Healthy Lives in Nigeria

Evaluation of the **Effectiveness** and **Impact** of **SDG 3**

INDEPENDENT EVALUATION OF THE EFFECTIVENESS & IMPACT OF THE

SUSTAINABLE DEVELOPMENT GOAL 3: HEALTHY LIVES IN NIGERIA

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Foreword

As Nigeria remains fully committed to saving lives and improving the health of all Nigerians, so does it continue its efforts to create an enabling policy environment for the implementation of the Sustainable Development Goals through its Economic and Recovery Growth Plan and other strategic initiatives in health and other development sectors. In the developing countries of the Global South, Nigeria is the first to conduct independent evaluations of Sustainable Development Goals 3 and 4 (SDG3 and SDG4), focusing on Health and Education in Nigeria. This is to make Government and development partners innovative in the choices they make to reshape evidence-based policies, strategies and investments that will help Nigeria to accelerate progress towards the SDGs.

The independent evaluation of Healthy Lives in Nigeria (SDG3) is a systematic and rigorous assessment of the effectiveness and impact of SDG3 in the country. This is the first-ever evaluation of the Sustainable Development Goal for health in sub-Saharan Africa and elsewhere. The findings of this strategic evaluation reinforce the evidence for improving health in Nigeria and highlight how all stakeholders – Government, development partners and civil society – can best address systemic gaps and challenges. These include the negative effects of the COVID-19 pandemic to progress on commitment to the 2030 sustainable development agenda.

This report documents the evidence of how Nigeria is progressing on its path to implementing its National Strategic Health Plan, a road map for bringing healthy lives to all Nigerians. The report includes findings, conclusions and key recommendations for the Government of Nigeria to further improve the lives of Nigerians, particularly of women and young children, and meet the ambitious goal and targets of SDG3. We are positive that the recommendations from the evaluation will enable the Government of Nigeria to make further progress on achieving SDG3 targets as part of the 2030 Agenda.

Consequently, we recognize the leadership role played by OSSAP-SDGs, the Federal Ministry of Finance, Budget and National Planning, and the Federal Ministry of Health in helping to achieve the SDG3. We are grateful for the technical and financial support provided by the Nigeria Country Office of the United nations. We thank UNICEF's Evaluation Manager and the Health Section for managing this strategic evaluation closely with OSSAP-SDGs, just as we appreciate key players in the academia, civil society and development partners who contributed to the assessment. We appreciate the constructive participatory Review and Validation Workshop of the Final Draft Report of the SDG3 evaluation hosted by OSSAP-SDGs in Uyo, Akwa Ibom, in September 2021. This important meeting involved experts from federal and state levels, and United Nations agencies, including the United Nations Resident Coordinator's Office (UN RCO), United Nations Children's Fund (UNICEF) and the United Nations Development Programme (UNDP).

On behalf of UNICEF Nigeria Country Office and the Government of Nigeria, we use this opportunity to reiterate our commitment to continue working together to achieve the ambitious targets of the 2030 Agenda, including SDG3, and to make every effort to improve health and save lives in Nigeria.

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Federal Minister of Finance, Budget and National Planning

Honourable Dr Adamu Adamu

Minister of Education

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We like to express our gratitude for the country-led coordination role of the Technical Working Group of SDGs Evaluation in Nigeria, a body established by OSSAP-SDGs at the Presidency. The Group comprises Dr Zakari Lawal, Director of Monitoring & Evaluation at the FMFBNP; Dr Robert Ndamobissi, Evaluation Manager at UNICEF; Engr. Ahmad Kawu, Director, Monitoring and Evaluation, OSSAP-SDGs; Dr Bala Yussuf, Senior Technical Advisor at OSSAP-SDGs; Dr Ify Ukaegbu, Education-Special Assistant on Programmes at OSSAP-SDGs. Others are Mrs Rose Keffas, Special Assistant on MDAs at OSSAP-SDGs; Mr Simon B. Harry, Statistician-General, National Bureau of Statistics; Mrs Anne Ibrahim, expert at National Bureau of Statistics; Dr Uzodinma Adirieje, Nigerian Association of Evaluators; Dr Yahaya, expert at OSSAP-SDGs, and Mr Francis Akor of the M&E Department at OSSAP-SDGs.

The Evaluation Team is equally grateful to the Task Team Thematic Experts for SDG3 Evaluation, established by the Federal Ministry of Health and led by Dr Ngozi Azodo, Director of Health Planning, Research and Statistics. The experts include Dr Zakariya Mohammed (SDGs Task Team Lead), Dr Maryam Al-Mansur (Nutrition), Dr Tolupe Fagbemi (Malaria) and Dr Adeyinka Adewemimo (Monitoring & Evaluation). The Team played a critical role by providing technical support on thematic areas in the health sector and supplying data and information throughout the evaluation.

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Acronyms & Abbreviations

ANC	Antenatal care
AOP	Annual Operational Plan
BEmONC	Basic Emergency Obstetric and Newborn Care
BHCPF	Basic Health Care Provision Fund
BMPHS	Basic Minimum Package of Health Services
CBO	Community-based Organization
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CHE	Current Health Expenditure
CHEW	Community Health Extension Worker
CHIPS	Community Health Influencers, Promoters and Services
CHO	Community Health Officer
CI	Confidence Interval
COVID-19	SARS CoV-2 Virus Disease
DiD	Difference-in-Difference
DFF	Decentralized Facility Financing
DOTS	Directly Observed Treatment Shortcourse
EOC	Emergency Operations Centre
EPHS	Essential Package of Health Care Services
ERGP	Economic Recovery and Growth Plan
FCT	Federal Capital Territory
FGON	Federal Government of Nigeria
FMFBNP	Federal Ministry of Finance, Budget and National Planning
FMOH	Federal Ministry of Health
GDP	Gross Domestic Product
GGHE	Government General Health Expenditure
GoN	Government of Nigeria
HF	Health Facility
HFA	Health Situation Assessment at Facility Level or Health Facility Assessment
HMIS	National Health Management Information System
HSA	Health System Assessment
HTS	HIV Testing Services
IPT	Initial Programme Theory
IPTp	Intermittent Preventive Treatment of Malaria in Pregnancy
ITN	Insecticide-Treated Net
JCHEW	Junior Community Health Extension Worker
KII	Key Informant Interview
LGA	Local Government Area

MCH	Maternal and Child Health
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn and Child Health
MPA	Multiphase Programmatic Approach
MPDSR	Maternal and Perinatal Death Surveillance and Response
MTEF	Medium-Term Expenditure Framework
MTNDP	Medium-Term National Development Plan
NAE	Nigerian Association of Evaluators
NBS	National Bureau of Statistics
NDHS	Nigeria Demographic Health Survey
NHA	National Health Accounts
NHIS	National Health Insurance Scheme
NHREC	National Health Research Ethics Committee
NMEP	National Malaria Elimination Programme
NMSP	National Malaria Strategic Plan
NPHCDA	National Primary Health Care Development Agency
NSHDP I	National Strategic Health Development Plan I
NSHDP II	National Strategic Nigeria State Health Investment Programme Health Development Plan II
NSHIP	Nigeria State Health Investment Project
NSIPSS	Nigeria's Strategy for Immunization and PHC System Strengthening
NTLCP	National Tuberculosis and Leprosy Control Programme
OOP	Out-of-pocket
OR	Odds Ratio
OSSAP	Office of the Senior Special Assistant to the President
PBF	Performance-based Financing
PDO	Programme Development Objective
PEPFAR	(United States) President's Emergency Plan for AIDS Relief
PHC	Primary Health Care
PHCUOR	Primary Health Care Under One Roof
PMTCT	Prevention of Mother-to-Child Transmission (of HIV)
QOC	Quality of Care
RI	Routine Immunization
SDG	Sustainable Development Goal
SMOH	State Ministry of Health
SOML-PforR	Saving One Million Lives Programme for Results
SOPs	Standard Operating Procedures
ToC	Theory of Change
THE	Total Health Expenditure
TWG	Technical Working Group
UHC	Universal Health Coverage
U5MR	Under-five Mortality Rate
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UN RCO	United Nations Resident Coordinator's Office

Executive Summary

This Healthy Lives in Nigeria report is an independent evaluation of the Sustainable Development Goal 3 (SDG3). The evaluation was commissioned by the Office of the Senior Special Assistant to the President on Sustainable Development Goals OSSAP-SDGs (OSSAP-SDGs) in collaboration with the Federal Ministry of Finance, Budget and National Planning, and the Federal Ministry of Health. The evaluation, which enjoyed the technical and financial support of UNICEF, was implemented by Alegre Associates, Inc, an independent evaluation firm based in the Unites States of America. The independent evaluation was carried out between 2020 and 2021.

In January 2020, the implementation of the SDG3 independent evaluation in Nigeria was launched with an inception workshop chaired by her Excellency Princess Adejoke Orelope-Adefulire, Senior Special Assistant to the President on SDGs. In attendance were the staff of OSSAP-SDGs, the Department of Monitoring & Evaluation of the Federal Ministry of Finance, Budget and National Planning, a large team of multi-thematic experts of the Federal Ministry of Health, the President of the Nigeria Association of Evaluators, academics, national stakeholders and UNICEF representatives. All these joined in developing the evaluation scope, design and timeline. The inception workshop also helped to select six target states within which to conduct a comparative analysis of health outcomes. The general framework of the evaluation was designed under the National Strategic Health Development Plan (NSHDP II) (2018-2022), which was developed based on SDG3. Therefore, the independent evaluation focused on a comprehensive assessment of the NSHDP II that is currently being implemented nationwide. The scope of the evaluation included assessing health policies and strategies at the national level, as well as a comparative analysis among the six target states.

The schedule of the independent evaluation was severely affected by the COVID-19 pandemic, leading to two changes that occurred to the original plan: one, a delay in the work schedule for the execution of the evaluation activities; and, two, the subcontracting of Hanovia Limited, a local data collection firm, to collect primary health data in six target states selected for the evaluation design.

The evaluation was designed to reflect the successes and challenges of achieving the health sector strategic objectives during the target years of implementation (2016-2019). It was also to document evidence of effectiveness and impact of the national strategy, strengthen the evidence-based policy advocacy, and Nigeria's SDGs Voluntary National Reviews. The independent evaluation aimed at assessing the relevance and coherence of the NSHDP II, determine its achievements to date, analyse the strategies and interventions implemented, identify the drivers and barriers for their implementation, and finally, develop strategic policy recommendations to maximize the likelihood of achieving the objectives of the National Health Strategic Plan and the acceleration of the Decade of Actions related to SDG3 (2021–2030) in Nigeria.

The design of the evaluation followed two approaches, namely, a realist evaluation, and systems thinking. Both approaches required a combined cross-examination of five quantitative and qualitative data collection methods and analyses:

- Secondary analysis of data from the Nigeria Demographic and Health Survey (NDHS) (2013) and (2018). This includes descriptive and regression analyses.
- Health system assessment at the state ministry of health (SMOH) of six target states.

- Assessment of the maternal, child and nutrition services at selected health facilities in the six target states.
- In-depth interviews with key informants (KIIs) at the federal and state levels; and
- Secondary analysis of key health financing indicators from the most recent national health accounts (NHA) in Nigeria and health financing data at state level from each of the target states.

To evaluate implementation results during the inception workshop held in January 2020, key stakeholders of the evaluation identified six states in which to carry out a host of tasks. These included comparative analysis of maternal and child health (MCH) indicators, assessment of state-level health systems; assessment of 10 health facilities per state, and semi-structured interviews with senior health programme staff. Using the most recent under-five mortality rates (U5MRs) from the 2018 NDHS, the 36 states and the Federal Capital Territory (FCT) were categorized into three groups: high-performing, low-performing, and transition states. Two states were then selected from each of the three categories in recognition of Nigeria's diversity and geopolitical considerations. Selection of the target states took into consideration the most recent under-five mortality rates from the 2018 NDHS. The six selected states were Bayelsa and Ogun, considered high-performing states in terms of progress towards achieving reduced U5MRs; Nasarawa and Ebonyi, regarded as transition states; and Kebbi and Gombe as low-performing states in terms of progress towards achieving SDG3 in Nigeria (i.e., states with a high level of U5MR).

The evaluation team submitted the evaluation protocol to the National Health Research Ethics Committee (NHREC) of Nigeria as required by law. After its review, the Committee concluded that the activity described met the criteria for exemption. Hence it was exempted from NHREC oversight on 30 June 2020, according to the National Code for Health Research Ethics.

Evaluation findings and analysis

The results of the evaluation are organized in response to 21 questions distributed across 10 evaluation criteria, as formulated by representatives of the government, implementing partners, and UNICEF. These are: (1) Relevance/Appropriateness; (2) Coherence; (3) Effectiveness; (4) Efficiency; (5) Impact; (6) Human rights and "leave no one behind"; (7) Sustainability; (8) Gender equality; (9) Equity; and (10) Universality.

Relevance

Overall findings: High relevance|quality of the evidence: strong

The independent evaluation team has undertaken a thorough evaluability of NSHDP II and found that the national health sector strategic framework is well developed, and complies with the principle of results-based planning and management. This includes data-driven situation analysis of health sector problems and population needs priorities; a well-elaborated Theory of Change, results framework, strategies, partnerships, budget, and monitoring and evaluation plan. The health sector in Nigeria is built on solid foundations of insightful goal priorities for universal quality health, innovative policies and strategies, and financing initiatives. The SDG3 is well mainstreamed into the NSHDP II. The independent evaluation concludes that the evaluation criteria related to the relevance of NHSDP aligned to SDG3 is strongly set up in Nigeria.

The following policies and organizations are fundamental for Nigeria to make any progress towards SDG3 targets 3.1 and 3.2. These policies are key pillars for the strengthening primary health care (PHC) services in Nigeria.

The National Assembly enacted the National Health Act in 2014. Its general framework establishes the policy foundation for various health policies, strategies, and other efforts by the FMOH, including those related to PHC. One major way to implement these health policies is through the BHCPF paid for from the Federal Government's share of the consolidated revenue fund. The BHCPF was organized based on the experience with Nigeria State Health Investment Programme (NSHIP) which follows results-based and decentralized financing approaches.

The NPHCDA is the national agency that operationalizes the strategies that make PHC services available and accessible throughout Nigeria. The NPHCDA's goal is to make the PHCs provide quality healthcare services for at least 70 per cent of Nigerians.

SUMMARY CONCLUSIONS (RELEVANCE)

Nigeria has a legal framework, strategic plans and organizations that fully include the components and objectives of SDG3 at the federal, state, and programmatic levels. Key among them are the Basic Health Care Provision Fund (BHCPF), the National Primary Health Care Development Agency (NPHCDA), the Primary Health Care Under One Roof (PHCUOR) initiative, Nigeria's Strategy for Immunization and PHC System Strengthening (2018–2028) (NSIPSS), Community Health Influencers, Promoters & Services (CHIPS), the National Health Act (2014), Health Sector Next Level Agenda (2019–2023), the National Health Sector Strategic Plan II (2018–2022) and the National Health Policy (2016).

The SDG3 (targets 3.1 and 3.2) are fully streamlined within NSHDP II. They are part of its Strategic Pillar Two (Increased utilization of the Essential Package of Health Care Services) and within its Priority Area 4 (Reproductive, Maternal, Newborn, Child and Adolescent Health plus Nutrition).

The six State Strategic Health Plans (SSHDP) reviewed are consistent with the priority areas and goals of the NSHDP II to address SDG3 (targets 3.1 and 3.2). However, they provide different levels of detail on the interventions to meet SDG3 (targets 3.1 and 3.2) and on their monitoring and evaluation plans.

However, although the national programmes are very well designed, the action plans at the service delivery level have innumerable weaknesses, ranging from shortage of funds, poor access to key health services, and low quality of care.

Also, several projects and programmes have been designed to operationalize Nigeria's health strategies. These include:

- The PHCUOR initiative led by the NPHCDA to collectively organize the operations of the PHCs to promote efficient and effective service delivery.
- NSIPSS, which aims to guide and galvanize efforts aimed at achieving sustainable immunization outcomes and strengthening the primary healthcare system.
- CHIPS, which is led by the NPHCDA to ensure the use of a harmonized database of community-level human resources for health across all levels of government.·The Health Sector Next Level Agenda, the road map of the Federal Government to boost PHC in Nigeria and address healthcare-related gaps.
- One Health Policy/Strategy (2018–2023), launched in December 2019, to strengthen prevention, detection and response mechanisms to infectious diseases that affect humans and animals.
- The National Health Management Information System Policy, which aims to provide a framework for intersectoral, comprehensive and integrated structure for data management
- Health Insurance Under One Roof, which will provide effective integration and coordination of health insurance activities in Nigeria with a view to attaining universal health coverage.
- The six SSHDPs reviewed are consistent with the priority areas and goals of the NSHDP II to address SDG3 (targets 3.1 and 3.2). However, they provide different levels of details on the interventions to meet SDG3 (targets 3.1 and 3.2) and on their monitoring and evaluation plans.

Coherence

Overall findings: High coherence|quality of the evidence: strong

The priority areas of NSHDP II are consistent with the SDG3 targets. The content of the NSHDP II is consistent with the major national development plans (both current and forthcoming). It is also consistent with Nigeria's forthcoming MTNDP. Health and nutrition are part of the MTNDP's strategic objective of "Enable a vibrant, educated and healthy populace".

Finally, the federal government is currently engaged in designing a Nigeria Vision 20: 2050 to replace its past Vision 20: 2020. According to the Presidency, its strategic objectives will include investing in human capital to transform the Nigerian people into active agents for growth and national development.

Effectiveness

Overall findings: Low effectiveness|quality of the evidence: strong

The trend of maternal mortality ratio (MMR) and U5MR, and neonatal mortality rate as measured by the Nigeria Demographic and Health Surveys has been mostly stagnant in the past 20 years (see Figures 9 and 11 in Chapter 4). Given the absence of successful, nationwide programmes to reduce maternal mortality and the decline in health facility attendance due to the COVID-19 pandemic, it is extremely unlikely that Nigeria has achieved its 2020 target of 200 deaths per 100,000 live births (see Tables 5 and 20 for further details and comparison analysis between low- and high-performing states).

Driver factors of maternal and child health (outputs)

The evaluation team's Health Facility Assessment found that 86.7 per cent of the 60 health facilities visited had staff with skills to manage obstetric emergencies. Moreover, 58.3 per cent had stocks of magnesium sulphate (to treat eclampsia), 86.7 per cent had normal saline solution (for intravenous use) and 83 per cent had gentamicin (to treat infection). Thus, there is likely an increase in health facilities capable of providing basic emergency obstetric care. The child immunization results of successive Nigeria Demographic and Health Surveys between 1990 and 2018 have been increasing progressively, making a jump of 6 percentage points from 2013 to 2018. The trend of under-five, infant and neonatal mortality rates is presented

SUMMARY CONCLUSIONS (COHERENCE)

The priority areas of NSHDP II are very consistent with SDG3. The six strategic pillars and the related 16 priority areas provide a solid and consistent framework for addressing SDG3 and related targets 3.1 and 3.2. In addition, the pillars and priority areas of the plan link to other health-related SDGs and national development plans, including the Economic Recovery and Growth Plan (ERGP) (2017–2020) and the Medium Term National Development Plan (MTNDP) (2021–2025).

SUMMARY CONCLUSIONS (EFFECTIVENESS)

It is unlikely that Nigeria has achieved the NSHDP II's 2020 targets related to SDG3 (targets 3.1 and 3.2), given the stagnant mortality rates shown in the 2013 and 2018 NDHS, the limited results achieved by national programmes addressing them (e.g., Saving One Million Lives), and the negative impact of the COVID-19 pandemic on the access and provision of health services.

The COVID-19 pandemic has had a negative effect on the use of health services related to SDG3 (targets 3.1 and 3.2).

The household practice of protective and preventive behaviours has also influenced the achievement of SDG3 (targets 3.1 and 3.2). The practice of these behaviours is closely related to socioeconomic factors and maternal education whose differences are striking when comparing high-, transition- and low-performance states.

The availability of health providers, drugs and commodities at government health facilities also play a role in the population use of these services. In addition, high- and intermediate-performing states have more access to private health services. Geographical access, quality of the delivery of services and referral systems to health facilities are low across all states.

While the state governments' capacities to manage their PHC services are medium to high, similar capacities at Local Government Areas (LGAs) and wards are still incipient.

The flagship programmes have been moderately successful. The immunization and malaria programmes were performing well but began to decline due to COVID-19. Jointly with the Nigeria State Health Investment Project, they will continue to be supported through the Nigeria Improved Child Survival Programme for Human Capital Multiphase Programmatic Approach (MPA) and other donor-supported programmes. The prevention of mother-to-child transmission (PMTCT) and TB programmes enjoy strong government and donor support (e.g., Global Fund, bilateral donors). Saving One Million Lives fell short of improving population coverage of essential health interventions but improved quality of care at participating health facilities.

in successive Nigeria Demographic and Health Surveys between 1990 and 2018. These three indicators became almost stagnant between 2013 and 2018. Moreover, the COVID-19 pandemic has most likely been a significant limiting factor in meeting MCH coverage targets nationwide.

When comparing community participation among study states, Ogun State achieved more than Bayelsa State in community mobilization and participation. In Bayelsa State, evidence on the situational analysis of community strategies and coordination mechanisms in the State was cited. Nasarawa State performed higher than Ebonyi State based on the pieces of evidence cited at the time of the visit to the SMOH (transition states), and the low-performing states (Kebbi and Gombe States) performed well in community mobilization and participation which was largely due to the presence of development partners and NGOs there.

In the high-performing states, 14 per cent of the PHCs had medical officers, 43 per cent of the facilities had nurses/midwives, and every facility had at least one Community Health Extension Worker (CHEW) available. Twenty-nine per cent of the PHCs met the minimum standard of one and three respectively. In the transition states, 21 per cent of the PHCs visited had medical officers in line with the minimum standard. The low-performing states had a greater number of health personnel when compared to high-performing and transition states. The low-performing states had more paediatricians and nutritionists when compared to the high- and transition states.

For child health, most of the facilities visited had the skill sets needed to handle pneumonia in children (90per cent). Approximately 65 per cent of facilities had staff in charge of nutrition counselling and micronutrient supplementation. Whereas 75 per cent of facilities in the transition and low-performing states had staff in charge of nutrition counselling, only 45 per cent of facilities in the high-performing states had staff in charge of nutrition. The Health Facility Assessment included: oral rehydration salts, cotrimoxazole, vitamin A, iron supplementation and folic acid; and albendazol/mebendazol. Overall, most facilities had iron supplementation and folic acid (90per cent) and albendazol/mebendazol (82 per cent). Oral rehydration salts, cotrimoxazole, and amoxicillin were available in three-quarter of the facilities (75 per cent). Vitamin A was also found in 65 per cent of the facilities visited.

For maternal health, most of the facilities visited had the skill sets needed to handle all obstetric emergencies (87 per cent). Furthermore, findings showed that 27 per cent of the facilities had staff qualified to conduct caesarean deliveries. Only 65 per cent of these facilities visited reportedly had adequate medicines and family planning method supplies. The low-performing states had the most supplies of medicines and family planning methods (70

per cent) when compared to the high-performing and the transition states. Safe motherhood medicines and supplies were assessed. Hydrocortisone (used in premature rupture of membranes) was largely available in about three quarters of the facilities visited across the six states with approximately 22 per cent of facilities out of stock (2019). The high-performing states had more facilities with hydrocortisone (90 per cent) when compared to transition and low-performing states. Magnesium sulphate (used in eclampsia) was very frequently out of stock in 2019. It was found that high-performing states had more facilities with eclampsia medicines when compared to other states. For the prevention of tetanus, 55 per cent of the health facilities had tetanus antitoxin. Whereas more facilities in the transition states had tetanus antitoxin when compared to other states, the transition states were more frequently out of stock in 2019. Regarding antibiotics (infection) medicines, most facilities in the six states had gentamicin (83 per cent). All IV/injections were available in most of the facilities visited. Concerning labour management, oxytocin was available in almost all of the facilities visited in the six states (96.7 per cent).

The main reasons for safe motherhood medicines and supplies being out of stock across the six states were inadequate supplies from the states' health ministries and partners, and delays in restocking these commodities

Malaria drugs and commodities

The assessment included rapid diagnostic kit (RDT); microscopy; artemisinin-based combination therapy (ACT); Fansidar; long lasting insecticidal nets (LLINs); and intermittent preventive treatment (IPT). In high-performing states, most facilities had RDTs (70 per cent), and half had microscopes for diagnosis. For antimalarial drugs: ACT (85 per cent), IPT (50 per cent), Fansidar (40 per cent) and LLINs (60 per cent). In transition states, most of the facilities had RDTs (85 per cent), and three-quarters had ACT, Fansidar, and IPT. One-quarter of the facilities was out of stock of ACT, Fansidar and IPT while 35 per cent of them were out of stock of LLINs in 2019. In the low-performing states, most of the facilities had RDTs (80 per cent); microscopes (90 per cent); ACT (70 per cent); Fansidar (60 per cent) and IPT (55 per cent) while LLINs were poorly available (30 per cent). Major stock shortages observed were LLINs and IPT (40 per cent); and Fansidar (35 per cent).

Strategic planning and monitoring and evaluation capabilities

More than half of the states have strong capabilities in strategic planning and monitoring and evaluation. Low-performing states achieved the highest (90 per cent) in strengthening capacity in planning and monitoring and evaluation. Given the U5MR index classification, the low-performing states were seen to have done better in this regard than the other states classified as transition or high-performing states.

Information management system

Transition states recorded the highest level of achievement with 86 per cent. This was attributed to the availability of evidence seen at the time of visit to the SMOH. Part of the evidence included the daily outpatients register; HMIS tools and other registration books; the computers used by the HMIS desk officers, and the district health information system housing some data, and uniformly used by all states of the federation.

Financial management

High-, transition, and low-performing states attained commendable levels of achievement in strengthening financial management. High-performing states had the highest level of achievement with 88 per cent in financial management strengthening compared with 75 per cent and 72 per cent recorded in transition and low-performing states. In the high-performing states, the evidence for this conclusion was the inclusion of chartered accountants and auditors in financial information management teams; financial audit reports for the year 2019; the approved budget for the year 2019–2021 and balance sheets.

Human resources management

High-performing states (Bayelsa and Ogun States) had the least level of achievement in strengthening functional human resources management (31 per cent). On the other hand, low-performing states (Kebbi and Gombe States) had the highest level of achievement (90 per cent). The wide disparity in the level of achievement in high-performing states as compared with transition and low-performing states was due to the non-existence of evidence on staff nominal roll, letters of commendation and monitoring plans or activities for SMOH staff.

Efficiency

Overall findings: Low efficiency|quality of the evidence: strong

Existing health programmes are designed to contribute to the achievement of SDG3 (targets 3.1 and 3.2). However, while Nigeria has experienced some improvements of health indicators for SDG3, the trend has not kept the same pace of improvement over the past few years.

The NSHDSP II is a comprehensive strategic plan for the health sector in Nigeria. It provides the vision, principles, and strategies for the Nigerian health sector. However, a major constraint remains with the limited resources that Nigeria invests in health. On average, between 2016 and 2019 Nigeria spent 4.4 per cent of its total general expenditure on health. This is grossly inadequate from the expected 15 per cent commitment from the Abuja Declaration.

Financing for health in Nigeria comes mostly from three sources. The government (Federal, State and LGA) covers 15 per cent. Private employers and donors finance up to 9 per cent of health expenditure. And the remaining 76 per cent of health financing is covered by households. Out-of-pocket (OOP) expenditure for health is significantly high in Nigeria: Household OOP over current health expenditure has been alarmingly stagnant over the past decade, with an average of 74 per cent between 2010 and 2017. These OOP levels have an effect on health inequality and low levels of utilization of health services, especially among the poor.

Funding for operations of primary health-care centres is very low. Evidence generated by the World Bank on the efficiency and adequacy of funding of PHC interventions through the Public Expenditures Tracking Surveys completed in Niger and Ekiti in 2018 have revealed that the level of public resources allocated to PHC operations is dismal. After excluding personnel costs, only 1 per cent of public funds reach the health facilities for their operations. While at budgetary level, PHC may be budgeted at as a significant share of health budget, in reality, much of that is not released. Given low levels of governance and accountability for fiscal performance, including poor budget execution and reporting of what funds are released, and how it money spent, little is ever reported to higher-level government leadership and authorities.

Section 4.4 (Efficiency) of this report provides a health financing analysis in each of the six target states of this evaluation.

Impact

Overall findings: Partial impact|quality of the evidence: strong

Child mortality

Childhood mortality rates reflect a major public health problem in Nigeria. Neonatal mortality is at 39 deaths per 1,000 live births while infant mortality is 67 per 1,000 live births, and under-five mortality is measured at 132 deaths per 1,000 live births. Significant variations of childhood mortality are seen across the country with the

SUMMARY CONCLUSIONS (EFFICIENCY)

Nigeria has recently institutionalized earmarked allocations to the health sector: 1 per cent of its Consolidated Revenue Fund per annum is allocated to strengthen quality and coverage of health services through the BHCPF.

Although government health expenditure doubled between 2010 and 2017, Nigeria is lagging behind in prioritizing resources for the health sector using internationally accepted benchmarks. On average, between 2016 and 2019, Nigeria spent 4.4 per cent of its total general expenditures on health, falling short of the 15 per cent commitment of African Union members as part of the 2001 Abuja Declaration.

Out-of-pocket expenditure in health is significantly high in Nigeria: 76 per cent (2017) and 74.3 per cent on average between 2010 and 2017. Wide variations exist across the 36 states and the FCT.

Large gaps between health budgets and health expenditures exist in the country. This was observed in all target states (high-, transition, and low-performing ones), which translates to health financing inefficiencies of limited resources allocated to health.

north registering the highest childhood mortality rates. In addition, under-five mortality is higher in rural areas than in urban areas (157 and 92 deaths per 1,000 live births, respectively).

Childhood mortality rates have declined since 1990. Infant mortality has declined from 87 deaths per 1,000 live births in 1990 to 67 in 2018. During the same period, under-five mortality has declined from 193 to 132 deaths per 1,000 live births; however, a small increase of the under-five mortality rate was registered over the past five years, from 128 per 1,000 live births in 2013 to 132 in 2018. In addition, neonatal mortality rates have remained stagnant, from 42 deaths per 1,000 live births in 1990 to 39 deaths per 1,000 live births in 2018. Nigeria carries one of the largest burdens of deaths of young children in the world: every day Nigeria loses an estimated 2,300 children under 5 years of age from preventable causes.

In the target states, the geographical distribution of under-five mortality rates ranges from 30 deaths per 1,000 live births in Ogun to 252 deaths per 1,000 live births in Kebbi. Women in the north experience higher levels and have a higher likelihood of having experienced previous childhood mortality than women in the south. Both the high-performing and transition states registered a reduction of the U5MR while the low-performing states registered an increase from 192 (2013) up to 229 (2018). Main predictors of observed differences include access to quality health services, education attainment of mothers/caretakers, limited resources to pay for health services and social norms.

Three major childhood diseases are affecting children under 5 years of age in Nigeria: diarrhoea, pneumonia, and malaria.

Diarrhoeal diseases

The two-week prevalence of diarrhoeal disease among children under 5 years of age in Nigeria is 13 per cent (NDHS, 2018). Diarrhoea was most common among children in Gombe (35 per cent) and Bauchi (34 per cent). Children aged 6–11 months and 12–23 months were also the group with most cases of diarrhoea (20 per cent in both age groups). In addition, a growing trend is registered for treatment of diarrhoeal diseases with oral rehydration salts over the past decade, from 26 per cent in 2008 to 40 per cent in 2018 as per NDHS data. A major burden of diarrhoeal diseases is observed in low-performing states with an

SUMMARY CONCLUSIONS (IMPACT)

While child, neonatal and maternal mortality rates improved between 2013 and 2018 in the high-performing and transition states, they worsened in the low-performing states. The national average shows stagnation of these three impact indicators between these two years.

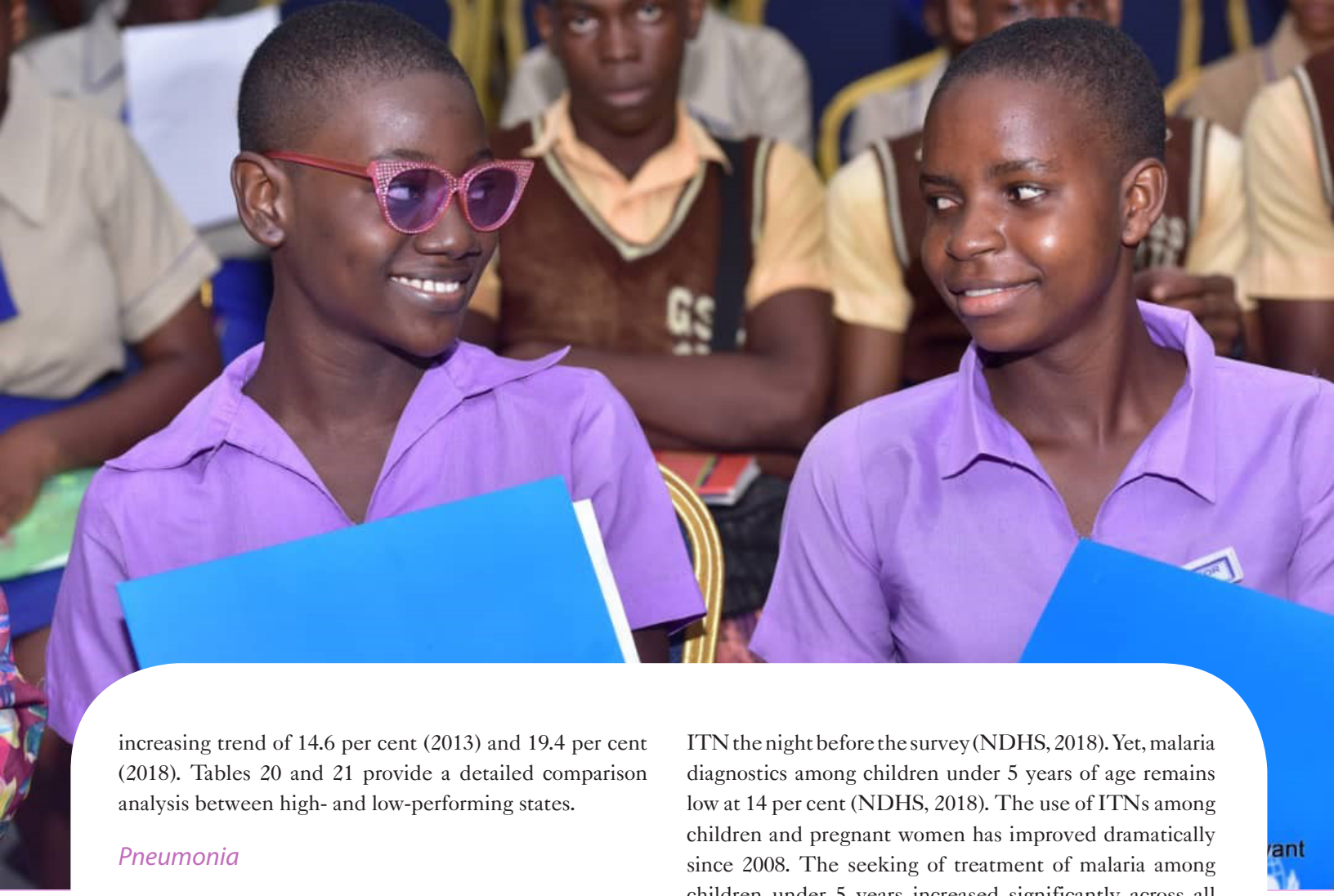
Health service indicators follow these trends with higher use of maternal, neonatal and health services in high and transition states and lower use in the low-performing states.

Informed by the bivariate regression analysis of the 2013 and 2018 NDHS data, improved use of health services is associated with lower maternal and child mortality rates in Nigeria.

Findings from the multivariate regression analysis confirmed that mortality was strongly associated with geographic and socioeconomic characteristics, e.g., birth order, household size, rural/urban residence, education of the mother. These findings suggest that socioeconomic and geographical factors are key determinants for child and maternal survival.

Under this scenario, the population use of health services might be mediated through these household socioeconomic factors, i.e. more educated mothers will always use more health services, regardless of their geographical access, than less educated ones. However, our findings do not rule out an intrinsic effect of the use of health services in reduction of maternal and child mortality rates, i.e., increasing geographical access to health services might increase their population use regardless of socioeconomic economic factors.

Although there is a considerable effort by national health programmes to increase access to health services, there are also strong barriers in the delivery of those services, mainly linked to the quality of care, and availability of equipment and essential medicines. On the population side, the barriers are economic, referral and counter-referral systems, and cultural and health-seeking behaviours.



increasing trend of 14.6 per cent (2013) and 19.4 per cent (2018). Tables 20 and 21 provide a detailed comparison analysis between high- and low-performing states.

Pneumonia

In 2018, Nigeria registered 162,000 deaths of children under 5 years of age due to pneumonia. This is the highest number of global pneumonia child deaths. By looking at the trends of these diseases over the period 2008-2018 for which data from DHS and MICS are available: Treatment for pneumonia has more than doubled in the past five years, from 35 per cent in 2013 to 75 per cent in 2018 as reported by the NDHS. The seeking of treatment for acute respiratory infections increased across all target states between 2013 and 2018. Tables 4.18 and 4.19 provide a detailed comparison analysis between high- and low-performing states.

Malaria

Regarding malaria, 23 per cent of children aged 6–59 months tested positive for malaria by microscopy (NDHS, 2018). However, malaria prevalence is higher among rural children (31 per cent) than urban children (13 per cent). As for prevention, among all households in Nigeria, 61 per cent own at least one insecticide-treated net (ITN). Children and pregnant women aged 15-49 years are the most vulnerable to malaria. More than half of children (52 per cent) and pregnant women (58 per cent) slept under an ITN the night before the survey (NDHS, 2018). Yet, malaria diagnostics among children under 5 years of age remains low at 14 per cent (NDHS, 2018). The use of ITNs among children and pregnant women has improved dramatically since 2008. The seeking of treatment of malaria among children under 5 years increased significantly across all target state groups between 2013 and 2018. Tables 4.18 and 4.19 provide a detailed comparison analysis between high- and low-performing states.

Child immunizations

Only 31 per cent of children aged 12-23 months have received all eight basic vaccinations – one dose of BCG and measles and three doses each of DPT-HepB-Hib and polio vaccine. In addition, less than half of children (47 per cent) have received the third dose of polio and nearly one in five children have received no basic vaccinations at all. Urban children are twice as likely to have received all basic vaccinations than rural children (44 per cent vs. 23 per cent).

Basic vaccination coverage has gradually increased since 2003 when only 13 per cent of children had received all basic vaccinations. While basic vaccination coverage has improved, the proportion of children who have received no vaccinations has declined from 36 per cent in 1990 to 19 per cent in 2018. Nevertheless, basic vaccination coverage remains low in 2018.

The national average of polio3 vaccination decreased from 54 per cent (2013) down to 47 per cent (2018). A similar decrease pattern was observed in the high- and low-performing states but not in the transition state group where polio3 increased from 52 per cent up to 61 per cent for the same reporting period.

Nutrition among young children

As for the nutritional status of children under 5 years, NDHS data shows that the country did not make any progress in reducing the stunting rate (-2 SD) as the national average was measured at 36.8 per cent in both 2013 and 2018. In all three groups of states, stunting rates deteriorated between 2013 and 2018 with low-performing states measuring 56.1 per cent in 2013 and 60.1 per cent in 2018. A similar pattern was observed for underweight (-2 SD) across the state groups.

Maternal mortality in Nigeria

The 2018 NDHS asked women about deaths of their sisters to determine maternal mortality in Nigeria. The MMR for Nigeria is 512 deaths per 100,000 live births for the seven-year period before the survey. The confidence interval for the 2018 MMR ranges from 447 to 578 deaths per 100,000 live births.

Pregnancy-related complications are the main contributor to maternal deaths. Although the trend shows a decline from 576 deaths per 100,000 live births reported in 2013 to 556 deaths in 2018, the confidence intervals overlap, and therefore the difference between 2013 and 2018 estimates is not statistically significant. This confirms that Nigeria has not made any significant reduction of MMR since 2001.

Quality of care

Missed opportunities to provide services are an important dimension of quality of care. The 2018 NDHS showed that as each dose of vaccine was administered, the possibility of reaching the child for an additional dose decreased. Thus, while 74 per cent of children got the Polio 1 vaccination, only 31 per cent got all basic immunizations.

Missed opportunities were observed during antenatal care as per the results of the 2018 NDHS. While these findings show a significant improvement in not missing opportunities to provide services compared to the 2013 NDHS, important gaps persist especially with the administration of TT2+. Missed opportunities with the administration of IPT are less frequent. It is important to note that in low-performing states, the coverage of IPT administration is much larger than antenatal care attendance, suggesting the existence of community-based distribution mechanism of Fansidar. Finally, there is the generalized decrease in coverage between the attendance of antenatal care and birth delivery, which is most pronounced in low-performing states.

Another missed opportunity is the case-finding among HIV+ pregnant women; the annual estimate is about 150,000, with only about 41,000 reported nationally to have received antiretroviral drugs. This reflects the huge gap in the coverage of PMTCT of HIV services in the country, with just 10-20 per cent of antenatal care (ANC) sites offering PMTCT services.

Lack of malaria testing was also observed when a child under 5 with fever seeks care outside home. Less than 50 per cent of children with fever seek care outside home. Early care-seeking is more frequent in high-performing states, maybe reflecting their increased access to private health providers. The 2018 NDHS disclosed that private chemists were the most important source of care (public or private) for children with fever.

Most children with fever with care outside their home were not tested for malaria, although it is the standard procedure for malaria diagnosis. Use of malaria blood testing is more frequent in high-performing states, maybe reflecting increased access to health providers equipped with the malaria testing commodities.

Drivers of mortality among children under 5 years of age

Like the maternal deaths, we investigated the association between under-five mortality and independent predicators at each of the state groups of the evaluation. The analysis included all children aged 0-59 months reported on in the two surveys. For the six target states, a total of 9,604 live children (89.4 per cent) and 1,143 (10.6 per cent) deceased children were included in the main analysis. Independent variables for the regression analysis could only include basic maternal characteristics and household data, as detailed birth indicators and child health indicators were not available for all observations.

At first, a significant variation is observed in the number of under-five child deaths between the low-performing states (14.1 per cent) and high-performing states (5.1 per cent). There were also a considerable number of child deaths observed in the transition states (9.4 per cent). With regard to household size, the data revealed a significantly higher size in low-performing states (7.9) than the ones in transition states (6.2) and high-performing states (5.6).

Regarding the place of living, a similar pattern observed for women is registered for children under-5. Eighty four percent of young children lived in rural areas in the low-performing states while 65 per cent lived in rural areas in high-performing states. In transition states, more than half of young children (54.5 per cent) lived in urban areas.

As for the education attainment of the children's mothers, a significant proportion of mothers in low-performing states did not have any education (79.5 per cent). This was not observed in the high-performing states where more than half of the children's mothers (56.3 per cent) have completed secondary or higher education.

A very similar scenario is observed with the regard to children's family income. More than two thirds of children's families (70.7 per cent) in the low-performing states were poor while less than a third were poor in the transition states. As for children's families in high-performing states, 46.2 per cent were considered rich as per the wealth index. Lastly, regarding water source and sanitation, more than half of households in high-performing states had improved water sources while six out of ten households in low-performing states lacked a water source. As for improved sanitation though, the majority of households in both high-performing and transition states reported lack of it while a lower proportion reported the same situation in low-performing states. The NDHS pooled data about improved sanitation at the household level across the target state groups, particularly in high-performing and transition states, are not consistent with expected household sanitation practices in low-resource settings.

Bivariate analysis – under-five mortality

In both transition and high-performing states, maternal age is positively associated with under-five child mortality. Interestingly, an increased in household size reduced the odds of childhood deaths by 21 per cent in high-performing states but only 6 per cent in low-performing states. Birth order was observed as positively associated with under-five child mortality in all target states, with higher odds in high-performing states than the transition and low-performing states. In low-performing states, mothers with no education have a much higher probability (97 per cent) of experiencing childhood mortality in their families than those with secondary or more education levels. And a similar scenario was observed between mothers with secondary or more education than those with primary education in all target state groups. This confirms that education correlates significantly with under-five mortality rates in Nigeria. In addition, the effects of household income highly correlate with under-five mortality rates in low-performing and transition states. Poor households have a much higher probability of experiencing under-five mortality in low-performing and transition states. Lastly, lack of improved sanitation at households correlates with under-five mortality by 24 per cent in low-performing states. All odds ratios along with 95 per cent CIs for the bivariate regression analysis for under-five-mortality by target state groups.

Multivariate analysis – under-five mortality

In both low-performing and high-performing states, the odds of childhood death increased with the birth order by 12 per cent and 38 per cent respectively. As for place of living, children living in rural areas in low-performing states have higher odds of childhood mortality (43 per cent) than those living in urban areas in those states. In low-performing states, mothers with no education increased the odds of childhood deaths by 50 per cent when compared to mothers with higher education in low-performing states. A similar scenario is observed in transition states, where mothers with primary education have a 78 per cent increased risk of experiencing childhood deaths in their family compared to mothers with higher education. This reveals that lack of education among mothers is a significant predictor for childhood deaths. Improved sanitation and water source indicators were not as strongly associated to state category as we expected, and similarly there was not a strong relationship seen with our outcomes of interest. A more granular analysis of improved sanitation and water sources on maternal and under-five mortality may be necessary to further investigate these differences. All odds ratios along with 95 per cent CIs for the multivariate regression analysis for maternal mortality by target state.

Drivers of maternal deaths

Like many other countries in the sub-Saharan Africa region, the leading causes of maternal deaths in Nigeria are obstetric haemorrhage, eclampsia, sepsis, and complications from unsafe abortions. Similarly, studies show that factors such as age, education, antenatal care, parity, domestic violence and social autonomy (which have been established as determinants of maternal mortality) are associated with maternal deaths in Nigeria. Due to the rarity of the outcome (maternal deaths) in this analysis, it was necessary to increase the study power to detect associations between maternal mortality and the independent variables in each of the state groups of the evaluation. Regression analyses with data from NDHS 2013 and NDSH 2018 were conducted but revealed no major differences in associations but with lesser power. The two most recent NDHS (2013 and 2018) were pooled to increase the sample size of maternal-related deaths and obtain the necessary power for identifying statistically significant findings.

Bivariate analysis – maternal mortality

In low-performing states, age is negatively associated with maternal mortality. An increased household size in the transition states increased the odds of maternal deaths by 14 per cent. In addition, the analysis revealed that the use of traditional contraception methods in transition states was highly associated with maternal deaths. All odds ratios along with 95 per cent CIs for the bivariate regression analysis for maternal mortality by target state group.

Multivariate analysis – maternal mortality

The increase in household size in transition states increased the odds of maternal deaths by 16 per cent. In addition, the higher number of births was associated with maternal deaths in low-performing states. Primary education was protective against maternal mortality compared to having secondary or more education in low-performing states. And having three or more births significantly increased the odds of maternal mortality in low-performing states. This finding points to a critical need for family planning programmes across the board, but most importantly in low-performing states.

Human rights and the principle of "leaving no one behind"

Overall findings: Partial accomplishment|quality of the evidence: medium

The NSHDP II states that Universal Health Coverage (UHC) is enshrined in the Nigerian Constitution and that it is the expression of Nigerians' right to health. Within the Guiding Principles of NSHDP II is the, "Ethics and respect for human rights: Both providers and consumers of health care at all levels of health-care delivery particularly communities will be treated with courtesy, dignity, impartiality and respect for all persons."

The majority of state-based programme managers interviewed by the evaluation team knew nothing or very little about the NSHDP II's focus on human rights and "leave no one behind" principles. This lack of knowledge was neither focused on a specific programme nor a specific state and is reflective of the NSHPD II's implicit interpretation of the 'right to health' as the realization of the population's health needs.

Sustainability

Overall findings: Partial sustainability|quality of the evidence: medium

The six SMOHs included in the SDG3 Healthy Lives evaluation operate key management systems with medium to high level of performance: community

SUMMARY CONCLUSIONS (HUMAN RIGHTS AND 'LEAVE NO ONE BEHIND')

Health sector programming and key flagship programmes apply a needs-based approach to fulfil Nigerians' right to health. Due to this needs-based approach, the right to health is seldom mentioned in the NSHDP and key flagship programmes. Only a few state government health officials know about it.

Significant inequalities on U5MR and coverage of PHC services persist across multiple dimensions, including disparities between poor and rich households, geographic location (north vs. south), economic inequality among states, governance capacity between states, among others.

participation, coordination, strategic planning and monitoring and evaluation, human resource management, health information systems and health financing. These are important achievements towards the sustainability of SDG3 programmes in these states. But the work is not completed at the SMOH level because there is plenty of room for improvement.

Of greater concern for sustainability are the more limited management capacities at LGA and health facility levels. Evidence about shortcomings in their management systems were captured during the visits to the 60 health facilities in the six target states.

Community mobilization and participation

Through the implementation of the Health Systems Assessment, the evaluation team identified the extent to which the six target states had participated in the development, execution, and evaluation of a strategic plan with community-based organizations (CBOs) working within the state. The aim was to ensure that the state implements all the strategies established by the national plan to have a positive impact on the population for health, education, and community support programmes.

While the evaluation measured various degrees of performance on strengthening community mobilization and participation across the target states, at least one state from each of the three target groups revealed strong performance in community mobilization. Low-performing states scored the highest performance most likely due to the active presence of development partners. However, the findings also revealed limited plans from the target states to further support and/or strengthening community participation activities.

Partnerships, coordination and collaboration

All six target states identified the existence of coordination mechanisms with various stakeholders including other programmes within their SMOH and private health-care facilities. In addition, programme officers reported planning meetings and joint activities with development partners such as UNICEF, United Nations Population Fund (UNFPA), World Health Organization (WHO), and United States Agency for International Development (USAID). Health coordinators from Gombe and Kebbi states highlighted the coordination with development partners.

Findings from semi-structured interviews revealed that collaboration and communication with Federal Government agencies was usually on a case-by-case basis and sometimes it was unidirectional

Gender equality

Overall findings: Partial accomplishment|quality of the evidence: medium

Key NSHDP II priority areas that implicitly address gender inequalities are Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition (RMNCHA+N), especially in its safe motherhood and family planning components, because they improve the survival and empowerment of women in Nigerian society.
An additional and important aspect of gender inequities is Gender-based Violence (GBV). The NSHDP II considers GBV as a “major public health concern and it remains a neglected area. The FMOH recently developed health workers guidelines for management of Gender-

SUMMARY CONCLUSIONS (SUSTAINABILITY)

The existing coordination and partnership capacities of the SMOHs facilitate the implementation of SDG3 programmes. Moreover, the capacities of the SMOHs to engage communities are also in progressive development, with low-performing states having better systems for community participation, which most likely is due to the increased cooperation of the SMOHs with development partners.

The six SMOHs included in the SDG3 Healthy Lives evaluation operate key management systems with medium to high levels of performance: community participation, coordination, strategic planning and monitoring and evaluation, human resource management, health information systems and health financing. These are important achievements towards the sustainability of SDG3 programmes in these states.

Of greater concern for sustainability are the more limited management capacities at LGA and ward levels. Evidence about shortcomings in their management systems were captured during the visits to the 60 health facilities in the six target states.

based Violence (GBV) at clinic level. Implementation of these guidelines has not commenced." Furthermore, the Violence Against Persons (Prohibition) Act (2015) prohibits any form of gender violence including female genital mutilation, and the National Commission for Women Act gives both gender equal rights to access sexual and reproductive health information and services such as modern contraception, HIV testing and counselling, and adolescent-friendly services.

Equity

Overall findings: Low equity|quality of the evidence: strong

Health data trends from the FMOH reveals inequities in maternal mortality rates across the six geopolitical zones in Nigeria, with the North-East and the North-West zones of the country reporting almost 10 and 6 times, respectively, higher mortality rates than the South-West of the country. In addition, women from rural areas in northern Nigeria are at higher risks of maternal deaths than those from the southern part of the country. Lower access to health-care services is most common in the northern zones of the country, particularly in rural areas, among individuals with low socioeconomic status. This is due to distance to a health facility, limited means of transportation, poor staffing in health facilities, poor attitude of health providers, and lower levels of education.

Equity at pre-pregnancy and pregnancy

Demand for modern family planning methods registers a 24 percentage point gap between the poorest and richest quintile. Antenatal care with four or more visits during pregnancy registers a bigger gap – 54 percentage points – between the same wealth quintiles. And neonatal tetanus protection also shows a gap of 42 percentage points between the same wealth quintiles.

Equity at birth and postnatal care

Skilled birth attendance, one of the key outcome indicators for maternal health, registers the largest gap among key health indicators in Nigeria – 75 percentage points – between the richest and the poorest quintiles. And postnatal care also registers a difference of 56 percentage points between the richest and poorest quintiles in Nigeria. Conversely, continued breastfeeding for the first year of life is more prevalent among the poorest mothers than those in the wealthiest quintile.

Equity and child health: Immunization and childhood diseases

Regarding child health, vaccination coverage also registers a significant disparity between wealth quintiles. The third dose of DTP vaccination rates differ by 56 percentage points between the richest and the poorest quintiles, while a similar disparity of 52 percentage points is registered for measles immunization rates for children. Similarly, care-

SUMMARY CONCLUSIONS (GENDER EQUALITY)

Gender equality is included in the description of the NSHDP II and key flagship programmes. This focus includes the gender disaggregation of key programme indicators. However, the understanding and application at the state and local level of gender approaches for health programming is still just starting to happen and there is room for improvement.

SUMMARY CONCLUSIONS (EQUITY)

Nigeria registers significant disparities in the health status of mothers and young children throughout the country. The causes of disease for these population groups are linked to social determinants such as socioeconomic status, education, gender inequality, location, and poor access to water, sanitation and hygiene.

The disparities between the poorest and the richest quintiles are significant across key indicators related to utilization and practices of health services and products among women of reproductive age, mothers and young children.

Geographical disparities in the utilization of health services, particularly among women and young children, are also observed between the north and the south in Nigeria.

seeking for pneumonia treatment registers a 22 percentage point difference while treatment of diarrhoea with oral rehydration salts registers a discrepancy of 30 percentage points between the richest and the poorest quintiles.

The equity gaps shown in many of the key health indicators for maternal and child health demonstrate a persistent disparity of health services for women and children across the country. Income, education, and location (north/south, urban/rural) are the biggest contributors to equity gaps in key health indicators for women and children.

From the in-depth causal analysis and determinants of existing secondary health data and triangulation with primary data collected from the health situation assessment at health facility, the health system assessment, and the KIIs in the six target states, the independent evaluation has revealed a series of bottlenecks and barriers. The analysis included the use of existing frameworks for causal analysis and determinants of health, including UNICEF's Equity Determinants Analysis Framework (MoRES) and an adaptation of Tanahashi's health service coverage evaluation methodology, which examines supply, demand, and quality determinants that contribute to effective intervention coverage.

Universality

Overall findings: Partial accomplishment|quality of the evidence: medium

In 2003, Nigeria adopted the Children's Rights Act to adhere to and contextualize the United Nations Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child. The Children's Rights Act of 2003 extends the human rights bestowed on Nigerian citizens in the 1999 Constitution to children. Although officially signed into law in 2003 by former President Chief Olusegun Obasanjo as the Children's Rights Act (2003), this law passed at the federal level could only effective when the respective state assemblies also pass it into law.. Therefore, since Nigeria operates a federated system, the law does not automatically become applicable in all the 36 states of the country. Each state legislature must make the national law applicable within its territory. Hence, as of today, only 25 of the 36 states in Nigeria have localized the Children's Rights Act. Eleven states, all in northern Nigeria, have yet to domesticate the Act. Besides the federal structure of Nigeria, religious beliefs and practices, coupled with ethnic and cultural diversity have been adduced as reasons why the Act has not been adopted by all states.

The Act is mentioned tangentially in the NSHDP II under Objective 36 as part of the strategic interventions to improve gender sensitivity among health workers at all levels. However, and regardless of the brief reference of the child rights in the NSHDP II, Nigeria promotes UHC for all its citizens, including children. The most direct link of universal health-care package is in the National Health Act (2014), which includes the BHCPF to improve PHC services to achieve UHC.

Effects of COVID-19 on the health system

On 27 February 2020 Nigeria registered the first case of SARS CoV-2 virus (COVID-19) in the country, an imported case from Italy. Since then, COVID-19 has affected all major development sectors of Nigeria. While there is still a dearth of data about coverage of health services since the onset of the pandemic, the health sector, including primary health care, might be adversely affected. International agencies and researchers are beginning to document the estimated impact of COVID-19 on multidimensional child poverty and quantifying the percentage of children lacking access to education and/or health services due to the global pandemic.

SUMMARY CONCLUSIONS (UNIVERSALITY)

Nigeria promotes universal health coverage for all its citizens, including children. Although the Children's Rights Act adopted in 2003 is mentioned tangentially in the NSHDP II under Objective 36, the National Health Act (2014) promotes the principle of universality of health coverage, including the ongoing BHCPF that Nigeria is rolling out in all 36 states and the FCT.

Through all health programmes implemented by Nigeria, and particularly BHCPF, Nigeria aims to improve access, availability and utilization of health services among all Nigerians, including children.

The Government of Nigeria adopted a strong array of measures to prevent the negative effects of the pandemic, including the establishment of a multi-sectoral emergency operations centre (EOC) and the Presidential Task Force for coronavirus control established on 9 March 2020. In addition, the FMOH developed an integrated federal health sector COVID-19 response plan in May 2020 that has been continuously updated given the dynamics of the pandemic and has guided the overall response within the health sector in Nigeria. As a result of the pandemic in the country, many of the weaknesses of the health system became more visible, including the readiness to mitigate the effects of COVID-19 in the country. Although overall Nigeria and the entire sub-Saharan region have registered lower levels of COVID-19 cases when compared with other regions of the world, it is hard to predict how the pandemic will unfold and its effects on primary health care, particularly for women of reproductive age and young children in Nigeria in 2021 and beyond.

The incidence of COVID-19 grew steadily in Nigeria, moving from the imported case to community transmission. The case fatality has stood at around 2.8 per cent. The country reported an upsurge (52 per cent of total cases) in the transmission of COVID-19 during the short period the lockdown was relaxed. The total number of confirmed cases is 168,422 as of end of June 2021 as reported by Nigeria Centre for Disease Control.

The majority of reported cases concentrate in Lagos State (60,272 or 36 per cent of all confirmed cases as of June 2021), followed by FCT, Kaduna, Plateau and Rivers. The potential of overwhelming COVID-19 is still imminent in Nigeria as the country is attempting to re-open the economy, which could sacrifice public health gains for temporary economic gains. While this evaluation is not aimed to directly assess the impact of COVID-19, it provides recommendations to policymakers as the country will most likely continue to face the effects of the pandemic as Nigeria has begun to deliver the first phase of COVID-19 vaccine under the management of the NPHCDA. As of the end of June 2021, Nigeria has administered at least 3.8 million doses of COVID-19 vaccines, which represents about 1 per cent of the country's population. At the time of finalizing this evaluation report, the entire sub-Saharan region is going through a new wave of COVID-19 that has the potential to further disrupt access to and utilization of health services, and deteriorate the overall health status of all Nigerians, especially vulnerable population groups, including women of reproductive age and young children.

Lessons learned

Weak local governance and accountability for PHC

Capacity for good governance and strong accountability at local level, especially LGA, is weak. Findings from multiple sources, including quantitative assessments at health facility level, health system assessment at state level, KIIs, and various reports from previous and ongoing PHC programmes revealed limited systems in place and low capability for good governance for PHC services.

Funding constraints and inefficiencies are a major obstacle

Limited resources and their use for the implementation of health programmes remains a major challenge in Nigeria. The health financial analysis presented in this report revealed significant challenges that Nigeria has been facing and for which some feasible and sustainable solutions are needed. The main challenges include: (1) Household OOP over current health expenditure has been alarmingly high (76 per cent) and stagnant over the past decade; (2) the Government General Health Expenditures (GGHE) to GDP ratio has consistently remained below 1 per cent against the ideal ratio of 5 per cent; (3) only one third of NSHDP II of the original moderate scenario planning was spent by 2019; and (4) execution of health budgets remain poor, exacerbating the challenges for financing PHC services.

Significant inequities in health persist

Secondary health data for key Maternal, Newborn and Child Health (MNCH) services revealed a significant level of health inequities in Nigeria. Socioeconomic factors along with educational attainment and social norms, coupled with a highly heterogeneous ethnicity and strong cultural beliefs, make this issue a complex and urgent health problem to address.

Lack of disaggregated and reliable routine data

There is limited availability of routine health data that meet quality criteria. This situation applies to programmatic data as well as health financing data.

No standardized metrics to assess progress and implementation of the SDG3

The evaluation team did not find a standardized framework for assessing progress of SDG3. Similarly, no standard metrics have been adopted for assessing the progress and implementation of the SDG3.

Findings from a comprehensive analytical review of epidemiological trends and regression analysis conducted by the evaluation team using available health data between 2013 and 2018 in low- and high-performing states revealed important differences between these two state groups. The following summary table provides the list of key drivers that explains the main differences in maternal and child deaths between low- and high-performing states.

Conclusions

This evaluation report includes a comprehensive documentation and analysis of the findings through a health systems approach, including bottlenecks, opportunities, and multiple mechanisms, including health programmes and initiatives from the FMOH as well as multiple health and non-health actors. The analysis and related findings presented in this report are categorized by the evaluation criteria and related evaluation questions as per the evaluation design. Our conclusions are grouped under four thematic areas that the Evaluation Team has prioritized based on the evidence gathered through the evaluation. The four interdependent thematic areas are: (i) governance and accountability; (ii) health financing; (iii) revitalization of primary health care and (iv) capacity strengthening.

Morbidity and mortality indicators in Nigeria show fluctuation and improvement, but this is by region and population groups; when averaged, they have not changed considerably over the past few years. In fact, in some cases, they even look worse than before. The causes are various, as the country is vast and diverse. They are social, educational, economic and cultural factors but, again, distributed geographically and by population group. On the other hand, the evaluation data and information collected by the evaluation team show that access to health services is also biased by the same socioeconomic and cultural differences. Public health services reach only 15 per cent of the population; there is a small percentage covered by private for-profit and not-for-profit services, and the largest percentage (76 per cent) is covered by the population out of pocket.

Nigeria has some of the best health programme design and health strategies in the region. It has legislation that provides the necessary framework and a tiered health structure. It has new programmes that seek to facilitate funding directly to the implementation level, bridging bureaucratic gaps, where the biggest barriers and delays lie. These innovative programmes still cover a small percentage of the beneficiary population and are in full growth; some are even in an experimental phase.

Key driving factors explaining maternal and child mortality differences between low- and high-performing states

Child Deaths	Maternal Deaths
Bivariate and Multivariate Regression Analysis	
Birth order Households located in rural areas Mothers with no education	Higher number of births Primary education attainment by mothers Use of contraception type Increased number of births
Review of Epidemiological Data Trends	
Immunization coverage rates (DPT3/Penta3, Measles, all vaccines) Stunting rates Case management of malaria, diarrhoea and ARI	Quality of care Distance to referral facilities Skilled birth attendance Antenatal & postnatal care Facility delivery Use of IPTp for malaria prevention Use of modern FP methods

The evaluation team observed improvements in many of the programme areas, but also systemic weaknesses. Nigeria is a large and complex country; therefore, the improvements and programmatic weaknesses cannot be generalized, as there are states that are close to the SDG3 targets while there are many others that still have a long way to go to meet those targets.

It is in this context that the SDG3 goals and targets for the year 2030 have been established. The general consensus of the people interviewed was that without drastic measures being taken to improve access to and utilization of quality health services, the proposed goals will not be reached.

Recommendations

This evaluation report presents 31 recommendations focusing on strengthening the Nigerian health system across the four thematic areas mentioned above. The evaluation team noted that many states and development partners, both local and external partners, are already working on many of the strengthening activities described in this report. It is not the intention of this evaluation to underestimate the progress made to date, but the proposed key recommendations can serve to assess the complementarity of ongoing activities, facilitate progress towards the achievement of the aspirational SDG3 goal and targets, and most importantly maximize positive health impact.

The abridged list presented below includes the top priority recommendations. The full list of 31 recommendations along with time frame of implementation and relevant stakeholders is presented in Section 6.4.

In addition, the evaluation team understands the complexity of a decentralized health system in Nigeria with the inherent autonomy of each of the three major levels of the health system. These recommendations are proposed to be implemented using a holistic approach across the four thematic areas. Addressing each of them in silo will generate only marginal improvements. Implementing them in close coordination, synchronization and in alignment with national health priorities will maximize the likelihood of achieving positive health impact, particularly for the most vulnerable groups in Nigeria.

One of the most important actions to be taken to achieve the SDG3 goals is to improve the governance and accountability of the health programmes and state governorships. This must be accompanied by greater transparency, by facilitating the dialogue and participation of organized population and collective groups. The private sector, both for-profit and not-for-profit, could play a more active role with increased engagement for improving access to and utilization of health services.

Programmes need to shift their focus from the bottom up, prioritizing the implementation level, quality of service delivery (minimum standards or care) and better information systems for planning and decision-making.

As 2022 puts Nigeria at a critical juncture in its efforts to improve health and other development sectors, it is imperative to take action, move forward, and accelerate progress towards achieving health goals and objectives as described in the NSHDP II. Staying with the status quo will most likely bring marginal improvements for the health of Nigerians. Policy action, including strategic and smart tactical decisions for health programmes in Nigeria will bring the SDG3 goal and its related targets within reach by 2030.

Governance and accountability
Empower leadership for the design, implementation, monitoring, and evaluation of health programmes, focusing on PHC and referral sites. Recruit from the widest possible pool: Implement decentralized state health strategic plans, based on access, coverage, and quality of care; Implement competency training based on technical and managerial skills; M&E is a programme management tool used for strategic planning, continuous performance improvement, and reporting; Apply proportionality and flexibility.
Health financing
Increase the allocation of resources to the overall health budget by increasing the proportion of the Government General Expenditure (GGE) to at least 10 per cent by 2025 and to 12 per cent by 2030 to fast-track the achievement of SDG3 targets 3.1 and 3.2 through: 1 per cent of State CRF allocated to the BHCPF to complement the federal grant. It should be a statutory allocation with first line charge; Increase the proportion of the health budget that is allocated to PHC with emphasis on capital expenditure to cater vital programmes like the one PHC per ward; State Governments should establish an accountability mechanism to attract other sources of funding; States should define a health financing strategy to provide a road map for improving and sustaining health service delivery.
Strengthen the public financial management system to address inefficiencies: maximize spending level within budgets, focusing on increased spending at LGA and/or facility level for improving PHC services.
Revitalization of Primary Health Care
Strengthen local and decentralized strategic planning and associated implementation plans focusing on management skills, identification of key barriers for high programme performance, and design how to overcome them in a systematic way. Continue the roll-out of the BHCPF in all 36 states and the FCT to deliver the BMPHS to 20.6 million Nigerians by 2023 and to 40.0+ million Nigerians by 2030.
Capacity strengthening
Maximize systematic coordination for strengthening the capacity of State, LGA and facilities for the implementation of the BHCPF in all 36 states and the FTC. This should follow a phased approach for the roll-out of the BHCPF in three aspects: technical/clinical (at facility level); management (at facility and LGA) accountability (at all levels).
Strengthen health personnel training: Develop training curricula by programme areas and a training plan, with a focus on standardized case management, and quality of care.
Strengthen supervision plans and in-service training: supportive supervision guides and SOPs for its implementation.

Introduction and Background

Chapter **One**

In December 2019, UNICEF and the Government of Nigeria (GoN), through the OSSAP-SDGs, commissioned Alegre Associates, Inc. to conduct an evaluation of the effectiveness and impact of the Sustainable Development Goal SDG3 Healthy Lives in Nigeria (2016–2019). The independent evaluation focused on assessing the effectiveness and impact of Health Sector Strategic Plans' (NSHDP I 2013–2017 and NSHDP II 2018–2022) contributions towards achieving SDG3 Healthy Lives in Nigeria, learn from past experiences, and state comparative advantages. Representatives and stakeholders from these organizations and government agencies, including the OSSAP-SDGs, set up an SDG3 Evaluation Technical Working Group with a mandate to oversee the evaluation criteria and questions, methodology, tools, activities, timelines and deliverables, and agreement on six target states that were included in the evaluation.

The 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future (United Nations, Department of Economic and Social Affairs, 2015). At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries – developed and developing – in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve the environment. This independent evaluation focuses on SDG3 good health and well-being, and its relation to other SDGs that directly or indirectly affect the health of all Nigerian citizens. Within SDG3, this evaluation takes stock of how Nigeria addresses primary health care among vulnerable population groups, particularly women of reproductive age and young children.

The Astana Declaration on Primary Health Care reiterated that PHC is a cornerstone of a sustainable health system for universal health coverage and health-related SDGs.[1] It called for governments to give high priority to PHC with key stakeholders from both public and private sectors. As each country has a unique path towards UHC with different strategies and models, this evaluation also focuses on PHC, and looks at existing evidence to attain the good health and well-being of Nigerian citizens, including health policies, programmes, initiatives, strategies, and their implementation in a complex health system.

The implementation of the SDG3 Healthy Lives independent evaluation in Nigeria commenced with an Inception and Capacity-Building Workshop held in in Uyo, Akwa Ibom, on 20-22 January 2020. The workshop was chaired by the Senior Special Assistant to the President on SDGs in Nigeria and involved OSSAP-SDGs, the Federal Ministry of Finance, Budget and National Planning, the Federal Ministry of Health, national stakeholders, UNICEF representatives Facilitated by the Evaluation Team Lead Dr Marcelo Castrillo, the programme was successful in the final deliberation and validation of the evaluation design and timeline. During the workshop, participants reviewed and finalized the evaluation criteria and questions, methodology, tools, activities, timelines and deliverables. The workshop also served to select six target states to conduct a comparative analysis of health outcomes and further understand the progress made, bottlenecks experienced, and how states are addressing those bottlenecks, challenges, and opportunities. Annex 1 includes the list of participants of the inception and capacity-building workshop. Figure 1.1 shows the states selected for the SDG3 Healthy Lives independent evaluation in Nigeria.

The sudden onset of COVID-19 significantly affected the timing of the evaluation, the composition of the evaluation team, and the planned fieldwork for the evaluation. Initially, an international team had been selected to develop the data collection methodology and conduct the fieldwork in the six target states and at the central level. However, the travel of the international team was completely interrupted due to the global pandemic. In close coordination with UNICEF, Hanovia Limited, a Nigerian data collection firm, was contracted to carry out the field data collection,preliminary analysis of health data and information collected at the state level. Semi-structured interviews at the federal level were conducted virtually by the international team. Finally, the fieldwork was postponed, from March 2020, which was in the original timeline, until November 2020, when Hanovia selected and recruited the field team and began all the preparations for the systematic data collection process at state level.

Alegre Associates' evaluation team oversaw and supported Hanovia in training its field staff in the design of the data collection instruments, their interpretation and cross-analysis, field testing and final revision of all data collection tools used in the six target states.

This report documents the findings of the evaluation, along with conclusions, lessons learned and recommendations. To do so, this evaluation report is structured into six chapters as follows:

Chapter 1: Introduction and background

This chapter describes the broader context of the health sector in Nigeria in relation to SDG3 and offers a description of the focus of the evaluation in relation to SDG3 targets.

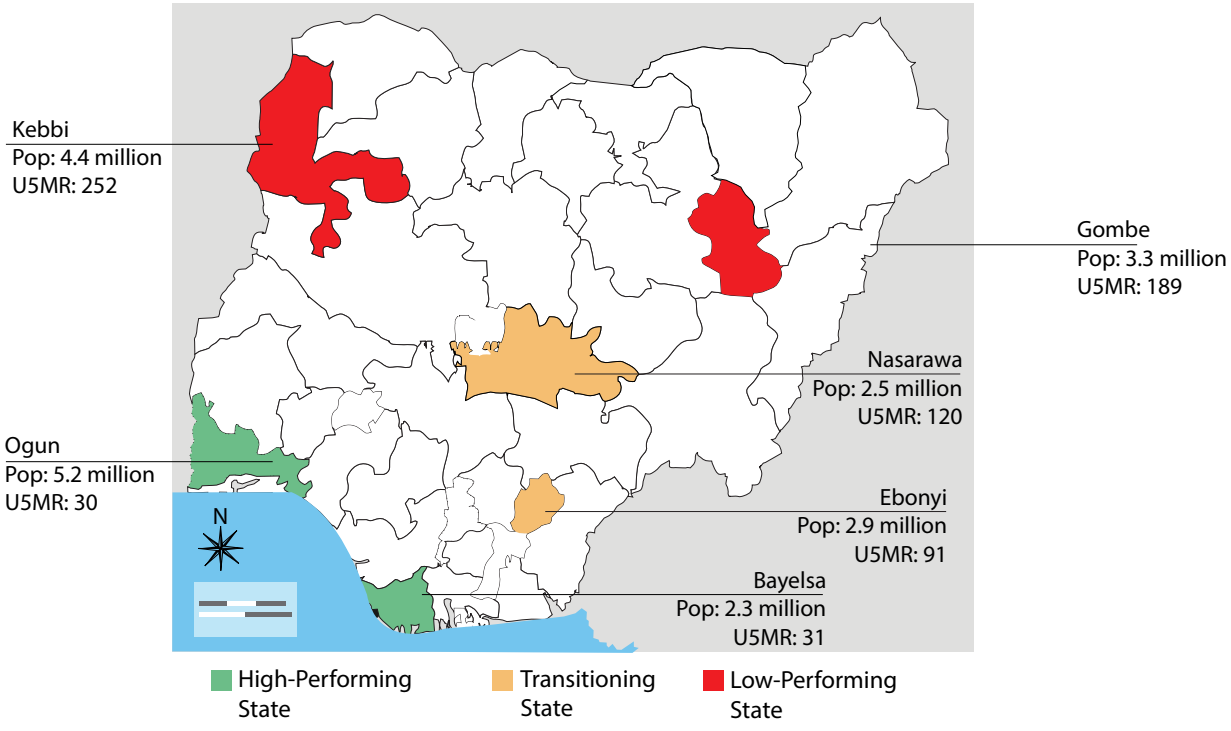
Chapter 2: Evaluation purpose, objective and scope

This chapter presents the evaluation's purpose, scope, objectives, and its design in response to the terms of reference developed by UNICEF.

Chapter 3: Evaluation methodology

This chapter explains the evaluation design, methodology, quality assurance mechanisms used, ethical considerations, the implementation approach, and the evaluation management.

Figure 1.1: Map of Nigeria with target states of SDG-3 healthy lives evaluation



Source: *Nigeria National Bureau of Statistics, 2016. Nigeria Demographic Health Survey, 2018*

Chapter 4: Evaluation findings and analysis

This chapter presents a detailed description of the findings and analysis of all the data collected. It is structured according to the evaluation criteria, including relevance/ appropriateness, coherence, effectiveness, efficiency, impact, human rights and the principle of "leaving no one behind", sustainability, gender equality, equity and universality.

Chapter 5: Health policies implementation in Nigeria

This chapter describes the key health policies adopted by Nigeria that are influencing the implementation of health programmes and the attainment of health outcomes aimed to achieve SDG3 targets.

Chapter 6: Conclusions and recommendations

This chapter presents the conclusions, lessons learned, and recommendations that the Evaluation Team has put forward based on the findings and evidence gathered from multiple sources.

Annexes

All necessary supporting details including the evaluation framework, supporting documents reviewed, data collection instruments and key references.

