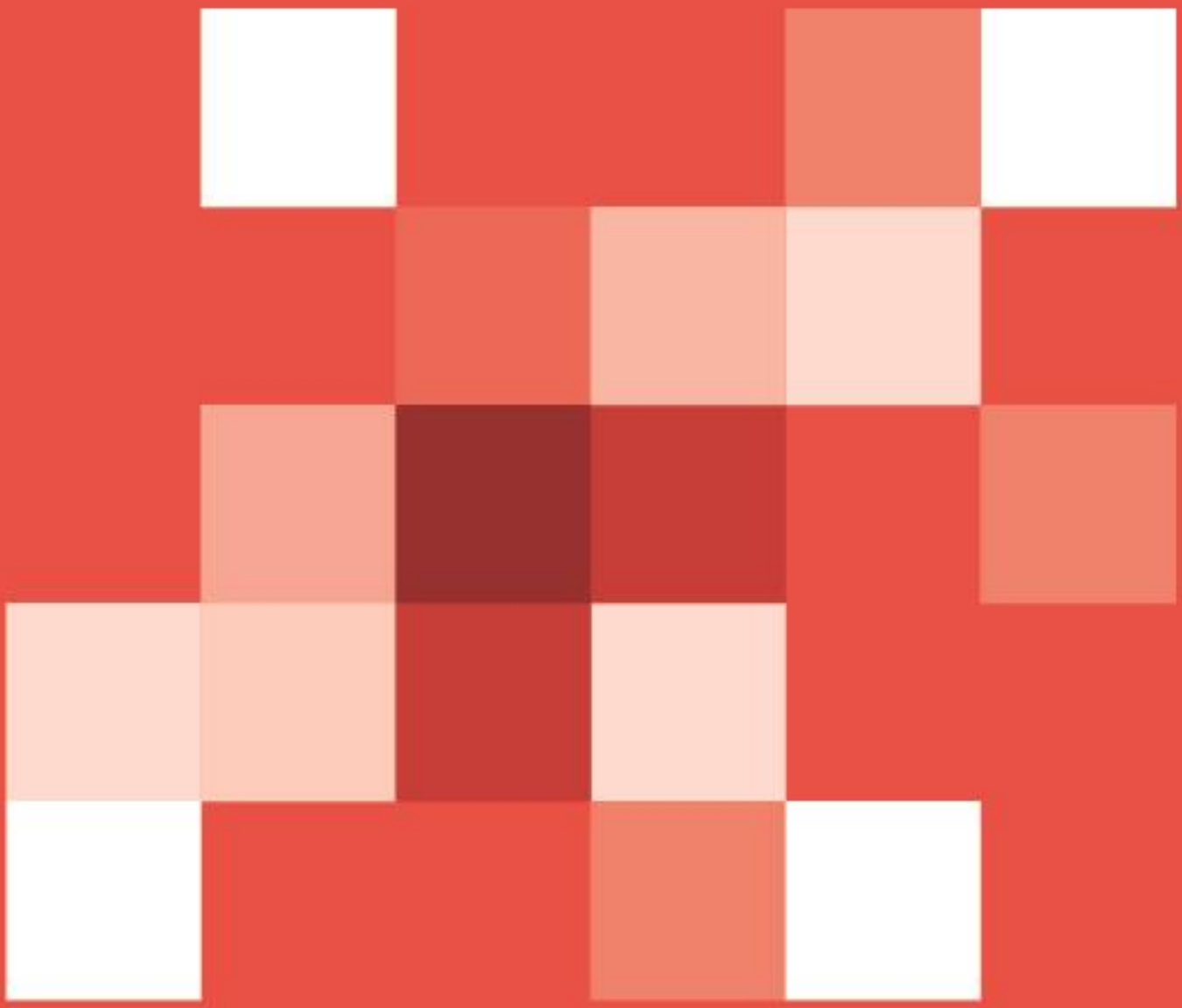
development initiatives



September 2019

Data issues and challenges for the UNICEF Nigeria Country Office

Diagnostic Report

Contents

List of Acronyms

AFD	Agence Française de Développement
ASC	Annual School Census
BMGF	Bill and Melinda Gates Foundation
CPMIS+	Child Protection Management Information System
CRVS	Civil Registration and Vital Statistics
DCSF	UNICEF Data for Children Strategic Framework
DHIS2	District Health Information System version two
DHS	Demographic and Household Survey
DI	Development Initiatives
EMRs	Electronic Medical Records
EMIS	Education Management Information System
EU	European Union
FOS	Federal Office of Statistics
GBV	Gender-Based Violence
GBVIMS	Gender-Based Violence Information Management System
GHAIN	Global HIV/AIDS Initiative Nigeria
GPEI	Global Polio Eradication Initiative
HMIS	Health Management Information System
ICT	Information and Communication Technology
KRCs	Key Results for Children
LGAs	Local Government Areas
LQAs	Local Quality Assessments
LTA	Long-Term Agreement
MBNP	Ministry of Budget and National Planning
MDAs	Ministries, Departments and Agencies
MICS	Multiple Indicator Cluster Survey
MoLG	Ministry of Local Government
MoWA	Ministry of Women's Affairs
NANE	National Agency for Nomadic Education
NBS	National Bureau of Statistics
NCO	UNICEF Nigeria Country Office
NDB	National Data Bank
NEEDS	National Economic Empowerment and Development Strategy
NIMC	National Identity Management Commission
NINs	National Identity Numbers
NMEC	National Mass Education Commission
NOMIS	National OVC Management Information System
NPopC	National Population Commission
NSS	National Statistical System
ODK	Open Data Kit
OVC	Orphans and Vulnerable Children

PARIS21	Partnership in Statistics for Development in the 21st Century
PHCs	Primary Health Centres
QAOs	Quality Assurance Officers
RI	Routine Immunisation
SBSs	State Bureaux of Statistics
SDGs	Sustainable Development Goals
SSAs	State Statistical Agencies
UBEC	Universal Basic Education Commission
UNFPA	United Nations Population Fund
VACS	Violence Against Children Survey
WCARO	UNICEF West and Central Africa Regional Office
WHO	World Health Organisation

1. Introduction: about this diagnostic report

In 2017, UNICEF developed a global Data for Children Strategic Framework (DCSF), which outlines UNICEF's general approach to data work – including the full spectrum of work required to drive demand for, strengthen the supply of, and enable the use of data – as well as some concrete directions for the organization as a whole.[1] The next step in the process is to translate that general framework into action at country and regional levels. Development Initiatives (DI) has entered into a Long-Term Agreement (LTA) with UNICEF to support country and regional offices in their own strategic planning of data investments.

DI is an independent international development organisation, which specialises in the role of data in driving poverty eradication and sustainable development.[2] Our mission is to ensure that decisions about the allocation of finance and resources result in an end to poverty, increase the resilience of the world's most vulnerable people, and ensure no one is left behind. We work to make sure these decisions are underpinned by good quality, transparent data and evidence on poverty and resources, and lead to increased accountability and sustainable long-term outcomes.

DI is contracted to provide UNICEF Nigeria with this Diagnostic Report, plus a Strategic Action Plan, making concrete and specific recommendations in relation to its investments in data over the next 3-5 years and beyond. Most diagnostic reports produced under the DCSF take the form of a detailed analysis of the data landscape within the country. These are based on examination of governments' (and other actors'), data production, governance and use, including thorough assessments of capacity and capability at various levels. However, the Nigeria Country Office (NCO) did not feel that an extensive landscape analysis would be useful. This is primarily because the country office is already familiar with most key features of the Nigerian data environment, but also because the landscape is so complex and difficult that a general study would be unlikely to contribute much to strategic data planning.

Instead, at the request of the West and Central Africa Regional Office (WCARO) and the NCO, this Diagnostic Report has a particular focus on three of the eight Key Results for Children (KRCs):

- KRC#1: Immunisation
- KRC#4: Learning Outcomes
- KRC#5: Prevention of Violence Against Children

Additionally, it addresses foundational and cross-cutting issues, including:

- Civil Registration and Vital Statistics (CRVS) and
- Data collaboration.

[1] https://data.unicef.org/resources/data-children-strategic-framework/
[2] http://devinit.org/

This Diagnostic Report serves as the evidence base for the specific recommendations made in these areas in the Strategic Action Plan. After outlining some of the socio-economic and political challenges to successful use of data to improve children's lives, in Sections 2 and 3, it sets out the current state of data and discusses key investments to improve it.

- Foundational data systems – in particular the integration of birth registration with national identity numbers – are examined in Section 4
- Section 5 looks at potential enhancements to the Health Management Information System (HMIS) and the value of keeping immunisation records within it
- Ways to broaden the Education Management Information System (EMIS) to include pupils' attainment are considered in Section 6
- Rationalisation of management information systems for Child Protection is explored in Section 7

By way of conclusion, Section 8 outlines some central strategic considerations for the UNICEF Nigeria Country Office and Section 9 summarises our recommendations.

2. Issues affecting children in the context of poverty, inequality and conflict

Despite being the largest economy in Africa, poverty and geographic disparities in Nigeria are widespread.[3] Following its emergence from a recession in 2016, Nigeria's economic growth rate (1.8%) remains below the population growth rate, resulting in decreased per capita income. Over 64% of the population live below the poverty line and three out of four children are affected by multi-dimensional poverty, based on the most recent UNICEF analysis. 2017 official Nigerian data estimate Nigeria's child population at 93.9 million, representing approximately 50% of the total population; 31.8 million of whom are under 5 years old. 10.5 million children are stunted, and 2.5 million children suffer from severe acute malnutrition. In the north, this rate is as high as 90%. Nigeria has the highest number of children living with HIV, globally, at 380,000. One in eight children do not survive to their fifth birthday. 19.5 million children under 5 (61% of the total under-5 population) have no birth registration.

