mortality of 31% since 1998, leaving Nigeria with one of the highest U5MR in the world. Progress in reducing child mortality has not been uniform across different areas of residence and demographic groups, with U5MR 43% higher in rural areas than in urban ones, and more than twice as high in the North West region than in the more prosperous South West and South South regions, as measured by the 2013 DHS [2]. Furthermore U5MR is 260% higher among children in the lowest wealth quintile compared to the highest wealth quintile, a discrepancy echoed by striking inequities in coverage of basic child health interventions by socio-economic status, with less than 15% of the bottom wealth quintile receiving vaccinations for measles and DPT3 compared with over 80% for the top wealth quintile, and lesser but still important differentials for curative interventions including use of oral rehydration therapy (ORT) and care-seeking for pneumonia. Additionally, the neonatal mortality rate (34.3 per 1,000 live births in 2015) has decreased more slowly than the U5MR and now contributes to 32% of under-five deaths [1, 2].

Table 1. Summary statistics on child health in Nigeria (WHO/Countdown, 2015)

Indicator	Value
Total population	182 million
Total under-five population	31.1 million
Annual births	7.1 million
Neonatal mortality rate (per 1000 live births)	34.3
Annual neonatal deaths	240,106
Average annual rate of U5MR reduction, 1990-2015 (%)	2.7
Under-5 mortality rate (per 1000 live births)	108.8
Annual child deaths	750,111

In Nigeria, interventions such as immunization and early treatment of common childhood illnesses have been shown to be the most cost-effective ways of preventing many under-5 deaths and improving child health [2]. Currently, the main strategy being used in Nigeria to address child survival and health is the Integrated Maternal Newborn and Child Health Strategy (IMNCH) [3], concurrent with plans to revitalize primary health care in Nigeria [4, 5], and alongside a number of programs and strategies with more or less limited implementation including the Expanded Programme on Immunisation, the Polio Eradication Initiative and National Emergency Action Plan, integrated Community Case Management of Childhood Illnesses, and others discussed further below. Overall, financing for health in Nigeria is funded mainly out of pocket (69% in 2016), with very low coverage of social insurance; spending on health by the government remains persistently well below the target threshold of 15% of the budget set by the 2001 Abuja declaration [1].

In this report, we seek to understand the role of the Integrated Management of Newborn and Childhood Illness (IMNCI) strategy in improvements to child health, facilitating factors and barriers in the implementation of IMNCI and other child health strategies, and additional ways of improving quality, access, coverage and utilization of child health services in Nigeria. This country assessment takes place

under the aegis of the Strategic Review, which aims to take stock of IMNCI implementation and the latest evidence on expanding coverage of high-quality case management for sick children, to identify options for increasing access to and utilization of child health services at country and global levels. Two main methods were used for this country assessment:

1. A desk review, drawing on published and unpublished reports, evaluations and articles in the programmatic and scholarly literature, as well as statistical data, completed in early May 2016;
2. In-country data collection in the form of key informant interviews at national, district and facility levels in Abuja, FCT, and Kaduna state, as well as telephone interviews with informants in Borno, Osun and Niger states (N≈25), completed over 10 days in early to mid-May 2016.

Data analysis took place iteratively between national and international consultants using the following methods: systematic extraction of key themes from interviews using an Excel spreadsheet, triangulation between written sources and interviews and amongst key informants, and debriefing of preliminary results with Ministry personnel and in-country stakeholders on the last day of data collection.

II. IMCI organization and management

In Nigeria, respondents were familiar with the standard definition of IMCI's three components, and most respondents included integrated Community Case Managements (iCCM) as part of IMCI, as well as to a lesser extent community-based newborn care (CBNC). The strategy was referred to as **IMCI, not IMNCI**, and despite agreement that it covered all newborn and children from 0 to 59 months, some respondents said the newborn components were "less visible," as were some of the preventive components (for example those under C-IMCI).

Since its inception, IMCI is **managed at national level by an IMCI focal point** in the Child Health Division of Federal Ministry of Health (FMOH), with all state ministries of health also having an IMCI focal person. While responsibility for IMCI clearly lies with these focal points, there is **confusion about responsibility for implementation**, which is overseen by the parastatal National Primary Health Care Development Agency (NPHCDA) at the federal level, which operates nominally under FMOH but has its own governing board and the State Primary Health Care Development Agency (SPHCDA) at the state level. In reality, NPHCDA functions with some degree of autonomy: with six zonal offices and offices in every single state, "we don't need day-to-day approval from FMOH" (N0505f). **Between FMOH and NPHCDA**, coordination around IMCI has been difficult to achieve: for example recent IMCI trainings conducted by each agency have used different versions of training materials due to problems with or resistance to sharing documents. Said one respondent, "NPHCDA and FMOH, it's as if they're not on good terms with each other" (N0505a). The situation is similar at the state level, where the PHC department at State Ministries of Health (SMOH) tend to run parallel primary health care activities, with directors at each not necessarily aware of the other's work.

Even beyond these two agencies, **responsibilities for implementation are highly fragmented**: for example, different agencies at federal, state and local government level are responsible for community health extension workers (CHEW)'s deployment, training, salaries and supervision. Indeed, a scientific publication on this topic titled "Where there is no policy" described how the transfer of health workers

was in practice decided in a totally ad hoc manner by PHC managers, frequently for personal, parochial, or political reasons [6]. This fragmentation is meant to be mediated or resolved by the “PHC Under One Roof” plan [4], although a recent “scorecard” exercise demonstrated that most improvements are as yet to become effective [7].

