

PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Case study from Nigeria

PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Case study from Nigeria

Professor B.S.C. Uzochukwu

Institute of Public Health, College of Medicine, University of Nigeria, Enugu Campus

WHO/HIS/HSR/17.36

© World Health Organization 2017

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.

Suggested citation. Primary health care systems (PRIMASYS): case study from Nigeria. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

Sales, rights and licensing. To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

The named authors alone are responsible for the views expressed in this publication.

Editing and design by Inis Communication – www.iniscommunication.com

Contents

Abbreviations	1
Background to PRIMASYS case studies	2
1. Overview of health care system.	3
2. Governance	7
3. Health care financing	11
4. Human resources for health	14
5. Access to health care	17
6. Timeline of relevant PHC policies	19
7. Planning and implementation.	22
8. Regulatory processes	24
9. Monitoring and evaluation system	25
10. Policy considerations and ways forward	27
<i>10.1 Pathways of success</i>	28
<i>10.2 Pathways of barriers</i>	28
11. Conclusion.	30
References	31
Annex 1. Sources of information.	34
Annex 2. Details of key informants identified	36

Figures

Figure 1. Map of Nigeria and its geographical divisions	3
Figure 2. Organization of primary health care delivery	7
Figure 3. Proportion of budget for PHC activities	13
Figure 4. Zonal disparities in human resources for health.	14
Figure 5. Timeline of policies and other developments relevant to PHC in Nigeria	21

Tables

Table 1. Key demographic, macroeconomic and health indicators of the country.	4
Table 2. Demographic, macroeconomic and health profile of the country	4
Table 3. Basic information on Nigerian health system	6
Table 4. Organization and provision of PHC services in Nigeria	10
Table 5. Successes or failures and key barriers to and enablers of primary health care	27
Table 6. Priorities in primary care at the district, regional and country levels	27

Abbreviations

CHEW	community health extension worker
DFID	Department for International Development
GDP	gross domestic product
GPS	global positioning system
ICD-10	International Classification of Diseases and Related Health Problems, 10th Revision
LGA	local government area
NHMIS	National Health Management Information System
PATHS2	Partnership for Transforming Health Systems phase II
PHC	primary health care
PPP	purchasing power parity
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAT	value-added tax
WHO	World Health Organization

Background to PRIMASYS case studies

Health systems around the globe still fall short of providing accessible, good-quality, comprehensive and integrated care. As the global health community is setting ambitious goals of universal health coverage and health equity in line with the 2030 Agenda for Sustainable Development, there is increasing interest in access to and utilization of primary health care in low- and middle-income countries. A wide array of stakeholders, including development agencies, global health funders, policy planners and health system decision-makers, require a better understanding of primary health care systems in order to plan and support complex health system interventions. There is thus a need to fill the knowledge gaps concerning strategic information on front-line primary health care systems at national and subnational levels in low- and middle-income settings.

The Alliance for Health Policy and Systems Research, in collaboration with the Bill & Melinda Gates Foundation, is developing a set of 20 case studies of primary health care systems in selected low- and middle-income countries as part of an initiative entitled Primary Care Systems Profiles and Performance (PRIMASYS). PRIMASYS aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance.

The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries. Furthermore, the case studies will serve as the basis for a multicountry analysis of primary health care systems, focusing on the implementation of policies and programmes, and the barriers to and facilitators of primary health care system reform. Evidence from the case studies and the multi-country analysis will in turn provide strategic evidence to enhance the performance and responsiveness of primary health care systems in low- and middle-income countries.

1. Overview of health care system

Nigeria is one of the largest countries in Africa, occupying an area of 923 678 square kilometres. It lies within the tropics along the Gulf of Guinea on the west coast of Africa, between the latitudes of 4°1' and 13°9'N and longitudes 2°2' and 14°30'E (Figure 1). It is bordered by Benin to the west, Cameroon to the east, Niger and Chad to the north and the Atlantic Ocean to the south. It is the most populous country in the continent, with a population of 177 155 754 and a population growth rate of 2.47% per annum. The population is predominantly young, with about 45% aged under 15 years and 20% under 5 years, while women of childbearing age (15–49 years) account for about 22% of the total population (1).