In Nigeria, only 67 percent of 6-11-year-olds regularly attend primary school. The pre-primary participation rate is 60 per cent. About 10.5 million children aged 5-14 years are not in school[4], making up more than one in five out-of-school children globally and more than half of out-of-school primary school age children regionally. 70% of out-of-school children of primary school age are expected never to enter school. 88% of out-of-school children in Nigeria are located in northern states, where just 24% of children are enrolled. The key drivers of children being out of school are poverty, conflict, systemic barriers, and socio-cultural norms that deny children – especially girls – the right to education. Even when children are in school, a substantial proportion are not learning. The 2015 Nigerian Education Data Survey showed national mean scores of 48.5% in literacy, 32.3% in comprehension and 54.5% in numeracy.

60% of children suffer more than one form of violence – physical, sexual or emotional – with only 5% reporting that they receive help.[5] The drivers of violence against children are rooted in social norms, including around the use of violent discipline, violence against women and community beliefs – all of which increase children's vulnerability: nearly two-thirds of caregivers believe physical punishment is a necessary form of discipline for children, the second-highest prevalence globally.[6]

Social and economic inequalities, ethnic and religious divisions, and structural weaknesses remain prevalent across Nigeria and contribute to the risk of violence. A decade of conflict in north-east Nigeria has left 7.1 million people, (including 1.5 million women, 2.3 million girls and 1.9 million boys), in need of humanitarian assistance. Displacement increased in 2018, with over 2 million people currently displaced. Between January and November 2018, an average of 4,000 people—mainly women and children—were displaced every week, up from an average of 1,400 in 2017. Sexual

[3] This section is drawn from the UNICEF Nigeria Country Office Annual Report 2018
[4] This is a conservative estimate. As many as 14 million children may not be in school.
[5] 2014 Violence Against Children Survey (VACS)
[6] 2017 Multiple Indicator Cluster Survey (MICS)

violence – including rape, sexual exploitation, forced and early marriage, survival sex and domestic violence, physical assault, denial of resources, and psychological and emotional abuse – are common among displaced communities. Analysis of data on gender-based violence (GBV) show that of GBV survivors seeking assistance, 44% were children (98% girls), of whom 46% reported having suffered sexual violence. An estimated 2.9 million school-aged children need humanitarian assistance in education.

Any assessment of data infrastructures needs to recognise that Nigeria is a large country with a large population and huge challenges. Any sustainable solution will need to be robust, scalable and deployable.

3. Institutional and political challenges to data production, analysis and use

Low investment

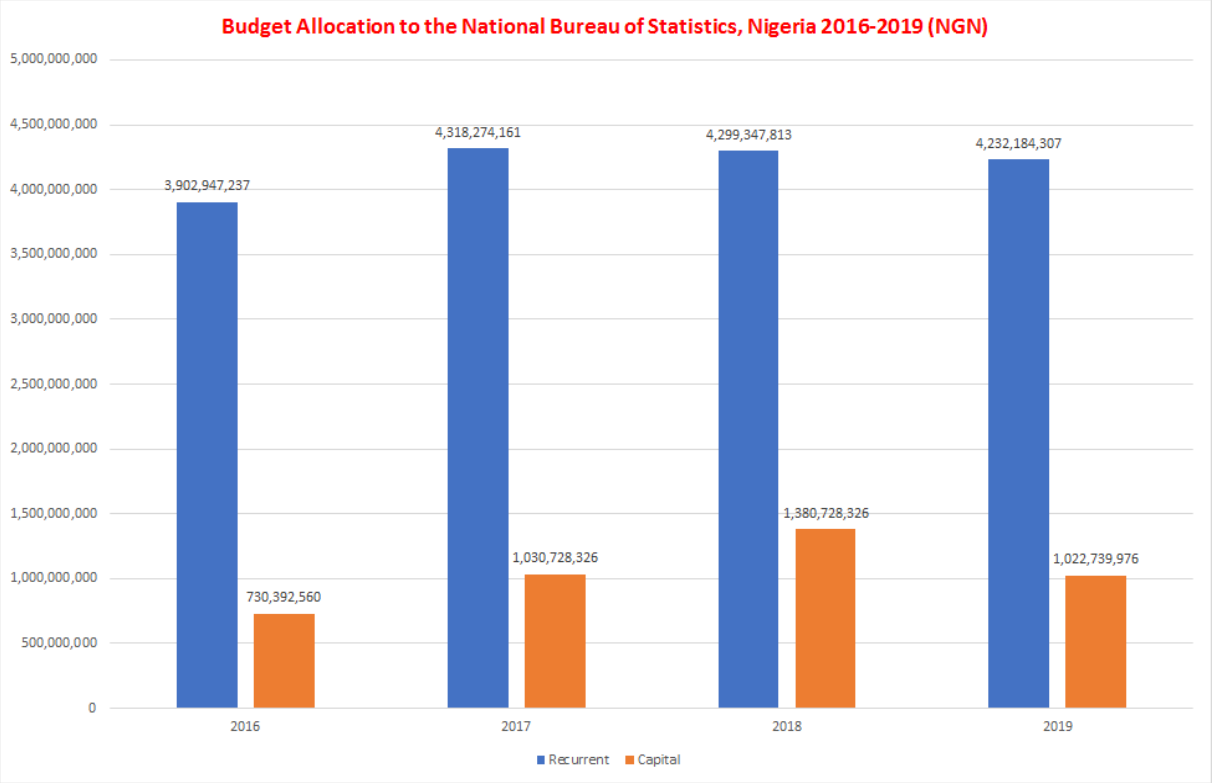
Nigeria is divided into 36 States that are further devolved into 774 Local Government Areas (LGAs). This complex administrative structure poses challenges for policymaking generally – and for gathering data to inform decisions in particular. Within the federal structure, the governors of states have significant independence and power, which can make the implementation of national policies and plans difficult. Even the federal budget cannot be relied upon as a guide to how resources are allocated between sectors, because actual spending decisions are made at state level. This in the context of declining social sector public spending allocations. For instance, federal allocation to health declined from a low base of 4.23% of the total budget in 2017 to 3.9% in 2018. Allocations to education declined from 8.4% in 2016 to 7.04% in 2018.[7]

One effect of the disjunct between federal budget allocations and actual state-level disbursements is that expenditure on important but hidden administration is often significantly lower than budgeted, because state governors prefer to prioritise big, visible projects that they believe are more likely to impress the electorate.[8] Among other things, this negatively affects all data-focused institutions and data work. The Commissioner for Budget and Planning in Ondo state, for example, estimates that "at the current level of budgeting, it will probably take over 90 years to perfect the data situation in Ondo".[9] To make matters worse, in 2018 the Ondo State Bureau of Statistics received only 23% of the resources earmarked for it in the budget.[10]

While budgets for data are limited in most countries, Nigeria is an extreme case. For example, the National Consultative Committee on Statistics – in effect a coordination event for the multiple agencies involved in data collection – has only met once in the last five years, due to lack of funds. The National Bureau of Statistics (NBS), similarly, cannot afford to bring state governors together to discuss joint plans. The total NBS budget is severely limited, as shown in Table 1 below. The 2019 combined figures amount to a little over $17 million. Even if they are fully disbursed, most of the allocated resources would merely cover recurrent expenditure (salaries), leaving next to nothing for investment in systems, or for the costs of actual work.

Table 1: Budget Allocation to the National Bureau of Statistics, 2016-19 (Nigerian Naira)

[7] UNICEF Nigeria Country Office Annual Report 2018
[8] Meeting with Directorate of M&E, Ministry of Planning and Budget, 6 May 2019
[9] Interview with Commissioner for Planning and Budget, Ondo State, 1 May 2019
[10] Interview with Statistician General, Ondo State, 1 May 2019



Source: National Budget of Nigeria https://www.budgetoffice.gov.ng/

Energy and ICT Infrastructure

Nigeria is one of Africa's emerging ICT hubs, with about $40 billion of foreign direct investment coming into the country's ICT sector during 2018 according to the Government's federal communication commission.[11] The country is home to 82% of the continent's telecoms subscribers, 29% of internet users, and ICT sector contributed to 9.1% share to national GDP in the fourth quarter of 2016.[12]

The Government's ICT Sector Roadmap (2016-2019) is aimed at addressing the key challenges plaguing the ICT sector including improving infrastructure and quality of service and promoting national broadband penetration.[13]

The president's 2019 budget speech echoed these ambitions to transform the infrastructure necessary to underpin technology that enables service delivery:

> "Nigeria cannot afford to be left behind in the digital age. To create jobs for our young people, we will build a digital economy around the technology and creative sectors. In partnership with the states and the private sector, we are working on a project to increase broadband penetration across all geopolitical zones of the country, such that over the next four years, all the 774 LGAs will be provided with fibre connectivity. ... We shall expand generation, transmission and distribution of power from the

[11] https://allafrica.com/stories/201811230114.html
[12] https://www.export.gov/article?id=Nigeria-Information-and-Communications-Technology
[13] Ibid

national grid while developing innovative off grid solutions for schools, hospitals and markets."[14]

The reality, however, doesn't match policy pronouncements.[15] Despite being the largest economy in Africa, and being endowed with large oil, gas, hydro and solar resources, the country's power generation capacity is severely limited, and many rural areas are not connected to the grid. Regular power cuts even in political and commercial hubs like Lagos and Abuja are commonplace. According to USAID, the country has the potential to generate 12,522 megawatts (MW) of electric power from existing plants, but most days is only able to generate around 4,000 MW.[16]

Without sufficient infrastructure, many LGAs, let alone schools and clinics have no access to power supply or reliable internet connectivity making it difficult to decentralise digital data capture.