There is also **ongoing verticalization within child health programming at various levels**, with standalone immunization, nutrition and malaria programs often maintaining programmatic strength compared to IMCI. Said one respondent, “Take an example like the nutrition component: the nutrition division wants to tease it out from IMCI, make it infant and young child feeding, and different components of IMCI were teased out for different programming both at federal and state level, depending on who is bringing the money and where there is interest and mandate” (N0505d). **Donors have sometimes contributed to the persistence of vertical thinking and programming**, for example with a recent Clinton Health Access Initiative program on “community activation” for treatment of diarrhea with low-osmolarity ORS and zinc, which does not include activities pertaining to other common childhood conditions.

The organization of these activities has been hampered by the **lack of a national coordinating mechanism for child health** or child survival to bring together stakeholders and various areas of government with international partners. But since late 2015, there has been progress toward rectifying this problem with the creation of a National Child Health Technical working group (NCHTWG), which held its first meeting in March 2016. However it is not clear whether the NCHTWG has received the kind of high-level representation respondents said would be necessary for it to successfully coordinate the panoply of partners and interests around child health in Nigeria. One other challenge for organization of these activities is that partners plan and coordinate activities in country via the National Planning Commission, rather than the relevant ministries, where the relevant technical staff to assess proposed activities are located.

III. Implementation of IMCI and other child health strategies

After IMCI was **first introduced in 1997 in Nigeria**, implementation slowed from an initial wave to more **scattershot efforts** continuing up to the present.

The focus was initially on improving health worker skills through the standard 11-day training, with the length of training shortened to 6 days in 2003, but the pace of training slowed in recent years and never reached “critical mass.” The second component of IMCI (health systems strengthening) was never implemented in an organized way, though some attention has been paid to essential medicines and a **tool for assessment of quality of care** at secondary health facilities was developed in the mid-2000s. The third component, community IMCI (C-IMCI) was rolled out in the early 2000s in a handful of

Figure 1. The first class of IMCI trainees in Nigeria (1998)



local government areas (LGAs) with funds from the United Nations Fund but **“those things were not sustained** because there was no continuity and government, even at state level, didn’t commit resources” (N0504b).

Many respondents enthusiastically stated that IMCI had had a **positive impact** in Nigeria and contributed to reductions in child mortality (see appreciations of IMCI in Figure 2). However, there is no centralized database of trainings having taken place,

and thus it is **not possible to say definitively how far IMCI has been implemented**. Said one respondent, “In terms of data collection, that was the poorest arm of IMCI implementation ... Whether we did more than we assume, or less, we can’t say, there’s no evidence to show” (N0505d). Yet it seems clear that few if any states or LGAs have achieved a threshold of 60% of targeted health facility staff being trained in IMCI. Another respondent related a Ministry of Health staffer’s estimation that **“since 1997 till now,**

IMCI has reached just 10% of the population ... It’s not recorded anywhere, but I asked the person what they thought the coverage was” (N0505e). In the absence of rigorous evaluation reports either in the programmatic or scholarly literature was noted, and with a national IMCI implementation review carried out in 2005 not able to be located, this meant that the **implementation and impact of IMCI were difficult to characterize or assess**.

Nonetheless training materials and guidelines for IMCI have been **regularly updated and adapted** through review of local and global evidence and consensus-building among representatives of FMOH, professional associations, child health related programs and stakeholders. Most recently, Nigeria’s guidelines were updated following WHO’s 2014 update to the generic booklet, and now include cough/difficult breathing, HIV, tuberculosis and jaundice. Updates and adaptations were said to be quickly and easily performed given strong technical capacities among Nigerian policymakers and academicians who formed a ready pool of experts. Said one respondent, “The technicality of updates is not a problem ... We’re one of the countries that have the shortest adaptation period” (N0503a). However the **newborn component was added only in 2008-9**, following preparation of the national Integrated Maternal, Newborn and Child Health (IMNCH) strategy that remains the overarching policy document in this area (discussed further below).

When it comes to **pre-service training** in schools of health technology for community health extension workers (CHEWs), schools of nursing and midwifery schools, the curricula have been reviewed to include IMCI. However **IMCI is not presented not as the sole or primary methodology for assessing and treating the sick child**. For example, in schools of health technology, students receive 30 hours of training on childhood illnesses, followed at the end of training by two hours of theoretical instruction on IMCI and four hours of practical instruction. Similarly, while CHEWs’ textbooks and standing orders include IMCI, this is not the primary methodology used for assessing sick children. Additionally, respondents said the **impact of in-service training was limited** by the following: 1) selection of

Figure 2. Appreciations of IMCI in Nigeria

“IMCI ... was effective and affordable to ensure all techniques for the sick child were on board. It’s also more accurate to identify children’s conditions.” (N0506a)

“I’ve never attended any training like IMCI, it’s so thorough – in a stepwise fashion it takes you through the entire process, doing the needful for the child... It’s an excellent excellent *excellent* training package.” (N0503a)

“Even though I’m not there, I want IMCI to continue for the sake of children. Because IMCI is a strategy that really can help children.” (N0510a)

participants was not optimal, including unmotivated, older or otherwise unsuitable choices, 2) many or most trained health workers do not receive follow up training or regular supervision, 3) the critical number of trained staff of at least two per facility was not been achieved, 4) medicines and supplies essential for IMCI are not regularly provided. Additionally, while **robust tools exist for Integrated Supportive Supervision**, these have yet to be implemented in any systematic way.