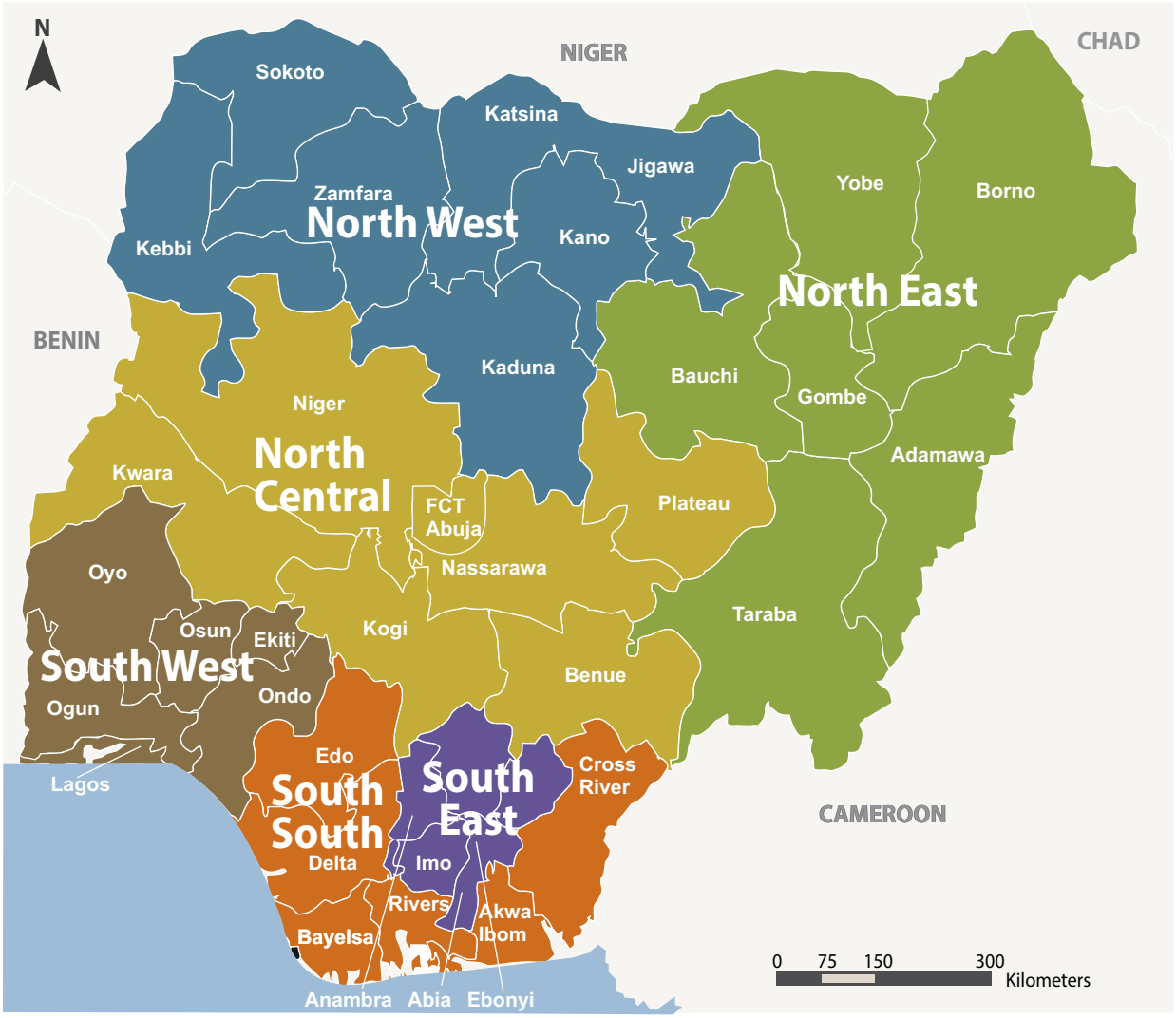
1.1 Background and context

Nigeria is a federation of 36 states and a Federal Capital Territory. Nigeria is further sub-divided into 774 Local Government Areas. Geographically, Nigerian states are organized into six geopolitical zones as shown in Figure 2: North-West, North-East, North-Central, South-East, South-South, and South-West. With a total area of 923,768 km2 Nigeria is located on the Gulf of Guinea of West Africa, bordering with the Republic of Benin to its west, Chad and Cameroon to its east, and the Niger Republic to its north. Nigeria has a multi-ethnic and culturally diverse society that is home to more than 300 ethnic groups across all its six geopolitical zones.

The country operates under a fiscal federalism characterized by extensive decentralization of authority and fiscal autonomy of States. The federating units are heterogeneous in levels of socioeconomic development, especially at geopolitical zones. Federal agencies lack constitutional powers to impose policies and initiatives on state and local governments. Currently, levels of economic, financial, and organizational capacity are diverse across states as there are marked differences in fiscal and economic performance across the country.

Nigeria ranks 161 out of 189 countries on the Human Development Index[2] of the UNDP (UNDP, 2020). The country has one of the lowest life expectancy at birth rates

Figure 1.2: Map of Map of geopolitical zones and states in Nigeria



in the world – 54.7 years – and is classified as a lower-middle-income country. It is Africa's biggest oil exporter and has the largest natural gas reserves on the continent. Nigeria is one of the largest economies in sub-Saharan Africa, with an estimated GDP of US$448.12. billion in 2019, up from US$398.16 billion in 2018 (World Bank, 2020a). GDP per capita in the same year was US$2,230, slightly higher than its value of US$2,033 in 2018. While it has Africa's largest economy, Nigeria also has the largest number of people in the world living in poverty with about 83 million (National Bureau of Statistics and the World Bank Group, 2020). About half of Nigerian households do not have access to power. And unemployment has averaged 23 per cent over the past five years. Despite the size of its economy, Nigeria has a very low level of domestic resource mobilization, with the lowest tax revenue as a percentage of GDP (VAT of 5 per cent until 2019) in sub-Saharan Africa, and the second lowest in the world after Yemen.

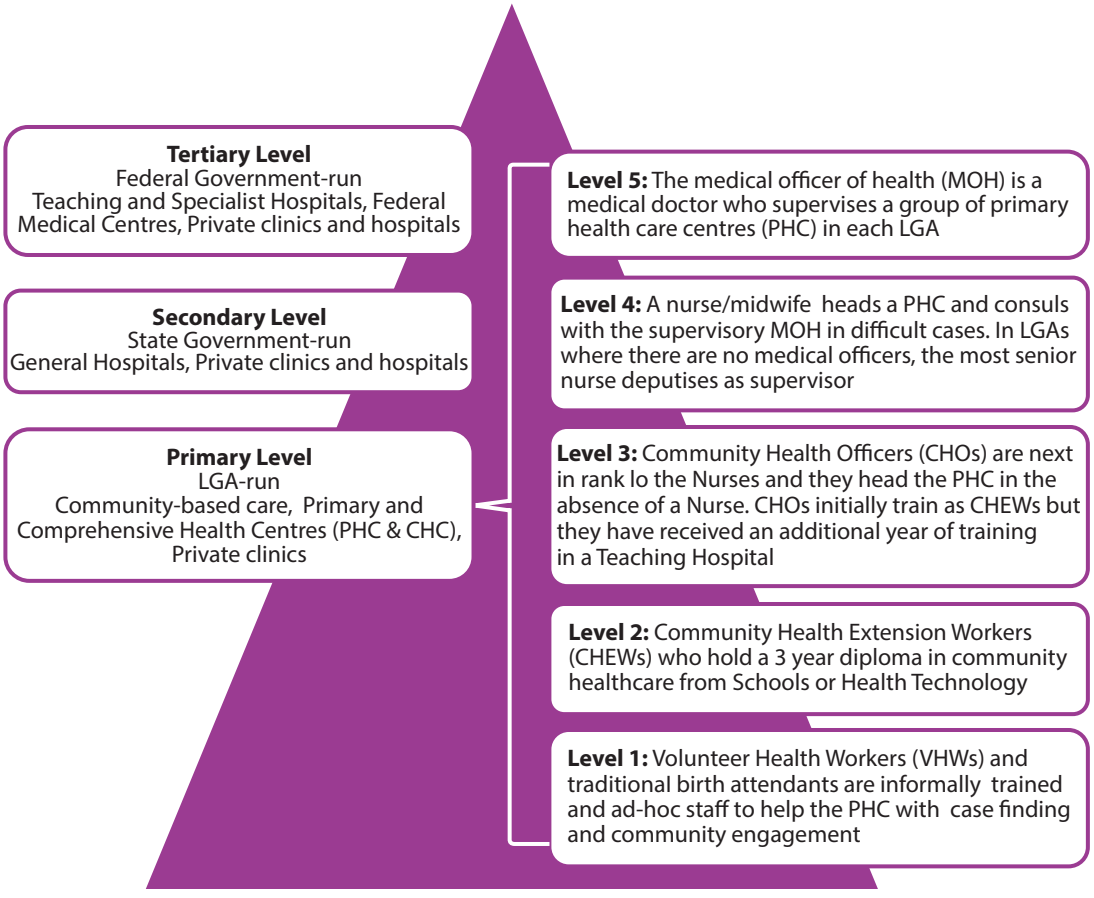
1.2 Nigeria health profile

Health-care delivery in Nigeria is a joint responsibility of three tiers of the Government (federal, state, and LGAs) and the private sector. The FMOH is responsible for policy development and technical support to the overall health system, international relations on health matters, the national health management information system, and the provision of health services through the tertiary and teaching hospitals and national laboratories. In addition, the FMOH leads the development and implementation of specific public health programmes, including the National AIDS and STDs Control Programme, the National Malaria

Elimination Programme (NMEP), and the National Tuberculosis and Leprosy Control Programme (NTLCP). The Federal and State health ministries, departments and agencies manage the implementation of these programmes at all levels. The SMOHs are responsible for secondary hospitals and for the regulation and technical support for primary health-care services. The LGAs are responsible for the primary health-care services, which are organized through wards. Figure 1.3 depicts the structure of the Nigerian health system.

Regarding the health of mothers and young children, Nigeria's maternal and child health outcomes remain significantly poor mostly due to a weak health system and socioeconomic factors. As a result, maternal and child health status in the country remains one of the worst in sub-Saharan Africa with limited improvements, and in some areas of the country, particularly in the northern zones, has worsened over the past decade. Nigeria registers a wide variation of MMR across the six geopolitical zones, with the northern zones generally having worse maternal, newborn and child health MNCH indicators than the southern zones (Meh et al., 2019). While there has been progress in the reduction of under-five mortality over the past three decades (193 deaths per 1,000 live births in 1990 down to 132 in 2018),(NDHS, 2018), maternal and newborn mortality remains mostly stagnant. Surprisingly, the under-five mortality rate has recently increased from 128 (NDHS, 2013) to 132 (NDHS, 2018) and a similar trend is reported for neonatal mortality from 37 (NDHS, 2013) to 39 (NDHS, 2018). The evidence also shows significant differences within the regions of Nigeria, with the North-West reporting the worst under-five mortality rates (187 deaths per 1,000 live births) with the South-West showing better rates (62 deaths per 1,000 live births) as reported in the latest NDHS of 2018. A similar trend is reported for stunting rates among children under 5 years of age (57 per cent in the North-West vs. 18 per cent in the South-East (NDHS, 2018) and the total fertility rate (6.6 in the North-West vs. 3.9 in the South-West (NDHS, 2018).

Figure 1.3: Structure of Nigeria's health system



With a population estimated at more than 214 million in 2020, Nigeria has about 2.5 per cent of the world's population, and 10 per cent of all maternal and under-five deaths, translating into more than 50,000 maternal and more than 1 million newborn, infant, and child deaths annually. Every day Nigeria loses an estimated 2,300 children under 5 years of age, and 145 women of reproductive age from preventable causes, making the country one of the largest contributors to under-five mortality, along with India, and maternal mortality in the world. Twelve per cent of children die before their fifth birthday, and of those who survive, 37 per cent are stunted.

Coverage of key maternal, newborn and child health interventions that contribute to these outcomes is also showing some levels of stagnation. For example, less than one third (31 per cent) of children aged 12-23 months received all basic vaccinations in 2018 (NDHS, 2018) compared to 29 per cent in 1990, and less than half of birth deliveries (43 per cent) are attended by skilled providers (NDHS, 2018). Two thirds of women received at least one antenatal care visit from a skilled provider (NDHS, 2018) with 57 per cent of women receiving the recommended four or more visits (NDHS, 2018). Use of modern contraceptives is only practised by 12 per cent of currently married women of reproductive age, and fertility rate has remained at 5.3 children per woman. Nigeria has scaled up malaria control interventions as evidenced in the proportion of households owning one or more ITN, increasing from just 8 per cent in 2008 to 61 per cent in 2018. And use of ITNs by children and pregnant women has increased to 52 per cent and 58 per cent respectively in 2018. However, only 40 per cent of women reported receiving two or more doses of Intermittent Preventive Treatment of Malaria in Pregnancy (IPTp) during ANC (NDHS, 2018). There are also significant differences within regions in the country with the South-East recording better coverage rates than the North-West.

As for reproductive health, Nigeria registers a contraceptive prevalence rate of 17 per cent, just 38 per cent of demand for family planning needs being met, and with women having little decision-making power with respect to their sexual and reproductive rights, the total fertility rate per women averages 5.3 children. Globally Nigeria accounts for one third of all malaria deaths, and the second-highest number of HIV-positive people, representing 9 per cent of the global HIV burden. Overall, coverage and quality of primary health-care services in Nigeria continue to fail women and children.

Nevertheless, the stable political environment, strengthened by the conduct of the successful 2019 general elections, provides a much-needed enabling environment for economic and social development in Nigeria. Following the 2016 economic recession, caused largely by the sharp fall in global oil prices, Nigeria developed a medium-term national development plan known as the Economic

Recovery and Growth Plan (ERGP) (2017-2020). The ERGP aims to restore growth, invest in people, and build a globally competitive economy. Nigeria implemented the NSHDP I for the period 2010-2015, later extended to 2017. Subsequently, the NSHDP II was developed for the period 2018-2022. This Health Sector Strategic Plan aims to reduce the under-five mortality rate from 132 deaths per 1,000 live births (NDHS, 2018) to 64 deaths by 2022; and the maternal mortality ratio from 512 maternal deaths per 100,000 live births (NDHS, 2018) to 288 by 2022.

As the Government of Nigeria has adopted increased commitment to meet the new SDGs for 2030, there is a significant juncture and momentum that the country will take to achieve the new SDG3 Healthy Lives targets within the health sector. As SDG3 includes aspirational goals, Nigeria remains committed to improve the health status of all its citizens. The GoN has put in place comprehensive health strategies and plans to address systemic constraints and barriers in a complex health system which has been further stressed by the effects of the COVID-19 pandemic.

This evaluation reports documents key findings obtained from empirical data, supported by existing secondary data that met quality criteria. The analysis includes trends of health-related indicators since 1990; descriptive statistics of key health indicators particularly for maternal health (SDG3 target 3.1) and child health (SDG3 target 3.2); regression analysis to identify potential causes of morbidity and mortality among vulnerable population groups; thematic content analysis from key informant interviews at national and sub-national levels; health financing analysis at national and sub-national levels; and policy analysis in the health sector, including ongoing implementation of health policies aimed to address the health needs of vulnerable population groups, including women and young children. Findings from the analysis of data and information gathered from multiple sources informed key conclusions, lessons learned and recommendations for the GoN to consider and further improve the health of Nigerians in the next decade and in light of the SDG3 targets by 2030.

1.3 COVID-19 in Nigeria

On 27 February 2020 Nigeria registered the first case of COVID-19 in the country, an imported case from Italy. Since then, COVID-19 has affected all major development sectors of Nigeria. While there is still a dearth of data about coverage of health services since the onset of the pandemic, the health sector, including primary health care, will be adversely affected. International agencies and researchers are beginning to document the estimated impact of COVID-19 on multidimensional child poverty and are quantifying the percentage of children lacking access to education and/or health services due to the global pandemic (UNICEF and Save the Children, 2020).

The GoN adopted a strong array of measures to prevent the negative effects of the pandemic, including the establishment of a multi-sectoral emergency operations centre and the Presidential Task Force for coronavirus control established on 9 March 2020. In addition, the FMOH developed an integrated federal health sector COVID-19 response plan in May 2020 that has been continuously updated given the dynamics of the pandemic and has guided the overall response within the health sector in Nigeria. As a result of the pandemic in the country, many of the weaknesses of the health system became more visible, including the readiness to mitigate the effects of COVID-19 in the country. Although overall Nigeria and the entire sub-Saharan region have registered lower levels of COVID-19 cases when compared with other regions of the world, it is hard to predict how the pandemic will unfold and its effects on primary health care, particularly for women of reproductive age and young children in Nigeria in 2021 and beyond. The Nigeria Centre for Disease Control is Nigeria's national public health institute with the mandate to protect Nigerians from the impact of communicable diseases of public health significance, including COVID-19.

In 2017, the WHO Joint External Evaluation of International Health Regulations (IHR)[3] core capacities revealed weak preparedness in the country, particularly with regard to prevention and response. This is most evident from the low testing rates for COVID-19 in the country. Currently, Nigeria has the capacity to test 2,500 samples a day but just around half of these are actually administered on a daily basis due to shortages of human resources, testing kits, and laboratories. As of 16 November 2020 Nigeria had registered 705,809 samples tested, which for a population of 214 million represents a testing rate of 0.3 per cent (Nigeria Centre for Disease Control, n.d.).

The incidence of COVID-19 grew steadily in Nigeria, moving from the imported case to community transmission. The case fatality has stood at around 2.8

per cent. The country reported an upsurge (52 per cent of total cases) in the transmission of COVID-19 during the short period the lockdown was relaxed. The total number of confirmed cases is 168,422 as of end of June 2021 as reported by Nigeria CDC. Annex 2 presents a complete list of confirmed cases by state as of June 2021.

The majority of reported cases are concentrated in Lagos State (60,272 or 36 per cent of all confirmed cases, according to Nigeria Centre for Disease Control, as at 1 July 2021) followed by FCT, Kaduna, Plateau, and Rivers. The potential of overwhelming COVID-19 is still imminent in Nigeria, as the country is attempting to re-open the economy, which could sacrifice public health gains for temporary economic gains. While this evaluation is not aimed to directly assess the impact of COVID-19, we added questions in the data collection instruments and qualitative interviews with health officials at federal and state levels which enabled to further investigate the impact of COVID-19 on the health of mothers and young children and provide some recommendations to policymakers as the country will most likely continue to face the effects of the pandemic as Nigeria has begun to deliver the first phase of COVID-19 vaccine under the management of the NPHCDA. As of end of June 2021, Nigeria has administered at least 3.8 million doses of COVID-19 vaccines, which represents about 1 per cent of the country's population. While the pandemic and its negative effects are still ongoing, Nigeria has started to document initial lessons from the COVID-19 response (Nigeria Centre for Disease Control, 2021). At the time of finalizing this evaluation report, the entire sub-Saharan region is going through a new wave of COVID-19 that has the potential to further disrupt access to and utilization of health services, and deteriorate the overall health status of all Nigerians, especially vulnerable population groups, including women of reproductive age and young children.

Evaluation Purpose, Objectives and Scope

Chapter **Two**

2.1 Purpose of the evaluation

The independent evaluation serves three main purposes: (1) to learn the key drivers of successes and challenges to achieving the health sector strategic objectives during the target years of implementation (2016-2019); (2) to document evidence of effectiveness and impact of NSHDP I and II from 2016-2019, particularly the Theory of Change (ToC) and health outcomes that will ensure Nigeria's path towards achieving SDG3 Healthy Lives and Well-being for all; and (3) to strengthen Nigeria's evidence-based SDGs Voluntary National Review Report in 2020.

2.2 Evaluation objectives

The objectives of the independent evaluation are to:

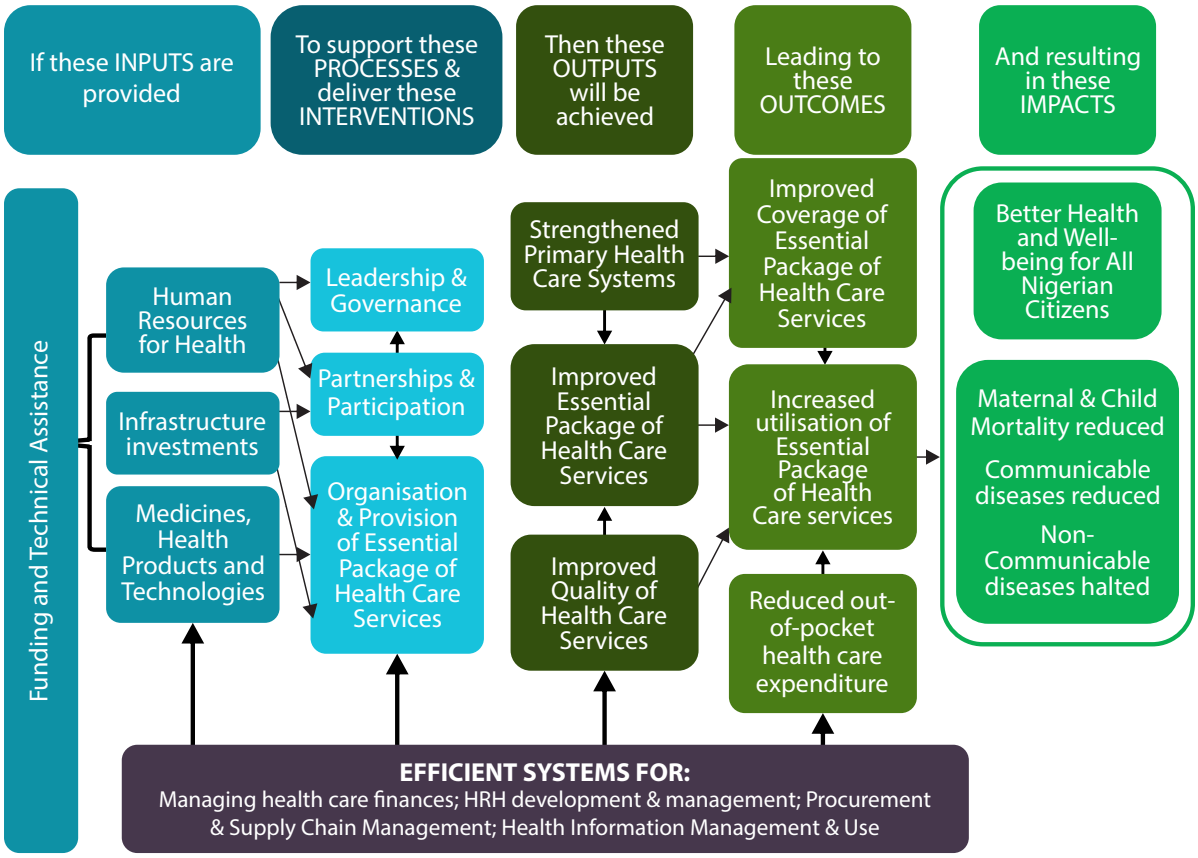
- Assess the relevance and the coherence of the NSHDP II with regard to SDG3 targets related to maternal health and child survival, in line with the SDG principles of universality, equity, "leave no one behind", human rights and sustainability.
- Determine the ToC outcomes (intended and unintended outcomes and impact) in the implementation of health strategic flagship programmes to improve healthy lives as spelled out in SDG3 and NSHDP I and II.
- Analyse how the programme strategies and supporting interventions combine to contribute to the observed changes.
- Identify key driving factors (explanations) as well as strengths and weaknesses (bottlenecks) in the implementation of selected strategic health programmes, with focus on the three main strategic interventions of the ToC related to leadership/governance, partnerships/participation/investment used, and the organization/provision of health-care package services.
- Draw lessons learned that could be applicable to Nigeria and other countries in the region regarding the achievement of SDG3.
- Generate strategic policy recommendations, to be validated by all stakeholders to address the identified challenges/bottlenecks that will help government at all levels and development partners to accelerate progress and achieve SDG3 Healthy Lives in Nigeria.

2.3 Scope of work

The evaluation assesses progress made in relation to the NSHDP's Theory of Change:

- Efficiency of achieving expected outputs indicators related to:
  - Strengthened primary health-care system.
  - Improved package of essential health-care services.
  - Improved quality of health-care services.
- Effectiveness of the three outcomes related to:
  - Increased coverage of essential health-care services.
  - Increased utilization of essential health-care services.
  - Reduced out-of-pocket health-care expenditure.
- Intended impact in the reduction of:
  - Under-five mortality, child mortality and neonatal mortality.
  - Maternal mortality and morbidity (communicable diseases).
  - Morbidity related to non-communicable diseases and unintended impact.

Figure 2.1: NSHDP II Theory of Change



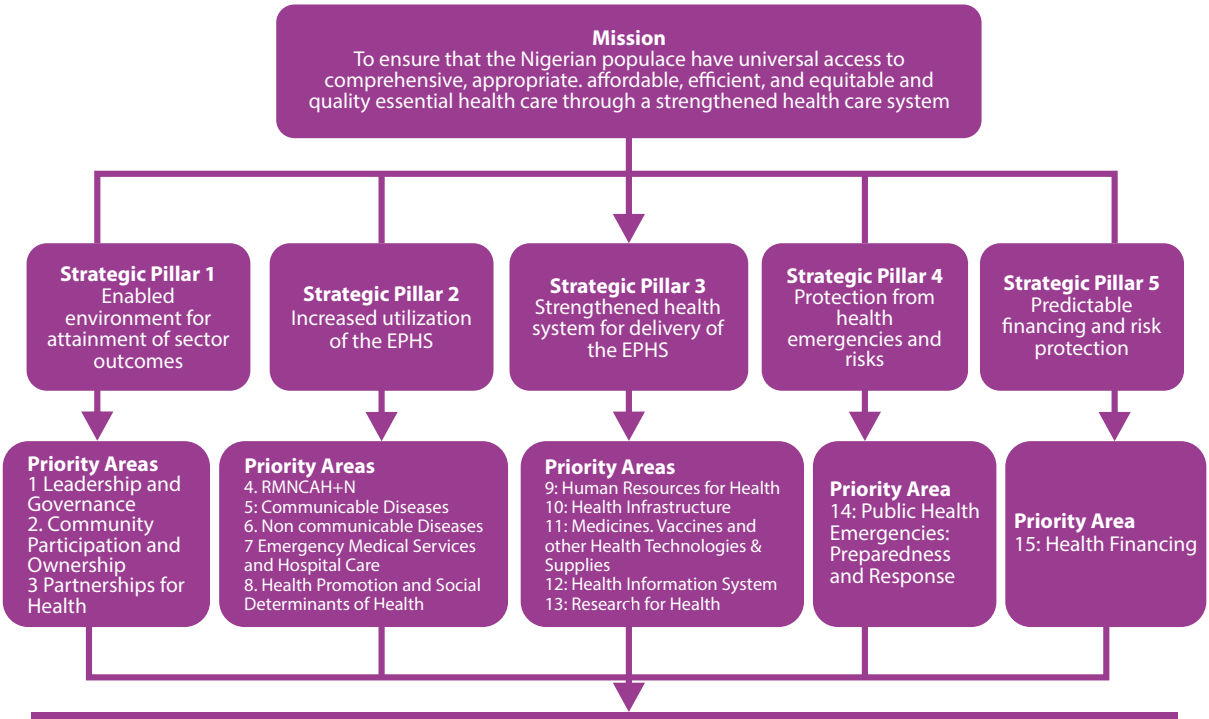
- Causality analysis:
  - Bottlenecks/determinants analysis of reduction of U5MR or stagnation/slow progress of U5MR.
  - Package of services coverage and determinants factors.
- The evaluation covers the following thematic programmatic areas:
  - Maternal, newborn and child health.
  - Nutrition.
  - Prevention of mother-to-child transmission of HIV/AIDS.
  - Supply and access to essential medicines.

2.4 Theory of Change

The NSHDP II Theory of Change displayed in Figure 2.1 is based on five strategic pillars: (1) enabled environment for attainment health sector outcomes; (2) increased utilization of an essential package of health-care services (EPHS); (3) strengthened health system for the delivery of the EPHS; (4) protection from health emergencies and risks; and (5) predictable financing and risk protection. Strengthening Nigeria's health system is based on a systematic approach that started with the development and implementation of NHSDP I (2010–2015) that was subsequently extended until 2017. Lessons from the implementation of NHSDP I along with new strategic priorities shaped the development of the current NHSDP II plan for the period 2018–2022. Hence, the present evaluation was implemented at a middle term in the development and implementation of the National Strategic Plan. The independent evaluation was designed to examine to what extent and depth the state-level health teams have implemented health systems strengthening strategies, and if these have influenced the maternal health, infant and nutrition programme indicators.

Figure 2.2 depicts the structure of the NSHDP II, including its overall mission, and the five strategic pillars with their related priority areas, goals, and objectives.

Figure 2.2: NSHDP II Mission, Strategic Pillars and Priority Areas



Goals	
Strategic Pillar One	1. Provide effective leadership and an enabling poky environment that ensures adequate oversight and accountability for the delivery of quality health care for sustainable development of the national health system 2. To promote community engagement for sustainable health development 3. Enhance harmonized implementation of the EPHS in line with national health policy goals
Strategic Pillar Two	4. Promote universal access to comprehensive quality sexual and reproductive health services throughout life cycle and reduce maternal. neonatal. child and adolescent morbidity and mortality in Nigeria 5. To improve prevention, case detection and coordinated response for the prevention, control and management of communicable diseases and NTDs 6. To reduce the burden of morbidity. mortality and disability due to non-communicable diseases 7. Improve health outcomes through prompt and effective response to medical emergencies 8. Improve the well being, safety and quality of life of Nigerians through health promotion and healthy environment
Strategic Pillar Three	9. To have in place the nght number, skill mix of competent. motivated. productive and equitably distributed health work force for optimal and quality health care services provision 10. To improve availability and functionality of health infrastructure required to optimize service delivery at all levels and ensure equitable access to effective and responsive health services throughout the country 11. To ensure that quality medicines. vaccines_ and other health commodities and technologies are available. affordable and accessible to all Nigerians 12. To institutionalize an integrated and sustainable health information system for decision-making at all levels in Nigeria 13. To utilize research to inform policy and programming for improved performance of the health sector and better health outcomes and also contnbute to global health knowledge production
Strategic Pillar Four	14. Significantly reduce the incidence and impact of public health emergencies
Strategic Pillar Five	15. Ensure all Nigerians have access to health services without any financial barriers or impediments at the point of accessing care

48 Strategic objectives

Strategic interventions and key actions and their specific indicators and targets

Evaluation Methodology

Chapter **Three**

This chapter provides details of the methodology of the SDG3 Healthy Lives independent evaluation in Nigeria. This includes evaluation criteria, design, and methods that the evaluation team used for conducting the evaluation.

3.1 Evaluation criteria

The independent evaluation assesses the relevance, impact, effectiveness, coherence, efficiency and sustainability of the five-year NSHDP. These criteria are well aligned to the six universal standard criteria from the Organization for Economic Cooperation and Development Assistance Committee for evaluating development assistance. Five other cross-cutting criteria linked to SDG principles are added, including human rights/leave no one behind, gender equality, equity, and universality. For each criterion, the evaluation assessed the merit of the NSHDP in contributing to the achievement of SDG3 in Nigeria using specific quantitative indicators. In addition, to further understand quantitative data, the evaluation included qualitative data collection and analysis of key stakeholders in the health sector at both national and sub-national levels. Specific indicators for the measurement of each universal criterion/principles for the evaluation were determined and documented in the Evaluation Inception Report approved by UNICEF in March 2020. Table 3.1 presents the listing of the evaluation questions by criterion. Annex 3 includes the evaluation framework, which provides further details of specific indicators and sources of information that the evaluation team used for answering the evaluation questions.

Table 3.2 provides a quick listing of key sources of data used and the respective type of analysis conducted as part of the evaluation. Annex 4 presents a detailed list of all the key documents reviewed by the evaluation team.

Table 3.1. List of evaluation questions by evaluation criterion

Evaluation Criteria	Evaluation Question
Relevance/ appropriateness	Are the overall strategies, policies and plans of the health sector aligned with the SDG3 (targets 3.1 and 3.2)? EQ 1.1 Are SDG3 (targets 3.1 and 3.2) well mainstreamed into NSHDP II? Are the states' strategic health plans contextualized to the specific issues for addressing SDG3 (targets 3.1 and 3.2)?
Coherence	To what extent is the NSHDP II consistent with the other national development plans and SDGs?
Effectiveness	What progress has been made towards achieving NSHDP II targets in relation to SDG3 (targets 3.1 and 3.2)? What are the enablers and barriers towards the achievement of SDG3 (targets 3.1 and 3.2)? What results (intended and unintended) have been achieved so far by the following flagship programmes towards the achievement of SDG3 (targets 3.1 and 3.2): EQ6.1 Saving One Million Lives? EQ6.2 Immunization Programme? EQ6.3 Malaria Programme? EQ6.4 TB Programme? EQ6.5 PMCT Programme? EQ6.6 Nigeria State Health Investment Project?
Efficiency	To what extent are the existing programmes and coordinating mechanisms enabling the achievement of SDG3 (targets 3.1 and 3.2)? How timely and sufficient have been the resources mobilized towards the implementation of NSHDP II intervention (Moderate Scenario)? EQ8.1 To what extent has funds disbursement reached the different groups end users? How timely were procurement and distribution of essential medicines implemented? To what extent has access to essential medicines been scaled up? To what extent has the value-for-money principle been achieved for obstetrics service, nutrition service and immunization services depending on the information obtained?
Impact	To what extent were the expected changes in individual healthy lives achieved (impact and outcome)? Disaggregated by State/LGA, age groups, sex, and other priority groups? EQ11.1 Reduction of under-five mortality rate per key group by high-, transition, and low-performing states? EQ11.2 Extent to which maternal, newborn and child health have been improved? EQ11.3 Extent to which progress has been made in preventing mother-to-child transmission of HIV? EQ11.4 Have any unplanned or unintended effects (impact) been observed in the delivery of health services in communities or institutional system? Have any effects been observed that enable or constrain the achievement of the objectives and targets of the selected health interventions? What are these? What have been the main drivers or factors in reducing mortality in children under 5 years in the period 2000—2012? What were the factors that influenced the stagnation of infant mortality during the years 2012—2018? Describe if there were bottlenecks and determinants.

Human rights and the principle of "leaving no one behind"	How are the human rights-based approach and the 'leave no one behind' principles of Agenda 2030 realized in Nigeria in relation to Healthy Lives? To what extent has the human rights-based approach integrated into health sector programming within key flagship programme design and implementation?
Sustainability	To what extent is effective systematic participation of all stakeholders (individuals, communities, local institutions, states and federal stakeholders) in design, implementation, financing and monitoring and evaluation of health programmes functioning to sustain the gains made in achieving impact, outcomes and outputs? What components of the health system, of the selected interventions, have been strengthened and have prospects for sustainability? What recommendations still need to be strengthened, and what recommendations would you give?
Gender equality	To what extent have the NSHDP and flagship programmes incorporated gender equality and the empowerment of women and girls into the design, implementation and monitoring of interventions?
Equity	To what extent were the barriers (and their causes) to access basic services in the targeted areas identified and addressed as part of the overall programme strategic priorities?
Universality	To what extent are the child rights for fully integrated universal health-care package/services available and benefiting mothers and children? Is the child rights package contributing to improvements in access, availability and health services utilization?

Table 3.2. Key sources of data and type of analysis conducted

Source	Type of analysis
Government policies related to health	Policy content analysis
Government financial and allocation data	Health financing analysis; fiscal space analysis
Interviews with key informants (130 in total)	Thematic analysis
Government documents, United Nations documents, development partner documents, academic reports, etc.	Thematic analysis
Health system assessment (sample of 60 health facilities and six SMOHs)	Descriptive analysis
Health situation assessment at facility level or Health facility Assessment (HFA, sample of 60 health facilities)	Descriptive analysis
Health statistics in Nigeria (DHS 1990-2018)	Trend analyses; bivariate and multivariate regression analyses

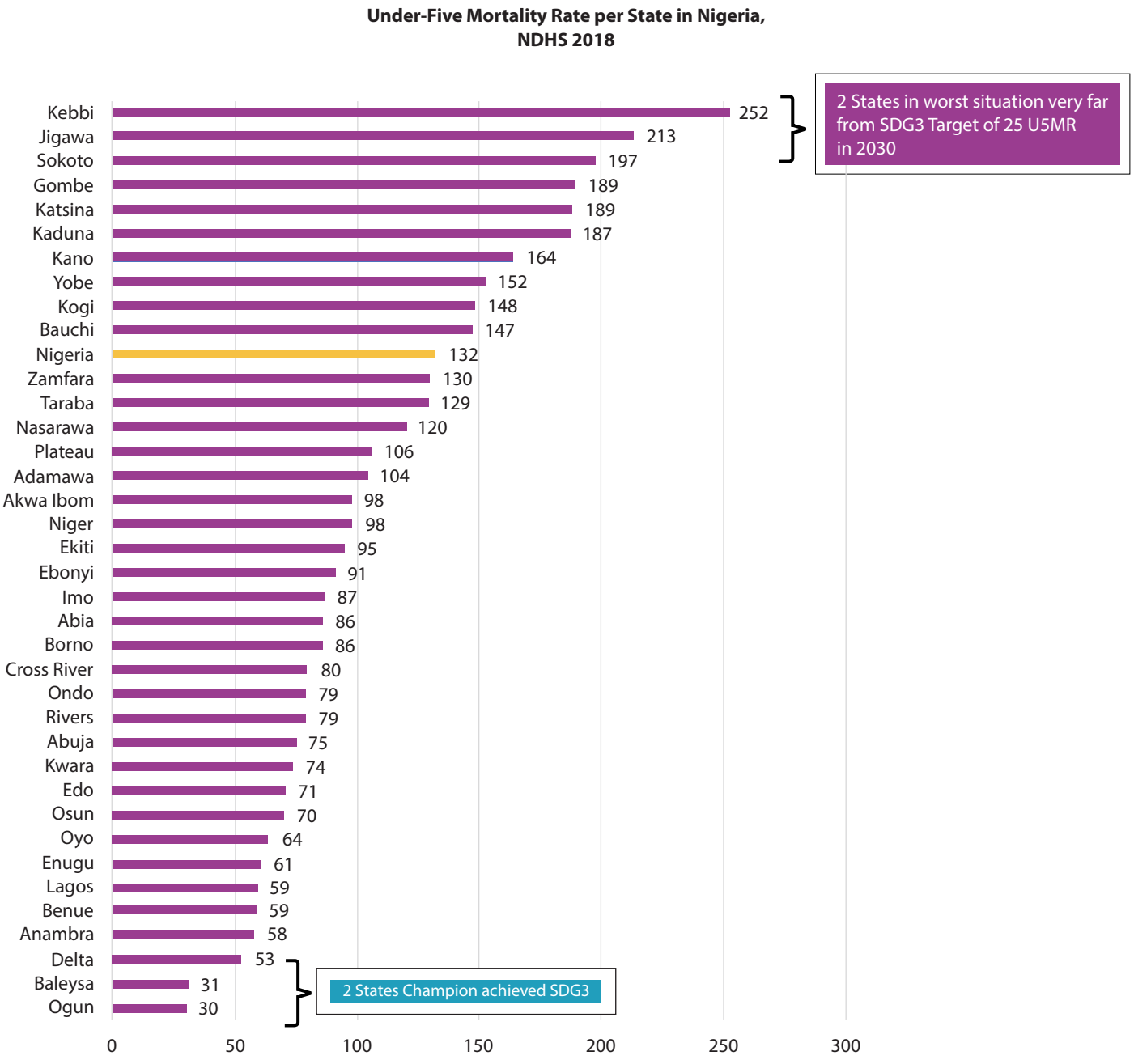
3.2 Evaluation design and methods

Realist evaluation and systems thinking

The design of the independent evaluation followed two approaches, a realist evaluation and systems thinking. Both approaches required a combined cross-examination of five quantitative and qualitative data collection methods as follows:

- Secondary analysis of data of the NDHS 2013 and 2018. This includes descriptive and regression analyses.
- Health system assessment at the SMOHs of six target states.
- Assessment of the maternal, child and nutrition services at selected health facilities in the six target states.
- In-depth interviews with key informants at the federal and state levels; and

Figure 3.1: Child mortality rates by state in Nigeria



- Secondary analysis of key health financing indicators from the most recent national health accounts in Nigeria and state health financing and budget informants at the federal and state levels; and
- Secondary analysis of key health financing indicators from the most recent national health accounts in Nigeria and state health financing and budget reports.

The general framework was designed under NSHDP II, which was developed based on SDG3. Therefore, the independent evaluation focused on a comprehensive assessment of the NHSDP II that is currently applied and implemented nationwide. A random selection of a comparison group was not possible due to cost. The independent evaluation uses a comparative analysis of six states selected in a participatory way with direct input from the Nigeria SDG3 Technical Working Group.

Geographic scope

The scope of the independent evaluation included two levels: assessing health policies and strategies at national level, and a comparative analysis among the six target states selected for the evaluation.

At national level, the evaluation team examined the health policies and strategies adopted by the GoN, and how they are contributing, or not, to the attainment of SDG3 targets. Other questions were about internal coordination between the federal level and the states; among programme intervention directors and managers; and finally, coordination and collaboration with the other line ministries and international cooperation.

At the sub-national level, the evaluation team conducted a comparative analysis in six target states by means of MCH variables; health systems assessment; health facility assessment, and semi-structured interviews with senior health programme staff.

The rationale for the selection of the six target states defined within the Terms of Reference of the SDG3 evaluation, took into consideration the most recent U5MRs from the 2018 NDHS, which is depicted in Figure 3.6.

The target states selected for the independent evaluation were the following:

- Two high-performing states in terms of progress towards achieving SDG3 in Nigeria (i.e., low level U5MRs): Bayelsa and Ogun;
- Two transition states (from bad to good and vice versa) on SDG3: Nasarawa and Ebonyi; and
- Two low-performing states in terms of progress

towards achieving SDG3 in Nigeria (i.e., high U5MR): Kebbi and Gombe.

The selection of the six states were discussed and adopted by all members of the working group and stakeholders who participated in the inception workshop. Using the most recent U5MRs from the 2018 NDHS, the 36 states and the FCT were categorized into three groups: high-performing, low-performing, and transitioning states. Two states were then selected from each of the three groups, taking into consideration Nigeria's diversity, including geopolitical considerations. The final selection of states was not only informed by the U5MR values, but also considered logistics, overall health performance of states, and health outcomes achieved to date.

Evaluation approval by the Nigeria Ethical Review Committee

Alegre Associates submitted the evaluation protocol to the NHREC as per required protocols. The committee reviewed it and determined that according to the NHREC regulations and requirements, the activity described met the criteria for exemption and was approved as exempt from NHREC oversight on 30 June 2020. Approved authorization from the NHREC is included in Annex 5.

3.3 Overview of sample

Two main sources of primary data informed the evaluation findings. The first is the health system assessment (HSA) conducted within the six target states. The second is the HFA conducted in 60 health facilities located within the six target states. Both are described in the following sections.

Health system assessment

One of the main purposes of NSHDP II is to strengthen the various components of the Nigerian health system, in particular the primary health-care level, to improve the quality of service delivery, and hence improve access, coverage and ultimately utilization of an essential package of health services. NSHDP II also emphasizes strengthening the links between the community and the health system. For this component, the evaluation team conducted a rapid HSA. To do so, the evaluation team used an existing tool for assessing the capacity and performance of the health system, which partially matches the NSHDP II strategic pillars, but focusing mostly on the health management aspects. The rest of the strategic pillars were evaluated through other components of the evaluation. The HSA tool was developed and applied in other countries in Africa and Latin America(USAID, 2016; Manual de Estandares, 2012). The HSA tool contains two components or characteristics of the system to be evaluated and seven sub-components as described below:

- Health system management capabilities strengthened.
  - Strategic planning capabilities developed.
  - Strengthened information systems.
  - Strengthened financial management.
  - Functional human resources management.
- Capabilities to manage the delivery of services.
  - Strengthened health programme management.
  - Strengthened diagnostic capabilities.
  - Community mobilized and participating.

The HSA tool used a three-point scoring scale for each sub-component as follows: (i) Yes; (ii) Partially; and (iii) Not at all. Since each measurable criteria varies in importance; for example, the development of a detailed annual operational plan (AOP), aligned with the national strategy and based on quality information, is more important than a personnel database, hence, the system would give more points to the AOP.

The assessment tool was originally developed in Excel for data collection, and has an embedded analysis plan and graphs to present the results as data are fed into the Excel file. The data collection team, under the guidance and supervision of the evaluation team lead, transferred the Excel tool into SurveyCTO to facilitate actual data collection. The pre-coded tables of the tool were used for the overall analysis, together with the other dependent and independent variables. Annex 6 includes details of each sub-component of the HSA along with the respective measurable criteria. Annex 7 presents the actual tool used for conducting the HSA.

Purposive sampling was used in the selection of the SMOH staff for the HSA in line with the different components of the questionnaire. The SMOH staff interviewed were planning, research and statistics director, monitoring and evaluation, or health management information system director/manager, finance director, human resources director/manager, maternal and child health programme manager, nutrition programme manager, state epidemiologist/COVID-19 response coordinator,

laboratory director/manager and community mobilization director/manager.

Situation assessment at facility level

The objective of the HFA was to provide information on facilities regarding the delivery of maternal and child health services, and nutrition. It provided a diagnostic exploration of obstetric services for life-threatening conditions in safe motherhood programme areas; child survival intervention, and nutrition of mothers and children.

Findings from the HFA can be used as a guide for programme design for the improvement of maternal and child health, and their nutrition services, based on a reasonable understanding of: (1) the existing status of equipment; (2) existing supplies for quality care; (3) and existing infrastructure. Findings of the HFA would also help determine the requirements for upgrading facilities and for training to enable the provision of essential (including emergency) obstetric services and child survival in primary and secondary health-care facilities.

Purposive sampling technique was used in the selection of the 60 health facilities across the survey states (10 per state) based on established selection criteria as follows: (i) number of live births per year attended; (ii) caseload of major childhood diseases attended, including malaria, acute respiratory infections, and diarrhoeal diseases; and (iii) location of the health facility. Overall, 42 public PHCs, 12 private clinics and six general hospitals were selected across the six states. In each state, seven PHCs, two private clinics and one general hospital were selected. These health facilities and the replacement facilities were mined from the surveyed health facilities in the 2016 National Health Facility Survey (NHFS) that met the selection criteria. The NHFS is a survey being conducted under the leadership of the FMOH.

The tool used for conducting the HFA included is presented in Annex 8.

In-depth Interviews with key informants

Purposive sampling was used in the selection of the SMOH staff for conducting semi-structured interviews with key informants. The SMOH staff interviewed were maternal health programme manager, child health programme manager, nutrition programme manager, senior programme manager in charge of other health programmes (including malaria, TB, HIV&AIDS, family planning/reproductive health, SDG3 etc.) and the COVID-19 response manager.

In addition, the evaluation team conducted virtual interviews with key informants at the federal level. These included directors of health units from the FMOH and development partners based in Abuja. Annex 9 presents the guides used by the evaluation team to conduct the KIIs.

3.4 Data collection

A face-to-face approach was employed in the collection of quantitative and qualitative data. The field data collection was organized and monitored by the survey firm with technical assistance from the evaluation team. Data collection was conducted at three levels: (a) health facility assessment; (b) health system assessment; and (c) in-depth interviews with key informants.

Health system assessment and in-depth interviews with key informants

Both HSA and in-depth interviews were conducted with the SMOH officials in their offices. The identification of the SMOH staff was the first step in the data collection process. Interviewers collated the contact details of targeted SMOH staff to be interviewed. This ensured the ease of data collection as SMOH staff were contacted and appointments scheduled prior to the day of interview. The HSA featured nine sections, with each section administered to a designated SMOH official e.g., MCH section was administered to the MCH programme manager. Each HSA team of two enumerators completed two sections daily and took approximately five days to complete the entire questionnaire. Programmatic documents including annual operational plans; management information system tools, data and reports; financial management information system; data quality assurance reports etc., were cited and/or reviewed during the field data collection.

The KIIs were conducted with the identified SMOH staff. Two HSA enumerators administered the KIIs, where one served as the moderator/facilitator while the other the note-taker. Voice recorders were used to record interviews. Informed consent was obtained before interviews began and recorders used. During the interview, the interviewer ensured the privacy of the respondents and the confidentiality of the information shared. The average duration for the KII was about three hours. For


Adamawa State Ministry of Health
MY CASH TRANSFER CARD
Beneficiary's Name:
Hospital No.:
Facility:
Ward:
LGA:
unicef

each SMOH visited, about 10–12 KIIs were successfully conducted during the 16 days of data collection.

Health Facility Assessment

Prior to field data collection, advocacy visits to the relevant authorities in the state were conducted for one or two days by the state survey teams. The objectives of the advocacy visits were to: (i) introduce the state survey team members; (ii) obtain the SMOH officials' commitment to the survey; (iii) book or confirm dates and times for interviews with SMOH officials; (iii) confirm the functionality status of the selected health facilities and secure correspondence to officers-in-charge (OICs) of selected health facilities; and (iv) obtain the contact details of OICs of the sampled facilities. After obtaining the contact details of the OICs, the state survey team scheduled appointments with the OICs ahead of the team's visit. Each HF team of two enumerators conducted one HF survey per day for 10 days. Informed consent was obtained from respondents before each interview. During the interview, the enumerators ensured the privacy of the respondents and the confidentiality of the information shared. Enumerators reviewed management tools and procedures, records on HMIS, checked for availability of cadres of staff, malaria, childhood illnesses and safe motherhood medicines and supplies respectively among others, completed questionnaire forms were uploaded to the dedicated SurveyCTO server.

3.5 Limitations

Several factors constituted limitations and challenges for this evaluation and relate to methodological or research limitations, and COVID-19 restrictions.

Methodological or research limitations: By design, the scope of the evaluation is broad and many entities and variables interact within the health sector, making it challenging to absolutely isolate the effectiveness and the impact of Nigeria's NSHDP II. The sample was also reduced due to resource constraints for the implementation of the evaluation activities.

With regard to financial data, the evaluation team faced limitations to obtaining health financing data from the target states. This includes limited health financing data particularly at the sub-national level, including state, LGA and HF levels.

COVID-19 restrictions: Out of concerns for safety and health, international evaluation team members were not able to travel to Nigeria at critical points in the process as planned, namely, to train data collectors and to conduct key informant interviews. As a result, team configuration and the means of conducting the study shifted while work was ongoing. International team members provided remote support during training and participated in interviews where possible using remote means. The expertise of Nigeria-based team members magnified in importance as a result and maintained evaluation rigour as originally intended in spite of the pandemic.

Mitigation strategies: In order to overcome these limitations and challenges, the evaluation team relied upon the expertise of its local team members and data collection firm, as well as ongoing support from the FMOH and the OSSAP-SDGs for guidance and contextualization. The use of multiple sources and triangulation during the mixed-methods analysis also reinforced the reliability of findings.

Evaluation Findings and Analysis

Chapter **Four**

This chapter presents key evaluation findings and the analysis of the evaluation questions. The description is structured around the evaluation questions presented in Table 4.1. For each evaluation question, the description provides key findings and analysis of related sub-questions that use primary and secondary data. Primary data include: (i) findings from the health situation assessment conducted at health facility; (ii) data from the health situation assessment; and (iii) key informant interviews conducted with stakeholders at federal and state levels. Where appropriate, the discussion of the findings has been merged due to the inter-relations between questions.

Table 4.1. Strength of evidence ratings

Strength of the evidence	Description
Strong evidence	Strong evidence is characterized by having definitive sources of information that corroborate it, including an independent assessment that meets established quality criteria for the data collected. Evidence includes convincing and rigorous source outside of present study. It is clear and definitive on perspectives and positions gathered from key stakeholders.
Medium evidence	Medium evidence is characterized by having corroborative sources of evidence, including triangulation of interviews and survey data collected systematically with documented evidence. It is typified by having more range and difference in the perspectives and positions gathered from key stakeholders. Some external evidence exists on this topic that supports claims from present study.
Weak evidence	Weak evidence is characterized by having limited sources of evidence which are subjective (i.e., only a small number of interviews/survey data). There is little substantive clarity on perspective and positions gathered from key stakeholders. There is no evidence of other studies that support findings.

The team also categorized the strength of the evidence used for answering each evaluation question. Table 4.1 describes the ratings used to establish the strength of the evidence

4.1 Relevance

Overall findings: High relevance/quality of the evidence: strong

Conclusion

Nigeria has a legal framework, strategic plans and organizations that fully include the components and objectives of the SDG3, at the federal, state, and programmatic levels. Key among them are the BHCPF, NPHCDA, the National Health Insurance Scheme, PHCUOR initiative, NSIPSS, CHIPS, the National Health Act (2014), Health Sector Next Level Agenda (2019–2023), NSHDP II and the National Health Policy (2016).

SDG3 targets 3.1 and 3.2 are defined as follows:

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.
- By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries

SUMMARY CONCLUSIONS (RELEVANCE)

Nigeria has a legal framework, strategic plans and organizations that fully include the components and objectives of SDG3 at the federal, state, and programmatic levels. Key among them are the BHCPF, the NPHCDA, the PHCUOR initiative, NSIPSS, CHIPS, the National Health Act (2014), Health Sector Next Level Agenda (2019–2023), NSHDP II, and the National Health Policy (2016).

The SDG3 (targets 3.1 and 3.2) are fully streamlined within NSHDP II. They are part of its Strategic Pillar Two (Increased utilization of the Essential Package of Health Care Services) and within its Priority Area 4 (Reproductive, Maternal, Newborn, Child, and Adolescent Health plus Nutrition).

The six SSHDPs reviewed are consistent with the priority areas and goals of the NSHDP II to address SDG3 (targets 3.1 and 3.2). However, they provide different levels of details on the interventions to meet SDG3 (targets 3.1 and 3.2) and on their monitoring and evaluation plans.

However, although the national programmes are very well designed, the action plans at the service delivery level have innumerable weaknesses, ranging from shortage of funds, poor access to key health services, and low quality of care.

Evaluation question (relevance)	Likely strength of evidence	Data source
Are overall strategies, policies and plans of the health sector aligned with the SDG3 (targets 3.1 and 3.2)?	Strong	Literature review, KIIs

aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-five mortality to at least as low as 25 per 1,000 live births.

The achievement of SDG3 targets 3.1 and 3.2 will require high-quality PHC services delivered at scale in Nigeria. Any federal policy or organization that will directly facilitate the successful operation of a PHC system, especially at the state, LGA, health facility and community levels, will be instrumental for any progress and achievement of both targets in Nigeria.

The following policies and organizations are fundamental for Nigeria to make any progress towards SDG3 targets 3.1 and 3.2. These policies and organizations are key pillars for the strengthening of PHC services in Nigeria.

Basic Health Care Provision Fund (BHCPF)

In response to the crisis in the health sector, the National Assembly enacted a potentially transformative National Health Act in 2014, operationalized through the BHCPF funded from the Federal Government's share of the consolidated revenue fund. The BHCPF planned to mobilize significant new domestic resources for PHC and build on some of the successes achieved under the Nigeria State Health Investment Project (NSHIP, P120798) through results-based and decentralized financing approaches. Thus, the BHCPF represents "more money and smarter money".

The Federal Government allocated NGN 55 billion (almost US$180 million equivalent) to support the BHCPF in the 2018 budget, of which 50 per cent (US $90 million equivalent) has been released and placed in state-controlled accounts in the Central Bank of Nigeria. This gratifying commitment of additional funds for PHC may signal a long-awaited and much-needed surge in Nigeria's investment in its human capital.

The BHCPF engenders approaches that could alter the long-term trajectory of the Nigerian health system, because (i) the GoN will use its own resources to purchase services not inputs; (ii) the GoN will buy services from both public and private providers using a level playing field; (iii) it establishes a system of accreditation to improve quality of care; (iv) it will finance a rigorous system of verification that helps ensure value for money; (v) it creates robust payment systems through electronic transfer to providers, which reduces the incidence of corruption; (vi) it gives providers substantial autonomy in the use of operational funds with community representation; and (vii) it demonstrates long-term government commitment to using public funds to subsidize the cost of services for the poor.

More than 80 per cent of the services provided through the BHCPF have direct implications for reducing under-five mortality. The BHCPF is expected to increase access to 11 high-impact and highly cost-effective interventions focused on reproductive, maternal, and child health which cover more than 60 per cent of disease burden of the country.

There are three interventions for children under 5 years of age (curative care, immunization, and treatment of moderate malnutrition); four maternal health interventions for pregnant women (antenatal care, labour and delivery, emergency obstetric and neonatal care, and caesarean section); one reproductive and adolescent health intervention (family planning); and treatment of malaria and screening of select non-communicable diseases for all Nigerians.

The World Bank has provided US$1.5 billion to the GoN to support the implementation of the BHCPF through its Improved Child Survival Programme for Human Capital Multiphase Programmatic Approach (MPA 2010-2020) (World Bank, 2020b). The MPA comprises three phases:

- Phase I (US$650 million, begins in February 2020) Improve utilization and quality of immunization plus and malaria services in selected states.
- Phase II (US$350 million, begins in January 2022). Scale up provision of essential health services through the BHCPF.
- Phase III (US$500 million, begins in July 2025). Enhance the delivery and uptake of essential health services (using the BHCPF) in lagging states.

National Primary Health Care Development Agency (NPHCDA) (Nigeria Health Watch, 2020)

NPHCDA ensures that PHC services are available and accessible to all in Nigeria. Its goal is to ensure that PHCs provide quality health-care services for at least 70 per cent of Nigerians (current baseline is 20 per cent). The national immunization programme is led by the NPHCDA.

The NPHCDA works with the states, LGAs and other critical stakeholders to deploy a four-point agenda to fast-track progress towards achieving UHC. These are (i) NPHCDA's plan to revitalize PHCs as well as optimize human resources for health to improve services; (ii) leverage on technology to strengthen data management, supply chain and remote access to health services in order to achieve equitable and increased coverage of traditional and new vaccines. Some of these technologies would include telemedicine and use of drones. Also included are (iii) the need for NPHCDA to scale up health promotion, behavioural change communication and demand for primary health-care services. This will be implemented by scaling up the CHIPS programme across the nation; and (iv) reliance on NPHCDA to apply the wealth of resources and experience gained during polio eradication

to strengthen the PHC, focusing particularly on maternal and child health.

One of the most important innovations launched by the NPHCDA has been the use of Lot Quality Assurance Sampling to identify well and poorly performing LGAs every quarter in poorly performing states and biannually in the rest of the country. The same tool was used to obtain independent estimates of statewide immunization coverage (World Bank, 2020b). These surveys now also include other key indicators related to maternal and child health. These LGA-level performance estimates have been used by the NPHCDA to reward well-performing LGAs and conduct peer review sessions for poorly performing LGAs.

Primary Health Care Under One Roof (PHCUOR)

This PHCUOR initiative is led by the NPHCDA. It aims to collectively organize the operations of PHC along stated guidelines and structures so as to promote efficiency and effectiveness in service delivery. This organization includes streamlining the roles of multiple ministries, departments and agencies for the successful implementation of PHC services.

The PHCUOR reform agenda in Nigeria is modelled on WHO guidelines for integrated district-based service delivery and based on the seven key principles of: (i) integration of all PHC services; (ii) a single management body; (iii) decentralized authority; (iv) responsibility and accountability; (v) "Three ones": one management, one plan, and one monitoring and evaluation plan; (vi) an integrated supportive supervisory system; and (vii) an effective referral system.

At the state level, one of the objectives of this streamlining is to set up the management of PHC facilities and their staff under the State Primary Health Care Development Agency (SPHCDA). By January 2021, 31 SPHCDAs had managerial authority over the PHC staff, and 14 of them had moved their personnel files to the SPHCDA (World Bank, 2021).

Another objective of the PHCUOR, in support of the National Health Act (2014), is the establishment of a Local Government Health Authority in each LGA. Although an established Local Government Health Authority is the channel to receive funds from the BCHPF, by 2019 only eight states have established Local Government Health Authorities in their territories: Abia, Adamawa, Delta, Nasarawa, Ondo, Osun, Rivers and Yobe (Fakeye et al., 2019).

NPHCDA has the permanent mandate to coordinate PHCUOR stakeholders at the national level. By

2019, NPHCDA had yet to establish this coordination mechanism despite the realization that other ministries, departments and agencies such as the FMOH, NHIS, FMBP and FMOF as well as the National Assembly have vital roles to play in promoting the implementation of the PHCUOR initiative (Fakeye et al., 2019).

Nigeria's Strategy for Immunization and PHC System Strengthening (2018—2028) (NSIPSS

In 2018, the GoN in collaboration with partners and donors developed the NSIPSS to guide and galvanize efforts aimed at achieving sustainable immunization outcomes and strengthening the primary health-care system.

The NSIPSS (Federal Government of Nigeria, 2018), confirms the leadership role of the NPHCDA in immunization programmes and also proposes a revised strategy to achieve increased immunization coverage in the country. Among others, the NPHCDA is proposing a strategy that is genuinely different from previous ones. It includes (i) more realistic coverage targets for the country, specifically 84 per cent Penta 3 national coverage by 2028; (ii) intense focus on leadership and accountability, at national as well as state and LGA level, powered by an overhaul of the data system with explicit plans to end falsification and improve data quality; and (iii) a clear and explicit path to financial sustainability, backed by a strong Letter of Commitment and schedule to gradually takeover funding of co-financed vaccines.

Community Health Influencers, Promoters & Services (CHIPS)

The CHIPS programme is led by the NPHCD and ensures the use of a harmonized database of community-level human resource for health across all levels of government. It provides one plan, one training curriculum and one M&E system for all community-level services and personnel.

CHIPS agents are composed of voluntary community mobilizers, CORPS, village health workers, and other community agents working in health (i.e., TBAs). Figure 4.1 shows the composition of the CHIPS and their expected distribution within a ward and links to health structures, including primary health centres and general hospitals. The implementation of CHIPS will be partially funded by the ongoing Phase I of the Improved Child Survival Programme for Human Capital Multiphase Programmatic Approach (World Bank, 2020b).

Several policies and organizations facilitate the implementation of SDG3 (targets 3.1 and 3.2) by helping

Figure 4.1: Distribution of CHIPS agents within wards and links to health structures

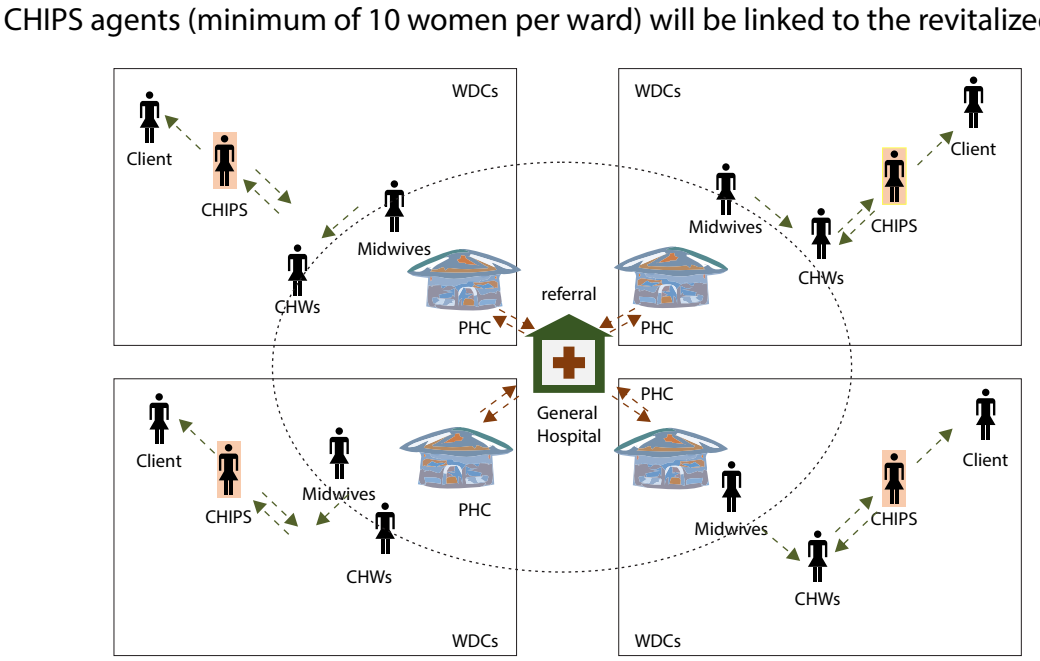
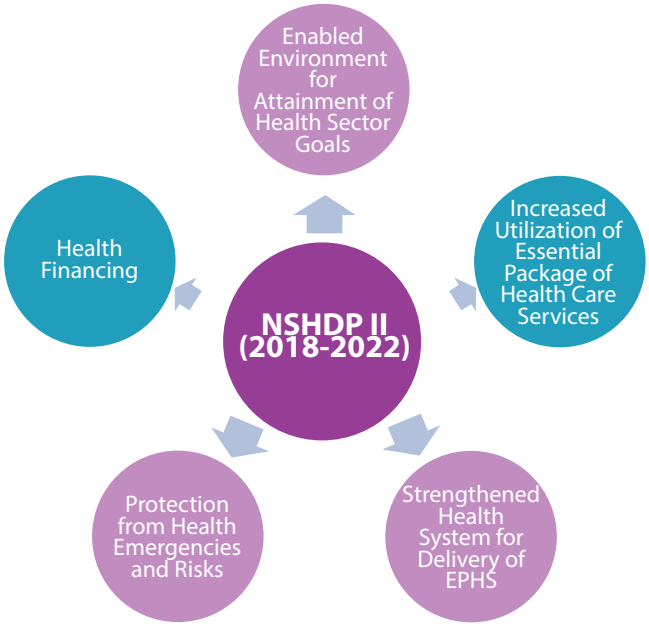


Figure 4.2: NSHDP II strategic pillars



to create an enabling environment that strengthens PHC services in Nigeria. Among them are those briefly mentioned and discussed below.

National Health Act (2014).

The National Health Act (2014) serves as the policy foundation for various health policies, strategies and other efforts by the FMOH, including those related to PHC. The Act provides the framework for the regulation, development and management of the national health system in Nigeria. The Act aims to:

- Set standards for rendering health services in the federation and other matters concerning with them.
- Provide the legal basis for the achievement of UHC and other health goals.
- Serve as a major legislative framework for effective articulation and delivery of the strategies of the NSHDP II

The Act is the legal instrument for the implementation of the BHCPF in Nigeria.

National Health Policy (2016)

The goal of the NHP is, "To strengthen Nigeria's health system, particularly the Primary Health Care sub-system, to deliver quality, effective, efficient, equitable, accessible, affordable, acceptable and comprehensive health care services to all Nigerians" for the attainment of UHC.

National Strategic Health Development Plan II (NSHDP II, 2018–2022)

NSHDP II is anchored on the National Health Policy (2016). Its goal is to ensure healthy lives and promote the well-being of Nigerians at all ages. The NSHDP II aligns with the National Development Agenda and Global Health Agenda, including the SDGs. It was developed through the active participation of all stakeholders (federal, states, development partners, CSOs, academia, etc.), and launched by the President of the Republic in January 2019. The NSHDP II has five pillars, as illustrated in Figure 4.2.

The evaluation team's findings on the relevance and coherence of NSHDP II with SDG3 (targets 3.1 and 3.2) are included in Question 1.1 and in Section 4.2 Coherence of this report. Our review and analysis confirmed that the NSHDP II does have enough elements related to a results-based management approach. These elements include a Theory of Change, a results framework, detailed description of its strategies and interventions, and a detailed monitoring and evaluation plan that is used to track progress of implementation of NSHDP II.

Health Sector Next Level Agenda (2019–2023) (Nigeria, 2019b)

This is the roadmap of the current GoN administration to boost PHC in Nigeria and also to address health-care-related gaps. The Agenda includes nine components as follows:

- Implement mandatory and universal health insurance in collaboration with all State Governments and the FCT administration.
- Operationalize the Basic Health Care Provision Fund in collaboration with relevant agencies and partners.
- Recruit and deploy 50,000 Community Health Extension Workers.
- Revamp federal teaching hospitals across the country.
- Collaborate with private sector investors to establish high-quality hospitals in Nigeria.
- Reduce the gap in all health-related SDGs by at least 60 per cent.
- Reduce the current imbalance between primary, secondary, and tertiary health care.
- Actively collaborate with the private sector to create a large number of well-paying jobs for Nigerian youths.
- Implement a strategy towards the realization of the President's 12 June promise to take 100 million Nigerians out of poverty in the next 10 years.

One Health Policy/Strategy (2018—2023)

Launched in December 2019 to strengthen prevention, detection and response mechanisms to infectious diseases that affect humans and animals, this integrates human, animal and environmental health management for improved health security. It was jointly developed and signed by the federal ministries/agencies of health, agriculture and environment. It reinforces Nigeria's commitment to strengthen a multi-sectoral collaboration for health security. Nigeria is the first country in Africa to launch a One Health plan.

Private Partnership Memorandum of Understanding for Routine Immunization

Nigerian governors have subscribed to successive Memorandums of Understanding (MoU) with the Bill and Melinda Gates Foundation and the Dangote Foundation (and with the Federal Government endorsing this effort) to commit political and financial resources to strengthen and sustain routine immunization programmes (Bill and Melinda Gates Foundation, 2016; Pulse.ng, 2018). Through these MOUs, the governors commit to effective governance, leadership, and financial accountability to

reduce childhood illnesses and deaths from diseases such as measles, pertussis, and hepatitis through increased routine immunization in their respective states. The other partners will bring the financial and technical support needed to operationalize the programme. In 2016, the governors of Kaduna, Sokoto, Yobe, and Borno subscribed to these MoUs. Subscribing in 2018 were the governors of Sokoto, Borno, Kano, Bauchi, Kaduna and Yobe. Both MoUs were successful in helping routine immunization coverage and in improving the governance and performance of the PHC system.

Country Compact: Federal Government of Nigeria and development partners

The Nigeria Country Compact, currently in final draft and shortly to be subscribed by the GoN and its development partners, is intended to serve as a common document for all health partners in Nigeria and further include all development partners (i.e., those active in the health sector) within and outside the country, including civil society organizations and the private sector. The main objective of this Country Compact is to provide a framework to further facilitate increased, predictable, and sustainable financing from domestic and external sources in Nigeria, and better aligned support to implement the NSHDP II. The Country Compact is expected to result in:

- Increased acknowledgement of the NSHDP II as the overarching National Health Plan for Nigeria;
- Enhanced focus on achievement of SDGs, ERGP and UHC;
- More predictable and sustainable financing of the NSHDP II from internal sources while leveraging external sources of funds to bridge the gaps;
- Improved harmonization of internal and external resources for achieving results;
- Strengthened coordination between Government ministries, departments and agencies, civil society organizations and development partners; and
- Enhanced transparency and mutual accountability of different tiers of Government and its partners.

National Health Management Information System Policy (HMIS)

The current Nigeria HMIS policy was reviewed in 2014 with the aim to provide the framework for intersectoral, comprehensive and integrated structure for data management. The guiding principles are: governance and accountability, standardization, sustainability, integration, partnership and institutional support and stewardship. The four policy priority areas are: (a) Data governance; (b) data architecture, indicators and sources; (c) data management, dissemination and use, and (d) data security.

Health Insurance Under One Roof (2020)

The National Health Insurance Scheme (NHIS) recently launched the National Health Insurance Scheme Under One Roof which will provide effective integration and coordination of health insurance activities in Nigeria towards the attainment of universal health coverage.
Per this policy:

- NHIS is accelerating efforts towards the amendment of its Act to make health insurance mandatory for all Nigerians, operationalize the e-NHIS platform, secure political support for UHC at all levels of governance, focus on domestic and sustainable innovative financing and expand its stakeholder engagement.

NHIS will remain responsible for the formal sector, while the state health insurance agencies will take charge of the informal sector population at the grass roots, which is closer to the state government system (National Health Insurance Scheme, 2020). The new policy will advocate for the enhanced use of ICT solutions, as well as information, education and communication activities for the operational and management processes of health insurance in Nigeria.

Conclusion

The SDG3 (targets 3.1 and 3.2) are fully streamlined within NSHDP II (Federal Government of Nigeria, 2019a). They are part of its Strategic Pillar Two (Increased utilization of

Evaluation Question (Relevance)	Likely strength of evidence	Data source
EQ 1.1 Are SDG3 (targets 3.1 and 3.2) well mainstreamed into the NSHDP II?	Strong	Literature review, KIIs

the Essential Package of Health Care Services[4]) and within its Priority Area 4 (Reproductive, Maternal, Newborn, Child and Adolescent Health plus Nutrition).

SDG3 (targets 3.1 and 3.2) are defined as follows:

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.
- By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-five mortality to at least as low as 25 per 1,000 live births.

The achievement of the SDG3 (targets 3.1 and 3.2) will require high-quality PHC services delivered at scale in Nigeria. Any federal policy or organization that will directly facilitate the successful operation of a PHC system, especially at the state, LGA, health facility and community levels, will be instrumental for any progress and achievement of both targets in Nigeria.

Table 4.2 shows the NHSDP II's indicators and targets that are consistent with SDG3 (targets 3.1 and 3.2) (Federal Government of Nigeria, n.d.).

Conclusion

The six SSHDPs reviewed are consistent with the priority areas and goals of the NSHDP II to address SDG3 (targets 3.1 and 3.2). However, they provide different levels of detail on the interventions to meet SDG3 (targets 3.1 and 3.2) and on their monitoring and evaluation plans.

The six SSHDPs reviewed are consistent with the priority areas and goals of the NSHDP II to address SDG3 (targets 3.1 and 3.2). However, they provide different levels of detail on the interventions to meet SDG3 (targets 3.1 and 3.2) and on their monitoring and evaluation plans.

The documents reviewed have the following commonalities:

- The organization of the SSHDP IIs reviewed is identical to the NHSDP II, i.e., strategic pillars and priority activities.
- Similar to NSHDP II, the interventions and strategies to address SDG3 (targets 3.1 and 3.2) are located within the sections on Reproductive, Maternal, Newborn, Child, Adolescent Health plus Nutrition (RMNCAH+N) of the SSHDP's Strategic Pillar Two: Increased utilization of Essential Package of Health Care Services.
- These SSHDP IIs also share a similar strategic goal to address SDG3 (targets 3.1 and 3.2), i.e., to promote universal access to comprehensive quality sexual and reproductive health services throughout life cycle and reduce maternal, neonatal, child and adolescent morbidity and mortality in Nigeria.

Major variations in the SSHDP IIs reviewed are:

- The level of detail describing the interventions and activities to meet SDG3 (targets 3.1 and 3.2), as compared with the NSHDP II.
- The inclusion or not of descriptive indicators to measure the goals and objectives, including baseline values and targets.

The **Ebonyi** State Strategic Health Development Plan II (2018–2022) (Ebonyi State Government, 2017), has a shorter table of interventions and activities than the NHSDP II. Its document lacks a detailed table of indicators and targets. So, the evaluation team can't assess whether appropriate indicators, baseline values and targets have been included.

The **Nasarawa** State Strategic Health Development Plan II (2017–2021) has a similar table of interventions and activities as the NHSDP II (Nasarawa State Government, n.d). Its document lacks a detailed table of indicators and targets. Similar to Ebonyi, the evaluation team can't assess whether appropriate indicators, baseline values and targets have been included.

In the **Ogun** State Strategic Health Development Plan (2018–2022) (Ogun State Government, 2018) the list of interventions is a very short summary of the list in the NSHDP II. The document includes a monitoring and evaluation plan which is identical to the NHSDP II, except for the deletion of the DPT3 coverage indicator and the addition of an obstetric fistula indicator. Baseline values and targets of these indicators are adjusted to the local context.