Lack of political support

Politicians are perceived not to take data and evidence seriously, at both federal and state levels. This low political commitment to data is partly for historical reasons. For a long time, during the period of military rule, processes for producing, using and maintaining statistics for monitoring were actively discouraged. Interest in having data systems in place has gradually increased since democracy returned in 1999, but there is still a low appetite for evidence-based policymaking. When big strategic plans such as the 2004 National Economic Empowerment and Development Strategy (NEEDS)[17] were developed, the importance of rooting them in good statistics – and therefore in robust systems – was poorly understood. Without successful data-driven programmes to serve as examples, government demand for reliable data collection and analysis remains predictably low. This creates a vicious circle, in which budget allocations to data, statistics and monitoring systems are meagre – and consequently the quality and range of statistics products emerging from them is too low to inspire greater data use. For example, data is rarely disaggregated below the federal level – even Census data is not fully disaggregated, making it impossible to use for local targeting.[18] As one interviewee told us, the only way to improve investment would be to "convince politicians that data can vote."[19]

Limited appreciation of the value of data

The primary obstacle to good data systems, then, is policy-makers' low level of appreciation for the value of data, evidence-based decision making and results-based management. This is exacerbated by poor communication between producers and potential users. Data that exists is not well analysed or disseminated. As a result,

[14] President's Budget Speech to the National Assembly, 2019 https://budgetoffice.gov.ng/index.php/2019-budget-speech/2019-budget-speech/download
[15] https://techpoint.africa/2018/02/27/nigeria-ict-roadmap/
[16] https://www.usaid.gov/powerafrica/nigeria
[17] https://www.imf.org/external/pubs/ft/scr/2005/cr05433.pdf
[18] Interview with Statistician General, Ondo State, 1 May 2019
[19] Meeting with NCO Education Section, 29 April 2019.

planners do not really know what to ask for, especially at state level. Governments at both federal and state level lack the data savvy to understand *how* statistics can enable them to plan more effectively. Without using data to inform their policies, strategies and targets, they cannot deliver the socioeconomic well-being of their constituents that they routinely promise. The National Bureau of Statistics recognises the need to improve its outreach and marketing strategy in order to tackle "the data apathy in government" – if it can find the money to do so.[20] The Monitoring and Evaluation Department in the Ministry of Budget and National Planning (MBNP) is also seeking to address this issue, with help from the NCO – for example by tracking SDG data to provide more useful statistics, and by targeting more amenable politicians.[21] If UNICEF can help to show even a few politicians that data can at least help persuade people how to vote, it could potentially be transformative. Recommendations on this can be found in the final section of the Strategic Action Plan.

Weak data institutions and governance

The Nigeria National Bureau of Statistics (NBS) was created by the 2007 Statistics Act, by the merger of the Federal Office of Statistics (FOS) and the National Data Bank (NDB), as part of the National Statistical Masterplan. The merger was intended to give the NBS a national outlook as the premier agency in charge of supervising, coordination and managing the National Statistical system, following years of inter-agency rivalries that dated back to the colonial era and aftermath of independence.[22] However, this goal was never achieved. The mandate for data and statistics production, quality assurance and use remain split between many government entities.

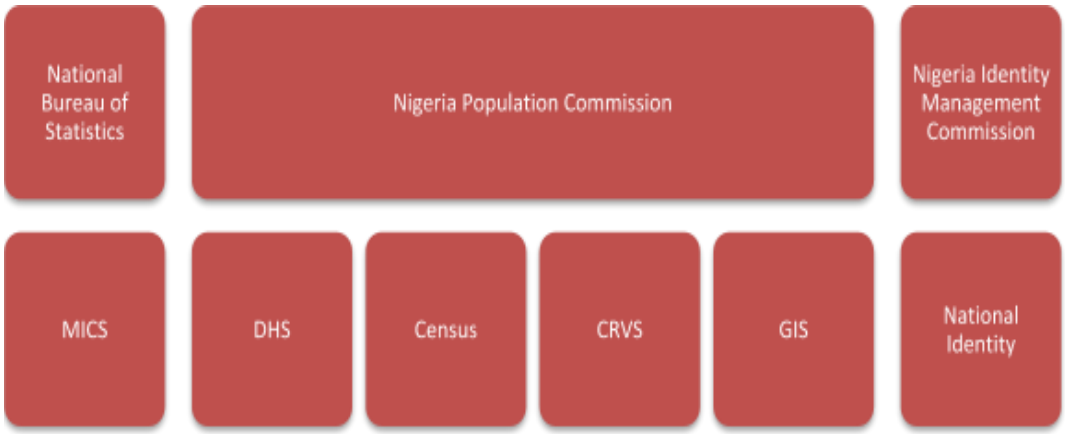
In most countries, the national statistics office plays a central leadership role in the governance and oversight of all the government's data collection efforts and the production of official statistics. Notionally, the Nigerian NBS is also expected to coordinate the operation of the National Statistical System (NSS), i.e. in the production of Official Statistics by all Federal Ministries, Departments and Agencies (MDAs), State Statistical Agencies (SSAs) and Local Government Areas (LGAs). They are supposed to be supported in this by Directors of Statistics within every federal MDA and every state, plus Statistics Units in each LGA. In reality, many of these posts are vacant. Only 22 states currently have their own State Bureaux of Statistics (SBSs). Worse, state and MDA directors who do exist do not necessarily fall under the supervision of the NBS. Similarly, where SBSs do exist, they have no control over state ministries' data functions.

Over time, multiple new agencies have been created – often with overlapping, competing or conflicting data collection mandates – and beyond effective NBS control. These not only undermine the authority of the NBS and reduce its capacity to ensure coordinated data production. They also divert resources that the NBS could use to strengthen the NSS as a whole. The National Bureau of Statistics is not even responsible for core data collection functions such as the Census, Vital Statistics and the Nigeria Demographic and Health Survey (DHS) – although they do retain control of the Multiple Indicator Cluster

[20] Meeting with National Bureau of Statistics, 6 May 2019
[21] Meeting with the Directorate of M&E, Ministry of Budget and Planning, 6 May 2019
[22] Olubusoye, O, Oluwatoyin, K, and Keshinro, O, 2015: 'Nigerian Statistical System: The Evolution, Progress And Challenges', https://www.researchgate.net/publication/283715250_NIGERIAN_STATISTICAL_SYSTEM_THE_EVOLUTION_PROGRESS_AND_CHALLENGES

Surveys (MICS). Figure 1, below, gives an indication of the division of labour for the most important national data collection processes.

Figure 1: Agencies responsible for key national data collection tasks



A similar plethora of agencies and systems can be found in most sectors. Management of education data, for example, is split between the Ministry of Education and a number of agencies, including the Universal Basic Education Commission (UBEC), National Mass Education Commission (NMEC) and the National Agency for Nomadic Education (NANE), none of whose systems are interoperable. Parallel agencies often report directly to the president, removing ministerial Statistics Directors' oversight and capacity to coordinate.

These alphabet soups inevitably lead to policy and data siloes and poor collaboration. None are willing to give up their mandates for the sake of better overall outcomes. Agencies in overlapping fields often compete for resources and political attention – indeed the multiplication of institutions is in part driven by politicians choosing to create new agencies rather than trust existing ones set up by their predecessors. This can create outright hostility between agencies, making any attempt to work together difficult. Donors, too, have been known to commission surveys from new partners, rather than taking the time to try and understand the complexities of the system.

Low capacity

Because few MDA data collectors are qualified statisticians – indeed some have no training at all – this multi-agency process lowers the quality, as well as the coherence, of all Nigerian government data. This is a particular problem at state level and below. States that lack SBSs, in particular, tend to allocate data collection, dissemination and use to unqualified staff. As a result, it is hard to track key SDG indicators on children. Administrative data is missing in some areas, and too poor to use in many more. Survey data is intermittent and scattered across agencies. There are exceptions – the SBS in Kaduna state does excellent work, even releasing quarterly summary statistics – but other states do not seek the opportunity to send their staff to Kaduna to learn. Even the NBS has no in-work training programme.

At sub-state levels, skill levels and coordination are particularly poor. MDAs have staff at LGA level, collecting and analysing routine data, but they are not answerable to the

SSBs. As a result, they are often unsupervised – and both unable and unwilling to collect data across different sectors. According to the Statistician General in Ondo state, there is no effort or incentive to produce accurate administrative data: “There is barely a qualified person at LGA level. LGAs have been neglected for a long time, and are now in disarray, with little or no data at all.”[23] SSBs that want to work with reliable data often have dozens of their own staff working in parallel out of offices in LGAs, further duplicating the system and diluting capacity. The Ondo Bureau of Statistics Annual Report emphasises its own shortage of tools, skills and staff and “grossly inadequate release of fund to carry out Statistical activities”.[24]

This would be a fair summary of the national picture too. An African Development Bank review of the national M&E system, conducted in 2016, was highly critical. Each of the 22 points in its Executive Summary was damning, highlighting among other things: the weakness of information systems, poor coordination, low staff capacity, ineffective MDAs, closure of statistics units in some ministries, poor equipment, inadequate budgets, absent legal frameworks and over-reliance on both consultants and donors.[25]

UNICEF: donor or strategic partner?