What investments have been made in training for IMCI have not served to alleviate **concerns about quality of care**. Said one respondent, “We know a lot of trainings have been taken place on IMCI but when you actually go to facilities and look at quality of care, **you see obvious gaps**” (N0503f). The situation may be typified by an assessment of case management in the “most experienced health worker” at 11 PHC facilities and 10 secondary facilities in Jigawa state, of whom slightly less than half of which had received an IMCI training in the past 2-3 years. Of these health workers, only 18% assessed the child’s vaccination status and 30-38% completed malaria- and pneumonia-specific tasks such as asking about convulsions and counting the respiratory rate with a timing device; only 5% of treatments were appropriate for the assessment [8]. (More recent nationally representative data were to be made available following a 2013 WHO-led Health Facility Survey exercise, however funds were not released for the donor supporting one of the regions, stalling the process until the present.) While quality of care interventions have been tried and can work in Nigeria [9, 10], these have not been implemented at scale.

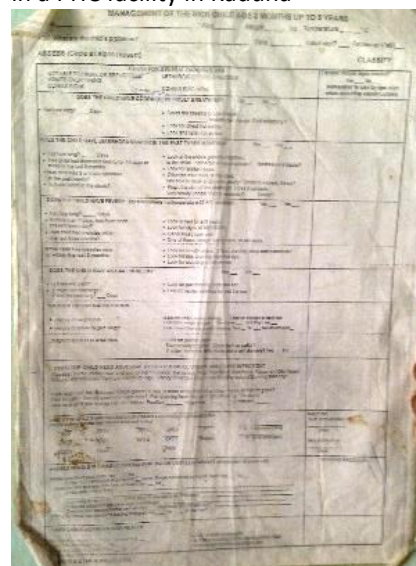
The underlying reason why implementation of IMCI has been limited and why scaling-up has not occurred was an overall **lack of commitment and funding for IMCI from Nigerian government**. After an initial burst of interest in IMCI, attention quickly shifted to other programming, with severe respondents evoking the “death” of IMCI for that reason:

“That whole umbrella of IMCI disintegrated, and IMCI subtly died ... Well, it’s not dead completely, but implementation has gone quiet.” (N0505d)

“Because there was never a real commitment as demonstrated by funding for IMCI, it died a natural death.” (N0504b)

Importantly, there has been **no budget line for IMCI at FMOH** (it is subsumed in the budget line for child health, much of which goes to immunization). **States also tend not to spend on IMCI**. As such, despite the existence of IMCI focal points at federal and state levels, IMCI was frequently characterized as a “**donor-driven program**,” with the **main partners** including WHO, Unicef, USAID, Save the Children, the Society for Family Health, the Bill & Melinda Gates Foundation (BMGF), Marie Stopes, PATHS, DFID, UNCoLSC-RMNCHA Trust Fund, and the Canadian Development agency, among others.

Figure 3. The only IMCI job aid we could find in a PHC facility in Kaduna



Despite the lack of implementation of IMCI, there was **no other specific child survival or health strategy implemented in its place**. The overarching national IMNCH strategy was not costed, and while there are annual workplans **no comprehensive implementation strategy** has been designed. Other child health delivery platforms include the Nigerian Every Newborn Action Plan [11], UNCoLSC, UNH4/Global Affairs Canada Project, the National Child Health Policy [12], and the National Strategic Health Development Plan [13], a list that also serves to underline the fragmented policy situation. Related programs of note include **iCCM**, which has received much discussion and limited implementation in Abia and Niger states (supported by the Canadian government), Kebi and Adamawa (Unicef) and Kaduna (BMGF). Similarly, **CBNC** is being supported by Canada and Unicef; while it is national policy, implementation of activities (namely pregnancy identification, home visits and referral by CORPs) has been limited.

In addition to lack of funding and ownership, implementation of IMCI has been severely limited by **disarray in the PHC system** in Nigeria. A number of respondents said that 80% or more of PHC facilities were not functional, with extremely limited services in the cases when they are open. Similarly an evaluation of PHC in southeast Nigeria found that basic services including IMCI and immunization were **“simply non-operational”** [14]. As a result, basic cases of malaria and pneumonia “go as far as teaching hospitals, where they’re not supposed to be” (N0503a). With the arrival of current Minister of Health Prof. Isaac Folorunso Adewole in November 2015, FMOH leadership has made PHC a healthcare priority, with a projection of 10,000 PHC facilities to be rendered operational over the next four years, manned by skilled health workers trained in IMCI [5]. Speaking with respect to implementation plans at NPHCDA, “IMCI is the backbone of what we’re doing for under-five care,” however it remains to be seen whether this agenda will be forcefully implemented (N0505f).

IV. Lessons learnt

In the 20 years since IMCI arrived in Nigeria, there was agreement among many respondents that the strategy had contributed to progress on reducing under-five deaths and that **IMCI was only integrated approach that “made sense.”** However, large-scale implementation was not possible because a large proportion of PHC facilities were not operating and as a result, utilization of services was extremely low. Problems of inadequate staffing, poorly motivated staff, lack of essential medicines and supplies were rife, and facilities were said to be frequently non-operational. In this context, the skills development portion of the IMIC (the only component implemented in any significant way) could not be expected to achieve much of an effect: as one respondent said, **“IMCI was killed because of weaknesses of health system”** (N0503f).