With a gross domestic product (GDP) per capita of US\$ 1091 and an income or wealth inequality (Gini coefficient) of 43.7, Nigeria is still ranked among the poorest countries in the world, with about 70% of the population living below US\$ 1 per day. About 52.2% of the country's population live in rural areas where poverty is more predominant, thus limiting access to adequate nutrition, quality health care and other basic social services. Recent assessments have shown that the maternal mortality ratio is 576 per 100 000 live births, the under-5 mortality rate is 128 per 1000 live births, the infant mortality rate is 69 per 1000 live births and life expectancy is 52.62 years (1).

Figure 1. Map of Nigeria and its geographical divisions



Credit: commons.wikimedia.org

Table 1 presents information on the key demographic, macroeconomic and health indicators of Nigeria; Table 2 presents the demographic, macroeconomic and health profile of the country; and Table 3 gives basic information on the Nigerian health system.

A list of sources of information for the present study is provided in Annex 1, and a list of key informants is provided in Annex 2.

Table 1. Key demographic, macroeconomic and health indicators of the country

Indicator	Results	Year	Source
Total population of country	177 155 754	2014 estimate	CIA World Factbook (2)
Sex ratio: male/female	At birth: 1.06 0–14 years: 1.05 15–24 years: 1.05 25–54 years: 1.05 55–64 years: 1.04 65 years and over: 0.85 Total population: 1.01	2014 estimate	CIA World Factbook (2)
Population growth rate	2.47% annual rate	2014 estimate	CIA World Factbook (2)
Population density (people/sq km)	442 people per sq km	2013	National Population Commission (1)
Distribution of population (rural/urban)	49.6/50.4 (rural/urban)	2014 estimate	CIA World Factbook (2)
GDP per capita (US\$)	US\$ 1091	2014 estimate	World Bank
Income or wealth inequality (Gini coefficient)	43.7	2014 estimate	CIA World Factbook (2)
Life expectancy at birth	52.62 years	2014 estimate	CIA World Factbook (2)
Top five main causes of death (ICD-10 classification)	Vaccine-preventable diseases, infectious and parasitic diseases cause high mortality and morbidity in Nigeria. Major causes of mortality and morbidity in children are malaria, diarrhoea, acute respiratory infections and malnutrition. Malaria is responsible for about 11% of maternal deaths, 25% of infant mortality and 30% of under-5 mortality.	2013	National Population Commission (1)

Table 2. Demographic, macroeconomic and health profile of the country

Theme	Summary	Relevance for primary health care
Demographic profile	<p>Annual population growth rate: 2.7%</p> <p>Birth rate: 38.03/1000</p> <p>Death rate: 13.16/1000</p> <p>Net migration rate: -0.22/1000</p> <p>Rate of urbanization: 3.75%</p> <p>Age structure:</p> <p>0–14 years: 43.2%</p> <p>15–24 years: 19.3%</p> <p>25–54 years: 30.5%</p> <p>55–64 years: 3.9%</p> <p>65 years and over: 3.1%</p> <p>Total dependency ratio: 89.2% (84% youths and 5.2% elderly)</p> <p>Literacy rate: 61.3% (72.1% male, 50.4% female)</p> <p>Total fertility rate: 5.25</p> <p>Contraceptive prevalence rate: 14.1%</p>	<p>High population growth places a major strain upon the resources available for health care.</p> <p>More young population implies a need for increased provision of child and adolescent services.</p> <p>Very high total dependency ratio implies a need for more government funding for primary health.</p> <p>Relatively lower literacy rate in women implies a need to communicate medical advice and adverse health outcomes using non-written methods of communication.</p>