The **Bayelsa** State Strategic Health Development Plan II (BY-SSHDP II) (Bayelsa State Government, 2018) has a very detailed list of interventions to address SDG3 (targets

Table 4.2. NSHDP II indicators and targets related to SDG3 (targets 3.1 and 3.2)

Indicator	Data source	Freq. of collection	Baseline (2016)	Target 2018	Target 2019	Target 2020	Target 2022
Strategic objective: Reduce maternal mortality and morbidity through the provision of timely, safe, appropriate and effective health-care services before, during and after childbirth							
Maternal mortality ratio (deaths per 100,000 live births)	NDHS MICS	5 years 2 years	576	450	300	200	100
per cent of deliveries by skilled birth attendants	NDHS MICS NHMIS	5 years 2 years Monthly	42 per cent	45 per cent	50 per cent	52 per cent	60 per cent
per cent of women having ANC at least one visit	NDHS MICS NHMIS	5 years 2 years Monthly	65.8 per cent	TBD	TBD	TBD	TBD
per cent of women having ANC at least 8 visits	Survey	Annual	0	20 per cent	40 per cent	60 per cent	80 per cent
per cent LGAs with health facilities providing BEmONC services	Survey	Annual	<20 per cent	TBD	TBD	TBD	80 per cent
Strategic objective: Reduce neonatal and childhood mortality and promote optimal growth, protection and development of all newborns and children under five years of age							
DPT3 immunization coverage	NDHS MICS	5 years 2 years	33.0 per cent	45 per cent	55 per cent	65 per cent	85 per cent
Neonatal mortality rate (neonatal deaths per 1,000 live births)	NDHS MICS	5 years 2 years	32	30	27	24	18
Infant mortality rate (infant deaths per 1,000 live births)	NDHS MICS	5 years 2 years	70	65	60	50	38
Under-five mortality rate (deaths among children under 5 years per 1,000 live births)	NDHS MICS	5 years 2 years	120	96	91	84	74

Source: Chapter 4 of Monitoring and Evaluation Plan for the Second National Strategic Health Development Plan (2018–2022), Federal Government of Nigeria.

Evaluation Question (Relevance)	Likely strength of evidence	Data source
Are the states' strategic health plans (SSDHP) contextualized to the specific issues for addressing SDG3 (targets 3.1 and 3.2)?	Strong	Literature review, KIIs

3.1 and 3.2). It also includes more ambitious targets than NSHDP II for the capacity of health facilities to provide emergency obstetric care. The BY-SSHDP II aims that: (a) At least 80 per cent of primary/ward health centres are providing basic emergency obstetric and neonatal care services by 2024, and (b) at least 50 per cent of all LGAs have health facilities capable of providing comprehensive emergency obstetric services by 2024.

The SSHDP II document lacks a detailed table of indicators and targets. Thus, the evaluation team can't assess whether appropriate indicators, baseline values and targets have been included.

The **Kebbi** State Strategic Health Development Plan (2017–2021) (Kebbi State Ministry of Health, 2016) has neither a list of interventions to address SDG3 (targets 3.1 and 3.2) nor a list of indicators, baseline values and targets for monitoring and evaluation.

Gombe State Strategic Health Development Plan-II (GSSHDP-II) (2018–2022) has a list of interventions to address SDG3 (targets 3.1 and 3.2) with a similar level of detail as the NSHDP II. The document reviewed has no list of monitoring and evaluation indicators, baseline values or targets.

4.2 Coherence

Overall findings: High coherence|quality of the evidence: strong

Conclusion

The priority areas of NSHDP II are very consistent with SDG3. They link to other health-related SDGs and national development plans.

Table 4.3 summarizes the consistency between the priority areas of NSHDP II and either the SDG 3 targets and/or other SDGs.

In addition, the content of the NSHDP II is consistent with the major national development plans (both current and forthcoming).

The strategic role of the health sector was recognized in the Economic Recovery and Growth Plan (2017–2020),[5] whose overall objectives are to restore growth, invest in people and build a globally competitive economy.

In addition, the content of the NSHDP II is consistent with the major national development plans (both current and forthcoming).

SUMMARY CONCLUSIONS (COHERENCE)

The priority areas of NSHDP II are very consistent with SDG3. The six strategic pillars and the related 16 priority areas provide a solid and consistent framework for addressing SDG3 and related targets 3.1 and 3.2. In addition, the pillars and priority areas of the plan link to other health-related SDGs and national development plans, including the ERGP (2017–2020) and the MTNDP (2021–2025).

Evaluation Question (Coherence)	Likely strength of evidence	Data source
To what extent is the NSHDP II consistent with the other national development plans and SDGs?	Strong	Literature review, KIIs

Table 4.3. NSHDP II priority areas and links to SDG3 targets

NSHDP II Priority Area	SDG3 Target or SDG Goal consistent with NSHDP II Priority Area
Priority Area 1: Leadership and governance	Target 3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all. Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels. Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.
Priority Area 2: Community participation in health	
Priority Area 3: Partnerships for health	
Priority Area 4: Reproductive, Maternal, Newborn, Child and Adolescent Health plus Nutrition (RMNCAH+N)	Target 3.1. By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births. Target 3.2. By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-five mortality to at least as low as 25 per 1,000 live births. Target 3.7. By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes. Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture. Goal 5. Achieve gender equality and empower all women and girls.
Priority Area 5: Communicable diseases (malaria, tuberculosis, leprosy) and neglected tropical diseases	Target 3.3. By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases.

Priority Area 6: Non-communicable diseases, elderly, mental, oral and eye health care	Target 3.4. By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. Target 3.5. Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol. Target 3.6. By 2020, halve the number of global deaths and injuries from road traffic accidents. Target 3a. Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.
Priority Area 7: Emergency medical services and hospital care	Target 3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
Priority Area 8: Health promotion and social determinants of health	Target 3.9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. Goal 6. Ensure availability and sustainable management of water and sanitation for all.
Priority Area 9: Human resources for health	Target 3c. Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.
Priority Area 10: Health infrastructure	Target 3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
Priority Area 11: Medicines, vaccines, other health technologies and supplies	Target 3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
Priority Area 12: Health information	Target 3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
Priority Area 13: Research for health	Target 3b. Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.
Priority Area 14: Public health emergencies, preparedness and response	Target 3d. Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.
Priority Area 15: Health financing	Target 3.8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

NSHDP II Priority Area	SDG3 Target or SDG Goal consistent with NSHDP II Priority Area
	Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

The strategic role of the health sector was recognized in the Economic Recovery and Growth Plan (2017–2020), whose overall objectives are to restore growth, invest in people and build a globally competitive economy.

The NSHDP II is consistent with the following health sector policy objectives of the ERGP:

- Improve the availability, accessibility, affordability and quality of health services;
- Expand health-care coverage to all Local Governments;
- Provide sustainable financing for the health-care sector;
- Reduce infant and maternal mortality rates.

The NSHDP II is also consistent with the forthcoming Nigeria's Medium Term National Development Plan – (2021–2025) (Federal Government of Nigeria, 2021). Health and nutrition are part of the MTNDP's strategic objective to "Enable a vibrant, educated and healthy populace".

The draft MTNDP has included the following strategies for its health and nutrition component.
They are consistent with the NSHDP II:

- Strengthen health system service delivery capacity to significantly improve quality and become a healthier, more productive nation. A robust health system will improve efficiency in medical procurements and infrastructure upgrades. It will also improve strategic planning to ensure Nigeria's emergency preparedness and boost information-sharing capabilities across a myriad of health services.
- Improve access and quality of medical services through effective health-care workforce management, improved equity in service provision and the provision of quality medicine. Nigeria will reverse the brain drain by creating jobs and providing incentives to motivate health-care professionals to work in underserved areas. This approach will significantly boost accessibility of health-care services to underserved communities. In parallel, Nigeria will increase access to primary care, emergency medical services and vaccines.
- Secure health-care financing to upgrade health facilities and fund expanded access to health services in Nigeria. Currently 80 per cent to 90 per cent of public expenditure on health is for payments to health workers which leaves very little for infrastructure investments. Thus, the efforts will leverage funding through budget allocation and private sector investments to allow health facilities' development, recruitment and medical equipment upgrades.
- Create an enabling environment for greater efficiency, collaboration across various stakeholders, and cohesive policy formulation. Nigeria will establish a transparent regulatory framework encompassing the entire health sector ecosystem, to ensure accountability in planning, budgeting and in medical procurements. Efforts will also focus on encouraging community participation in the sector for even greater accountability.
- Prioritize investments in nutrition initiatives by securing funding for nutritional programmes. Malnutrition has a high economic and health cost, and an estimated return of US$16.8 for every US$1 invested. Therefore, Nigeria will invest in nutrition because it affects the most vulnerable groups and can hinder economic growth.
- Leverage technological advancements to provide quality care, cut costs and improve service delivery. Innovation will be encouraged and harnessed in the health sector, especially for telemedicine and the introduction of electronic medical records, to boost productivity and potentially attract more youth to jobs in the health sector.

Finally, the federal government is currently engaged in designing a Nigeria Vision 20: 205 (Guardian, 2020), to replace its past Vision 20: 2020. According to the Presidency, its strategic objectives will include investing in human capital to transform the Nigerian people into active agents for growth and national development.

4.3 Effectiveness

Overall findings: Low effectiveness|quality of the evidence: strong

Conclusion

It is unlikely that Nigeria has achieved the NSHDP II's 2020 targets related to SDG3 (targets 3.1 and 3.2), given the stagnant mortality rates measured in the 2013 and 2018 NDHS, the limited results achieved by national

programmes addressing them (e.g., Saving One Million Lives), and the negative impact of the COVID-19 pandemic on access and provision of health services.

SDG3 (targets 3.1 and 3.2) are defined as follows:

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.
- By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-five mortality to at least as low as 25 per 1,000 live births.

The NSHDP II's indicators and targets that are consistent with SDG3 (targets 3.1 and 3.2) are included in Table 4.4 (Federal Government of Nigeria, n.d.). Their baseline results (2016) are compared with the findings of the 2018 Nigeria Demographic and Health Service (NDHS). The 2019 and 2020 targets of the NSHDP II are also included. Finally, the evaluation team's assessment of whether the 2020 targets have been met by the end of 2020 is also presented in Table 4.4 The cited notes provide additional explanation of the assessment.

In summary, it is unlikely that Nigeria has achieved the NSHDP II's 2020 targets related to SDG3 (targets 3.1 and 3.2), given the stagnant mortality rates measured in the 2013 and 2018 NDHS, the limited results achieved by the national programmes addressing them (e.g., Saving One Million Lives), and the negative impact of the COVID-19 pandemic in the access and provision of health services.

Note (1): Figure 4.3 depicts the trend of maternal mortality ratio as measured by the NDHS. The MMR has been mostly stagnant in the past 20 years. The latest MMR due to pregnancy-related deaths was measured at 556 deaths per 100,000 live births in 2018. There are no estimated data for year 2020 reported neither by United Nations agencies nor by the GoN. Given the absence of successful, nationwide programmes to reduce maternal mortality

SUMMARY CONCLUSIONS (EFFECTIVENESS)

It is unlikely that Nigeria has achieved the NSHDP II's 2020 targets related to SDG3 (targets 3.1 and 3.2), given the stagnant mortality rates shown in the 2013 and 2018 NDHS, the limited results achieved by national programmes addressing them (e.g., Saving One Million Lives), and the negative impact of the COVID-19 pandemic on the access and provision of health services.

The COVID-19 pandemic has had a negative effect in the use of health services related to SDG3 (targets 3.1 and 3.2).

The household practice of protective and preventive behaviours has also influenced the achievement of SDG3 (targets 3.1 and 3.2). The practice of these behaviours is closely related to socioeconomic factors and maternal education the differences in which are striking when comparing high-, transition and low-performance states.

The availability of health providers, drugs and commodities at government health facilities also play a role in the population's use of these services. In addition, high- and intermediate-performing states have more access to private health services. Geographical access, quality of the delivery of services and referral systems to health facilities are low across all states.

While the state governments' capacities to manage their PHC services are medium to high, similar capacities at LGA and wards are still incipient.

The performance of the flagship programmes has been moderately successful. The immunization and malaria programmes were performing well but have begun to decline due to COVID-19. Jointly with the Nigeria State Health Investment Project, they will continue to be supported through the Nigeria Improved Child Survival Programme For Human Capital Multiphase Programmatic Approach and other donor-supported programmes. The PMTCT and TB programmes enjoy strong Government and donor support (e.g. Global Fund, bilateral donors). The Saving One Million Lives programme fell short of improving population coverage of essential health interventions but improved quality of care at participating health facilities.

Evaluation Question (Effectiveness)	Likely strength of evidence	Data source
What progress has been made towards achieving NSHDP II targets in relation to SDG3 (targets 3.1 and 3.2)?	Strong	NDHS 2013 & 2018, literature review, KIIs

Table 4.4. NSHDP II indicators and targets

Indicator	Data source	Freq. of collection	Baseline 2016	Findings NDHS 2018	NSHDP II target 2019	NSHDP II target 2020	Assessment of Nigeria meeting 2020 NSHDP II targets
Strategic objective: Reduce maternal mortality and morbidity through the provision of timely, safe, appropriate and effective health-care services before, during and after childbirth							
Maternal mortality ratio (deaths per 100,000 live births)	NDHS MICS	5 years 2 years	576	512	300	200	Very unlikely. See Note (1)
per cent of deliveries by skilled birth attendants	NDHS MICS NHMIS	5 years 2 years Monthly	42	43	50	52	Unlikely. See Note (2)
per cent of women having ANC at least one visit	NDHS MICS NHMIS	5 years 2 years Monthly	66	67	TBD	TBD	N/A 2020 target not set
per cent of women having ANC at least 8 visits	Survey	Annual	0	57 with at least 4 ANC visits	40	60	Unable to assess as it is not measured routinely yet.
per cent LGAs with health facilities providing BEmONC services	Survey	Annual	<20	N/A	TBD	TBD	N/A 2020 target not set. See Note (3)
Strategic objective: Reduce neonatal and childhood mortality and promote optimal growth, protection and development of all newborns and children under 5 years of age							
DPT3 immunization coverage	NDHS MICS	5 years 2 years	33	50	55	65	Unlikely. See Note (4)
Neonatal mortality rate	NDHS MICS	5 years 2 years	32	39	27	24	Very unlikely. See Note (5)
Infant mortality rate (deaths per 1,000 live births)	NDHS MICS	5 years 2 years	70	67	60	50	Very unlikely. See Note (5)
Under-five mortality rate (deaths per 1,000 live births)	NDHS MICS	5 years 2 years	120	132	91 117*	84	Very unlikely. See Note (5)

Source: Chapter 4 of the Monitoring and Evaluation Plan for the Second National Strategic Health Development Plan (2018–2022), Federal Government of Nigeria, except the columns titled, 'Findings NDHS 2018', source: Final Report of the 2018 Nigeria Demographic and Health Survey, and 'Assessment' (see Notes below).

* U5MR for 2019, Levels and Trends in Child Mortality, Estimates developed by the UN Inter-Agency Group for Child Mortality Estimation, Report 2020.

New U5MR, MMR and other key health impact and outcome indicators for 2020 will be available from MICS 6 2021 in February 2022.

and the decline in health facility attendance due to the COVID-19 pandemic, it is extremely unlikely that Nigeria has achieved its 2020 target of 200 deaths per 100,000 live births.

Note (2): Births with a skilled attendant increased from 38 per cent to 43 per cent between 2013 and 2018 as per the NDHS. The World Bank estimates that this indicator was also 43 per cent during 2020 (World Bank, 2020c). This stagnation is due to the decline in patient attendance as a result of the COVID-19 epidemic in 2020-21 and the lack of successful nationwide programmes to address the low coverage of skilled birth attendance, it is unlikely that Nigeria has achieved its 2020 target of 52 per cent.

Note (3): The evaluation team's HFA found that 86.7 per cent of the 60 health facilities visited had staff with skills to manage obstetric emergencies. Moreover, 58.3 per cent had stocks of magnesium sulphate (to treat eclampsia), 86.7 per cent had normal saline solution (for intravenous use) and 83 per cent had gentamicin (to treat infection). Thus, it is likely an increase in health facilities capable of providing basic emergency obstetric care.

Note (4): Figure 4.4 depicts the child immunization results of successive Nigeria Demographic and Health Surveys between 1990 and 2018. The percentage of children fully immunized has been increasing progressively, making a jump of 6 percentage points from 2013 to 2018. In addition, the proportion of children with no vaccination has = reduced from 36 per cent in 1990 down to 19 per cent in 2018. However, owing to the COVID-19 pandemic, the restricted movement from lockdowns and the fear of contacting the virus both by patients and health-care workers caused general health centre attendance to dwindle. Thus, it is unlikely that Nigeria could have raised its DPT3 coverage from its 50 per cent achievement (NDHS, 2018) to the expected target of 65 per cent for 2020.

Figure 4.3: Maternal mortality ratios from pregnancy-related deaths in Nigeria

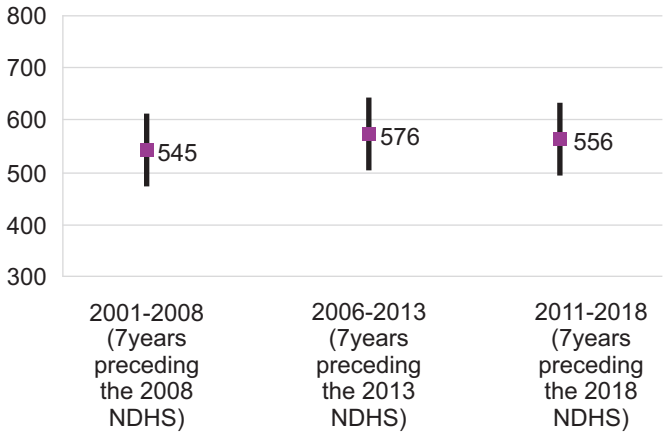


Figure 4.4: Basic vaccination rates among children aged 12-23 months

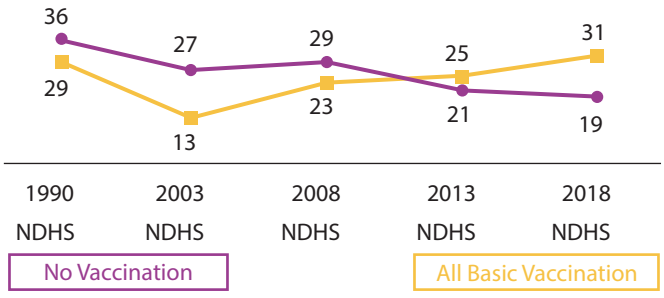


Figure 4.5: Trend of childhood mortality rates per 1,000 live births

Deaths per 1,000 live births for the five-year period before the survey

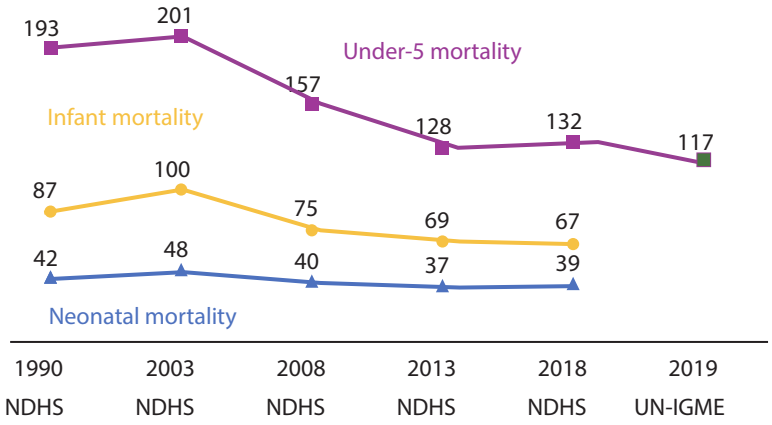


Table 4.5. Characteristics of SDG programme respondents at state level

State	Designation	Length of time in position (months)	Gender
Bayelsa	State Official in the SDG Section	12	Male
Ebonyi	State Official in the SDG Section	144	Male
Gombe	State Official in the SDG Section	24	Male
Kebbi	State Official in the SDG Section	180	Male
Nasara-wa	State Official in the SDG Section	23	Male
Ogun	State Official in the SDG Section	12	Male

Supporting this statement is the percentage of children aged 12–23 months immunized with measles vaccine. According to the 2018 NDHS, it was 54 per cent in that year. For year 2020, the World Bank estimates that the same value was achieved (World Bank, 2020c).

Note (5): Figure 4.5 shows the trend of under-five, infant and neonatal mortality rates in successive Nigeria Demographic and Health Surveys between 1990 and 2018. These three indicators became almost stagnant between 2013 and 2018. The World Bank estimates that the under-five mortality rate in 2020 was 117 deaths per 1,000 live births (World Bank, 2020c). Nationwide health programmes including Saving One million Lives Programme for Results (SOML-PforR) had little impact on key child health indicators (see findings in evaluation question 6.1 below). Sub-national programmes like NSHIP were more successful in improving them. But there is no evidence of a significant "leap forward" in the past two years that could justify a decrease in these three mortality indicators as the 2020 targets suggest. Moreover, the COVID-19 pandemic has most likely been a significant limiting factor in meeting MCH coverage targets nationwide.

Knowledge and use of the NSHDP II and of SDG3 at the state level

Findings of the evaluation team. The evaluation team asked SMOH officials in the six target states about their general knowledge about NSHDP II and SDG3 as related to the implementation of SDG-related programmes in their respective states. The respondents' characteristics for these interviews are summarized in Table 4.5. The findings of these interviews are summarized below

Only Ebonyi and Nasarawa States were able to give insight into their involvement and responsibilities in the implementation of SDG3. A representative testimony follows.

"It has gone a long way to reduce the maternal deaths and also the infant deaths in the State, it has drastically … because it gave opportunity for the rural areas to access the primary health services within the State." — State Official in the SDG Section.

"SDG has been very, very active to assist government and the Ministry of Health with regards to provision of good health care. That is the construction of the primary health care centres as well as provision of drugs and other commodities that they need." — State Official in the SDG Section

The focal persons interviewed across the states confirmed the existence of SSHDPs which serve as guiding documents in the implementation of the SDG3 programmes. However, they stated that only a limited number of staff working at the SMOH can give information on how the SSHDP is adapted to local realities to address SDG3s (target 3.1 and 3.2).

Major factors identified as enablers for the implementation of the NSHDP II, the SSHDP and the SDGs are the existence of funding and political will on the part of the Government. Not surprisingly, poor funding, mismanagement, miscommunication, and shortage of manpower were identified as major constraints to access health service in SDG-implementing states. Some representative testimonies follow.

"You don't have as much staff, managing our health facilities as we would prefer." — State Official in the SDG Section.

"Shortage of funds inhibits Government performance most times and the pandemic has equally been an issue in terms of mobility, protocols." — State Official in the SDG Section.

"What matters most is communication; if there is no communication between the leader and the led, nothing will be achieved … No matter how lofty the policies are, if there's no understanding, there's no adequate communication, it will lose its bite. And [there is a] need to build institutions and not individuals." — State Official in the SDG Section.

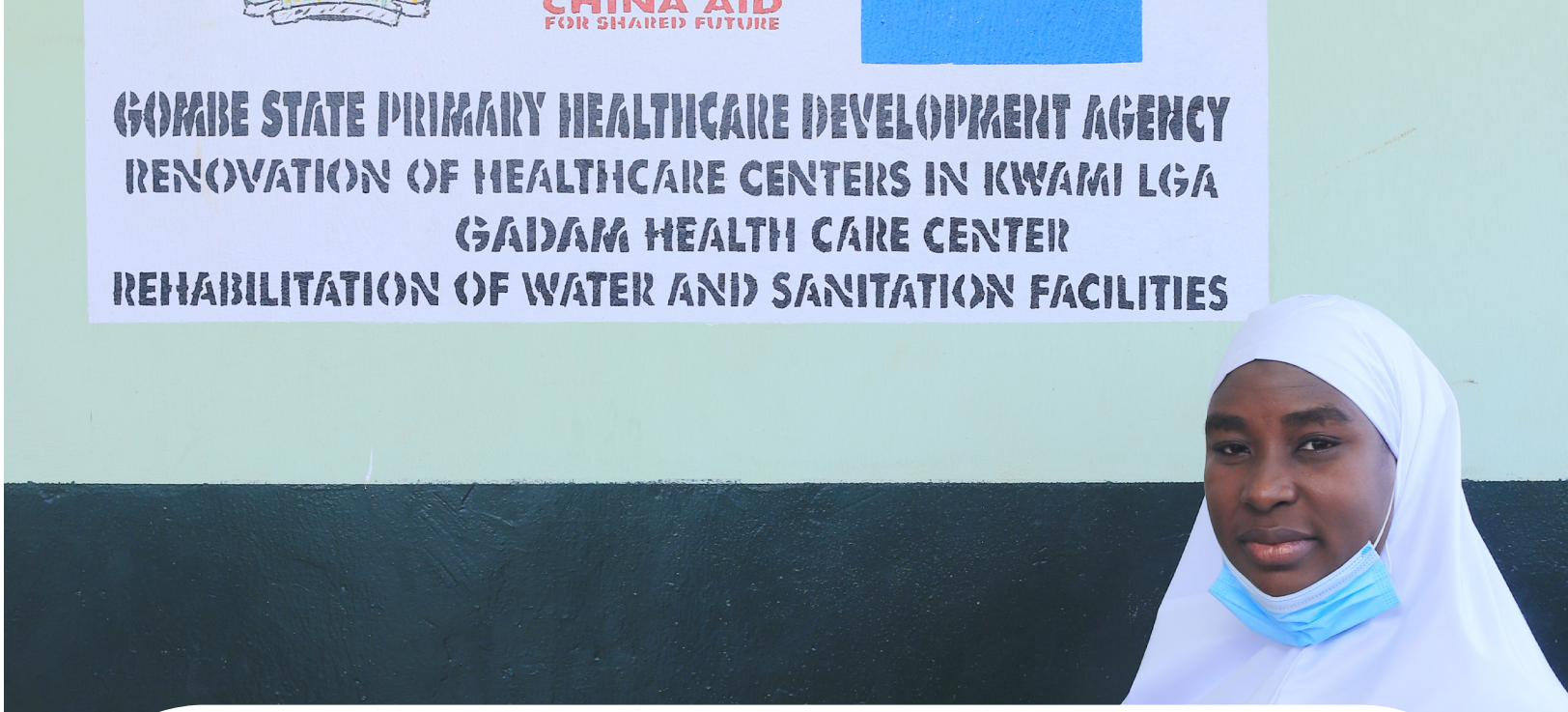
Conclusion

The COVID-19 pandemic has had a negative effect in the use of health services related to SDG3 (targets 3.1 and 3.2). The household practice of protective and preventive behaviours has also been influenced the achievement of SDG3 (targets 3.1 and 3.2). The practice of these behaviours is closely related to socioeconomic factors and maternal education whose differences are striking when comparing high-performing, transition and low-performing states. At health facilities, the availability of health providers, drugs and commodities at government health facilities also plays a role in the population's use of these services. In addition, high- and intermediate-performing states have more access to private health services. Geographical access, quality of the delivery of services and referral systems to health facilities are low across all states.

Impact of the COVID-19 pandemic in the population use of MCH services

According to the responses of key informants in the six target states, the COVID-19 pandemic has resulted in a

Evaluation Question (Relevance)	Likely strength of evidence	Data source
What are the enablers and barriers towards the achievement of SDG3 (targets 3.1 and 3.2)?	Strong	Literature review, KIIs HSA, HFA



significant decline in the use of MCH and related services, especially during year 2020. Below are relevant testimonies which reveal the multiple consequences of the pandemic, both on the population demand for services and the health facilities' capacity to supply them.

"Of course, during the [COVID-19] lock down, some people do not have access to health care, and then of course, most of the health care is being moved to the isolation centre. So, who is even going attend to you at the facility? … We found out that it [COVID-19] fuelled spread of HIV." — State HIV&AIDS Manager.

"…the money that would have been used to do maternal and child health has been diverted to COVID-19…. Then, the people that can access services in the health facilities do not use these services due to fear of COVID-19… even if people come to the health facilities, the health personnel may fear to even accept them. Finally, some of the workers that are providing maternal and child health services will have to go to COVID-19 services." — State Health Coordinator.

"Yes, because at the initial wave (of COVID-19), we had a drastic drop of ANC attendance. Many mothers became scared of going to health facilities due to the false rumour that they will be labelled as COVID patients. So, people got scared and so they were not really using the health facilities so that brought down our statistics as around last year 2019. But services are going on, because the health personnel are there." — State HIV&AIDS Deputy Director.

These results are also supported by recently published peer-reviewed articles. Ahmed et al. (2021) found in Aminu Kano Teaching Hospital and Abdullahi Wase Teaching Hospital, Kano, that between March and May 2020, there was a reduction in utilization of basic essential MNCH services such as antenatal care (decreased by 65–80 per cent), family planning (decreased by 50–72 per cent) and immunization (decreased by 50 per cent) (US President's Malaria Initiative, 2020). The reasons for this reduction in the use of these MCH services included (a) the implementation of lockdown which triggered the fear of contracting the COVID-19 and deterred people from accessing basic MNCH care; (b) a shift of focus towards the pandemic, causing a detriment to other health services; and, (c) resource constraints.

Balogun et al. (2021) did a survey in Lagos, south-west Nigeria, among a population representative sample of 1,241 women of reproductive age who had just received RMNCH services at one of 22 health facilities across the primary, secondary and tertiary tiers of health care. About 43.5 per cent of respondents had at least one challenge in accessing RMNCH services since the COVID-19 outbreak. Close to a third (31.9 per cent) could not access services because they could not leave their houses during the lockdown and 18.1 per cent could not access RMNCH services because there was no transportation.

Knowledge, perceptions and capacities of families

The knowledge and perceptions of families are key for their practice of preventive and early care-seeking behaviours. For example, the families' belief that ITNs prevent malaria, the ability of these families to discuss the use of ITN's with other households and their exposure to ITN campaigns messages and materials all increased their use (US President's Malaria Initiative, 2020). Conversely, the perceptions of family members that ITNs were too hot, that there were no mosquitos around the family house and that malaria was an ordinary, non-severe illness all limited the family use of ITNs.

Similarly, early care seeking when children have fever is favoured when families perceive that malaria is a disease that can kill and that seeking early care can save their lives. However, this early care seeking is challenged by the poor perception of government health services, the limited female participation in household decision-making (including seeking medical care outside the household) and the perceived high costs associated with medical care (e.g., transport, medicines, fees, opportunity costs).

In addition, the attendance of pregnant women to antenatal care is favoured when they perceive that having attended prenatal care can benefit them and their unborn children, including the prevention and early treatment of malaria during their pregnancy which can kill them and their child. On the other hand, the perception of high costs and lack of transportation to attend the ANC sessions, the lack of perceived need of ANC (especially during the first trimester) and difficulty of getting spousal permission to attend ANC sessions, all limit the early and complete participation of pregnant women in ANC.[6]

Similarly, and in a study of mothers attending ANC in four states of northern Nigeria, patient satisfaction was positively associated with responsive service (prompt, unrushed service, convenient clinic hours and privacy during consultation), treatment-facilitation (medical care-related provider communication and ease of receiving medicines), equipment availability, staff empathy, non-discriminatory treatment regardless of patient's socioeconomic status, provider assurance (courtesy and patient's confidence in provider's competence and number of clinical examinations received (OR 1.28, 95 per cent CI 1.10–1.50) (Onyeajam et al., 2018). ANC satisfaction was negatively impacted by out-of-pocket payment for care (vs. free care).

State Government's initiatives to promote community mobilization and education.

The visits of the evaluation team to health facilities and to the SMOHs disclosed the following findings on community mobilization and education.

Within the high-performing states, Ogun achieved more than Bayelsa in community mobilization and participation. This was evident as Ogun SMOH was able to provide pieces of evidence on plans and implementation of community-based programmes. In Ogun, the team cited a monthly and quarterly plan of the Health Education Unit of the SMOH. Moreover, the team cited the Christian Health Association of Nigeria plan with collaboration with the Health Education Unit of the SMOH for community sensitization on the elimination of malaria. The only shortfall in the state was evidence of the implementation of the recommendations from the supervision visits.

In Bayelsa, evidence on the situational analysis of community strategies and coordination mechanisms in the state was cited. It was reported that the Bayelsa SMOH held a community strategy meeting with selected communities to sensitize them on the importance of routine immunization. Moreover, plans for strengthening community strategies formulated and known to the staff were cited. However, evidence of the follow-up to the plan to strengthen community strategies in the LGAs through supervision and technical assistance of CBOs; the existence of supervision and technical assistance plans, and production of a report at each visit containing the findings and recommendations were not available at the time of visit.

Moreover, within the transition performing states, Nasarawa performed higher than Ebonyi based on the pieces of evidence cited at the time of the visit to the SMOH. This was because most of the shreds of evidence to show the capacity of Ebonyi SMOH in community mobilization and participation were with the Integrated Health Project partner in the state. It was also gathered that there was no fund to support the activities developed by a partner to strengthening community activities.

The low-performing States (Kebbi and Gombe) performed well in community mobilization and participation which was largely due to the presence of development partners and NGOs in the states. The development partners and NGOs had helped the SMOHs to strengthen capabilities in this regard through different ongoing health intervention programmes in the states.

Number, skills and capacities of front-line health providers

Health facility staffing

The right number of health-care providers with the right skill sets is necessary to provide quality services in health facilities. The evaluation team assessed the amount and type of staff present in the 60 health facilities visited.

In the high-performing states, general hospitals and private clinics had medical officers, nurses/midwives, pharmacists and support staff; none of the facilities had nutritionists. Only one private clinic had a paediatrician in Bayelsa State. In line with the minimum standard of one medical officer per PHC (optional) 14 per cent of the PHCs visited had medical officers (NPHCDA, 2015). Whereas 43 per cent of the facilities had nurses/midwives, just 7 per cent of the PHCs had them in line with the minimum standard of four nurses/midwives per PHC. For community health officer (CHO) and CHEW cadres, approximately 29 per cent of the PHCs met the minimum standard of one and three, respectively; taking into account that every facility visited had at least one CHEW available. With respect to the Junior CHEW (JCHEW) cadre, half of the health facilities had at least one JCHEW; but none met the minimum standard of six JCHEWs. Half of the PHCs had pharmacy technicians and laboratory technicians in line with the minimum standard of one per PHC. Regarding support staff, 57 per cent of the PHCs had health attendants whereas 43 per cent met the minimum requirement of two per PHC. It was observed that some of the facilities were short of health staff and some engaged the services of volunteer health workers.

In the transition states, the general hospitals and private clinics had a good number of medical officers, nurses/midwives and support staff, while none had paediatricians and nutritionists. About 21 per cent of the PHCs visited had medical officers in line with the minimum standard. Nevertheless, one of the PHCs in Nasarawa had a nutritionist while one of the PHCs in Ebonyi had four medical officers and four medical laboratory scientists who were assigned to the PHC by an NGO (AMURT Nigeria).[7] Half of the PHCs had nurses/midwives, but only 7 per cent met the minimum standard requirement of four per PHC. Most PHCs (93 per cent) had CHEWS and approximately 43 per cent of them met the minimum standard (three per PHC). For JCHEWS, 64 per cent of the PHCs had at least one JCHEW but none met the minimum standard of six. Regarding pharmacy and laboratory technicians, 14 per cent and 36 per cent of PHCs met the minimum standard of one, respectively. On the deployment of at least two health attendants per PHC, 64 per cent of the PHCs had health attendants ranging from two to as many as 15. Also, nearly half the facilities in the transition states engaged ad-hoc staff and volunteers as health workers.

For the low-performing states, the general hospitals and private clinics had a good number of medical officers, nurses/midwives and support staff. They, in fact, had more nurses/midwives in their general hospitals than the high-performing and transition states do. Furthermore, the low-performing states had more paediatricians and nutritionists compared to the high-performing and transition states. For instance, in Kebbi, two facilities (general hospital and private clinic) had paediatricians, and another three facilities (PHCs) had nutritionists. In Gombe, two facilities (PHC and private clinic) had nutritionists.

Regarding PHCs in the low-performing states, 36 per cent had nurses/midwives where only 7 per cent met the minimum standard requirement of four per PHC. For the CHO cadre, approximately 29 per cent of PHCs met the minimum standard of one. All PHCs had a good number of CHEWS as approximately 79 per cent met the minimum standard of three per PHC. Ninety-three per cent of the PHCs had JCHEWS but only 7 per cent met the minimum requirement of six per PHC. The low-performing states recorded the highest number of CHEWS and JCHEWS compared to high-performing and transition states. Also, the PHCs had environmental officers (64 per cent); medical record officers (50 per cent); laboratory technicians (71 per cent); and pharmacy technicians (29 per cent) in line with the minimum standard requirements of one per PHCs. However, none of the PHCs had a medical officer.

In relation to health attendants with a minimum requirement of two per PHC, approximately 86 per cent of the PHCs had health attendants ranging from two to

as many as 28. Low-performing states had about double the staff strength (801) compared to high-performing (455) and transition states (495). In Gombe State, the presence of more staff is due to the recruitment conducted by the NSHIP and other partners. In Kebbi most of the staff are not permanent. The community or local government gives them a monthly allowance. In addition, they have a good number of volunteers in the PHC system.

Capacities and skills of front-line health providers.

The evaluation's HFA determined the skill set of the staff in a sample of 10 health facilities in each of the six target states.

Table 4.6 summarizes the findings for skills and capacities of health providers in the target states.

For child health, most of the facilities visited had the skill sets needed to handle pneumonia in children (90 per cent). Approximately 65 per cent of facilities had staff in charge of nutrition counselling and micronutrient supplementation. Whereas 75 per cent of facilities in the transition and low-performing states had staff in charge of nutrition counselling, only 45 per cent of facilities in the high-performing states had staff in charge of nutrition.

For maternal health, most of the facilities visited had the skill sets needed to handle all obstetric emergencies (87 per cent). Furthermore, findings showed that 27 per cent of the facilities had staff qualified to conduct caesarean deliveries. The PHCs, which constitute 70per cent of the surveyed facilities, are not expected to conduct caesarean deliveries hence the low value observed. Similar observation was made across the high-, transition, and low-performing states.

Approximately 95 per cent of the health facilities reported offering maternity services at all times including at night and at weekends where 93 per cent of them reported to have staff members available at night who either live or stay on site when on night duty. All facilities in the transition states provided maternal services at all times and had staff members available at night in all the facilities visited compared to 95 per cent of facilities in high-performing states.

Availability of drugs and commodities at health facilities

The logistics and stores management systems for the facilities were assessed by the evaluation team during visits to the 60 health facilities.

Only 65 per cent of these facilities reportedly had adequate medicines and FP method supplies. Furthermore, it was observed that most facilities had adequate storage facilities (92 per cent) and adequate lighting (87 per cent) for these medicines and supplies. First Expired, First Out

Table 4.6. Capacities and skills of health providers by target state group

Skill in case management of main interventions	High-performing states	Transition states	Low-performing states	Average for all states
Personnel on site take care of pneumonia in children.	90.0	85.0	95.0	90.0
There are staff in charge of nutrition counselling and micronutrient supplementation.	45.0	75.0	75.0	65.0
Staff member is always available at night.	90.0	100.0	90.0	93.3
Staff member lives or stays on site when on night duty.	90.0	100.0	90.0	93.3
Personnel on site take care of all obstetric emergencies (through management or referral).	90.0	70.0	100.0	86.7
Facilities have staff qualified to conduct caesarean deliveries.	25.0	40.0	25.0	26.7
Maternity services are available all the time, including at night and at weekends.	90.0	100.0	95.0	95.0

(FEFO) is a storage method that is used in logistics and stores management systems to indicate that products are classified and distributed based on the expiration date. Across the survey states, three quarters of the facilities practised this method. Regarding record keeping, the availability of Kardex[8] for each medicine and FP records was observed, where 68 per cent of the facilities visited had this document.

Data from the high-performing states showed that 60 per cent of the facilities received adequate medicines and FP method supplies, and 90 per cent had adequate storage facilities and lighting systems for these commodities. In relation to FEFO classification of commodities, more than half of the facilities visited practised this storage method (55 per cent) while 40 per cent had Kardex for each medicine and FP method. Some facilities without adequate medicines and FP methods reported they didn't receive supplies from the SMOH, but rather purchased medicines and FP from the open market. Since some facilities do not have adequate supply of medicines and FP commodities, they dispensed medicines and FP commodities without considering classification by expiration. Concerning Kardex, it was reported that some facility staff do not even know what it looks like. The transition states had more facilities (65 per cent) who received adequate supply of medicines and FP methods compared to the high-performing states.

Some facilities in Ebonyi experienced stock shortages due to the high demand for these medicines and FP methods while completion of the NSHIP programme caused the shortage in Nasarawa State . Among the facilities visited, 85 per cent had adequate storage while 75 per cent had adequate lighting systems in the storage facility and Kardex for each medicine and FP method. Some 95 per cent of the facilities visited in the transition states classified medicines and supplies by expiration date compared to the mode of classification in other states.

The low-performing states had the most supplies of medicines and FP methods (70 per cent),compared to the high-performing and the transition states. In Gombe, this is attributed to the supply of medicines and FP commodities from partners and NGOs in the state.

In Kebbi, the SMOH does not supply drugs to the facilities, rather medicines and, particularly FP supplies,are solely provided by the partners and NGOs in the state. Hence, facilities that reported inadequate medicines and supplies did so because of high demand for them. All the facilities visited had adequate storage facilities, and 95 per cent of the storage rooms had adequate lighting. Moreover, three quarters of the facilities classified medicines and supplies by expiration date and had Kardex for each medicine and FP method. Most of the facilities had a good understanding of the FEFO storage method. For those that did not

classify medicines by expiration date, it was reported that they do not have knowledge of the FEFO storage method.

Diarrhoea and pneumonia drugs, plus micronutrient supplements and anti-parasitic drugs

The HFA included: oral rehydration salts, cotrimoxazole, vitamin A, iron supplementation and folic acid; and albendazol/mebendazol. Overall, most facilities had iron supplementation and folic acid (90 per cent) and albendazol/mebendazol (82 per cent). Oral rehydration salts, cotrimoxazole and amoxicillin were available in three quarters of the facilities (75 per cent). Vitamin A was also found in 65 per cent of the facilities visited. Regarding stock outages in 2019, all medicines and supplies were out of stock at one point or the other, with Vitamin A having the highest record out of shortages (23 per cent) and iron supplementation and folic acid having the least (8 per cent). Vitamin A is mostly made available to the facilities during the child health week programme.

In the high-performing states, iron supplementation and folic acid were available in 95 per cent of the facilities visited, followed by albendazol/mebendazol (85 per cent) and oral rehydration salts, cotrimoxazole, amoxicillin and vitamin A (65 per cent). Concerning stock shortages in 2019, oral rehydration salts and amoxicillin were mostly out of stock (30 per cent) and iron supplementation and folic acid had the least stock outages at 5 per cent. Ogun recorded more stock shortages compared to Bayelsa. The leading causes of stock shortages in both states were inadequate supply and delayed restock to meet the high demand for these medicines in the facilities and during outreaches. Generally, more stock shortages were observed in high-performing states when compared to transition and low-performing states.

In the transition states, medicines and supplies for childhood illnesses were available in most of the facilities visited: iron supplementation and folic acid (95 per cent); albendazol/mebendazol (85 per cent); cotrimoxazole and amoxicillin (80 per cent); oral rehydration salts (75 per cent) and Vitamin A (60 per cent). All medicines were out of stock at some point during 2019, with Vitamin A being the most frequent (30 per cent) and iron supplementation and folic acid being the least (15 per cent). High demands and delay in restocking were responsible for the shortages observed. In Nasarawa, some medicines and supplies has been out of stock since the performance-based financing by NSHIP ended and owing to inadequate supplies from the SMOH. Ebonyi SMOH practises a Drug Revolving Fund through which the SMOH supplies drugs to health facilities at a subsidized rate. Nevertheless, whenever there is no supply through DRF, facilities purchase these medicines from the open market. Apparently, the shortages observed were a result of not receiving supplies from the state and not buying from the open market at the time of visitation. Ebonyi had fewer stock shortages compared to Nasarawa.

In low-performing states, oral rehydration salts were available in 85 per cent of the facilities visited, followed by cotrimoxazole, amoxicillin and iron supplementation and folic acid (80 per cent); albendazol/mebendazol (75 per cent) and vitamin A. Some commodities had been out of stock since the performance-based financing by NSHIP and partners' intervention ended. Stock outages were also due to delays in drug restocking.

Maternal care

The safe motherhood medicines and supplies were assessed. Hydrocortisone (used in premature rupture of membranes) was largely available in about three quarters of the facilities visited across the six states, with stock outages (2019) in approximately 22 per cent facilities. The high-performing states had more facilities with hydrocortisone (90 per cent) than transition and low-performing states.

Magnesium sulphate (used in eclampsia) was very frequently out of stock in 2019. It was found that high-performing states had more facilities with eclampsia medicines than other states.

For the prevention of tetanus, 55 per cent of the health facilities had tetanus antitoxin. Whereas more facilities in the transition states had tetanus antitoxin when compared to other states, the transition states had more stock outages in 2019.

Concerning antibiotics (infection) medicines, most facilities in the six states had gentamicin (83 per cent). All IV/injections were available in most of the facilities visited. Concerning labour management, oxytocin was available in almost all the facilities visited in the six states (96.7 per cent).

The main reasons for stock outages of the safe motherhood medicines and supplies across the six states were inadequate supplies from the SMOHs and partners and delay in restocking these commodities

Malaria drugs and commodities

The assessment included rapid diagnostic kit (RDT); microscopy; artemisinin-based combination therapy (ACT); Fansidar; long lasting insecticidal nets (LLINs); and intermittent preventive treatment (IPT). Findings showed that a good number of the facilities had RDT (78 per cent) and microscopy (65 per cent) for diagnosis of malaria, with 18 per cent of these facilities having RDT out of stock in 2019. With regards to antimalarial drugs, most facilities visited had ACT (77 per cent); IPT (60 per cent); and Fansidar (58 per cent). Fansidar was most often out of stock (38 per cent), followed by IPT (35 per cent). Long lasting insecticidal nets was available in half of the facilities while 30 per cent had stock outages in 2019. Facilities that did not have antimalarial drugs and LLINs or reported stock shortages mentioned that they had not received supplies from the SMOH and partners.

In high-performing states, most facilities had RDT (70 per cent), and half had microscopes for diagnosis. Stock shortages were observed for antimalarial drugs, ACT (85 per cent), IPT (50 per cent), Fansidar (40 per cent) and LLINs (60 per cent). Stock outages of drugs and test kits in 2019 were mostly observed for Fansidar (55 per cent), IPT (40 per cent) and RDT (25 per cent). In Ogun, for facilities without Fansidar and IPT, it was reported that they had not been supplied to them for a long time. RDT was out of stock due to the high demand for malaria diagnosis. In Bayelsa, stock shortage was largely due to inadequate supply of drugs from the SMOH.

For transition states, most of the facilities surveyed had RDT (85 per cent), three quarters had ACT, Fansidar, and IPT. One quarter of the facilities had stock outages for ACT, Fansidar and IPT, while 35 per cent of them were out of LLINs in 2019. In Nasarawa, some commodities were out of stock since the performance-based financing by NSHIP ended and owing to inadequate supplies from the SMOH. In Ebonyi, it was reported that stock shortage was largely due to high demand. The Global health supply chain supplies the state with antimalarial drugs and commodities.

In the low-performing states, most of the facilities had RDT (80 per cent); microscopes (90 per cent); ACT (70 per cent); Fansidar (60 per cent) and IPT (55 per cent) while LLINs were poorly available (30 per cent). Major stock shortages observed were LLINs and IPT (40 per cent); and Fansidar (35 per cent). Only one facility in Kebbi had LLINs and about half of the facilities had no antimalarials and RDTs in 2019. In Gombe all facilities had microscopes and RDTs, and only 40 per cent of the facilities had shortages of LLINs. For Kebbi, it was reported that LLINs had not been supplied since 2017/2018. The high prevalence of malaria in Kebbi also led to high demand for antimalarial drugs hence the shortages of these drugs. For Gombe, the availability of RDTs and microscopes in facilities was one of the key focus areas of implementing partners in the State. Concerning LLINs, distribution was last made in mid-2019.

State-level planning and management of maternal and child health programmes

The visits of the evaluation team to the health facilities and to the SMOHs disclosed these health systems strengthening findings.

Strategic planning and monitoring and evaluation capabilities

More than half of the states have strong capabilities in strategic planning and monitoring and evaluation. Curiously, low-performing states achieved the highest (90 per cent) in strengthening capacity in planning and monitoring and evaluation. Given the U5MR index classification, the low-performing states were seen to have done better in this regard than the other states classified as transition or high-performing. For example, within the high-performing states, SMOHs could not provide evidence for quarterly assessment analysis reports as well as training of new staff since last recruitment. The main reason for this was reportedly due to poor funding.

Information management systems

Transitioning states recorded the highest level of achievement with 86 per cent. This was attributed to the availability of evidence seen at the time of visit to the SMOH. Part of the evidence included daily outpatients registers; HMIS tools and other registration books; the computers used by the HMIS desk officers and the district health information system housing some data

and uniformly used by all states of the federation. Other evidence cited includes the soft copy of a report on data quality assurance which contains the gaps findings and recommendations from the visited LGA; minutes of the meeting of the MIS team, including invitation letter to stakeholders' consultative meeting towards revitalization of state HMIS; as well as a list of trained MIS officers at LGA and state levels with certificates.

Financial management

High-, transition and low-performing states attained commendable levels of achievement in strengthening financial management. High-performing states had the highest level of achievement with 88 per cent in financial management strengthening as compared with 75 per cent and 72 per cent recorded in transition and low-performing states. In the high-performing states, the evidence for this conclusion was the inclusion of chartered accountants and auditors in financial information management teams; financial audit reports for 2019; the approved budget for the year 2019–2021 and balance sheets.

Human resources management

High-performing states (Bayelsa and Ogun) had the least level of achievement in strengthening functional human resources management (31 per cent). On the other hand, low-performing states (Kebbi and Gombe) had the highest level of achievement (90 per cent). The wide disparity in the level of achievement in high-performing states as compared with transition and low-performing was due to the non-existence of evidence on staff nominal roll; letters of commendation and monitoring plans or activities for SMOH staff. The probable reason for this performance was attributed to the reluctant behaviour of SMOH management teams in providing these documents from the SMOH system.

Opinions of state health officials on their planning and management of maternal and child health programmes.

Key respondents in the different states were asked about their planning and management of maternal and child health programmes. The respondents' characteristics are summarized in Table 4.7

Maternal health programmes

When asked to describe their role, maternal health programme officers from low-performing and transition states included training as a significant function of their office, planning strategizing, supportive supervision, meetings with PHC coordinators, training of health workers on modified life-saving skills, and community outreach. High-performing states' description of the roles focused on the collection and use of data to make informed programme decisions. In Bayelsa State the data were mainly about antenatal clinics while in Ogun data was related to causes of maternal and perinatal deaths surveillance response (MPDSR).

The Gombe state official reported that the annual operational plan is indeed contextualized to align to the reduction of maternal mortality but was, however,

Table 4.7. Characteristics of maternal and child health programme respondents

States	Designation	Length of time in position (months)	Gender
Bayelsa	MCH Coordinator (both Maternal and Child Health)	13	Female
Ebonyi	Maternal Care Manager/RH Coordinator	36	Female
Gombe	MCH Coordinator (both Maternal and Child Health)	7	Female
Nasarawa	Maternal Care Programme Officer	48	Female
Ogun	MCH & RH Manager	12	Male
Ebonyi	IMCI Assistant Director	156	Female
Kebbi	MCH Coordinator (both Maternal and Child Health)	24	Male
Nasarawa	IMCI Focal Person	96	Male
Ogun	PHCDB IMCI Focal Person	84	Female

not available at the time of the interview. It was further reported that the annual plan is reviewed monthly. No evidence was presented at the time of the interview. Both Nasarawa and Ogun states reported the presence of an AOP that was on display in the interviewee's office. Monitoring was implemented by the filling of MPDSR form and supportive supervision at PHCs. Evidence in the form of checklists and scorecards was presented at the time of the interview in Ogun.

Respondents from all six states said they had maternal health case protocols. In Gombe, Ebonyi and Bayelsa, programme officers said that the case-management protocols for maternal care were harmonized with NSHDP. Gombe and Ogun presented evidence of training curricula and training lists.

The six state health officials provided the following reasons for their progress in achieving the maternal health objectives in their jurisdictions:

Coordination and collaboration

- With various stakeholders including other programmes within their state ministry of health and private health-care facilities. In Kebbi and Ebonyi, the respondents mentioned that they chaired a core technical working group. In addition, programme officers reported collaboration with stakeholders in the form of planning meetings and joint activities with other ministries and development partners such as UNICEF, UNFPA, WHO, USAID and so on. Here is a representative testimony:

"We [maternal health programme, other programme intervention and sectors in the state, ministry of budget, UNICEF, Ministry of Water and Sanitation, Ministry of Environment] are meeting almost every quarter to access the level of progress in our different programme areas in the State… So now the State has come up with an integration plan to work together to see that all these problems are solved in the state"— State Maternal Care Programme Officer.

Sensitization

- In low-performing, transition and high-performing states alike, conducting community sensitization on causes of maternal death, the importance of ANC, child nutrition and so on was identified as an important contributing factor to the reduction of maternal deaths. Here is a representative testimony:

"So continuous education, sensitization, dialogue meeting with these rural women will change all their beliefs because belief is chopping [eating] us raw [deep], a woman will know that she will take this because she feels that this one is not done in her community, all those things."— State MCH Coordinator.

Safety and security

- In Ogun State, a safe and secure environment was identified as a contributing factor to the success of reducing maternal mortality within the state.

Political will

- The Ogun State official commented enjoying the support of the state government in the area of training and procurement of equipment.

Special initiatives

- The two high-performing states highlighted special initiatives like NGN3,000 monthly stipend, reduced cost/no costs antenatal and immunization clinic, and the free distribution of nappies as an incentive for mothers to come to health centres. These initiatives led to increased health centre and ANC attendance.
- In Ogun State, interventions were informed by routine data collected on maternal and neonatal death – using the Maternal and Perinatal Death Surveillance and Response (MPDSR) form.

Similarly, the interviewed state health officials gave the following challenges as limiting the success of their maternal health programmes:

Inadequate funding

- The biggest contributor to the non-achievement of reduced maternal and under-five mortality identified in all states is the lack of funding, save for Nasarawa State. Respondents expressed that their well-intentioned and well laid-out plans, campaigns and strategies needed funding; be it training of health-care workers, supportive supervision, community mobilization, the procurement of commodities and so on. In Nasarawa, the state government was commended for its investment in the health sector in general and in maternal and child health. Representative testimonies follow:

"…if you give a proposal at the State level that you want to conduct a training that formerly UNICEF was sponsoring honestly it will take you time, you won't even get the funding."— State MCH Coordinator.

"If money is not released, what do you do? You sit in your office and wait for a partner or anybody that can tell you this is the area I want to support; you go along with that person."— State Maternal Care Manager/RH Coordinator.

Lack of human resource and poor attitude of health workers.

- A general theme of human resources-related challenges emerged from all six states. Concerns included the dearth of trained health-care workers and the reliance on volunteers and/or contract staff that left health centres stranded when they moved on to greener pastures. Health-care worker attitudes were also identified as a challenge for both training and the provision of maternal health services. Here is a representative testimony:

"… our PHCs here are mostly covered by contracted staff or casual staff. After training and investing more on then they zoom to another place and that was what happened that affected our programmes mostly in the facilities." — State Maternal Care Programme Officer.

"…most of the health workers that have the training are now retiring some have been retired, even they have retired before employing the one on ground, no need of step-down training. Sometime, more refresher training to update our memory." — State MCH & RH Manager.

Lack of sustainability

- All states commented on the lack of sustainability in maternal health interventions as a contributing factor to the non-achievement of reduced maternal mortality. In transition and high-performing states, this sentiment centred round Government taking ownership of programmes and funding them.

Corruption

- Corruption or political interference was cited as a constraint for the achievement of reduced maternal mortality. In Gombe State, it manifested in a diversion of funds allocated to health facilities while in Kebbi and Ebonyi it manifested as, due to their political connections, officials were unable to

deal with people who perform home births illegally. In Bayelsa , a programme that awards NGN3,000 stipend to mothers who attend ANC was sabotaged by mothers who fraudulently register at different facilities to collect more money.

Lack of political will

- The lack of continuity of programme/policy established by preceding government administration was identified as another factor that affects the achievement of the programme objectives. Here is a representative testimony:

"We don't have continuity. Every government comes with his own policy ("this is what I want, this is my priority"). For the former Governor's wife (that just left) her priority was maternal and newborn health, and it was a good programme. But when the new Governor's wife came, she brought her own pet priorities, you see the policies were not consistent." —State Maternal Care Programme Officer.

Difficult terrain and security challenge

- Accessibility of maternal and general health-care services was cited as a barrier to the reduction of maternal mortality. In Bayelsa State the crime rate and arduous terrain were contributing factors both to patients accessing care and to programme staff implementing their interventions.

Cultural belief

- In Bayelsa State, cultural norms and beliefs sometimes made the community resist interventions intended to reduce maternal mortality. Here is a representative testimony:

Gombe and Ogun presented evidence of training curricula and training lists.

"...some women still prefer giving birth at home than coming to the health facilities to deliver … some prefer herbal drugs than coming to the hospital … there are people still using the traditional method like using methylated spirit, cow dung, salt and pepper mixed and put it in the umbilical cord … in the community, there are still some cases of those." – State MCH Coordinator.

Child health programmes

Programme managers produced soft copies of SSHDPs and were aware of the significance of implementing child health programmes towards the realization of SDG3 (targets 3.1 and 3.2). Most of them were also able to provide evidence on ongoing situational assessment of the child health programme, such as personnel strengths and skills, materials, consumables, medicines and ensuring reduction in morbidity and mortality.

When asked about their responsibilities and involvement in the programme, all six respondents stated conducting training for health workers, attending workshops/trainings, distribution of commodities, holistic treatment approach, supportive supervision and community sensitization; and these cut across the six states.

When asked about the annual operating plan, all six states confirmed that they have the AOP but were unable to produce evidence at the time of the interview. They also stated that the AOP was centred on the reduction of under-five mortality. Additionally, four states, with the exception of Bayelsa and Nasarawa States, alluded to evaluating the AOP on a quarterly and/or annually basis.

Respondents from five states (with the exception of Nasarawa) mentioned that they partnered and/or collaborated with other state health programmes for supervision and training, e.g., integrated management of child illnesses. Only Gombe and Ebonyi clearly elaborated that the SMOH engaged in some level of coordination with private health sector during training and meetings.

All the target states had case-management protocols but only in four states (except Kebbi and Ogun) had they been updated with the NSHDP and national norms of attention of children. All six states reported that the protocol included management of children with pneumonia, diarrhoea and dehydration, breastfeeding and weaning practices and complete immunization before 12 months of age. However, whereas all SMOH officials admitted having case management protocols, more than half of the health facilities visited by the evaluation team didn't have them. There is the need for SMOHs to provide the case management protocols to all facilities to facilitate proper management of childhood illnesses.

The respondents identified seven reasons for the progress of their child health programmes: (a) supportive supervision; (b) monitoring of health indicators (c) partnership and collaboration; (d) training and professional development; (e) availability of commodities, supply, consumables and equipment; (f) political will; and (h) communication strategy.

Supportive supervision

- Respondents mentioned that supervision of health workers was a key factor to achieving the objectives and targets of the child health interventions in the various States. Here is a representative testimony:

"It's the SOML that have been funding supportive supervision to the health workers, we do calls, make calls, quarterly review meeting, they just inaugurated State Emergency Maternal and Children Intervention Centre (SEMCIC) last year…" – State Child Health Programme.

Monitoring of health indicators

- Respondents mentioned conducting routine monitoring of health indicators as another contributing factor to tracking the achievement of programme objectives. They reported having data to show the progress made. More than 90 per cent of the facilities visited by the evaluation team had NHMIS monthly summary forms. These forms are submitted to the LGAs monthly and are used to monitor the health indices of children under the age of 5 years. Most of the states were able to produce the PHC monitoring reports at the LGA level. This is a representative testimony:

"Every month they [health facilities and LGAs] send us data of the number of children they treated for malaria, the number of children they treated for pneumonia, number of children they treated for measles." – State MCH Coordinator.

Partnership and collaboration

- Reported across the states was the importance of collaboration with other health units such as those for malaria, immunization and nutrition in order to conduct routine vaccination, distribute free drugs, and treat all illnesses in the under-fives. Also, the support of and collaboration with development partners such as UNICEF, and the World Bank has been helpful. Most of the state child health managers had good relationships with both development partners and NGOs. This was evident as most of the training and capacity-building received by the SMOH staff was sponsored by these organizations especially in the low-performing states.

Training/professional development

- According to respondents, increasing the knowledgebase of health workers on IMCI through training and professional development, especially for those in the hard-to-reach areas, were factors that reduced under-five mortality in Nigerian children. Development partners also facilitated some of the training received by the child health programme managers and the health workers.
- Availability of commodities/supply/consumables/ equipment. Access to commodities such as free drugs, long lasting insecticide nets, and availability of equipment at the facilities were contributing factors for the progress of the child health programme.

Political will

- Government support and involvement in child health matters was highlighted by transition and low-performing states as being paramount to achieving the programme objectives and SDG3. Here is a representative testimony:

"I know that our governor is there for us, he is not playing with the health issue at all, whenever we say 'it's about health' he's out and he will call everybody especially our commissioner, our commissioner will call all of us, all of us will move. So, nobody including our governor … nobody is sitting down on the health issue, everybody is up and doing, and we want to achieve that thing, we want to be more than other States." – State IMCI Assistant Director

Communication strategy

- Respondents stated the deployment of good communication strategies to achieve programme objectives. A representative testimony follows:

"…there's a lot of change, because of 'Breakthrough Action' (USAID-funded health communications

project). They are into a series of programmes on the TV. So even if you cannot hear from the health facility, at least you can listen to what they say. So, they have really done a great job in demand creation … They really create awareness, more especially that of family planning, because people are now coming for it, but no commodities, that's the only challenge we are facing, but awareness has been created throughout the whole State." – State MCH Coordinator.

In addition, six challenges were mentioned by the state officials to the progress of their child health programmes: (a) lack of political will; (b) inadequate human resources; (c) lack of sustainability plan; (d) inadequate funding; (e) scarcity of commodities/supplies/consumables/equipment; (f) difficult geographical terrain.

Inadequate human resources

- Programme managers noted the lack of employment and dire shortage of skilled health workers at the facilities, especially at hard-to-reach areas in the states, and little or no capacity-building are a major concern. During the visits of the evaluation, most health facilities didn't have the required minimum number of staff for each cadre. The staff interviewed during these visits confirmed that there been no recruitment for a long time, while older staff gets retired from active service. Representative testimony:

"Most staff are being retired and no new staff are being employed, and some of our corps, they are not being given anything – nothing is given to them so, when they have the opportunity of working elsewhere, they'll just leave the community and move."– State MCH Coordinator.

Lack of sustainability plan

- Respondents mentioned that most of the support they received in the state regarding child health matters was from development partners such as UNICEF, with specific implementation timelines. However, there are no adequate plans put together by the state to sustain the different activities that contribute to the improvement of the under-five mortality rate following the discontinuation of assistance from the development partners.

Lack of funding

- Programme managers highlighted the lack of funds from government to pay salaries and incentivize volunteers/corps and that the existing DRF programme is "weak" and not sustainable.
- Scarcity of commodities/supplies/equipment. During the visits of the evaluation team to health facilities, their managers reported poor or no supply of drugs. They also experienced periodic stock outages in 2019 largely due to inadequate supply of drugs from the SMOH to meet the high demand.

Difficult geographical terrain

- Another barrier to the reduction of the under-five mortality rate in the states is the difficult geographical terrain in some areas and poor road infrastructure; which makes accessing the health facilities difficult. During the visits, the evaluation team confirmed that residents of hard-to-reach communities experienced difficulty in accessing health-care at the facilities largely due to their geographical terrain. Worst of it all, less than 10 per cent of the facilities had an ambulance, making mobility from hard-to-reach communities to the facility challenging.

Conclusion

The performance of the flagship programmes has been moderately successful. The immunization and malaria programmes are performing well. Jointly with the Nigeria State Health Investment Project, they will continue to be supported through the Nigeria Improved Child Survival Programme for Human Capital Multiphase Programmatic Approach and other donor-supported programmes. The TB and PMTCT programmes enjoy strong government and donor support (e.g. Global Fund, bilateral donors). The Saving One Million Lives initiative fell short of improving population coverage of essential health interventions but improved quality of care at participating health facilities.

Saving One Million Lives

In response to unsatisfactory progress on improving maternal and child health, the Government of Nigeria launched the Saving One Million Lives initiative in 2012. The SOML-PforR, financed by an International Development Association credit of US$500 million was

Evaluation Question (Effectiveness)	Likely strength of evidence	Data source
EQ6. What results (intended and unintended) have been achieved so far by the following flagship programmes towards the achievement of SDG3 (targets 3.1 and 3.2):	Strong	NHMIS, NDHS 2013 & 2018, literature review, and KIIs
EQ6.1 Saving One Million Lives		
EQ6.2 Immunization programme		
EQ6.3 Malaria programme		
EQ6.4 TB programme		
EQ6.5 PMTCT programme		
EQ6.6 Nigeria State Health Investment Project		

designed to support the Saving One Million Lives initiative by providing incentives to states, based on improvements in the coverage and quality of high-impact health services. It also rewarded states for strengthening the institutional processes needed to achieve the results and incentivizes the Federal Government to collect and publish data from independent and robust household and health facility surveys.

The Saving One Million Lives programme represents a shift in focus from financing inputs to paying for results; implements a results-based approach to federalism, and aims to save the lives of one million women and children. Given that the states are responsible for a greater proportion of primary health care, most of the funds (82 per cent) are allocated to state level. The Programme Development Objective (PDO) is to "increase the utilization and quality of high impact reproductive, child health and nutrition interventions."

The first of the two PDO indicators was the combined coverage of six key Saving One Million Lives services (immunization [Penta3], skilled birth attendance, Vitamin A supplementation among children between 6 months and 5 years of age, contraceptive prevalence rate [modern methods], use of insecticide-treated bednets by children under 5 years, and prevention of mother-to-child transmission of HIV.

The second PDO indicator is related to the quality of care index at health facilities and combines the following domains: (a) clinical competence of health workers; (b) availability of drugs and minimum equipment; (c) readiness to deliver Saving One Million Lives activities including outreach; (d) the quality and frequency of supervision of public primary health-care facilities; (e) health management information system and proper financial management; and (f) health-care waste management.

Saving One Million Lives end-of-project results (World Bank, 20201).

In the latest project results released in January 2021, the World Bank classified the programme's progress towards achievement of both PDOs and the overall implementation progress as "moderately satisfactory".

For PDO Indicator 1 (Combined coverage of six key Saving One Million Lives services): Based on the 2018 Standardized Monitoring and Assessment of Relief and Transitions (SMART) household survey, progress on the combined coverage of these key services has been modest, with the index improving from 237 percentage points in the 2015 SMART survey to 244 percentage points in 2018, which falls below the target of 271 percentage points in 2018.

For PDO Indicator 2 (Quality of care at health facilities): It was measured using the National Health Facility Survey, which was last concluded in 2019. The results show overall improvement in the national Quality of Care index from a baseline of 34 per cent in 2016 to 52 per cent in 2019, an 18 percentage points increase in three years. Clinical competence, the diagnostic accuracy of health workers and adherence to clinical guidelines is the area that showed the most improvement, with 5.5 percentage points above the baseline of 8.5 per cent. Financial management and quality of HMIS data is the least improved area at 1 percentage point above the baseline of 4.7 per cent.

Table 4.8 shows these and other major results at the end of the SOML-PforR as reported by the World Bank in January 2021.

National immunization programme

Responding to the low coverage of routine immunization in the country, the FMOH through the NPHCDA declared a state of emergency in routine immunizations in June 2017.

Consequently, the Emergency Routine Immunization Coordination Centres were inaugurated at the national and subnational levels – National Routine Immunization Coordination Centre (NERICC) and State Routine Immunization Coordination Centres (SERICCs) were created in the 18 poorly performing states with the objective of revamping the routine immunization performance in the country. These centres have been tasked with the planning and coordination of the country's immunization programme to improve national immunization coverage to at least 85 per cent, and unimmunized children are reached through innovative strategies.

Over the past two years, a series of innovations launched by the Government has led to Nigeria improving its immunization rates from 38 per cent in 2013 to 50 per cent in 2018, and coverage among the poorest quintile of children from 7 per cent in 2013 to 24.7 per cent in 2018. Examples of these innovations are:

- To avoid cross-border transmission of polio, there is strong coordination with the Lake Chad countries. This involves conducting Immunization Plus Days in conjunction with the Lake Chad countries. This synergy of efforts has prevented the transmission of the polio virus across borders.
- In security-compromised areas and LGAs with low coverage, different innovative approaches are deployed to reach children. These include: (a) involvement of religious and traditional leaders; (b) the use of performance approaches to incentivize and motivate vaccinators and immunization officers; (c) strategies such as "hit and run"; firewalling; transient health camps along borders, markets, and motor parks; and house-to-house vaccination, and (d) the use of military personnel and the Joint Task Force to serve as security escorts and vaccinators in inaccessible LGAs.
- Among the newer interventions (in Nigeria) are rotavirus and pneumococcal conjugate vaccines, which are powerful ways of reducing the impact of diarrhoea and pneumonia, respectively.

There is strong political will for polio eradication in Nigeria. This is evident by the establishment of the Presidential Task Force for Polio Eradication that consists of governors from the 12 polio high-risk states. To demonstrate the Government's commitment, it released NGN9.7 billion during the resurgence of the polio virus in 2016.

Nigeria has been able to gather a host of partners (WHO, UNICEF, Bill and Melinda Gates Foundation, Kreditanstalt für Wiederaufbau, Japan International Cooperation Agency, Centers for Disease Control and Prevention in Atlanta, and so on) to support its polio eradication efforts. Development partners have aligned with the Government's agenda to improve routine immunization and strengthen PHC and are also supporting the transition from the Global Alliance for Vaccine and Immunization (Gavi).

Table 4.8. Key results from SOML-PforR

Indicator	Baseline value	Result Achieved	End Target
Combined coverage of six key Saving One Million Lives services	237.60	244.00	284
Quality of care index at health centre level	33.90	51.70	37.10
People who have received essential health, nutrition, and population services	9,456,221	11,122,179	10,667,509
Number of children immunized	3,343,939	3,823,874	3,944,000
Number of women and children who have received basic nutrition services	0	2,871,128	3,158,240
Number of deliveries attended by skilled health personnel	3,241,154	3,840,789	3,565,269

State evaluation of immunizations programme

A 2018 USAID-commissioned evaluation of its immunization support investments in the northern states of Bauchi and Sokoto(Stauffer et al., 2018), (which also included, as a comparison, the northern states of Kaduna and Kano), disclosed the following achievements at the state level:

- The establishment of routine immunization basket funds and direct funding to health facilities to conduct outreach routine immunization services; development of harmonized routine immunization plans; improved vaccine delivery system; strengthening of the DHIS 2.0 to collect and report immunization data, and participation of technical advisers to develop technical working groups for better collaboration and technical oversight.
- The new State Emergency Routine Immunization Coordination Centres bring passion and leadership for rapid sharing of critical issues and rapid responsiveness to the investigation of deficits and problems, and for addressing performance with sanctions and rewards. While the development of the Local Emergency Routine Immunization Coordination Centres is still early, this structure is expected to have an even greater impact on streamlining communication channels, finding local solutions to problems, and assuring better access to improved routine immunization services.
- Among Commissioners for Health, SPHCDA management, and partners there is widespread awareness of the need to sustain and expand routine immunization services, with recognition that focusing on supply alone will not solve the critical public health issue of low child immunization coverage. Demand creation was frequently mentioned as a major unmet need (Stauffer et al., 2018).

However, the following challenges were also identified during the same evaluation:

- The need for national guidance and resources to be more user-centred and efficient. This includes clarifying protocols and standard operating procedures to catch up older unimmunized children; improving paper-based immunization record systems, and improving on the packaging of vaccines, several of which use mega-dose vials.
- State public health and health-care systems are in the midst of reform. The SPHCDA in the four states noted that they face major human resource challenges, including poor management capacities throughout the system, low worker performance, and poor distribution of the workforce. These basic issues affect the design of approaches as well as the results, with informants noting the need to find the 'right person' to train and the need for good supervision and staff management.
- Governance and accountability issues highlighted during the assessment included challenges to reducing falsification of reports and efforts to develop and expand verification mechanisms; the desire for performance-based awards and sanctions; the need for better coordination of partners providing TA;
- The need to help states (a) conduct formative studies for in-depth analysis of barriers and root causes relating to demand for immunization and utilization of PHC services; (b) develop improved immunization record-keeping systems for easier identification of defaulters; and (c) develop appraisal systems to measure service quality, LGA, HF, and personnel performance. In addition, information is needed to understand population mobility and health-care-seeking behaviours for planning purposes. The assessment team also noted a need to systematically address the generalized distrust of data, which was noted in discussions with the routine immunization community. This included their questioning of the methodology and findings of the MICS survey as well as the team's observation of the inappropriate use of LQAS survey results to show improvements in state Routine Immunization coverage.

Strengthening of states' capacity for immunizations

The 2016 MICS demonstrated wide variation in the routine immunization coverage rates between states. Sokoto achieved 3 per cent Penta3 coverage, compared to 76 per cent in Anambra and 75 per cent in Edo. The wide variation between states is, at least partly, a function of the quality of state and local management.

To strengthen the management capacities at the sub-national level, the NPHCDA has been receiving funding from the World Bank to implement Routine Immunization

System Strengthening activities by improving the cold chain, supply and logistics, and management capacity at all levels. It will be used for (i) strengthening management at state and LGA levels to address the weak management capacity of the routine immunization programme in 12 lagging states (Adamawa, Bayelsa, Gombe, Jigawa, Katsina, Kebbi, Kogi, Nasarawa, Niger, Plateau, Taraba and Zamfara); (ii) expansion of the cold store in Lagos and renovation of the Kano cold store, and (iii) strengthening the supply and logistics system for all vaccines from the national to the subnational levels to ensure availability of vaccines.

National malaria elimination programme

The current National Malaria Strategic Plan (2014–2020) (NMSP) envisions the achievement of a malaria-free Nigeria with an interim goal of reducing malaria burden to very low levels and bringing malaria-related mortality to zero (US President's Malaria Initiative, 2020). The objectives of the NMSP (2014–2020) are to:

- Provide at least 80 per cent of targeted populations with appropriate preventive measures by 2020.
- Test all care-seeking persons with suspected malaria using rapid diagnostic tests (or microscopy by 2020.
- Treat all individuals with confirmed malaria seen in public or private facilities with effective antimalarial drugs by 2020.
- Provide adequate information to all Nigerians such that at least 80 per cent of the population habitually takes appropriate malaria preventive and treatment measures as necessary by 2020.
- Ensure the timely availability of appropriate antimalarial medicines and commodities required for the prevention and treatment of malaria in Nigeria wherever they are needed by 2018.
- Ensure at least 80 per cent of health facilities in all LGAs report routinely on malaria by 2020, that progress is measured, and that evidence is used for programme improvement.

The NMSP was scheduled to end in December 2020. However, the 2019 Malaria Programme Review has indicated that there will be no significant changes in the strategic direction of the malaria elimination programme in the new strategic plan.