A number of **bottlenecks** to effectively adopting IMCI as the main national child survival and health strategy, and adequately scaling it up, have been identified at national, state, local government, and facility and community level (see Table 2 for a summary). First, **at national level**, most fundamentally there has been **a lack of political will and lack of leadership** to push for child survival, a program area which seems to have been effectively handed over to donors in many ways. These conditions have translated into a set of severely limiting factors for IMCI, including the **lack of budget line** (much of the overall child health budget line is directed towards immunization, which respondents said was the only child health intervention prioritized by decision makers in Nigeria), **poor coordination of activities**

Table 2. Barriers to effectively adopting IMCI strategy as the main child survival strategy and implementing at scale

Effectively adopting IMCI	Scaling up IMCI
<ul style="list-style-type: none"> • Lack of political will with regard to child health (beyond immunization) and until recently, PHC more broadly • Lack of government ownership and commitment, beyond naming focal points at federal and state levels • Lack of enforcement of government policies on child health • Frequent modifications made reference materials obsolete before they could be implemented • Overall child survival efforts are partner-driven and/or focused on immunization • Responsibilities for various parts of IMCI fragmented across different governmental agencies that do not communicate or collaborate 	<ul style="list-style-type: none"> • No effectively service delivery platform for implementation, as the PHC system lacks basic functioning (supplies, supervision, referral, health information systems are not working) • No budget line for IMCI and limited funding for child health more broadly • Fragmentation of efforts at every level, including amongst implementing agencies (e.g. ongoing struggles with “PHC Under One Roof”) • Lack of harmonized tools makes scaling up of complicated systems infeasible (e.g. multiple monitoring tools or systems cannot be practically implemented at the system level)

between agencies, and an **inability to influence partners** (in part linked to the lack of government contributions at federal and state levels). As one respondent said,

“Partners have to support [government] to call meetings. Government doesn’t have capacity to coordinate. You have to have the financial muscle, the budget behind you.” (N0503h)

As a result, there is a **severe problem with fragmentation and a failure to prioritize** at national level: “People are doing different interventions, there’s a need to synergize and maximize resources. And nobody really cares about diarrhea and pneumonia, whereas these are the key killers” (N0505d). For what policies do exist, **policy enforcement has not been optimal**, with integration still struggling to take hold and facilities and health workers implementing obsolete policies. Some respondents suggested that policy-makers and decision-makers were not equipped with the right skills to overcome these bottlenecks: “It’s all **issues of policies and politics**, but we all know that within health sector, it’s the same people, medical doctors, who are there – they don’t know how to engage with other sectors, how to negotiate with finance, how to commit to resource and make sure policies are well-funded” (N0503f).

At **state and local government level**, many of these bottlenecks recur – but the **lack of political ownership** is particularly problematic since these are the main levels responsible for implementation. Health is on the Nigerian budget’s “concurrent list,” meaning that funding for health is a state responsibility yet respondents said that historically, advocacy for IMCI at state and LGA levels has not been strong. As such, no demand was created for IMCI, and while states still have large budget lines for some vertical programmes, in many cases the **lack of funding** has been a major problem:

“At state level, most of these interventions are partner driven.” (N0505d)

“The biggest problem is at state level, coming back to funding health.” (N0505f)

The lack of state funding is also behind observed **problems with essential medicines and supplies** – while the central government procures drugs for family planning, HIV, TB and malaria, it does not do so

for MNCH drugs, leaving this responsibility to the states. Said one respondent, “What you find in PHC centers is what states are able to do ... And at state level some states are still buying CQ for malaria!” (N0504a). Implementation has also been hampered by **frequent changes in leadership** at state level, with some program managers not even trained in IMCI (N0505a). States also do not seem to identify a child survival trust or coordinating mechanism, and there is a problem of transfer of child survival activities between successive governments. As a result, **coordination is major stumbling block**, including between state-level MOH and PHCDA: in Kaduna, program managers have repeatedly asked for these two organizations to be physically located nearby or in the same building – “We are still waiting for the reply” (N0509c). A deeper issue is the problem of **non-functioning local governments**: “the local governments that are supposed to deliver PHC is not functioning optimally” (N0505e).

At **facility and community levels**, all of the **health systems issues come to the fore**: basic PHC services are essentially non-functional due to fundamental problems with respect to training, supervision, referral links, supply chain management, quality of care, staff motivation, staff retention, lack of adherence to guidelines, lack of policy enforcement, and so on. The **bottlenecks occurring here are symptomatic of problems at higher levels**, notably the need to rationalize and enforce policies and national level and implement them at state and local level. For example, while some key IMCI indicators have been included in the HMIS, there is a large number of different registers for different health programs and HMIS is still too much of paperwork for the system to handle. In the context of PHC, there is a **need to rethink and clarify the link between facility and community levels**, including the roles and responsibilities of relevant cadres of health workers (notably CHEWs and CORPs) and be strategic about the sustainable use of resources. In this light, the push to implement iCCM was described by some respondents as premature:

“Recently, we started training on iCCM, which I feel that it’s a bit early ... Let’s first have health center providers trained on IMCI, because they are the ones who will supervise activities of CORPs. So how can you go and train and community members without the technical staff knowing what’s he’s doing?” (N0509b)

Respondents also mentioned **cases of sick children being referred from health facilities to community level**, as providers knew the latter would be better equipped with drugs by partners supporting iCCM. However, while these problems occur at facility level, the solutions are located at higher levels of the health system.