Theme	Summary	Relevance for primary health care
Macroeconomic profile	<p>Nigeria is Africa's largest economy with an estimated 2013 GDP of US\$ 502 billion. The annual economic growth rate is estimated at 6–8%, largely driven by growth in agriculture, telecommunications and services. However, 70% of Nigerians live below the poverty line and approximately 62% live in extreme poverty. Taxes and other revenues contribute 4.8% of GDP (2013 estimate). Budget estimates for 2013 were US\$ 23.85 billion for revenue and US\$ 31.51 billion for expenditure, giving a deficit of –1.5% of GDP. Household income or consumption by percentage share was 1.8% for the lowest 10% and 38.2% for the highest 10%, as at 2010. Other macroeconomic indices are:</p> <p>GDP, purchasing power parity (PPP): US\$ 478.5 billion (2013) GDP per capita (PPP): US\$ 2800 (2013) Gross national saving: 15.5% of GDP (2013)</p> <p>GDP – composition by end use (2013):</p> <ul style="list-style-type: none"> Household consumption: 50.3% Government consumption: 12.8% Investment in fixed capital: 9.8% Investment in inventories: 0% Exports of goods and services: 49.9% Imports of goods and services: 22.8% <p>GDP composition by sector (2012 estimate):</p> <ul style="list-style-type: none"> Agriculture: 30.9% Industry: 43% Services: 26% <p>Nigeria had an estimated labour force of 51.53 million in 2011, with the unemployment rate estimated at 23.9%.</p>	<p>Macroeconomic shocks reduce household economic status, thereby reducing ability to access care and leading to consequent health outcomes</p>
Health profile	<p>The health care system is largely public sector driven, with substantial private sector involvement in service provision. Secondary- and tertiary-level health facilities are mostly found in urban areas, whereas rural areas are predominantly served by primary health care (PHC) facilities. There is a shortage of PHC facilities in some states. Health policy-making and national health care priority setting are the responsibility of the federal government.</p> <p>Nigeria ranks 187 out of 191 countries in health system efficiency with respect to health expenditure per capita.</p> <p>Under-5 mortality rate: 128/1000 live births Infant mortality rate: 69/1000 live births Maternal mortality ratio: 576/100 000 live births Antenatal care attendance and delivery by skilled health providers: 61% and 38% respectively Fully vaccinated children: 25% No vaccination: 21%</p> <p>Nigeria has one of the world's highest rates of all-cause mortality for children aged under 5 years, with health service utilization for treatment of acute respiratory infections at 35% and diarrhoea at 29%.</p> <p>Nigeria accounts for one quarter of all malaria cases in Africa and has a HIV prevalence of 3.1% (2012 estimate)</p>	

Sources: World Health Organization (WHO) (3); Index Mundi (4, 5).

Table 3. Basic information on Nigerian health system

Indicator	Result	Remarks
Total health expenditure as proportion of GDP	3.7%	2013 (3)
Public expenditure on health as proportion of total expenditure on health	23.9%	2013 (6)
Private expenditure on health as proportion of total expenditure on health	76.1%	2013 (6)
Out-of-pocket payments as proportion of total health expenditure	69.35%	2013 (6)
Voluntary health insurance as proportion of total expenditure on health	76%	World Health Statistics (2005–2011) for 2013 estimate
Proportion of households experiencing catastrophic health expenditure	14.8%	At a non-food expenditure threshold of 40% (7)
Number of physicians per 1000 population	0.403	2008 (3)
	3.7	2007 (8)
Number of nurses per 1000 population	1.605	2008 (3)
	9.10	2007 (8)
Number of community health workers per 1000 population	0.137	2008 (3)
	1.36	2007 (8)
	This proportion includes traditional health workers	
Relative geographical distribution (rural/urban) of doctors, nurses, and community health workers	<p>There are 782 doctors and 1392 nurses working at tertiary level, representing about 50% respectively of the total state medical and nursing workforce.</p> <p>The primary level of care is rather dominated by community health extension workers (CHEWs) and junior CHEWs, who make up about 36.8% of all care providers at the PHC level.</p> <p>Enugu state has an average of 0.31 medical doctors per primary-level care facility; 3.8 medical doctors per secondary hospital; and 195.5 medical doctors per tertiary hospital.</p>	No national data available: available data are from Enugu state human resources for health policy
Proportion of informal providers, and practitioners of traditional, complementary and alternative medicine, out of the total health care workforce		No national data available