Figure 4.6: Map of malaria donor-supported states in Nigeria

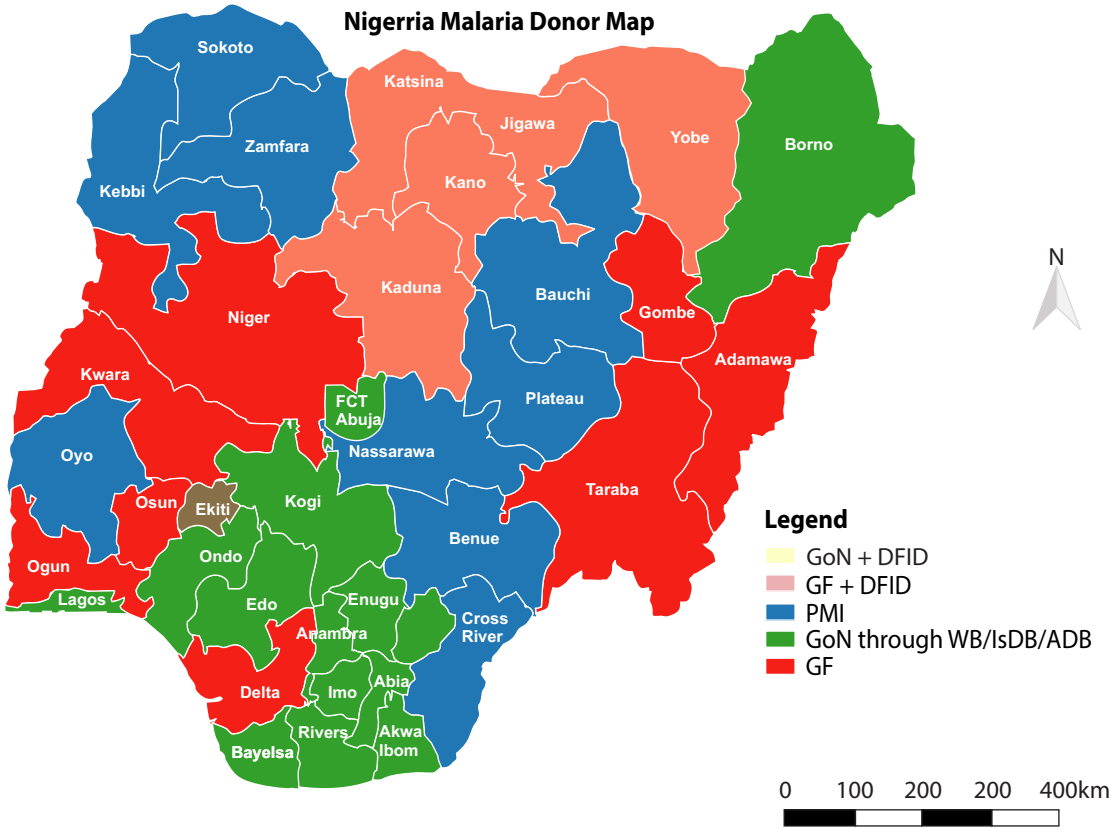


Figure 4.6 shows the key NMEP funding partners by state. In addition, recent funding opportunities for the NMEP include the following:

- On 23 March 2020 Nigeria submitted a proposal to the Global Fund amounting to US$439,285,746 for the period 2021–2023 as follows: Malaria: US$388,641,166 and Resilient and Sustainable Systems for Health: US$50,644,580.
- The Government of Nigeria has also secured credits from three multilateral banks (The World Bank, African Development Bank, and Islamic Development Bank) totalling US$364 million to fund health sector interventions in 13 states for the next five years (2020–2024) for malaria. The World Bank loan will allow the implementation of the Immunization Plus and Malaria Progress by Accelerating Coverage and Transforming Services (IMPACT) Project. It will also support the NPHCDA in the implementation of federal immunization activities.

Status of implementation of the NMEP

According to the programme inventory exercise jointly done by the NMEP and the US President's Malaria Initiative for the 2021 Nigeria Malaria Country Operational Plan, the implementation status of major NMEP activities are as follows (US President's Malaria Initiative, 2020):

Insecticide-treated sets

- Regular campaigns are implemented and with at least one well-managed continuous distribution channel.
- 26–50 per cent of routine distribution sites of ITNs are regularly supervised.
- ITNs distributed reported routinely and disaggregated by channel.

Diagnosis, treatment and malaria in pregnancy

- 0–25 of community health workers are trained and regularly supervised on malaria diagnosis and treatment.
- 21–40 per cent of the population have access to facility-based malaria diagnosis and treatment services
- 51–75 per cent of health facilities are regularly supervised on malaria diagnosis and treatment and on malaria in pregnancy services.
- Up to 4 prenatal care visits are tracked in the current health reports for inclusion of IPT administration.

Supply of drugs and commodities, and routine information systems

- Quantity and quality of infrastructure, as well as operations in at least two stock holding levels ensures that commodities, including ITNs are adequately protected from damage, deterioration and loss.
- SOPs for paper-based inventory management system at lower levels and use of an ele
- Electronic inventory management at central level (WMS) maintain inventory count accuracy but data on expiration or lot/batch insufficiently tracked.
- Donor-supported routine resupply between all stockholding levels, informed by accurate, near real-time demand signals and validated by malaria programme staff, done according to a schedule and routinely monitored.
- 80-89 per cent of participating health facilities report their malaria cases monthly.

Social behaviour communications

- Available evidence is used to loosely target social behaviour communications interventions to specific populations and interventions somewhat tailored to address behavioural determinants of those populations.
- Generally strong implementation at the central level with sufficient expertise and resources to deliver high-quality social behaviour communications interventions. Still weak implementation of social behaviour communications activities at the sub-national level.

Findings from the evaluation team's KIIs to state health officials

Key respondents in the six target states were asked about the implementation of malaria programmes in their respective states. The respondents' characteristics for these interviews are summarized in Table 4.9.

When asked about responsibilities and involvement, programme managers had varying areas of involvement.

"I am the one responsible to coordinate all the malaria activities in the State which involves seven

Table 4.9. Characteristics of malaria programme respondents

States	Designation	Length of time in position (months)	Gender
Bayelsa	Malaria Elimination Manager	36	Male
Ebonyi	Malaria Manager	156	Male
Gombe	Malaria Coordinator	36	Male
Kebbi	Malaria Coordinator	60	Male
Nasarawa	Malaria Elimination Manager	12	Female
Ogun	Malaria Manager	108	Female

thematic areas, we have prevention … we have some activities that we did on prevention, there are interventions such as mass campaign, which is usually 5, and there is indoor special spray and also larvae sites. On the treatment, we provide anti-malarials free in public health facilities and like I said for diagnosis, in 2014 to 2017 we provided it for private facilities and that one is not free but is at a subsidized rate. Also, we are on advocacy and communication. In advocacy we create awareness among the people concerning malaria, the prevention ... apart from the creating demand among the people." – State Malaria Coordinator.

All states confirmed that the overall strategies of the SMOH and LGA were aligned with SDG3. Distribution of treated nets and training were activities included in the SSHDP of Bayelsa, Ebonyi and Gombe States

Three SMOHs (Gombe, Nasarawa and Ebonyi) were engaged in coordination and/or collaboration with other sectors such as NGOs, private sectors, Ministry of Women Affairs and Social Development, Ministry of Agriculture and Rural Development, Ministry of Education, and Ministry of Youth and Sports Development. Here is a representative testimony:

"We have the malaria technical working group, where we have people from other Ministries, we have people from the agency, National Primary health Care Development Agency. We have people from the Ministry of Environment, as members of the group. We still have people from Hospitals Management Board, we have people from Dalhatu Araf Specialist Hospital where we come together and discuss how we can get the better of malaria to reduce it to the zero level…we also go for supervision together." – State Malaria Elimination Manager.

Respondents in five states confirmed that they have the Annual Operational Plan and a similar number reported the existence of LGA implementation plans.

The SMOH officials revealed the following reasons for the progress in malaria programmes; (a) development partner support and state ownership; (b) availability of drugs and commodities; and (c) funding. Similarly, they mentioned the following challenges for the success of their malaria programmes: people's perception and behaviour, lack of funding, lack of human resources, and human worker's attitudes.

PMTCT Programme

The Federal Ministry of Health re-established the Treatment and PMTCT (NTPP) Programme in 2017 as a framework for more effective coordination of the health sector response in an effort to promote ownership and sustainability. It will avert almost 125,000 new HIV infections every year, of which about 80,000 (64 per cent) will be prevented through the PMTCT programme alone.

The PMTCT activities aim to increase the number of pregnant women accessing the ANC clinic who are tested for HIV from the present 67 per cent in 2017 to 80 per cent by December 2020. All those found to be HIV-positive will be immediately placed on antiretroviral treatment for their health and the prevention of HIV transmission to their babies. At delivery, their babies will be provided ARV prophylaxis.

The effectiveness and efficiency of the PMTCT activities depends on a functional Sexual Reproductive Maternal Newborn Child and Adolescent Health (SRMNCAH) programme: of the estimated nine million pregnant women in Nigeria in 2017, only about 41 per cent accessed ANC clinic services. Poor quality services at the health facilities are a major reason provided for seeking to care elsewhere. Pregnant women have also complained of lack of confidentiality, poor attitude of health-care staff towards their clients, long waiting times at various service delivery points, frequent industrial actions by health-care workers causing service disruption, requirement to pay user fees, lack of ambulance services and overstretching of the health workforce resulting in failure to test some of the pregnant women that attend the ANC clinic.

Gaps were also identified in the number of pregnant women attending ANCs who were tested for HIV. About 33 per cent of all pregnant women seen at the ANC were not tested for HIV, a missed opportunity. In addition, most of the children born to identified HIV-positive mothers did not benefit from ARV prophylaxis because they were delivered outside the health facility.

To improve HIV testing of pregnant women attending the ANC clinic

The PMTCT strategy will include the following interventions:

- Training of mentor mothers case managers and CHIPS to support HTS at ANC clinics.
- Using mentor mothers case managers and CHIPS to provide testing at the point of service in order to reduce laboratory waiting time.
- Implementing the Option B+ mentoring programme by GoN/PEPFAR, which establishes a long-term professional relationship between health-care providers and local PMTCT mentors/ master trainers, with the aim of improving PMTCT services. The periodic supportive supervisory visits by a joint team of officers of the Federal Ministry of Health, various SMOHs, partners and civil society organizations will continue in this funding request.

To improve the ART uptake among HIV+ pregnant women.

Approximately 21.5 per cent of the nearly 65,000 HIV-positive women diagnosed at the ANCs were not placed on ART. Reasons for this include denial of HIV status, poor counselling, loss to follow-up, default on ANC appointments and poor referral systems between standalone HTS and PMTCT sites. The PMTCT strategy will prioritize interventions that will increase ART uptake by pregnant women:

- Promote same day ARV initiation at ANC using trained mentor mothers to provide referral from point of diagnosis to ARV dispensing. These mentor mothers will also track records of HTS facilities to identify HIV-positive pregnant women and link them to ART services. They will also conduct ongoing counselling for both the pregnant women and their partners towards uptake and adherence to ART.
- Reducing patient waiting time through appointment system and task sharing at facilities with high patient load.
- Revise and deploy adherence counselling SOP/ guidelines that emphasizes the importance of 100 per cent linkage and retention, to all Global Fund supported facilities

To close the gap in the number of women who fail to access PMTCT services because they do not deliver at public facilities, the PMTCT programme will provide services using mentor mothers case managers. This will operate like a hub-and-spoke model, with the public health facility acting as the hub and those delivery places acting as the spoke. These mentor mothers will continue to support the mothers within the community after they have delivered to ensure that they remain in care.

To increase the uptake and efficiency of early infant diagnosis (EID) services.

Only 16 per cent of public health facilities reported being able to conduct the EID test in their facilities or take samples with blood spot paper to another facility and receive the result back.

Access by HIV-exposed infants to ART and cotrimoxazole prophylaxis and early infant diagnosis (EID) services will be expanded through: increasing service delivery points; improving linkages to child health services and Sexual Reproductive Maternal Newborn Child and Adolescent Health platforms within both public and private sectors (such as child welfare clinics and child nutrition services);

Table 4.10. PMTCT programme quality issues and proposed remedial strategies

Quality issue	Proposed remedial strategy
Low ANC attendance at 40 per cent in 2017	Community outreach (including baby shower approach) in maternity homes and other places where women prefer to deliver in the high burden states on a limited scale. Thus, only focused selected outreach will be conducted.
Non-testing of all pregnant women seen at the ANC clinic for HIV	Establishment of hub-and-spoke system between GF supported facilities and surrounding primary health-care facilities to improve HTS commodities supply. Shifting/Sharing tasks to mentor mothers – case managers to increase the human resources available for counselling and testing.
Large numbers of HIV+ pregnant women identified at ANC but not placed on ART	Improved counselling and tracking using mentor mothers. Active follow-up and tracking in the community and linkage to care. Adherence counselling at all service points.
Low rates of facility delivery	High level advocacy to state governments to remove user fees. CHIPS, mentor mothers and case managers trained to provide HTS at TBAs and other birth centres. Linkage of identified HIV-positive mothers in the community to care and delivery services.
Low rate of CTX & ARV prophylaxis to HEI	Intensify follow-up of HIV+ mothers and their babies using mentor mothers and case managers. Maintain diary of expected date of delivery (EDD) for all pregnant women under mentor mothers' care who do not attend ANC and follow-up with prophylaxis and EID services. Use of mentor mothers for postnatal counselling. Improve commodities supply by creating hub-and-spoke system between GF facilities and surrounding PHCs. Intense follow-up of HIV+ pregnant women and HEI at delivery centres using mentor mothers.
Low uptake of EID services	Implement daily DBS sample collection at different service points (e.g., immunization and postnatal clinics) and at the community using trained mentor mothers and case managers. Use of NIPOST for sample transport and retrieval of DBS results.

Table 4.11. Characteristics of HIV&AIDS programme respondents

States	Designation	Length of time in position (months)	Gender
Bayelsa	HIV&AIDS Deputy Director	48	Female
Ebonyi	EBOSACA Manager	120	Male
Gombe	HIV&AIDS Coordinator	12	Male
Kebbi	HIV&AIDS Coordinator	6	Male
Nasarawa	HIV&AIDS Coordinator	156	Male
Ogun	HIV&AIDS Manager	2	Female

family based index testing, strengthening of the integrated sample referral network including locating point of care equipment in hard-to-reach PMTCT sites and strengthening partnership with community structures and systems for maternal and child health care such as traditional birth attendants, maternity homes, faith-based clinics, etc. The PMTCT strategy will support a total of 23.806,000 EID tests by December 2020 (80 per cent of PMTCT target).

Table 4.10 summarizes the quality issues identified with the national PMTCT programme from the epidemiological and response review of the 2017 programme data, and the proposed remedial strategies.

Responses of state health officials to KIIs. Key respondents in the six states were asked about their implementation of HIV&AIDS programmes. The respondents' characteristics for these interviews are summarized in the Table 4.11.
When asked about responsibilities and involvement, programme managers responded as per the testimony below.

"…. when I joined the unit, I was given the responsibility of State care and supporting focal person, and orphans and vulnerable children focal person… Well then as care and support focal person, our goal is that every orphan, every infant, whether you have HIV or not, exposed infants to HIV, every adolescent, and every adult; that's the general population now, that is PLHIV, have reduced to the barest minimum of mortality due to HIV… So, with care and support because we catch them on time, we bring them to care. They are being given prompt treatment. Mortality is reduced. Though we might not be at the peak but we are doing our best to ensure that all people in our care – particularly the orphans and vulnerable children and the infants – are placed on ARVs on time, those ones that are positive, they are placed on ARVs on time and their lives are better off." – State HIV&AIDS Manager.

All states, except Gombe and Bayelsa, confirmed that the overall strategies of the SMOH and LGA were aligned with SDG3. Respondents also identified the SSHDP as a guide and road map to better service delivery thereby reducing under-five mortality rates. Only Ogun and Bayelsa States confirmed the existence of AOP in the state. Moreover, Ogun State confirmed the presence of an LGA implementation plan.

Reports from the programme managers mentioned that there was cordial collaboration with the private sector. Below is a representative comment:

"we train (private) facility staff from even the private sector, collaborate with them, monitor what is happening in the private sector so that whatever they are doing should be in line with best practices. So, they are not left out, working with WHO, USAID, UNICEF and all the other big-name organizations that are contributing to health, Rotary International." – State HIV&AIDS Deputy Director.

The interviewed SMOH officials mentioned the following as reasons for the success of their HIV programmes.

- Collaboration, coordination and monitoring and evaluation strengthening. Respondents identified collaboration and coordination with various stakeholders including other programmes within their SMOH as well as monitoring and evaluation strengthening as contributing factors to the achievement of programme objectives.

"Proper coordination of various stakeholders may be an enabler towards improving the SDG3 target 1&2 and then the strengthening of M&E. We usually monitor different indicators coming out of all the health facilities providing maternal and child health services. So, on a quarterly basis we will collect these data and then we will now do what we called scope score card. So doing that it really helps facilities to be on track and if there is any and then stakeholders will be called upon and then we look at various indicators. I think if we can adapt something like that going forward it will really help us remain on track." – State HIV&AIDS Coordinator.

- Training. Bayelsa and Nasarawa State respondents mentioned that training and retraining of health workers and provision of mentorship have contributed to the improvement of the HIV&AIDS programme in the state

"Well, the intervention has helped us train a lot of health facilities staff on PMTCT with specific impacts and then mentorship activities even on-site

mentoring of staff, the training has cut across even private facilities." – State HIV&AIDS Deputy Director.

- Political will and support from development partners. Programme managers commented on enjoying the support of the state government in the area procurement of test kits, renovation of some health facilities, funding and support from the federal government and development partners.
- Quarterly presentation of activities. The Ogun SMOH has recently requested that departments should present their activities quarterly. The respondent is hopeful that this will contribute to the achievement of the programme objectives. The comment below provides a summary of the expectations:

"This year, we were asked to pull out our activities per quarter and let it be presented. It has never happened. So, I want to believe that if they can continue with the tempo, if we have this quarter to be successful, I'm sure that others one would come through." – State HIV&AIDS Manager.

In the area of PMTCT, the respondent commented that the state had made great achievements. The respondent's comment:

"We have achieved a lot, and I think PMTCT is one of our strengths as a state. Ogun State is one of the states that is doing well, in terms of HIV programme. And PMTCT gave us one of the top notch in the state." – State HIV&AIDS Manager.

- Government policy. Bayelsa and Nasarawa State programme managers mentioned that the government has put in place policy to guide the implementation of health services and anti-stigma law.

Similarly, nine reasons were cited as challenging the progress of the HIV programme: (a) inadequate human resources; (b) lack of funding; (c) lack of commodities, supplies, consumables and equipment; (d) community participation; (e) women visiting TBA & MBA; (f) poor attitude of health-care providers and stigmatization; (g) poor documentation (h) insecurity; (i) limited number of facilities providing PMTCT and HIV services and poor location of the facilities. Below are some representative testimonies:

"And then another issue is we are understaffed. I can tell you I'm virtually the only staff. I'm the only active State SACA officer presently though I have other subordinate…" – State HIV&AIDS Coordinator.

"Personnel, for instance now, we go to a facility, let me use the PHCs as an example, not even the secondary or the tertiary institutions. We are supposed to have like four nurses, may be six health, six CHEW, and four health attendants for a particular health facility, and you are having one nurses two CHEW or no CHEW, one health attendant." – State HIV&AIDS Manager.

"There's this programme that the implementing partners were anchoring for the mentor mothers (HIV-positive pregnant mothers/women who have had successful delivery with their babies being negative) so they help other positive women. Now there is no funding to continue that programme, those were the people that were actually helping in tracking these women, to making sure the woman attends antenatal, takes her drugs now there's no funding for that programme to continue because the implementing partner has withdrawn." – State HIV&AIDS Deputy Director.

"Ideally, our work is field-based and for you to go into the field you have to hit areas. We don't even have a working vehicle; we don't have a vehicle. Our officers sitting in the office is a waste of manpower, they are supposed to be in the field but we don't have vehicles and most times it is only funds and you know how epileptic the funding is." – State HIV&AIDS Deputy Director.

"Usually, it's the community gate keepers. Yeah, if you don't align or if you don't follow the cultural arrangement with the community, then you will suffer some resistance... the community will not give you the necessary support… and then there is this misunderstanding by the community whenever they see any new programme coming, if you don't involve them right from the onset and you just maybe overlook the kind of role that they can play, then you are likely going to fail so these are some of the things that will cause a lot of barriers." – State HIV&AIDS Coordinator.

"Maybe we have point two percent of positivity in our PMTCT programme. So, and those two percent that we have is not from the people that access health care, [it's] other positive pregnant women that do not know their status… most of our pregnant women in the state patronize the TBAs and MBAs… So, we have about 65 per cent even more than that of our pregnant women in the state goes to the TBAs. Which is a lot of challenge for us." – State HIV&AIDS Manager.

".... They will work, they don't record, no data … even our data does not speak to what is happening in the field because most of our staff, especially the M&E sector in the secondary facilities and primary facilities don't even document." – State HIV&AIDS Deputy Director.

"...and then the rate of insecurities, hard-to-reach areas in the state like Bayelsa State, where you as an individual no matter how lovely you are to your people, coupled with insecurities along our waterways, if they post you to places like that, nobody will want to go and die. There are some places you will say 'I had better resign than go there because I may not return with my life'. You know, so insecurity is a challenge." – State HIV&AIDS Deputy Director.

Nigeria State Health Investment Project (NSHIP)

The FGON, with support from the World Bank and the Health Results Innovation Trust Fund launched in 2014 the NSHIP. Its project development objectives were, "to increase the delivery and use of high impact maternal and child health interventions and to improve the quality of care at selected health facilities in the participating states".

NSHIP had five indicators to measure progress towards its objectives: (i) proportion and number of children aged beween 12-23 months of age fully immunized; (ii) proportion of births attended by skilled health providers; (iii) average health facility score on quality of care; (iv) number of curative care visits by children under 5 years; and (v) number of direct project beneficiaries who are women.

NSHIP supported two different approaches to improving PHC service delivery: performance-based financing (PBF arm) and decentralized facility financing (DFF arm). Throughout the life of NSHIP, the results of these two interventions arms were compared with the results achieved in a third, "business as usual" group (control arm).

- Performance-based financing: Most of the PHC facilities in LGAs assigned to the PBF arm received a quarterly payment based on the quantity of pre-defined services they provided. Each type of service had a tariff associated with it and the facility received a payment that reflected the number of services provided multiplied by the tariff. (For example, if a PHC facility fully immunized 100 children in the quarter and the tariff was US$5 per child immunized, the facility would receive US$500.) The quantity of services was verified and reported monthly (ex-ante verification) and counter verified after payment quarterly (ex-post verification) by an external verification agency – the Results Based Financing Technical Assistance (RBFTA). To ensure quality of care was addressed, a quantitative supervisory checklist (QSC) that assessed structural and process quality of care in 15 domain areas was used by LGA supervisors, and scores obtained formed the basis of a quality bonus. The QSC was also verified by the RBFTA. An additional bonus was tied to the remoteness of the facility. The amount earned by the facility was transferred electronically to the facility's bank account for which the signatories were the officer-in-charge and the chair of the Ward Development Committee. Facilities could use these funds for: (i) health facility operational costs (about 50 per cent), including maintenance and repair, drugs and consumables, outreach, and other quality enhancement measures; and (ii) performance bonus for the health workers (up to 50 per cent).
- Decentralized facility financing: DFF was similar to PBF except that the payments to the PHC facilities were not linked to the quantity or quality of services they delivered. By design the DFF facilities received half of the amount the PBF facilities earned since they were not allowed to pay performance bonuses to their staff. DFF facilities were also not subject to third party verification of quantity or quality. However, the DFF facilities had the same level of autonomy in using their funds as

PBF, they were supervised in a similar way, and they also received funds into their bank accounts through electronic transfer.

NSHIP was implemented in three states, Adamawa (North-East), Nasarawa (North-Central) and Ondo (South-West). In support of Government efforts to rebuild the North-Eastern part of the country affected by insurgency, the World Bank provided credit for NSHIP Additional Financing to scale up the project to the remaining five states – Bauchi, Gombe, Taraba, Borno and Yobe. There were modifications to the additional financing, namely all the health facilities were PBF designated with no DFF and local firms were contracted as Contract Management and Verification Agencies (mainly ex-ante verification and technical support to the SPHCDAs) and Independent Verification Agencies (for all ex-post verification activities) to replace the RBFTA.

NSHIP's results on quantity of services

The two NSHIP arms (PBF and DFF) and the control arms were reasonably similar at baseline. NSHIP's quantity-related project development objectives indicators all showed positive adjusted difference-in-differences (DiDs) and two of the three were statistically significant at $p < 0.05$. The improvements in these indicators ('effect sizes') were sizeable. For example, the number of consultations for children under five years almost tripled (increased 2.7-fold) in the NSHIP arm compared to a 31 per cent increase in the control arm. Of the five additional quantity indicators, four had positive adjusted DiDs and one was statistically significant. With the exception of ITN use by children under five years, the control group made little progress.

However, the impact evaluation of the project concluded that overall, there was little difference between the PBF and DFF arms in terms of quantity of services delivered. Of the eight quantity indicators included in the IE, DFF achieved larger adjusted DiDs on four; however, PBF achieved statistically greater improvements in skilled birth attendance and the related institutional delivery rate. PBF may have also done better on modern contraceptive prevalence rate but DFF likely achieved better results on immunization and ITN use.

NSHIP's results on quality of care

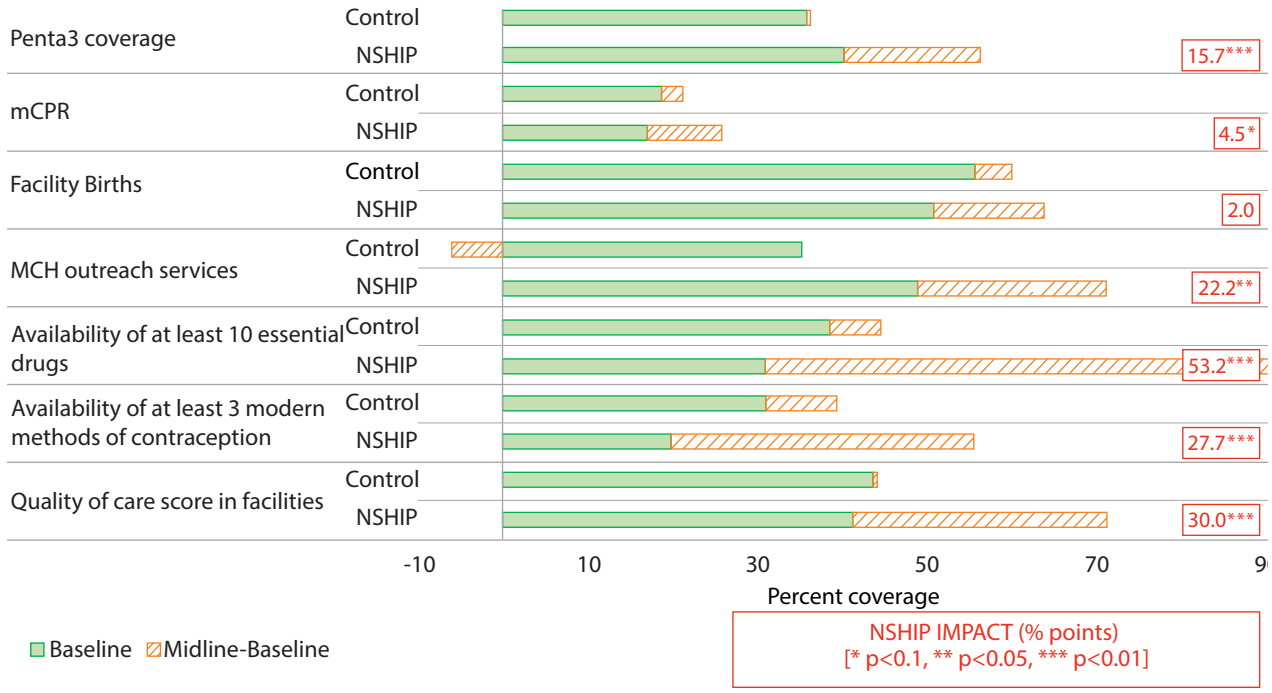
Overall, the quality of care indicators increased much more in the two NSHIP arms than in the control arm. Of the 26 quality of care indicators, 21 (81 per cent) favoured NSHIP and 20 (77 per cent) were statistically significant ($p<0.05$). Significant improvements were seen in structural quality of care such as availability of drugs, equipment, proper handwashing stations, and health-care waste management. NSHIP facilities also carried out much more outreach. On process quality of care the results were more mixed. The proportion of health workers following national protocols for under-five examinations declined slightly (but not as much as in the control arm) and antenatal care protocol completion improved only a little. In addition, health worker knowledge did not improve under NSHIP. The results on process quality of care indicators demonstrate that there is still a lot of work to do in this area. The DFF arm drove most of the gains on quality of care.

Figure 4.7 summarizes the results on quantity and quality of services. Both NSHIP arms (PBF and DFF) show superior results than the control arm. These achievements could be caused by the influx of operating funds to facilities which originated a larger availability of inputs and conduct of outreach. PBF workers who were aware of NSHIP incentives saw more patients than DFF workers who were also aware of NSHIP. This result suggests that awareness of the incentive payment may have succeeded in increasing the number of patients seen. However, overall levels of awareness of NSHIP were low, suggesting that the full impact of PBF was not realized.

The main findings of NSHIP's financial review included:

- The SPHCDAs arranged for the transfer of the correct amount of funds to each facility and the average payment was accomplished in 51 days (compared to the 45 days standard in the project implementation manual); (ii) there was no evidence of 'phantom' health facilities receiving funds or non-NSHIP facilities receiving any transfers; (iii) NSHIP funds accounted for about 95 per cent of all funds in PBF and DFF facilities and were generally being used appropriately to meet operational expenses; (iv) financial management in NSHIP facilities needed to be improved as some expenses were not recorded properly, vendors were sometimes paid in cash, and in some facilities the system of signatories was not being followed; (v) financial management in control facilities was almost non-existent even though they had some cash income from user fees. It appears that decentralizing funds to facilities is likely to result in less corruption than maintaining

Figure 4.7: NSHIP Improved Health Service Utilization, Coverage, and Structural Quality



Source: NSHIP baseline and midline surveys, 2014-2017

the same funds at local government, state or federal levels.

Discussion and policy implications

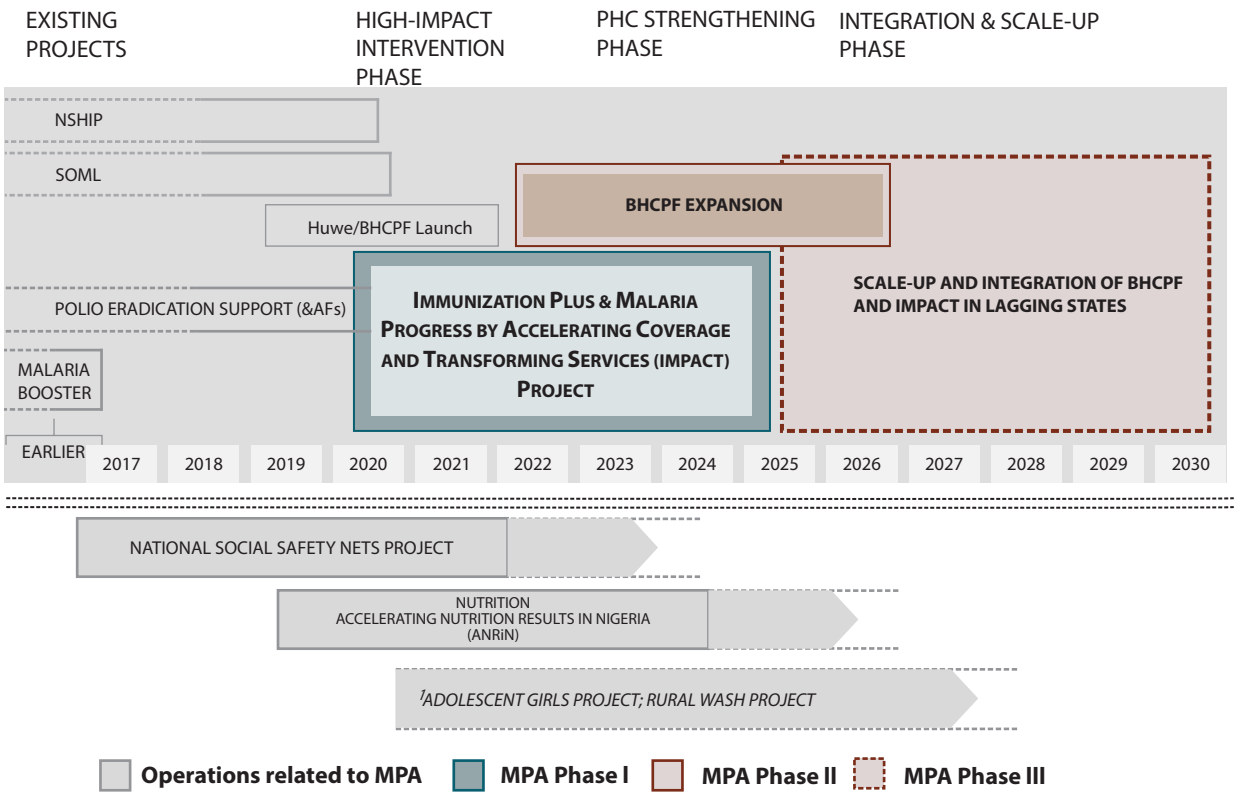
The results of NSHIP suggest the following:

- The study demonstrates that both PBF and DFF had important effects on the coverage and structural quality of MCH services while the control arm, like the rest of Nigeria, made only modest progress. Under real-world conditions and at large scale PBF and DFF appear to be practical and scalable interventions in the Nigerian context.
- The improvements seen under NSHIP were accomplished at a cost that is affordable using domestic resources, particularly if the BHCPF is implemented and funded as envisaged in the National Health Act. Both PBF and DFF are cost-effective compared to Nigeria's per capita GDP.
- While the NSHIP results are encouraging, there are three important challenges: (a) the end-line coverage of MCH services remains mediocre by comparison to Nigeria's neighbours; (b) the process measures of quality of care need to improve significantly to have real health impact and (c) there is a clear need to improve services for the poor and those living in remote rural areas (often the same people).
- The similar results achieved by PBF and DFF suggest that providing operating budgets to health facilities, allowing them to spend the funds on their perceived priorities, systematic feedback using a QSC, and strengthened management and governance at LGA, state and federal levels may have been key reasons for the success of NSHIP. However, we do not find the quality of internal or external supervision at the facility level to have driven observed gains in either project arm. Further, the fact that most health workers in NSHIP facilities did not know about the programme, including most in PBF facilities who received financial incentives from it, suggests room for strengthening facility-level management and supervision.

Follow up programme to the SOML-PforR and NSHIP

The GoN and the World Bank decided to follow up both the SOML-PforR and the NSHIP with the ongoing, US$1.5 billion Nigeria Improved Child Survival Programme for Human Capital Multiphase Programmatic Approach. The

Figure 4.8: Evolution of the multiphase programmatic approach



MPA will include three phases: (1) the IMPACT project, (2) BHCPF expansion and (3) Scale up and integration of BHCPF and IMPACT in lagging states.

Phase 1 is the Immunization Plus and Malaria Progress by Accelerating Coverage and Transforming Services (IMPACT) Project (US$650 million, 2020–2025) (World Bank, 2020b). The goal of the IMPACT project is to improve the utilization and quality of immunization plus and malaria services in selected states. Immunization plus services refer to provision of immunization, maternal, child and neonatal services in selected states. To achieve its five-year goal, IMPACT will use some of the best practices tested in SOML, NSHIP and other programmes, e.g., government hiring of NGOs to implement malaria prevention and control programmes, decentralized facility financing, strengthening the states' monitoring and evaluation systems and also the states' social behaviour change and communications programmes. Figure 4.8 depicts the evolution of the MPA.

4.4 Efficiency

Overall findings: Low efficiency|quality of evidence: strong

Conclusion

While existing health programmes have been technically designed with evidence-based, high-impact health interventions to contribute to the achievement of SDG3 (targets 3.1 and 3.2), resources from Government for health financing are grossly inadequate for the achievement of SDG3 targets. Out-of-pocket expenditures for health have remained stagnant at alarmingly high levels over the past decade (77 per cent from the latest NHA available, 2017). Wide variations exist across the 36 states and the FCT as per the 2019 NBS expenditure report. This scenario negatively affects vulnerable population groups, particularly those who live in poverty, which are more than 80 million Nigerians.

SUMMARY CONCLUSIONS (EFFICIENCY)

Nigeria has recently institutionalized earmarked allocations to the health sector: 1 per cent of its Consolidated Revenue Fund per annum is allocated to strengthen quality and coverage of health services through the Basic Health Care Provision Fund.

Although government health expenditure doubled between 2010 and 2017, Nigeria is lagging behind in prioritizing resources for the health sector using internationally accepted benchmarks. On average, between 2016 and 2019 Nigeria spent 4.4 per cent of its total general expenditures on health, falling short of the 15 per cent commitment of African Union members as part of the 2001 Abuja Declaration.

Out-of-pocket expenditure in health is significantly high in Nigeria: 76 per cent (2017) and 74.3 per cent on average between 2010 and 2017. Wide variations exist across the 36 states and the FCT.

Large gaps between health budgets and health expenditures exist in the country. This was observed in all target states (high-, transition, and low-performing ones), which translates to health financing inefficiencies of limited resources allocated to health.

Evaluation Question (Efficiency)	Likely strength of evidence	Data source
To what extent are the existing programmes and coordinating mechanisms enabling the achievement of SDG3 (targets 3.1 and 3.2)?	Strong	NHA, CBN annual reports, Federal and State Accountant General reports, state budgets, NSHDP II and SSHDPs

Figure 4.9: Health share of the government budget by country in sub-Saharan Africa

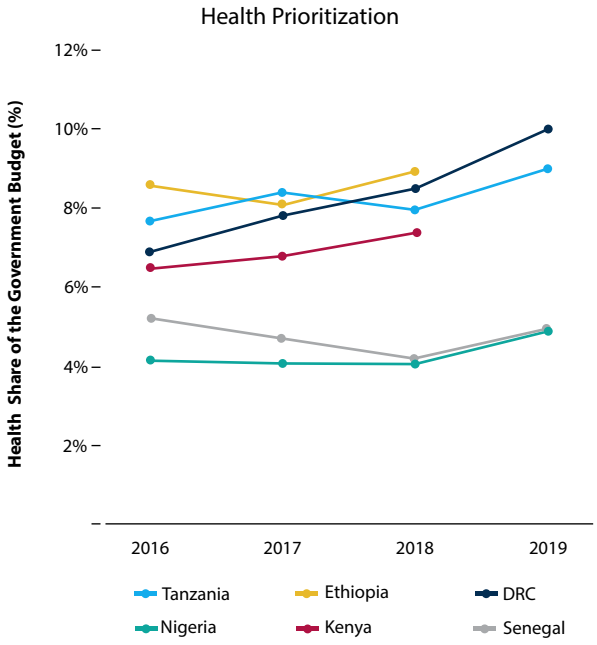
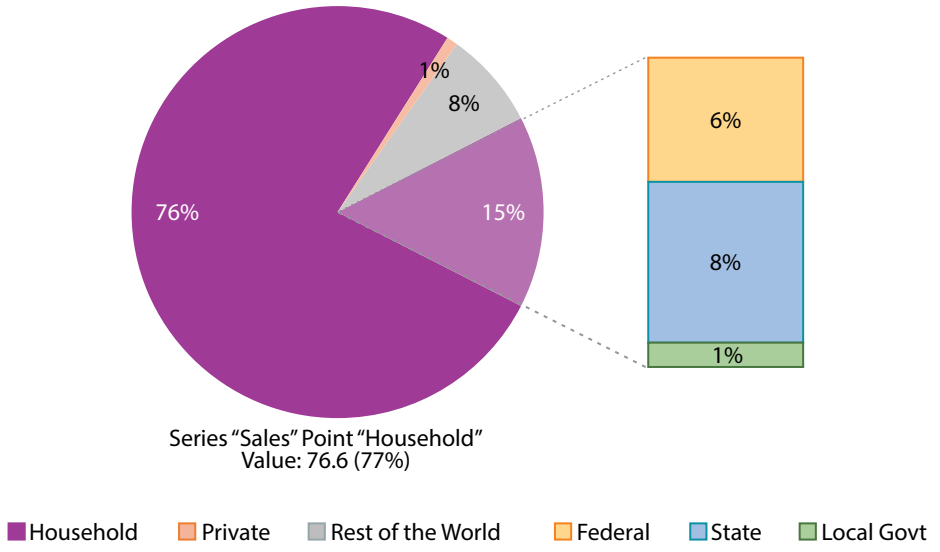


Figure 4.10: Sources of health financing in Nigeria



Source: National Health Accounts. Federal Republic of Nigeria. 2017.

Existing health programmes are designed to contribute to the achievement of SDG3 (targets 3.1 and 3.2). However, while Nigeria has experienced some improvements of health indicators for SDG3 (targets 3.1 and 3.2), the trend has not kept the same pace of improvement over the past few years. Financing for health continues to significantly burden household health expenditures. According to the latest official data from the latest National Health Accounts, out-of-pocket expenditures for health measured at 77 per cent (2017), one of the highest in the history ever since Nigeria measured this key health financing indicator, and one of the highest in sub-Saharan Africa.

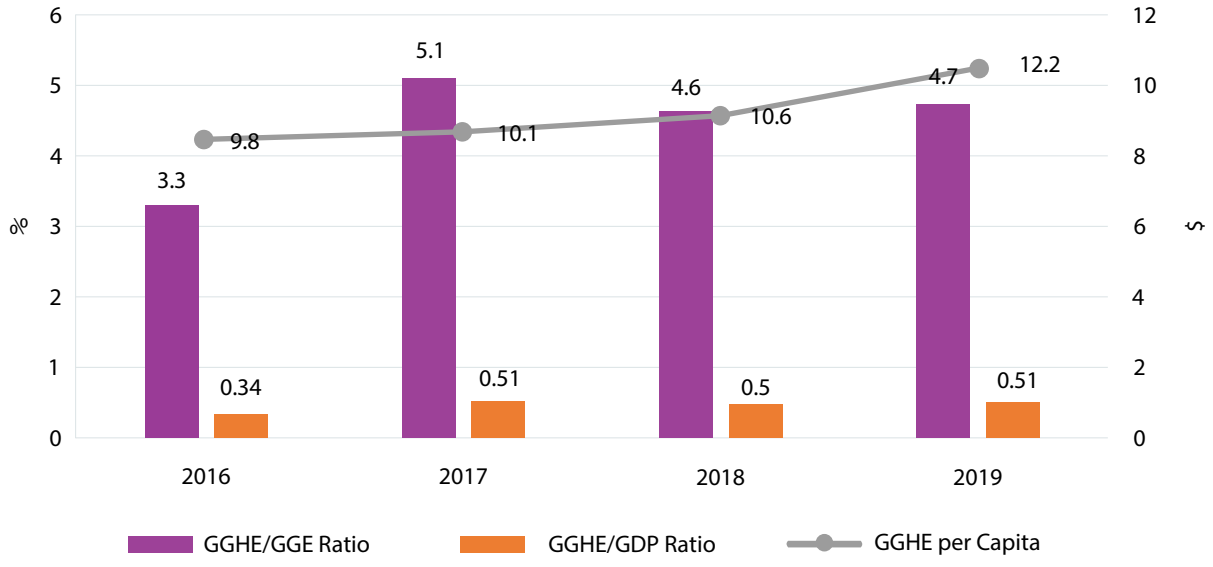
The NSHDP II is a comprehensive strategic plan for the health sector in Nigeria. It provides the vision, principles and strategies for the Nigerian health sector. While the existing health programmes and multiple coordinating mechanisms are described in the NSHDP II and with direct links to SDG3 (targets 3.1 and 3.2), a major constraint remains the limited resources that Nigeria invests in health. Figure 4.9 depicts how Nigeria benchmarks against other countries in the sub-Saharan Africa region regarding health prioritization and investments.

The health sector is financed through different sources, which include Government (Federal, State and LGA), private employers, donors, and household/individuals. The difference in the proportionate contribution from these sources determines the extent to which the health sector will achieve a successful health-care financing system. There is high reliance on out-of-pocket health payments as a means of financing health system in Nigeria as shown in Figure 4.10. Out-of-pocket health payments can make households face catastrophe and become impoverished. The NHA 2017 shows that health financing in Nigeria is dominated by out-of-pocket expenditure at 76.6 per cent of total health expenditure.

Proportion of total budget and expenditures allocated to health

Government general health expenditure (GGHE) more than doubled over the four years under review. It increased from NGN352.5 billion in 2016 to NGN747 billion in 2019. As shown in Figure 4.11, the proportion of the government general expenditure (GGE) allocated to health increased from 3.3 per cent in 2016 to 4.7 per cent in 2019. This level of contribution is grossly inadequate as it falls short of the 15 per cent recommended from the 2001 Abuja Declaration. The GGHE per capita consistently fell below US$85; it peaked in 2019 at US$12.2. The GGHE to GDP ratio also consistently remained below 1 per cent against the ideal ratio of 5 per cent suggested in various publications (Mcintyre et al., 2017).

Figure 4.11: Allocation to government general health expenditure in Nigeria 2016-2019



Evaluation Question (Efficiency)	Likely strength of evidence	Data source
How timely and sufficient have been the resources mobilized towards the implementation of NSHDP II intervention (Moderate Scenario)? EQ8.1 To what extent has funds disbursement reached the different groups end users?	Strong	NHA, CBN annual reports, State Accountant general reports, state budgets

Annex 10 shows the details of the health financing analysis in each of the six target states.

Conclusion

Financial resources were significantly lower than the moderate scenario for the implementation of the NSHDP II between 2016 and 2019. In addition, the health expenditure per capita for the same time frame was US$11 at federal level. Fund disbursements under the moderate scenario revealed inefficiencies across all target states and at the federal level, which translates to limited reach to end users, particularly vulnerable groups.

Under the NSHDP II moderate scenario, Nigeria has underperformed based on the latest health financing data available and estimates. Table 4.12 shows the cost of the NSHDP II moderate scenario for the entire country (federal) and for each of the six target states included in this evaluation.

This analysis of funds disbursements under the moderate scenario of the NSHDP II revealed inadequate allocation to health compared with resource requirements and inefficiencies across the six target states and overall at federal level. The estimated health expenditure per capita was measured at US$11.0 for the period 2016–2019. And the same indicator was measured at lower levels for the target states as shown in Table 4.12.

Conclusion

Continuous stock outages of essential medicines and supplies were observed in most of the target states assessed, including family planning commodities, supplies for malaria testing and treatment and essential medicines for treatment of childhood diseases. Paucity of funds and delay in budget approvals contribute to affect the procurement and distribution of essential medicines.

Table 4.12. Adequacy of resources for NSHDP and SSHDP under moderate scenario

State	NSDHP/SSH-DP Moderate scenario cost 2016–2019 (N bn)1	Cumulative health budget 2016–2019 (N bn)2	Cumulative health expenditure 2016–2019 (N bn)3	NSHDP/SSDHP per capita cost (USD)4	Health expenditure per capita 2016–2019 (USD)5
Federal	4,201.0	1,634.0	1,378.2	34	11
Gombe	12.9	33.3	23.4	N/A	7
Kebbi	31.3	42.1	24.9	N/A	6
Nasarawa	N/A	33.3	23.3	N/A	N/A
Ebonyi	94.2	34.5	24.0	46	9
Bayelsa	65.0	52.4	29.2	44	9
Ogun	110.0	70.1	42.9	33	8

Source: Accountants-General Reports, NSHDP II and SSHDP II documents, 2017–2021.
Nasarawa SSHDP did not include costs for implementing the plan.
Calculated from Federal and State Accountants-General reports.
Calculated from Federal and State Accountants-General reports.
From NSHDP and SSHDP costing. Gombe, Nasarawa and Kebbi did not provide per capita costs.
Calculated from Accountants-General reports and projected population figures.

Evaluation Question (Efficiency)	Likely strength of evidence	Data source
How timely were procurement and distribution of essential medicines implemented? To what extent has access to essential medicines been scaled up?	Medium	KIIs, Facility assessment

In Nigeria, the States and LGAs have the autonomy to provide health-care services, so each state is responsible for the procurement and distribution of essential medicines albeit with occasional support from the federal level. The paucity of funds and delay in budget approvals affects all aspect of health service delivery including drug procurement and distribution. A typical example is the delay in supply of contraceptives despite the huge support from development donors; aside from procurement, the last-mile distribution system is also affected by lack of funds and limited supply chain for essential health commodities.

The health situation assessment at facility levels revealed stock shortages in family planning commodities, supplies for malaria testing and treatment, and health commodities for treatment of childhood diseases including diarrhoea and pneumonia. Annex 11 shows the availability of health commodities, including family planning methods, malaria treatment and childhood illnesses treatment supplies and medicines respectively.

In addition, the semi-structured interviews conducted with health managers at state level revealed some level of stock outages of essential medicines and supplies, which confirmed the findings from the health situation assessment at facility level.

"…lack of commodities because a client can come today, she will say she needs an implant, then you will say go and come back tomorrow, [if] tomorrow she comes and there is no implant, she will be tired, and she will be discouraged." – State FP and RH Coordinator.

"There are so many issues, then provision of drugs for these zero to five, because our community members, they will not just waste their time, leave their farming work, come to the facility, then they end up using their money to buy drugs." – State MCH Coordinator.

"But the challenges we're having is commodities… They don't have the commodities at times… people will come in seeking for his help, no commodities." – State MCH Coordinator.

Conclusion

The unit cost of immunization is extremely high in Nigeria (US$36) compared to the incremental cost per dose in low- and middle-income countries (US$2.54). While information on spending by level of care and specific health intervention is not readily available at state level, the trend of total health expenditures has remained significantly higher for curative care than preventive care in the past four years for which health financing data is available.

The evaluation has focused primarily on maternal and child health. However, health financing data disaggregated by specific thematic area is scarce and not systematically reported by the states. The evaluation looked at the level of expenditures allocated to the three levels of the health system in Nigeria – primary, secondary, and tertiary – as well curative vs. preventive care.

Estimates from Nigeria's national immunization financing task team in 2016 revealed that it cost about NGN13,000 (approximately US$36) to vaccinate one Nigerian. This is a significantly high unit cost compared to the estimated range of incremental cost per dose of US$0.16–US$2.54, and US$0.75–US$9.45 full cost per dose for schedules of four to eight vaccines delivered to children under one year of age in low- and middle-income countries (Vaughan et al., 2019).

Spending by level of care and health-care functions could not be obtained from the various states' financial statements because of the current reporting template. This level of information can only be made available from findings from health accounts. Health accounts have been institutionalized at the national level in Nigeria, and states are currently at various stages of institutionalizing them. The first round of NHA was conducted for 1998–2002 and since then, the FMOH has conducted and published NHA studies up to 2017.

Recognizing that no information is readily available regarding health accounts in the focus states, it will be assumed that the proportion of expenditure by various categories as shown in the NHA reports suffices for the states. Table 4.13 presents the proportion of health expenditure allocated to PHC.

As the trend of the proportion of health expenditures by level of care is shown in Table 13, the analysis revealed that primary level of care, which is the lowest level of care, with responsibility for meeting the health needs of the majority of the population showed a decreasing trend from 15.5 per cent in 2014 down to 8.4 per cent in 2017. In addition, when looking at the proportion between curative vs. preventive, the proportion of health expenditure for preventive care is three times less (12.8 per cent) than the proportion spent on curative care (36.5 per cent) in 2017. This analysis revealed that although Nigeria has prioritized

Evaluation Question (Efficiency)	Likely strength of evidence	Data source
To what extent has the value-for-money principle been achieved for obstetrics service, nutrition service and immunization services depending on the information obtained?	Strong	Health budget records, KIIs

Table 4.13. Proportion of health expenditure allocated by level of care

Level of care	2014	2015	2016	2017
Primary level of care	15.5	16.8	17.7	8.4
Secondary level of care	59.7	61.6	62.3	23.1
Tertiary level of care	22.5	20.3	19.1	8.4
Curative care	37.2	37.6	35.3	36.5
Preventive care	17.1	9.2	11.3	12.8

Source: NHA Reports 2014–2017.

PHC in the NSHDP II, the level of health expenditure towards PHC is significantly low and decreasing between 2014 and 2017.

Trend of recurrent and capital budget and actual expenditure on health

An analysis of the composition of total health expenditure in all the target states revealed that the Government of Nigeria spends more on recurrent than capital expenditure except Ebonyi State, which favours capital expenditure. As shown in Table 4.14, this trend runs contrary to best practice that encourages a higher proportion to be allocated in favour of capital expenditure to maximize the availability of resources for health service delivery.

4.5 Impact

Overall findings: Partial impact|quality of the evidence: strong

Conclusion

While child, neonatal and maternal mortality rates have improved between 2013 and 2018 in the high-performance and transition states, they have worsened in the low-performing states. The national average shows stagnation of these three mortality indicators between these two years. Health service indicators follow these trends with higher use of maternal, neonatal and health services in high- and transition states and lower use in the low-performing states.

Child mortality in Nigeria

Childhood mortality rates reflect a major public health problem in Nigeria, mostly due to childhood illnesses among young children. Neonatal mortality is at 39 deaths per 1,000 live births while infant mortality is 67 per 1,000 live births, and under-five mortality is measured at 132 deaths per 1,000 live births. Significant variations of childhood mortality are seen across the country with the north registering the highest childhood mortality rates (Adebowale et al., 2012). In addition, under-five mortality is higher in rural areas than in urban areas (157 and 92 deaths per 1,000 live births, respectively).

Overall, childhood mortality rates have declined since 1990. Infant mortality has declined from 87 deaths per 1,000 live births in 1990 to 67 in 2018. During the same period, under-five mortality has declined from 193 to 132 deaths per 1,000 live births; however, a small increase of the under-five mortality rate was registered over the past five years between 2013 and 2018. In addition, neonatal mortality rates have remained stagnant, from 42 deaths per 1,000 live births in 1990 to 39 deaths per 1,000 live births in 2018. Figure 4.16 shows the trend in childhood mortality in Nigeria from 1990 to 2018.

Child health services in Nigeria

Three major childhood diseases are affecting children under 5 years of age in Nigeria: diarrhoeal diseases, pneumonia and malaria.

Table 4.14. Recurrent and capital health expenditure allocation ratio by target state group

State	2016		2017		2018		2019	
	Recurrent	Capital	Recurrent	Capital	Recurrent	Capital	Recurrent	Capital
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Federal	90	10	82	18	81	19	81	19
Bayelsa	n/a	n/a	66	34	87	13	96	4
Ebonyi	15	85	50	50	70	30	15	85
Gombe	n/a	n/a	91	9	88	12	94	6
Kebbi	91	9	64	36	72	28	59	41
Nasarawa	82	18	93	7	87	13	92	8
Ogun	n/a	n/a	66	34	71	29	68	32

Source: Federal and State Accountant General reports.

SUMMARY CONCLUSIONS (IMPACT)

While child, neonatal and maternal mortality rates have improved between 2013 and 2018 in the high-performance and transition states, they have worsened in the low-performing states. The national average shows stagnation of these three impact indicators between these two years.

Health service indicators follow these trends with higher use of maternal, neonatal and health services in high- and transition states and lower use in the low-performing states.

Informed by the bivariate regression analysis of the 2013 and NDHS 2018, improved use of health services is associated with lower maternal and child mortality rates in Nigeria.

Findings from the multivariate regression analysis confirmed that mortality was strongly associated with geographic and socioeconomic characteristics – e.g. birth order, household size, rural/urban residence and education of the mother. These findings suggest that socioeconomic and geographical factors are key determinants for child and maternal survival.

Under this scenario, the population use of health services might be mediated through these household socioeconomic factors, i.e. more educated mothers will always use more health services, regardless of their geographical access, than less educated ones. However, our findings do not rule out the intrinsic effect of the use of health services in the reduction of maternal and child mortality rates, i.e. increasing geographical access to health services might increase their population use regardless of socioeconomic economic factors.

Although there is a considerable effort by national health programmes to increase access to health services, there are also strong barriers in the delivery of those services, mainly linked to the quality of care, and availability of equipment and essential medicines. On the population side, the barriers are economic, referral and counter-referral systems, and cultural and health-seeking behaviours.

Evaluation Question (Impact)	Likely strength of evidence	Data sources
To what extent were the expected changes in individual healthy lives achieved (impact and outcome)? Disaggregated by State/ LGA, age groups, sex, and other priority groups?	Strong	NDHS 2013 & 2018, literature review, KIIs, HFA, HSA, NHMIS
EQ11.1 Reduction of under-five mortality rate, per key group by high-, transition and low-performing states?		
EQ11.2 Extent to which maternal, newborn and child health have been improved?		
EQ11.3 Extent to which progress have been made in preventing mother-to-child transmission of HIV		
EQ11.4 Have any unplanned or unintended effects (impact) been observed in the delivery of health services in communities or institutional system?		

Diarrhoeal diseases

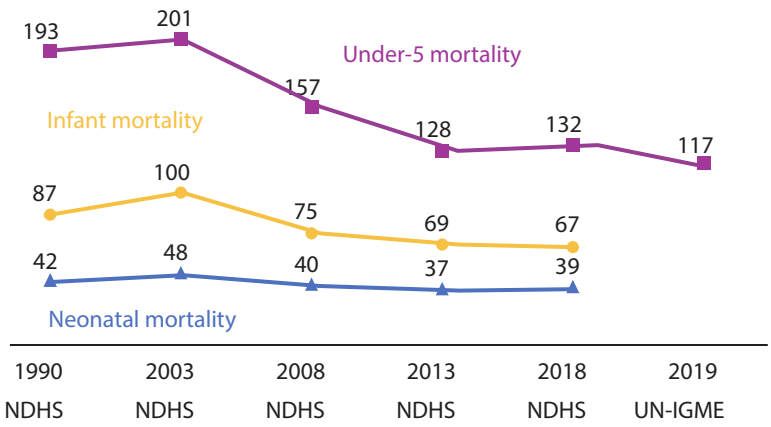
The two-week prevalence of diarrhoeal disease among children under 5 years of age in Nigeria is 13 per cent (NDHS, 2018). Diarrhoea was most common among children in Gombe (35 per cent) and Bauchi (34 per cent). Children aged 6–11 months and 12–23 months were also the group with most diarrhoea (20 per cent in both age groups). In addition, a growing trend is registered for treatment of diarrhoeal diseases with oral rehydration salts over the past decade, from 26 per cent in 2008 to 40 per cent in 2018 as per NDHS data as shown in Figure 4.13.

Pneumonia

In 2018, Nigeria registered 162,000 deaths of children under 5 years of age from pneumonia.[9] This is the highest number to global pneumonia child deaths. By looking at the trends of these diseases over the period 2008–2018 for which data from DHS and MICS are available as shown in Figure 4.13, treatment for pneumonia has more than doubled in the past five years, from 35 per cent in 2013 to 75 per cent in 2018 as reported by the NDHS.

Figure 4.12: Trend of childhood mortality

Deaths per 1,000 live births for the five-year period before the survey



Malaria

With regard to malaria, 23 per cent of children aged 6–59 months tested positive for malaria by microscopy (NDHS, 2018). However, malaria prevalence is higher among rural children (31 per cent) than urban children (13 per cent). As for prevention, among all households in Nigeria, 61 per cent own at least one insecticide-treated net. Children and pregnant women aged 15–49 are the most vulnerable to malaria. More than half of children (52 per cent) and pregnant women (58 per cent) slept under an ITN the night before the survey (NDHS, 2018). Yet, malaria diagnosis among children under 5 years of age remains low at 14 per cent (NDHS, 2018). The use of ITNs among children and pregnant women has improved dramatically since 2008, as shown in Figure 4.13

Child immunizations

Only 31 per cent of children aged 12–23 months have received all eight basics vaccinations – one dose of BCG and measles and three doses each of DPT-HepB-Hib and polio vaccine. In addition, less than half of children (47 per cent) have received the third dose of polio and nearly 1 in 5 children have received no basic vaccinations at all as shown in Figure 4.14

Urban children are twice as likely to have received all basic vaccinations than rural children (44 per cent vs. 23 per cent). Basic vaccination coverage is less than 10 per cent in Zamfara (7 per cent), Kebbi (6 per cent), and Sokoto (5 per cent) states and highest in Anambra (76 per cent). Basic vaccination coverage increases with the mother's level of education and household wealth.

Basic vaccination coverage has gradually increased since 2003 when only 13 per cent of children had received all basic vaccination as shown in Figure 4.14 While basic vaccination coverage has improved, the proportion of children who have received no vaccination has declined from 36 per cent in 1990 to 19 per cent in 2018. Nevertheless, basic vaccination coverage remains low in 2018.

State findings on child mortality and health services

Figure 4.17 shows the geographical distribution of under-five mortality rates, which ranges from 30 deaths per 1,000 live births in Ogun to 252 deaths per 1,000 live births in Kebbi. In terms of probability of childhood mortality, women in the North experience higher levels and have a higher likelihood of having experienced previous childhood mortality than women in the South

Table 4.17 shows key child health indicators by target state group and the national average including under-five mortality rate, diarrhoeal diseases, malaria, acute respiratory infections, vaccination and nutritional status in 2013 and 2018. For the under-five mortality rate, the data revealed that, overall, the country experienced an increase of U5MR from 128 per 1,000 live births in 2013 up to 132 in 2018. For the target state groups, both the high-performing and transition states registered a reduction of

Figure 4.13: Key indicators and trend of treatment for childhood diseases in Nigeria

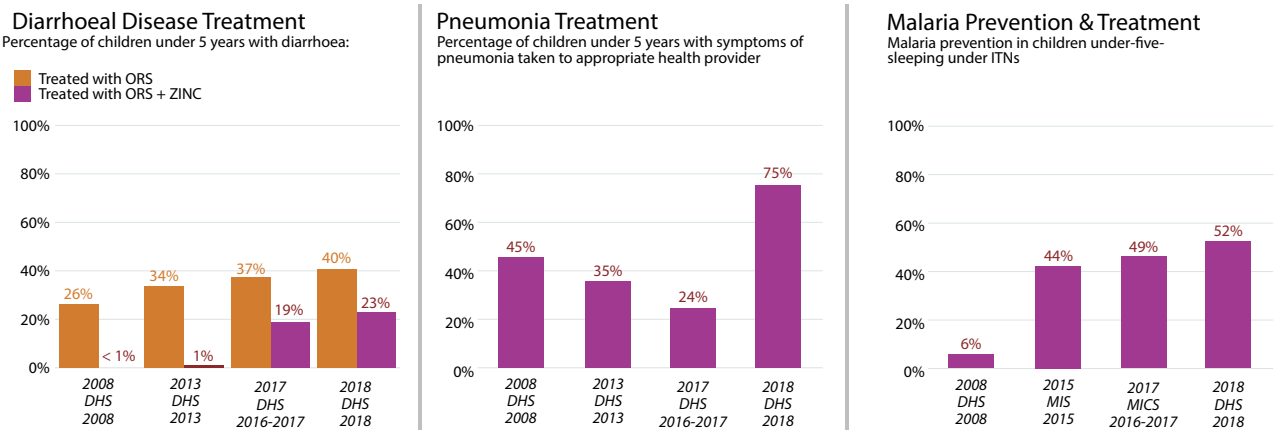
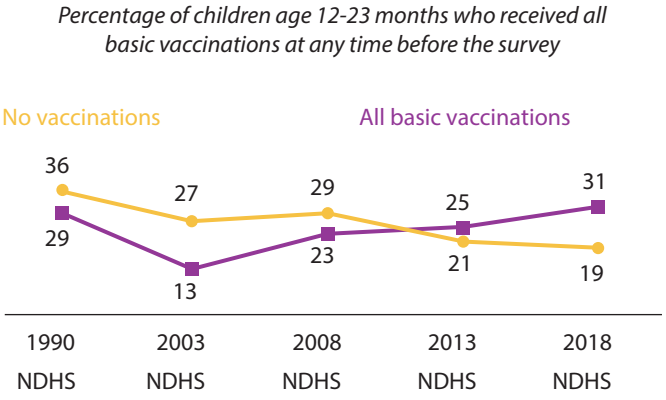


Figure 4.14: Trends in immunization coverage among children in Nigeria 1990-2018



the U5MR while the low-performing states registered an increase from 192 (2013) up to 229 (2018)

Diarrhoeal diseases remained a public health issue among young children in Nigeria over the past decade, with a prevalence averaging 10.2 per cent in 2013 and 12.8 per cent in 2018. A major burden of diarrhoeal diseases is observed in low-performing states with an increasing trend of 14.6 per cent (2013) and 19.4 per cent (2018). In contrast, high-performing and transition states have experienced a much lower prevalence of diarrhoea among young children and with a trend decreasing in both state groups between 2013 and 2018.

Regarding malaria among children under 5 years of age, the seeking of treatment increased significantly across all target state groups, a pattern that was also observed in the national average from 70 per cent in 2013 up to 73 per cent in 2018. As for acute respiratory infections for young children, a similar pattern was observed regarding care-seeking across the board with significant increases in high-performing, transition and low-performing states between 2013 and 2018. This was also reflected in the national average with an increase from 35 per cent (2013) up to 75 per cent (2018). Figure 4.16 depicts the trend of childhood mortality and key predictors by target state group between 2013 and 2018.

With regard to vaccination coverage rates, the data reveals that Nigeria has made moderate progress in all basic vaccination rates between 2013 and 2018 with the exception of polio. The national average of polio3 vaccination decreased from 54 per cent (2013) down to 47 per cent (2018). A similar decrease pattern was observed in the high- and low-performing states but not in the transition state group, where polio3 increased from 52 per

Figure 4.15: Childhood mortality by state in Nigeria

Deaths per 1,000 live births for the 10-year period before the survey

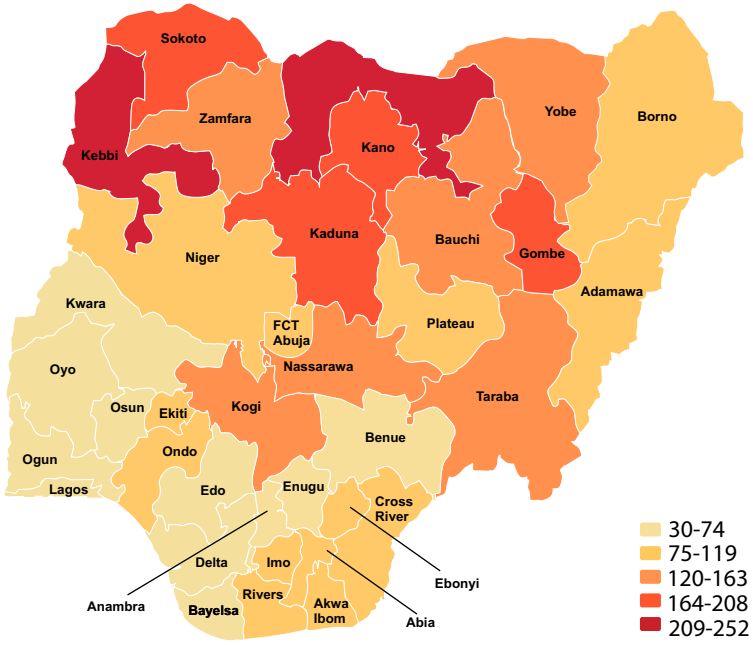


Table 4.15 Key child health and nutrition indicators by target state group and national average, 2013 and 2018

Indicator	High-performing states	Transition states	Low-performing states	National Average				
	Value (95 per cent CI) 2013	Value (95 per cent CI) 2018	Value (95 per cent CI) 2013	Value (95 per cent CI) 2018	Value (95 per cent CI) 2013	Value (95 per cent CI) 2018	Value 2013	Value 2018
U5MR	92.64 (75.61-113.04)	30.14 (21.79-41.56)	156.38 (134.91-180.56)	102.09 (89.68-115.99)	191.5 (165.49-220.51)	229.07 (206.97-252.78)	128	132
Children with diarrhoea	1.85 per cent (1.08-3.16)	0.97 per cent (0.43-2.18)	11.27 per cent (9.36-13.52)	8.68 per cent (6.97-10.77)	14.61 per cent (12.49-17.02)	19.40 per cent (16.91-22.17)	10.2 per cent	12.8 per cent
Advice or treatment sought for children with diarrhoea	24.50 per cent (6.29-61.07)	89.38 per cent (52.74-98.45)	30.55 per cent (21.85-40.91)	62.64 per cent (49.34-74.29)	22.92 per cent (17.52-29.40)	68.79 per cent (64.34-72.92)	28.9 per cent	64.9 per cent
Children with diarrhoea who received ORS	15.15 per cent (5.29-36.35)	79.57 per cent (23.98-97.96)	37.63 per cent (27.98-48.38)	50.65 per cent (39.94-61.30)	18.79 per cent (12.30-27.63)	29.35 per cent (24.75-34.43)	33.7 per cent	40.0 per cent
Children with diarrhoea who received ORS and zinc	0.00 per cent (N/A)	63.53 per cent (21.80-91.59)	3.02 per cent (0.96-9.09)	33.17 per cent (22.27-46.24)	0.74 per cent (0.10-5.34)	14.51 per cent (11.28-18.46)	1.37 per cent	22.8 per cent
Children with fever (presumed malaria)	2.55 per cent (1.65-3.91)	6.23 per cent (4.76-8.12)	19.13 per cent (15.76-23.04)	23.90 per cent (20.32-27.89)	12.08 per cent (9.38-15.43)	38.16 per cent (35.34-41.07)	12.5 per cent	24.2 per cent

Advice or treatment sought for children with fever (presumed malaria)	18.63 per cent (7.23-40.21)	84.10 per cent (73.89-90.81)	24.87 per cent (18.00-33.31)	61.68 per cent (56.71-66.42)	37.12 per cent (30.34-44.44)	77.31 per cent (72.22-81.71)	70.1 per cent	72.8 per cent
Children with symptoms of ARI	1.48 per cent (0.68-3.17)	1.38 per cent (0.82-2.32)	5.25 per cent (3.91-7.02)	5.85 per cent (4.71-7.26)	3.63 per cent (2.32-5.63)	7.15 per cent (5.44-9.35)	2.0 per cent	2.6 per cent
Advice or treatment sought for children with ARI	22.52 per cent (6.62-54.35)	94.21 per cent (73.43-98.97)	29.79 per cent (18.35-44.48)	74.42 per cent (63.94-82.68)	47.24 per cent (34.28-60.58)	84.67 per cent (75.34-90.89)	34.5 per cent	74.5 per cent
BCG	81.30 per cent (75.10-86.24)	71.60 per cent (64.27-77.95)	79.89 per cent (71.71-86.16)	92.82 per cent (88.95-95.40)	17.26 per cent (11.23-25.61)	32.04 per cent (25.34-39.59)	51.2 per cent	66.7 per cent
DPT3/Penta3*	59.59 per cent (52.33-66.44)	51.55 per cent (42.78-60.22)	62.02 per cent (52.14-71.00)	74.10 per cent (67.70-79.61)	13.09 per cent (7.50-21.87)	16.42 per cent (12.00-22.07)	38.2 per cent	50.1 per cent
Polio3	39.39 per cent (30.83-48.65)	30.53 per cent (22.91-39.37)	51.66 per cent (41.56-61.63)	60.97 per cent (55.03-66.61)	64.02 per cent (56.06-71.27)	31.35 per cent (25.28-38.12)	53.6 per cent	47.2 per cent
Measles	56.43 per cent (48.95-63.63)	57.60 per cent (47.45-67.16)	55.22 per cent (45.41-64.64)	64.76 per cent (57.87-71.08)	13.37 per cent (7.81-21.95)	31.18 per cent (25.07-38.02)	42.1 per cent	54.0 per cent
All vaccines	31.07 per cent (23.35-40.01)	21.58 per cent (14.56-30.77)	38.81 per cent (28.40-50.34)	42.73 per cent (35.93-49.82)	8.89 per cent (5.19-14.82)	10.82 per cent (7.51-15.33)	25.3 per cent	31.3 per cent
No vaccines	14.04 per cent (9.84-19.64)	18.93 per cent (13.08-26.58)	16.66 per cent (11.12-24.20)	4.26 per cent (2.42-7.40)	21.13 per cent (15.23-28.53)	26.24 per cent (20.58-32.81)	20.7 per cent	19.2 per cent
Stunting (HFA, -2SD)	22.97 per cent (19.65-26.66)	26.19 per cent (21.26-31.80)	22.99 per cent (19.04-27.48)	27.29 per cent (23.53-31.41)	56.08 per cent (51.24-60.80)	60.05 per cent (55.44-64.49)	36.8 per cent	36.8 per cent
Wasting (WFH, -2SD)	8.86 per cent (7.18-10.88)	4.72 per cent (3.05-7.22)	10.22 per cent (8.59-12.12)	4.89 per cent (3.62-6.56)	16.75 per cent (14.56-19.19)	10.42 per cent (7.86-13.69)	18.0 per cent	6.8 per cent
Underweight (WFA, -2SD)	16.32 per cent (13.10-20.14)	15.60 per cent (12.17-19.79)	15.55 per cent (13.32-18.07)	17.37 per cent (14.36-20.87)	36.56 per cent (32.36-41.09)	39.78 per cent (35.32-44.43)	28.7 per cent	21.8 per cent

Figure 4.16: Child mortality rate and key predictors of child mortality by target state group, 2013-2018

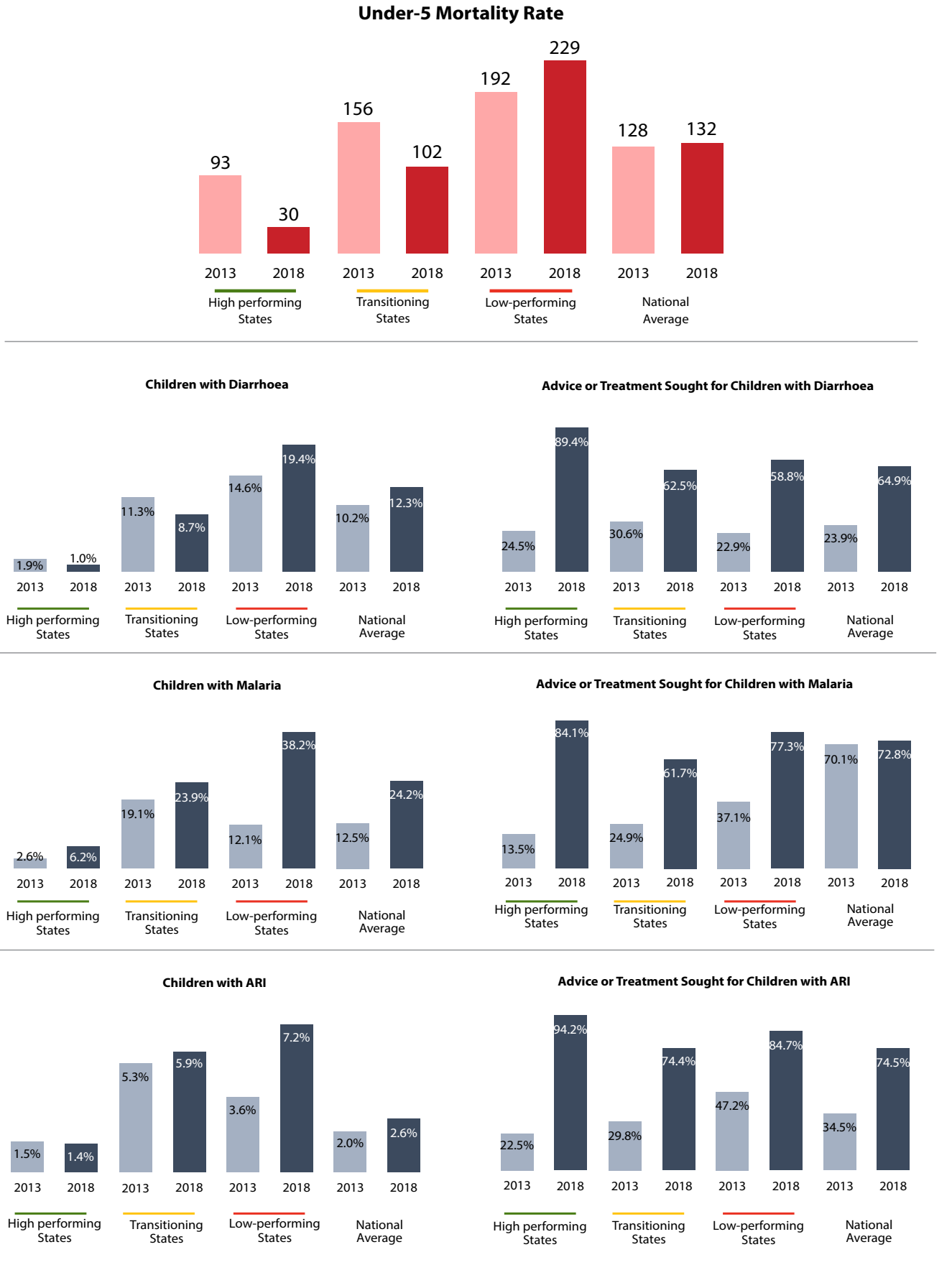
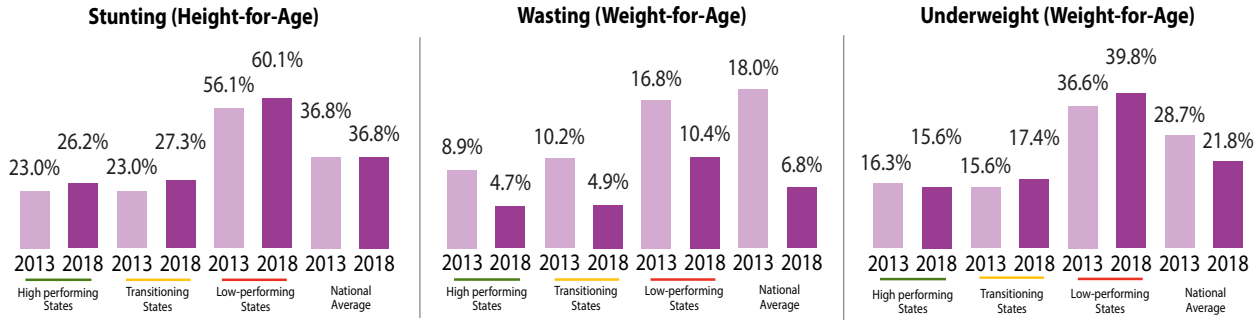


Figure 4.17: Vaccination rate among children 12-23 months by target state group, 2013-2018

Figure 4.18: Nutritional status of children 6-59 months by target state group, 2013-2018



cent to 61 per cent for the same reporting period. Figure 4.17 depicts vaccination coverage for children aged 12–23 months by target state group between 2013 and 2018.