If political priority and commitment have been a problem for IMCI in Nigeria, **what can be learned from interventions that have been prioritized?** When seeking to understand successes and failures in child health interventions in Nigeria, **a comparison between routine immunization and the polio eradication campaign is instructive**. In 2015, Nigeria was removed from the list of polio-endemic countries, and though the WHO Country Representative and others have cautioned against early celebrations, the intensive and focused efforts to interrupt transmission of the virus appear to have been successful [15]. These efforts have taken place mainly outside the context of routine immunization, which has also been a political priority in Nigeria (see Figure 4) and which has received specific attention and funding from government policy-makers (indeed respondents often complained that the majority of funding for child

health was funnelled towards immunization). As a result, training, supply, monitoring and related systems are functioning much better for vaccines than for the system as a whole:

“For routine immunization they have a dashboard – the health facility sends their data to local government level, which sends to the state, so when you look you have an idea of where there are deficiencies in vaccines, syringes or whatever ... Every Friday, facilities send the data by 11am, and by 1pm, the state sends data to national level.” (N0509c)

There were reported to be fewer stock-outs of vaccines at facilities than for other drugs or commodities. However, while the polio campaign has ostensibly reached every corner of Nigeria by operating outside the system, the results for routine immunization are still quite poor (with fewer than a third of children fully vaccinated (Figure 5). The lessons are familiar – **verticalized campaigns can be effective but do not contribute to building the health system** – and respondents often complained that large portions of funding for child health were funnelled towards immunization.

Questions arising in this review that were not able to be answered included fundamental ones about IMCI’s interactions with health systems. For example, **why have vertical programs persisted** and why has integration proved so difficult? In addition to IMCI, two other major integrated health policies (IMPACT for mental health and Integrated Management of Adolescent and Adult Illnesses, IMAI) and several respondents described health systems interventions (notably the supply of drugs) being **used to distribute political patronage**. These factors could explain resistance to upsetting potentially delicate political equilibria. Additionally, decision-makers in ministries and other agencies tend to be clinically trained and may have **less than optimal knowledge about delivery strategies**, which in many cases

Figure 4. Vaccination a priority: 1) A plaque outside the current location of the NPHCDA, 2) A poster showing President Buhari giving the polio vaccine to his granddaughter, 3) An immunization officer in front of routine monitoring data in a facility, 4) Sophisticated progress tracking for the polio campaign.



might tend to favour integration. However not enough evidence was gathered to fully address either hypothesis.

After examining these “lessons learnt” from Nigeria’s experience with IMCI, it is important to note that it appears that **mistakes are being repeated** and **lessons about sustainably improving the health system are not being learned**. For example, the Midwife Service Scheme (MSS) was launched in Nigeria in 2009 in attempt to overcome the human resources gap and ensure that PHC facilities were manned by trained staff.

As such, midwives were deployed to PHC centers and supplied with commodities, with a Memorandum of Understanding assigning roles to federal, state and local levels under the program. But as one respondent explained:

“The national level lived up to it, but states did not pay the allowance to midwives, and local governments did not provide accommodation as they were supposed to under the MOU. Since the state and local governments didn’t live up to it, the MSS failed. It failed woefully” (N0505d)

The same types of mistakes – inadequate or unrealistic planning, lack of policy enforcement, overall lack of commitment and failure to take responsibility for programs particularly at lower levels of government – are also responsible for the inability to scale up IMCI. Similar problems are arguably occurring all over again with ongoing programs including iCCM and even the broader push toward PHC.

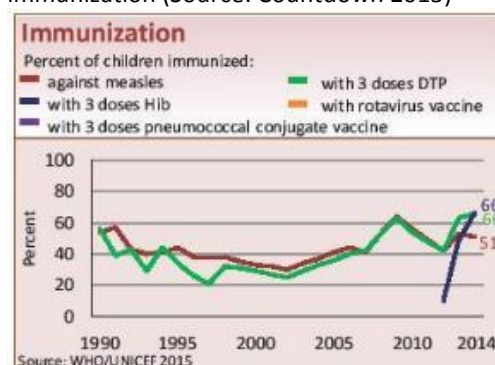
V. Perspectives for the future

As mentioned above, respondents expressed satisfaction with the content of the IMCI strategy and said the main work to be done was in implementation: **“If we want to bring down under-five mortality, we need to increase coverage of these interventions – all three components”** (N0505e).

Given the barriers identified to scaling up of IMCI and other child health programs outlined above, by far the most important perspectives for the future of child health in Nigeria involve the **provision of “manpower, materials, and money” to make overall PHC system functional** alongside an **explicit prioritization of child health**. While there is a need to generate demand and increase utilization of health facilities, the first steps need to focus on the supply side, make sure that facilities have adequate, well-trained, motivated staff; that essential medicines, tools and supplies are regularly available; that referral links work; that information systems communicate relevant data both up and down the chain; that programs are adequately planned and managed; that Ward Development Committees provide appropriate oversight; and so on. At present, none of these conditions can be said to obtain and despite the government’s stated focus on providing universal health coverage (UHC) in recent years, progress has been slow and momentum has waned [16].

Even if the PHC system improves, significant progress on child health will be impossible without **government ownership of child health programming accompanied by appropriate budgeting**. Specific,

Figure 5. Emphasis does not always equal results: immunization (Source: Countdown 2015)



clear budget lines for IMCI and/or other child health programming are needed at federal and most importantly state level, where IMCI is losing the competition for funds to other program areas. There also needs to be a **focus on organizational and management issues affecting scale-up and sustainability**, with clear roles of FMOH/SMOH and NPHCDA/SPHCDA, as well as the plethora of other agencies involved at federal, state, and local levels, including local government Service Commissions, who are often left out of the equation. **With leadership from the top**, government agencies will need to **enforce policy implementation**: as one respondent said

“Nigeria spends a hell of lot of time on policies, they all are available, all guidelines are available, everything has been approved, but at the end of day, policies without enforcement as good as no policy at all. It’s a document on a shelf with no framework for accountability. Why are they wasting time on policies?” (N0503e).