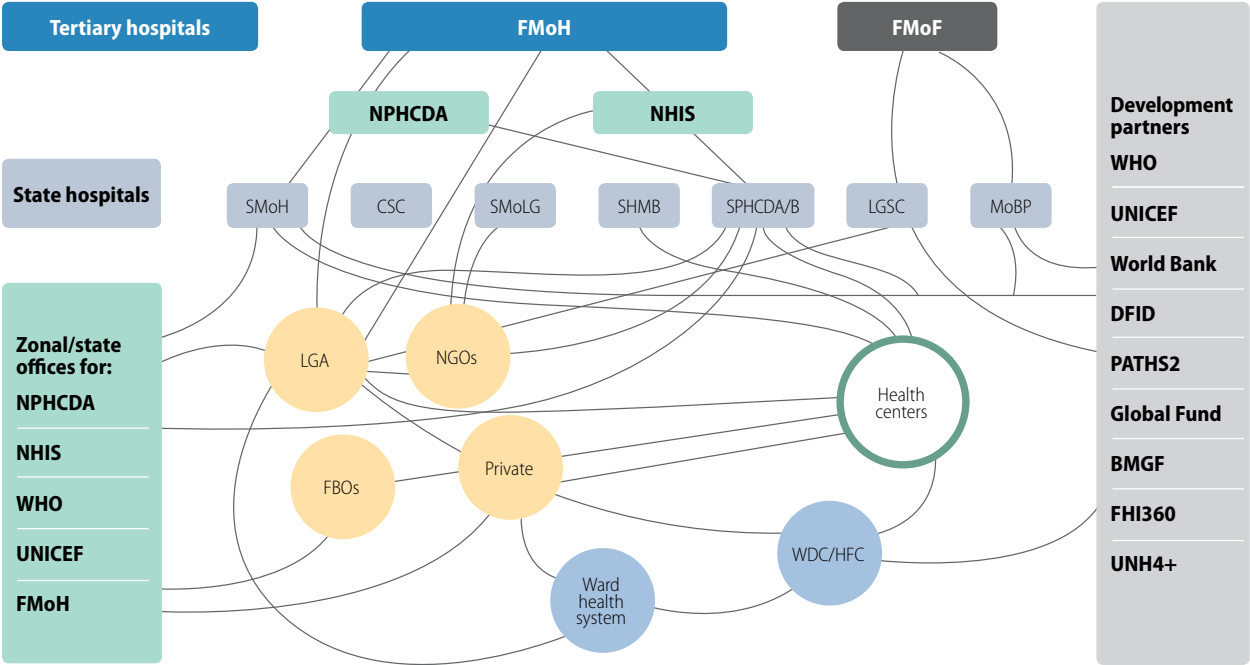
2. Governance

The Constitution of Nigeria provides for the operation of three tiers of government – the federal tier; 36 semi-autonomous states and the Federal Capital Territory; and 774 local government areas grouped into six geopolitical zones. Each state has an elected executive governor, an executive council and a house of assembly with powers to make laws. Each local government area (LGA) is administered by an elected executive chairperson and elected legislative council members from electoral wards. The 774 LGAs are divided into 9555 wards, which constitute the lowest political units. The state governments have substantial autonomy and exercise considerable authority over the allocation and utilization of their resources (9). Each state has a ministry of health, while each LGA has a health department. The

population served by the LGA health department is administratively determined by the state and local government population (10).

The three tiers of the health system in Nigeria (federal, state and LGA) have substantial autonomy and exercise considerable authority in the allocation and utilization of their resources. The National Health Policy, and recently the National Health Bill, ascribe roles and responsibilities to each level. In practice, however, the roles and responsibilities of the three tiers of government are not clearly defined by the National Constitution or the National Health Policy. The existence of several comparatively better-funded parastatals and single-disease vertical programmes further adds to the fragmentation (Figure 2) (11).

Figure 2. Organization of primary health care delivery



Key: FMoH, Federal Ministry of Health; FMoF, Federal Ministry of Finance; NPHCDA, National Primary Health Care Development Agency; NHIS, National Health Insurance Scheme; SMoH, State Ministries of Health; CSC, Civil Service Commission; SMoLG, Ministries of Local Government Affairs; SHMB, State Hospitals Management Board; SPHCDA/B, State Primary Health Care Development Agency/Board; LGSC, Local Government Service Commission; MoBP, Ministry of Budget and Planning; WHO, World Health Organization; UNICEF, United Nations Children's Fund; LGA, local government area; NGOs, nongovernmental organizations; FBOs, faith-based organizations; WDC/HFC, Ward Development Committee/Health Facility Committee; DFID, Department for International Development; PATHS2, Partnership for Transforming Health Systems phase II; BMGF, Bill & Melinda Gate Foundation; FHI360, Family Health International 360; UNH4+, United Nations Health 4+