Like other development partners, the UNICEF NCO has found it difficult to build the kind of relationships with Nigerian statistical bodies that it enjoys in other countries, amidst the complexities and weaknesses of the NSS as described above. Unlike in many countries, ministries appear to see UNICEF primarily as one among several donors, rather than as a strategic partner on data issues.

Advocacy for clearer national and state level organisation and mandates – ultimately based around fully accessible and harmonised data systems – would be sensible, but hard to achieve. UNICEF may prefer to start by supporting improved data communication and demonstrations of benefits, by existing partners such as the M&E department of the Ministry of Budget and National Planning, who are seeking to make the case for evidence-based decision-making.

It can be difficult to know where to start investing to improve systems. Where donors have done joint programming with different MDAs, it has sometimes heightened perceptions of poor donor harmonisation – for example when different donors fund rival bodies or surveys. For this reason, the NCO would be well advised to work to improve coordination within the UN system and beyond, before working together to improve coordination between government agencies.

[23] Interview with Statistician General, Ondo State, 1 May 2019
[24] Ondo State Bureau of Statistics, Annual Report 2018, p.14
[25] African Development Bank Group, Final Review Report on the Exploratory Review of the National Monitoring and Evaluation System of Nigeria, 18-29 July 2016, pp. 7-8

4. Counting people: foundational data systems

Given the size of the country and the scale of the challenges outlined above, getting the basics right must be the overriding priority for Nigeria's planners and decision-makers.

Census

The last Nigerian Census took place in 2006. Since then, all population estimates have been based on projections of the expected growth rate since that point. While this is standard practice, it inevitably becomes less robust as a method over time. The difficulty of calculating current demographic statistics is exacerbated by the unreliability of the baseline. The 2006 census was widely criticised for its inaccuracy. [26] The multiple sensitivities surrounding this issue were highlighted earlier this year when the United Nations Population Fund (UNFPA) announced that the population of Nigeria had hit 200 million, a figure repudiated (technically correctly) by the Federal Government as an assumption.[27]

Having accurate census data is essential to provide a baseline for surveys, planning and administration in all sectors. Relative population figures are also the primary basis for allocation of federal resources to the 36 states. This adds powerful political and financial incentives – some of them perverse – to attempts to organise a new census.

Responsibility for the Census falls to the National Population Commission (NPopC). Working with UNFPA, they already have a strategic plan and draft budget for a new Census. They are currently "waiting for a proclamation from the President" [28] to start work on conducting it in 2020 or 2021.[29] According to UNFPA, the necessary GIS work – to demarcate enumeration areas – would take eighteen months, so time is already running out to meet that target.

The Federal Government has said it wants to do a biometric census[30], although that would be technologically difficult and expensive. UNFPA is also warning about privacy issues. Their recommendation is to start with satellite-based settlement mapping and enumeration area demarcation before conducting the census itself.[31] UNFPA also proposes the use of handheld data capture devices, inherited from other countries.[32]

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[26] See, for example, 2006 Nigeria Population Census and Errors in Age Reporting: A Critical Assessment of the Priority Table - https://www.researchgate.net/publication/311674505_2006_Nigeria_Population_Census_and_Errors_in_Age_Reporting_A_Critical_Assessment_of_the_Priority_Table

[27] https://www.vanguardngr.com/2019/04/fg-faults-un-agency-over-nigerias-population-figures/

[28] Meeting with NPopC Nigeria, 7 May 2019

[29] Meeting with UNFPA Nigeria, 9 May 2019

[30] https://www.biometricupdate.com/201702/nigeria-capturing-biometrics-for-2018-census

[31] Meeting with UNFPA Nigeria, 9 May 2019

[32] UNFPA is in discussion Ghana and Ethiopia in this regard

Establishing a new, credible demographic baseline is critical for the country's development. UNICEF should provide all necessary political support to UNFPA in this endeavour.

Household surveys

Nigeria has a consistent record in conducting both the Demographic and Health Survey (DHS) and Multiple Indicator Cluster Surveys (MICS) on a regular basis, as evidenced in Table 2 below. As about two-thirds of the content is common to both surveys[33], between them they provide a relatively timely review of a number of key development indicators at national and state level. However, they are run by separate agencies – DHS by NPopC and MICS by the NBS and there is currently limited cooperation between the two – indeed this division of labour encourages them to behave like rivals In 2017, the NCO helped deliver major improvements to the MICS5 data collection and quality assurance processes by introducing computer-assisted personal interviewing devices.[34]

Table 2: DHS and MICS surveys conducted

Year	Survey	Households
2008	DHS	36,000
2011	MICS	29,000
2013	DHS	40,000
2017	MICS	37,000
2018	DHS	42,000
2020	MICS	

Despite the obvious overlaps between the two surveys, no attempt has been made to integrate the data from them. UNICEF is ideally placed to encourage this, as a potential strategic partner of NPopC and the proprietor of MICS.

Birth registration

Universal civil registration notionally started in Nigeria after the military federal government promulgated the Births and Deaths Compulsory Registration Decree 39 of 1979. The decree aimed to establish a uniform national and state level system, including the appointment of a Registrar General. The first attempts to put this in place began in 1988. Four years later, a new decree (Number 69 of 1992) authorised the National Population Commission to take the lead in establishing a nationwide CRVS system. It has since set up between one and three registration centres in every LGA – 2322 in all.

[33] http://devinit.org/wp-content/uploads/2018/01/Household-surveys-Do-competing-standards-serve-county-needs.pdf
[34] UNICEF Nigeria Country Office Annual Report, 2017, https://www.unicef.org/about/annualreport/files/Nigeria_2017_COAR.pdf

The current system is, however, confused. The Ministry of Local Government (MoLG) and other MDAs also have a legal mandate to register births. Overlapping agencies have been created by all three levels of government (federal, state and LGA). This has generated a system that fosters duplication as well as inter-agency tension. It does not help that NPopC only has federal employees, who have limited interaction with state governments, nor that they are headquartered within the MoLG building. Attempts to harmonise systems and to give coordinating authority to NPopC failed in 2014 and the issue has been avoided ever since due to inter-departmental turf wars.[35] Multiple agencies continue to register births and issue birth certificates.

Furthermore, the available human, financial and physical resources are chronically insufficient. There are far too few registration centres – on average each of NPopC's registrars covers a population of about 85,000. With poor roads and limited public transport in rural areas, few can travel long distances to register. Even registration at maternity or primary health centres (PHCs) – an effective method – is very partial, due to rising medical costs and poverty. Overstretched staff therefore attempt to reach people at home, going house to house and village to village to find new-borns. During planned events, such as Child Health Week, they accompany immunisation staff.[36] On the other hand, some registrars are known to pre-sign certificates and leave them at medical facilities, meaning that there is no properly validated link to actual registers.[37]

Incentives to register are poor. Paper birth certificates have no functional purpose, and few are aware of their legal rights, or of certificates' inherent value. MoLG – and NPopC too – sometimes charge for certification.[38] It is uncertain whether those issued by MoLG would be recognised internationally, though they are more popular with many rural residents because they are easier to access. It has been suggested that, instead of charging, mothers should be offered incentives to register, in the form of a small gift such as a handkerchief.[39] A better idea would be to link birth certificates to access to services – especially if also linked to national identity numbers (NINs), as discussed below.

As a result of all these obstacles, coverage is low. UNICEF estimates, variously, that between 30% and 38% of births are registered annually.[40] Attempts to boost registration have had mixed success. An NPopC Action Plan, introduced in 2005, sought to increase awareness and waived all fees, resulting in an overall 2% rise in births registered, over three years. A 2012-2016 programme, linked to healthcare services, resulted in the registration of about seven million children, but the rising population meant that percentage coverage remained low. UNICEF's impact evaluation of this programme highlighted the failure to address duplication between NPopC and LGAs and called for digitisation to be prioritised.[41]

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[35] Meeting with UNFPA, 9 May 2019
[36] Meeting with Ondo State NPopC, Akure 2 May 2019
[37] Meeting with UNICEF CRVS consultant, Bauchi 3 May 2019
[38] https://www.dailytrust.com.ng/population-commission-frustrates-birth-registration-by-charging-fees.html
[39] Meeting with Ondo State NPopC, Akure 2 May 2019
[40] The NCO Country Programme Document for 2018-22 says 62% are unregistered: https://www.unicef.org/nigeria/reports/unicef-nigeria-country-programme-document-2018-2022. The WCARO factsheet on birth registration states that about 70% of children born each year are not being registered: https://www.unicef.org/wcaro/WCARO_Nigeria_Factsheets_BirthRegistration.pdf
[41] https://www.unicef.org/evaldatabase/files/Impact_Evaluation_Birth_Registration_Progr_Nigeria-Final.pdf

From 1999 to 2007, UNICEF made efforts to support the manual digitisation of certificates, but NPopC has not uploaded any of its forms since then, leaving around 40 million certificates yet to be digitised. They also objected to a 2014-15 programme to scan certificates, because it revealed discrepancies with their records.[42]

UNICEF, UNFPA and NPopC are all now keen to make a fresh start. A comprehensive, electronic CRVS system – ideally linked to GIS – could reduce the pressure on the national census.[43]

UNICEF is supporting NPopC in a pilot to issue digital birth certificates in Kebbi and Adamawa states. Using locally developed software[44] 50,000 births have been registered since November 2018. It is expected that a further 100,000 registrations will take place before the end of 2020 and the pilot is currently being extended to Bauchi state.[45] Registration data is uploaded in near real-time to NPopC's national server.

UNICEF also manages a highly respected birth registration dashboard[46] which displays statistics, submitted digitally on a regular basis by registrars, of monthly state-level registrations. There is currently, however, no connection between the digital registration process and the dashboard.