One clear finding of this review is that despite the existence of Ward Development Committees, efforts to improve reporting and monitoring and stated high-level political commitment, **more thinking is needed about how to best monitor progress and improve accountability both up the political ladder and down to constituents**.

Looking to the future, our respondents said a number of things would be necessary to strengthen key components of the health system and provide an adequate platform for IMCI or any other effective child health strategy. First, a number of respondents suggested that government “start small,” focusing on a smaller number than the currently targeted 10,000 PHC facilities, bring them up to standard, and then expand outwards. As one respondent said, **“It’s quality we need, not quantity ... Quality means it’s functional!”** (N0505a). Given limited funds, this points to **a need for prioritization of interventions and strategic use of resources**.

This point relates to **misgivings around iCCM** and the National Council on Health’s recent decision to adopt iCCM for implementation in all states (in addition to the fact that the policy status for community-level use of Amoxicillin DT remains unclear at best). Some respondents were enthusiastic about the potential of iCCM to improve child health in Nigeria and recent modelling suggests an equity-promoting approach to scaling up iCCM focusing on lower wealth quintiles could be cost effective in Nigeria [17]. However, many other respondents had serious reservations about pushing through a major new program before the PHC system was rendered functional:

“For a country big like Nigeria, iCCM will be very demanding – it’s a big task... [that] demands a lot of energy. Sustainability in many ways will be a challenge.” (N0510b)

At the very least, respondents said scaling up iCCM would necessarily have to be accompanied by scaling up of IMCI to support it.

“The focus is on iCCM because we know in Nigeria that most people don’t go to health facilities. But we know we need to strengthen health facilities to deal with referred cases.” (N0504a)

“If you build iCCM capacity without commensurate capacity at health facilities, you’re destroying trust – you need referral up the health care ladder. As we’re scaling up iCCM, we must place same emphasis on IMCI.” (N0505f)

Furthermore, **the link between IMCI, C-IMCI, iCCM and other community-level interventions must be clarified:**

“We get funding for iCCM, we get funding for C-IMCI; it doesn’t make sense. We need to look at how it’s one and the same intervention.” (N0504b)

“The community component, the key family practices (KFP), have also been implemented, supported by various partners. Unicef uses the structure of health development committees, but even then, there has to be a kind of linkage between facilities and communities. But there is no such linkage, rather there’s a vertical program concerning community IMCI.” (N0509b)

In terms of sustainability, the implementing cadre for both iCCM and C-IMCI, community-oriented resource persons (CORPs), were (and remain) unpaid volunteers, though they sometimes receive incentives (monetary or otherwise) from partners. Still, given poor knowledge of appropriate care practices and poor care-seeking by mothers and other caretakers, **much work remains to be done with respect to community education** [18-20]. Such outreach could be done via existing social networks, for example in religious traditions:

“The women in churches, if we can educate them and get them to be community resource persons, they would do it - and they won’t want to be paid! Women’s organizations are everywhere and they have meetings every month ... In Igboland, they have an August meeting and they come from all over the land. Those social functions are opportunities.” (N0504b)

Regarding the **newborn component**, this aspect of child health programming in Nigeria is **also in disarray**. Community-based newborn care (CBNC) is among various service delivery mechanisms that have had limited implementation, and while its effectiveness was supported by a recent multi-country trial including Nigeria (known as AFRINEST), sustainability issues relating to CORPs are also relevant here [21]. Furthermore, various government stakeholders and partners are **implementing programs for newborns with little harmonization:**

“Currently FMOH is doing the essential newborn care course (ENCC), with training at regional and state levels for trainers of trainers. Meanwhile NPHCDA has already conducted HBB (helping babies breathe) training, 20 rounds, which has strong overlap with ENCC. This has to be harmonized ... it targets the same cadres.” (N0510b)

Figure 6. Learning about operations at a PHC facility



When it comes to training to improve health worker skills and practices, the way forward appears somewhat clearer: **in-service training must be replaced by a 1) a strong emphasis on rigorous pre-service training and 2) continuous professional development via improved supervision, on-the-job**

training and mentorship. Continuous rounds of in-service training are financially unsustainable and, without proper follow up, have not achieved acceptable levels of quality of care. Thus, respondents said pre-service training was “cheaper and it goes further” (N0505f), another said, “if we turned the clock backward, I would say strengthen pre-service more than in-service” (N0505d). Improved pre-service training should use IMCI as the primary methodology for treatment and care of sick (and possibly also healthy) children, as well as include training for program management. In addition, respondents said mentoring and follow-up should be institutionalized, and put forth a number of ideas to reduce reliance on expensive classroom training:

- Increase reliance on ICATT and other computerized trainings;
- Improve availability of handbooks and guides in mobile formats (“so I can get it on my smartphone or tablet”);
- Provide tablets with training packages on rotating tablets (“facilities can keep it for one month and then rotate”);
- Make use of Nigeria’s broad network of well-trained clinicians in every state to provide ongoing mentorship and supervision.