Federal responsibilities include setting standards, formulation of policies and implementation guidelines, coordination, regulating practices for the health care system and delivering services at tertiary care level. Specific diseases and specialized services are provided at the tertiary hospitals (10). Tertiary health services are provided predominately by the federal government through the network of teaching hospitals and specialist hospitals, but several states manage and finance tertiary health care facilities within their state territories. The federal government through the Federal Ministry of Health is primarily responsible for overall stewardship and leadership for health and provision of tertiary health care (12). The Federal Ministry of Health is made up of the Secretariat with eight departments; five agencies, including the National health Insurance Scheme and National Primary Health Care Development Agency; five vertical control programmes; 53 federal health institutions (comprising teaching hospitals, federal medical centres and specialist hospitals); three research institutes; and professional regulatory councils and boards for the various professional health disciplines (13). In addition, the development partners also provide resources to the Federal Ministry of Health through the Federal Ministry of Finance.

Secondary health care provides specialized services to patients through outpatient and inpatient services of hospitals under the control of state governments. Patients are referred from PHC facilities to secondary care hospitals. The state ministry of health provides health care services through secondary-level health facilities as well as technical assistance to the LGA health departments. Each state is expected to have a single PHC board consisting of a state-level governing body (which meets at least quarterly) and a board management team (full-time employees). The governing body includes women and men who represent the interest of their communities as well as their professional, official or political interests. They also include people who particularly represent historically or otherwise excluded groups such as women and children. The PHC board is required to

meet on a regular basis and ensure the delivery of PHC services. The head of the board management team, otherwise known as the executive secretary or director, whose duties are defined by law, is appointed by the state governor and reports directly to the board. The functions of the board include (a) approval of strategic and operational plans, including the health budget; (b) policy development and approval; and (c) oversight of policy implementation. This structure is duplicated at the substate level, though all policies need to be aligned with relevant national and state government policies (14). Although most secondary health services are provided by state governments, the federal government currently manages 23 medical centres (secondary care) across the country (15).

At the primary level, which is the lowest level and the entry point to health care services, are the health posts and clinics, health centres and comprehensive health centres providing basic primary care services, spanning promotive, preventive, curative and rehabilitative services. LGAs own and fund PHC facilities and have overall responsibility for this level of care. PHC is the foundation of the National Health System. The Ward Health System, which takes on the political ward as the functional unit for PHC service delivery, was adopted as a suitable strategy for addressing the numerous challenges and accelerating progress in the attainment of the Millennium Development Goals. The LGA health departments are primarily responsible for managing primary care facilities. Each level of government identifies its health priorities and pursues them with minimal intervention from the other levels (13).

In addition to the efforts of the LGAs, PHC services have been jointly managed by the state ministries of health, ministries of local government affairs, the Local Government Service Commission, the Civil Service Commission, the Ministry of Budget and Planning, state hospitals management boards, faith-based organizations, nongovernmental organizations, zonal and state offices of the National Primary Health Care Development Agency, the Federal Ministry of Health, the National Health

Insurance Scheme, development partners and more. Vertical and horizontal fragmentation of PHC service management, including management of staff, funds and other resources, is the most significant issue facing this tier of care (15).

In Nigeria the ward – which is the smallest political structure, consisting of a geographical area with a population range of 10 000 to 30 000 people – has been selected as an operational area for delivering a minimum health care package in the country (16). Thus, according to the Ward Health System operational guidelines (17), each section or group of villages should have a health post and each ward should have a health centre that should serve as the first reference to the health posts in the same ward. Thus, the PHC facilities are an outgrowth of the LGAs, and the ward development committees and health facility committees are linked to these health facilities in the LGAs. The health facilities are static or mobile structures where different types of health services are provided by various categories of health workers. These health facilities are in different groups and are called different names depending on the structure (building), staffing, equipment, services rendered and ownership. Many terminologies have been used over the years, including dispensaries, health clinics, health centres, primary health centres, maternities, health posts and comprehensive health centres. However, based on the Ward Health System, the three recognized facility types are health posts, primary health clinics and primary health care centres (17). These facilities are either owned by the government, or by private for-profit and private not-for-profit organizations. Private health facilities are classified according to their structure and the services they provide. Private health care providers in Nigeria are broadly clinics, maternity homes and hospitals, while the ownership includes individual professionals, nongovernmental organizations, faith-based organizations and other civil society organizations. The array of services they provide include PHC, but the institutions are not categorized in line with public facilities.