Nutrition among young children

As for nutritional status of children under 5 years of age, NDHS data shows that the country did not make any progress in reducing the stunting rate (-2 SD) as the national average was measured at 36.8 per cent in both 2013 and 2018. In all three groups of states, stunting rates deteriorated between 2013 and 2018 with low-performing states measuring 56.1 per cent in 2013 and 60.1 per cent in 2018. A similar pattern was observed for underweight (-2 SD) across the state groups, although the national average registered a reduction by almost seven percentage points. On the other hand, wasting rates decreased across the board for all state groups and the national average. Figure 4.18 shows the trend of key nutritional status indicators for young children between 2013 and 2018.

Maternal mortality in Nigeria

The 2018 NDHS asked women about the deaths of their sisters to determine maternal mortality in Nigeria. Maternal mortality includes deaths of women during pregnancy, delivery and 42 days after delivery excluding deaths that were due to accidents or violence. The maternal mortality ratio for Nigeria is 512 deaths per 100,000 live births for the seven-year period before the survey. The confidence interval for the 2018 MMR ranges from 447 to 578 deaths per 100,000 live births.

As pregnancy-related complications are the main contributor to maternal deaths, Figure 4.19 shows the trends of pregnancy-related maternal mortality ratio per 100,000 live births that occurred in the past 18 years in Nigeria.[10] Although the trend shows a decline from 576 deaths per 100,000 live births reported in 2013 to 556 deaths in 2018, the confidence intervals overlap, and therefore the difference between 2013 and 2018 estimates is not statistically significant. This confirms that Nigeria has not made any significant reductions of MMR since 2001.

Maternal health services in Nigeria

Antenatal care.

Two thirds of women aged 15-49 years received ANC from a skilled provider (doctor, nurse, midwife, or auxiliary nurse/midwife), most commonly from a nurse/midwife (48 per cent). Only 18 per cent of women have their first ANC visit in the first trimester as recommended. More than half of women (57 per cent) had four or more ANC visits. ANC coverage has improved since 1990 as more women attend ANC with a skilled provider, as shown in Figure 26.

Delivery and postnatal care

Nearly 4 in 10 births (39 per cent) are delivered in a health facility, primarily in public sector facilities. Still, 59 per cent of births are delivered at home. Women with more than secondary education (88 per cent) and those from the wealthiest households (80 per cent) are most likely to deliver at a health facility.

Health facility deliveries have slowly increased since 1990 when 32 per cent of births were delivered in a health facility, as shown in Figure 4.20. Overall, 43 per cent of births are assisted by a skilled provider. The majority of births are delivered by a nurse/midwife (32 per cent). Women with more than secondary education (93 per cent), and those living in the wealthiest households (87 per cent) are most likely to receive delivery assistance from a skilled provider.

Skilled assistance during delivery increased slightly from 32 per cent in 1990 to 39 per cent in 2018, as shown in Figure 27. More than 4 in 10 (42 per cent) women aged 15–49 years received a postnatal check within two days of delivery, while 56 per cent did not have a postnatal check within 41 days of delivery. In addition, 38 per cent of newborns received a postnatal check within two days of birth, while 60 per cent did not have a postnatal check.

Mother-to-child transmission of HIV

Approximately 940,000 women aged 15 and over, and 150,000 children aged 0–14 years are currently infected with HIV in Nigeria. 46,000 new HIV infections and 13,000 deaths occur among women aged 15 and over every year. Similarly, children aged 0–14 account for 22,000 new HIV infections and 13,000 deaths due to this illness every year (UNAIDS, Nigeria HIV statistics, 2019).
Nigeria continues to have significant gaps in case-finding among HIV+ pregnant women. The annual estimate for this population remains about 150,000, with fewer than 30 per cent (about 41,000) reported nationally to have received ARVs. There are still gaps and challenges in integrating PMTCT services into existing reproductive health programmes thereby limiting the implementation of a full comprehensive PMTCT package at various service delivery points. For example, only 10–20 per cent of ANC sites offer PMTCT services (PEPFAR, 2020). Due to this limited coverage, only 27 per cent of newborns of HIV+ mothers receive early infant diagnosis.

The 2018 NDHS found that women are more likely than men to be aware of all three means of HIV transmission (57 per cent versus 52 per cent). About two thirds (64 per cent) of women know that HIV can be transmitted during pregnancy, 69 per cent know that it can be transmitted during delivery, and 78 per cent know that it can be transmitted through breastfeeding. Among men, 61 per cent know that HIV can be transmitted during pregnancy, 64 per cent know that it can be transmitted during delivery, and 69 per cent know that it can be transmitted during breastfeeding (see Figure 4.22). Moreover, the percentage of women who know that MTCT can be reduced by taking special medications increased from 53 per cent in 2013 to

Figure 4.19: Trends in pregnancy-related mortality ratio with confidence intervals

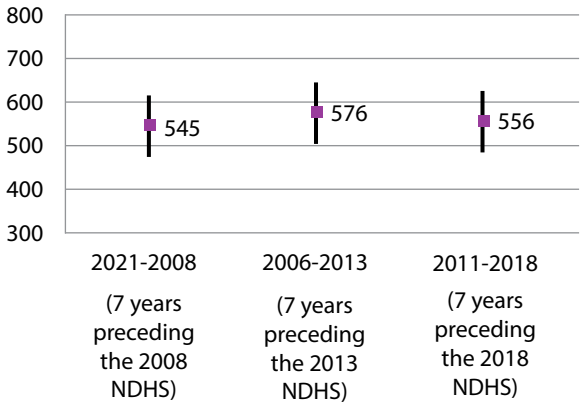


Figure 4.20: Trends in place of live births, 1990-2018

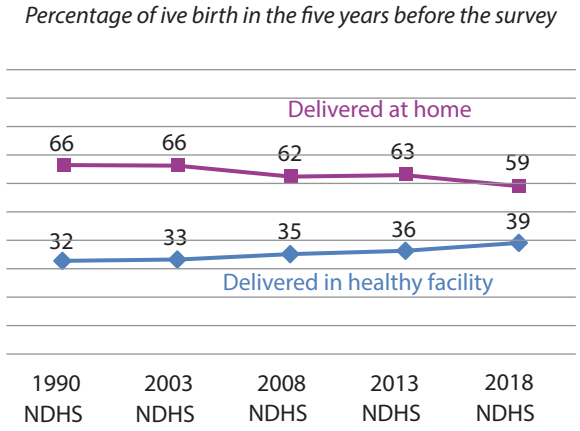


Figure 4.21: Trends in antenatal care and health facility delivery, 1990-2018

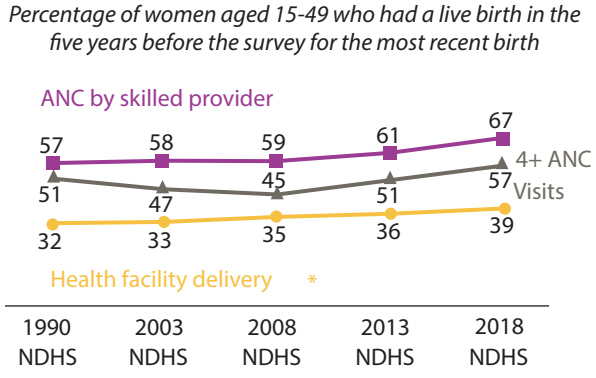


Figure 4.22: Knowledge of mother-to-child transmission (MTCT) of HIV

Percentage of women and men aged 15-49 who know that HIV can be transmitted from mother to child

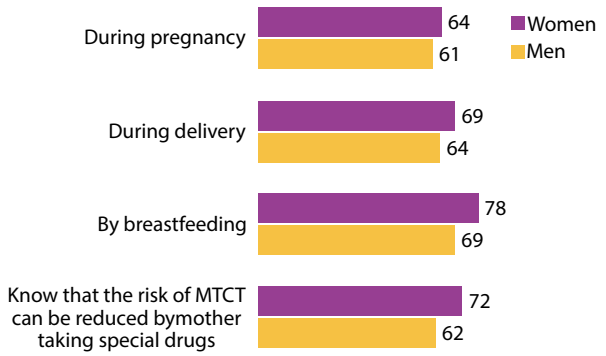
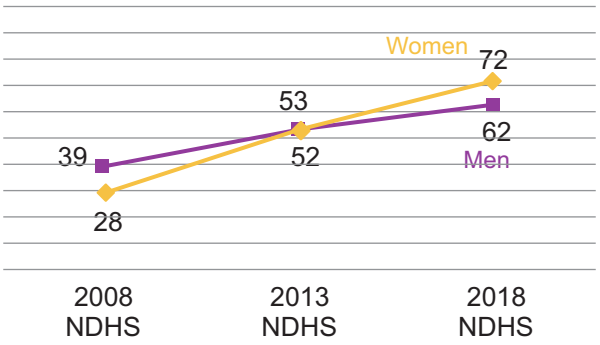


Figure 4.23: Trends in knowledge of mother-to-child transmission (MTCT) of HIV

Percentage of women and men aged 15-49 who know that the risk of MTCT can be reduced by mother taking special drugs



72 per cent in 2018. The percentage among men increased from 52 per cent to 62 per cent over the same period (see Figure 4.23).

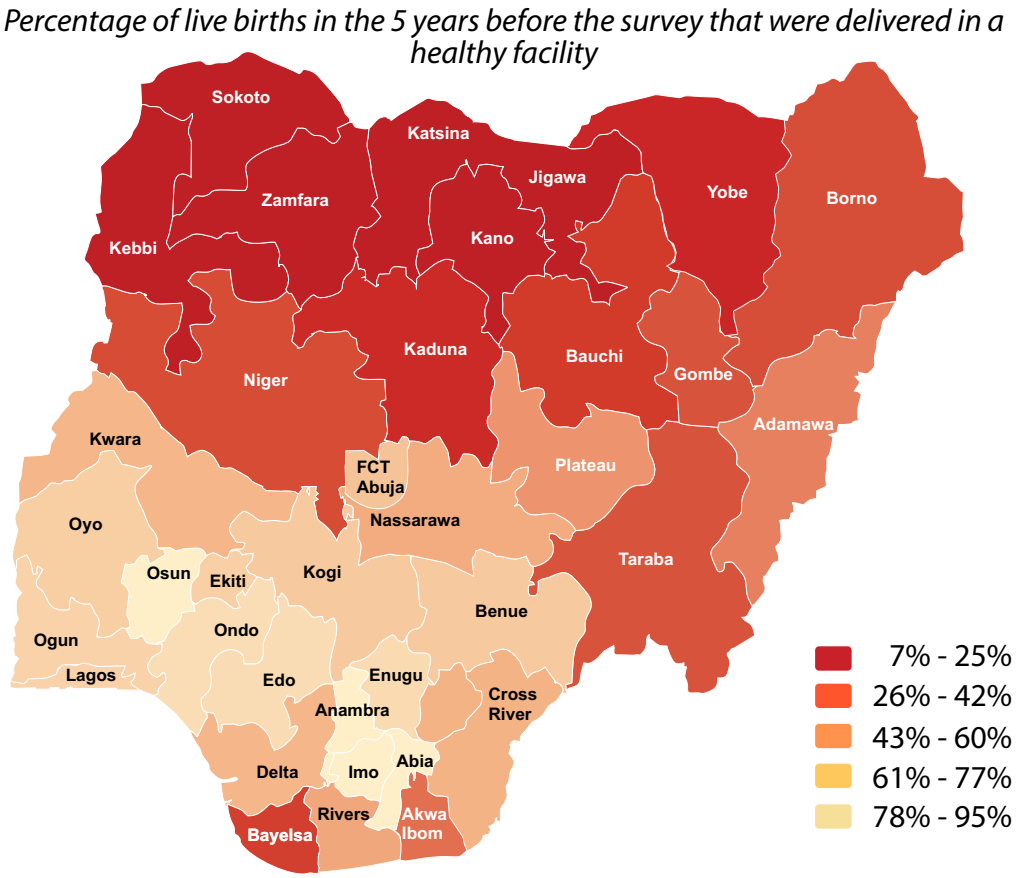
State findings on maternal mortality and health services

Overall across the country, data from NDHS 2018 confirmed the persistent difference between the north and the south when it comes to overall health status of mothers. As shown in Figure 30, facility deliveries are lower in the North-West (16 per cent) and highest in the South-East (82 per cent). By state, the percentage of facility deliveries ranges from 7 per cent in Kebbi to 95 per cent in Imo.

Table 4.16 shows a summary of key maternal health key indicators by target state group and the national average for 2013 and 2018.

This comparison across target state groups reveals significant trends of maternal health outcomes in Nigeria. With regard to maternal mortality, high-performing and transition states reported decreases in MMR between 2013 and 2018; yet this was not the case for low-performing states, where the MMR increased significantly from 1,065 (2013) up to 1,643 (2018) although with lower statistical significance due to overlapped confidence intervals. However, the MMR in low-performing states is three times higher than the national average in 2018. This demonstrates

Figure 4.24: Health facility births by state, 2018



that low-performing states are contributing significantly to the MMR in Nigeria. A similar scenario is observed with skilled birth attendance, where low-performing as well as high-performing states have registered decreases between 2013 and 2018.

As for malaria in pregnancy, the data revealed increases in the prevention of malaria. In all three target state groups, the trends demonstrate an increase in the use of intermittent preventive treatment of malaria in pregnancy with three or more doses of Sulfadoxine/pyrimethamine SP/Fansidar to prevent malaria episodes, maternal and fetal anaemia, placental parasitaemia, low birth weight, and neonatal mortality. As overall malaria indicators have improved significantly over the past decade in Nigeria, this is most likely as a result of significant health budgets and health expenditure in malaria prevention and treatment as revealed in the health financing indicators shown in the previous section of health financing analysis.

With regard to contraception use in the three target state groups, the data reveals some mixed findings. While both high-performing and transition state groups registered decreases in the use of any contraception as well as modern methods, the low-performing state group registered statistically significant increases in both methods between 2013 and 2018. Yet, the overall rate of contraception use remains low at 16.6 per cent for any method and at 12.0 per cent for modern contraceptive methods in 2018. Figure 4.27 depicts the trends of MMR and key predictors of maternal deaths in Nigeria by target state group between 2013 and 2018.

Health facility performance in maternal care

Table 4.17 shows the prenatal care, birth deliveries and childhood vaccinations provided by the 60 health facilities (visited by the evaluation team) from 1 January to 31 December 2019.

Table 4.16. Key maternal health indicators by target state group and national average, 2013 and 2018

Indicator	High-performing states	Transition states	Low-performing states	National Average				
	Value (95 per cent CI) 2013	Value (95 per cent CI) 2018	Value (95 per cent CI) 2013	Value (95 per cent CI) 2018	Value (95 per cent CI) 2013	Value (95 per cent CI) 2018	Value 2013	Value 2018
MMR	262 (115-600)	166 (60-460)	420 (256-690)	227 (117-439)	1,065 (628-1,810)	1,643 (1,253-2,154)	576 (500-652)	556* (484-629)
Skilled birth attendance	38.67 per cent (34.65-42.86)	31.23 per cent (28.63-33.95)	24.72 per cent (21.76-27.93)	26.94 per cent (24.05-30.03)	10.06 per cent (7.57-13.26)	6.32 per cent (5.00-7.96)	38.1 per cent	43.3 per cent
Any antenatal care attendance	83.79 per cent (78.80-87.79)	76.43 per cent (71.69-80.59)	76.54 per cent (69.98-82.03)	73.01 per cent (68.41-77.16)	35.27 per cent (26.35-45.35)	26.85 per cent (22.40-31.82)	60.6 per cent	67.0 per cent
Facility delivery	64.97 per cent (58.55-70.90)	61.68 per cent (55.53-67.49)	52.61 per cent (45.67-59.46)	52.25 per cent (45.71-58.70)	15.70 per cent (12.04-20.22)	16.76 per cent (13.41-20.74)	35.8 per cent	39.4 per cent
Postnatal Check within 2 Days	20.79 per cent 16.33-26.09)	63.24 per cent (57.54-68.59)	15.50 per cent (12.22-19.47)	47.70 per cent (41.86-53.61)	8.03 per cent (4.83-13.06)	23.84 per cent (19.22-29.18)	39.6 per cent	41.8 per cent
Anaemia (moderate)	n/a	25.32 per cent (20.97-30.24)	n/a	42.89 per cent (38.66-47.22)	n/a	33.04 per cent (28.78-37.59)	n/a	28.4 per cent
Use of IPTp (3+ doses SP/ Fansidar)	10.65 per cent (6.98-15.92)	17.23 per cent (13.11-22.32)	10.74 per cent (8.04-14.22)	20.61 per cent (17.62-23.96)	3.34 per cent (2.26-4.90)	8.95 per cent (6.87-11.59)	5.8 per cent	16.6 per cent
Current contraception use								
Any method	22.01 per cent (18.47-26.00)	20.86 per cent (17.40-24.79)	15.52 per cent (11.92-19.97)	7.92 per cent (6.03-10.33)	1.95 per cent (1.17-3.21)	7.17 per cent (6.10-8.41)	15.1 per cent	16.6 per cent
Modern method	18.30 per cent (15.26-21.78)	11.98 per cent (9.71-14.69)	10.00 per cent (7.83-12.70)	6.71 per cent (5.07-8.83)	1.83 per cent (1.09-3.07)	6.78 per cent (5.68-8.09)	9.8 per cent	12.0 per cent

What the 2018 NDHS defines as a pregnancy-related death had been labelled a maternal death in prior NDHS surveys.
Source: 2013 and 2018 NDHS.

Findings from the health situation assessment conducted at health facilities in the six target states revealed that only a minority of women registered for prenatal care services have their birth at the health facility. This is lowest in the transition states (21 per cent), followed by the low-performing states (26 per cent). However, only 45 per cent of registered prenatal patients in high-performing states use the health facilities to give birth.

In addition, the number of mothers who bring their children for vaccinations is much higher than the users of prenatal care and birth delivery.

This attendance dichotomy –low attendance for maternal care, high attendance for child immunizations– shows that the challenges that mothers face to give birth (or have prenatal care) at health facilities are intrinsic to these

Figure 4.25: Maternal mortality ratio and key predictors of mortality by target state group, 2013-2018

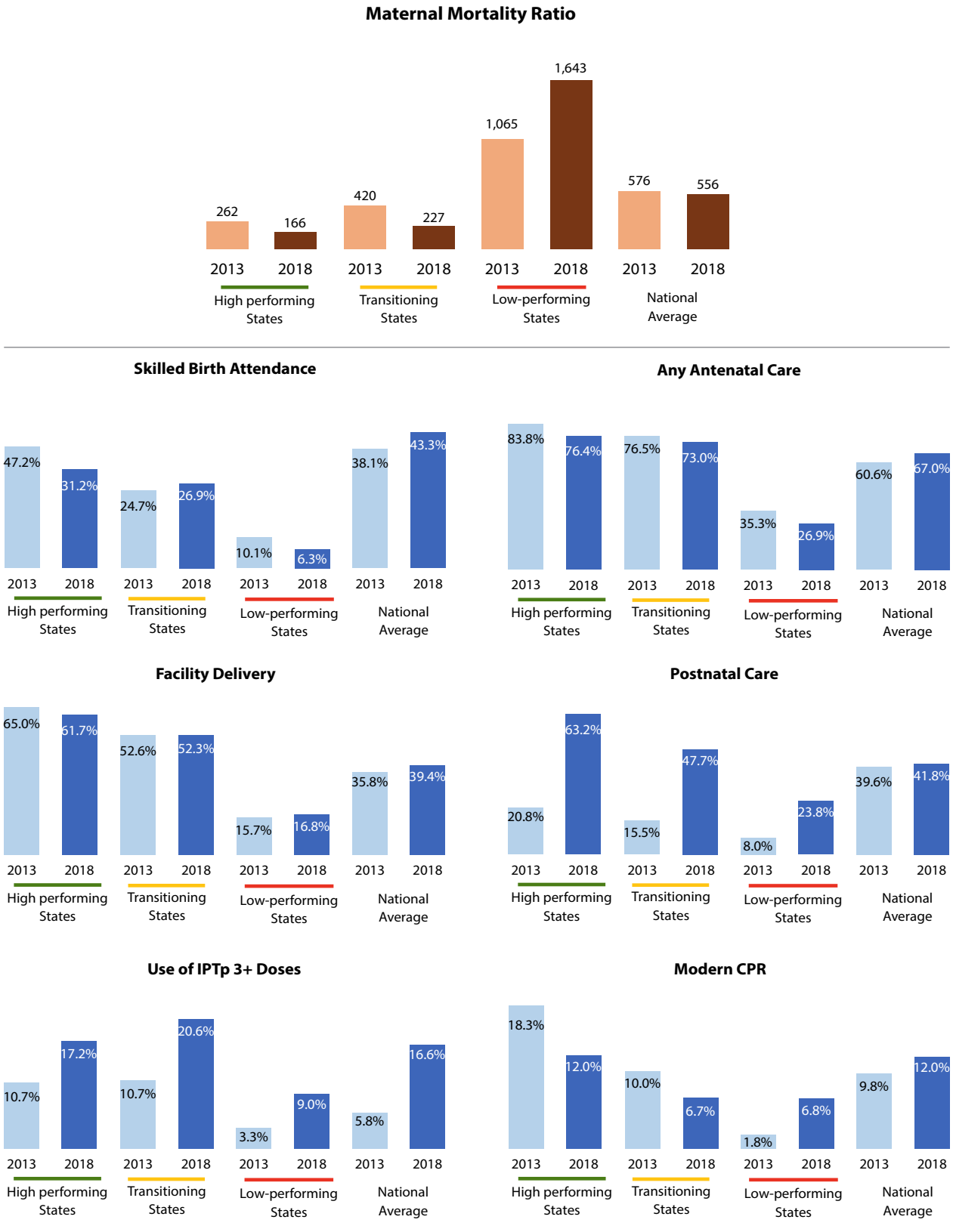


Table 4.17. Maternal health services at health facility

Maternal and newborn health indicator	High-performing states	Transition states	Low-performing states
Prenatal patients registered	3,395	16,321	37,044
Total births at health facilities	1,521	3,469	9,791
per cent of registered prenatal patients who gave birth at health facilities	45 per cent	21 per cent	26 per cent
Number of newborns who received their first eight-week vaccination	8,647	8,581	12,086

interventions, and probably related to cultural reasons or quality of care. Here is some evidence collected during the field visits.

High-performing states:

- In Bayelsa State, it was reported that some pregnant women patronize the TBA during delivery due the following reasons: distance to the facilities; some of the PHCs not operating at night and during weekends; and facilities not having good equipment and skilled personnel such as doctors and nurses/wives.
- In Ogun State, most of the pregnant women do not trust the facilities handling of deliveries. Most antenatal patients prefer going to private hospitals, TBA, faith-based hospitals and spiritual houses but later return to the facilities for immunization.

Transition states:

- In Nasarawa State, most deliveries were done by the TBA in the communities and the general complaints are around financial and transportation constraints.
- In Ebonyi State, most deliveries were done by the TBA and some women complained about finances. Secondly, some women register for prenatal care but go to private facilities because they do not trust the PHCs to conduct deliveries effectively, and because of the poor standards of the PHCs.

Low-performing states:

- In Kebbi and Gombe States, most women deliver at home with the help of their older relatives and at the home of the TBA. Their main reasons for home delivery are the long distance to the PHCs as they reside in hard-to-reach communities, transportation, and financial challenges.

The findings from the health situation assessment at health facilities are also consistent with data from the 2018 NDHS (see Figure 4.26). More than 50 per cent of women with recent pregnancies had prenatal care with a skilled provider (except the low-performing states), but only a fraction of them had birth delivery with him/her. This fraction was smaller in the low-performing states.

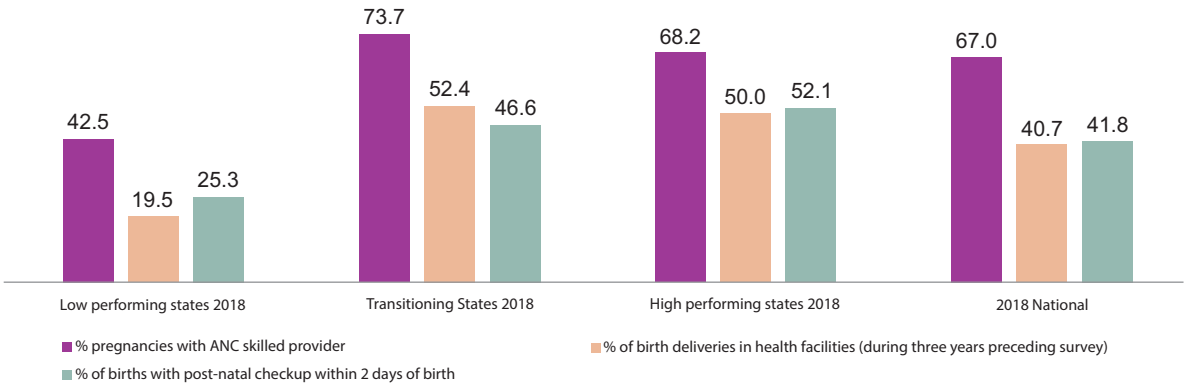
It is important to note that the percentage of pregnancies with timely postnatal care is similar or higher than the percentage of those with birth delivery, suggesting that there are no significant challenges in the transition from birth delivery to postnatal care.

Obstetric and neonatal complications, patient referrals and deaths.

The obstetrical complication cases reviewed were eclampsia, severe malaria during pregnancy, antepartum haemorrhage, dysfunctional labour, uterine rupture, post-partum haemorrhage, post-partum infection, premature births and babies born dead. A total of 1,148 obstetrical and neonatal complication cases were recorded during the reviewed period of 1 January–31 December 2019 in the 60 facilities visited across the six surveyed states.

The low-performing states recorded the highest number of cases observed (805), with babies born dead being the leading cause (36 per cent) and uterine rupture being the least cause of obstetrical complications observed (1 per cent). As mentioned earlier, most deliveries were conducted at home and in the case of deliveries done by TBA; where complications arise, these women are rushed to the facilities and in most cases the newborn would have been dead on arrival. At the state level, Gombe State saw more cases (466) when compared to Kebbi State (339). Similarly, stillbirths were observed as the prime cause of obstetrical complications in the high-performing (26 per cent) and transition states (33 per cent).

Figure 4.26: Population use of antenatal care, birth delivery and postnatal care, 2018



In Ebonyi State, the main reasons why babies are born dead include: complications arising from prolonged labour, lack of competent hands at the PHCs, delayed referrals, and complication arising from delivery at the TBA. Dysfunctional labour was due to poor attendance at ANCs, most women do not register until they are close to their delivery date. In Nasarawa State, complications arising during delivery by the TBA results in babies being born dead at the facilities. Antepartum haemorrhage is reportedly caused by infection and stress. Severe malaria during pregnancy is as a result of failure on the part of the women to adhere to IPT.

Further findings showed that both low-performing and high-performing states recorded the highest and lowest number of stillbirths observed. Kebbi State recorded the highest number of stillbirths (209) while Ogun record the lowest number of babies born dead (3) during the period reviewed. The reason for the low number of stillbirths in Ogun is most likely due to the constant monitoring and supervisory visits to the general hospital and high-volume PHCs to assess maternal and perinatal death surveillance and response, and the identification of causes of previous stillbirths. The two main reasons for stillbirths are not enough skilled birth attendants in the facilities to manage obstetrical complications according to clinical guidelines, and the lack of resuscitation equipment. In addition, most women prefer to deliver at home and when complication arises the newborn would have been dead before arrival at the facility.

Table 4.18 suggests the high importance of patient referrals in the survival of mothers and newborns. In both the high-performing and transition states, patient referrals were frequent. Indeed, patients without complications might have been referred to higher-level facilities. But the payoff was substantial, only 4 per cent of complications in both sets of states resulted in obstetric or neonatal death. In the low-performing states, only 15 per cent of complications were referred and probably as a consequence, 6 per cent of the complications became deaths.

Conclusion

Although there is considerable effort by national health programmes to increase access to health services, there are also strong barriers in the delivery of those services, mainly linked to the quality of care and availability of equipment and essential medicines. On the population side, the barriers are economic, referral and counter-referral systems, and cultural and health-seeking behaviours.

Quality of care

Missed opportunities to provide services is an important dimension of quality of care.

Missed opportunities are frequent and important in both maternal and child health in Nigeria. Two important examples are immunization coverage and antenatal care services.

As reported in the 2018 NDHS, Figure 4.27 shows that as each dose of vaccine is administered, the possibility of reaching the child for an additional dose decreases. Thus,

Table 4.18. Neonatal referrals and deaths by target state group

Obstetric and neonatal health indicator	High-performing states	Transition states	Low-performing states	Total for all states (N)
Total number of obstetric and neonatal complications	76	267	805	1,148
Total number of obstetric and neonatal referrals	114	281	118	513
per cent of complications which were referred	150 per cent	105 per cent	15 per cent	45 per cent
Number of obstetric and neonatal deaths	3	10	46	59
per cent of complications which resulted in death	4 per cent	4 per cent	6 per cent	5 per cent

Evaluation Question (Impact)	Likely strength of evidence	Data source
Have any effects been observed that enable or constrain the achievement of the objectives and targets of the selected health interventions? What are these?	Strong	Literature review, NHMIS, NDHS 2013 & 2018, HSA, HFA, KIIs

while 74 per cent of children got the Polio 1 vaccination, only 31 per cent got all basic immunizations.

Figure 4.30 shows the missed opportunities during antenatal care, also using the results of the 2018 NDHS. While these findings show a significant improvement in not missing opportunities to provide services in compared with the 2013 NDHS, important gaps continue to persist especially with the administration of TT2+. Missed opportunities with the administration of IPT are less frequent. It is important to note that in low-performance states, the coverage of IPT administration is much larger than antenatal care attendance suggesting the existence of community-based distribution mechanism of Fansidar. Finally, there is the generalized decrease in coverage between the attendance of antenatal care and birth delivery, which is most pronounced in low-performing states.

Another missed opportunity is the case-finding among HIV+ pregnant women; the annual estimate for this population remains about 150,000, with only about 41,000 reported nationally to have received ARVs. This reflects the huge gap in the coverage of prevention of mother-to-child transmission of HIV services in the country, with just 10–20 per cent of ANC sites offering PMTCT services (PEPFAR, 2020).

Another missed opportunity is the lack of malaria testing when a child under 5 years of age with fever seeks care outside the home. The graph below, using the results of the 2018 NDHS, shows that the less than 50 per cent of children with fever seek care outside the home. Early care-seeking is more frequent in high-performing states, possibly reflecting increased access to private health providers. The 2018 NDHS disclosed that private chemists were the most important source of care (public or private) for children with fever.

Figure 4.29 also shows that the majority of children with fever with care outside their home were not tested for malaria, although it is the standard procedure for malaria diagnosis. Use of blood malaria testing is more frequent in high-performance states, possibly reflecting increased access to health providers equipped with the malaria testing equipment.

A second important dimension of quality care is the operation of a patient transport and referral system. During the Health Facility Assessment of the 60 visited health facilities, the average distance to the referral hospital/facility was approximately 15km, with 2km being the minimum distance and 200km being the maximum distance across the six surveyed states. The facility with the farthest distance (200km) to a referral facility (FMC Yenagoa) is located across the river in Bayelsa State and is only accessible by boat or canoe. This distance was measured using GPS. Average distances recorded for high-, transition and low-performing states are 13km, 14km and 17km respectively (Figure 4.30).

Figure 4.27: Basic immunization coverage, 2018

Percentage of children age 12-23 months vaccinated at any time before the survey

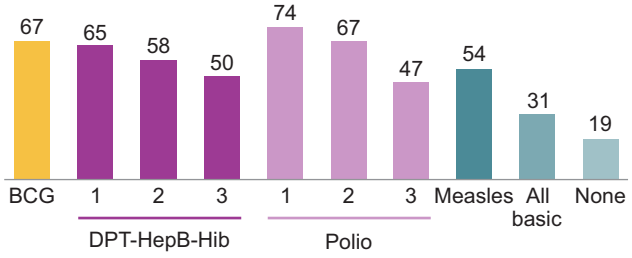


Figure 4.28 : Missed opportunities during antenatal care by target group

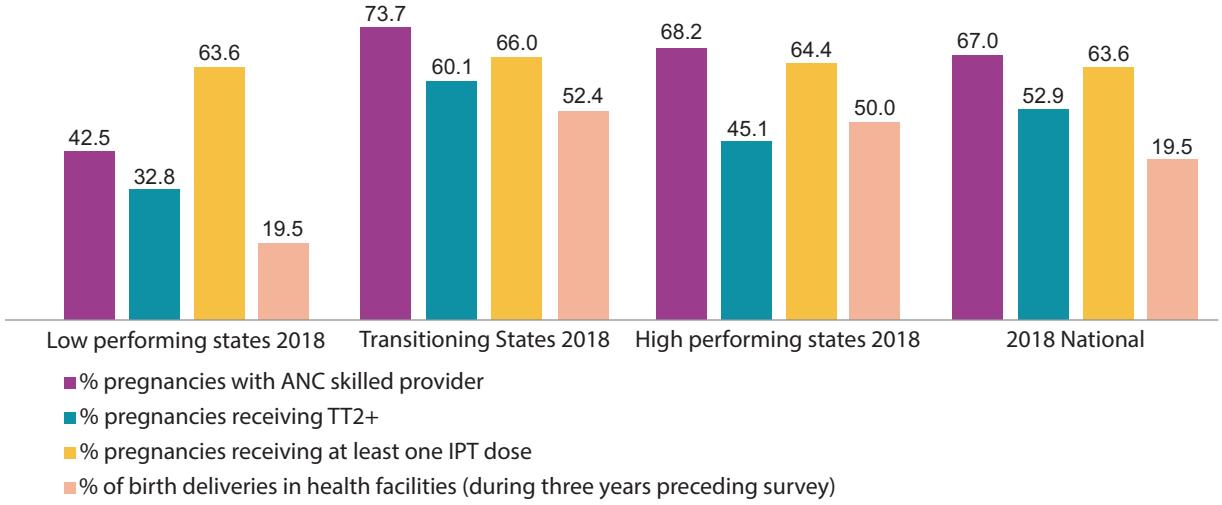


Figure 4.29: Malaria testing by target state group

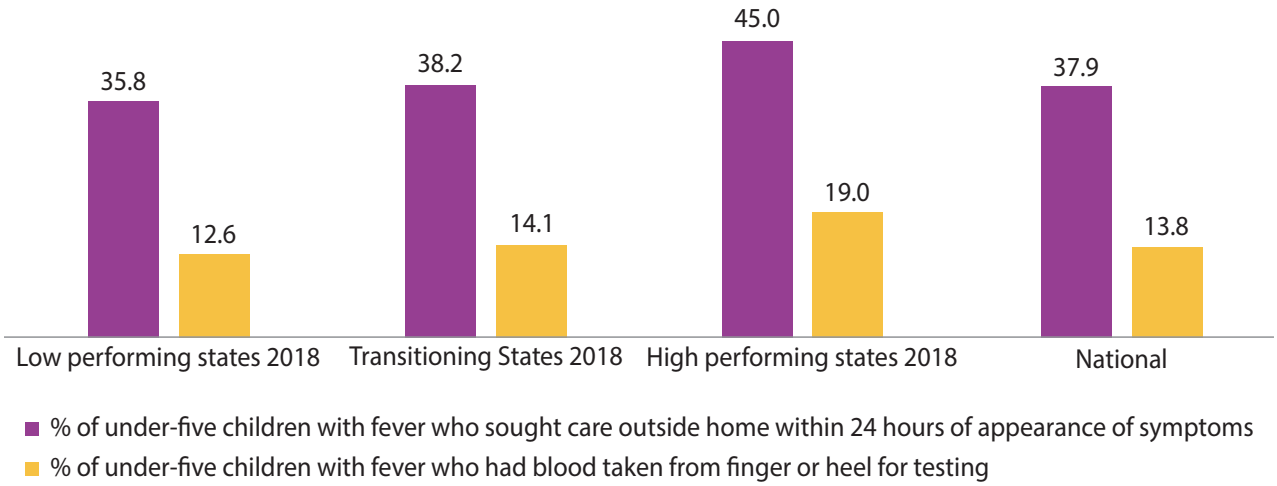


Figure 4.30: Average distance to referral facilities (km)

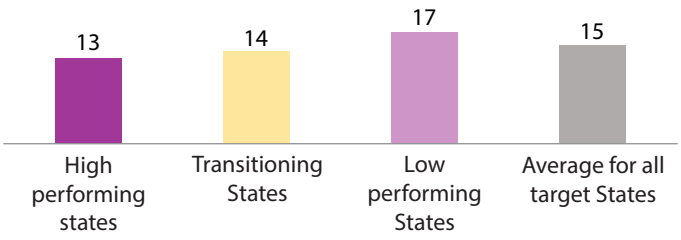
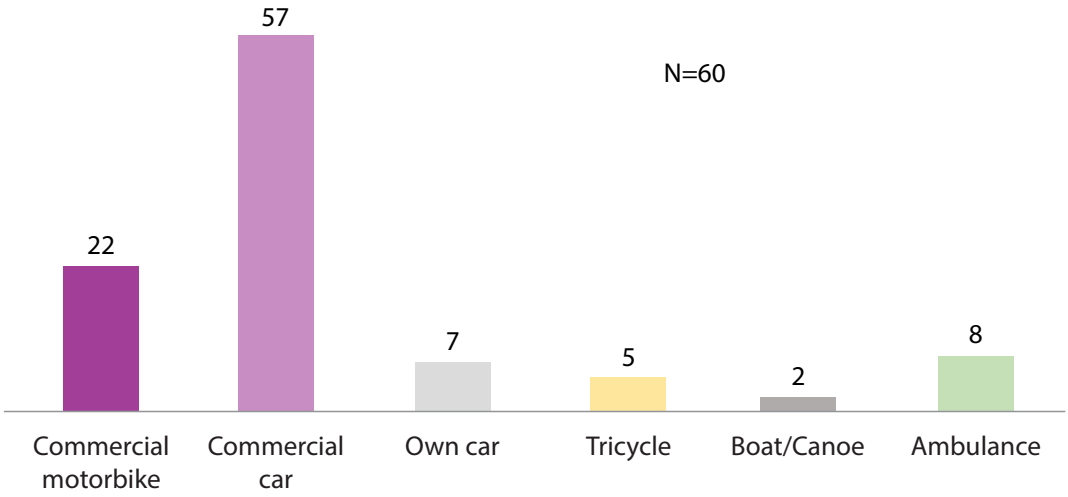


Figure 4.31: Proportion of transportation system used to referral facility across six target states



Across the surveyed states, patients' means of transportation to the referral facilities were mostly commercial cars/ trucks (57 per cent), followed by commercial motorbikes (22 per cent) and facility ambulance (8 per cent), as shown in Figure 4.31.

Going by the standards on referral systems, ambulance services should be available as a means of transportation for referral at the health facilities (NPHCDA, 2015). However, less than 10per cent of the facilities used ambulances as a means of transportation to referral facilities. The inadequate provision of facility ambulance had made most patients rely on commercial vehicles as the main means of transport to the referral facility. When disaggregated by state categorization, facility ambulance accounted for 15 per cent in high-performing states and 10 per cent in low-performing states while there were none reported in the transition states. Most facilities in Nasarawa, Kebbi, Bayelsa, Ogun and Gombe States reported that the Government did not provide them with ambulances. In Ebonyi State, the State Government distributed tricycle ambulancesto about 171 selected facilities; however, none was functional in the surveyed facilities at the time of visit.[11] One of the facilities in Kebbi reported that they make arrangements with the National Union of Road Transport Workers who will be contacted in emergencies; however, the patient bears the cost. For Bayelsa, most of the facilities have both road and waterways, so it will require the State Government to provide both road and water ambulances to the facilities.

Finally, a third dimension of quality of care is the percentage of births using C-section. The rule of thumb is that approximately 5 per cent of births will need C-Sections; if the number is lower, it is indicative of the health system's inability to perform this life-saving procedure, with the consequent death of mother and/or child. Table 4.19 shows the results in the 60 facilities visited for the Health Facility Assessment. The low-performing states have a very low use of C-sections, while the use of C-sections is high in the transition and high-performing states surpass the 5 per cent threshold, except for Ogun (2 per cent).

Table 4.19. Proportion of C-sections by target state group

C-sections Indicator	High-performing states	Transition states	Low-performing states
Women delivered by C-section	117	366	229
Total births at health facilities	1,521	3,469	9,791
per cent of birth deliveries using C-sections	8 per cent	11 per cent	2 per cent

Figure 4.32: Births delivered by C-sections by target state group

As a comparison, Figure 4.32 shows similar results on frequency of C-sections from the 2018 NDHS. The comparison suggests important progress in the transitioning and high-performing states and stagnation or decline in the low-performing states.

Quality of care findings during the evaluation team's visits to health facilities and SMOHs.

Among the high-performing states, Ogun State performed better than Bayelsa State in the delivery of MCH services because of strong government. The Honourable Commissioner for Health there committed to ensuring that the Government channels resources to programmes for mothers and children. This effort reflected as the SMOH was able to present evidence including: the situation analysis plan incorporated in the AOP; the report on supportive supervision on Maternal and Perinatal Death Surveillance Report; the minutes of meetings of programmes and action plans held to strengthen the MCH programmes in the state; the technical report of the monitoring of low-dose aspirin training in 20 LGAs as well as the short- and long-term action plans of the MCH unit, which was displayed on the wall. Moreover, a standard activity report for development partners (quarterly monitoring visit of the MPDSR facilities) was presented as evidence during the field visit to the SMOH.

In Bayelsa State, on the other hand, assessment plans and reports to show an ongoing situational assessment of the MCH programme in terms of the number and skills of personnel, consumables, medicines and tests to strengthen MCH were not available at the time of the visit, although, it was said to be in the custody of the Monitoring & Evaluation Officer who attended a workshop. Moreover, reports of only two health facilities (Yenezuegene and Tombia PHCs) that enjoyed supervisory visits and technical assistance were seen. The SMOH could not visit other LGAs due to a lack of funds from the Government and donor agencies. Also, periodic assessments by the MCH management team to monitor programme indicators were not done mainly because of lack of funds from the State Government (State Primary Health Care Development Board) and donor agencies as well as insecurity currently ravaging the state.

Transitioning states (Ebonyi and Nasarawa State) were at different levels of achievement in the delivery of MCH services. Findings from the assessment showed that Ebonyi and Nasarawa State achieved 90 per cent and 65 per cent respectively. Though, both states plan to strengthen the MCH programme, with evidence of the implementation of strategies and initiatives for improvement and quality assurance in at least one health facility in each of the LGAs. In Ebonyi State, the SMOH was able to provide evidence on monitoring of the MCH Programme Strengthening Plan. Moreover, evidence on periodic assessment of the MCH programme indicators and the use of visit reports to action recommendations aimed at improving the implementation of the MCH programme were cited. The high attainment in the delivery of MCH services in the state was largely attributed to the commitment of the State Government in ensuring healthy lives for mothers and children as promised by the present administration.

On the other hand, the Nasarawa SMOH could not present any evidence by way of minutes or explanation on the status of implementation of the newborn plan integrated into MCH programmes there. Moreover, evidence on the assessment of the MCH programme indicators, in terms of survey report among other evidence, was not available.

Within the low-performing states, findings from the assessment revealed that Kebbi and Gombe States performed better than both high-performing and transition states in the delivery of MCH services. This was because of the presence of health intervention programmes being implemented by the NGOs in the northern part of the country. Both states had evidence of the situational assessment of the MCH programme with the plan for implementing the MCH programme in the SMOH AOP. Moreover, evidence showed that the programme management team was actioning the activities developed within the plan to strengthen MCH services in the LGA's health facilities. Nevertheless, Gombe SMOH could not provide evidence on the claim that there were focal persons on MCH in each of the 11 LGAs within the state that coordinate the activities of the LGA Council.

Household practices and early care-seeking behaviour

In addition to the quality of care at health facilities, an important explanation of the results is the behaviour of household members. Figure 4.35 shows the household nutrition practices and treatment of diarrhoea using the results of the 2018 NDHS. It is noticeable that only a minority of households provide their sick under-five children with diarrhoea with the appropriate treatment, i.e., the use of oral rehydration therapy and continued feeding. These results are similar across state sub-groups, possibly reflecting a similar level of achievement with programmes aimed to improve the household management of diarrhoea.

Most concerning is the very low number of children aged 6–59 months who are fed appropriately, i.e., with a combination of milk or breastmilk plus solid foods of appropriate diversity and frequency. High-performing states have slightly higher percentages in this indicator, probably reflecting their enhanced socioeconomic status

Figure 4.34 shows the early care-seeking behaviour of households when the child under 5 years of age is suspected of pneumonia (respiratory symptoms) or malaria (fever). Only a minority of households seek early care for their ill children. Early care-seeking is slightly better in high-performing states, possibly due to the higher socioeconomic status of their inhabitants and the higher access to private health providers. For example, the 2018 NDHS disclosed that private chemists were the most important source of care (public or private) for these two illnesses.

These shortcomings in appropriate household practices have several causes, e.g., the limited impact of the existing social behaviour communication campaigns implemented

Figure 4.33: Household nutrition practices and diarrhoea treatment among young children by target state group

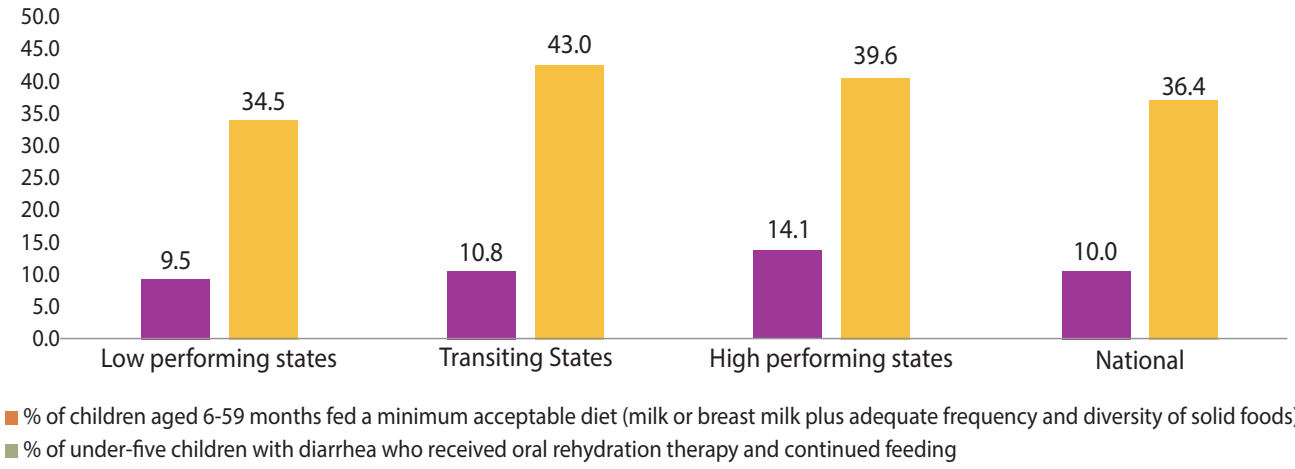
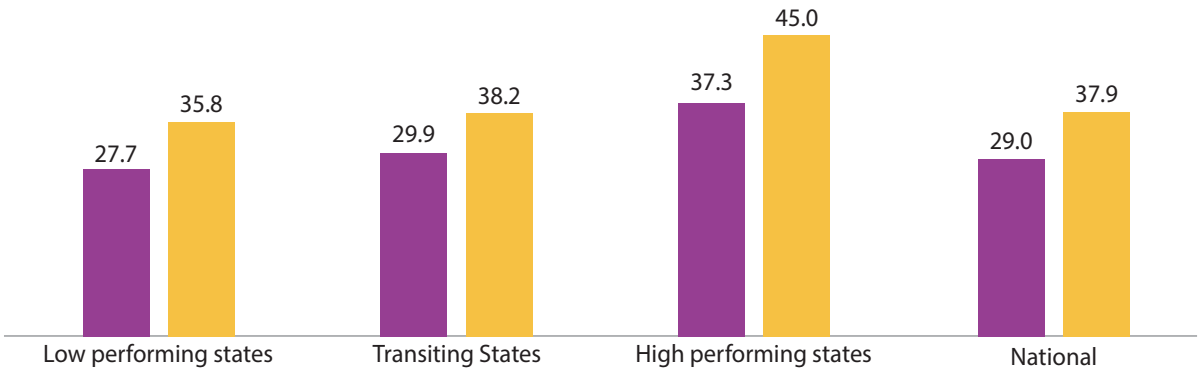


Figure 4.34: Early care-seeking practices for fever and suspected pneumonia among young children by target state group



Source: Nigeria Demographic and Health Survey, 2018.

by the government or by international organizations, the cultural or social barriers to access care including gender power dynamics inside households, financial limitations to obtaining enough food of reasonable quality, and financial and transport barriers.

The 2018 NDHS asked women the problems they experience in accessing health care when they are sick. The main problem identified was getting money for advice or treatment (46 per cent) while other problems included distance to a health facility, not wanting to go alone, and getting permission to go to the doctor.

Table 4.20 presents the main problems with accessing health-care services by target state. By far, the financial constraint of not having money for health advice and treatment is the main barrier that women face for accessing health care. Women in Ebonyi State registered the most difficulty with getting money for treatment (65.0 per cent) while their counterparts in Nasarawa State registered the lowest (10.3 per cent).

Overall, a higher proportion of women face at least one problem with access to health care in transition and low-performing states more than their counterparts in high-performing states. This situation correlates with problems related to lack of resources and distance to health facility, particularly in Ebonyi, Kebbi and Gombe.

Conclusion

- Informed by the bivariate regression analysis of the 2013 and 2018 NDHS data, improved use of health services is associated with lower maternal and child mortality in Nigeria.
- The SDG3 evaluation team also implemented a multivariate regression analysis to identify the drivers of under-five and maternal mortality using the data sets of the 2013 and 2018 NDHS. It showed that mortality was strongly associated with geographic and socioeconomic characteristics – e.g., birth order, household size, rural/urban residence, education of the mother. These findings suggest that geographical and socioeconomic factors are key determinants for child and maternal survival.
- Under this scenario, the population use of health services might be mediated through these household socioeconomic factors, i.e. more educated mothers will always use more health services, regardless of their geographical access, than less educated ones. However, our findings do not rule out an intrinsic effect of the use of health services in the reduction of maternal and child mortality, i.e. increasing geographical access to health services might increase their population use regardless of socioeconomic economic factors.

In both low-performing and high-performing states, the odds of childhood death increased with the birth order by 12 per cent and 38 per cent respectively. As for place

Table 4.20. Barriers faced by women to access health care by target state, 2018

State	Getting permission	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem to access health care
Low-performing states					
Kebbi	17.6	35.9	30.3	13.3	52.5
Gombe	9.6	61.8	41.2	12.7	69.0
Transition states					
Nasarawa	4.9	10.3	6.5	7.3	13.8
Ebonyi	2.8	65.0	35.5	7.2	70.5
High-performing states					
Ogun	13.7	33.0	10.2	6.7	36.5
Bayelsa	35.5	44.5	35.8	30.0	46.2

Source: Nigeria Demographic and Health Survey, 2018.

Evaluation Question (Impact)	Likely strength of evidence	Data source
What have been the main drivers or factors in reducing mortality in children under 5 years in the period 2000–2012? What were the factors that influenced the stagnation of infant mortality during the years 2012–2018? Describe if there were bottlenecks and determinants.	Strong	Literature review, health financing analysis, NDHS 2013 & 2018, HSA, HFA, and KIIs

of living, children living in rural areas in low-performing states have a higher risk of childhood mortality (43 per cent) than those living in urban areas in those states.

As for the effect of mother's education on under-five mortality in low-performing states, mothers with no education increased the risk of childhood deaths by 50 per cent when compared to mothers with higher education in low-performing states. A similar scenario is observed in transition states where mothers with primary education have a 78 per cent increase of experiencing childhood deaths in their family when compared to mothers with higher education. This reveals that lack of education among mothers is a significant predictor for childhood deaths.

The increase in household size in transition states increased the odds of maternal deaths by 16 per cent. In addition, a higher number of births was associated with maternal deaths in low-performing states. Primary education was protective against maternal mortality compared to having secondary or more education in low-performing states. And having three or more births significantly increased the odds of maternal mortality in low-performing states. This finding points to a critical need for family planning programmes across the board, but most importantly in low-performing states.

Drivers of deaths among children under 5 years of age

This section presents a statistical analysis of NDHS data from 2013 and 2018 to identify the potential determinants of mortality among children under 5 years of age in the three groups of states for the SDG3 Healthy Lives evaluation: (i) Low-performing states (Kebbi and Gombe); (ii) transition states (Nasarawa and Ebonyi), and (iii) high-performing states (Ogun and Bayelsa). The leading causes of under-five mortality in Nigeria are malaria, diarrhoeal diseases and acute respiratory infections.

Similar to the maternal deaths, we also investigated the association between under-five mortality and independent predicators at each of the state groups of the evaluation. This regression analyses also combined the NDHS (2013) and NDHS (2018) to increase sample size for rare outcomes. The individual children's data sets were downloaded from the Demographic and Health Survey Programme (DHSprogram.com) and merged with the household file.

The analysis included all children aged 0–59 months reported on in the two surveys (n=65,406). This included 59,309 live children (90.7 per cent) and 6,097 (9.3 per cent) deceased children. For the six target states, a total of 9,604 live children (89.4 per cent) and 1,143 (10.6 per cent) deceased children were included in the main analysis. Independent variables for the regression analysis could only include basic maternal characteristics and household data, as detailed birth indicators and child health indicators were not available for all observations. The child health indicators were unavailable for the deceased children and many detailed birth indicators were only available for the mother's most recent birth.

All analyses were adjusted for sampling design, non-responsiveness, stratification, and clustering using Stata SE 15.1.[12]

Key characteristics of young children by target state groups

Table 4.21 shows key characteristics of children under 5 years of age in the three target state groups. At first, a significant variation is observed in the number of under-five child deaths between the low-performing states (14.1 per cent) and high-performing states (5.1 per cent). There were also a considerable number of child deaths observed in the transition states (9.4 per cent). The data revealed a significantly higher household size in low-performing states (7.9) than the ones in transition states (6.2) and high-performing states (5.6).

Regarding the place of living, a similar pattern observed with women is registered for children under 5 years of age. Eighty-four per cent of young children lived in rural areas in the low-performing states while 65 per cent lived in rural areas in high-performing states. In transition states, more than half of young children (54.5 per cent) lived in urban areas.

As for the education attainment of the children's mothers, a significant proportion of mothers in low-performing states did not have any education (79.5 per cent). This was not observed in the high-performing states, where more than half of the children's mothers (56.3 per cent) have completed secondary or higher education.

A very similar scenario is observed with regard to children's family income. More than two thirds of children's families (70.7 per cent) in the low-performing states were poor while less than a third were poor in the transition states. Of the families in high-performing states, 46.2 per cent were considered rich as per the wealth index.

Lastly, regarding water source and sanitation, more than half of households in high-performing states had improved water sources while six out of ten households in low-performing states lacked a water source. As for improved sanitation though, the majority of households in both high-performing and transition states reported lack of it while a lower proportion reported the same situation in low-performing states. The NDHS pooled data about improved sanitation at the household level across the target state groups, particularly in high-performing and transition states are not consistent with expected household sanitation practices in low-resource settings.

Therefore, findings from regression analyses presented in the subsequent sections should be taken with caution.

Bivariate analysis – under-five mortality

In both transition and high-performing states, maternal age is positively associated with under-five child mortality. Interestingly, increased in household size reduced the odds of childhood deaths by 21 per cent in high-performing states but only 6 per cent in low-performing states. Birth order was observed as positively associated with under-five child mortality in all target states, with higher odds in high-performing states than the transition and low-performing states. In low-performing states, mothers with no education have a much higher probability (97 per cent) of experiencing childhood mortality in their families than those with secondary or higher education levels. And a similar scenario was observed between mothers with secondary or higher education than those with primary education in all target state groups. This confirms that education correlates significantly with under-five mortality rates in Nigeria. In addition, the effects of household income strongly correlate with under-five mortality rates in low-performing and transition states. Poor households have a much higher probability of experiencing under-five mortality in low-performing and also in transition states. Lastly, lack of improved sanitation at households correlates with under-five mortality by 24 per cent in low-performing states. All odds ratios along with 95 per cent CIs for the bivariate regression analysis for under-five mortality by target state group are presented in Table 4.22.

Table 4.21. Characteristics of households, mothers and survival of children under 5 years of age by target state group

Covariates	High-performing states (n=2,435)	Transition states (n=3,221)	Low-performing states (n=5,091)	p-value
	n (per cent)			
Survival status				<0.0001
Alive	2,312 (94.9)	2,918 (90.6)	4,374 (85.9)	
Dead	123 (5.1)	303 (9.4)	717 (14.1)	
	Mean (SD)			
Individual/HH Level				
Maternal age	29.7 (6.70)	33.9 (8.5)	31.4 (8.7)	<0.0001
Household size	5.6 (2.50)	6.2 (3.2)	7.9 (4.3)	<0.0001
Birth order	3.4 (2.19)	3.78 (2.35)	4.60 (2.85)	
	n (per cent)			
Location				<0.0001
Urban	850 (34.9)	1,756 (54.5)	829 (16.3)	
Rural	1,585 (65.1)	1465 (45.5)	4,262 (83.7)	
Maternal education				<0.0001
No education	276 (11.3)	644 (20.0)	4,047 (79.5)	
Primary	789 (32.4)	1,146 (35.6)	453 (8.9)	
Secondary/higher	1,370 (56.3)	1,431 (44.4)	591 (11.6)	
Wealth index				<0.0001
Poor	179 (7.4)	1,030 (32.0)	3,598 (70.7)	
Middle	1,130 (46.4)	1,703 (52.9)	1,168 (22.9)	
Rich	1,126 (46.2)	488 (15.2)	325 (6.4)	
Improved HH water source			<0.0001	
No	1,091 (44.8)	1,049 (32.6)	3,051 (59.9)	
Yes	1,344 (55.2)	2,172 (67.4)	2,040 (40.1)	
Improved HH sanitation			<0.0001	
No	1,457 (59.8)	2,126 (66.0)	2,262 (44.4)	
Yes	978 (40.2)	1,095 (34.0)	2,829 (55.6)	

Source: Nigeria Demographic and Health Survey, 2013 and 2018.

Multivariate analysis – under-five mortality

In both low-performing and high-performing states, the odds of childhood death increased with the birth order by 12 per cent and 38 per cent respectively. Children living in rural areas in low-performing states have higher odds of childhood mortality (43 per cent) than those living in urban areas in those states.

In low-performing states, mothers with no education increased the odds of childhood deaths by 50 per cent when compared to mothers with higher education in low-performing states. A similar scenario is observed in transition states, where mothers with primary education have a 78 per cent increased risk of experiencing childhood deaths in their family when compared to mothers with higher education. This reveals that lack of education among mothers is a significant predictor for childhood deaths.

Improved sanitation and water source indicators were not as strongly associated to state category as we expected, and

Table 4.22. Bivariate analysis of determinants of under-five mortality by target state group

Covariates	High-performing states (n=2,435)	Transition states (n=3,221)	Low-performing states (n=5,091)
	OR (95 per cent CI)	OR (95 per cent CI)	OR (95 per cent CI)
Individual/HH level			
Maternal age	1.04 (1.00, 1.08)	1.02 (1.00, 1.04)	1.01 (0.9996, 1.03)
Household size	0.78 (0.70, 0.87)	0.92 (0.85, 1.00)	0.94 (0.91, 0.97)
Birth order	1.15 (1.06, 1.25)	1.07 (1.01, 1.13)	1.05 (1.02, 1.09)
Location			
Urban	1	1	1
Rural	1.09 (0.57, 2.10)	1.14 (0.80, 1.62)	1.60 (1.21, 2.12)
Maternal education			
No education	1.08 (0.56, 2.08)	1.43 (0.99, 2.07)	1.97 (1.41, 2.75)
Primary	2.09 (1.08, 4.04)	1.87 (1.31, 2.66)	1.87 (1.18, 2.94)
Secondary/higher	1	1	1
Household wealth index			
Poor	1.05 (0.42, 2.59)	1.71 (1.06, 2.73)	2.54 (1.59, 4.08)
Middle	1.31 (0.74, 2.34)	1.44 (0.97, 2.14)	2.24 (1.33, 3.77)
Rich	1	1	1
Improved HH water source			
No	0.71 (0.37, 1.36)	0.97 (0.69, 1.37)	1.13 (0.90, 1.41)
Yes	1	1	1
Improved HH sanitation			
No	0.87 (0.51, 1.48)	1.18 (0.83, 1.68)	1.24 (1.01, 1.52)
Yes	1	1)	1

Bold: statistical significance p<0.05; 1 indicates reference group;
Source: Nigeria Demographic and Health Survey, 2013 and 2018.

similarly there was not a strong relationship seen with our outcomes of interest. A more granular analysis of improved sanitation and water sources on maternal and under-five mortality may be necessary to further investigate these differences. All odds ratios along with 95 per cent CIs for the multivariate regression analysis for maternal mortality by target state group are presented in Table 4.23.

Drivers of maternal deaths

This section presents a statistical analysis of NDHS data from 2013 and 2018 to identify the potential determinants of maternal mortality in the three groups of states for the SDG3 Healthy Lives evaluation: (i) Low-performing states (Kebbi and Gombe); (ii) Transition states (Nasarawa and Ebonyi), and (iii) High-performing states (Ogun and Bayelsa). Like many other countries in the sub-Saharan Africa region, the leading causes of maternal deaths in Nigeria are obstetric haemorrhage, eclampsia, sepsis, and complications from unsafe abortions (Ujah et al., 2005; Lanre-Abass, 2008). Similarly, studies show that factors such as age, education, antenatal care, parity, domestic violence, and social autonomy (which have been established as determinants of maternal mortality) are associated with maternal deaths in Nigeria (Fawole et al., 2012; Akino et al., 2016).

Due to the rarity of the outcome (maternal deaths) in this analysis, it was necessary to increase the study power to detect associations between maternal mortality and the independent variables at each of the state groups of the evaluation. Regression analyses with data from NDHS (2013) and NDHS (2018) were conducted but revealed no major differences in associations but with lesser power. The two most recent NDHS (2013 and 2018) were pooled to increase the sample size of maternal-related deaths and obtain the necessary power for identifying statistically significant findings.

Table 4.23. Multivariate analysis of determinants of under-five mortality by target state group

Covariates	High-performing states (n=2,435)	Transition states (n=3,221)	Low-performing states (n=5,091)
	OR (95 per cent CI)	OR (95 per cent CI)	OR (95 per cent CI)
Individual/HH level			
Maternal age	1.00 (0.96, 1.05)	1.00 (0.98, 1.03)	0.99 (0.97, 1.02)
Household size	0.62 (0.53, 0.72)	0.88 (0.79, 0.97)	0.90 (0.87, 0.94)
Birth order	1.38 (1.17, 1.62)	1.08 (0.99, 1.19)	1.12 (1.05, 1.19)
Location			
Urban	1	1	1
Rural	1.36 (0.72, 2.59)	1.23 (0.84, 1.80)	1.43 (1.08, 1.89)
Maternal education			
No education	0.84 (0.41, 1.71)	1.42 (0.93, 2.15)	1.50 (1.03, 2.18)
Primary	1.74 (0.86, 3.53)	1.78 (1.20, 2.63)	1.53 (0.96, 2.44)
Secondary/higher	1	1	1
Household wealth index			
Poor	1.27 (0.42, 3.90)	1.36 (0.81, 2.28)	1.36 (0.75, 2.46)
Middle	1.39 (0.79, 2.43)	1.29 (0.85, 1.96)	1.48 (0.81, 2.69)
Rich	1	1	1
Improved HH water source			
No	0.68 (0.32, 1.43)	0.82 (0.59, 1.13)	0.92 (0.75, 1.13)
Yes	1	1	1
Improved HH sanitation			
No	0.77 (0.40, 1.47)	0.96 (0.67, 1.38)	1.07 (0.87, 1.31)
Yes	1	1	1

Bold: statistical significance p<0.05; 1 indicates reference group.

Source: Nigeria Demographic and Health Survey, 2013 and 2018.

The analyses were all conducted using publicly available NDHS data sets downloaded from the Demographic and Health Survey Programme (DHSprogram.com). The individual women's file and household file were merged using cluster and household identifiers. The analysis includes all women who responded to the Nigeria DHS survey and had at least one birth (n=59,998) as well as their sisters who were reported to have died either during or within 42 days of childbirth (n=833) for a total of 60,817 women aged 15–49 years. Women who responded to the Nigeria DHS survey but had never given birth (n=23,658) were excluded from the analysis, as well as sisters not reported to have died either during or within 42 days of childbirth. As the main analyses were focused on six priority states, only the subset of women in those states was included in the state-level analysis. This totalled 9,744 living women aged 15–49 years living in those 6 states and 199 sisters who were reported to have died during or within 42 days of childbirth for a total of 9,489 women aged 15–49 years from the priority states. As detailed information on the deceased sisters was unavailable, the information for the responding woman was used as a proxy for their deceased sisters. All analyses were adjusted for sampling design, non-responsiveness, stratification, and clustering using Stata SE 15.1.[13]

The outcome variable for the analysis was maternal death. Independent variables included age, household size, location (urban, rural), education (no education, primary, secondary/more), wealth index (poor, middle, rich), contraception type (no method, folk/traditional, modern), number of births (less than three, three or more), improved

water source (yes, no), and improved sanitation (yes, no). Survey adjusted simple and multivariable logistic regression analyses were used to investigate the association of the independent variables and maternal mortality in the three groups of states (high-performing, transition, and low-performing) using pooled data from NDHS (2013) and (2018). Statistical significance for all regressions performed was determined at $p<0.05$.

Key characteristics of women by target state groups

Table 4.24 shows key characteristics of women in the three target state groups. At first, a significant variation is observed in the number of maternal deaths registered between the low-performing states (4.0 per cent) and the high-performing states (0.5 per cent). Median age across the sample of respondents did not show any major variations. However, the household size was higher in the low-performing states (7.9) than in the high-performing state (5.1).

The educational attainment of women in the three state groups varies significantly. More than five out of ten women in the high-performing states have completed secondary or higher education. In the transition states though, less than half of women completed secondary or higher education. More than three quarters of women in the low-performing state group had no education at all.

Like educational attainment, a very similar scenario is observed with the regard to income. Almost half of women (48.6 per cent) in the high-performing states fall under the rich wealth index, while a similar proportion (52.0 per cent) fall in the middle wealth index in the transition states. More than two thirds (69.3 per cent) of women in the low-performing states are poor.

More than 80 per cent of women in the low-performing states live in rural areas, while more than half of women in the transition states live in urban areas. Interestingly, a high proportion of women (63.3 per cent) live in rural areas in the high-performing states.

In terms of use of contraception type, an overwhelming proportion of women across the three target state groups reported not using any contraceptive method while only around 10 per cent of them reported using a modern method in the transition states, and even fewer women (7.4 per cent) use modern family planning methods in low-performing states. With regard to number of births, more than six out of ten women in high-performing states had three or more births while more than three quarters of women in low-performing states registered the same number of births.

Lastly, with regard to water source and sanitation, households in high-performing states were better off than those in low-performing states. Only four out of ten households had a water source in the low-performing states compared to more than two thirds of households in transition states. Interestingly, a lower proportion (57 per cent) of households was observed in high-performing states when compared to households in transition states.

Table 4.24. Characteristics of households, women and survival of women by target state group

Covariates	High-performing states (n=2,508)	Transition states (n=2,934)	Low-performing states (n=4,047)	p-value
	n (per cent)			
Survival status				<0.0001
Alive	2,496 (99.5)	2,908 (99.1)	3,886 (96.0)	
Dead	12 (0.5)	26 (0.9)	161 (4.0)	
	Mean (SD)			
Individual/HH level				
Age	32.8 (8.2)	33.7 (8.7)	31.3 (8.8)	<0.0001
Household size	5.1 (2.6)	6.5 (3.6)	7.9 (4.1)	<0.0001
	n (per cent)			

Education				<0.0001
No education	295 (11.8)	748 (25.5)	3,154 (77.9)	
Primary	822 (32.8)	1,019 (34.7)	392 (9.7)	
Secondary/higher	1,391 (55.5)	1,167 (39.8)	501 (12.4)	
Wealth index				<0.0001
Poor	177 (7.1)	923 (31.5)	2,803 (69.3)	
Middle	1,111 (44.3)	1,527 (52.0)	960 (23.7)	
Rich	1,220 (48.6)	484 (16.5)	284 (7.0)	
Location				<0.0001
Urban	920 (36.7)	1,601 (54.6)	715 (17.7)	
Rural	1,588 (63.3)	1,333 (45.4)	3,332 (82.3)	
Contraception type				<0.0001
No method	2,059 (82.1)	2,540 (86.6)	3,735 (92.3)	
Folk/traditional	130 (5.2)	90 (3.1)	12 (0.3)	
Modern	319 (12.7)	304 (10.4)	300 (7.4)	
Number of births				<0.0001
Less than 3	954 (38.0)	845 (28.8)	993 (24.5)	
3 or more	1,554 (62.0)	2,089 (71.2)	3,054 (75.5)	
Improved HH water source			<0.0001	
No	1,085 (43.3)	949 (32.3)	2,392 (59.1)	
Yes	1,423 (56.7)	1,985 (67.7)	1,655 (40.9)	
Improved HH sanitation				<0.0001
No	1,430 (57.0)	1,923 (65.5)	1,805 (44.6)	
Yes	1,078 (43.0)	1,011 (34.5)	2,242 (55.4)	

Source: Nigeria Demographic and Health Survey, 2013 and 2018.

A similar scenario was observed for improved sanitation where more than half of households (55 per cent) reported improved sanitation, and a lower proportion (43 per cent) was observed in high-performing states. The NDHS pooled data about improved sanitation at the household level across the target state groups, particularly in high-performing and transition states, are not consistent with expected household sanitation practices in low-resource settings. Therefore, findings from regression analyses presented in the subsequent sections may need to be taken with caution.

Bivariate analysis – maternal mortality

In low-performing states, age is negatively associated with maternal mortality. An increased household size in the transition states increased the odds of maternal deaths by 14 per cent. In addition, the analysis revealed that the use of traditional contraception methods in transition states was highly associated with maternal deaths. All odds ratios along with 95 per cent CIs for the bivariate regression analysis for maternal mortality by target state group are presented in Table 4.25.

Multivariate analysis – maternal mortality

The increase in household size in transition states increased the odds of maternal deaths by 16 per cent. In addition, the higher number of births was associated with maternal deaths in low-performing states. Primary education was protective against maternal mortality compared to having secondary or more education in low-performing states. And having three or more births significantly increased the odds of maternal mortality in low-performing states. This finding points to a critical need fpr family planning programmes across the board, but most importantly in low-performing states. All odds ratios along with 95 per cent CIs for the multivariate regression analysis for maternal mortality by target state group are presented in Table 4.26.

Table 4.25. Bivariate analysis of determinants of maternal mortality by target state group

Covariates	High-performing states (n=2,508)	Transition states (n=2,934)	Low-performing states (n=4,047)
	OR (95 per cent CI)	OR (95 per cent CI)	OR (95 per cent CI)
Individual/HH level			
Age	1.03 (1.00, 1.07)	0.97 (0.93, 1.01)	0.91 (0.89, 0.94)
Household size	1.15 (0.95, 1.40)	1.14 (1.07, 1.21)	1.02 (0.95, 1.10)
Location			
Urban	1	1	1
Rural	0.90 (0.22, 3.70)	0.43 (0.16, 1.38)	0.95 (0.30, 2.62)
Education			
No education	0.16 (.02, 1.65)	0.64 (0.18, 2.27)	0.57 (0.29, 1.11)
Primary	1.29 (0.31, 5.46)	1.34 (0.44, 4.09)	0.70 (0.40, 1.23)
Secondary/higher	1	1	1
Wealth index			
Poor	1.79 (0.37, 8.69)	0.92 (0.27, 3.18)	1.21 (0.37, 3.97)
Middle	0.65 (0.11, 3.77)	1.35 (0.43, 4.29)	1.76 (0.67, 4.63)
Rich	1	1	1
Contraception type			
No method	0.98 (0.13, 7.57)	1.21 (0.16, 9.32)	0.38 (0.20, 0.70)
Folk/traditional	-	8.69 (1.40, 53.80)	-
Modern	1	1	1
Number of births			
Less than 3	1	1	1
3 or More	2.37 (0.29, 19.43)	1.13 (0.34, 3.81)	0.73 (0.46, 1.17)
Improved HH water source			
No	1.18 (0.31, 4.49)	1.11 (0.47, 2.64)	0.78 (0.46, 1.32)
Yes	1	1	1
Improved HH sanitation			
No	1.11 (0.29, 4.20)	1.03 (0.47, 2.26)	0.84 (0.54, 1.32)
Yes	1	1	1

Bold: statistical significance p<0.05; 1 indicates reference group.
- indicates the dimension was omitted from the model due to lack of outcome variance
Source: Nigeria Demographic and Health Survey, 2013 and 2018.