While some respondents pointed out residential training could still be necessary in some cases, since smaller health facilities and hospitals do not have a sufficient case load to show all necessary childhood conditions, technologies to simulate such cases could also play a role. Finally **improved training may also facilitate efforts to “sell” IMCI to policy-makers**, given its current association with expensive training:

“I will also suggest that we do not put a lot of emphasis on training, because that rings a bell of *money money money*. Mentorship would be a better – a new way of looking at it.” (E0509f)

“It’s the cost of training that puts government officials and policymakers off. And partners do it because they’re given the money to do it anyway.” (N0503h)

Finally, future child health strategies in Nigeria will have to **comprehensively address the private sector**, families seek care for sick children in over half of all cases, particularly given dysfunction in the government PHC system. It is estimated that there are over 200,000 patent and proprietary medicine vendors (PPMVs) operating in Nigeria, who are the first source of care for up to 55 % of sick children under five years of age, including selling drugs and providing advice about illness [22]. Yet in general, **PPMVs have low health knowledge and poor health treatment practices** [23]. In an analysis of PPMV shops in Kogi and Kwara states, selling drugs wholesale and participating in any training in the past year were associated with a higher likelihood of naming the correct treatment for malaria, and having formal health training was associated with stocking ORS; however, many PPMVs lacked the knowledge and tools to properly treat common childhood illnesses [24]. Respondents said that **training and supervising PPMVs was not only possible but necessary**:

“In Nigeria, we have a series of studies showing that 60% of the population patronizes the private sector. So we need to build private sector, ensure they’re trained, and also to do follow up and supervision – because if you give them one mile, they take several kilometres with it! ... Another critical thing is to let them see that IMCI will not diminish their profits.” (N0503a)

“The real challenge is that PPMVs are not skilled enough to do the right thing.” (N504b)

A number of pilot interventions are currently underway addressing this issue. Notably, USAID with SFH and Marie Stopes are performing a pilot study with PPMVs using same training manual for iCCM and linking them directly to drug manufacturers, to procure medicines directly and sell to families at normal prices. This experience has led some respondents to venture that **PPMV could even be made to pay for their own training**:

“It’s possible to get them to pay for it. The reason I say that is when they took the first crop of PPMVs in Ebonyi ... within a few months, the trained PPMVs were getting better results and therefore more patronage. And the community actually said to the implementers, can we de-register those that are not trained? Because they could see difference between trained ones and untrained ones.” (N0504b)

VI. Actions needed at country level

Among our respondents, the consensus on the future of child health strategies was that “by and large as a country, I think **IMCI is still the way to go**” (N0503a). But in terms of implementation, the real work remains to be done:

“Let’s stop saying ‘what are the quick wins’? There are no quick wins to build a system. We have a vision and everyone works towards it. There might need to be some very strong political decisions.” (N0503e)

Thus, the most important actions in Nigeria must lead to the creation of a **clear agenda with political buy-in and resources**, where stakeholders “see their interests protected” (N0503f). The necessity of a political strategy to gain **strong, high-level leadership and commitment** is clear, as the current limitations are neither technical nor even necessarily rooted in lack of resources:

“In Nigeria, when things are not working, it’s not because people don’t know – it’s because they don’t want it work.” (N0503e)

“The challenge is a leadership problem ... If we introduce a new program, you then need to find a way of integrating it into the system, so the system owns it and runs it. That’s what we don’t have and that’s what leadership will do for us.” (N0504b)

To achieve such leadership and commitment, there is a need for **targeted, persuasive advocacy efforts** in political spheres and among implementing agencies at federal, state and local levels to **promote government ownership** of programs. Particularly, federal level must lobby the state level to provide sufficient funds for implementation and view IMCI and other child health strategies as their responsibility – and also as being in their interest. Many respondents said that political leaders only wanted to build visible buildings and not invest in training or other “invisible” but necessary health systems intervention. Persuasive advocacy will be needed to overcome this:

“It’s the political will. Leaders, the governor, the commissioner for health, it’s for them to buy into the program, to feel the impact. They must see the impact of IMCI, see the cost

effectiveness ... If they see the reasonable cost, they will buy into it. So I think it's advocacy.” (N0506b)

Advocacy campaigns must also be backed up by thorough, realist plans for **transition to national ownership**, including a specific plan to **attract sustainable domestic investment**. As families already participate in financing health to a high degree via out-of-pocket expenditures, government financing for health must increase: “There will be need for a huge sacrifice by government – not from the people, who can't add more onto what they're already paying” (N0503e). At the same time, there should also be reconsideration of what interventions are affordable, including when it comes to free medicines for under-five conditions, “the albatross” of health financing in Nigeria (N0504a). The national insurance scheme, which has existed for over ten years but only enrolls a tiny percentage of the population, must be part of this discussion.

Under the aegis of this improved leadership and financing, the foremost actions needed are to **clearly define roles and responsibilities, harmonize strategies, rationalize structures implementing PHC and improve coordination**. The “PHC Under One Roof” is a good step in this direction, but progress has been slow and much more is needed, and the relationship between FMOH and NPHCDA is also in need of a strong hand to define roles and reduce duplication. It's also unclear how IMCI as a strategy relates to a plethora of other strategies, programs and interventions for child health. As one respondent put it:

“Basically, what we need to see is, how can we get IMCI as only strategy for child survival. I feel that we can actually define what we want for children with PHC, with IMCI.” (N0504b)

Under this process of harmonization, **tough, strategic decisions must be made about what should be included**. Donors and other **partners can help by providing a unified vision** – has been done elsewhere through the Development Partners Group (DPG), which meets monthly to discuss health programming implementation and which provided a concept paper on the forward in health at the time of the latest change in government.