National identity

The National Identity Database – and the sole authority to issue unique National Identity Numbers (NINs) and identity cards – rest with the National Identity Management Commission (NIMC). NIMC was created in 2007, replacing the Department of National Civic Registration, meaning that the national identity system remained institutionally separate from CRVS. Though much smaller than NPopC, NIMC is relatively well-funded and claims to have 600 staff at LGA level – all of them graduates. It says it also has the technical infrastructure in place to roll out NINs for the entire population within three years, which appears highly ambitious.[47] Around 35 million Nigerians already have NINs.

To date, a lot of NIMC's efforts have gone into the creation of biometric identity cards, which are expensive and logistically difficult to produce. With in-built incentives – such as a direct link to banking systems – there may well be significant demand for ID cards in urban areas. It is inconceivable, however, that they could be issued to the entire population. Instead, NIMC has developed a Strategic Roadmap to allocate lifelong electronic NINs to everybody.[48] Wisely, this is linked to digitisation of all birth and death records.

[42] Meeting with NPopC, 7 May 2019
[43] Meeting with UNFPA, 9 May 2019
[44] It is notable that NPopC did not adopt UNICEF's own application – Mobile Vital Records Systems – that has been extremely successful in Uganda. http://mobilevrs.co.ug/home.php
[45] Correspondence with UNICEF Child Protection Specialist, 2 June 2019
[46] https://rapidsmsnigeria.org/br/2018
[47] Meeting with NIMC, 6 May 2019
[48] https://www.nimc.gov.ng/docs/reports/strategicRoadmapDigitalID_Nigeria_May2018.pdf

Combining Digital CRVS with NINs

The NIMC roadmap contains a series of logical steps:

- NPopC to digitise all its current birth (and death) records going back to an agreed starting point
- NPopC to develop human and technical capacity to register all new births in a digital Registry of Births and Deaths, using digital data capture, by an agreed start date
- NPopC and NIMC to work together to link new entries in the Registry of Births and Deaths to the issue of a unique NIN – linked to the parents' NINs – and thence to the issue of a paper Birth Certificate containing the NIN (as well as a birth registration number).
- This would require automated interoperability between NPopC's Registry of Births and Deaths and NIMC's Identity Number database.

The roadmap has been backed by the World Bank. A proposal is in the pipeline and negotiations are at an advanced stage for NIMC to receive $400 million of funding from the World Bank, the European Investment Bank and the French development Agency.[49]

As a coherent whole, the Strategic Roadmap is a strong document. If delivered in its entirety, it would make a huge contribution to the data landscape in Nigeria, enabling greatly enhanced cross-sectoral monitoring of children's lives and needs in particular. However, there is a significant risk that current funding plans might only partially cover what is needed. Despite the central importance of digitised birth registration, it is not clear whether funding for this would be forthcoming. Only 10% of the $400 million total would be allocated to NPopC, with the World Bank indicating that it would "help" NPopC to attract further funding.[50]

Without digital birth registration it will be impossible for NIMC to establish individuals' identities and issue digital NINs. The project thus depends on extensive digital cooperation between NPopC and NIMC. Indeed, their databases would need to be fully integrated. Yet, because of the similarity of their mandates, NPopC and NIMC have been bitter rivals ever since the latter's inception. Which of them should lead on digitisation will be a complex negotiation, with goodwill at a premium. NPopC has a longer history, far larger staff and a presence at grassroots level. The Department of Immigration and Interior has also said that it finds NPopC's existing data – and data management – more useful. However, it is NIMC that has produced the Strategic Roadmap and attracted funders. In NPopC's own words, "NIMC have sold themselves as being responsible for CRVS. NPopC is bad at selling itself."[51]

In the absence of NPopC funding, there is a risk that implementation of the excellent NIMC roadmap could revert to delivery of biometric identity cards. The World Bank is

[49] http://documents.worldbank.org/curated/en/501321536599368311/pdf/Concept-Project-Information-Document-Integrated-Safeguards-Data-Sheet-Nigeria-Digital-Identification-for-Development-Project-P167183.pdf
[50] Ibid
[51] Meeting with NPopC, 7 May 2019

keen on their revenue-raising potential, but they would be of limited benefit from a data perspective. UNFPA, by contrast, have argued that NPopC should take the lead on this project.

There is a very strong case for the UNICEF NCO to get involved in an integrated programme as an additional funder, in order to:

- Provide a guiding influence, alongside UNFPA, over the direction of project implementation, making sure that other partners do not seek or allow its primary purpose to be downgraded.
- Ensure that NPopC retains a powerful voice in negotiations over planning and responsibilities.
- Assist NPopC in equipping itself to deliver full, digital birth registration, via phased funding of its resource requirements. NPopC estimates that to do this would need each of its 4000 registrars to have a handheld data capture device and a printer, as well as capacity training and servers at state level.
- Promote the link between National Identity Numbers and access to services, thus incentivising registration and generating valuable individual-level data.
- Argue for electronic NINs to become the basis for Electoral Registration, which currently costs far more, per election, than the whole value of this programme.[52]
- Build a strong, long-lasting strategic partnership with the National Population Commission.

[52] https://africacheck.org/reports/checked-two-claims-about-the-astronomical-cost-of-nigerias-election/

5. The Health Management Information System (HMIS)

One PHC per ward

The Nigerian government has launched a 'One Primary Health Centre (PHC) per ward' strategy. With roughly 10,000 administrative wards in the country, this is impressively ambitious, and progress to date has been steady. The aim is to rehabilitate or establish thousands of centres and revitalise the primary healthcare system, which had not been functioning adequately for decades. Problems included the costs of services, perceived low quality, lack of awareness of what was available, and transport difficulties in rural areas – affecting both patient and staff access and delivery of supplies.[53] The aim is to bring services together – including birth registration – and mobilise communities to make use of them. Preventive health measures, nutrition, sanitation, HIV/AIDS interventions, social protection, child protection and information services are being provided alongside medical treatment. UNICEF has already supported the rollout of 561 PHCs in its target states of Adamawa, Bauchi and Kebbi. In the process, the NCO has helped to develop cross-sectoral linkages, improved case management and broader outreach to 6,885 settlements, and raised the average life expectancy of over 435,700 women and under-fives.[54]

Local Government Area authorities are responsible for delivery of a PHC in each ward, as well as for ensuring their sustainability. This requires them to ensure the provision of adequate infrastructure, staffing and support networks, as well as excellent systems for data collection, validation, analysis and use.[55] As part of the programme to make PHCs the basic building blocks of the Nigerian public health system, they have been integrated as the primary data entry points in the Health Management Information System (HMIS).

HMIS data entry

Nigeria uses the updated, mobile-capable District Health Information System (DHIS2) as its primary health management information system (HMIS). This now captures information from PHCs in most states. Because of the priority being given to the PHC strategy, PHCs have been designated as the points of collection for all paper-based forms from health facilities in their ward. This means that PHCs are responsible for collation and submission of all health data to LGAs, e ven when there are bigger secondary or tertiary health centres in the ward. Unsurprisingly, this arrangement does not work well, with most larger facilities reluctant to send a plethora of manually completed forms down the food chain.[56] Similarly, private health providers – preferred by up to 60% of the population – do not currently feed their data into the HMIS. Nor do

[53] UNICEF Nigeria Country Programme Document, 2018-22, https://www.unicef.org/nigeria/reports/unicef-nigeria-country-programme-document-2018-2022
[54] UNICEF Nigeria Country Office Annual Report, 2017, https://www.unicef.org/about/annualreport/files/Nigeria_2017_COAR.pdf
[55] Meeting with NCO Health Section, 29 April 2019
[56] Meeting with the Commissioner of Health, Bauchi 2 May 2019

community groups or civil society organisations that undertake primary healthcare activities.[57]

For PHCs' own information, the HMIS is fairly robust, but more can be done to enable it to make staff lives easier – and to provide them (and higher-level health professionals) with useful data. Currently, administrative staff in PHCs keep daily records on up to twelve different registers, covering everything from ante-natal and nutrition check-ups, through to patient diagnoses. This includes work done outside the centre, for example on rural outreach programmes, as well as any information received from other health facilities in the ward. These are all then painstakingly summarised on a monthly aggregate form for submission to the LGA.

Most of this manual data entry is done by staff who have no training, either in medicine or statistics. Because it is a federally designed database that is reliant on matching paper-based entry forms it is a logistical nightmare to make changes to the system. The current content has not been changed since 2013. Non-routine interventions, such as sensitisation or vaccination outreach programmes, are recorded separately, outside the HMIS. There are also separately funded systems, such as MRIS, holding information on maternal mortality; on some non-communicable diseases; and on logistics management.[58]

The monthly summary forms are digitally input by LGA staff. Before doing so, they check and validate the data. This includes visits to PHCs to inspect manual records – and deliver training in self-validation. Further data checks are carried out by PHC boards and Ministry of Health specialists, prior to electronic entry. State-level health departments then produce scorecards, to illustrate and analyse each month's information. State staff are aware that the data they are processing is not necessarily accurate enough to allow for detailed interpretation of complex health trends, but they believe that by using the data and interacting with its providers they will influence its improvement.[59]

Investments to improve DHIS2

It has been observed that Development Partners like to make multiple health interventions at grassroots level in Nigeria, but that they show less interest in federal systems.[60] From the point of view of saving lives, this may make sense. From a data perspective, however, piecemeal approaches will solve little. UNICEF Nigeria has the opportunity to make a much bigger, more sustainable difference by providing support to the enhancement of the HMIS, from the federal level downwards. This would include ensuring that it creates the most useful platform possible for all health professionals and facilities, including PHCs.