Table 4.26. Multivariable analysis of determinants of maternal mortality by target state group

Covariates	High-performing states (n=2,508)	Transition states (n=2,934)	Low-performing states (n=4,047)
	OR (95 per cent CI)	OR (95 per cent CI)	OR (95 per cent CI)
Individual/HH level			
Age	1.02 (0.96, 1.08)	0.96 (0.89, 1.03)	0.88 (0.84, 0.92)
Household size	1.12 (0.94, 1.34)	1.16 (1.09, 1.24)	1.07 (1.00, 1.14)
Location			
Urban	1	1	1
Rural	0.82 (0.17, 4.00)	0.41 (0.13, 1.30)	1.01 (0.43, 2.41)
Education			
No education	0.13 (0.01, 1.31)	0.76 (0.21, 2.70)	0.58 (0.30, 1.11)
Primary	1.02 (0.32, 3.27)	1.32 (0.44, 4.00)	0.58 (0.34, 0.99)
Secondary/higher	1	1	1
Wealth index			
Poor	2.06 (0.08, 53.18)	0.69 (0.14, 3.30)	1.92 (0.60, 6.20)
Middle	0.68 (0.03, 15.54)	0.90 (0.25, 3.28)	2.16 (0.79, 5.93)
Rich	1	1	1
Contraception type			
No method	1.04 (0.14, 7.64)	1.11 (0.14, 9.08)	0.45 (0.25, 0.79)
Folk/traditional	-	5.89 (0.86, 40.31)	-
Modern	1	1	1
Number of births			
Less than 3	1	1	1
3 or More	1.91 (0.23, 16.09)	1.46 (0.32, 6.62)	2.05 (1.21, 3.49)
Improved HH water source			
No	1.15 (0.36, 3.68)	1.48 (0.57, 3.80)	0.82 (0.55, 1.22)
Yes	1	1	1
Improved HH sanitation			
No	1.18 (0.17, 8.44)	1.27 (0.59, 2.70)	1.03 (0.69, 1.54)
Yes	1	1	1

Bold: statistical significance $p<0.05$; 1 indicates reference group.
- indicates the dimension was omitted from the model due to lack of outcome variance
Source: Nigeria Demographic and Health Survey, 2013 and 2018.

4.6 Human Rights and "The Principle of Leaving No one Behind"

Overall findings: Partial accomplishment|quality of the evidence: medium

Conclusion

Health sector programming and key flagships programmes apply a needs-based approach to fulfil Nigerians' right to health. Due to this needs-based approach, the right to health is seldom mentioned in the NSHDP and key flagship programmes and few health state government officials know about it.

The NSHDP II states that UHC is enshrined in the Nigerian Constitution and that it is the expression of Nigerians' right to health. Within the Guiding Principles of NSHDP II is the, "Ethics and respect for human rights: Both providers and consumers of health care at all levels of health-care delivery particularly communities will be treated with courtesy, dignity, impartiality and respect for all persons".

Health sector programming and key flagships programmes apply a needs-based approach to fulfil Nigerians' right to health, which is implicit in its design and implementation. That is, by realizing the health needs of the population, the Nigerian Government will implicitly realize their right to health.

Two examples further explain how the needs-based approach is used within the health sector in Nigeria.

- The Federal Government's Health Sector Next Level Agenda (2019–2023) doesn't explicitly mention the right to health or the 'leave no one behind' principle (Federal Republic of Nigeria, 2019). However, both are implicitly included in its approach for addressing gaps to health care for everyone. In addition, the NSHDP II addresses the principle of 'leave no one behind' as part of its Strategic Pillar Two related to increased utilization of the essential package of health-care services.
- The ongoing five-year, US$650million IMPACT project (World Bank, 2020b) doesn't explicitly mention health rights to justify either its existence or its approach. However, it will implicitly become a powerful tool to realize the right to health for many Nigerians and it will strengthen the national roll-out of the BHCPF.

Findings of the evaluation team in the six targeted states about human rights and "leaving no one behind"

The majority of state-based programme managers interviewed by the evaluation team knew nothing or very little about the NSHDP II's focus on human rights and 'leave no one behind' principles. This lack of knowledge was neither focused on a specific programme nor a specific state and is reflective of the NSHPD II's implicit interpretation of the 'right to health' as the realization of the population's health needs.

SUMMARY CONCLUSIONS (HUMAN RIGHTS and "LEAVING NO ONE BEHIND")
Health sector programming and key flagships programmes apply a needs-based approach to fulfil Nigerians' right to health. Due to this needs-based approach, the right to health is seldom mentioned in the NSHDP and key flagship programmes and few state government health officials know about it.
Significant inequalities on U5MR and coverage of PHC services persist across multiple dimensions, including disparities between poor and rich households, geographic location (north vs. south), economic inequality among states, governance capacity between states, among others.

Evaluation Question (Human Rights and "Leaving No one Behind")	Likely strength of evidence	Data source
How are the human rights-based approach and the 'leave no one behind' principles of Agenda 2030 realized in Nigeria in relation to Healthy Lives?	Medium	Literature review, KIIs
To what extent has the human rights-based approach integrated into health sector programming within key flagship programme design and implementation?		

"Human rights approach says that everyone has equal rights... have the right to health, either male, female, children, poor or rich. This irrespective of your status or where you are coming from, either you are educated, or you're not educated. Once you get to our facility you'll be attended to. So, it's not restricted to a section of the community, everybody inasmuch as you can find your way to the facility, they will be attended to." — State PHCDB FP Assistant Manager.

"The human rights-based approach for me is the concept that seeks to have an equitable distribution of resources and services to such a level that people get resources or services based on their needs. Of course, the principle behind [it] is an all-inclusive intervention that ensures that everybody is carried along. Of course, depending on your need, depending on what is suitable for that particular individual." — State Public Health Director.

"Of course, the human rights are well integrated because our health services are non-discriminatory, so if you're not even an indigene, so you'll be attended to, gender – we are gender balanced so and in each hospital there is usually a law, a policy in place to protect the right of the consumer. Most of the hospitals, they have consumer rights protection committees, and you will see the phone number of various people in the government that you can complain to." — State TB Assistant Manager.

4.7 Sustainability

Overall findings: Partial sustainability|quality of the evidence: medium

Conclusion

The existing coordination and partnership capacities of the SMOHs facilitate the implementation of SDG3 programmes. Moreover, the capacities of the SMOHs to engage communities are also in progressive development, with low-performing states having better systems for community participation (which might be due to the increased cooperation of the SMOH with development partners).

The NSHDP II includes two priority areas that aim to enhance the coordination and participation of key actors, which is needed for the sustainability of the plan's impact, outcomes and outputs:

SUMMARY CONCLUSIONS (SUSTAINABILITY)
The existing coordination and partnership capacities of the SMOHs facilitate the implementation of SDG3 programmes. Moreover, the capacities of the SMOHs to engage communities are also in progressive development, with low-performing states having better systems for community participation, which most likely is due to the increased cooperation of the SMOH with development partners. The six SMOHs included in the SDG3 Healthy Lives evaluation operate key management systems with medium to high levels of performance: community participation, coordination, strategic planning and monitoring and evaluation, human resource management, health information systems and health financing. These are important achievements towards the programme sustainability of SDG3 programmes in these states. Of greater concern for sustainability are the more limited management capacities at LGA and ward levels. Evidence about shortcomings in their management systems were captured during the visits to the 60 health facilities in the six target states.

Evaluation Question (Sustainability)	Likely strength of evidence	Data source
To what extent is effective systematic participation of all stakeholders (individuals, communities, local institutions, states and federal stakeholders) in design, implementation, financing and monitoring and evaluation of health programmes functioning to sustain the gains made in achieving impact, outcomes and outputs?	Medium	Literature review, KIIs, HSA

- Priority Area 2 – community participation and ownership in health, with its goal to promote community engagement for sustainable health development.
- Priority Area 3 – partnerships for health. Its goal is to enhance harmonized implementation of the EPHS in line with national health.

The NSHDP II also listed the strengths and weakness in implementing these three priority areas.

Community participation and ownership in health

Strengths include

Existence of ward development committees at ward level and of Facility Health Committees in some facilities; structures for the engagement and participation of traditional rulers and religious leader exist and are functional; strong community-based health programmes exist e.g., IMCI and iCCM; existence of multiple cadre of community health workers and volunteers.

Weaknesses include

Poor understanding of the concept and weak implementation of community participation in health; fatalistic outlook to disease causation and outcome; increasing and differential financial incentives for CBW threatening sustainability; lack of harmonization and integration of community-based services leading to verticalization, duplication and waste of resources at community level.

Partnerships for health

Strengths include

Public-Private Partnerships (PPP) Policy, partnership platforms and guidelines for partnerships in place; operationalization of PPP arrangements at federal, state and LG levels of care; strong presence of development partners, particularly in the northern zones; existence of partner coordinating forums at all levels; availability of basket funding for some public health programmes (routine immunization, PHC) in some states; improved inter-governmental partnerships.

Weaknesses include

Weak alignment of development partner support with national/state plan; ineffective coordination of health partners at all levels leading to inefficiency, duplication and/or overlap; poor transparency and accountability by some development partners; promotion of vertical programming and reporting that hinders integration.

The evaluation team assessed the level of implementation of these two NSHDP II priority areas in the six target states.

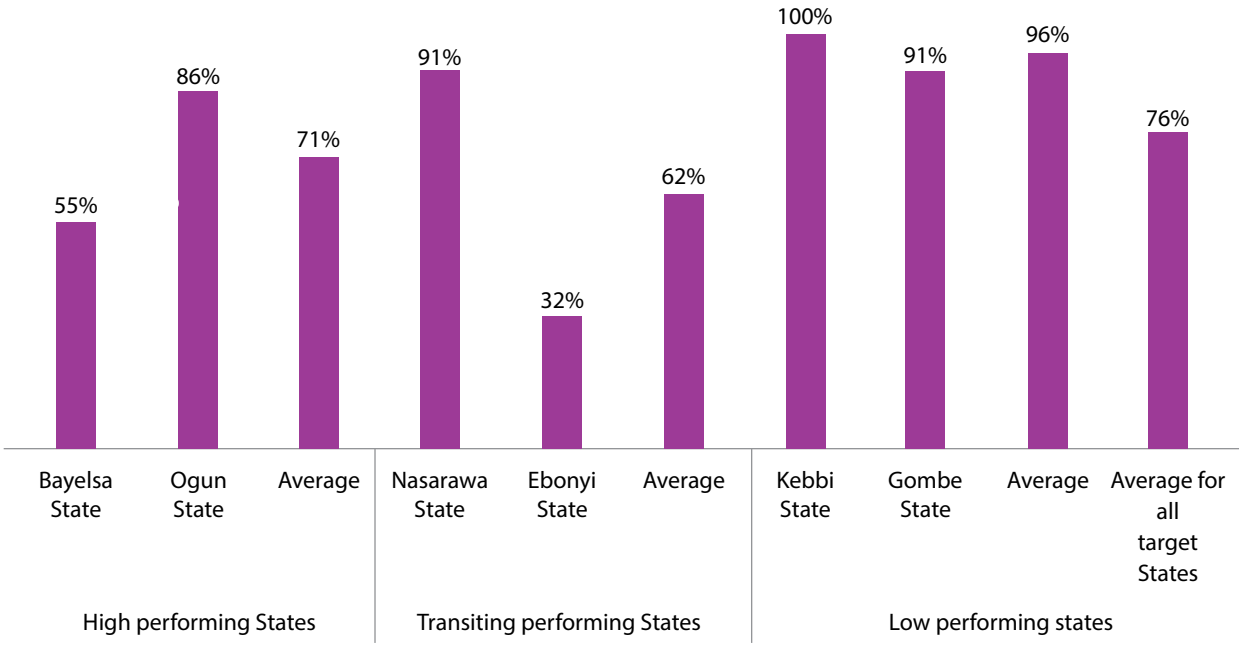
Evaluation team's findings in states' capacities for community mobilization and participation

Through the implementation of the Health Systems Assessment, the evaluation team identified the extent to which the six target states had participated in the development, execution, and evaluation of a strategic plan with community-based organizations working within the state. The aim was to ensure that the state implements all the strategies established by the national plan to have a positive impact on the population for health, education and community support programmes.

Findings from the assessment, as shown in Figure 4.35, revealed that overall, low-performing states performed better than both transition and high-performing states in strengthening capabilities in community mobilization and participation. However, some states from the other two groups (transition and high performing) also revealed strengths in community mobilization and participation.

Within the high-performing states, Ogun State achieved more than Bayelsa State in community mobilization and participation. This was evident as Ogun SMOH was able to provide evidence on plans and implementation of community-based programmes. In Ogun State, the team cited a monthly and quarterly plan of the Health Education Unit of the SMOH. Moreover, the team cited the Christian Health Association of Nigeria plan in collaboration with the Health Education Unit of the SMOH for community sensitization on the elimination of malaria. The only shortfall in the state was evidence of the implementation of the recommendations from the supervision visits.

Figure 4.35: Performance on strengthening community mobilization and participation



In Bayelsa State, evidence on the situational analysis of community strategies and coordination mechanisms in the state was cited. It was reported that the Bayelsa SMOH held a community strategy meeting with selected communities to sensitize them on the importance of routine immunization. Moreover, plans for strengthening community strategies formulated and known to the staff were cited. However, evidence of the follow-up to the plan to strengthen community strategies in the LGAs through supervision and technical assistance of CBOs; the existence of supervision and technical assistance plans, and production of a report at each visit containing the findings and recommendations were not available at the time of the assessment.

Moreover, within the transition states, Nasarawa State performed higher than Ebonyi State based on the pieces of evidence cited at the time of the visit to the SMOH. This was because most of the evidence to show the capacity of Ebonyi SMOH in community mobilization and participation were with the Integrated Health Project partner in the state. It was also understood that there was no fund to support the activities developed by a partner to strengthen community activities.

The low-performing States (Kebbi and Gombe States) performed well in community mobilization and participation, which is mostly due to the presence of development partners in both states. International development partners and NGOs have helped the SMOHs to strengthen capabilities in this regard through different ongoing health intervention programmes.

Evaluation team's findings in the states' capacities for partnerships, coordination and collaboration

All six target states identified the existence of coordination mechanisms with various stakeholders including other programmes within their SMOH and private health-care facilities. In addition, programmes officers reported planning meetings and joint activities with development partners such as UNICEF, UNFPA, WHO, and USAID. Health coordinators from Gombe and Kebbi States highlighted the coordination with development partners.

"We have the unit, donors' coordination units and have a meeting quarterly. And it is a discussion about [the goal] because as I told you before, it's the state that has the goal and they want to achieve this goal. So, they used to have a meeting with these donors and in talk about the goal, [saying] 'this is what we want'. So, any partner that wants to chip in or wants to support one or two parts of it,

they will just support it, … because they don't want duplication of work." — State TB Coordinator.

"…there is this meeting we do with partners and other line ministries we call it "core technical committee working group" where we call all the partners in Kebbi State to come and tell us the areas of their interventions and what they have achieved, and we call line ministries to be with us then we discuss and everybody knows what should be done as far their ministry is concerned; … in the area of maternal health, in the area of child health, in the area of gender and the area of child enrolment – that is, girl child potentials in schools." — State MCH Coordinator.

Respondents also stated their collaboration and communication with Federal Government agencies was usually on a case-by-case basis and sometimes it was unidirectional.

"The ministry of finance usually come and then we tell them what we want, and they see reasons why we need this. If we say we need this amount of money they'll say ok. So, we collaborate with the ministry of women affairs and office of the first lady in doing some of our material and child health activities." — State Maternal Care Programme Officer.

"What I will say about that between the federal and state level, our coordination is not that good [I'd] only say it's fair, because most of the time access to knowledge is at the federal level so we only know what is happening when they call us, but we don't have a specified forum that we will meet with the federal government to make a plan and implement the plan, so we do [it] at State." — State MCH & RH Manager.

Gombe and Ebonyi States were among the states that clearly elaborated the coordination of the SMOH with private health sector:

"We collaborate with private organizations, like during the RMCs meeting, we involve all of them. They come for meeting their association and we work through the department of clinical services who are saddled with the responsibility of supervising private facilities labs etc. so they usually come and then we have meeting together, and we discuss areas where they need improvement like some these State policies that we have during domestication, you know we eventually invite them to come and we share the documents with them all of us…" — State Maternal Care Programme Officer.

"We use PPMVs, patent proprietary medicine vendors, we also train them…, and we are also giving them some of these drugs because we have trained them on how to use this because we know that most people in the local governments, in the village patronize them more than those in the state." — State IMCI Assistant Director.

The overall findings revealed stronger capacities for community participation for most of the target states with strong links from the support provided by development partners. However, the findings also revealed limited plans from the states to further support and/or strengthen community participation activities.

Conclusion

- The six SMOHs included in the SDG3 Healthy Lives evaluation operate key management systems with medium to high levels of performance: community participation, coordination, strategic planning and monitoring and evaluation, human resource management, health information systems and health financing. These are important achievements towards the sustainability of SDG3 programmes in these states.
- Of greater concern for sustainability are the more limited management capacities at LGA and ward levels. Evidence about shortcomings in their management systems were captured during the visits to the 60 health facilities in the six target states.

In addition to these two sustainability-enhancing topics, the evaluation team also assessed other four state-level health management systems which are important elements for programme sustainability: strategic planning and monitoring and evaluation, human resource management, health information systems, and health financing. As part of the Health Systems Assessment, the evaluation included a review of documentation and semi-structured

interview with senior state government health officials in the six target states with the following findings.

Human resources management

High-performing states (Bayelsa and Ogun States) had the least level of achievement in strengthening functional human resources management (31 per cent). On the other hand, low-performing states (Kebbi and Gombe States) had the highest level of achievement (90 per cent). The wide disparity in the level of achievement in high-performing states as compared with transition (Nasarawa and Ebonyi) and low performing was due to non-existence of evidence on staff nominal roll; letters of commendation, and monitoring plans or activities for SMOH staff. The probable reason for this performance was attributed to the reluctance SMOH management teams to provide these documents from the SMOH system.

Strategic planning and monitoring and evaluation capabilities

More than half of the states have strong capabilities in strategic planning and monitoring and evaluation. The low-performing states were seen to have done better in this regard than the other states classified as transition or high-performing states. For example, within the high-performing states, SMOH could not provide evidence for quarterly assessment analysis reports as well as training of new staff since last recruitment. The major reason for this was reportedly due to limited resources.

Information management system

Transition states recorded the highest level of achievement, with 86 per cent. This was attributed to the availability of evidence seen at the time of visit to the SMOH, e.g., daily outpatients register; HMIS tools and other registration books; the computers used by the HMIS desk officers and the district health information system housing some data and uniformly used by all states. Other evidence cited included the soft copy of the report on data quality assurance which contains the gaps findings and recommendations from the visited LGA; minutes of the meeting of the MIS team, including invitation letter to stakeholders' consultative meeting towards revitalization of state HMIS; as well as list of trained MIS officers at LGA and state level with certificates.

Financial management

High-, transition and low-performing states attained commendable levels of achievement in strengthening financial management. High-performing states had the highest level of achievement with 88 per cent in financial management strengthening as compared with 75 per cent and 72 per cent recorded in transition and low-performing states. In the high-performing states, the evidence for this conclusion was the inclusion of chartered accountants and auditors in financial information management teams; financial audit reports for the year 2019; the approved budget for the years 2019–2021 and balance sheets.

From the sustainability point of view, we propose two recommendations for the Federal Government of Nigeria to consider. However, a more comprehensive set of recommendations from the independent evaluation is included in Chapter 6 of this report.

- The FGON, with the support of development partners can further strengthen existing management systems at the SMOHs.
  - In the six targeted states, the results of this evaluation can be used as the baseline assessment for this performance improvement.
  - Universities and other academic institutions in each state can work together with development partners to become training centres for state government health officials to strengthen all sustainability elements for improved effectiveness and health impact. This could be a strategic link to bring a more targeted approach

Evaluation Question (Sustainability)	Likely strength of evidence	Data source
What components of the health system, of the selected interventions, have been strengthened and have prospects for their sustainability? What recommendations still need to be strengthened, and what recommendations would you give?	Medium	Literature review, HSA, KIIs

(i.e., needs-based interventions) to help the SMOHs and lower levels in delivering more sustainable approaches for health programmes.

- After a specific level of improvement in key management systems of the SMOHs has been achieved, the support of the FGON and development partners can be shifted to turn the SMOHs and the partner universities and academic institutions into training and mentorship sites for leaders and managers in the LGAs, wards and selected health facilities.
  - As part of this scenario, already trained SMOH officials can serve as master trainers and mentors of LGA, ward and facility leaders and managers.

4.8 Gender equality

Overall findings: partial accomplishment|quality of the evidence: medium

Conclusion

Gender equality is included in the description of the NSHDP II and key flagship programmes. This focus includes the gender disaggregation of key programme indicators. However, the understanding of and application at the state and local level of gender approaches for health programming are still incipient and with room for improvement.

As one of its guiding principles, NSHDP II includes gender equity in the following way: "Fairness, trustworthiness, respect and justice will be watchwords mainstreamed into the entire NSHDP II roll-out in addition to ensuring that planned interventions and activities address the health needs of women, men, girls, and boys across all levels and sectors of society."

The NSHDP II also states: "Gender inequity affects health in many dimensions as it results in differential vulnerabilities, exposures, access to information and services, quality of care and health outcomes… women suffer higher poverty levels, lower educational attainment and lower rates of formal employment thereby limiting their ability to access health information and services. Women have been marginalized in almost all aspects of the decision-making process even in matters that affect their health."

Key NSHDP II priority areas that implicitly address gender inequalities are RMNCHA+N, especially in its safe motherhood and family planning components, because they improve the survival and empowerment of women in the Nigerian society.

An additional and important aspect of gender inequities is gender-based violence. The NSHDP II considers gender-based violence as a "major public health concern and it remains a neglected area. The FMOH recently developed health workers guidelines for management of gender-based violence at clinic level. Implementation of these guidelines has not commenced". Furthermore, the Violence Against Person's (Prohibition) Act (2015) prohibits any form of gender violence, including female genital mutilation, and the National Commission for Women Act gives both gender equal rights to access SRH information and services such as modern contraception, HIV testing and counselling, and adolescent-friendly services.

SUMMARY CONCLUSIONS (GENDER EQUALITY)
Gender equality is included in the description of the NSHDP II and key flagship programmes. This focus includes the gender disaggregation of key programme indicators. However, the understanding of and application at the state and local level of gender approaches for health programming are still incipient and with room for improvement.

Evaluation Question (Gender Equality)	Likely strength of evidence	Data source
To what extent the NSHDP and flagship programmes incorporated gender equality and the empowerment of women and girls into the design, implementation and monitoring of interventions?	Medium	Literature review, KIIs

Table 4.27. Gender aspects included in NSHDP II

Priority Area	Objective	Activity
Priority Area 1: Leadership and Governance	Objective 1: Provide clear policy, plans, legislative and regulatory framework for the health sector.	Train and strengthen human resource capacities at national, state, and LGA levels on gender and equity-responsive policy development, planning and implementation of health plans.
Priority Area 4: Reproductive, Maternal, Newborn, Child and Adolescent Health plus Nutrition (RMNCAH+N)	Objective 10: Promote demand and increase access to sexual and reproductive health services (family planning and post abortion care).	Establish gender-based violence counselling and treatment services. Scale up Prevention, counselling and treatment of rape and other gender-based violence such as rape, intimate partner violence etc. Build capacity of service providers on gender-sensitive respectful and safe service.
Priority Area 9: Human Resources for Health	Objective 36: Ensure the production of adequate numbers of qualified health workers.	Improve gender sensitivity in the production of health workforce for all cadres at all levels.

Table 4.27 includes the priority areas, objectives and activities of the NSHDP II which explicitly address gender inequalities and gender-based violence.

The monitoring and evaluation plan for the NSHDP II has 48 core indicators with sources and methodologies for data collection. These indicators track UHC coverage, equity (disaggregation by zone/state, urban/rural, gender and wealth quintiles), quality of care, and financial risk protection. Data for tracking and evaluating NSHDP II implementation will be drawn from administrative and programme reports, facility assessments, and population-based surveys.

The ongoing five-year, US$650 million IMPACT project (World Bank, 2020b) states the importance of gender-based barriers for the access and use of PHC services.The project will undertake a deeper analysis of factors that interact with social and gender norms, which contribute to barriers to women's access to and use of health services. Their results will be employed to design high-impact interventions that aim to close the gaps in accessing immunization, intrapartum, and perinatal care, as well as malaria control.

The project's demand-side interventions will incorporate a gender lens in understanding barriers to access, especially in the northern parts of the country where health outcomes are the worst. The project will also examine how to enhance female participation in the health workforce, especially in regions where there are gaps, and build capacity of both women and men, to improve service delivery.

Finally, IMPACT will collect and report on gender-disaggregated data on key indicators. This is important for ensuring that the team can track changes to gender-based differences in health outcomes and access to key child health services during the course of the project. Examples of these indicators include:

- Percentage of children under 5 years of age sleeping under LLINs the night prior to the survey (disaggregated by gender).
- Percentage of febrile children under 5 years of age who were treated with ACTs in the past two weeks (disaggregated by gender).
- Percentage of children ages 12–23 months vaccinated with a third dose of Pneumococcal vaccine (disaggregated by gender).

A national programme that deliberately addresses gender inequalities in the access and use of PHC services is CHIPS, led by the NPHCDA (Meribole and Bhardwaj, n.d.). CHIPS ensures the use of a harmonized database of community-level human resource for health across all levels of government.

By engaging women as a major component of the CHIPS workforce and deploying them to work within their community providing services focused on women, CHIPS achieves the objective of promoting female empowerment and bridging gender gaps in access and use of PHC services. IMPACT will provide funding to the CHIPS programme to expand its geographical coverage, including the recruitment of a predominantly female workforce.

Gender equity in PHC staffing and management

The health situation assessment at facility level conducted through this evaluation revealed that more half of the medical personnel in the 60 health facilities visited (10 per state) were female (60 per cent). Of key front-line workers, 15 per cent of medical officers, 77 per cent of nurses/midwives, 61 per cent of community health officers and 72 per cent of CHEWs were female.

The direct funding to health facilities to improve quality of care can improve the staffing of these facilities with female personnel. The impact evaluation of the NSHIP project (World Bank, 2018) demonstrated that health facilities that received direct funding from the project had a 20 percentage point higher probability of having one female technical staff on duty than health facilities that received the traditional, top-down funding from the local and state health authorities.

In addition, a 2020 study of the gender composition of the PHC governing structures at state, local and community level in the states of Abia, Osun, Ebonyi, and the FCT (Pappa, 2020) revealed that:

- The percentage of women on the state PHC Boards varied greatly, from none in the FCT to a little under half in Abia. The chairs and executive secretaries in the four states were men. Fortunately, women have a stronger membership in the executive teams of the SPHCDA.
- In Ebonyi, 8 of the 13 Local Government Health Authorities were women. Of the four states studied, Ebonyi had the largest female composition in the LGHAs.
- The states had an uneven achievement in fulfilling the required minimum quota of 30 per cent of female membership in the Ward Development Committees: this quota was already achieved in Abia but not in FCT. In all states, the number of women chairing these WDCs was still small.

State-level findings of the evaluation team about gender equality

During the evaluation team's interview with programme managers in the six states visited, the majority of respondents stated that gender equality was incorporated in NSHDP-II and flagship programmes. However, respondents differed in their understanding of gender equality and the empowerment of women and girls. For example, they included other marginalized groups into their notions of gender equality. The following are representative quotes from the respondents.

"It's necessary to take each and every one into consideration in planning strategic development plans, all that we have we address – gender equality for men, for girls, for grandmothers, for pregnant mothers, for under 5 children, gender equality will be addressed for the elderly – it depends, like we in nutrition, we have all these things." — State Officer.

"For women empowerment I think, so far there is a lot of strategies that have been put in place, just like I told you now, we have the community support groups around most of the 13 LGAs and many community support groups just come together, and we even look at supporting them during what we call home gatherings; these are all empowerment programmes, we have the women affairs looking at the safety nets." — State Officer.

"(In) the strategic plan we always put it, even this adolescent health, we put it so that when we're even going out for sensitization, or meetings, we talk about it because in this part of the world, Bayelsa State, they prefer the girl to go and get married and the boys should be trained… It's always in the strategic work plan, but nobody funds it." — State Deputy Director.

The findings of the evaluation team are consistent with recent interviews with state and local government health officials in Abia, Osun, Ebonyi, and the FCT (Pappa, 2020). In these interviews, most respondents had a very cursory understanding of gender equity and what it means to apply it. Most viewpoints from interviewees centred on issues of need in a generic fashion – for example addressing the needs of pregnant women and children under 5 years of age is necessary for reducing mortality.

Many key informants equated gender with "women only" – noting the emphasis on pregnant women as a vulnerable group as representative of a gender-responsive approach. Others understood gender to also include addressing the needs of men, specifically noting the barriers men face in

accessing care. Others mentioned the needs of adolescents, and specifically adolescent girls, as a neglected group under the BHCPF. The needs of adolescent boys were not specifically mentioned, and it is unclear whether those needs are provided for in facilities.

4.9 Equity

Overall findings: Low equity|quality of the evidence: strong

Conclusion

There are significant barriers to access basic health services across the country. These barriers are rooted in social determinants of health, including socioeconomic status, education, gender inequality, geographical location, and poor access to water, sanitation and hygiene. In addition, there are strong disparities in the utilization of health services and significant differences between the north and the south.

Health data trends from the FMOH reveals inequities in maternal mortality rates across the six geopolitical zones in Nigeria, with the North-East and the North-West zones of the country reporting almost 10 and 6 times respectively higher mortality rates than the South-West of the country (Federal Government of Nigeria, 2019a). In addition, women from rural areas in northern Nigeria are at higher risks of maternal deaths than those from the southern part of the country. Lower access to health-care services is most common in the northern zones of the country, particularly in rural areas, among individuals with low socioeconomic status. This is due to distance to a health facility, limited means of transportation, poor staffing in health facilities, poor attitude of health providers, and lower levels of education. Provision of PHC services to hard-to-reach populations remains a significant equity issue. Expansion of health insurance is a critical strategy to improve equitable financial access to health services.

Equity at pre-pregnancy and pregnancy

Figure 4.38 depicts the equity gaps in three key indicators. Demand for modern FP methods registers a 24 percentage point gap between the poorest and richest quintile. Antenatal care with four or more visits during pregnancy registers a bigger gap – 54 percentage points – between the same wealth quintiles. And neonatal tetanus protection also shows a gap of 42 percentage points between the same wealth quintiles.

Equity at birth and postnatal care

Skilled birth attendance, one of the key outcome indicators for maternal health, registers the largest gap among key health indicators in Nigeria – 75 percentage points – between the richest and the poorest quintiles as shown in Figure 4.37. And postnatal care also registers a difference of 56 percentage points between the richest and poorest quintiles in Nigeria. Conversely, continued breastfeeding for the first year of life is more prevalent among the poorest mothers than those in the wealthiest quintile as depicted in Figure 4.38.

SUMMARY CONCLUSIONS (EQUITY)
Nigeria registers significant disparities in the health status of mothers and young children throughout the country. The causes of disease for these population groups are linked to social determinants such as socioeconomic status, education, gender inequality, location, and poor access to water, sanitation and hygiene.
The disparities between the poorest and the richest quintiles are significant across key indicators related to utilization and practices of health services and products among women of reproductive age, mothers and young children.
Geographical disparities in the utilization of health services, particularly among women and young children, are also observed between the north and the south in Nigeria.

Evaluation Question (Equity)	Likely strength of evidence	Data source
To what extent were the barriers (and their causes) to access basic services in the targeted areas, identified and addressed as part of the overall programme strategic priorities)?	Strong	Literature review, KIIs.

Equity and child health: immunization and childhood diseases

Regarding child health, vaccination coverage also registers a significant disparity between wealth quintiles as shown in Figure 4.39. The third dose of DTP vaccination rates differ by 56 percentage points between the richest and the poorest quintiles, while a similar disparity of 52 percentage points is registered for measles immunization rates for children. Similarly, care-seeking for pneumonia treatment registers a 22 percentage point difference while treatment of diarrhoea with oral rehydration salts registers a discrepancy of 30 percentage points between the richest and the poorest quintiles as shown in Figure 4.40.

The equity gaps shown in many of the key health indicators for maternal and child health demonstrate a persistent disparity of health services for women and children across the country. Income, education and location (north/south, urban/rural) are the biggest contributors of equity gaps in key health indicators for women and children.

From the in-depth causal analysis and determinants of existing secondary health data and triangulation with primary data collected from the health situation assessment at health facilities, the health system assessment, and the KIIs in the six target states, the independent evaluation has revealed a series of bottlenecks and barriers. The analysis included the use of existing frameworks for causal

Figure 4.36: Equity gaps during pre-pregnancy and pregnancy

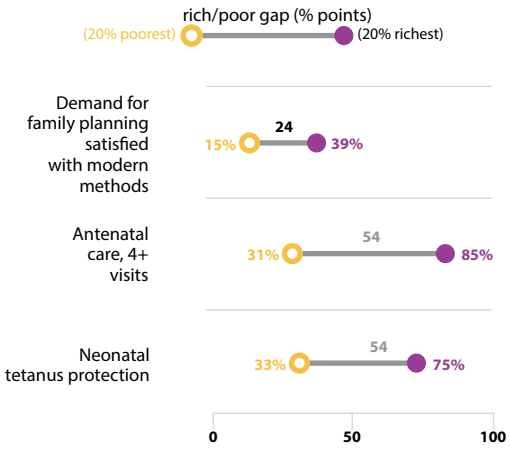


Figure 4.37: Equity gaps at birth and postnatal care

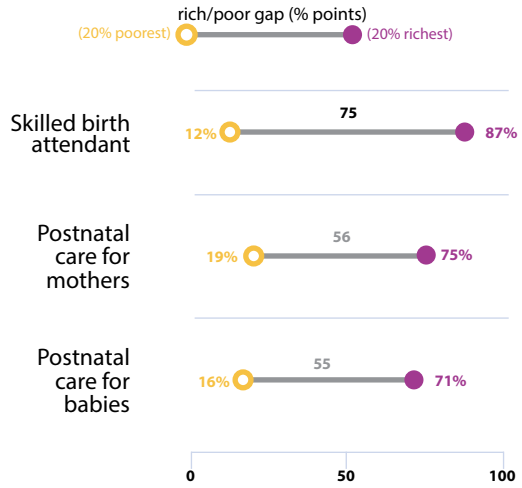


Figure 4.38: Equity gaps and breastfeeding practices

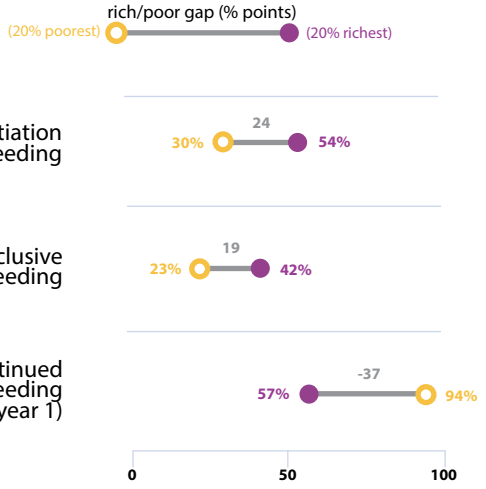


Figure 4.39: Equity gaps and children's immunization

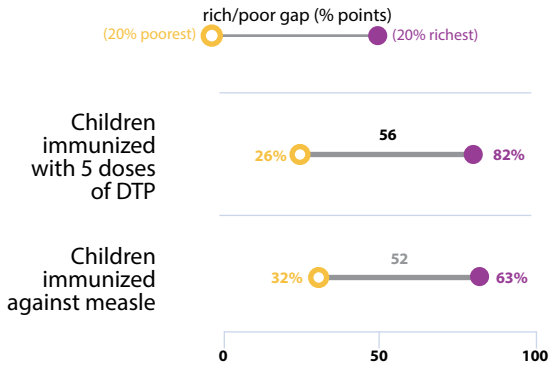


Figure 4.40: Equity gaps and childhood diseases

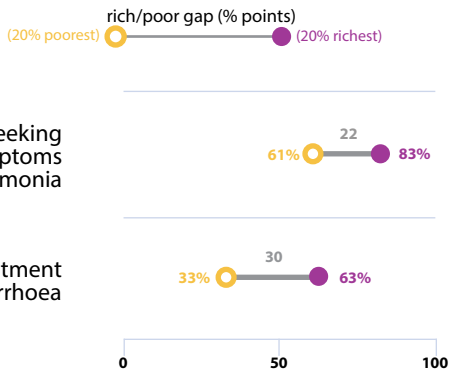


Table 4.28. Barriers to PHC services and causes

Domains for effective coverage of PHC services	Barriers to PHC services	Causes to identified barriers to PHC services
Access to PHC services	Distance to health facilities (i.e., health post, health centre, hospital). Significant time delays for seeking out health services (i.e., the three delays for maternal health). Cost to reach health services (i.e., cost of transportation to a health facility). Negative perception of provision of health services at health facilities by clients/caretakers. Limited decision-making by women or caretakers to seek out health services outside their household. Limited number of trained community health workers in MNCH services.	Lack of transportation to access health services. Lack of resources to pay for health services. Power dynamics at household level. Limited training of community health workers in preventive and curative PHC services.
Availability of PHC services	Limited availability of health staff (i.e., clinicians, nurses, midwives) at health facilities. High turnover of health staff. Low morale among health staff. Lack of essential medicines for primary health care. Lack of basic equipment for the provision of basic MCH services (i.e., BEmONC, CEmONC). Poor basic health infrastructure for the provision of MNCH services. Limited integrated PHC services.	Poor distribution of health workers. Low motivation among health workers. Stock outages of essential medicines. Limited resources for basic equipment for MNCH services. Limited capacity for integrating PHC services.

Quality of PHC services	Lack of qualified/trained health staff for the provision of MNCH services according to established clinical protocols. Lack of protocols for measuring quality of care. Limited technical skills for establishing and maintaining quality assurance protocols. Limited resources for quality assurance and quality improvement for PHC services. Limited/negative perception of clients about quality of health-care services.	Limited training of health workers. Low supervision. Limited quality assurance and quality improvement processes for PHC services. Mistrust of clients against health workers.
Demand for PHC services	Limited awareness and knowledge of health services.	Low education levels among women. Decision-making/power dynamics for health services.
Enabling Environment for PHC service delivery	Lack of incentives to increase the demand of MNCH services. Lack of incentives to increase the supply of MNCH services. Limited trust between clients and providers. Weak implementation of policies to increase demand and/or supply of MNCH services. Strong social norms negatively affecting the demand of MNCH services.	Limited capacity to implement health policies. Strong cultural norms and beliefs towards utilization of MNCH services.

analysis and determinants of health, including UNICEF' Equity Determinants Analysis Framework (MoRES)[14] and an adaptation of Tanahashi's health service coverage evaluation methodology (Tanahashi, 1978), which examines supply, demand, and quality determinants that contribute to effective intervention coverage.

Table 4.28 presents a summary of the key barriers for PHC services and their related causes using a health systems approach, including domains on the supply side (access, availability and quality of PHC services), as well as domains on the demand side (knowledge and awareness of those PHC services and products). The table also includes barriers related to the social and policy environment needed for effective and efficient delivery of PHC services. Addressing these barriers, and most importantly the causes related to those barriers, will allow the delivery of high-impact, evidence-based PHC interventions at scale, across the country in all geopolitical zones of Nigeria for increasing the utilization of quality PHC services for priority population groups: women and young children.

4.10 Universality

Overall findings: partial accomplishment|quality of the evidence: medium

Conclusion

Nigeria adopted the Children's Rights Act in 2003. While the Act is mentioned tangentially in Objective 36 of the NSHDP II, Nigeria promotes universal health coverage for all its citizens, including children. This is reinforced in the National Health Act (2014), which is the foundation for the ongoing BHCPF to improve PHC services towards UHC. BHCPF aims to improve access, availability and utilization of health services by all Nigerians, including children.

In 2003, Nigeria adopted the Children's Rights Act to adhere to and contextualize the United Nations Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child. The Children's Rights Act of 2003 expands the human rights bestowed to citizens in Nigeria's 1999 constitution to children. Although this law was passed at the federal level, it is only effective if state assemblies also codify the law. The Act was officially passed into law in 2003 by former President Chief Olusegun Obasanjo as the Children's Rights Act (2003). However, as Nigeria operates under a federated system, the law does not automatically become applicable in all of 36 states of the country. Each state legislature must make the national law applicable within its territory. As of today, only 25 of the 36 states in Nigeria have localized the Act. Eleven states, all in northern Nigeria, have yet to domesticate the Children's Rights Act. Besides the federal structure of Nigeria, there are other reasons why the Children's Rights Act hasn't been adopted by all states. It is argued that main reason is due to religious beliefs and practices, coupled with ethnic and cultural diversity.

The Children's Rights Act is mentioned tangentially in the NSHDP II under Objective 36 as part of the strategic intervention to improve gender sensitivity in the production of a health workforce for all cadres of health workers at all levels. However, and regardless of the brief reference of child rights in the NSHDP II, Nigeria promotes UHC for all its citizens, including children. The most direct link to a universal health-care package is in the National Health Act (2014), which includes the Basic Health Care Provision Fund to improve PHC services towards UHC.

The BHCPF aims to improve the functioning of PHC facilities in Nigeria by providing additional resources to states through an annual grant from the Federal Government of not less than 1 per cent of the Consolidated Revenue Fund, which is the total federal revenue before it is shared to all tiers of government.

The overall objective of the BHCPF is to ensure the provision of a Basic Minimum Package of Health Services to all Nigerians and, strengthen the PHC system. Based on

SUMMARY CONCLUSIONS (UNIVERSALITY)
Nigeria promotes universal health coverage for all its citizens, including children. Although the Children's Rights Act adopted in 2003 is mentioned tangentially in the NSHDP II under Objective 36, the National Health Act (2014) promotes the principle of universality of health coverage, including the ongoing BHCPF that Nigeria is rolling out in all 36 states and the FCT. Through all health programmes implemented by Nigeria, and particularly BHCPF, Nigeria aims to improve access, availability and utilization of health services among all Nigerians, including children.

Evaluation Question (Universality)	Likely strength of evidence	Data source
To what extent are the child rights for fully integrated universal health-care package/services available and benefiting mothers and children? Is the child rights package contributing to improvements in access, availability and health services utilization?	Medium	Literature review, KIIs

the National Health Act (2014), this is to be achieved by:

- Disbursing 50 per cent of the BHCPF through the National Health Insurance Scheme via a pathway to be called the NHIS Gateway, which would purchase health services based on the BMPHS from providers nationwide.
- Disbursement of 45 per cent of the BHCPF through the National Primary Health Care Development Agency (NPHCDA Gateway) for the provision of essential drugs, vaccines and consumables for eligible primary health-care facilities (20 per cent), the provision and maintenance of facilities, laboratory, equipment and transport for eligible primary health-care facilities (15 per cent) and the development of human resources for primary health care (10 per cent), and
- Utilization of 5 per cent for the provision of an emergency medical treatment (EMT Gateway).

While the BHCPF is still in its early phases of implementation, states are beginning to meet the criteria for accessing and utilizing resources through the BHCPF. This is the most prominent and direct effort by the Government of Nigeria for the implementation of a universal health-care package of PHC services to all Nigerians, including children. A more detailed description of the BHCPF, implementation process and opportunities for Nigeria to progress in its journey to UHC is included in section 4.4 Efficiency.

Regarding the child rights package contribution to improvements in access, availability and health services, the analysis of secondary health data revealed that such a contribution is mostly detected in southern Nigeria, where overall health indicators are performing better than in the north. Sections 4.3 Effectiveness and 4.5 Impact present in detail the overall health situation and status of mothers and young children across the country and in the target states of the independent evaluation.

Given the overall scenario and status of health in Nigeria, the child rights package has contributed the most to improvements in access, availability, and utilization of health services in the southern zones as presented in sections 4.3 and 4.5.

Health Policies Implementaton in Nigeria

Chapter **Five**

5.1 Key health policies

Through the Federal Ministry of Health, the Government of Nigeria has developed a set of health policies that provide the foundation for the overall strategy for health in the country. These policies and their effects on coherence, relevance, effectiveness, efficiency, impact, equity, gender equality and sustainability have been described in the previous sections of this report. Table 5.1 presents a summary of the health policy instruments for the implementation of the health-related SDGs in Nigeria.

Table 5.1. Health policies and SDGs in Nigeria

Health policy instruments for health-related SDGs in Nigeria
National Health Act (NHAct) (2014)
National Health Policy (NHP) (2016)
National Strategic Health Development Plan II (NSHDP II) (2018–2022)
Primary Health Care Under One Roof (PHCUOR) (2012)
One Health Strategic Plan (2018–2023)
Nigeria's Strategy for Immunization and PHC System Strengthening (NSIPSS) (2018–2028)
National Health Management Information System Policy (HMIS) (2014)
National Cancer Control Plan (2018–2022)
National Multi-sectoral Action Plan for the Prevention and Control of NCDs (2019–2025)
Health Sector Next Level Agenda (2019–2023)
Health Insurance Under One Roof (2020)

The National Health Act (2014)

The NHAct (2014) establishes the framework for the regulation, development and management of Nigeria's national health system. It also sets standards for rendering health services in the country. The Act also provides the legal basis for the achievement of UHC and other health goals.

The NHAct (2014) serves as the major legislative framework in Nigeria for the effective articulation and delivery of the strategies enunciated in the NSHDP II. Most importantly, the NHAct (2014) is the legal instrument for the implementation of the Basic Health Care Provision Fund

National Health Policy (2016)

In addition, the goal of the National Health Policy (2016) is to strengthen Nigeria's health system, particularly the PHC sub-system, to deliver quality, effective, efficient, equitable, accessible, affordable, acceptable and comprehensive health-care services to all Nigerians for the attainment of UHC.

National Strategic Health Development Plan II (NSHDP II)

NSHDP II is anchored on the National Health Policy (2016) with the goal of ensuring healthy lives and promoting well-being of the Nigerian population of all ages. The plan aligns to the national development agenda and the global health agenda including the health-related SDGs. The NSHDP II was developed through active participation of key stakeholders, including those at federal and state levels, development partners, CSOs and academia among others. It was approved by the NCH and the FEC in 2018 and launched by the President of Nigeria in January 2019.

One Health Strategic Plan (2018–2023)

The One Health Strategic Plan was launched in December 2019 to strengthen the prevention, detection and response mechanism to infectious diseases that affect human and animals in Nigeria. The plan integrates human, animal and environmental health management for improved health security. It was jointly developed by three federal ministries: FMOH, Agriculture, and Environment.

Health Insurance Under One Roof (2020)

This newly developed strategy aims to speed up the attainment of UHC in Nigeria by increasing access to financial risk protection, especially for the vulnerable and the informal sector. It will enable the setting of a matrix of coverage using a systems approach while providing a clear definition of scope of the health insurance in the country.

National Health Management Information System Policy (HMIS) (2014)

The current HMIS policy was reviewed in 2014 to provide a framework for intersectoral, comprehensive, and integrated structure for the management of health data. The policy includes five principles including governance and accountability; standardization; sustainability; integration; partnership and institutional support and stewardship. The HMIS policy includes four priority areas: (i) data governance; (ii) data architecture, indicators and sources; (iii) data management, dissemination and use; and (iv) data security.

5.2 Basic Health Care Provision Fund

Section 11 of the NHAct (2014) establishes the BHCPF, which aims to strengthen health service delivery at the PHC level; improve equitable access to quality health services and ensure financial risk protection.

- The BHCPH is derived from three sources:
  - An annual grant from the Federal Government of Nigeria of not less than 1 per cent of its Consolidated Revenue Fund.
  - Grants by international donor partners.
  - Funds from any other sources, including the private sector.

The overall objective of the BHCPF is to ensure the provision of the Basic Minimum Package of Health Services to all Nigerians; strengthen the PHC system and provide emergency medical treatment. The BMPHS contains nine services comprising 52 interventions. The nine service categories are: antenatal care; normal delivery and postnatal care; emergency obstetric services; care of children under five years; child and neonatal care; family planning; malaria treatment; screening and prevention of NCDs, and nutrition.

BMCPH was initially funded with NGN55.1 billion that was made available from the 2017 statutory allocation. The first tranche of the fund totalled NGN6.5 billion disbursed to 15 qualified states and the FCT. There was no disbursement in 2019 and 2020. However, the implementation of the BHCPF was suspended in January 2020 following observations by the Health Committees of the National Assembly. The reason was that some portions of the 2018 operations manual for the implementation of the Fund did not comply with the NHAct (2014).

As of February 2021, NGN27.5 billion (50 per cent of the initial NGN55.1 billion appropriation) has been released so far. The NPHCDA and the NHIS have disbursed funds to all 36 states and the FCT from their gateways (NPHCDA, 2020).

For the NPHCDA gateway, a total of 9,534 facilities are taking part but funds have so far been disbursed to 2,388 facilities in 13 states. In 24 states, the participating facilities have not met the requirement for disbursement of funds. Likewise, the NHIS is targeting 1,223,049 people and recording 464,561 enrolees (Isokpunwu, xxxx).

Disbursement of the BHCPF from the relevant gateways

To benefit from BHCPF resources, eligible health facilities must have trained HRH and acceptable infrastructure as defined in the baseline quality assessment. A recent assessment (Abdullahi et al., 2020) has shown the following progress:

- More than 7,000 facilities in 26 states and FCT have completed quality assessment.
- Capacity-building of 18,000 service providers in 18 states and FCT completed.
- Funds have been disbursed to 1,300 facilities in six states and FCT.

The BHCPF constitutes a major health strategy adopted by the Government of Nigeria to revitalize PHC throughout the country. As such, the FMOH remains committed to the roll-out of the BHCPF to all 36 states and the FCT in Nigeria in order to revitalize the PHC system in the country.

Conclusions and Recommendations

Chapter **Six**

6.1 Conclusions

Based on a comprehensive review of documents and reports, in-depth interviews with key central level staff, and visits to six states to collect information on health systems, service delivery, and perceptions from programmatic and technical staff from state ministries of health, this section presents the overall conclusions and recommendations of the SDG3 Healthy Lives independent evaluation.

This evaluation report includes a comprehensive documentation and analysis of the findings through a health systems approach, including bottlenecks, opportunities, and multiple mechanisms, including health programmes and initiatives from the FMOH and multiple health and non-health actors. The analysis and related findings presented in this report are categorized by the evaluation criteria and related evaluation questions as per the evaluation design. Our conclusions are grouped under four thematic areas that the evaluation team prioritized based on the evidence gathered. They are: (i) governance and accountability; (ii) health financing; (iii) revitalization of primary health care; and (iv) capacity strengthening.

The conclusions, along with some key lessons learned, informed the specific recommendations presented in Table 6.1. These recommendations are presented according to the four thematic areas mentioned above and for multiple key stakeholders in Nigeria. SDG3 and its implementation require a paradigm shift in health strategies in Nigeria and elsewhere. While there are no silver bullets to address the systemic and structural issues found in the Nigerian health system, these recommendations are not prescriptive, but rather meant to provide feasible and sustainable approaches for Nigerian policy and decision makers to consider, and to facilitate progress towards the efforts to attain the aspirational goal and targets of SDG3 by 2030.

The evaluation team observed improvements in many of the programme areas, but also systemic weaknesses. Nigeria is a large and complex country; therefore, the improvements and programmatic weaknesses can't be generalized, as there are states that are close to the SDG3 targets while there are many others that still have a long way to go.

This evaluation had the opportunity to do an in-depth analysis of the health system in six states, two high-performing, two transition, and two low-performing, to observe differences between health systems of ministries of health and health services of key programmes to achieve the SDG3 targets. The recommendations presented in this report aim to address systemic issues not only found in the six target states but also affecting the entire health sector of Nigeria for years. As COVID-19 is disrupting essential, life-saving health services for women, children and adolescents, with a potentially devastating impact on health and equity, Nigeria is at an important juncture that demands strategic decisions along with smart tactical implementation approaches to bring the country's health sector back on track to improve health for all and save further lives.

Thematic area 1: Governance and accountability

governance was established in this assessment as a cross-cutting theme, and it didn't require direct data collection, but through in-depth, semi-structured interviews, secondary data analysis, and literature review. Key informants, mainly those at the federal level, had

consistently mentioned the importance of good governance and lack of accountability to improve health programmes, and to achieve the NSHDP II objectives.

Academics and scholars in Nigeria reported that improved performance of government agencies is a product of good governance, accountability, transparency and trust which, in turn, leads to improved living standards (Gberevbie, Daniel E., A. Oyeyemi, N. Excellence-Oluye). According to WHO, "governance in the health sector refers to a wide range of steering and rule-making related functions carried out by governments/decision makers as they seek to achieve national health policy objectives that are conducive to universal health coverage."

It has been seen, not only in this evaluation, but also in other evaluations and studies, that the public health system in Nigeria is still weak, with morbidity and mortality indicators either stagnant or deteriorating over the past few years. Home delivery was 31.3 per cent in high-performing states in 2013 and 84.9 per cent in low-performing states (DHS, 2013); and in 2018 home delivery decreased to 21.4 per cent in high-performing states but remained at 84.6 per cent in low-performing states. These results show striking differences in care during delivery, a highly sensitive predictor of maternal mortality.

When the evaluation team compared the findings of the health situation assessment at facility level and the health systems assessment by high- and low-performing states, they saw few differences. In fact, in some cases, the low-performing states showed better strategic plans in some of their programmes. These findings revealed that differences between public health services and impact indicators may go beyond the strengths and weaknesses of the health system. However, in many instances, the evaluation team was unable to find documentation of programme implementation. In addition, KIIs at state level revealed a lack of systematic approaches for programme implementation. Among the top three reasons for a lack of systematic approaches were: limited resources for conducting activities in annual operational plans; limited supervision, and lack of basic commodities for health services.

In order to further strengthen overall accountability and governance from the analysis conducted from multiple sources, we identified four sub-thematic areas: social accountability and the role of civil society organizations; the role of the private sector through public-private partnerships; health information systems at national and sub-national levels, and monitoring, evaluation and research.

Social accountability, focusing on PHC through CSOs

Social participation has been reported in some programmes in the target states of this evaluation. For instance, people living with HIV/AIDS have been active participants in government programmes, and something similar has been observed with the tuberculosis DOTS, and the malaria control programme.

A vibrant civil society can be the mechanism needed to improve access and quality of services, programme accountability, transparency, and commitment to good governance. Organized civil society can be very important in promoting good governance. Local governments could create mechanisms for social participation, particularly of women. There are many examples around the world of women's participation in seeking better reproductive health services for themselves and their children. It all starts with the perceived need and the generation of spaces for dialogue and participation.

Public-Private Partnerships

The 2013 and 2018 DHS show that a good proportion of delivery care is covered by private providers (it doesn't specify whether they are NGOs or private practitioners). The average number of deliveries by private providers was 13.2 per cent and 13.0 per cent in 2013 and 2018 respectively, while deliveries in public services were 35.7 per cent and 39.4 per cent respectively. It should be noted that home delivery remains at 50 per cent. When comparing high-performing states with low-performing ones, delivery by private providers rises to 34.2 per cent in high performers and 0.4 per cent in low performers (2013) and in 2018, it was 18.9 per cent in high performers and drops to 0.42 per cent in low performers.

It is quite possible that, in high-performing states, the out-of-pocket money spent on medical care and during emergencies is much higher than in low-performing states.

It is very important that states include the private sector in national strategies but in practice the involvement of the private sector is casual and unstructured. Formal alliances are needed to specify the role of each one, as well as their limitations and regulations for providing basic health-care services, and during emergencies. In low-performing states, the non-profit private sector could be called on. Given the burden of cost of health care, any private sector strategies should be targeted based on health market demands and the ability of clients to pay for health services delivered by private providers.

Finally, the private sector can play a very important role, not only in the delivery of health services, but also in the health insurance programme; strategies focused on priority groups and informal workers among other strategies and interventions. In other words, the private sector could participate in the elaboration of health strategies, accountability and, in general, in the good governance of the state's health sector.

National and state health information systems

All key interviewees, references from past evaluations, programme DQAs, and health system reviews indicate that the information systems have serious quality problems. This has been dragging on for decades, and even federal and state authorities acknowledge it, yet little has been done to address the issue. Reliable information is a crucial element for good governance, strategic planning and programmatic decision-making, as well as informing the public about health programmes' progress. More of the same in the remaining decade of the SDG3 in Nigeria will not work.

Fixing the health information system at the national level is impossible with a single action. A task of such magnitude is only possible if it is subdivided into manageable pieces, but with a global focus.

Classic solutions, such as cascade training, are ineffective and slow. The national programme needs innovative ideas for federal, state and local governments. For example, it was discussed during the KII interview with one authority whether it would be feasible for the state to subcontract a private agency to manage the information and surveillance system, and to train Ministry of Health staff in its operation and maintenance. The response was that, if the political decision is there, the legal framework and mechanisms can be created to make this possible. If it is an attractive and feasible idea, it could be considered in the academic, private, and non-profit sectors, as well as a field for research in health systems and governance.

Programme evaluation and operations research

Nigeria has the human resources and capacity to conduct performance and impact evaluations and operations research. Moreover, the federal and state ministries of health have monitoring and evaluation divisions. Nevertheless, there is not enough application and practice of programmatic evaluations and operations research. The SMOHs, with federal support and external cooperation, should consider revitalizing this practice. Given the multiple barriers and bottlenecks found in the Nigerian

health system on both the supply and the demand side, and in the social and policy environment, operations research studies can play an important role to address or remove those barriers. Findings from these studies should not only reveal specific approaches or mechanisms to remove them but, most importantly, how to apply them given the multiple socioeconomic contexts – social norms, multi ethnicity, religious beliefs, gender – that are present in Nigeria.

Thematic Area 2: Health financing

Findings from the analysis conducted on the health financing situation and overall efficiency in Nigeria revealed important and urgent issues and scenarios to address. From the macroeconomic perspective, the volume of revenue accruable to the Government largely determines the fiscal space available for the Government to spend in health. While the total revenue increased from NGN10.0 billion (2016) to NGN15.5 billion (2019), the country's revenue is highly dependent on debt and oil revenue. The country hit a recession in 2016, and has slowly recovered between 2017 and 2019. However, the COVID-19 pandemic will most likely slow down the recovery process and the country will most likely face limited resources for health and other development sectors.

Overall economic activity in Nigeria is expected to shrink by 3.2 per cent in 2020/21. Amid the unprecedented collapse in oil prices, this latest contraction in economic activity is set to be the most severe in four decades, and further exacerbated by the COVID-19 pandemic. The Nigerian economy depends heavily on oil revenues, which represent more than 80 per cent of exports, about one third of banking-sector credit, and one-half of general Government revenues. Faced with a twin shock, the country's slump in economic activity has been compounded by measures to slow the domestic spread of the virus – including closing of national and state borders, schools, and the temporary shutdown of markets. The oil sector is projected to contract by 10.6 per cent, while non-oil output falls by 2.1 per cent. Recovery in Nigeria is forecast to be moderate. Lower oil prices are expected to dent investor confidence, while the assumed fiscal adjustment to lower oil revenues and tighter borrowing conditions is expected to constrain public investment. Therefore, some strategic decisions will be necessary for Nigeria to address the negative effects of the pandemic and, most importantly, how to address these effects so the health sector can provide the foundational means of a healthy labour workforce to bring Nigeria on track to ensure healthy lives and promote well-being, the foundations of the SDG3 goal.

Health expenditures allocated to PHC

The current level of health spending is suboptimal and grossly inadequate to achieve many of the health objectives. Although the Abuja Declaration established a minimum benchmark of 15 per cent for government general health expenditure, health expenditure data revealed a much lower bar in Nigeria for the most recent data available: 4.7 per cent in 2019. This was also confirmed in our health financing analysis in all six target states. Overall, Nigeria benchmarks poorly against other countries in the sub-Saharan Africa region in terms of prioritizing domestic investments in health.

In addition, the proportion of health expenditure allocated to PHC, has been the lowest between 2014 and 2017. Health expenditure for curative care is two times higher (36.5 per cent in 2017) than the expenditure for preventive care (12.8 per cent in 2017). Trend analysis revealed that this level of health expenditure has been decreasing from 2014. This gap is, in part, due to low investment in the health sector, with even lower investment in primary health care. However, it is important to highlight the recent commitment of the FMOH in putting forward the BHCPF and the resources set aside for revitalizing the PHC system in the country. More details on this strategic initiative are presented in Thematic Area 4 below.

Out-of-pocket expenditure

Perhaps the most important issue is related to resources for PHC care. The data revealed that Nigeria registers a significantly high rate of out-of-pocket expenses for health care. The most recent official data puts this rate at 77 per cent – one of the highest in sub-Saharan Africa. The implications of such a high rate of OOP expenses are significant, particularly for those who are considered poor according to the latest Nigeria Living Standards Survey (2018–19).

Earmarking

For the first time since the passage of the National Health Act (2014), the federal government committed the necessary resources towards the implementation of the BHCPF to revitalize the PHC system in Nigeria. A total of NGN55.15 billion was allocated to fund the BHCPF. In 2019, through the NHIS gateway, the first tranche of

the fund totalling NGN6.5 billion was disbursed to 15 qualified states and the FCT. The second tranche of funds totalling NGN12.7 billion was disbursed to 12 qualified states and the FCT in 2020.

The states are at varying degrees of implementation of the state health insurance scheme. They are expected to earmark at least 1 per cent of the Consolidated Revenue Fund (CRF) to support vulnerable population groups under the scheme. Due to the scope of this review, it was impossible to ascertain the level of commitment of each of the six target states. Although Nasarawa, Ebonyi and Bayelsa states had funds allocated to their health insurance agencies, there was not enough information to confirm if funds earmarked were transferred to them.

Efficiency savings

The efficiency of public spending on health is as important as the volume of the resources given current financial limitations. In other words, more money for health and more health for the money are the key intermediate objectives on the journey towards UHC. However, more money doesn't automatically translate to more health. It is important to be deliberate about doing more with available funds. Our analysis revealed that all six priority states have experience a trend of inefficiencies when looking at their health budgets and levels of health expenditures for the period 2016–2019. In most of the states, the gap between health budgets and health expenditure is increasing, particularly for the years 2018–2019, which shows the need for better performance when executing health budgets.

Budget allocation

The analysis of the composition of total health expenditure in most of the states revealed that the Nigerian Government spends significantly more on recurrent than capital expenditure. This was confirmed from the latest figures at national level (NHA, 2017) and at state level through figures obtained from the six target states. This trend runs contrary to best practice which encourages a higher proportion to be allocated in favour of capital expenditure; in this way, more money will be available for service delivery.

Budget implementation

The general budget execution rate can be regarded as sub-optimal, except for at federal level where a higher performance was recorded between 2016 and 2019. The sub-optimal performance observed in the six target states may be due to several reasons such as paucity of funds, lack of realistic budget, and bottlenecks around fund requisition and release.

Lack of health financing data at state level

Lastly, spending data by level of care and health-care functions could not be obtained from the states' financial statements because of the current reporting template. This level of information could be obtained only from the National Health Accounts. Health accounts have been institutionalized at the national level in Nigeria. States are currently at various stages of institutionalizing them. The first round of NHA was conducted for the period 1998–2002, and ever since then, the FMOH has conducted and published NHA studies up to 2017.

Thematic Area 3: Revitalization of primary health care

Primary health care (PHC) is the cornerstone for making progress in SDG3, particularly for targets 3.1 and 3.2, which have been the focus of this evaluation. While the health data and analysis for these targets revealed that Nigeria has made progress over the past two decades in key maternal and child health indicators, stagnation in key outcomes and impact indicators were observed from trend analysis.

The evidence in global health points to the strategic importance of strengthening PHC services and the necessary components to have a strong PHC system, especially in low-resource settings like many of the Nigerian geopolitical zones.

In response to this scenario, the Government of Nigeria has prioritized strengthening its PHC system in order to achieve UHC as shown in the current NSHDP II. This includes Nigeria's strategic commitment to test solutions for strengthening the PHC system across the country. With financial support from international donors, Nigeria has tested key health programmes and initiatives, including the NSHIP and the Saving One Million Lives to address systemic barriers and determinants of health. In this way, the BHCPF has been designed and already adopted as the strategic mechanism by which Nigeria makes supply- and demand-side investments for revitalizing PHC. Through the NHAct (2014), Nigeria earmarks 1 per cent of the Consolidated Federal Revenue to provide the necessary annual resources to implement the BHCPF.

National-scale implementation of the BHCPF would create a sustainable mechanism to channel government expenditure to the PHC system in Nigeria. This initiative is expected to have a triple effect. First, reduce the out-of-pocket payments for critical health services, which will lessen the financial burden that poor Nigerians currently face. Second, it will increase PHC utilization of high-impact interventions, particularly for pregnant women and young children. And third, it will improve service readiness at the PHC level through increased operational financing.

Status of BHCPF disbursements

As of February 2021, only the NGN27.55 billion representing 50 per cent of the NGN55 billion appropriated for the BHCPF in 2018 has been released so far. There was no disbursement in 2019 and 2020. The NPHCDA and the NHIS have disbursed funds to the 36 states and FCT from their gateways.

Through the NPHCDA gateway, a total of 9,534 facilities are participating, yet funds have so far been disbursed to 2,388 facilities in 13 states. In 24 states, the participating facilities have not met requirement for disbursement of funds. Likewise, the NHIS is targeting 1,223,049 people and recording 464,561 enrollees.

The implementation of the BHCPF at national scale will not only require additional resources to those already planned, but also strengthening of the technical, clinical, and management capacities in order to be successful. More details on capacity strengthening are presented below. In addition, strong accountability, including trust, transparency, stewardship and good governance must be further strengthened throughout the implementation of the BHCPF at national and sub-national levels.

Thematic Area 4: Capacity strengthening

Capacity and commitment to flagship programmes

The Government of Nigeria is committed to designing large programmes that will support the implementation of BHCPF and achievement of SDG3 (targets 3.1 and 3.2). The design of these programmes includes the replication of best practices learned during previous and current programmes.

- The government's flagship programmes to address SDG3 (targets 3.1 and 3.2) have achieved significant results. Examples include:
  - The significant improvements in quality of care (but with little gains in population coverages of key programmes) under the nationwide SOML-PforR.
  - The significant improvements in population and quality of care under the NSHIP. NSHIP showed that direct funding to health facilities (decentralized facility funding) and providing them with autonomy in the management of their funds to improve the delivery of health services have considerably increased the performance of these PHC facilities.
  - The National Immunization Programme has eradicated polio in the country through the use of the Emergency Routine Immunization Coordination Centres at the national and sub-national levels. The programme has also implemented a series of innovations to increase immunization coverage in the field.
  - The National Malaria Elimination Programme has achieved significant population coverage with preventive, diagnostic and treatment interventions. Two of its major achievements are: (a) 51–75 per cent of health facilities are regularly supervised on malaria diagnosis and treatment and on malaria in pregnancy services, and (b) 80–89 per cent of participating health facilities report their malaria cases monthly.

The Government of Nigeria and the World Bank decided to follow up the SOML-PforR and the NSHIP with the ongoing, US$1.5 billion Nigeria Improved Child Survival Programme for Human Capital Multiphase Programmatic Approach, which will provide fundamental support to the BHCPF. Phase 1 of the MPA is the Immunization Plus and Malaria Progress by Accelerating Coverage and Transforming Services project (US$650 million, 2020–2025). The goal of the IMPACT project is to improve the utilization and quality of immunization plus and malaria services in selected states. To achieve its five-year goal, IMPACT will use some of the best practices tested in Saving One Million Lives, NSHIP and other programmes, e.g., government hiring of NGOs to implement malaria prevention and control programmes; decentralized facility financing; strengthening the states' monitoring and evaluation systems and also the states' social behaviour

change and communications programmes. It is too early in IMPACT's implementation to assess its overall performance.

Technical/clinical capacity for PHC

PHC facilities visited by the evaluation team had low to medium staffing levels but medium to satisfactory stocks of drugs and commodities. Informed by the analysis of the 2018 NDHS, all health facilities still have room to improve the quality of care provided, e.g., missed opportunities, transport and referral services and provision of caesarean sections. SMOHs and LGHAs must consider keeping staffing and drugs/commodities always at a satisfactory level.

The evaluation team also assessed the staffing, drugs and supplies in 60 PHC facilities in six states (10 per state: 8 were public and 2 were private). Less than half (43 per cent) of the PHCs had nurses/midwives; however, only 7 per cent met the minimum standard requirement of four nurses/midwives per PHC. Most of the PHCs (93 per cent) had CHEWS, whereas approximately 50 per cent of them met the minimum standard (three per PHC). Professional staff was more abundant in high-performing states while CHEWs and equivalent staff were more frequently found in the low-performing states. Overall, most of the facilities' staff had the skill sets needed to handle all obstetric emergencies (87 per cent) and pneumonia in children (90 per cent). Approximately 65 per cent of facilities had staff in charge of nutrition counselling and micronutrient supplementation.

A good number of the facilities had rapid diagnostic test kits (78 per cent) and microscopy (65 per cent) for diagnosis of malaria in 2019. Most facilities visited had Artemether/Lumefantrine (ACT) (77 per cent); and Fansidar (58 per cent). Oral rehydration sales, cotrimoxasole, and amoxicilin were available in three quarters of the facilities (75 per cent). The high-performing states had anti-allergic (hydrocortisone), eclampsia and FP medicines at most of their facilities (90 per cent). Oxytocin was available in almost all of the facilities (96.7 per cent).

The combined analysis of the surveyed facilities with the 2018 NDHS also disclosed that quality of care needs to be improved throughout all health facilities: (a) government-provided transport services are provided in less than 15 per cent of referred cases, forcing people to rely on out-of-pocket expenses to fund them; (b) missed opportunities to provide several and much-needed services to the same patient or during the same visit still occur (e.g., provision of HIV testing during antenatal care)and, (c) in the low-performing states, the 2 per cent prevalence of C-sections is still below the standard 5 per cent.

Healthy behaviours at household level

The knowledge and practice of key protective behaviours by household members (e.g., infant nutrition practices, early care-seeking for childhood diseases) still have significant room for improvement. These gaps can be addressed using strong and culturally appropriate social behaviour change and communication programmes.
The analysis of the 2018 NDHS revealed that key preventive and protective behaviours were practised by an alarmingly low percentage of the population. For example, only 29 per cent of children under 5 years with possible pneumonia sought care outside home within the first 24 hours of onset of symptoms. While this figure improves with the wealth and education of the population – 27.7 per cent in the low-performing states (which also have the poorest and least educated population), 29.9 per cent in the transition states and 37.3 per cent in the high -performing states –the low result in the latter states is notable, given that they house the most educated and wealthiest population.

This finding shows that strong and culturally appropriate SBCC programmes can provide significant gains in the household practice of preventive and early care-seeking behaviours, thus improving the population impact of programmes that address SDG3 (targets 3.1 and 3.2).

Management capacity for PHC

Management capacities to operate programmes that address SDG3 (targets 3.1 and 3.2) are strong at state level but anecdotal evidence suggests implementation weaknesses at local and facility levels.

The six SMOHs included in the evaluation operate key management systems with medium to high levels of performance: community participation, coordination, strategic planning and monitoring and evaluation, human resource management, health information systems and health financing. These are important achievements towards the programme sustainability of SDG3 programmes in these states. But the work is not finished at the SMOH level as there is plenty of room for improvement.

Of a greater concern for sustainability are the more limited management capacities at LGA and health facility levels. Evidence about shortcomings in their management systems was captured during the visits to the 60 health facilities in the six target states.

Human rights and gender equity

Knowledge and practice of human rights, 'leave no one behind' and gender equity are still incipient at state, local and facility levels.

Health sector programming and key flagships programmes apply a needs-based approach to fulfil Nigerians' right to health. Due to this needs-based approach, the right to health is seldom mentioned in the NSHDP and key flagship programmes and few health state government officials know about it.

Gender equality is included in the description of the NSHDP and key flagship programmes. This focus includes the gender disaggregation of key programme indicators. However, the understanding and application at the state and local level of gender approaches for health programming is still incipient and there is room for improvement.

Challenges for programme implementation

The following factors have challenged the successful implementation of health programmes at the sub-national level: (a) inadequate human resources; (b) inadequate funding; (c) lack of sustainability plan; (d) lack of political will and limited transparency; (e) scarcity of commodities/supplies/consumables/equipment; (f) difficult geographical terrain; (g) insecurity; (h) religious and cultural beliefs; (i) poor attitude of health workers; (j) impact of COVID-19; (k) poor health-seeking behaviour; (l) stigmatization; and (m) poor documentation of health indices by facility staff.

6.2 Lessons learned

The following are some of the key lessons learned from the analysis and overall implementation of the SDG3 Healthy Lives evaluation.

Weak local governance and accountability for PHC

Capacity for good governance and strong accountability at local level, especially LGA, is weak. Findings from multiple sources, including quantitative assessments at health facility level, health system assessment at state level, KIIs, and various reports from previous and ongoing PHC programmes revealed limited systems in place and capability for good governance for PHC services.

Funding constraints and inefficiencies are a major obstacle

Limited resources and their use for the implementation of health programmes remains a major challenge in Nigeria. The health financial analysis presented in section 4.4 (efficiency evaluation criteria) revealed significant challenges that Nigeria has been facing and for which some feasible and sustainable solutions are needed. The main health financing challenges include: (1) Household OOP over current health expenditure has been alarmingly high (76 per cent) and stagnant over the past decade; (2) the GGHE to GDP ratio has consistently remained below 1 per cent against the ideal ratio of 5 per cent; (3) only one third of NSHDP II of the original moderate scenario planning was spent by 2019; and (4) execution of health budgets remains poor, exacerbating the challenges for financing PHC services. Key recommendations regarding the thematic area of health financing attempt to address structural barriers within the health financing landscape in Nigeria.

Significant inequities in health persist

Secondary health data for key MNCH services revealed a significant level of health inequities in Nigeria. Socioeconomic factors, along with educational attainment and social norms, coupled with a highly heterogeneous ethnicity and strong cultural beliefs make this issue a complex and urgent health problem to address. Improving health service access for vulnerable population groups – particularly women of reproductive age, mothers and young children – through efforts to attain UHC coupled with social insurance schemes are a priority in Nigeria.

Lack of disaggregated and reliable data

Through the implementation of the evaluation, it became clear that limited availability of routine health data that meet quality criteria is scarce. This situation applies to programmatic data as well as health financing data.

No standardized metrics to assess progress and implementation of SDG3

The evaluation team did not find a standardized framework for assessing progress of SDG3. Similarly, no standard metrics have been adopted for assessing the progress and implementation of SDG3.

The review of existing literature on this topic identified a global SDG index (IHME, 2018). developed by the Institute of Health Metrics and Evaluation to track progress on the SDGs. However, such an index has not received widespread acceptance among countries, ministries of health officers, researchers, and practitioners in global health. To the best of our knowledge, this evaluation is the first of its kind in conducting an evaluation of SDG3 and therefore, provides a foundation for future and similar evaluations of both it and other health-related SDGs around the world.

6.3 Key principles for moving forward

The health programmes in Nigeria, both at federal and state levels, are very well conceived and described. They contain all the elements of good programming. Weaknesses are in their application, especially at the implementation level; there are large differences in access and quality of services by region and by state. To strengthen them, the following principles could be applied.

Bottom-up approach: Focusing on the implementation level and health facilities

The NSHIP project has shown that direct funding and focusing directly on the delivery of health services have considerably increased the overall performance and improved health outcomes. NSHIP has also proved that health services perform better when funding is linked to key result and outcome indicators. The project has come to an end and has given way to the BHCPF, which follows the principles and lessons learned from NSHIP, and more. The BHCPF sheds a great deal of light towards the necessary changes in the health system in Nigeria. This approach must be accompanied by good governance by state and local governments, and "transparency at all levels."