Lastly, **an important and time-limited opportunity for child health exists in the form of the PEESP**, which will kick into gear as Nigeria is certified polio-free (*Inshallah*) in 2017. Final home visits for polio vaccination can be used to educate mothers about care-seeking and PHC-related activities. In addition, the resources currently allocated for polio will be shifted to programming for “vulnerable children” – a chance for IMCI to capture the momentum and excitement from this area. With good planning and use of these resources, the successes observed under the polio eradication program could be extended to child health more broadly. As one respondent said with respect to the PEESP, “it is time to cash in on this particular thing – the partners are well-represented” (N0509f).

VII. Actions needed at global level

Given informants' **general satisfaction with guidance** provided by global level, alongside the recognition that many child survival and health initiatives were **donor-led**, the recommendations provided for global level actors tended to focus on ways of **enhancing harmonization among partners and government**, as well as **simplifying tools** for use among lower level health workers. Respondents generally recommended few modifications to the content of current child health strategies, saying that **IMCI “has**

everything you need.” However, many operational actors said that IMCI could be better communicated to country-level actors and that there was a need for guidance to be simplified, streamlined and adapted for easier use:

- Combine the various manuals, workbooks and tools into **a smaller number of guides** and reduce the overall number of pages;
- Use **simplified language** that is more accessible to lower-level health workers such as CHEWs;
- **Reduce the frequency of updates**, as the current pace leaves no time for implementation before materials go out of date (the suggested frequency was every five years);
- **Use African children in videos and other tools**, as lower-level health workers are less likely to be familiar with the appearance of white or Asian children for diagnosing malnutrition, dehydration, etc.;

More broadly in terms of tools for future health strategies, global actors should provide **guidance on ways of doing ongoing mentorship** within the health system, and advocate for this to FMOH and NPHCDA, and further consider how technology can contribute to scaling up (e.g. ICATT, computer-based training for clinical mentorship, on-the-job training). These changes alongside advocacy for pre-service training should aim to **reduce the cost of training health workers in IMCI**.

In addition to these steps, respondents also said the global level could **provide direction on positioning IMCI and other global health strategies globally and in countries**. In Nigeria and around the globe, this will be important with regard to **PHC and UHC**. For example, WHO was mentioned as being able to provide guidance on the structure of NPHCDA, with the need to ensure IMCI or other child health programming was found under the “one roof” of PHC, and also influence thinking about **polio endgame strategies** (e.g. the Nigeria PEESP). WHO and other partners can **play a brokering role** among otherwise fractious parties, as it has done in the past, for example with respect to UNCoLSC in Nigeria. In countries, partners can also **apply pressure & help advocate for child health; in Nigeria this would include advocating** for more funding and implementation of the National Health Act, which would help with PHC implementation particularly at state level.

Global actors and particularly donors **must align with government plans** – a recommendation contingent on government allocating more resources and playing a stronger coordinating above, as discussed above. For this reason, perhaps the most important recommendation for global actors vis-à-vis Nigeria is for WHO and other global partners to **form a unified front to help enact a strong, coherent advocacy plan at national, state and potentially local levels**, encouraging Nigerian actors at all levels to prioritize child health and especially to provide domestic financing. This plan should **include the private sector**, and could for example include cost effectiveness analyses to convince private sector analyses that improving their treatment and care of sick children would have a positive impact on their bottom line. Given the many competing priorities in Nigeria, alongside ongoing security challenges and economic and petroleum crises, these advocacy plans must include **sophisticated political and economic analyses** as well as a **specific marketing strategy** to “sell” child health programming to actors at every level. Such analyses could be a **wise investment**: as one respondent opined, “If Bill Gates, instead of paying for immunization campaigns, had invested to create a basic functioning health system and eliminate bottlenecks – he would have spent 50% as much to achieve the same goal” (N0503g).

Regarding the question of **re-branding**, the consensus opinion from informants at all levels in Nigeria was a resounding “no”! Many respondents used the exact phrase, “**The name is not the problem,**” and repeated the four words

“Integrated Management of Childhood Illness – it contains everything!” However, a number of respondents were **keen on “re-marketing”** IMCI, for example by improving the look of training manuals, which “have been the same for ages – is there anything we can do to make it more exciting?” (N0503h). Additionally, some respondents said that IMCI had become **too associated with expensive training** and that it **clearly needed to attract new funds** – so a marketing strategy was warranted. Said one, “Everything in life is about being able to market – there is nothing that is not marketable” (E0504b).

Figure 7. Comments on re-branding IMCI

“I vote for keeping the name! ... It’s a household name. ... There would be confusion in the field, we’d have to start again.” (N0503b)

“We can bring as many interventions as we can. But the name! It has come to stay.” (N0503c)

“Sincerely I don’t see the brand as being the challenge.” (N0504a)

“Change the name – to what? ... But when you say IMCI, many people are afraid. They know how hectic, how expensive it is. Even the policymakers are running, even the donor partners are running away from it.” (N0505a)

“The name is very strategic. I don’t know what else you want to call it.” (N0503h)

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Annex 1. Timeline of strategies and policies for child survival and health in Nigeria

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Technical policies for high impact interventions	immuniz	National programme on Immunization															
	Malar																
							Rapid diagnostic for malaria										
	Diarrhoea																
Addressing major risk factors: Nutrition and HIV	Pn																
	HIV/AIDS			Prevention Mother- to- child Transmission of HIV/AIDS													
	Nutrition																
Service integration, access and quality		Baby friend hospital initiative															
	Integrated Management of Childhood Illness					Integrated management of childhood illness addressing the newborn											
														Integrated Community Case management			
								Integrated Maternal Newborn and Child Health Strategy									
						Emergency triage treatment and assessment											
																Nigerian Every Newborn Action Plan	