This would be consistent with UNICEF's global Approach to Digital Health, which identifies a comparative advantage in leading systemic partnerships.[61] Key partners in

[57] Meeting with UNICEF Health section, 29 April 2019
[58] Meeting with the Chairman of Ondo State Primary Healthcare Development Agency, 2 May 2019
[59] Meeting with UNICEF Health Section, Bauchi 3 May 2019
[60] The Bill and Melinda Gates Foundation, for example, currently has 69 health projects in progress, the majority of which focus on particular states. https://d-portal.org/ctrack.html?country=NG&sector_group=121|122|130&publisher=DAC-1601#view=active
[61] https://www.unicef.org/innovation/media/506/file

Nigeria would include the World Health Organisation (WHO), USAID and the Bill and Melinda Gates Foundation – as well as the Nigerian Ministry of Health and the Primary Health Care Development Agency. The Head of the Health Management Information System has already planned a number of valuable changes to it, which UNICEF could usefully champion.[62] Ensuring that he has the full capacity to implement them and improve the system, on a nationwide scale, represents another opportunity for the UNICEF NCO to build a new, trusted partner relationship with a government agency.

The most important step would be to move digital data entry down to PHC level – obviating the need for multiple paper forms and allowing records to be input daily – and ensure it works as well as possible. HMIS plans currently in the pipeline include:[63]

- Data entry to be done by health professionals (doctors and nurses) rather than less knowledgeable administrators
- Secondary, tertiary (and private) health facilities to enter their own data directly, with a range of modules for different elements of service
- The use of field-level data capture technology.
- Data validation to be carried out within the system, rather than pre-entry
- Data entry forms to be updated, following reviews, every two to three years.[64]

The next stage would be to improve data analysis and use. At federal and state levels, this should entail closer working relationships between data specialists and policy teams – both in order to offer training and improve the data awareness of policymakers, and also to establish their needs. User-friendly statistical summaries, factsheets and presentations could stimulate better use of evidence – in the sector where the value of evidence-based decision-making is perhaps greatest of all. Expanding the use – and broadening understanding of the usefulness – of quarterly dashboards at state and LGA levels would be a smart investment, with direct links to child health outcomes. If, in turn, this were to encourage wider data training – or even hiring of more specialists in ICT, M&E and statistics within health ministries – so much the better. The NCO should also advocate for more HMIS data to be visualised for public consumption, perhaps along the lines of the work of the UN Global Pulse Network in Uganda and elsewhere.[65]

HMIS staff are also currently investigating the logistics of making DHIS2 interoperable with other systems such as health facility registers and electronic medical records. UNICEF could play an important role in assisting this, with reference to its work in other countries, such as support to the Health Data Collaborative work in Tanzania.[66] Electronic Medical Records (EMRs) are in place in some state hospitals and are being trialled in a few PHCs.[67]

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[62] Meeting with Head of the Health Management Information System, Federal Ministry of Health, 8 May 2019
[63] Ibid
[64] The current DHIS2 fields were designed in 2013, but it is almost impossible to change them while data is being collected manually in up to 10,000 different places. Once paper forms have been fully phased out, the HMIS will be much more flexible and adaptable.
[65] https://diseaseoutbreaks.unglobalpulse.net/uganda/
[66] https://www.healthdatacollaborative.org/where-we-work/tanzania/
[67] Meeting with Head of the Health Management Information System, Federal Ministry of Health, 8 May 2019

Immunisation

Routine Immunisation (RI) is already captured by Primary Health Centres – on one of the twelve forms that feed in to the HMIS. This includes PHCs' own rural immunisation outreach work. The data capture is fairly successful, especially following the DHIS2 RI Dashboard project, which was initiated in 2014 to address the absence of some RI-specific indicators in DHIS2. The project trained nearly 34,000 health administrators, at all levels, in RI data tools, contributing to an improvement in the completeness of reports in the HMIS from 53% in the first quarter of 2014 to 81% in the second quarter of 2017.[68] Logically, then, efforts to further enhance the comprehensiveness, accuracy and ease of use of RI data can best be achieved via further investments in the HMIS, as outlined above.

Monitoring of RI data within a fully-digitised HMIS is likely to be more cost-effective and helpful than checking PHCs' records via Local Quality Assessments (LQAs). Visiting villages to find evidence, such as vaccination cards, is not likely to reveal a full picture. Cards are easily lost, and memories are unreliable. This is a good example of how investments in data improvement need to be systematic to be effective. Collecting excessive amounts of monitoring detail at the lowest level will not save that many lives, relative to the effort it requires.

Non-routine immunisation – in the form of major, donor-funded campaigns tend to have their own monitoring systems built in. While it would be desirable for this information to be interoperable with the HMIS – or, better still, linked to individuals' unique NINs – the risk of people falling through gaps is reasonably low. This is especially so where UNICEF has been directly involved in the campaign. For example, the highly successful campaign to eradicate polio in Nigeria – now just weeks from reaching its target – has been managed as part of the Global Polio Eradication Initiative (GPEI) network, of which UNICEF is one of the leaders.

The polio campaign in Nigeria has used Open Data Kit (ODK) – an open-sourced, mobile-based management information software for data capture, aggregation and use, since 2016. It is designed to be effective in resource-constrained environments – making it difficult to link directly to large-scale systems like HMIS. Nonetheless, it has been possible to give access to the ODK database to state-level officials, so that they can monitor and supervise progress in real time. It has also been used to create visualisations as part of advocacy, communication and social mobilisation work.[69] Finding a way to feed data collected via ODK, or similar systems, into the HMIS would be an excellent investment to strengthen immunisation outcomes in Nigeria.

[68] 'Data for decision making: using a dashboard to strengthen routine immunisation in Nigeria', British Medical Journal Global Health, Vol. 3, Issue 5, https://gh.bmj.com/content/3/5/e000807
[69] 'Nigeria, a champion of Open Data Kit: The power of data and technology in polio eradication', Unpublished document provided by UNICEF C4D specialist, Abuja 7 May 2019

6. The Education Management Information System (EMIS)

Current data collection

UNICEF have made strong investments in Nigeria's Education Management Information System (EMIS) – indeed the system is almost entirely funded by the NCO. All recent improvements to data collection, management and quality assurance in its ten target states have been the result of UNICEF initiatives. Thanks to these efforts, eight target states now have a functional EMIS that provides disaggregated data. It has not been a straightforward task. LGA staff responsible for data collection and validation are rarely well-qualified, or even reliable. Quality Assurance Officers (QAOs) – of whom there are around 20 per LGA – are often poorly motivated, and sometimes dishonest about the work they claim to have done. They also face genuine transport and logistical challenges.[70]

The main information contained in EMIS is drawn from the Annual School Census (ASC). This provides aggregated statistics about pupils and staff. It also lists physical infrastructure, including the condition of classrooms, toilet facilities, kitchens and so on. Because state and federal budget allocations to LGAs for spending on schools are linked to pupil numbers, there is a clear incentive for both school and LGA staff to exaggerate. Perhaps because of this, state governments currently enter all ASC data into EMIS themselves. Information from thousands of paper-based census forms is keyed into the web-based EMIS database by temporary state Education Ministry staff. UNICEF incentivises them to keep up-to-speed by paying a bonus per form. Data accuracy and validation remain difficult to ensure.[71]

Data analysis and use

Government officials at all levels make very little effort to interpret and apply data from EMIS. It is rare for LGAs even to attempt to access data on schools in their area – which may, in part, reflect the way they are cut out of the system of data collection and inputting. However, it also reflects the generally low data capacity of many LGA staff.[72] At state level, the focus is so heavily on wading through oceans of data entry that ministry staff have limited time or inclination for analysis. In some states, the EMIS office is nothing more than a typing room.[73] In others, demand for critical information on the state of education exists, but is not met, due to lack of analytical capability.[74] Political interest – at both state and federal levels – tends to wax and wane according to electoral cycles, incentivising officials to interpret data to match what politicians want to hear, rather than giving them solid evidence. Some have been known to keep different data to present to

[70] Meeting with UNICEF NCO Education Section, 29 April 2019
[71] Meeting with UBEC, Bauchi 2 May 2019
[72] Meeting with Ondo State Ministry of Education, 3 May 2019
[73] Meeting with UNICEF NCO Education Section, 29 April 2019
[74] Meeting with Ondo State Ministry of Education, 3 May 2019

different audiences. For example, visitors from donor organisations or community groups will see different results from the federal government.[75]

Learning outcomes

Educational standards in many parts of Nigeria are low. Children do not learn the skills that would enable them to function effectively or earn a decent livelihood. Nearly half of all children who have completed primary school cannot even read a complete sentence. Poor learning outcomes are caused by low levels of teaching competence, lack of instructional materials, poor student attendance and lack of safe, inclusive classrooms.[76] Some of this can be tracked using the school census data in EMIS, but pupils' ability or levels of education are not captured in the ASC.

School standards were last surveyed nationally through a Learning Outcomes Assessment in 2011. Schools were randomly selected, then some of their pupils – and staff – were required to take tests on different aspects of the curriculum. While this measured learning in some ways, it presented more of a snapshot of staff and student aptitude and knowledge levels than any measure of achievement over time. Schools do keep their own paper records of 'continuous assessment' – pupils' results year-on-year in different subjects – and use them to make decisions about when students are ready to progress to the next school grade. With no external involvement in assessment or analysis of student progress, however, schools' paper-based records of individual achievement are not digitised or exported.