Prioritize regional areas to consider north and south differences as well as epidemiological trends

As it has been mentioned in several sections of the analysis and evaluation findings, there are large differences between the effectiveness and impact indicators across the states, and the causes are multiple. Those that can be highlighted include the following:

- Mother's education: It has been observed that a mother's education has a positive effect on access to health services for her and her children. Links to education, particularly for girls, are of paramount priority.
- Cultural barriers to access to health services: It has been observed that strong cultural norms and beliefs limit women's access to health services, particularly in the northern zones. Data revealed women need permission of their husbands or immediate family members, not only for basic health care, but also during emergencies. Behaviour change and communication approaches, combined with health systems interventions, are necessary to increase access and use of health services.
- Out-of-pocket cash to access basic services and medical referrals: This is a more complex problem because it deals with the availability of cash to pay for services, whether public or private. Southern states are better off and able to handle out-of-pocket expenses for health-care services than states in the north. Programmes and initiatives to alleviate potentially catastrophic expenses for health will need to prioritize health market needs along with poverty levels and household income.
- The epidemiology and biological causes of health diseases appear to be less influential than the socioeconomic and cultural factors. Targeted analysis of both epidemiological trends and behavioural practices are needed to fully understand root causes and determinants of health to identify feasible and successful implementation approaches of evidence-based, high-impact interventions.

SDG3 and links to other SDGs

Finally, it is necessary to link the health objectives with the other components of the SDGs. Specifically:

- SDG1: No poverty. As almost 83 million Nigerians are poor, there is an urgent need to increase financial

support (BHCPF and NHIS/SHIS) to lessen the financial burden and potentially catastrophic expenditure due to PHC expenses.

- SDG2: Zero hunger. Reduce stunting rates among children under 5 years of age; stunting rates have been stagnant at 37 per cent at national level since 2013; low-performing states have even worse stunting rates: 56.1 per cent (2013) and 60.1 per cent (2018).
- SDG4: Quality education. As evidence points that more educated women have better outcomes, improve enrolment of girls and quality of education for all.
- SDG5: Gender equality. Women of reproductive age are a major vulnerable group in health and will need to be the focus of PHC across the country.
- SDG6: Clean water & sanitation. Improving water and sanitation infrastructure (supply) and behaviours (demand) will have a direct impact in reducing childhood diarrhoeal diseases.
- SDG8: Decent work and economic growth. As seen through the experience with the ongoing pandemic, health is vital for all citizens, including those in the informal part of the labour force, to survive.
- SDG10: Reduced inequalities. Nigeria has significant inequalities in the health sector that need to be addressed to improve health, particularly PHC among vulnerable groups.
- SDG11: Sustainable cities and communities. Health is a basic prerequisite for sustainable cities and communities.

6.4 Recommendations

Table 32 presents 31 key recommendations from the analysis and conclusions of the evaluation, focusing on strengthening the Nigerian health system through the four thematic areas. The evaluation team noted that many states and implementing partners, both local and external development partners, are already working on many of the strengthening activities described below. It is not the intention of this evaluation to underestimate the progress made to date, but the proposed recommendations can serve to assess the complementarity of ongoing activities, facilitate progress towards the achievement of the aspirational SDG3 goal and targets, and most importantly, maximize positive health impact.

In addition, we understand the complexity of a decentralized health system in Nigeria with the inherent autonomy of each of the three major levels of the health system. These recommendations are proposed to be implemented holistically across the four thematic areas. Addressing each of them in silo will generate only marginal improvements. Implementing them in close coordination, synchronization and with a holistic approach will maximize the likelihood of achieving positive health impact, particularly for the most vulnerable groups in Nigeria.

The recommendations from the evaluation have been discussed, revised, and finalized through participatory approaches in many successive meetings: the Technical SDGs Evaluation Committee Meeting held at OSSAP-SDGs in August 2021; and the constructive participatory Review and Validation Workshop of the final draft report of the SDG3 Evaluation organized by OSSAP-SDGs in Uyo, Akwa Ibom, in September 2021, involving experts from federal and state levels and UN Agencies (UN RCO, UNICEF and UNDP). Annex 10 includes the list of workshop participants UNICEF Country Office in Nigeria reviewed all the recommendations with a strategic lens during UNICEF's Evaluation Panel Review Committee meetings chaired by the UNICEF Country Representative involving UNICEF Deputy Representative, Planning & Monitoring Sections, Chiefs of Health & Nutrition Sections, and the Chiefs of Field Offices and UNICEF Evaluation Manager.

Annex 13 provides the list of key recommendations by type of stakeholder at federal, state, LGA/community, development partner, private sector and civil society organizations.

Table 6.1. Full list of recommendations

Recommendation	Links to conclusion	Priority level	Relevant stakeholder
	Thematic Area 1: Governance and Accountability		
Empower leadership for the design, implementation, monitoring, and evaluation of health programmes, focusing on PHC and referral sites. Recruit from the widest possible pool: Implement decentralized state health strategic plans, based on access, coverage, and quality of care. Implement competency training based on technical and managerial skills. M&E is a programme management tool used for strategic planning, continuous performance improvement, and reporting. Apply proportionality and flexibility.	1, 3, 4, 21, 22, 26	Medium term HIGH PRIORITY	SMOH and LGAs State governments Programme managers
Increase community and private sector participation in the design and implementation of PHC programmes/initiatives: Systematize the inclusion of community groups to seek and obtain their opinions and perspectives on health priorities, i.e., community-based organizations, activists, community groups working on gender and women's participation.	24, 25	Medium term	SMOH and LGAs State governments Development partners
Increase targeted participation of the private sector of both for-profit and not-for-profit in response to health market needs for PHC services and in alignment with NSHDP II priorities and the Health Sector Next Level Agenda 2019–2023.	2	Medium term	SMOH and LGAs State governments

Ensure timely information to improve data-informed decision-making in health: Develop a brief bulletin of basic information (key health indicators) on the progress of PHC programmes with data visualization tools to facilitate analysis and use by health managers and health workers.	3, 5	Short term	Programme managers
Establish a monitoring and tracking system upon completion of the Resource Mapping and Expenditure Tracking (RMET) to maximize alignment of investments from donors financing health priorities as per the NSHDP II and the Health Sector Next Level Agenda 2019–2023, focusing on the implementation of the BHCPF to address issues of adequacy, sustainability, efficiency, transparency, and equity.	16, 17	Short term	FMOH WB/GFF FMFBNP Development partners
Prioritize risk management for improved implementation of health programmes at sub-national level (state and LGA): Determine risk appetite. Is the risk worth the reward? Risk assessment. Develop risk response.	21, 23	Medium term	SMOH and LGAs State governments
Evaluate senior staff performance: clarify the individual and collective roles and responsibilities of directors, and better knowledge of what is expected of them for improved performance.	3, 10	Medium term	SMOH and LGAs State governments
	Thematic Area 2: Health Financing		
Increase the allocation of resources to the overall health budget by increasing the proportion of GGE to at least 10 per cent by 2025 and to 12 per cent by 2030 to fast-track the achievement of SDG3 (targets 3.1 and 3.2) through: 1 per cent of State CRF allocated to the BHCPF to complement the federal grant. It should be a statutory allocation with first line charge. Increase the proportion of the health budget that is allocated to PHC with emphasis on capital expenditure to cater vital programmes like the one PHC per ward. State Governments establishing an accountability mechanism to attract other sources of funding. States should define a health financing strategy to provide a road map for improving and sustaining health service delivery.	4, 13, 26	Short term and Medium term HIGH PRIORITY	FMOH FMFBNP OSSAP-SDG SMOH
Strengthen the public financial management system to address inefficiencies: maximize spending level within budgets, focusing on increased spending at LGA and/or facility level for improving PHC services.	4, 15	Medium term HIGH PRIORITY	FMOH FMFBNP SMOH
Align health budgets with government priorities, including sector operational plans. Require budgeting for activities based on the approved medium-term expenditure framework (MTEF) for NSHDP II and SSHDPs.	7, 12, 15	Short term and ongoing	FMOH FMFBNP

Develop an emergency plan for the next 10 years (2021–2030) to reduce OOP expenditures from 77 per cent down to 70 per cent by 2025 and down to 65 per cent by 2030 in close coordination with the ongoing BHCPF and NHIS. The plan should aim to lessen the financial burden for more than 83 million Nigerians living in poverty who will need to seek PHC services for their primary health needs.	14	Short term for its design	FMOH FMFBNP
Increase health insurance coverage from 4.5 per cent up to 15 per cent by 2025 and up to 20 per cent by 2030.	14	Short term and medium term	FMOH NHIS FMFBNP
Increase the contribution to the BHCPF from 1 per cent CRF annually to 1.5 per cent CRF annually by 2025 and to 2.0 per cent CRF by 2028.	12	Short term and medium term	FMOH FMFBNP
Review revenue collection. (1) Public (taxes, contributions, from the federal government); (2) from the public (fee for service); (3) external cooperation.	15	Medium term	SMOH and LGAs State governments
Develop innovative financing strategies to further mobilize domestic resources for PHC, including engagement with the private sector and development partners for focused and strategic financing.	13	Short term and medium term	FMOH FMFBNP Private sector Development partners
Institutionalize a means of health expenditure tracking to provide feedback on inflows, and estimate amounts received and utilized at PHC facilities to identify and block leakages.	12, 13	Short term	FMOH SMOH
Thematic Area 3: Revitalization of Primary Health Care			
Strengthen local and decentralized strategic planning, and associated implementation plans focusing on management skills, identification of key barriers for high programme performance, and design how to overcome them in a systematic way	4, 9, 32, 29, 30	Short term and medium term HIGH PRIORITY	SMOH
Continue the roll-out of the BHCPF in all 36 states and the FCT to deliver the BMPHS to 20.6 million Nigerians by 2023 and to 40.0+ million Nigerians by 2030	9,12,32, 29,30	Short term and medium term HIGH PRIORITY	FMOH FMFBNP
Strengthen/develop senior-level management teams to improve effectiveness and efficiency of resources from BHCPF: strong focus on equity, quality, and resource optimization for PHC services.	12, 31	Short term and ongoing	Programme managers LGA programme/ project managers Development partners

Strengthen monthly meetings to review and analyse data, project progress and monthly workplans and tasks. This could be part of the Health Data Consultative Committee (HDCC) meetings.	11	Short term	Programme managers LGA programme/ project managers Development partners
Increase public participation and engagement for PHC services and devise strengthening activities, including promotion of preventive health care in a phased approach, targeting states with poor health indicators for women and young children	6	Short term and ongoing	Programme managers LGA programme/ project managers Development partners
Assess and increase health promotion interventions, devising strengthening activities to re-focus promotion and preventive health services among vulnerable population groups	8	Short term	Programme manager LGA programme/ project managers Development partners
Define appropriate technology needs focusing on measuring performance, equity, and accountability for PHC services.	7	Short term and ongoing	Programme managers LGA programme/ project managers Development partners
Foster intersectoral coordination, especially with nutrition, education, and water & sanitation sectors	18, 19	Short term	Programme managers LGA programme/ project managers Development partners
Thematic Area 4: Capacity Strengthening			
Maximize systematic coordination for strengthening the capacity of state, LGA and facilities for the implementation of the BHCPF in all 36 states and the FTC. This should follow the phased approach for the roll-out of the BHCPF in three aspects: technical/clinical (at facility level); management (at facility and LGA); accountability (at all levels).	20, 21, 26, 27, 28	Short term and ongoing HIGH PRIORITY	SMOH LGA programme/ project managers Facility staff Development partners
Strengthen health personnel training: Develop training curricula by programme areas and a training plan, with a focus on standardized case management and quality of care.	4, 9, 10, 27	Short term, ongoing, annual and cyclical process HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners Aimed at new personnel, and at old personnel as refresher training

Strengthen supervision plans and in-service training (supportive supervision): SS guides and SOPs for its implementation.	4, 11, 27, 31	Short term and on-going HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners
Develop evaluation agenda and operations research activities to address systemic bottlenecks, including access, quality, equity, demand, and policy environment at the LGA and facility level.	6, 7, 16	Medium term	SMOH/M&E Division International cooperation (links with academic institutions)
Strengthen health information systems: institutionalize data quality assessment (DQAs and RDQAs).	7, 9, 11	Medium term	Programme Managers, SMOH and LGA M&E Divisions/M&E Teams
Strengthen accountability: develop a plan to disseminate information on key programmes indicators in a format that is friendly to the general population and organized community-based groups.	16, 17	Medium term	State Governments: H. Health Commissioners Civil society organizations: NGOs, FBOs and organized community groups
Create safe spaces/platforms for the coordination and planning of activities with organized groups in the community for health programmes and activities to promote demand and use of PHC services.	20, 21	Medium term	State Governments: H. Health Commissioners Civil society organizations: NGOs, FBOs and organized community groups

Annexes

Annexes

Annex 1. Participants in the Inception and Capacity-Building Workshop in Uyo, Akwa-Ibom State, January 2020

S/N	NAME OF PARTICIPANT	ORGANISATION
1	Dr Robert Ndamobissi	UNICEF
2	Dr Marcelo Castrillo	Alegre Associates
3	Dr Uzodinma Adirieje	Nigerian Association of Evaluations (NAE)
4	Arua Margaret Awa	FME-MDG4
5	Oludaisi James	SDGs Media
6	Dr Adeyinka Ade	FMOH
7	Ada Ocampo	UNICEF
8	Dr Tolulope Fagbemi	FMOH
9	Dr Zakari Lawal	MFBNP
10	Alphonsus Onwuemeka	FAO
11	Dr Emedo EA	UNICEF
12	Muhammad Khalilu	UNICEF
13	Sanya Matthew	MFBNP
14	Dr Maryam Al-Mansur	FMOH
15	Aliyu Mu'azu	NHIS
16	DrBala Yunusa	OSSAP-SDGs
17	Engnr. Ahmed Kawu	OSSAP-SDGs
18	Dr Yahaya Umar	OSSAP-SDGs
19	Dr Nwokwu Emmanuel	NCCP/DHS FMOH
20	Dr Zakariya Mohammed	FMOH
21	Obikaonu Udochi Louis	Ministry of Budget and National Planning
22	Dr Sanjana Bhardwaj	UNICEF
23	Famade Oladiran	NERDC
24	Dr Aliyu Muhammad Sabiu	NPHCDA
25	Anne Ibrahim	NBS
26	Dr Kenku Akeem	OSSAP-SDG
27	Dr Blessing G. Ebhodcoghe	NCDC
28	Dr Ify Ukueghu	OSSAP-SDGs
29	S.B Harry	NBS

30	Dr Umoren I.G	WHO
31	Aniekan Isaiah	SDGs
32	Edidiong Francis	SDGs
33	Onah Vincent	OSSAP-SDGs
34	Dr Alayo Sopekam	FMOH/DPH
35	Mohammed Shehu	OSSAP-SDGs
36	Akor Francis	OSSAP-SDGs

Annex 2. COVID-19 Confirmed Cases by State in Nigeria

(As of 30 June 2021)

State	No. of cases (Lab confirmed)	No. of cases (on admission)	No. discharged	No. of deaths
Lagos	60,272	1,301	58,515	456
FCT	19,906	187	19,552	167
Kaduna	9,127	8	9,054	65
Plateau	9,068	5	9,006	57
Rivers	7,364	52	7,211	101
Oyo	6,882	20	6,736	126
Edo	4,910	0	4,725	185
Ogun	4,696	12	4,633	51
Kano	4,006	5	3,891	110
Ondo	3,483	27	3,391	65
Kwara	3,156	33	3,068	55
Delta	2,650	22	2,556	72
Osun	2,578	6	2,520	52
Enugu	2,482	18	2,435	29
Nasarawa	2,384	0	2,345	39
Katsina	2,110	21	2,055	34
Gombe	2,104	22	2,038	44
Ebonyi	2,039	5	2,002	32
Akwa Ibom	1,935	5	1,912	18
Anambra	1,909	64	1,826	19
Abia	1,693	-2	1,673	22
Imo	1,661	0	1,624	37
Bauchi	1,549	0	1,532	17
Benue	1,366	15	1,327	24
Borno	1,344	1	1,305	38
Adamawa	1,134	4	1,098	32
Taraba	1,001	0	977	24
Niger	935	5	913	17
Bayelsa	906	1	879	26
Ekiti	881	7	863	11

Sokoto	775	0	747	28
Jigawa	536	8	512	16
Yobe	499	0	490	9
Kebbi	450	42	392	16
Cross River	402	0	384	18
Zamfara	244	3	233	8
Kogi	5	0	3	2

Source: Nigeria CDC.

Annex 3. SDG3 evaluation framework

Evaluation question	Indicator	Source of information/data	Data collection method
Relevance/Appropriateness			
1. Are the overall strategies, policies and plans of the health sector aligned with the SDG3 (targets 3.1 and 3.2)?	Instances of alignment between strategies, policies and plans of the health sector with SDG3 (targets 3.1 and 3.2) Instances of SDG3 mainstreaming into NHSDP II	Federal and state level strategic documents, implementation plans, organization structure for the health sector NHSDP I NHSDP II National Health Policy	Review of strategic documents, implementation plans, organization structure for the health sector at federal and six target states Review of previous research findings and available literature on different the dimensions of the three selected programme interventions, maternal and child health and nutrition
1.1 Is SDG3 (targets 3.1 and 3.2) well mainstreamed into NHSDP II?			
2. Are the states' strategic health plans (SSHDP) contextualized to the specific issues for addressing SDG3 (targets 3.1 and 3.2)?	Instances of state strategic health plans addressing specific issues to contribute to the attainment of SDG3 (targets 3.1 and 3.2)	Annual Health Implementation Plans for the six selected states	Review of records and/or processes to assess whether the state annual implementation plans are consistent with the national policies and strategies
Coherence			
3. To what extent is the NSHDP II consistent with the other national development plans and SDGs?	Instances of linkages between NHSDP II and other national development plans for the attainment of SDGs in the country	Poverty reduction (SDG1), nutrition (SDG5) and water & sanitation (SDG6) strategic documents	Review of documentation from other SDGs 1, 5 & 6, and examine if they are consistent among each other, and seek either direct or indirect links among them
Effectiveness			

4. What progress has been made towards achieving NSHDP II targets in relation to SDG3 (targets 3.1 and 3.2)?	SDG3 indicators (targets 3.1 and 3.2): Maternal mortality ratio (MMR) Skilled birth attendance (SBA) Under-five mortality rate (U5MR) Neonatal mortality rate (NMR)	NDHS Reports Nigeria MICS Reports Nigeria SDGs Baseline Indicators Report Nigeria Voluntary National Review Report Nigerian Living Standards Survey Report Nigerian National Nutrition and Health Survey Report Joint Annual Review of Health Sector Report Trends in Child Health Trends in Maternal Health Trends in Reproductive Behaviour	Secondary data analysis of NDHS dataset The evaluation team will also review the reports of all other studies, but would not carry out a secondary data analysis of each of them
5. What are the enablers and barriers towards the achievement of SDG3 (targets 3.1 and 3.2)?		NDHS Reports	Secondary data analysis of NDHS data sets
6. What results (intended and unintended) have been achieved so far by the following flagship programmes towards the achievement of SDG3 (targets 3.1 and 3.2)?	Instances of unplanned, intended or unintended effects in the delivery of health service for reaching targets 3.1 and 3.2	Findings from key informant interviews. Health reports provided by programme managers at federal and state levels	Synthesis of the information obtained from the KIIs, and reviewing programme documents and past evaluations
6.1 Saving One Million Lives	Attainment of the 40 per centof the poorest population that have experienced significant progress. Results measured are based on the historical progress on the indicators listed below (5.1 to 5.6) at minimum	NDHS Report Nigeria MICS Report Nigeria SDGs Baseline Indicators Report Nigeria Voluntary National Review Report Nigerian Living Standards Survey Report Nigerian National Nutrition and Health Survey Report Joint Annual Review of Health Sector Report Trends in Child Health Trends in Maternal Health Trends in Reproductive Behaviour	Secondary data analysis and review of progress reports by programme interventions Secondary data analysis
6.2 Immunization programme	Immunization: Penta 3 coverage; (0–11 months of age)		
	Immunization: Fully immunized (0–11 months of age)		

6.3 Malaria programme	Malaria incidence rate among children under 5 years and pregnant women		
	Prophylactic use of antimalarial drugs and use of Intermittent Preventive Treatment by women during pregnancy		
	Malaria incidence rate among children under 5 years and pregnant women		
6.4 TB programme	Incidence of childhood tuberculosis per 1,000 population		
6.5 PMTCT programme	Number of HIV-exposed infants receiving a virological test for HIV within two months of birth		
	Percentage of pregnant women who were tested for HIV and know their results		
6.6 Nigeria State Health Investment Project?	Health Financing: Population covered by health insurance per 1,000 inhabitants	Observation checklist	Reports and programme documents review
Efficiency			
7. To what extent are the existing programmes and coordinating mechanisms enabling the achievement of SDG3 (targets 3.1 and 3.2)?	Individual and group concepts, opinions and perceptions	KII interview guide	KII with programme managers and implementing staff

8. How timely and sufficient have the resources been mobilized towards the implementation of NSHDP II intervention (Moderate Scenario)?	GoN health expenditure as a proportion of total health expenditure (federal and target states) National health budget as a proportion of GoN budget Out-of-pocket expenditure as a proportion of the total health expenditure	Nigeria National Health Accounts (NHA) Federal and State Accountants-General Reports KII interview guide The World Bank's Nigeria health financing system assessment	Review of Nigeria's NHA findings Review of financial data from Federal and State Accountants-General Reports KII with programme managers and implementing staff and review financial reports
8.1 To what extent is funds disbursement reaching the different groups/ end users?			
9. How timely were procurement and distribution of essential medicines implemented? To what extent has access to essential medicines been scaled up?			
10. To what extent has the value-for-money principle been achieved for obstetrics service, nutrition service and immunization services depending on the information obtained			
Impact			
11. To what extent were the expected changes in individual healthy lives achieved (impact and outcome)? Disaggregated by state /LGA, age groups, sex and other priority groups	Contraceptive Prevalence Rate (CPR)	NDHS Report Nigeria MICS Report Nigeria SDGs Baseline Indicators Report Nigeria Voluntary National Review Report Nigerian Living Standards Survey Report Nigerian National Nutrition and Health Survey Report Joint Annual Review of Health Sector Report Trends in Child Health Trends in Maternal Health Trends in Reproductive Behaviour	Secondary data analysis

	Adolescent birth rate (aged 10–14 and 15–19) per 1,000	
	Nutritional status. Percentage of children under 5 years who are classified as undernourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-age, and weight-for-height	
	Anthropometric indicators of maternal nutritional status. Percentage distribution, mean and standard deviation of height, weight and arm circumference for women who had a birth in the five years preceding the survey by selected anthropometric indicators.	
	Number of people who were nutritionally assessed and received nutrition counselling and therapeutic or supplementary food	
11.1 The reduction of under-five mortality rate, per key group in the state,	Under-five mortality rate	
11.2 The extent to which maternal, newborn and child health have been improved	Neonatal mortality rate	
	Maternal mortality ratio	
	Proportion of births attended by skilled health personnel	
	Under-five mortality rate	

11.3 The extent to which progress has been made in preventing mother-to-child transmission of HIV	Number of births to HIV-positive women attended by skilled health personnel		
	Number of HIV-positive women who received antiretroviral therapy during pregnancy		
	Number of HIV-positive pregnant women who received antenatal care at least four times prior to delivery		
11.4 Have any unplanned or unintended effects (impact) been observed in the delivery of health services in communities or institutional system?	Instances of unplanned or unintended effects in health service delivery for MNCH, Nutrition, and PMTCT		
12. Have any effects been observed that enable or constrain the achievement of the objectives and targets of the selected health interventions? What are these?	Instances of enablers or constraints for the achievement of health objectives and targets	Targeted qualitative inquiries	KII and FDGs with programme managers and implementing staff
13. What have been the main drivers or factors in reducing mortality in children under 5 years in the period 2000–2012? What were the factors that influenced the stagnation of infant mortality during the years 2012–2018? Describe if there were bottlenecks and determinants	Instances of factors enabling reductions in U5MR in 2000–2012 Bottlenecks or constraints hindering the reduction of U5MR in 2012–2018	Targeted qualitative inquiries	KII and FDGs with programme managers and implementing staff
Human Rights and 'Leave no one behind'			

14. How are the human rights-based approach and the "leave no one behind" principles of 2030 Agenda realized in Nigeria in relation to Healthy Lives?	Instances of approaches or principles of the 2030 Agenda realized in relation to Healthy Lives	Targeted qualitative inquiries	KII and FDGs with programme managers and implementing staff
15. To what extent has the human rights-based approach integrated into health sector programming within key flagship programme design and implementation?	Instances of integration of human rights-based approach and health sector programming within key flagship programmes	Targeted qualitative inquiries	KII and FDGs with programme managers and implementing staff
Sustainability			
16 To what extent is effective systematic participation of all stakeholders (individuals, communities, local institutions, states and federal stakeholders) in design, implementation, financing and M&E of health programmes functioning to sustain the gains made in achieving impact, outcomes and outputs? Whether the programme have a clear intend participatory, inclusive have an intend	Instances of participatory approaches for the design, implementation, financing, and M&E of health programmes to sustain gains in the achievement of health outputs, outcomes and impact	Targeted qualitative inquiries	KII and FDGs with programme managers and implementing staff
17. What components of the health system, of the selected interventions, have been strengthened and have prospects for their sustainability? What recommendations still need to be strengthened, and what recommendations would you give?	Instances of strengthened health systems for MNCH, nutrition, PMTCT, and supply chain	Targeted qualitative inquiries	KII and FDGs with programme managers and implementing staff
Gender equality			

18. To what extent the National Strategic Health Development Plan (NSHDP) and flagship programmes incorporated gender equality and the empowerment of women and girls into the design, implementation and monitoring of interventions?	Number of people identified to have experienced sexual, physical, or emotional violence	NDHS Reports	Secondary data analysis
Equity			
19. To what extent were the barriers (and their causes) to access basic services in the targeted areas, identified and addressed as part of the overall programme strategic priorities?	Instances of barriers to access basic health services addressed or removed	NDHS Reports Other secondary data reports Targeted qualitative inquiries	KII with programme managers and implementing staff
Universality			
20. To what extent the are the child rights for fully integrated universal healthcare package/ services available and benefiting mothers and children?	Instances of universal health package/services benefiting mothers and children under 5 years	NSHDP I and II Health policies Targeted qualitative inquiries	Secondary data analysis Review of existing health policies KIIs with programme managers and implementing staff
21. Is the child rights package contributing to improving access, availability, and health service utilization?	Instances of child rights approaches used for increasing access, availability and utilization of essential health services		

Annex 4. Key supporting documents reviewed

List of National Health Reports from the Government of Nigeria

Title	Period/Year	Notes
Nigeria Demographic Health Survey Report	2013, 2018	Data sets available for secondary data analysis
Nigeria Multiple Indicators Cluster Survey Report	2011, 2016–2017, 2020 (if available)	
Nigeria SDGs Baseline Indicators Report	2016	

Nigeria Voluntary National Review Report	2017, 2020	
Nigerian Living Standards Survey Report	2018–2019	
Nigerian National Nutrition and Health Survey Report	2014, 2015, 2018	
Joint Annual Review of Health Sector Report	2017, 2020	
Evaluation of NSHDP I Report	2010–2016	
Trends in Child Health in Nigeria	2003–2013	Released in Aug. 2016
Trends in Maternal Health in Nigeria	2003–2013	Released in Aug. 2016
Trends in Reproductive Behaviour in Nigeria	2003–2013	Released in Aug. 2016
NHMIS Annual Report	2017	
NHMIS Annual Report	2018	
Federal and State Accountants-General Reports	2019	Financial data
Nigeria Living Standards Survey	2018–2019	

List of Health Programme Strategic Documents from the Government of Nigeria

Title	Period/Year	Notes
National Health Strategic Development Plan I	2010–2015/17	Plan was extended until 2017
National Health Strategic Development Plan II	2018–2022	
National Health Policy	2016	Includes all thematic areas
National Strategic Plan of Action for Nutrition	2014–2019	
Bayelsa State Health Strategic Development Plan	2018–2022	
Ebonyi State Health Strategic Development Plan	2018–2022	
Ogun State Health Strategic Development Plan	2018–2022	
Nasarawa State Health Strategic Development Plan	2017–2021	
Kebbi State Health Strategic Development Plan	2017–2021	
Gombe State Health Strategic Development Plan	2018–2022	
Basic Health Care Provision Fund	2018–2020	
Annual Health Sector Report	2019	
The Health Sector Next Level Agenda	2019–2023	
Update on the Implementation of the BHCPF	2021	

Annex 5. Approval by National Health Research Ethics Committee of Nigeria (NHREC)

National Health Research Ethics Committee of Nigeria (NHREC)

Promoting Highest Ethical and Scientific Standards for Health Research in Nigeria

Federal Ministry of Health

NHREC Protocol Number NHREC/01/01/2007-22/06/2020
NHREC Approval Number NHREC/01/01/2007-30/06/2020
Date: 30 June, 2020

Re: Independent Evaluation of the Effectiveness & Impact of the Sustainable Development Goal 3 (SDG-3) : Healthy Lives in Nigeria

Health Research Ethics Committee (HREC) assigned number: NHREC/01/01/2007

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Date of receipt of valid application: 22-06-2020
Date when final determination of research was made: 30/06/2020

Notice of Research Exemption

This is to inform you that the activity described in the submitted protocol/documents have been reviewed and the Health Research Ethics Committee has determined that according to the National Code for Health Research Ethics, the activity described there-in meets the criteria for exemption and is therefore approved as exempt from NHREC oversight.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code. NHREC reserves the right to conduct compliance visit to your research site without previous notification.

Signed

Professor Zubairu Iliyasu MBBS (UniMaid), MPH (Glasg.), PhD (Shef.), FWACP, FMCPH
Chairman, National Health Research Ethics Committee of Nigeria (NHREC)

Annex 6: Sub-components and Measurement Criteria for The Health System Assessment

I. Health System Management Capabilities Strengthened

1) Strategic planning capabilities developed. The SMOHs/LGAs have a management team with demonstrable planning skills and the existence of planning tools in line with the national strategic policy of improving individual and public health in the state, and with the specific objectives defined by the NSHDP II.	
Sub-components	Measurable criteria
Leadership structure: The SMOHs have a management team, formally constituted, with updated planning methodology, which annually prepares the Economic and Social Plan and Health Budget, and the Annual Operational Plan.	Structure, composition and functions of the directors and programme managers clearly defined, with A) quarterly/monthly meetings, and B) minutes of the meetings with follow-up items; There is a formally documented planning methodology to guide planning in general and the Programme Intervention AOP methodology, and this methodology is perceived by members of the SMOH management team collective.
Leadership training: The SMOH/LGA Service Collective responsible for planning processes, receives ongoing training on planning methodologies, ensuring that the process is documented and systematically evaluated.	Evidence that at least 80 per cent of the management team members received training on planning methodologies that explain how to design and use AOP; Modules administered to train new members of the SMOH/LGA management team, incorporating: A) themes on planning methodologies, B) reports on the training of new members / staff, and C) evidence that demonstrates that training has been assessed/evaluated.
Implementation of the plans: The SMOH/LGA management team consistently applies the planning methodologies and follows their guidelines.	AOP is updated quarterly based on self-assessment and results of programme monitoring; AOP is used as a guiding and consultation document for the implementation of activities and budget allocation.
Monitoring: SMOH assesses the degree of execution of the AOP on a quarterly basis.	Self-assessment tests, correctly applied and implemented in the POA with a quarterly analysis of its progress.
Decision-makingmaking: The management team uses information generated by assessing the progress of the AOP to implement corrective actions.	Records and other indications (documented in the minutes of the management team meetings) of the adoption of corrective actions aimed at reaching the objectives of the AOP, and attaining the goals established in the plan. Proof of implementation and/or follow-up of corrective actions (documented in minutes or other documents).
2) Strengthened information systems. The SMOH has a Statistics and Planning Management Information System (MIS) with demonstrable capacities in monitoring and through the health information system (SIS) reports the indicators standardized by the FMOH and measures the level of implementation of the AOP.	
Scope of the assessment	Measurable criteria

MIS structure: The SMOH has formally constituted a State MIS, with monitoring methodologies and a health information system that provides high-quality data for measuring the progress of the AOP.	Structure, composition and functions of the NEP District clearly defined, with: A) quarterly meetings (within the MIS team or with other members of the collective), and B) has minutes of the meetings. Formally documented and known methodologies to guide monitoring. Including the organization of the SIS in the SMOH/LGA, the supervision of the use of the MIS in the Health Units, the collection and reporting of high-quality data to the LGA, the construction of the key indicators, and the measurement of the activities and products in AOP. MIS data collection tools and means of communication: A) available, B) updated, and C) functional to carry out the monitoring of activities.
MIS training: The MIS team responsible for the monitoring processes has been trained in the relevant methodologies and systems, and these have been incorporated into the induction and training programme for new staff. Staff training is documented and assessed systematically.	Evidence that MIS team members received necessary training including at least: A) the monitoring methodologies, B) the construction of key indicators, C) the handling of the Basic MIS Module, and D) the measurement of activities and products AOP.
Implementation of the Health MIS: The MIS team in the SMOH consistently applies the monitoring methodologies and follows their guidelines in handling the system.	Evidence that the stock of MIS forms and registration books to be distributed to the LGAs / Health Units is complete, and stored in a single place in an organized way subdivided by programme. Paper summaries for the previous five years are filed in folders by programme and separated by month/year. Evidence that demonstrates the use of a security system to protect and restrict access to data on the MIS (backups, antivirus, computer password, etc.). Evidence that all paper summaries were entered in the MIS. Evidence that the MIS centralizes all health information (according to the SMOH Guide).
Data quality control and intra-district MIS supervision: MIS (state or federal) assesses adherence to MIS standards in the F/SMOH management structure.	Evidence (in the form of reports and/or DQA results) that there is a system for evaluating the quality of MIS data. Proof that there is an intra-district supervision system that follows the standards defined by F/SMOH.
Decision-making: The MIS team uses information managed by assessing the quality of data in the SIS and intra-SMOH LGA supervision to implement corrective actions.	Evidence and other indications of the adoption of corrective actions in response to inconsistencies in adherence to MIS standards (documented in the reports of data quality assessments and / or intra-LGA supervision of peripheral health units). Proof of follow-up of corrective actions (documented in minutes or other type of documents).
3) Strengthened financial management. The SMOH has a financial information management team with the ability to analyse and use financial information to make decisions.	
Scope of the assessment	Measurable criteria
Institutional structure and diagnosis: There is a financial information system that the SMOH uses to manage funds according to the rules in force in the public accounting of the Government of Nigeria.	Documented evidence of the establishment of a financial information management team. Monthly meetings, minutes of meetings held; Archived administrative processes attesting the realization of expenses and all transactions in accordance with the rules and procedures of the government's financial management system.

Leadership training: The SMOH/LGA staff responsible for planning processes receive ongoing training on planning methodologies, ensuring that the process is documented and systematically evaluated.	Evidence that members of the administration and finance team receive training in the area and use of financial information in the management of funds; Evidence of integration and training of new hires in the administration and financial team in the field of financial information.
Implementation: The SMOH/LGA financial information management team consistently applies financial enforcement rules and procedures and produces reports.	Evidence of the financial information management team's ability to execute and prepare and analyse monthly, quarterly and annual financial execution reports; Evidence of segregation of duties in the financial execution process according to national norms and procedures; Financial management team performance verified through financial audit report.
Monitoring: SMOH assesses the degree of financial execution based on the budget execution rules and procedures of the funds.	Existence of meeting minutes that shows= an analysis of the degree of financial execution (balance sheets).
4) Functional human resources management. SMOH has a functional and operational human resources information system.	
Scope of the assessment	Measurable criteria
Situational diagnosis of the human resources information system: SMOH has a system of registration and a database of existing personnel in the state/LGAs and who participate in the continuous training by professional categories according to the rules in force in the civil service.	Existence of trained and registered personnel to operate within the Ministry of Health, including established rules and procedures for HR management. Situational diagnosis of the system of registration and database of health personnel installed in SMOHs and LGAs and registration of continuous training. Personnel with physical and financial assignment made in the SMOH (job descriptions).
Plan and diagnosis: SMOH has a plan for staffing needs in accordance with the state's health network development and expansion plan, using guidelines, manuals and current legislation.	Use of guidance documents from the local government and NSHDP II (please confirm) FMOH plan. Availability of a health staff across all health units by levels of care.
Leadership training: The SMOH/LGA staff responsible for planning processes receives continuous training on programme planning methodologies, ensuring that the process is documented and systematically evaluated.	Availability and use of staff for each Health Unit appropriate to the real needs of the SMOH/LGA. Evidence of budgeting for staffing needs. Evidence that health personnel were hired following the rules of the public service.
Supervision and technical assistance: SMOH/LGA have management personnel trained in the personnel planning exercise, based on the main indicators of health status and development at the PHC level.	Existence of standards, training curricula and training plans for human resources managers. Evidence of personnel trained in personnel planning and budgeting. Evidence of disclosure of norms, rights and duties of workers in the SMOHs and LGAs.
Monitoring the degree of implementation of standards (framework, budgets and HR plans) at district level: SMOH/LGA ensures monitoring of the district plan for HR management by health intervention programmes.	Evidence of HR plan monitoring activities. Evidence of using incentives to reward the best workers. Evidence of application of the district plan with a personnel rotation system.

Improvement decisions and actions: SDSMAS uses staff plans, reports and data to ensure a good distribution of HR in the Health Units, and implements actions to improve the performance of health workers.	Evidence of reports on the distribution of health personnel / degree of compliance with government standards in terms of distribution of health HR. Evidence of reports on the distribution of health personnel / degree of compliance with FMOH standards in terms of distribution of health staffing. Referral of workers' files under voluntary or mandatory retirement.
II. Capabilities to manage the delivery of services	
5) Strengthened health programme management.	
Scope of the assessment	Measurable criteria
Maternal and child health. The SMOH has developed, executed and evaluated a strengthening plan for the Maternal-Child Health programme, aimed at implementing all the strategies established by NSHDP II and improving the quality of services to have a positive impact on the population, mainly mothers and children. The systematic evaluation of the results of this plan is used to promote the continuous improvement of the MCH programme in the state.	
Situational assessment of the MCH Programme: SMOH/LGA have ongoing situational assessment of the MCH programme in terms of the number and skills of personnel, materials and consumables, medicines and tests, existence and use of registration instruments, links with community programmes as well as morbidity and mortality from common diseases in the target groups. Based on the diagnosis, SMOH/LGA has plans to strengthen the MCH programme.	Situational assessment of the MCH programme (staffing/personnel, training needs, availability of materials, stock of consumables, medicines and tests, registration instruments, community programmes and situation of morbidity and mortality in the target groups); and Plan to strengthen the MCH programme.
Knowledge and training for implementing the MCH Programme strengthening plan known to staff: SMOH/LGA have an MCH programme strengthening plan, known and based on the diagnosis of the main problems in implementing the programme in the state. The strengthening plan must be consistent with the NSHDP II.	Plan to strengthen the MCH programme formulated and known in detail by the staff; the plan is based on the diagnosis of the main problems identified in the programme; and Staff are trained to carry out the plan.
Implementation: The state and LGA staff responsible for the MCH Programme execute the strengthening plan in a systematic and timely manner.	Evidence that the programme management team is implementing the activities developed within the plan to strengthen MCH services in the LGA's Health Units (HR, filling in records, medication and consumables management, medium support diagnostics, etc.). Evidence of the implementation of strategies and/or initiatives for improvement and quality assurance in at least one Health Unit in the LGA.

Monitoring of the MCH Programme strengthening plan: SMOH systematically evaluates the implementation of the MCH programme strengthening plan, with the aim of determining the degree of compliance with the proposed actions based on the diagnosis of priority problems. Likewise, it monitors and analyses the programme indicators. SMOH also has an established plan of supervision visits and technical assistance to improve the implementation of the MCH programme.	Evidence of the follow-up to the plan to strengthen the MCH programme through supervision visits and technical assistance. Evidence of monitoring and analysis of programme indicators; production of reports on each visit that contain the findings and recommendations.
Decision-making and actions: SMOH technically analyses the results of monitoring the MCH programme's strengthening plan and the indicators established together with the visit reports, and uses this information to implement actions aimed at improving the results and to intervene in a timely manner.	Periodic assessment of the MCH programme indicators. Use of visit reports to ensure implementation of recommendations aimed at improving the implementation of the MCH programme. Evidence of the implementation of the recommendations.
Nutrition. The SMOH has developed, executed and evaluated a strengthening plan for the nutrition programme, aimed at implementing all the strategies established by NSHDP II and National Nutrition Programme and improving the quality of services to have a positive impact on the population, especially children. The systematic evaluation of the results of this plan is used to promote the continuous improvement of the nutrition treatment programme in the state.	
Situational analysis and strengthening plan of the nutrition programme: SMOH has a situational analysis of the nutrition programme in terms of the number and skills of personnel, materials and consumables, medicines, existence and use of recording instruments, connections community programmes as well as morbidity and mortality in target groups. Based on the diagnosis, SMOH has a plan to strengthen the programme.	Situational analysis of the nutrition programme (personnel, training needs, materials, consumables stock, therapeutic milks, supplementary food; registration instruments, community programmes and the situation of morbidity and mortality in the target groups); and Plan to strengthen the nutrition programme.
Knowledge and training for the implementation of the nutrition programme strengthening plan: SMOH has a nutrition programme strengthening plan, known to staff and based on the diagnosis of the main problems in the implementation of the programme in the district. The strengthening plan must be consistent with the province plan and national protocols.	Plan to strengthen the nutrition programme formulated and known to staff. The plan is based on the diagnosis of the main problems identified in the programme; and Staff are trained to carry out the plan.
Implementation: The LGA Service staff responsible for the nutrition programme execute the strengthening plan in a systematic and timely manner.	Evidence that the programme management team is implementing the activities developed within the plan to strengthen the nutritional rehabilitation programme in the LGA's Health Units (HR, filling out records, medication and consumable management, medium support diagnostics, etc.). Evidence of the implementation of strategies and / or initiatives for improvement and quality assurance in at least one Health Unit in the LGA.

Monitoring of the nutrition programme strengthening plan: SMOH systematically evaluates the execution of the nutrition programme strengthening plan, with the objective of determining the degree of compliance with the proposed actions based on the diagnosis of priority problems. Likewise, it monitors and analyses the programme indicators. SMOH also has an established plan of supervision visits and technical assistance to improve the implementation of the nutrition programme.	Evidence of the follow-up to the plan to strengthen the nutrition programme in the LGA and the monitoring and analysis of the programme indicators. Existence of supervision and technical assistance plans and production of a report at each visit that contains the findings and recommendations.
Decision-making and actions: SMOH analyses the results of the monitoring of the nutrition programme strengthening plan and the indicators established, together with the visit reports, and uses this information to implement actions aimed at improving the results and to intervene in a timely manner.	Periodic and systematic evaluation of programme indicators. Use of visit reports to ensure implementation of recommendations aimed at improving the implementation of the nutrition programme. Evidence of the implementation of the recommendations.
6) Strengthened diagnostic capabilities. SMOH has an efficient and functional laboratory stock management system for reagents and consumables.	
Scope of the assessment	Measurable criteria
Situational analysis and use of stock planning and control instruments: SMOH has the necessary instruments for planning and stock control of reagents and consumables required by laboratories.	Situational analysis; and Evidence of the correct use by laboratory technicians of instruments for planning and controlling the stock of reagents and consumables required by laboratories.
Staff training: SMOH trains staff in the management and control of the stock of reagents and consumables required by the laboratories.	Evidence of technical personnel trained in the management and control of the stock of reagents and laboratory consumables.
Implementation: personnel in the management and control of the stock of reagents and consumables use the planning and control instruments for reagents and consumables required by the laboratories in a systematic and timely manner.	Functional logistic systems stop the timely distribution of reagents and consumables in all Health Units. Stocks of consumables and laboratory reagents are kept to a minimum.
Supervision and technical assistance: SDSMAS has an established plan of support visits and technical assistance to improve the management of reagents and laboratory consumables.	Existence of supervision and technical assistance plans and production of a report on each visit that contains the findings and recommendations.
Decision making and actions: SDSMAS regularly evaluates stock control indicators and the follow-up recommendations of supervision and technical assistance visits.	Periodic and systematic assessment of programme indicators. Use of visit reports to ensure the implementation of recommendations aimed at improving the stock control system for reagents and consumables. Evidence of the implementation of the recommendations.

7) Community mobilized and participating. SMOH has participated in the development, execution and evaluation of a strategic plan with community-based organizations working in the geographical area, aimed at implementing all the strategies established by the national plan in this scope with the aim of having a positive impact on the population for health, education and community support programmes. The systematic evaluation of the results of this plan is used to promote the continuous improvement of the implementation of community strategies in the state.	
Scope of the assessment	Measurable criteria
Situational analysis and plan for strengthening community strategies: SMOH has a situational and up-to-date diagnosis system for strategies at the community level related to community mobilization, active searches, food support, orphaned and vulnerable children, income-generation programmes, community groups, etc., which includes the most common problems that require interventions and coordination between health services and community services as well as the identification of target groups for specific interventions.	Situational analysis of community strategies, coordination mechanisms with health services, situation of the most common problems that require intervention and target groups; and Plan to strengthen community strategies.
Knowledge and training for the implementation of the community strategies strengthening plan: SMOH has a strengthening plan coordinated with CBOs for community strategies related to health services, based on the diagnosis of the main problems that require intervention and the need for impact on the state/LGA. The strengthening plan must be consistent with the FMOH plan.	Plan for strengthening community strategies formulated and known to staff. The plan is based on the diagnosis of the main problems and needs identified in the programmes and target groups; and Staff are trained to carry out the plan.
Implementation: The SMOH/LGA staff responsible for community strategies execute the strengthening plan in a systematic and timely manner.	Support the activities developed during the execution of the plan to strengthen community activities (community mobilization, active searches, food support, etc.). Evidence of the implementation of strategies and / or initiatives for improvement and quality assurance in at least one Health Unit in the district.
Monitoring of the community strategies plan: Together with the CBOs, the SMOH systematically evaluates the execution of the plan to strengthen community strategies, with the objective of determining the degree of compliance and the effectiveness of the coordination mechanisms. Likewise, it monitors and analyses the established indicators together with the CBOs. SMOH/LGA teams also have an established plan for joint supervision and technical assistance visits with CBOs working in the geographical area to improve the implementation of community strategies.	Evidence of the follow-up to the plan to strengthen community strategies in the district. Evidence of the follow-up to the plan to strengthen community strategies in the district through supervision and technical assistance; existence of supervision and technical assistance plans and production of a report at each visit containing the findings and recommendations.

Decision making and actions: SMOH analyses the results of monitoring the plan to strengthen community strategies and the indicators established, together with the visit reports in coordination with the CBOs, and uses this information to implement actions aimed at improving the results and the intervene in a timely manner.	Periodic and systematic evaluation of programme indicators. Use of visit reports to ensure the implementation of recommendations aimed at improving the implementation of community strategies. Evidence of the implementation of the recommendations.

Annex 7. Health System Assessment (HSA) tool

State MOH Health System Assessment

Independent Evaluation of the Effectiveness & Impact of the SDG3:

Healthy Lives in Nigeria. January-February 2021

Alegre Associates, Inc.

Electronic Version 1.0: November 6, 2020

Marcelo Castrillo, MD, MPH

Evaluation Team	Title	Email Address	Telephone

Annex 8. Health Situation Assessment at Facility Level (HFA) tool

Health Facility Assessment

Independent Evaluation of the Effectiveness & Impact of the SDG3: Healthy Lives in Nigeria. January-February 2021

Alegre Associates, Inc.

Electronic Version 1.0: November 6, 2020 Marcelo Castrillo, MD

Evaluation Team	Title	Email Address	Telephone

State Name

Health Facilities Visited	Date dd/ mm/yy	Location	Ward	LGA / District

Annex 9. Guides for semi-structured interviews with key informants (KIIs)

KII Guide 1: MOH Officers

MOH Senior Program Managers

Independent Evaluation of the Effectiveness & Impact of the SDG-3:
Healthy Lives in Nigeria. January-February 2021

This interview guide is to be applied for conducting semi-structured interviews with senior staff of the State MOH, not those in charge of program implementation. Please choose a member who has been the longest time on the job and know about SDG-3, and NSHDP I and II. Please continue interviewing until there are no gaps in information.

Interviewer's Name:

Respondent's Name:		Sex (M/F)
Respondent's Title:		Years working at this position
Date (dd/mm)	Location / Programme	
Start time:	End time:	

Informed Consent

Good morning/afternoon. My name is..... ..... and I am working for Alegre Associates, a consulting company based in the US, carrying out an independent evaluation of the Sustainable Development Goal 3: Healthy Lives in Nigeria. This evaluation has been commissioned by UNICEF and the Government of Nigeria through the Office of the Senior Special Assistant to the President.

We would like to conduct an in-depth interview with you, in which we will ask questions about your perspective, knowledge, opinions, attitudes and experience in improving the access and quality of Maternal and Child Health, and nutrition programmes

Your participation in this study will NOT entail any discomfort or risk beyond those of your regular working day. We will record this interview only for the purpose to fully capture your responses, which we will transcribe and aggregate with other interviews to preserve anonymity.

If you agree to participate in the study, your name will not appear in the materials that we will present in order to improve the quality of care. All the interview results will be stored in a separate location and then be destroyed after the report is released.

Your participation is completely voluntary, and the realization of the study depends on your acceptance. In the future, it is possible that a representative of our sponsor may come to this office to confirm that you gave us your informed consent.

Do you have any questions? (If yes, note the questions.)
Yes _____
No _____

Would you like to participate in the study?
Yes _____
No _____

If you have any doubts or questions, please contact me at:
Telephone Number:
Email:
(Give the provider your name, and one contact information)

Thank you for your cooperation in this activity.

Interviewee name: _____

Agreed to participate: Yes _____
No _____

KII Guide 2: State MOH Senior Programme Managers

Independent Evaluation of the Effectiveness & Impact of the SDG-3:
Healthy Lives in Nigeria. January-February 2021

Note to interviewer: You may need to probe to gather the information you need. Start with the main question and let the interviewee expands on the topic following his / her own logic. "let him / her tell his / her story." However, you must be careful not to get diverted into irrelevant or other topics. The KII interview is an art, allowing the person expresses his / her thoughts, but keeping the relevant evaluation questions / themes on track.

The probing questions below each question, are to guide the discussion. No need to use them if you think the interviewee is addressing them naturally.

General knowledge about NSHDP and SDG-3

I am going to ask you some questions about the work that has been implemented under the NSHDP I and II. My questions are mainly about the period from 2010 through 2019 and specifically about the Sustainable Development Goal 3 in Nigeria.

- Briefly describe your responsibilities and involvement in the programmes during the period of 2010 through 2019.

Probe:

  - For how long he/she has been in the position(s) under the state programmes?

Relevance / Appropriateness

- Are the overall strategies and action plans of the SMOH and LGA aligned with the SDG-3 (Target 1: reduce maternal mortality ratio to less than 70 per 100,000 live births; and Target 2: reduce under 5 years of age mortality, to at least as low as 25 per 1,000 live births)
  - Please explain in either case, Yes or No
  - What evidence has led him /he to that conclusion

- Does the SMOH have a State SHDP?
  - Are the state level Strategic Health Plans (SSHDP) contextualized to the specific issues for addressing SDG-3 (1 and 2 targets)?
  - Ask for some examples, and what does he / she consider the factors that contributed to the production of such document
  - Ask about coordination with other sectors in the State
  - Ask about coordination with the private sector, for profit or non-profit

- Does the SMOH have an overall AOP for all health program interventions, or these are developed within each individual programme intervention?
  - Ask if you can review the latest AOP(s) for Maternal and Child Health and Nutrition – If possible, obtain a copy
  - Ask about the LGA implementation level plans – if any

- Does the SMOH have an emergency plan for COVID-19?
  - If possible, obtain a copy of such plan
  - Ask about the LGA implementation level Plans – if any

Coherence

- To what extent the SSHDP is consistent with the other national / state development plans and SDGs? Specifically, SDG-1 no poverty; SDG-2 zero hunger, and SDG-6 clean water and sanitation
  - Does the state follow the federal level directions for coordinating with the other sectors?
    - If YES: How does the State follow or implement the directions from the Federal government for coordinating with other sectors?
    - If NOT: How does the State coordinate with other sectors?

COVID-19

- Please tell us about the implementation of the COVID-19 emergency plan in your State and LGA levels?
  - Can you identify what is going well, or strengths?
  - Can you identify what are the barriers and constraints for its implementation?
  - Has COVID-19 affected the delivery of PHC services for mothers and children U5?

Effectiveness

- In your opinion or knowledge, what progress has been made towards achieving SSHDP II targets in relation to SDG 3 (1 and 2)?
  - What evidence made you reach these conclusions?
  - Do you have any reference, State MOH Information System or report or data that shows it? Could you share it please? (or take the document's bibliographic reference)
  - Could you identify enablers and barriers towards the achievement of SDG 3 (1 and 2)

- In your opinion or knowledge, what results have been achieved to date in the following Flagship Programme Interventions in your State? Either intended or unintended.

(Note. This line of questioning is about some program areas as described below, so the interview may be little long. Please be patient and write down all details)

  - What evidence made you reach these conclusions?
  - Could you identify enablers and barriers towards the achievement of SDG 3 (1 and 2) in your State
  - Do you have any reference, report or data that shows it? Could share it please (or take the document's bibliographic reference)

Ask about each of the Flagship Programme Interventions
Saving One Million Lives:
Immunization Programme:
Malaria Programme:
TB Programme:
PMCT Programme:
Nigeria State Health Investment Project
COVID-19

Efficiency

- To the best of your knowledge, to what extent are the existing health programmes and coordinating mechanisms enabling the achievement of SDG 3 (1 and 2 Targets) in your State
  - Within your SMOH
  - With the other State Line Ministries
  - International cooperation and donor agencies in your sate
  - LGA / implementation level

Impact

- To the best of your knowledge, to what extent were the expected changes in individual healthy lives achieved (Impact and Outcome)? Disaggregated by State / LGA, age groups, sex, and other priority groups?
- To the best of your knowledge and experience working at this level, is Under-Five Mortality Rate decreasing in your state?
  - Why do you think so? (whether affirmative or not)
  - Do you have any reference, report or data that shows it? Could share it please (or take the exact document's bibliographic reference)

- Please see /examine the figure/graph of line curb of trend of U5MR in Nigeria 1990-2018 (note to the interviewer. Show him / her the graphic). In your experience working at this level, what have been the main drivers or factors in reducing mortality in children under five in the period 2000-2012? What levier we could learn from the past that could serve for high level policy advocacy for 2021-2029 decade of actions for acceleration of SDG3 in your state?
  - What were the factors that influenced the stagnation of infant mortality during the years 2012-2018?
  - Describe if there were bottlenecks (constraints) and determinants?

- To the best of your knowledge and experience working at this level, do you think Nigeria will achieve SDG3-Target of reduction of U5MR to 27 by 2030?
  - What can you say about your state?
  - His / her perception of the advances, and not necessary about specific indicators. However, if the interviewer offers evidence about data and reports, take them for future examination by the team

- Have any effects been observed that enable or constrain the achievement of the objectives and targets of the selected health interventions in your state?
  - What are some of the enabling factors?
  - What are some of the constraining factors or bottlenecks?

- To the best of your knowledge and experience

working at this level, what are possible explanations and driving factors/causes of the difference among States that have reduced significantly the U5MR (2 states have already achieved target of SDG3 2030 for U5MR) and those that still have high U5MR?

(note to the interviewer. Locate his / her state and ask him / her to relate to the U5MR)

Could you provide recommendations for the acceleration of actions to achieve SDG3 targets here in your state?

- To the government of Nigeria
- To your state health authorities
- To the development partners working in your state

Human Rights & "Leaving no one Behind"

Now I would like to discuss with you, the human rights-based approach and the "Leave no one Behind" principles of the Agenda 2030.

Do you know about the 2030 Agenda?

Yes [_____]
No [_____]

Do you know about the principles of the human rights approach?

Yes [_____]
No [_____]

What is your understanding of the human rights-based approach and the Leave no one behind' principles of Agenda 2030?

Have you observed advances of this approach in relation to the NSHDP I and II in your state?

To the best of your knowledge, do you think the human rights-based approach is well integrated into the health sector programming in your sate?

- Please explain in either case, yes, or no.

To the best of your knowledge, do you think the human rights-based approach is well integrated into the Key Flagship Programme design and implementation in your sate?

- Please explain in either case, yes, or no.

Sustainability

Now I would like to discuss the sustainability of the SDG-3 Considering that sustainability is a set of programmatic interventions, of inter-institutional and financial collaboration and support. Please share to the best of your knowledge your impressions and perceptions on the following points:

- From the perspective of the program you oversee, how has the inter-institutional collaboration and coordination been at the federal and state level? Could you give some examples of collaboration that works well, and others that don't work as planned?
  - Collaboration among government institutions, private and multinational organizations, and donor agencies

- Do you think there has been a change in the health outcomes and health impact of the program interventions?
  - What evidence makes you reach that conclusion?
  - And if you don't think there was any change, what do you think are the biggest barriers that the national programme still needs to solve?

- To the best of your knowledge, what components of the health system, of the selected interventions, have been strengthened and have prospects for their sustainability?
  - What components you think still need to be strengthened, and
  - What recommendations would you give for the sustainability of the programme you oversee?

Gender Equality

- To what extent the NSHDP-II and flagship programmes incorporated gender equality and the empowerment of women and girls into the design, implementation and monitoring of interventions?
  - Suggestions / recommendations to improve gender equality of health programs under NSHDP-II or any of the flagship programmes

Equity

- To what extent were the barriers (and their causes) to access basic health services in the targeted areas, identified and addressed as part of the overall Programme strategic priorities?

Closing

Is there a theme or issue that we did not discuss during this interview that you would like to communicate to the evaluation team?

Thank you very much for your contribution. I would like to reiterate that this interview is strictly confidential, and the main objective is to accelerate the achievement of SDG-3 targets in Nigeria and further improve Nigeria's health programmes.

Note to interviewer: please ensure to end the recording of this interview upon its completion.

KII Guide 3: State MOH Maternal Health Programme Director / Manager

Independent Evaluation of the Effectiveness & Impact of the SDG-3:
Healthy Lives in Nigeria. January-February 2021

This interview guide is to be applied for conducting semi-structured interviews with senior staff of the State MOH Maternal / Reproductive Health programme Director or Manager implementation. Please choose a member who has been the longest time on the job and know about SDG-3, and NSHDP I and II. Please continue interviewing until there are no gaps in information.

Interviewer's Name:	

Respondent's Name:		Sex (M/F)
Respondent's Title:		Years working at this position
Date (dd/mm)	Location / Programme	
Start time:	End time:	

Informed Consent

Good morning/afternoon. My name is _____ _____ and I am working for Alegre Associates, a consulting company based in the US, carrying out an independent evaluation of the Sustainable Development Goal 3: Healthy Lives in Nigeria. This evaluation has been commissioned by UNICEF and the Government of Nigeria through the Office of the Senior Special Assistant to the President.

We would like to conduct an in-depth interview with you, in which we will ask questions about your perspective, knowledge, opinions, attitudes and experience in improving the access and quality of Maternal and Child Health, and nutrition programmes

Your participation in this study will NOT entail any discomfort or risk beyond those of your regular working day. We would conduct the interview at a mutually convenient time, so that we will not disrupt your regular schedule.

If you agree to participate in the study, your name will not appear in the materials that we will present in order to improve the quality of care. All the interview results will be stored in a separate location and then be destroyed after the report is released.

Your participation is completely voluntary, and the realization of the study depends on your acceptance. In the future, it is possible that a representative of our sponsor may come to this office to confirm that you gave us your informed consent.

Do you have any questions? (If yes, note the questions.)
Yes _____
No _____
Would you like to participate in the study?
Yes _____
No _____

If you have any doubts or questions, please contact me at:
Telephone Number:
Email:
(Give the provider your name, and one contact information)

Thank you for your cooperation in this activity.

Interviewee name: _____

Agreed to participate: Yes _____
No _____

Note to interviewer: You may need to probe to gather the information you need. Start with the main question and let the interviewee expands on the topic following his / her own logic. "let him / her tell his / her story." However, you must be careful not to get diverted into irrelevant or other topics. The KII interview is an art, allowing the person expresses his / her thoughts, but keeping the relevant evaluation questions / themes on track.

The probing questions below each question, are to guide the discussion. No need to use them if you think the interviewee is addressing them naturally.

General knowledge about NSHDP and SDG-3

I would like to ask you some questions about the work that has been implemented under the NSHDP I and II, specifically on the maternal health programme. My questions are mainly about the period from 2010 through 2019 and the target of reducing maternal mortality.

Briefly describe your responsibilities and involvement in the programme during the period of 2010 through 2019.

- For how long he/she has been in the position(s) under the Maternal Health programme?

Relevance / Appropriateness

Are the overall strategies of the maternal health programme and plans aligned with the SDG-3 (Target 1: reduce maternal mortality ratio to less than 70 per 100,000 live births; and Target 2: reduce under 5 years of age mortality, to at least as low as 25 per 1,000 live births)

- Please explain in either case, Yes or No
- What evidence has led you to that conclusion?

Do you have a Maternal Health Plan / Annual Operational Plan (AOP) for your state?

- What period does it cover?
- Ask if you can review the latest Maternal health AOP – and if possible, obtain a copy
- Is your AOP contextualized to the reduction of maternal mortality?
- Ask about coordination with other programme interventions and sectors in the State
- Ask about coordination with the private sector, for profit or non-profit

Does the maternal health team evaluate the progress of the AOP on a quarterly basis, and annually the progress of the state level maternal health strategy?

- Does the team also analyse the maternal health indicators, or other means of data (M&E System)?
- Ask for examples or reports

Does the programme management team use programme data to adopt and implement actions aimed at intervening in order to correctly route the course of the programme?

- If the SMOH develops actions, please explore:
  - Who devised the decision to develop an action plan (SMOH / LGA teams)?
  - Do they have specific objectives and follow up items?
  - Do the team monitor its progress? How?

MH Case Management Protocols

Does the MH case management protocol (CMP) has been updated and harmonized with the NSHDP and National Norms of attention to women during pregnancy, childbirth and postpartum?

- Does it include prevention of vertical transmission of HIV and malaria prevention?
- Does the CMP is permanently available to all obstetrics and perinatology service personnel in their work areas?

What evidence is that demonstrates that all health personnel currently attending women during perinatal period have been trained in the corresponding case-management protocol?

- See / obtain training curricula, training plan and the last progress reports

Quality of the delivery of Maternal Health care

- There is a perinatal care information system
- The medical records of the users attended contain enough and necessary information to demonstrate that this protocol is being applied correctly and completely
  - Does it include HIV testing?
  - Is here a record of HIV positive women receiving ART?
  - The users/clients served carry their corresponding perinatal card (maternal card) with complete and correct information?

Please tell us about the implementation of the COVID-19 emergency plan in your State and LGA levels, and in relation to the Maternal Health programme?

- Can you identify what is going well, or strengths?
- Can you identify what are the barriers and constraints for its implementation?
- Has COVID-19 affected the delivery of PHC services for mothers and children U5?

Effectiveness

In your opinion or knowledge, what progress has been made towards the reduction of maternal mortality in your state?

- What evidence has made you reach these conclusions?

In your opinion or knowledge, what progress has been made towards achieving SSHDP II targets in relation to SDG 3, targets 1 and 2? (Target 1: reduce maternal mortality ratio to less than 70 per 100,000 live births; and Target 2: reduce under 5 years of age mortality, to at least as low as 25 per 1,000 live births)

- Do you have any reference, State MOH Information System or report or data that shows it? Could you share it please? (or take the document's bibliographic reference)
- Could you identify enablers and barriers towards the achievement of SDG 3 (targets 1 and 2)

In your opinion or knowledge, what results have been achieved to date in the following Flagship Programme Interventions in your State? Either intended or unintended. (Note. This question has some important program levels, as described below, so the interview may be little long. Please be patient and write down all details)

- What evidence made you reach these conclusions?
- Could you identify enablers and barriers towards the achievement of SDG 3 (1 and 2) in your State
- Do you have any reference, report or data that shows it? Could share it please (or take the document's bibliographic reference)

Ask about each of the Flagship Programme Interventions
Saving One Million Lives:
Immunization Programme:
Malaria Programme:
TB Programme:
PMCT Programme:
Nigeria State Health Investment Project

Efficiency

To the best of your knowledge, to what extent are the existing programmes and coordinating mechanisms enabling the achievement of SDG 3 (1 and 2 Targets) in your State

- Within your SMOH
- With the other State Line Ministries
- International cooperation and donor agencies in your sate
- LGA / implementation level

Impact

To the best of your knowledge, to what extent were the expected changes in individual healthy lives achieved (Impact and Outcome)? Disaggregated by SLGAs or the state overall (age groups, sex, and other priority groups)?

- His/her perception of the advances, and not necessary about specific indicators. However, if the interviewer offers evidence about data and reports, take them for future examination by the team

To the best of your knowledge and experience working at this level, is Maternal Mortality decreasing in your state?

- Why do you think so? (whether affirmative or not)
- Do you have any reference, report or data that shows it? Could share it please (or take the exact document's bibliographic reference)

In your experience working at this level, what have been the main drivers or factors in reducing mortality in women of reproductive age in the period 2000-2012? What levier we could learn from the past that could serve for high level policy advocacy for 2021-2029 decade of actions for acceleration of SDG3 in your state?

- What were the factors that influenced the stagnation of maternal mortality during the years 2012-2018?
- Describe if there were bottlenecks (constraints) and determinants?

To the best of your knowledge and experience working at this level, do you think Nigeria will achieve SDG3-Target of reduction of Maternal Mortality by 2030?

- What can you say about your state?
- His/her perception of the advances, and not necessary about specific indicators. However, if the interviewer offers evidence about data and reports, take them for future examination by the team

Have any effects been observed that enable or constrain the achievement of the objectives and targets of the selected maternal health interventions in your state?

- What are some of the enabling factors?
- What are some of the constraining factors or bottlenecks?

To the best of your knowledge and experience working at this level, what are possible explanations and driving factors/causes of the difference among States that have reduced significantly the U5MR (2 states have already achieved target of SDG3 2030 for U5MR) and those that still have high U5MR?

Could you provide recommendations for the acceleration of actions to achieve SDG-3 targets here in your state?

- To the government of Nigeria
- To your state health authorities
- To the development partners working in your state

Human Rights & "Leaving No One Behind"

Now I am would like to discuss with you, the human rights-based approach and the "Leave no one Behind" principles of the Agenda 2030.

Do you know about the 2030 Agenda?
Yes [_____]
No [_____]

Do you know about the principles of the human rights approach?
Yes [_____]
No [_____]

What is your understanding of the human rights-based approach and the "Leave no one Behind" principles of Agenda 2030?

Have you observed advances of this approach in relation to the NSHDP I and II in your state?

To the best of your knowledge, do you think the human rights-based approach is well integrated into the health sector programming in your sate?

- Please explain in either case, yes, or no.

To the best of your knowledge, do you think the human rights-based approach is well integrated into the Key

Flagship Programme design and implementation in your sate?

- Please explain in either case, yes, or no.

Sustainability

Now I would like to discuss the sustainability of the Maternal Health programme. Considering that sustainability is a set of programmatic interventions, of inter-institutional and financial collaboration and support. Please share to the best of your knowledge your impressions and perceptions on the following points:

From the perspective of the programme you oversee, how has the inter-institutional collaboration and coordination been at the federal and state level? Could you give some examples of collaboration that works well, and others that don't work as planned?

- Collaboration among government institutions, private and multinational organizations, and donor agencies

Do you think there has been a change in the health outcomes and health impact of the programme interventions?

- What evidence makes you reach that conclusion?
- And if you don't think there was any change, what do you think are the biggest barriers that the national programme still needs to solve?

To the best of your knowledge, what components of the health system, of the selected interventions, have been strengthened and have prospects for their sustainability?

- What components you think still need to be strengthened, and
- What recommendations would you give for the sustainability of the programme you oversee?

Gender Equality

To what extent the NSHDP-II and flagship programmes incorporated gender equality and the empowerment of women and girls into the design, implementation and monitoring of interventions?

- Suggestions/recommendations to improve gender equality of health programs under NSHDP-II or any of the flagship programmes

Equity

- To what extent were the barriers (and their causes) to access basic health services in the targeted areas, identified and addressed as part of the overall programme strategic priorities?

Closing

Is there a theme or issue that we did not discuss during this interview that you would like to communicate to the evaluation team?

Thank you very much for your contribution. I would like to reiterate that this interview is strictly confidential, and the main objective is to accelerate the achievement of SDG-3 targets in Nigeria and further improve Nigeria's health programmes.

Note to interviewer: please ensure to end the recording of this interview upon its completion.

KII Guide 5: State MOH Child Health Programme Director / Manager

Independent Evaluation of the Effectiveness & Impact of the SDG-3:
Healthy Lives in Nigeria. January-February 2021

This interview guide is to be applied for conducting semi-structured interviews with senior staff of the State MOH Maternal/Child Health programme Director or Manager implementation. Please choose a member who has been the longest time on the job and know about SDG-3, and NSHDP I and II. Please continue interviewing until there are no gaps in information.

Interviewer's Name:		
Respondent's Name:		Sex (M/F)
Respondent's Title:		Years working at this position
Date (dd/mm)	Location / Programme	
Start time:	End time:	

Informed Consent

Good morning/afternoon. My name is _____
_____
and I am working for Alegre Associates, a consulting company based in the US, carrying out an independent evaluation of the Sustainable Development Goal 3: Healthy Lives in Nigeria. This evaluation has been commissioned by UNICEF and the Government of Nigeria through the Office of the Senior Special Assistant to the President.

We would like to conduct an in-depth interview with you, in which we will ask questions about your perspective, knowledge, opinions, attitudes and experience in improving the access and quality of Maternal and Child Health, and nutrition programmes

Your participation in this study will NOT entail any discomfort or risk beyond those of your regular working day. We would conduct the interview at a mutually convenient time, so that we will not disrupt your regular schedule.

If you agree to participate in the study, your name will not appear in the materials that we will present in order to improve the quality of care. All the interview results will be stored in a separate location and then be destroyed after the report is released.

Your participation is completely voluntary, and the realization of the study depends on your acceptance. In the future, it is possible that a representative of our sponsor may come to this office to confirm that you gave us your informed consent.

Do you have any questions? (If yes, note the questions.)
Yes _____
No _____

Would you like to participate in the study?
Yes _____
No _____

If you have any doubts or questions, please contact me at:
Telephone Number:
Email:
(Give the provider your name, and one contact information)

Thank you for your cooperation in this activity.

Interviewee name: _____

Agreed to participate: Yes _____
No _____

KII Guide 6: State MOH Child Health Programme Director / Manager

Independent Evaluation of the Effectiveness & Impact of the SDG-3:
Healthy Lives in Nigeria. January-February 2021

Note to interviewer: You may need to probe to gather the information you need. Start with the main question and let the interviewee expands on the topic following his / her own logic. "let him / her tell his / her story." However, you must be careful not to get diverted into irrelevant or other topics. The KII interview is an art, allowing the person expresses his / her thoughts, but keeping the relevant evaluation questions / themes on track.

The probing questions below each question, are to guide the discussion. No need to use them if you think the interviewee is addressing them naturally.

General knowledge about NSHDP and SDG-3

I would like to ask you some questions about the work that has been implemented under the NSHDP I and II, specifically on the Child Health Programme. My questions are mainly about the period from 2010 through 2019 and the target of reducing maternal mortality.

Briefly describe your responsibilities and involvement in the programme during the period of 2010 through 2019.

- For how long he/she has been in the position(s) under the Child Health programme?

Relevance / Appropriateness

Are the overall strategies of the child health program and plans aligned with the SDG-3 (Target 1: reduce maternal mortality ratio to less than 70 per 100,000 live births; and Target 2: reduce under 5 years of age mortality, to at least as low as 25 per 1,000 live births)

- Please explain in either case, Yes or No
- What evidence has led you to that conclusion?

Do you have a Child Health Plan of Action / Annual Operational Plan (AOP) for your state?

- What period does it cover?
- Ask if you can review the latest Child health AOP – and if possible, obtain a copy
- Is your AOP contextualized to the reduction of infant (0-11 months of age) and child (12-59 months of age) mortality?
- Ask about coordination with other programme interventions and sectors in the State
- Ask about coordination with the private sector, for profit or non-profit

The child health team evaluates the progress of the AOP on a quarterly basis, and annually the progress of the state level child health strategy?

- Does the team also analyze the infant and child health indicators, or other means of data (M&E System)?

Does the programme management team use programme data to adopt and implement actions aimed at intervening in order to correctly route the course of the program?

- If the SMOH develops actions, please explore:
  - Who devised the decision to develop an action plan (SMOH / LGA teams)?
  - Do they have specific objectives and follow up items?
  - Do the team monitor its progress? How?

Child Health Case Management Protocols

Does the Child Health have case management protocol? Has it been updated and harmonized with the NSHDP and National Norms of attention of children?

- Does it include management of children with pneumonia (lower respiratory infections)? Does it include a chapter on COVID-19 infection?
- Does it include management of diarrhea and dehydration?
- Does it include breastfeeding and weaning practices?
- Does it include complete immunization before 12 months of age?

What evidence is that demonstrates that all health personnel currently attending infants and children under 5 years of age have been trained in the corresponding protocol and its different components?

- See / obtain training curricula and training plan and progress reports

Quality of the delivery of Child Health care

- Is there an infant and childcare information system? i.e., IMCI, EPI, Growth monitoring card, and others if apply
- The medical records of the users attended contain enough and necessary information to demonstrate that this protocol is being applied correctly and completely

Effectiveness

In your opinion or knowledge, what progress has been made towards the reduction of infant and child mortality in your state?

- What evidence has made you reach these conclusions?

In your opinion or knowledge, what progress has been made towards achieving SSHDP II targets in relation to SDG 3 (targets 1 and 2)?

- Do you have any reference, State MOH Information System or report or data that shows it? Could you share it please? (or take the document's bibliographic reference)
- Could you identify enablers and barriers towards the achievement of SDG-3 (targets 1 and 2)

In your opinion or knowledge, what results have been achieved to date in the following Flagship Programme Interventions in your State? Either intended or unintended. (Note. This question has some important program levels, as specified below, so the interview may be little long. Please be patient and write down all details)

- What evidence made you reach these conclusions?
- Could you identify enablers and barriers towards the achievement of SDG-3 (targets 1 and 2) in your State
- Do you have any reference, report or data that shows it? Could share it please (or take the document's bibliographic reference)

Ask about each of the Flagship Programme Interventions
Saving One Million Lives:
Immunization Programme:
Malaria Programme:
TB Programme:
PMCT Programme:
Nigeria State Health Investment Project

Efficiency

To the best of your knowledge, to what extent are the existing programmes and coordinating mechanisms enabling the achievement of SDG 3 (targets 1 and 2) in your State

- Within your SMOH
- With the other State Line Ministries
- International cooperation and donor agencies in your sate
- LGA / implementation level

Impact

To the best of your knowledge, to what extent were the expected changes in individual healthy lives achieved (Impact and Outcome)? Disaggregated by State / LGA, age groups, sex, and other priority groups?

To the best of your knowledge and experience working at this level, is Under-Five Mortality Rate decreasing in your state?

- Why do you think so? (whether affirmative or not)
- Do you have any reference, report or data that shows it? Could share it please (or take the exact document's bibliographic reference)

Please see /examine the figure/graph of line curb of trend of U5MR in Nigeria 1990-2018 (note to the interviewer. Show him / her the graphic). In your experience working at this level, what have been the main drivers or factors in reducing mortality in children under five in the period 2000-2012? What levier we could learn from the past that could serve for high level policy advocacy for 2021-2029 decade of actions for acceleration of SDG3 in your state?

- What were the factors that influenced the stagnation of infant mortality during the years 2012-2018?
- Describe if there were bottlenecks (constraints) and determinants?

To the best of your knowledge and experience working at this level, do you think Nigeria will achieve SDG3-Target of reduction of U5MR to 27 by 2030?