School record-keeping is meant to be consistent and comprehensive. They are provided with a detailed and clear guide. The Manual of School Record-Keeping includes instructions on how to gather information on cross-sectoral information, as well as how to note educational data. For example, it requires schools to assist pupils who do not have birth certificates, by accompanying them to LGA offices to acquire one. In reality, most just leave date of birth blank. Without a requirement even to submit data, let alone be evaluated in comparison with other schools, it is inevitable that schools' records will vary widely in quality and completeness. LGA EMIS officers and QAOs are supposed to check school records regularly, to ensure accuracy and consistency – but their own capabilities and performance vary.

UNICEF efforts to improve EMIS

The Nigeria Country Office's best strategy will be to continue to support and encourage incremental improvements to the quality, quantity, range and timeliness of EMIS data, as it has done for the last few years. Recent successes include:

- Compiling an accurate list of all the primary schools in the country.[77]

[75] Ibid
[76] UNICEF Nigeria Country Programme Document, 2018-22, https://www.unicef.org/nigeria/reports/unicef-nigeria-country-programme-document-2018-2022
[77] Meeting with UNICEF NCO Education Section, 29 April 2019

- Conducting a joint assessment, in 2015-16, of EMIS capacity and validity across eleven states, leading to the development of quality benchmarks and a roadmap to achieve them.[78]
- Training 49 officers in ten states in EMIS software and database management.[79]
- Building a team across ten states of 'master trainers' to rollout EMIS administration skills nationwide, backed up by technical assistance delivered in partnership with the World Bank.[80]

The next step will be to broaden the use and usefulness of EMIS. One way to achieve this would be to persuade government to move data capture to LGA level, freeing up state-level staff to analyse the results. Cascading training in digital inputting and data skills from state to LGA-level administrators would have a good chance of improving motivation all round. It would also pay to advocate for much wider digital access to EMIS data at state and federal level, with the aim of stimulating use and analysis of the data.

The best way to attract wider interest in EMIS data would be to make the case for expanding it to cover more elements of school records – in particular class-level aggregates of learning outcomes. This would make EMIS much more useful for understanding how well the Nigerian education system is working as a whole – as well as for identifying variations within it. Combined with existing disaggregated information on students and staff, this could facilitate some sophisticated analysis of drivers and areas for potential high-impact investment.

A combination of advocacy and collaboration with the Ministry of Education and the Universal Basic Education Commission (UBEC) to develop a strategy for capturing learning outcomes within EMIS would be a smart approach. It would require careful redesign of ASC and school record forms, as well as a training programme to cover the broader data entry requirements. At the same time, the NCO would need to continue to support measures to improve school record-keeping – especially on pupil achievement. To harmonise these parallel processes further, it would be useful, in the short-to-medium-term, to pilot on-site data capture of selected school learning outcome records. Even before they could be incorporated into EMIS, electronic measures of pupil attainment would be a useful supplement to existing monitoring.

This could be done, in the first instance, by incrementally building the capacity and professional incentives of LGA-level EMIS and Quality Assurance Officers to digitally capture school records, on an ongoing basis, in the course of their visits to schools. Equipped with appropriate data capture technology, they could also be encouraged to train Head Teachers to input ACS results and school records themselves.

[78] UNICEF Nigeria Country Office Annual Report, 2016, https://www.unicef.org/about/annualreport/files/Nigeria_2016_COAR.pdf
[79] Ibid
[80] UNICEF Nigeria Country Office Annual Report, 2017, https://www.unicef.org/about/annualreport/files/Nigeria_2017_COAR.pdf

7. Child protection

Child protection data sensitivities

By its nature, child protection data cannot easily be captured within general surveys such as MICS or DHS, nor through recording of routine provision of services. Abuse of children, in all its forms, is rarely visible. Information about it is usually hidden, sensitive and difficult to verify. As a result, information management systems tend to be repositories for the minority of cases that are being – or have been – dealt with by authorities. Especially for abuse that takes place in the domestic sphere – be it violent, mental or sexual – the number of unreported cases is hard to estimate.

When child protection issues do come to light, they are extremely challenging to deal with. Cases often require time-consuming investigation, sometimes involving expensive medical and legal procedures. Children's trauma, right to privacy and unwillingness to testify against adults close to them can make it difficult to proceed. It is not uncommon for victims' parents to agree deals with perpetrators, then withdraw cases from courts. Even when this is done with the good intention of keeping children away from public scrutiny, it denies justice and further disguises the extent of the problem. Technology that is likely to increase the chances of successful prosecution – notably video evidence – is often unavailable for cost reasons, as well as being intimidating for some victims. Providing subsidy and support to investigatory and legal processes is an obvious priority.

Gathering more information

UNICEF last conducted a survey of Violence Against Children (VAC) in 2014. It included a number of innovative techniques to meet the challenge of collecting such sensitive data – such as encouraging children to tell stories or draw pictures. The VAC survey was of high quality and provided an excellent resource for policy and advocacy. In the absence, for now, of a nationwide system to capture child protection data, it would be useful for UNICEF to commission a new VAC survey, to build on the 2014 baseline, provide updated information and enable analysis of changes over the last five years.

CPMIS

Based on a global toolkit, the Child Protection Management Information System (CPMIS) was developed by a UNICEF-led consortium – including the International Red Cross and Save the Children – in 2005. It is now used in more than thirty countries, almost exclusively in conflict zones.[81] UNICEF first supported state governments to pilot CPMIS in North-eastern Nigeria, in 2015. There were up to thirty different actors managing cases at the time – mostly NGOs and community groups. In the context of low state capacity, UNICEF took the lead in setting up CPMIS+ to record and harmonise these activities. CPMIS+ has a mobile interface, among other updated features.

The NCO soon realised that child protection is not just an issue in conflict environments and that it needed to replicate CPMIS+ on a wider scale. It has now helped to develop

[81] Meeting with NCO Child Protection Section, 9 May 2019

government-led information management frameworks and coordination, at state and federal levels, in both the North and South of the country.[82] Some staff have undergone CPMIS+ training. There are now 11,000 children documented in the system. However, the wider pilot still only covers four states. The plan is to build the system incrementally – the current target is to cover 25 LGAs across six states by 2020.

In states where CPMIS+ has not yet been introduced, a number of children's NGOs do collect data and act as a first point of contact for new cases. These are routinely reported, at state level to the Ministry of Women's Affairs and Social Development (MoWA), which also hosts CPMIS+. While MoWA has national coverage, however, it is chronically short of funds. Few state officials even have the resources to attend federal meetings on child protection issues.[83] MoWA cannot be relied upon to oversee, let alone deliver, an effective information system for child protection on its own. Given that CPMIS+ works well, where it has been piloted, UNICEF would do well to step up its ambition and set a timetable for investing in the gradual rollout of CPMIS+ nationwide. The need is clear, and UNICEF's system is best placed to meet it.

Harmonising CPMIS+ with other information management systems

CPMIS+ is compatible with the Gender Based Violence Information Management System (GBVIMS), which is also partially funded by UNICEF (the main funder is UNFPA). GBVIMS is currently operational in three states, with two more to be added shortly. The two systems are both housed (in different 'rooms') on UNICEF's Primero case management platform. It is hoped that agreement will soon be reached to integrate GBVIMS fully into CPMIS+.

There is also significant overlap between CPMIS+ and the National OVC Management Information System (NOMIS), which also comes under MoWA. Developed to register and track HIV orphans, NOMIS later expanded to include abandoned children and street children. Originally called KiDMAP, it was developed, with USAID support, by Family Health International (FHI) 360's Global HIV/AIDS Initiative Nigeria (GHAIN). FHI 360 handed over the NOMIS software to MoWA in 2011.[84] The focus of NOMIS remains Orphans and Vulnerable Children (OVCs). OVC desk officers aggregate information at state level and enter it into the system, generating summary reports at state and federal level, but not lower. It operates in sixteen states, albeit with considerable challenges.

Building the capacity to develop a fully-functioning, multi-dimensional information management system for child protection across all Nigerian states is essential. It will require considerable time and resource to do so. Developing two parallel systems makes no sense. They would draw resources – and data – away from each other, and then require further effort to re-integrate them. A study would be needed to establish if interoperability would be possible – even at this relatively early stage. There is private

[82] UNICEF Nigeria Country Office Annual Report, 2017, https://www.unicef.org/about/annualreport/files/Nigeria_2017_COAR.pdf
[83] Meeting with Ministry of Women's Affairs, Ondo State, 2 May 2019
[84] https://www.fhi360.org/news/usaid-mission-director-hands-over-orphans-and-vulnerable-children-management-software

consensus on all sides that CPMIS+ and NOMIS should instead be merged.[85] In reality, this would mean that one of them would be phased out as a separate system, with new fields added to the other.

The case for keeping CPMIS+ and winding down NOMIS is robust. CPMIS+ has several advantages.

- It has more child protection indicators – including critical ones such as violence against children, sexual abuse, emotional abuse, mental health and healthcare
    - Based on a global toolkit and now under use in 30 countries, CPMIS has benefited from having global guidelines and being used widely. Experience sharing has enhanced its quality assurance.
    - CPMIS has been adapted to the Nigerian context and, with UNICEF support, has seen a number of innovations to improve the system, including upgrading the software to CPMIS+ to allow for digital data capture.
    - There are no standard tools for data capture for NOMIS, and no oversight mechanism to ensure consistent collection, submission, entry and use of the data.
- CPMIS+ is still manageable in its geographical scope, allowing it to develop evenly, with continuing hands-on technical and financial support from UNICEF. Having been handed over to MoWA, there is insufficient capacity to manage NOMIS at the moment, let alone expand it

Given capacity constraints at the MoWA, it would not be effective to ask them to choose how best to harmonise the two child protection data systems it oversees. Rather, we recommend that UNICEF opens direct, diplomatic, discussions with USAID – as NOMIS's principal funder – about the best way forward. While USAID have already acknowledged the problem[86] and – to some extent – the advantages of CPMIS+ over NOMIS, it will naturally not be keen to abandon its own programme. It may help to persuade them if the NCO focuses closely on evidence-based practical considerations, with more emphasis on CPMIS+'s potential and less on NOMIS's weaknesses.

[85] Meeting with NCO Child Protection Section, 9 May 2019
[86] Ibid

8. Conclusion – Maximising influence and impact

Strategic challenges

In many countries, UNICEF's relationship with government is one of partnership, and UNICEF is respected for its engagement and advice in the development of sector strategic planning in its fields of expertise. Globally this is a significant comparative advantage that UNICEF holds over other development partners. Our experience in meetings with both federal and state officials in Nigeria, however, is that UNICEF is regarded more as another donor than a strategic partner. This is in part because of the complexity of Nigeria's system of governance. Amidst the multiplicity of MDAs at different levels, it is harder for any external body to gain traction. The compartmentalised nature of UNICEF's sector-specific support also reduces its overall visibility.[87] In some states and sectors, government policymaking is highly politicised, and ministries are not open to advice. However, among the array of different agencies dealing with data on children in various ways, there are several with which the NCO has good relationships – and more where it would be worthwhile to start building trust as the first step towards building strategic partnerships.

There are some political opportunities. The Special Presidential Assistant on the Sustainable Development Goals (SDGs) has reached out to UNICEF with a view to working together. However, the NCO cannot be too ambitious in its data goals. There is little prospect of it persuading federal or state governments to transform their decision-making processes or data strategies. Even advocacy for better investment in Information and Communication Technology (ICT) infrastructure, or data institutions, systems and personnel will be challenging in the current environment.

Building respect for data

The most effective approach in the short- to medium-term will be to support a strategy to promote better understanding of – and enthusiasm for – data as a tool of governance. The Directorate of Monitoring and Evaluation at the Ministry of Budget and National Planning (MBNP) is already attempting to make the case across government for evidence-based decision-making and results-based management. As they express it, "We have been building capacity for the last eight years. Now it is time to build buy-in."[88] The NCO has already built a successful partnership with the Directorate, on Monitoring for Results.[89] There is a good opportunity to strengthen this further by working together on a campaign to demonstrate the usefulness of data.

87 Meeting with Resident Coordinators Office, 10 May 2019
88 Meeting with Directorate of Monitoring and Evaluation, MBNP, 6 May 2019
89 See Federal Government of Nigeria, 'National Monitoring and Evaluation Policy Framework, consolidated final draft', April 2019

This might include:

- Using “non-data” communications experts to run a public campaign to engage government, private sector and civil society on the opportunities that the Data Revolution presents.
- Supporting national and state-level data forums that showcase the value of data for analysis, planning and policy-making – including the benefits of both institutional and system interoperability.
- Identifying data-friendly politicians, labelling them “Champions” and providing them with resources and advice.

Encouraging collaboration at different levels of government

Co-operation between rival agencies will be essential to the successful delivery of many data goals in Nigeria – for example the integration of digital CRVS and National Identity Numbers. It is not realistic in the near future to expect consolidation of the many different bodies involved. In many countries the national statistics office plays a unifying role, but in Nigeria the National Bureau of Statistics (NBS) lacks this authority. However, UNICEF can play a valuable role in pointing out the benefits of data collaboration and interoperability, in order to enable cross-sectoral – or at least cross-system – analysis. At the federal level, the starting point should be large survey data. We recommend that UNICEF encourages the NBS and NPopC to share and integrate data from MICS and NDHS into a joined-up dataset. They could then devise a comparison tool to track trends across the two sources in a timely manner.

We also recommend support for forums and working groups to share and use data, wherever the opportunity arises. Given the political sensitivities surrounding different agencies’ origins and lines of command, this would be the most neutral way to bring people together to discuss common challenges and solutions on data issues. At state level, it may help such cross-sectoral work if UNICEF’s own different sections agree to focus all their data pilots in the same states. The NCO also needs to consider its overall strategy regarding the scale of interventions. Large data pilots are typically conducted across whole states at present. That scale of complexity and geographical range is justified if the ultimate goal is to scale programmes up to cover the whole country. If that is the case, however, it is important to consider possible challenges to scalability across the very different contexts of Nigeria’s thirty-six states, from the start.

While attempts to promote collaboration at federal and state levels will face obvious political obstacles, there is a big opportunity to maximise the impact of data interventions by focusing on the LGA level. This is where most data are collated – and where it is most likely to be useful and used. Most MDAs are represented at this level, but resources tend to be thinly stretched – often over large regions with some hard to reach areas. There is therefore a strong case for capacity-sharing. This could be tried by catalysing the creation of cross-departmental technical support groups, to encourage collaboration between data-savvy staff – initially in the form of knowledge and skills sharing, and peer-to-peer mentoring. Creating communities that bring together IT-equipped workers from health, education, child protection, NPopC and NIMC could improve the robustness of services, and stimulate the sharing and use of data.

This could also extend to resource sharing, initially focused on human resources. When problems occur, it would be better to ask a local person from a different agency to help, rather than calling someone from your own agency's LGA headquarters, possibly hours away. In due course, it would be very cost-effective for government agencies to share technical resources too.

Collaboration with development partners

Finally, to be seen as a trusted partner on data for children, the NCO itself needs to collaborate itself – both internally, across sections, and with its partners. As well as identifying potential allies within government agencies, UNICEF could increase its influence on data issues by working better across the UN system and with other development partners. In the last year, various sections collaborated with the IOM, UNDP, UNESCO, UNFPA, UN Women, WFP and WHO on specific programmes.[90] There are challenges to doing this on bigger strategic issues like data collaboration, however. Inter-agency synergy is poor, despite good stated intentions. There is a UN working group on data, which is supposed to harmonise and support all UN initiatives at federal and state levels but has never met in the two years since it was set up. This has meant that consultation does not happen. UNICEF's work on data for children is of clear value to many other agencies, but they have not yet been invited to feed in. The NCO could therefore take a lead in reaching out to other agencies. Similarly, UNICEF should lead the way in sharing its successes and best practice.[91]

[90] UNICEF Nigeria Country Office Annual Report, 2018, p.18. https://www.unicef.org/about/annualreport/files/Nigeria_2018_COAR.pdf

[91] Meeting with Resident Coordinators Office, 10 May 2019

9. Recommendations

In the key areas in which this report has been focused, our recommended long-term system goals for the UNICEF NCO to invest in and support are:

1. Digital birth certificates and national identity numbers for all new-borns, achieved via integration of the civil registration and identity number systems. Both UNICEF and UNFPA should prioritise engagement in – and funding of – the Nigeria Digital Identification for Development Project, with a focus on the CRVS side.
2. A robust and comprehensive Health Management Information System that paves the way for integrated electronic medical records. The UNICEF NCO should take a leadership role, to ensure that DHIS2 continues to develop – at federal, state, local and ward levels – as the cornerstone of the health service. Data on immunisation should be captured within the HMIS. UNICEF should also support measures to facilitate and increase the use of health data.
3. A robust and comprehensive Education Management Information System that expands from the annual school census into more regular capture of school records with a focus on learning outcomes. UNICEF should seek to facilitate incremental improvements to the quality, quantity, range and timeliness of EMIS data – ultimately to include Learning Outcomes and on-site inputting.
4. Integration of the Child Protection Management Information System with the currently separate systems for orphans and vulnerable children (NOMIS) and on gender-based violence (GBVIMS+). UNICEF should continue to invest in rolling out CPIMS+ nationally, while seeking to reduce wasteful double-counting. We also recommend a new survey of Violence Against Children.
5. Advocacy for data collaboration, sharing and use between agencies. UNICEF needs to adopt a multi-faceted strategy to make the case for the usefulness of data. The NCO should encourage the National Bureau of Statistics and NPopC to share and integrate data from MICS and NDHS into a joined-up dataset. We recommend that UNICEF pilot the notion of inter-agency capacity-sharing at LGA level. Finally, UNICEF must make efforts to work more collaboratively on data issues itself: across the UN system, with development partners, and with potential allies in government.

These are spelled out in more detail in the accompanying Strategic Action Plan.

10. Appendices

Meetings

The following meetings were held during the consultants' visit between 29 April and 10 May 2019

UNICEF Country Office Sections	Child Protection
	Communications for Development
	Education
	Health
	Management for Results
UN Agencies	Resident Coordinator's Office
	UNFPA
Federal Ministries and Agencies	Ministry of Budget and National Planning
	Ministry of Education (Education Management Information System)
	Ministry of Health (Health Management Information System)
	Ministry of Women and Social Development
	National Bureau of Statistics
	National Identity Management Commission
	National Population Commission
Bauchi State	UNICEF Chief of Office
	UNICEF Health Section
	State Ministry of Budget and Planning
	State Ministry of Education
	State Ministry of Health
	State Primary Health Care Development Authority
	State Universal Basic Education Board
	2 primary health care centres
	1 primary school
Ondo State	UNICEF Chief of Office
	State Bureau of Statistics
	State Ministry of Economic Planning & Budget
	State Ministry of Health
	State Ministry of Women Affairs and Social Development
	State Primary Health Care Development Agency

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