- What can you say about your state?
- His/her perception of the advances, and not

necessary about specific indicators. However, if the interviewer offers evidence about data and reports, take them for future examination by the team

Have any effects been observed that enable or constrain the achievement of the objectives and targets of the selected child health interventions in your state?

- What are some of the enabling factors?
- What are some of the constraining factors or bottlenecks?

To the best of your knowledge and experience working at this level, what are possible explanations and driving factors/causes of the difference among States that have reduced significantly the U5MR (2 states have already achieved target of SDG3 2030 for U5MR) and those that still have high U5MR?

Could you provide recommendations for the acceleration of actions to achieve SDG3 targets here in your state?

- To the government of Nigeria
- To your state health authorities
- To the development partners working in your state

Human Rights & "Leave No One Behind"

Now I am would like to discuss with you, the human rights-based approach and the "Leave no one Behind" principles of the Agenda 2030.

Do you know about the 2030 Agenda?
Yes [_____]
No [_____]

Do you know about the principles of the human rights approach?
Yes [_____]
No [_____]

What is your understanding of the human rights-based approach and the "Leave no one Behind" principles of Agenda 2030?

Have you observed advances of this approach in relation to the NSHDP I and II in your state?

To the best of your knowledge, do you think the human rights-based approach is well integrated into the health sector programming in your sate?

- Please explain in either case, yes, or no.

To the best of your knowledge, do you think the human rights-based approach is well integrated into the Key Flagship Programme design and implementation in your sate?

- Please explain in either case, yes, or no.

Sustainability

Now I would like to discuss the sustainability of the Child Health programme. Considering that sustainability is a set of programmatic interventions, of inter-institutional and financial collaboration and support. Please share to the best of your knowledge your impressions and perceptions on the following points:

From the perspective of the programme you oversee, how has the inter-institutional collaboration and coordination been at the federal and state level? Could you give some examples of collaboration that works well, and others that don't work as planned?

- Collaboration among government institutions, private and multinational organizations, and donor agencies

Do you think there has been a change in the health outcomes and health impact of the programme interventions?

- What evidence makes you reach that conclusion?
- And if you don't think there was any change, what do you think are the biggest barriers that the national programme still needs to solve?

To the best of your knowledge, what components of the health system, of the selected interventions, have been strengthened and have prospects for their sustainability?

- What components you think still need to be strengthened, and
- What recommendations would you give for the sustainability of the programme you oversee?

Gender Equality

To what extent the NSHDP-II and flagship programmes incorporated gender equality and the empowerment of women and girls into the design, implementation and monitoring of interventions?

- Suggestions/recommendations to improve gender equality of health programs under NSHDP-II or any of the flagship programmes

Equity

To what extent were the barriers (and their causes) to access basic health services in the targeted areas, identified and addressed as part of the overall programme strategic priorities?

Closing

Is there a theme or issue that we did not discuss during this interview that you would like to communicate to the evaluation team?

Thank you very much for your contribution. I would like to reiterate that this interview is strictly confidential, and the main objective is to accelerate the achievement of SDG-3 targets in Nigeria and further improve Nigeria's health programmes.

Note to interviewer: please ensure to end the recording of this interview upon its completion.

KII Guide 7: State MOH Nutrition Programme Director / Manager

Independent Evaluation of the Effectiveness & Impact of the SDG-3:
Healthy Lives in Nigeria. January-February 2021

This interview guide is to be applied for conducting semi-structured interviews with senior staff of the State MOH Nutrition Programme Director or Manager implementation. Please choose a member who has been the longest time on the job and know about SDG 3, and NSHDP I and II. Please continue interviewing until there are no gaps in information.

Interviewer's Name:		
Respondent's Name:		Sex (M/F)
Respondent's Title:		Years working at this position
Date (dd/mm)	Location / Programme	
Start time:	End time:	

Informed Consent

Good morning/afternoon. My name is.....
.....and I am working for Alegre Associates, a consulting company based in the US, carrying out an independent evaluation of the Sustainable Development Goal 3: Healthy Lives in Nigeria. This evaluation has been commissioned by UNICEF and the Government of Nigeria through the Office of the Senior Special Assistant to the President.

We would like to conduct an in-depth interview with you, in which we will ask questions about your perspective,

knowledge, opinions, attitudes and experience in improving the access and quality of Maternal and Child Health, and nutrition programmes

Your participation in this study will NOT entail any discomfort or risk beyond those of your regular working day. We would conduct the interview at a mutually convenient time, so that we will not disrupt your regular schedule.

If you agree to participate in the study, your name will not appear in the materials that we will present in order to improve the quality of care. All the interview results will be stored in a separate location and then be destroyed after the report is released.

Your participation is completely voluntary, and the realization of the study depends on your acceptance. In the future, it is possible that a representative of our sponsor may come to this office to confirm that you gave us your informed consent.

Do you have any questions? (If yes, note the questions.)
Yes _____
_____
No _____

Would you like to participate in the study?
Yes _____
No _____

If you have any doubts or questions, please contact me at:
Telephone Number:
Email:
(Give the provider your name, and one contact information)

Thank you for your cooperation in this activity.

Interviewee name: _____

Agreed to participate: Yes _____
No _____

KII 8 Guide: State MOH Nutrition Programme Director/ Manager

Independent Evaluation of the Effectiveness & Impact of the SDG-3:
Healthy Lives in Nigeria. January-February 2021

Note to interviewer: You may need to probe to gather the information you need. Start with the main question and let the interviewee expands on the topic following his / her own logic. "let him / her tell his / her story." However, you must be careful not to get diverted into irrelevant or other topics. The KII interview is an art, allowing the person expresses his / her thoughts, but keeping the relevant evaluation questions / themes on track.

The probing questions below each question, are to guide the discussion. No need to use them if you think the interviewee is addressing them naturally.

General knowledge about NSHDP and SDG-3

I would like to ask you some questions about the work that has been implemented under the NSHDP I and II, specifically on the Nutrition Programme. My questions are mainly about the period from 2010 through 2019 and the target of reducing maternal and child mortality.

Briefly describe your responsibilities and involvement in the programme during the period of 2010 through 2019.

- For how long he/she has been in the position(s) under the nutrition programme?

Relevance / Appropriateness

Are the overall strategies of the Nutrition program and plans aligned with the SDG-3 (Target 1: reduce maternal mortality ratio to less than 70 per 100,000 live births; and Target 2: reduce under 5 years of age mortality, to at least as low as 25 per 1,000 live births)

- Please explain in either case, Yes or No
- What evidence has led you to that conclusion?

Do you have a Nutrition Program Plan of Action / Annual Operational Plan (AOP) for your state?

- What period does it cover?
- Is your AOP contextualized to the reduction of child and maternal mortality?

- Ask about coordination with other programme interventions and sectors in the State
- Ask about coordination with the private sector, for profit or non-profit

The nutrition and health teams evaluate the progress of the AOP on a quarterly basis, and annually the progress of the state level nutrition health strategy?

- Does the team also analyse the maternal and child health, and nutrition indicators, or other means of data (M&E System)?

Does the nutrition programme management team use data to adopt and implement actions aimed at intervening in order to correctly route the course of the program?

- If the SMOH develops actions, please explore:
  - Who devised the decision to develop an action plan (SMOH / LGA teams)?
  - Do they have specific objectives and follow up items?
  - Do the team monitor its progress? How?

Nutrition and Health Case Management Protocols or Guidelines

Does the Nutrition protocol have been updated and harmonized with the NSHDP and National Norms of attention of the nutrition of women and children?

- Does it include exclusive breastfeeding and weaning practices?
- Does it include nutrition during the perinatal period?
- Does it include micronutrients?

What evidence is that demonstrates that all health/ nutrition personnel currently attending women and children nutrition have been trained in the corresponding protocol /guidelines and its components?

- See / obtain training curricula and training plan and progress reports

Quality of the delivery of nutrition interventions

- There is an information system for the nutrition of women and children?
- The medical records of the users attended contain enough and necessary information to demonstrate that this protocol is being applied correctly and completely

Effectiveness

In your opinion or knowledge, what progress has been made towards the reduction of undernutrition, and maternal and child mortality?

- What evidence has made you reach these conclusions?

In your opinion or knowledge, what progress has been made towards achieving SSHDP II targets in relation to SDG 3 (Targets 1 and 2)?

- Do you have any reference, State MOH Information System or report or data that shows it? Could you share it please? (or take the document's bibliographic reference)
- Could you identify enablers and barriers towards the achievement of SDG 3 (targets 1 and 2) of the nutrition component

In your opinion or knowledge, what results have been achieved to date in the following Flagship Programme Interventions in your State? Either intended or unintended.
(Note. This question has some important program components, as specified below, so the interview may be little long. Please be patient and write down all details)

- What evidence made you reach these conclusions?
- Could you identify enablers and barriers towards the achievement of SDG 3 (targets 1 and 2) in your State
- Do you have any reference, report or data that shows it? Could share it please (or take the document's bibliographic reference)

Ask about each of the Flagship Programme Interventions
Saving One Million Lives:
Immunization Programme:
Malaria Programme:
TB Programme:
PMCT Programme:
Nigeria State Health Investment Project

Efficiency

To the best of your knowledge, to what extent are the existing programmes and coordinating mechanisms enabling the achievement of SDG 3 (1 and 2 Targets) in your State

- Within your SMOH
- With the other State Line Ministries

- International cooperation and donor agencies in your sate
- LGA / implementation level

Impact

To the best of your knowledge, to what extent were the expected changes in individual healthy lives achieved (Impact and Outcome)? Disaggregated by State / LGA, age groups, sex, and other priority groups?

To the best of your knowledge and experience working at this level, are Maternal and Child Undernutrition Rates decreasing in your state?

- Why do you think so? (whether affirmative or not)
- Do you have any reference, report or data that shows it? Could share it please (or take the exact document's bibliographic reference)

Please see /examine the figure/graph of line curb of trend of U5MR in Nigeria 1990-2018 (note to the interviewer. Show him / her the graphic). In your experience working at this level, what have been the main drivers or factors in reducing mortality in children under five in the period 2000-2012? What levier we could learn from the past that could serve for high level policy advocacy for 2021-2029 decade of actions for acceleration of SDG3 in your state?

- What were the factors that influenced the stagnation of infant mortality during the years 2012-2018?
- Describe if there were bottlenecks (constraints) and determinants?

To the best of your knowledge and experience working at this level, do you think Nigeria will achieve SDG3-Target of reduction of U5MR to 27 by 2030?

- What can you say about your state?
- His / her perception of the advances, and not necessary about specific indicators. However, if the interviewer offers evidence about data and reports, take them for future examination by the team

Have any effects been observed that enable or constrain the achievement of the objectives and targets of the Nutrition interventions in your state?

- What are some of the enabling factors?
- What are some of the constraining factors or bottlenecks?

To the best of your knowledge and experience working at this level, what are possible explanations and driving factors/causes of the difference among States that have reduced significantly the U5MR (2 states have already achieved target of SDG3 2030 for U5MR) and those that still have high U5MR?

Could you provide recommendations for the acceleration of actions to achieve SDG3 targets here in your state?

- To the government of Nigeria
- To your state health authorities
- To the development partners working in your state

Human Rights & "'Leaving No One Behind"

Now I am would like to discuss with you, the human rights-based approach and the Leave no one Behind principles of the Agenda 2030.

Do you know about the 2030 Agenda?
Yes [_____]
No [_____]

Do you know about the principles of the human rights approach?
Yes [_____]
No [_____]

What is your understanding of the human rights-based approach and the Leave no one Behind principles of Agenda 2030?

Have you observed advances of this approach in relation to the NSHDP I and II in your state?

To the best of your knowledge, do you think the human rights-based approach is well integrated into the health sector programming in your state?

- Please explain in either case, yes, or no.

To the best of your knowledge, do you think the human rights-based approach is well integrated into the Key Flagship Programme design and implementation in your state?

- Please explain in either case, yes, or no.

Sustainability

Now I would like to discuss the sustainability of the Nutrition program. Considering that sustainability is a set of programmatic interventions, of inter-institutional and

financial collaboration and support. Please share to the best of your knowledge your impressions and perceptions on the following points:

From the perspective of the program you oversee, how has the inter-institutional collaboration and coordination been at the federal and state level? Could you give some examples of collaboration that works well, and others that don't work as planned?

- Collaboration among government institutions, private and multinational organizations, and donor agencies

Do you think there has been a change in the outcomes and impact of the program interventions?

- What evidence makes you reach that conclusion?
- And if you don't think there was any change, what do you think are the biggest barriers that the national programme still needs to solve?

To the best of your knowledge, what components of the health system, of the selected interventions, have been strengthened and have prospects for their sustainability?

- What components you think still need to be strengthened, and
- What recommendations would you give for the sustainability of the programme you oversee?

Gender Equality

To what extent have the NSHDP II and flagship programmes incorporated gender equality and the empowerment of women and girls into the design, implementation and monitoring of interventions?

- Suggestions/ recommendations to improve gender equality of health programs under NSHDP-II or any of the flagship programmes

Equity

To what extent were the barriers (and their causes) to access basic nutrition services in the targeted areas, identified and addressed as part of the overall Programme strategic priorities?

Closing

Is there a theme or issue that we did not discuss during this interview that you would like to communicate to the evaluation team?

Thank you very much for your contribution. I would like to reiterate that this interview is strictly confidential, and the main objective is to accelerate the achievement of SDG-3 targets in Nigeria and further improve Nigeria's health programmes.

Note to interviewer: please ensure to end the recording of this interview upon its completion.

Annex 10. Health Financing Analysis by State

Health Financing Analysis in Bayelsa

Health budget decreased from NNG9.61 billion in 2017 to NGN6.9 billion in 2019; the proportion of state budget allocated to health consistently remained below 15 per cent with the highest being 6 per cent. The state health expenditure and GGHE followed same trend with proportion of state expenditure allocated to health worsening. It dropped from 5 per cent in 2017 to 4 per cent in 2019. The actual health expenditure also dropped from NGN9.8 billion in 2017 to NNG7.22 billion in 2019. Health expenditure per capita was US$12, US$14, US$11 and US$10 respectively for the four years under review.

The analysis of health financing in Bayelsa used the following assumptions:

- The state budget implementation rate of 75 per cent in 2017 was applied on 2016 budget to estimate 2016 state total expenditure.
- The health budget implementation rate of 83 per cent in 2017 was applied on 2016 budget to estimate 2016 health expenditure.
- The 2017 Bayelsa state LGA total expenditure reported in the 2017 CBN annual report was assumed for 2016 while 2019 figure was assumed for 2018.
- LGA health expenditure was estimated by assuming that the proportion of expenditure of all the LGAs in the country allocated to health was also applicable for individual state.

Figures 10.1a-d provide further details of the health financing analysis in Bayelsa.

Figure 10.1a: Bayelsa budget allocation 2016-2019

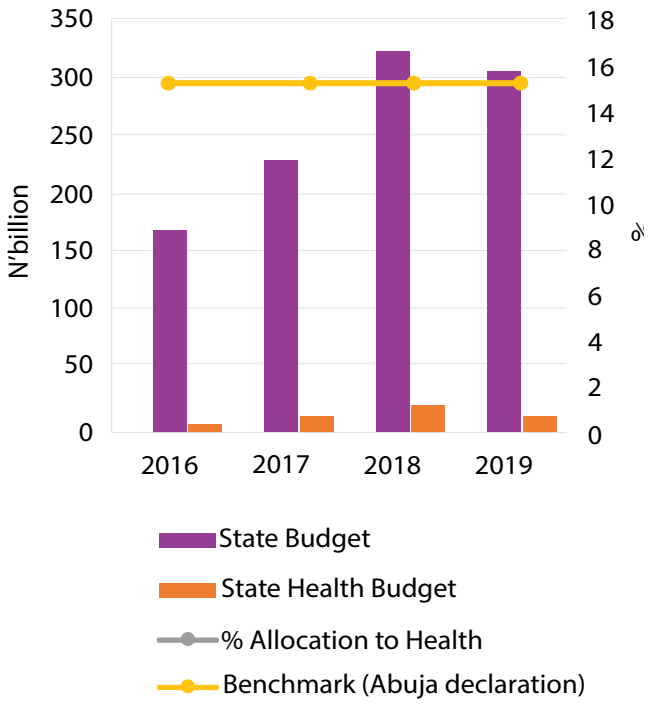


Figure 10.1b: Bayelsa expenditure vs. allocation to health 2016-2019

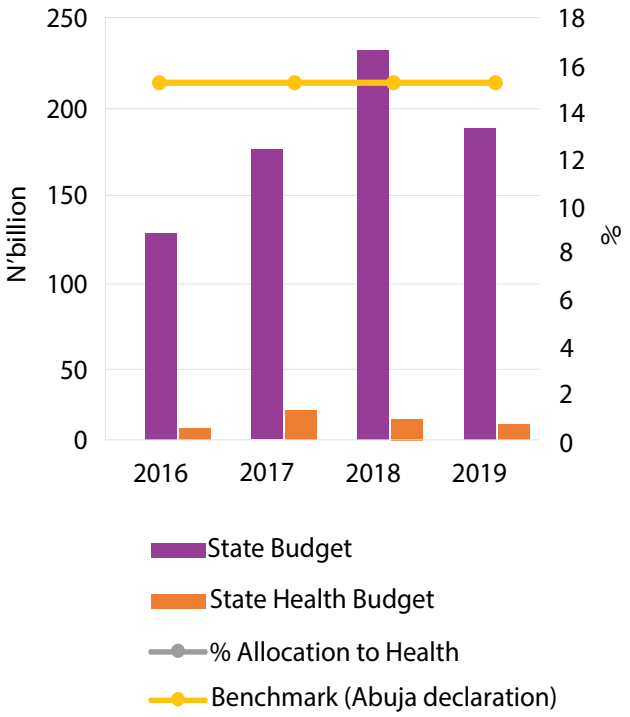


Figure 10.1c: Bayelsa State and LGA health expenditure 2016-2019

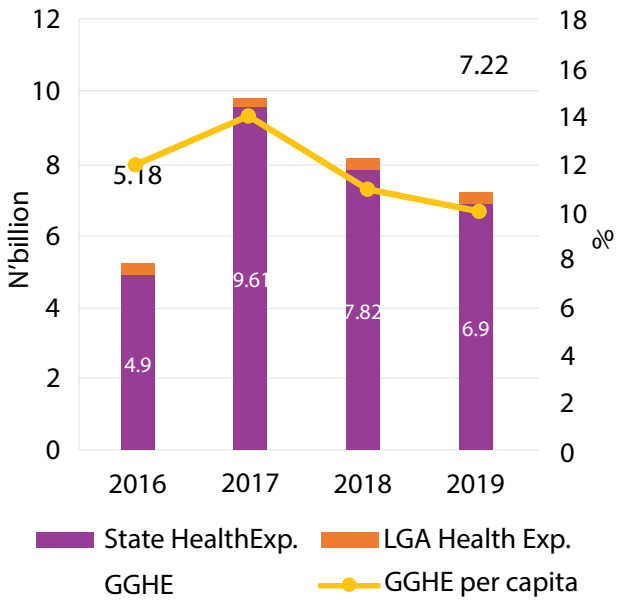
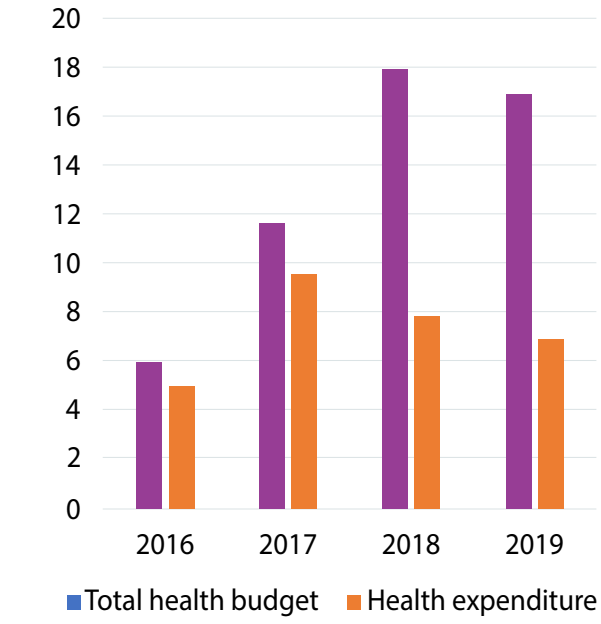


Figure 10.1d: Bayelsa health budget vs health expenditure 2016-2019



Health Financing Analysis in Ebonyi

Total health budget increased tremendously between 2016 and 2019 from NGN3.18 billion to NGN19.94 billion. Actual health expenditure experienced a surge in 2016 because of the establishment of the world class virology centre which was initiated and completed that same year. The actual expenditures were NGN10.69 billion, NGN1.87 billion, NGN4.52 billion and NGN6.95 billion respectively.

The share of health budget in total state budget was constantly below the 15 per cent benchmark, the highest was only 10 per cent in 2019. The share of health expenditure in total state expenditure was 19 per cent in 2016 due to the one-off expenditure; it dropped to 3 per cent in 2017 then increased to 6 per cent and 10 per cent in 2018 and 2019 respectively. The GGHE were NGN11.04 billion, NGN2.15 billion, NGN4.92 billion and NGN7.34 billion respectively, with GGHE per capita of US$20, US$2, US$5, and US$8 respectively in 2016, 2017, 2018 and 2019. The analysis of health financing in Ebonyi used the following assumptions:

- The 2017 Ebonyi state LGA total expenditure reported in the 2017 CBN annual report was assumed for 2016 while 2019 figure was assumed for 2018.
- LGA health expenditure was estimated by assuming that the proportion of expenditure of all the LGAs in the country allocated to health was also applicable for individual state.

Figures 10.2a-d provide further details of the health financing analysis in Ebonyi.

Health Financing Analysis in Gombe

The health budget increased from NGN7.2 billion in 2016 to NGN10.57 billion in 2019, with the proportion to state budget fluctuating between 6 per cent and 9 per cent. The actual health expenditure and its proportion to state expenditure remained almost constant during the period. The expenditure slightly increased from NGN5.64 billion in 2017 to NGN6.03 billion in 2019; the proportions are 8 per cent, 5 per cent and 7 per cent respectively for 2017 to 2019. The GGHE increased from N5.88billion in 2016 to N6.57 billion in 2019; the corresponding per capita

Figure 10.2a: Ebonyi budget allocation to health 2016-2019

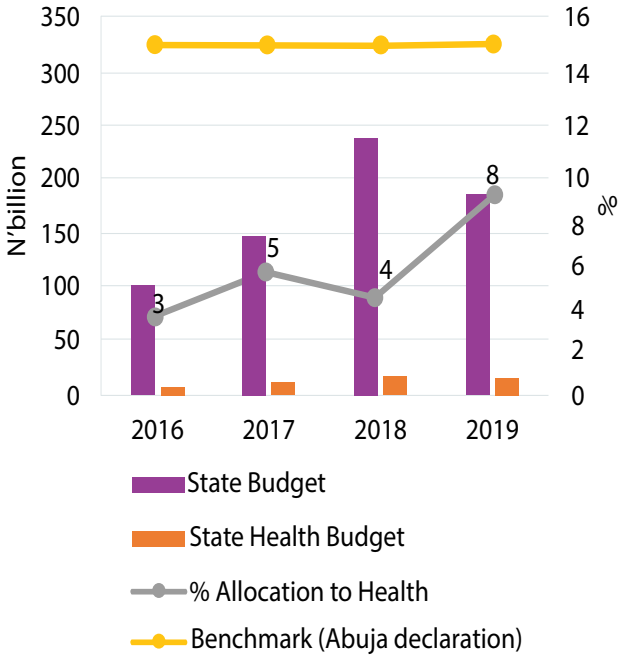


Figure 10.2b: Ebonyi expenditure vs allocation to health 2016-2019

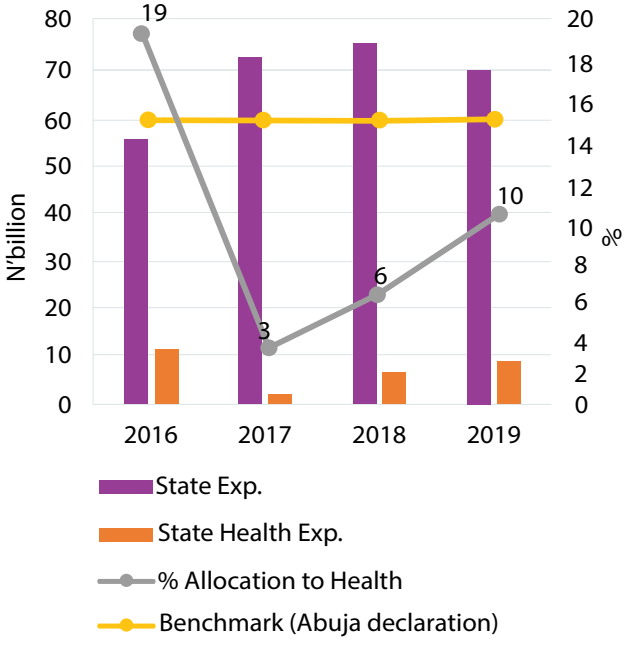


Figure 10.2c: Ebonyi State and LGA health expenditure 2016-2019

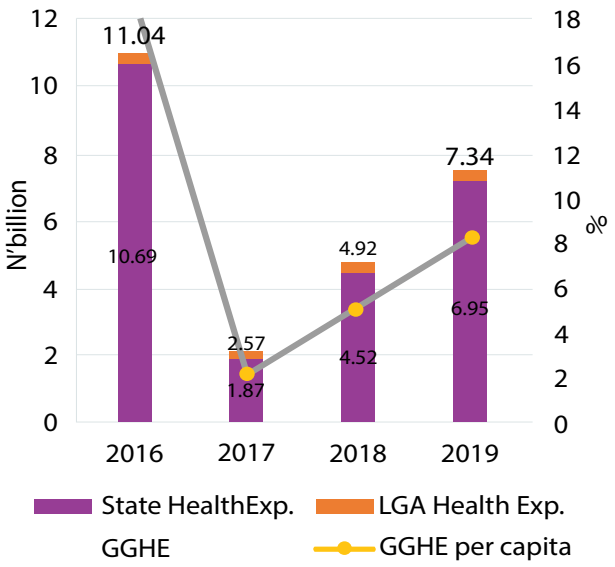
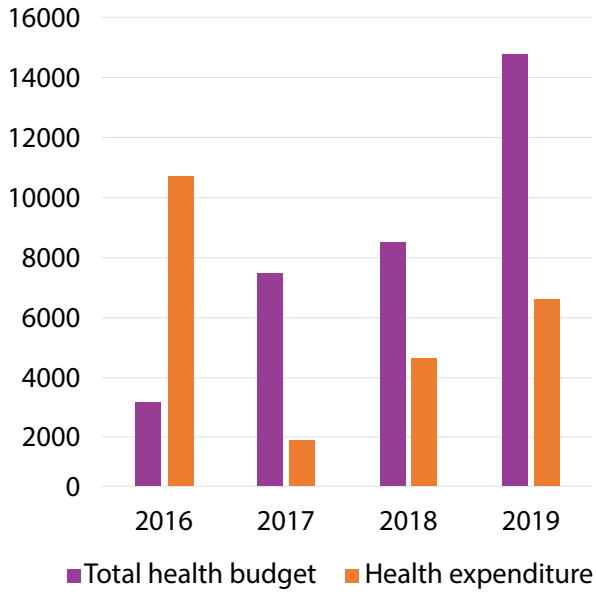


Figure 10.2d: Ebonyi health budget vs health expenditure 2016-2019



remained abysmally low at US$10 in 2016 and US$6 for each of the other three years.

The analysis of health financing in Gombe used the following assumptions:

- Health expenditure to total state expenditure ratio of 8 per cent in 2017 was applied to estimate total health expenditure for 2016.
- The 2017 Gombe state LGA total expenditure reported in the 2017 CBN annual report was assumed for 2016 while 2019 figure was assumed for 2018.
- LGA health expenditure was estimated by assuming that the proportion of expenditure of all the LGAs in the country allocated to health was also applicable for individual state.

Figures 10.3a-d provide further details of the health financing analysis in Gombe.

Health Financing Analysis in Kebbi

The health sector budget increased from NGN9.95 billion in 2016 to NGN10.69 billion in 2019 with a declining proportion ranging from 7 per cent to 9 per cent. Actual health expenditure, on the other hand, increased from NGN4.27 billion in 2016 to NGN7.96 billion in 2019; the proportion increased from a constant 7 per cent to 9 per cent in 2019. The GGHE follows the same trend. It increased from NGN5.2 billion in 2016 to NGN9.38 billion in 2019. The GGHE/GGE ratio was a maximum of 6 per cent. The average GGHE per capita for the period was US$5.50.

The analysis of health financing in Kebbi used the following assumptions:

- The 2017 Kebbi State LGA total expenditure reported in the 2017 CBN annual report was assumed for 2016 while 2019 figure was assumed for 2018.
- LGA health expenditure was estimated by assuming that the proportion of expenditure of all the LGAs in the country allocated to health was also applicable for individual state.

Figures 10.4a-d provide further details of the health financing analysis in Kebbi.

Health Financing Analysis in Nasarawa

The health sector budget increased from NGN6.94 billion in 2016 to NGN9.82 billion in 2019. Actual health expenditure also increased from NGN4.81 billion to NGN6.77 billion in 2019, the proportion of health allocation compared with state data falls short of the recommended 15 per cent. The GGHE also increased during the period; from NGN5.19 billion to NGN7.18 billion. GGHE per capita were sub-optimal at US$11, US$7, US$9 and US$9 respectively.

Figure 10.3a: Gombe budget allocation to health 2016-2019

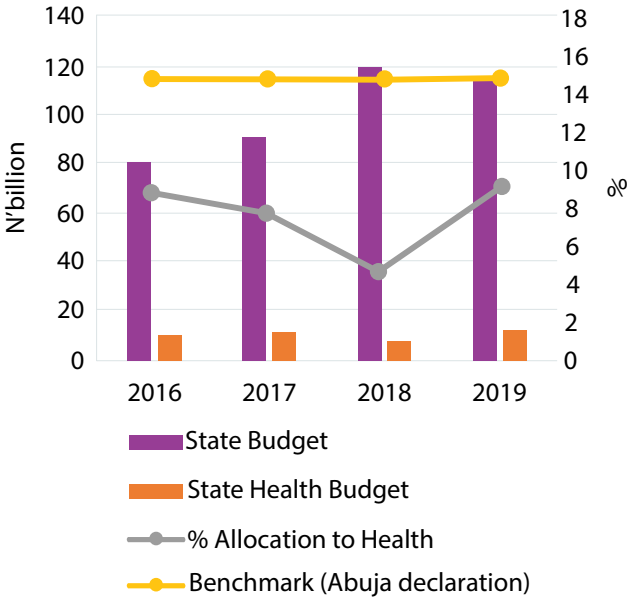


Figure 10.3b: Gombe expenditure allocation to health 2016-2019

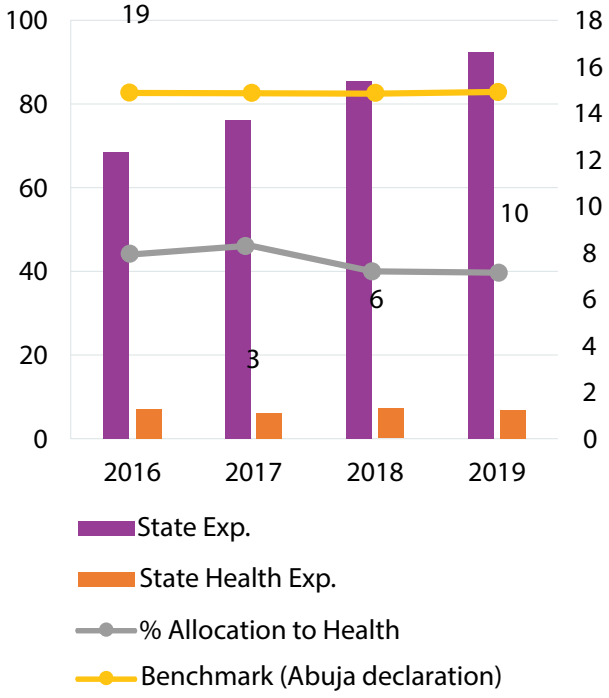


Figure 10.3c: Gombe State and LGA health expenditure 2016-2019

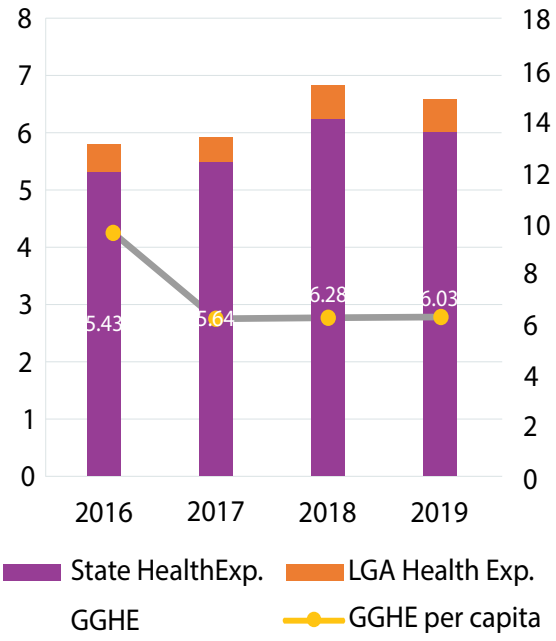


Figure 10.3d: Gombe health budget and expenditure 2016-2019

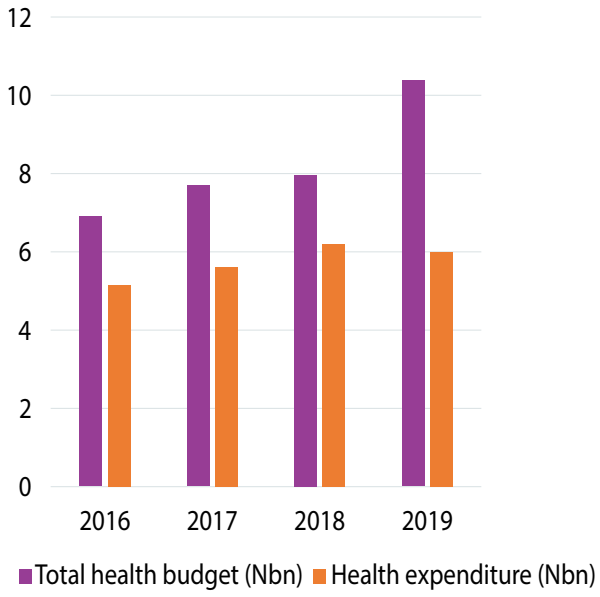


Figure 10.4a: Kebbi budget allocation to health 2016-2019

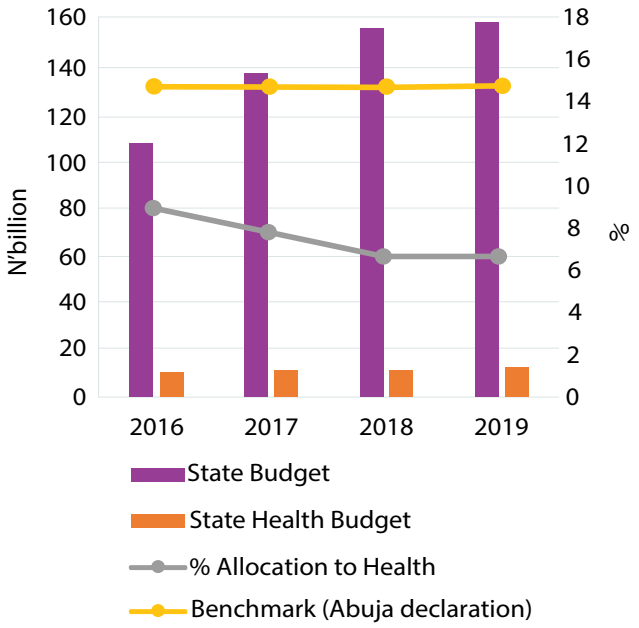


Figure 10.4b: Kebbi expenditure allocation to health 2016-2019

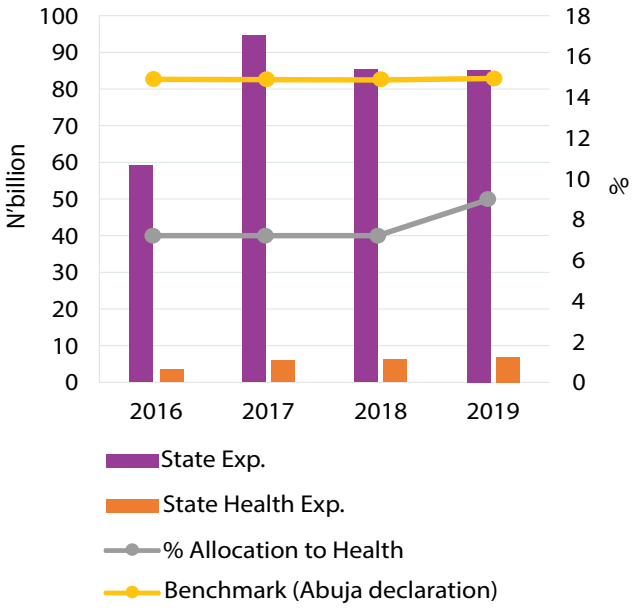


Figure 10.4c: Kebbi State and LGA health expenditure 2016-2019

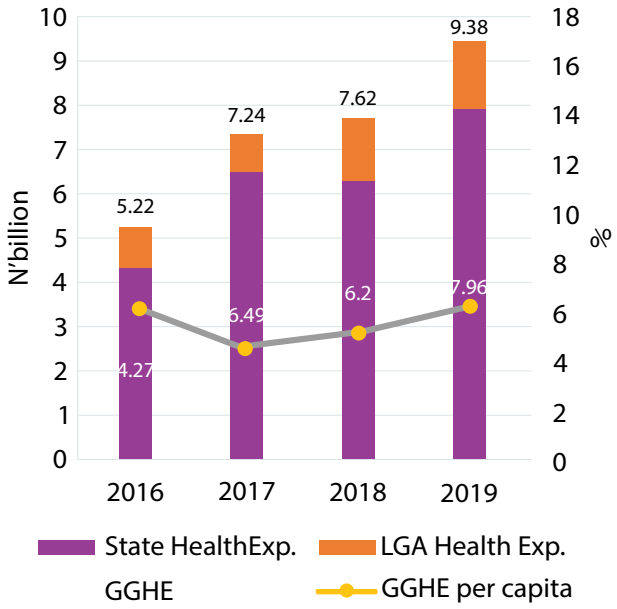
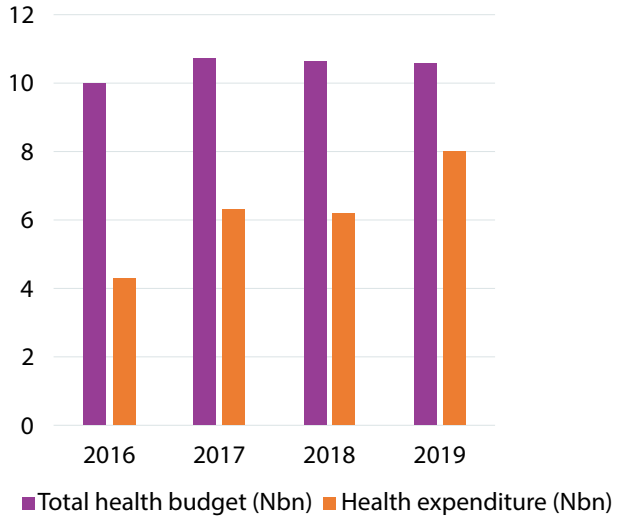


Figure 10.4d: Kebbi health budget and expenditure 2016-2019



The analysis of health financing in Nasarawa used the following assumptions:

- The 2017 Nasarawa State LGA total expenditure reported in the 2017 CBN annual report was assumed for 2016 while 2019 figure was assumed for 2018.
- LGA health expenditure was estimated by assuming that the proportion of expenditure of all the LGAs in the country allocated to health was also applicable for individual state.

Figures 10.5a-d provide further details of the health financing analysis in Nasarawa.

Health Financing Analysis in Ogun

The total health budget increased from NGN10.98 billion in 2016 to NGN23.53 billion in 2019. Actual health expenditure also increased from NGN8.61 billion in 2016 to NGN12.29 billion in 2019. The share of health budget in total state government budget remained 6 per cent while the share of health expenditure in total state expenditure increased from 7 per cent in 2016 to 9 per cent in 2019. The GGHE increased proportionately during the period and the GGHE per capita was US$10 in 2016 but dropped to US$7 for the rest of the years.

The analysis of health financing in Ogun used the following assumptions:

- Health budget to total state budget ratio of 6 per cent in 2018 was applied to estimate total health expenditure for 2016 and 2017.
- Health expenditure to total state expenditure ratio of 6 per cent in 2017 was applied to estimate total health expenditure for 2016.
- The 2017 Ogun state LGA total expenditure reported in the 2017 CBN annual report was assumed for 2016 while 2019 figure was assumed for 2018.
- LGA health expenditure was estimated by assuming that the proportion of expenditure of all the LGAs in the country allocated to health was also applicable for individual state.

Figures 10.6a-d provide further details of the health financing analysis in Ogun.

Figure 10.5a: Nasarawa budget allocation to health 2016-2019

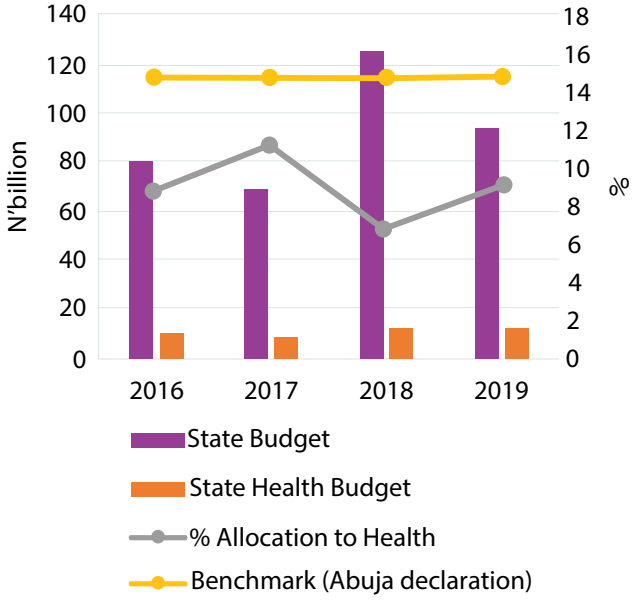


Figure 10.5b: Nasarawa expenditure vs allocation to health 2016-2019

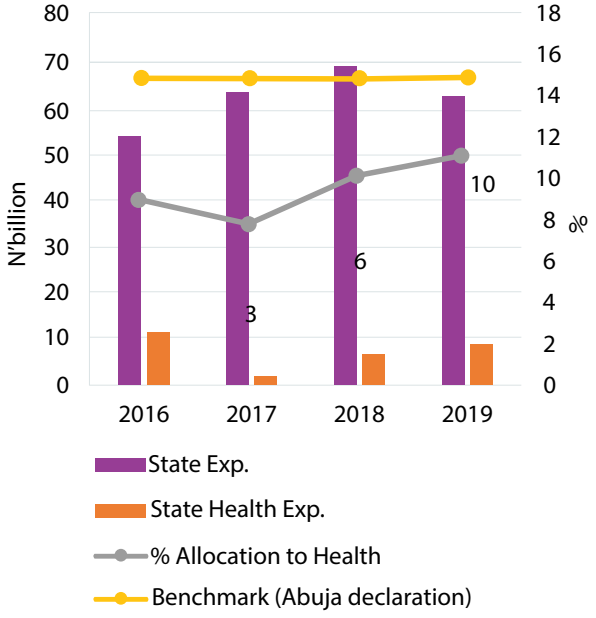


Figure 10.5c: Nasarawa State and LGA health expenditure 2016-2019

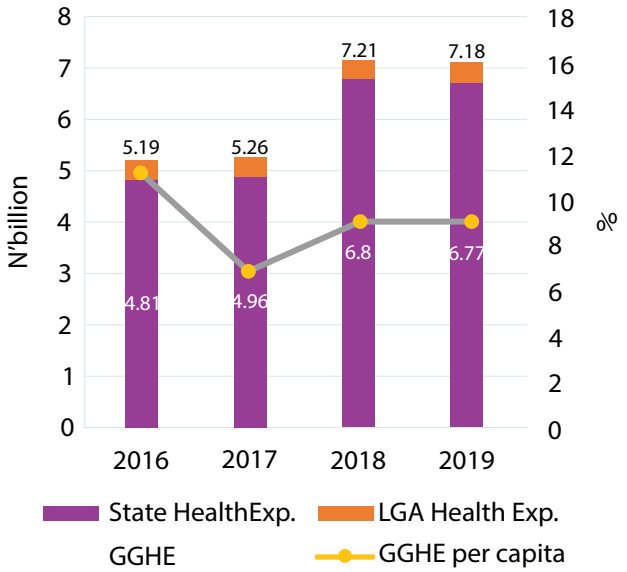


Figure 10.5d: Nasarawa health budget and expenditure 2016-2019

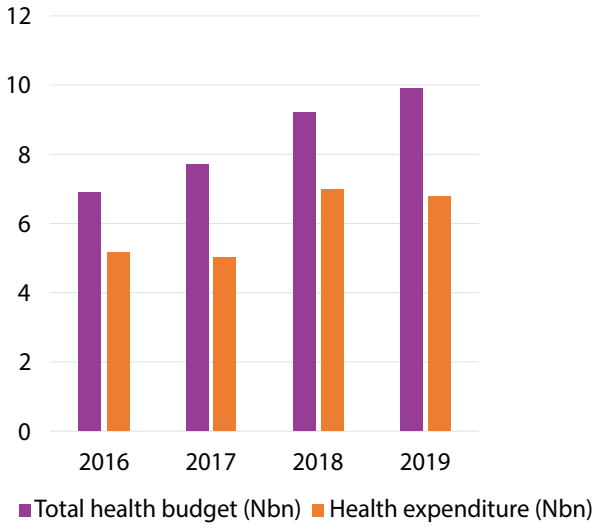


Figure 10.6a: Ogun budget allocation to health 2016-2019

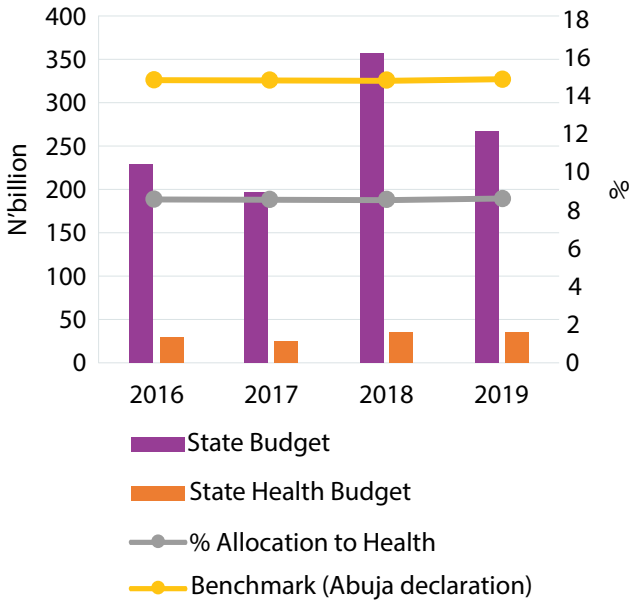


Figure 10.6b: Ogun expenditure allocation to health 2016-2019

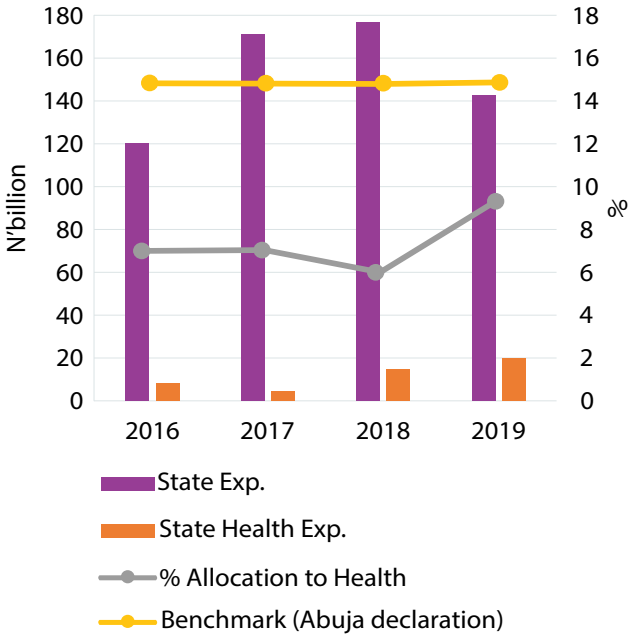


Figure 10.6c: Ogun State and LGA health expenditure 2016-2019

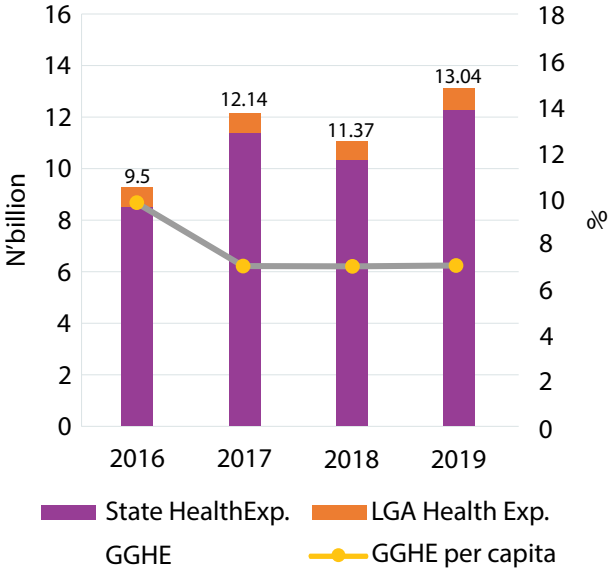
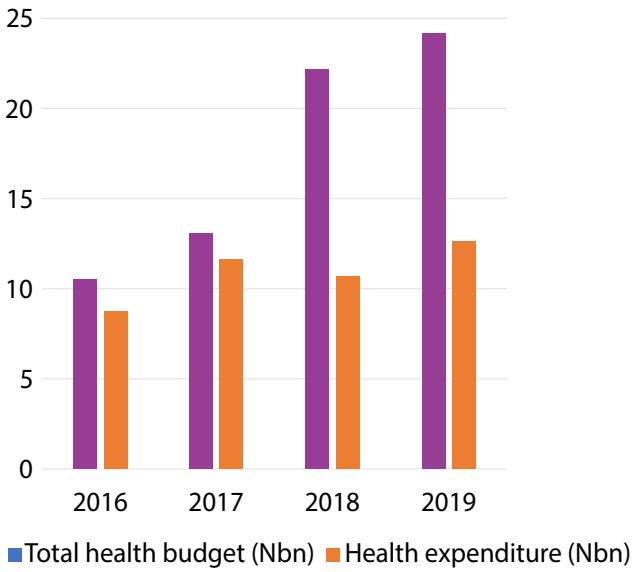


Figure 10.6d: Ogun health budget and expenditure 2016-2019



Annex 11. Availability of health commodities

Table 11.1 Availability of family planning methods

FP method	High-performing states		Transition States		Low-performing states		Average for all States	
	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent
Male condom	80.0	20.0	80.0	15.0	80.0	15.0	80.0	16.7
Female condom	85.0	5.0	65.0	30.0	70.0	10.0	71.7	15.0
Pills (oral contraceptive)	70.0	20.0	90.0	5.0	100.0	0.0	86.7	8.3
Depo-Provera	75.0	20.0	65.0	30.0	70.0	30.0	68.3	26.7
Noristerat	65.0	25.0	60.0	25.0	45.0	55.0	56.7	35.0
Vaginal tablets	15.0	0.0	15.0	10.0	10.0	25.0	13.3	11.7
Long Acting Reversible Contraceptive (IUD, Implanon)	85.0	5.0	90.0	0.0	70.0	15.0	80.0	6.7
Surgical contraception (sterilization)	15.0	0.0	30.0	20.0	30.0	0.0	25.0	0.0
FP counselling/balance counselling	95.0	0.0	95.0	0.0	100.0	0.0	96.7 per cent	0.0
Referral for female and male voluntary surgical contraception (vasectomy, sterilization)	15.0	0.0	35.0	40.0	45.0	0.0	16.7 per cent	0.0

Table 11.2 Availability of essential medicines and supplies for malaria treatment services

Medicines and supplies for malaria treatment	High-performing states		Transition states		Low-performing states		Average for all states	
	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent
RDT	70.0	25.0	85.0	10.0	80.0	20.0	78.3	18.3
Microscopy	50.0	5.0	55.0	0.0	90.0	5.0	65.0	3.3
ACT	85.0	15.0	75.0	25.0	70.0	30.0	76.7	23.3
Fansidar	40.0	55.0	75.0	25.0	60.0	35.0	58.3	38.3
LLINs	60.0	15.0	60.0	35.0	30.0	40.0	50.0	30.0
IPTp	50.0	40.0	75.0	25.0	55.0	40.0	60.0	35.0

Table 11.3 Availability of essential medicines and supplies for treatment of childhood illnesses

Medicines and supplies for childhood illnesses	High-performing states		Transition states		Low-performing states		Average for all states	
	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent	Availability per cent	Stockout 2019 per cent
ORS	65.0	30.0	75.0	20.0	85.0	15.0	75.0	21.7
Cotrimoxazole	65.0	20.0	80.0	15.0	80.0	15.0	75.0	16.7
Amoxicillin	65.0	30.0	80.0	20.0	80.0	15.0	75.0	21.7
Vitamin A	65.0	20.0	60.0	30.0	70.0	20.0	65.0	23.3
Iron supplementation and Folic Acid	95.0	5.0	95.0	5.0	80.0	15.0	90.0	8.3
Albendazole/ mebendazole	85.0	15.0	85.0	15.0	75.0	25.0	81.7	18.3

Annex 12. Participants of the Review and Validation Workshop in Uyo, Akwa Ibom State, September 2021

S/N	NAME OF PARTICIPANT	ORGANIZATION
1	H.E. Princess Adejoke Orelope-Adefulire	SSAP-SDGs
2	Engr. Ahmad Kawu	SOP-SDGs
3	Dr Zakari Lawal	MFBNP/Chair TWG-SDGs
4	Dr Uzodinma Adirieje	Nigeria Association of Evaluators
5	Angela Nathaniel	National Bureau of Statistics
6	Madukwe Solomon	FMOH
7	Bello Aliyu, S.	FMOH
8	Uguuanyi Carolina	Enugu State Ministry of Education
9	Dr George Nwosu	Federal Ministry of Education
10	A.B. Saadu	OSSAP-SDGS

11	Nonso Obikili	UN RCO
12	Dr Robert Ndamobissi	UNICEF
13	Beatrice Angaye Olomieije	Bayelsa SMOH
14	Dr Olukayode J. Kusimo	Ogun SMOH
15	Desmond Utomwen	OSSAP-SDGS
16	Mualu Lawal Abdullahi	Kaduna SMOE
17	Bawale Muhammad	Kebbi SMOH
18	Murtula Mohammed	UNICEF
19	Bala Y. Yunosa	OSSAP-SDGS
20	Yahaya Umar	OSSAP-SDGS
21	Abubakar Metcho Mohammed	OSSAP-SDGS
22	Abudu Usman	Gombe SMOH
23	Raji Risikat Folashade	Kwara SMOE
24	Dr Zakariya Mohammed	OSSAP-SDGS
25	Ayodeji Olugbemi	UNRCO Abuja
26	Dr Ify Ukaegbu	OSSAP-SDGS
27	Sani Muhammed Kabara	Kano SMOE
28	Ime David	SDGS AUS
29	Arua M.A Mrs	FME SDG4
30	Jatau Jonathan Snami	NasarawaSMOH
31	Khalilu Muhammed	UNICEF
32	Dr Erudo E.D	UNICEF
33	Husamatu M. Gona	Katsina SMOE
34	Rose Keffas	OSSAP-SDGs
35	Akor Francis	OSSAP-SDGs

Annex 13. Recommendations by type of stakeholder

Table 13.1 Recommendations for stakeholders at federal level: Presidency OSSAP-SDGs, FMOH, FMFBNP

Recommendation	Priority Level	Relevant Stakeholder
Thematic Area 1: Governance and Accountability		
Establish a monitoring and tracking system upon completion of the Resource Mapping and Expenditure Tracking (RMET) to maximize alignment of investments from donors financing health priorities as per the NSHDP II and the Health Sector Next Level Agenda 2019–2023, focusing on the implementation of the BHCPF to address issues of adequacy, sustainability, efficiency, transparency, and equity.	Short term	FMOH WB/GFF FMFBNP Development partners

Thematic Area 2: Health Financing		
Increase the allocation of resources to the overall health budget by increasing the proportion of the Government General Expenditure (GGE) to at least 10 per cent by 2025 and to 12 per cent by 2030 to fast-track the achievement of SDG3 targets 3.1 and 3.2 through: 1 per cent of State CRF allocated to the BHCPF to complement the federal grant. It should be a statutory allocation with first line charge. Increase the proportion of the health budget that is allocated to PHC with emphasis on capital expenditure to cater vital programmes like the one PHC per ward. State Governments establishing an accountability mechanism to attract other sources of funding. States should define a health financing strategy to provide a road map for improving and sustaining health service delivery.	Short term and Medium term HIGH PRIORITY	FMOH FMFBNP OSSAP-SDG SMOH
Strengthen the public financial management system to address inefficiencies: maximize spending level within budgets, focusing on increased spending at LGA and/or facility level for improving PHC services.	Medium term HIGH PRIORITY	FMOH FMFBNP SMOH
Align health budgets with government priorities, including sector operational plans. Require budgeting for activities based on the approved medium-term expenditure framework (MTEF) for NSHDP II and SSHDPs.	Short term and ongoing	FMOH FMFBNP
Develop an emergency plan for the next 10 years (2021–2030) to reduce OOP expenditures from 77 per cent down to 70 per cent by 2025 and down to 65 per cent by 2030 in close coordination with the ongoing BHCPF and NHIS. The plan should aim to lessen the financial burden for more than 83 million Nigerians living in poverty who will need to seek PHC services for their primary health needs.	Short term for its design	FMOH FMFBNP
Increase health insurance coverage from 4.5 per cent up to 15 per cent by 2025 and up to 20 per cent by 2030.	Short term and medium term	FMOH NHIS FMFBNP
Increase the contribution to the BHCPF from 1 per cent CRF annually to 1.5 per cent CRF annually by 2025 and to 2.0 per cent CRF by 2028.	Short term and medium term	FMOH FMFBNP
Develop innovative financing strategies to further mobilize domestic resources for PHC, including engagement with the private sector and development partners for focused and strategic financing.	Short term and medium term	FMOH FMFBNP Private sector Development partners
Institutionalize a means of health expenditure tracking to provide feedback on inflows, and estimate amounts received and utilized at PHC facilities to identify and block leakages.	Short term	FMOH SMOH
Thematic Area 3: Revitalization of Primary Health Care		
Continue the roll-out of the BHCPF in all 36 states and the FCT to deliver the BMPHS to 20.6 million Nigerians by 2023 and to 40.0+ million Nigerians by 2030	Short term and medium term HIGH PRIORITY	FMOH FMFBNP

Thematic Area 4: Capacity Strengthening

N/A

Table 13.2 Recommendations for stakeholders at state level

Recommendation	Priority Level	Relevant Stakeholder
Thematic Area 1: Governance and Accountability		
Empower leadership for the design, implementation, monitoring, and evaluation of health programmes, focusing on PHC and referral sites. Recruit from the widest possible pool: Implement decentralized state health strategic plans, based on access, coverage, and quality of care. Implement competency training based on technical and managerial skills. M&E is a programme management tool used for strategic planning, continuous performance improvement, and reporting. Apply proportionality and flexibility	Medium term HIGH PRIORITY	SMOHs and LGAs State governments
Increase community participation in the design and implementation of PHC programmes/initiatives: Systematize the inclusion of community groups to seek and obtain their opinions and perspectives on health priorities, i.e., community-based organizations, activists, community groups working on gender and women's participation.	Medium term	SMOHs and LGAs State governments Development partners
Increase targeted participation of the private sector of both for-profit and not-for-profit in response to health market needs for PHC services and in alignment with NSHDP II priorities and the Health Sector Next Level Agenda 2019–2023.	Medium term	SMOHs and LGAs State governments
Ensure timely information to improve data-informed decision-making in health: Develop a brief bulletin of basic information (key health indicators) on the progress of PHC programmes with data visualization tools to facilitate analysis and use by health managers and health workers.	Short term	Programme managers
Prioritize risk management for improved implementation of health programmes at sub-national level (State and LGA): Determine risk appetite. Is the risk worth the reward? Risk assessment. Develop risk response.	Medium term	SMOHs and LGAs State governments

Evaluate senior staff performance: clarify the individual and collective roles and responsibilities of directors, and better knowledge of what is expected of them for improved performance.	Medium term	SMOHs and LGAs State governments
Thematic Area 2: Health Financing		
Increase the allocation of resources to the overall health budget by increasing the proportion of the Government General Expenditure (GGE) to at least 10 per cent by 2025 and to 12 per cent by 2030 to fast-track the achievement of SDG3 targets 3.1 and 3.2 through: 1 per cent of State CRF allocated to the BHCPF to complement the federal grant. It should be a statutory allocation with first line charge. Increase the proportion of the health budget that is allocated to PHC with emphasis on capital expenditure to cater vital programmes like the one PHC per ward. State Governments establishing an accountability mechanism to attract other sources of funding. States should define a health financing strategy to provide a road map for improving and sustaining health service delivery.	Short term and Medium term HIGH PRIORITY	FMOH FMFBNP OSSAP-SDG SMOH
Strengthen the public financial management system to address inefficiencies: maximize spending level within budgets, focusing on increased spending at LGA and/or facility level for improving PHC services.	Medium term HIGH PRIORITY	FMOH FMFBNP SMOH
Review revenue collection. (1) Public (taxes, contributions, from the federal government); (2) from the public (fee for service); (3) external cooperation.	Medium term	SMOHs and LGAs State governments
Institutionalize a means of health expenditure tracking to provide feedback on inflows, and estimate amounts received and utilized at PHC facilities to identify and block leakages.	Short term	FMOH SMOH
Thematic Area 3: Revitalization of Primary Health Care		
Strengthen local and decentralized strategic planning, and associated implementation plans focusing on management skills, identification of key barriers for high programme performance, and design how to overcome them in a systematic way.	Short term and medium term HIGH PRIORITY	SMOH
Strengthen monthly meetings to review and analyse data, project progress and monthly workplans and tasks. This could be part of the Health Data Consultative Committee (HDCC) meetings.	Short term	Programme managers LGA programme / project managers Development partners
Increase public participation and engagement for PHC services and devise strengthening activities, including promotion of preventive health care in a phased approach, targeting states with poor health indicators for women and young children.	Short term and ongoing	Programme managers LGA programme / project managers Development partners

Assess and increase health promotion interventions, devising strengthening activities to re-focus promotion and preventive health services among vulnerable population groups.	Short term	Programme manager LGA programme / project managers Development partners
Define appropriate technology needs focusing on measuring performance, equity, and accountability for PHC services.	Short term and ongoing	Programme managers LGA programme / project managers Development partners
Foster intersectoral coordination, especially with nutrition, education, and water & sanitation sectors.	Short term	Programme managers LGA programme / project managers Development partners
Thematic Area 4: Capacity Strengthening		
Maximize systematic coordination for strengthening the capacity of State, LGA and facilities for the implementation of the BHCPF in all 36 states and the FTC. This should follow the phased approach for the roll out of the BHCPF in three aspects: technical/clinical (at facility level); management (at facility and LGA); accountability (at all levels).	Short term and ongoing HIGH PRIORITY	SMOH LGA programme / project managers Facility staff Development partners
Strengthen health personnel training: Develop training curricula by programme areas and a training plan, with a focus on standardized case management, and quality of care.	Short term, ongoing, annual and cyclical process HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners Aimed at new personnel, and at old personnel as refresher training
Strengthen supervision plans and in-service training (supportive supervision): SS guides and SOPs for its implementation.	Short term and ongoing HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners
Develop evaluation agenda and operations research activities to address systemic bottlenecks, including access, quality, equity, demand, and policy environment at the LGA and facility level.	Medium term	SMOH/M&E Division International cooperation (links with academic institutions)
Strengthen health information systems: institutionalize data quality assessment (DQAs and RDQAs).	Medium term	Programme Managers, SMOH and LGA M&E Divisions/M&E Teams
Strengthen accountability: develop a plan to disseminate information on key programmes indicators in a format that is friendly to the general population and organized community-based groups.	Medium term	State Governments: H. Health Commissioners Civil society organizations: NGOs, FBOs and organized community groups
Create safe spaces/platforms for the coordination and planning of activities with organized groups in the community for health programmes and activities to promote demand and use of PHC services.	Medium term	State Governments: Health Commissioners Civil society organizations: NGOs, FBOs and organized community groups

Table 13.3 Recommendations for stakeholders at LGA and community levels

Recommendation	Priority Level	Relevant Stakeholder
Thematic Area 1: Governance and Accountability		

Empower leadership for the design, implementation, monitoring, and evaluation of health programmes, focusing on PHC. Recruit from the widest possible pool: Define what 'talent' looks like. Motivate everyone. Motivating the best values & incentivize the right behaviours. Apply proportionality and flexibility.	Medium term HIGH PRIORITY	SMOHs and LGAs State governments
Increase community participation in the design and implementation of PHC programmes/initiatives: Systematize the inclusion of community groups to seek and obtain their opinions and perspectives on health priorities, i.e., community-based organizations, activists, community groups working on gender and women's participation.	Medium term	SMOH and LGAs State governments Development partners
Increase targeted participation of the private sector of both for-profit and not-for-profit in response to health market needs for PHC services and in alignment with NSHDP II priorities and the Health Sector Next Level Agenda 2019–2023.	Medium term	SMOHs and LGAs State governments
Ensure timely information to improve data-informed decision making in health: Develop a brief bulletin of basic information (key health indicators) on the progress of PHC programs with data visualization tools to facilitate analysis and use by health managers and health workers.	Short term	Programme managers
Prioritize risk management for improved implementation of health programmes at sub-national level (State and LGA): Determine risk appetite. Is the risk worth the reward? Risk assessment. Develop risk response.	Medium term	SMOHs and LGAs State governments
Evaluate senior staff performance: clarify the individual and collective roles and responsibilities of directors, and better knowledge of what is expected of them for improved performance.	Medium term	SMOHs and LGAs State governments
Thematic Area 2: Health Financing		
Review revenue collection. (1) Public (taxes, contributions, from the federal government); (2) from the public (fee for service); (3) external cooperation.	Medium term	SMOHs and LGAs State governments
Thematic Area 3: Revitalization of Primary Health Care		
Strengthen/develop senior-level management teams to improve effectiveness and efficiency of resources from BHCPF: strong focus on equity, quality, and resource optimization for PHC services.	Short term and ongoing	Programme managers LGA programme / project managers Development partners

Strengthen monthly meetings to review and analyse data, project progress and monthly workplans and tasks. This could be part of the Health Data Consultative Committee (HDCC) meetings.	Short term	Programme managers LGA programme / project managers Development partners
Increase public participation and engagement for PHC services and devise strengthening activities, including promotion of preventive health care in a phased approach, targeting states with poor health indicators for women and young children.	Short term and ongoing	Programme managers LGA programme / project managers Development partners
Assess and increase health promotion interventions, devising strengthening activities to re-focus promotion and preventive health services among vulnerable population groups.	Short term	Programme manager LGA programme / project managers Development partners
Define appropriate technology needs focusing on measuring performance, equity, and accountability for PHC services.	Short term and ongoing	Programme managers LGA programme / project managers Development partners
Foster intersectoral coordination, especially with nutrition, education, and water & sanitation sectors.	Short term	Programme managers LGA programme / project managers Development partners
Thematic Area 4: Capacity Strengthening		
Maximize systematic coordination for strengthening the capacity of State, LGA and facilities for the implementation of the BHCPF in all 36 states and the FTC. This should follow the phased approach for the roll out of the BHCPF in three aspects: technical/clinical (at facility level); management (at facility and LGA); accountability (at all levels).	Short term and ongoing HIGH PRIORITY	SMOH LGA programme / project managers Facility staff Development partners
Strengthen health personnel training: Develop training curricula by programme areas and a training plan, with a focus on standardized case management, and quality of care.	Short term, ongoing, annual and cyclical process HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners Aimed at new personnel, and at old personnel as refresher training
Strengthen supervision plans and in-service training (supportive supervision): SS guides and SOPs for its implementation.	Short term and ongoing HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners
Develop evaluation agenda and operations research activities to address systemic bottlenecks, including access, quality, equity, demand, and policy environment at the LGA and facility level.	Medium term	SMOH/M&E Division International cooperation (links with academic institutions)
Strengthen health information systems: institutionalize data quality assessment (DQAs and RDQAs).	Medium term	Programme Managers, SMOH and LGA M&E Divisions/M&E Teams

Table 13.4 Recommendations for development partners

Recommendation	Priority Level	Relevant Stakeholder
Thematic Area 1: Governance and Accountability		

Increase community participation in the design and implementation of PHC programs/initiatives: Systematize the inclusion of community groups to seek and obtain their opinions and perspectives on health priorities, i.e., community-based organizations, activists, community groups working on gender and women's participation.	Medium term	SMOHs and LGAs State governments Development partners
Establish a monitoring and tracking system upon completion of the Resource Mapping and Expenditure Tracking (RMET) to maximize alignment of investments from donors financing health priorities as per the NSHDP II and the Health Sector Next Level Agenda 2019-2023, focusing on the implementation of the BHCPF to address issues of adequacy, sustainability, efficiency, transparency, and equity.	Short term	FMOH WB/GFF FMFBNP Development partners
Thematic Area 2: Health Financing		
Develop innovative financing strategies to further mobilize domestic resources for PHC, including engagement with the private sector and development partners for focused and strategic financing.	Short term and medium term	FMOH FMFBNP Private sector Development partners
Thematic Area 3: Revitalization of Primary Health Care		
Strengthen / develop senior-level management teams to improve effectiveness and efficiency of resources from BHCPF: strong focus on equity, quality, and resource optimization for PHC services.	Short term and ongoing	Programme managers LGA programme / project managers Development partners
Strengthen monthly meetings to review and analyse data, project progress and monthly workplans and tasks. This could be part of the Health Data Consultative Committee (HDCC) meetings.	Short term	Programme managers LGA programme / project managers Development partners
Increase public participation and engagement for PHC services and devise strengthening activities, including promotion of preventive health care in a phased approach, targeting states with poor health indicators for women and young children.	Short term and ongoing	Programme managers LGA programme / project managers Development partners
Assess and increase health promotion interventions, devising strengthening activities to re-focus promotion and preventive health services among vulnerable population groups.	Short term	Programme manager LGA programme / project managers Development partners
Define appropriate technology needs focusing on measuring performance, equity, and accountability for PHC services.	Short term and ongoing	Programme managers LGA programme / project managers Development partners
Foster intersectoral coordination, especially with nutrition, education, and water & sanitation sectors.	Short term	Programme managers LGA programme / project managers Development partners

Thematic Area 4: Capacity Strengthening		
Maximize systematic coordination for strengthening the capacity of State, LGA and facilities for the implementation of the BHCPF in all 36 states and the FTC. This should follow the phased approach for the roll out of the BHCPF in three aspects: technical/clinical (at facility level); management (at facility and LGA); accountability (at all levels).	Short term and ongoing HIGH PRIORITY	SMOH LGA programme / project managers Facility staff Development partners
Strengthen health personnel training: Develop training curricula by programme areas and a training plan, with a focus on standardized case management, and quality of care.	Short term, ongoing, annual and cyclical process HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners Aimed at new personnel, and at old personnel as refresher training
Strengthen supervision plans and in-service training (supportive supervision): SS guides and SOPs for its implementation.	Short term and ongoing HIGH PRIORITY	Programme Managers, SMOH and LGA Development partners

Table 13.5 Recommendations for the private sector and civil society organizations

Recommendation	Priority Level	Relevant Stakeholder
Thematic Area 1: Governance and Accountability		
N/A		
Thematic Area 2: Health Financing		
Develop innovative financing strategies to further mobilize domestic resources for PHC, including engagement with the private sector and development partners for focused and strategic financing.	Short term and medium term	FMOH FMFBNP Private sector Development partners
Thematic Area 3: Revitalization of Primary Health Care		
N/A		
Thematic Area 4: Capacity Strengthening		
Strengthen accountability: develop a plan to disseminate information on key programmes indicators in a format that is friendly to the general population and organized community-based groups.	Medium term	State Governments: Health Commissioners Civil society organizations: NGOs, FBOs and organized community groups
Create safe spaces/platforms for the coordination and planning of activities with organized groups in the community for health programmes and activities to promote demand and use of PHC services.	Medium term	State Governments: Health Commissioners Civil society organizations: NGOs, FBOs and organized community groups

Endnotes

1. **The Astana Declaration was a pivotal conference held in Almaty, Kazakhstan, in 1978,** which brought together health experts and world leaders to commit to health for all. The Global Conference on Primary Health Care in Astana endorsed a new declaration emphasizing the critical role of PHC around the world. The declaration aims to refocus efforts on PHC to ensure that everyone everywhere is able to enjoy the highest possible attainable standard of health. The Astana Declaration can be accessed at <www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf>.
2. **The Human Development Index is a composite index measuring average achievement in three basic dimensions of human development:** a long and healthy life, knowledge, and a decent standard of living.
3. **IHR is an independent, collaborative multi-sectoral effort to assess a country's capacity to prevent,** detect and respond to public health events and emergencies that have the potential to cross borders.
4. **Per NHSDP II, RMNCAH+N is an important component of the EPHS provided through different channels at all levels of the health-care system.**
   - At PHC level, RMNCAH+N services include antenatal, delivery and postnatal care; family planning (healthy timing and spacing of pregnancy); integrated management of childhood illnesses (IMCI) including immunization; integrated Community Case Management of Childhood Illness (iCCM) and nutrition programmes.
   - At Ward PHC facilities, RMNCAH+N services include basic emergency obstetric and newborn care provide services (BEmONC)
   - At General and teaching hospitals: comprehensive emergency obstetric and newborn care (CEmONC) and other specialized RMNCAH+N services.
5. **The Federal Government has been implementing an Economic Recovery and Growth Plan (ERGP) from 2017 and is expected to continue into 2020.** The ERGP set out to restore macroeconomic stability in the short term and to undertake structural reforms, infrastructure investments and social sector programmes to diversify the economy and set it on a path of sustained inclusive growth over the medium to long term.
6.
7. **Ananda Marga Universal Relief Team Nigeria has been working in Ebonyi State to implement its model of primary health care that meets the needs of remote and neglected rural communities.**
8. **Kardex is a paper-based medical information system used for keeping records of medicines and supplies.**
9. **UNICEF analysis produced in September 2019,** based on WHO and Maternal and Child Epidemiology Estimation Group (MCEE) interim estimates and the United Nations Inter-agency Group for Child Mortality Estimation estimates for the year 2018.
10. **What the 2018 NDHS defines as pregnancy-related death had been labelled a maternal death in previous NDHS surveys.**
11. **A tricycle is a vehicle with three wheels, two at the back and one at the front.** It is a popular form of transportation in Nigeria.
12. **StataCorp, Stata Statistical Software, College Station, TX, StataCorp LLC, release 15 January 2017.**
13. **StataCorp, Stata Statistical Software, College Station, TX, StataCorp LLC, release 15 January 2017.**
14. **MoRES is an approach developed in 2011 as part of UNICEF's re-focus on equity aimed to maximize the protection and promotion of children's rights,** especially those of the most disadvantaged. MoRES supports the operationalization of the human rights-based approach to programming adopted by UNICEF in 1998.

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