The role and contribution of government in strengthening the National Health System include playing a leadership role, domestication of international and regional initiatives, effective management allowing deliverables to be achieved in a timely manner, national capacity-building, strong political support, and monitoring and evaluation. At national level and at state and local government levels, programme management is supported by multiple partners through various mechanisms, including direct secondment of staff, capacity-building and organizational or technical support (11). The development partners, notably WHO, the United Nations Children's Fund (UNICEF), the World Bank, United Nations health agencies, the Partnership for Transforming Health Systems phase II (PATHS2) of the United Kingdom Department for International Development (DFID), and FHI 360 of the United States Agency for International Development (USAID), provide guidance to states on how to improve PHC service delivery through embracing the concept of "one management, one plan and one monitoring and evaluation for PHC" in the state, otherwise referred to as "PHC Under One Roof" (14). "Bringing PHC Under One Roof" is modelled on guidelines developed by the World Health Organization for integrated district-based service delivery to strengthen PHC services through reducing the fragmentation of PHC service management. This basically involves the establishment of state PHC management boards or state PHC development agencies. It is based on the following key principles: integration of all PHC services delivered under one authority; a single management body with adequate capacity to control services and resources, especially human and financial resources; decentralized authority, responsibility and accountability with an appropriate span of control at all levels; the principle of "three ones" (one management, one plan, and one monitoring and evaluation system); an integrated supportive supervisory system managed from a single source; an effective referral system between and across the different levels of care; and enabling legislation and concomitant regulations that incorporate these key principles (18).

Table 4 summarizes the main structures for provision of PHC in Nigeria.

The implementation of PHC is primarily through services carried out at the primary health centres and home visits. These services are specifically related to the minimum service components for PHC outlined in the WHO/UNICEF Alma-Ata Declaration on Primary Health Care of 1978. The minimum standards for PHC in Nigeria are contained in the Ward Minimum Health Care Package, which was developed to address the strategy to deliver PHC services through the Ward Health System, utilizing the electoral ward as the basic operational unit. It consists of a set of health interventions and services that address health and health-related problems

that would result in substantial health gains at low cost to the government and its partners. The Ward Minimum Health Care Package includes the following interventions: (a) control of communicable diseases (malaria and sexually transmitted infections, including HIV/AIDS); (b) child survival; (c) maternal and newborn care; (d) nutrition; (e) prevention of noncommunicable diseases; and (f) health education and community mobilization. Strategies for the provision and sustainability of the six interventions include service provision (for example of essential drugs); improved quality and quantity of human resources for health; and health infrastructure development (17).

Table 4. Organization and provision of PHC services in Nigeria

Sector (public or private)	Nature of facility	Mode of employment of providers	Range of services provided	Remarks
Public	Primary health centre	Employed as local government staff and then posted to the PHC centres Mostly permanent employment	<ul style="list-style-type: none"> • Immunization and vitamin A supplementation • Prevention of mother-to-child transmission • Integrated management of childhood illness – malaria • Antenatal care • Skilled birth attendance • Infant and young child feeding • Community management of acute malnutrition 	Some bottlenecks identified are: <ul style="list-style-type: none"> • Unavailability of trained human resources • High dropout rates in interventions requiring reasonable degree of continuity in order to attain the required quality coverage • Geographical accessibility to points of service delivery • Commodity availability
Private	Nongovernmental organization	Consultancy	<ul style="list-style-type: none"> • Health services management • Service delivery • Research • Promotion of primary mental health care • Health system support and promotion of quality care 	

3. Health care financing

Health care in Nigeria is financed through different sources, including tax revenue, out-of-pocket payments, donor funding, and health insurance, both social and community (19). Financing agents in Nigeria include the federal government and its parastatals, state and local governments, and insurance companies (20). The government is responsible for the provision of quality health services to the citizens, but evidence suggest that households through out-of-pocket spending continue to be the major source of health financing in Nigeria (7, 21). In 2013, out-of-pocket expenditure as a percentage of total health expenditure was 69.35% and out-of-pocket expenditure as a percentage of private expenditure on health was 95.8%. High out-of-pocket expenditures expose the poor to catastrophic health spending and trap them in poverty, as well as aggravating the poverty of others. Several studies have shown different levels of catastrophic expenditure in Nigeria. A study conducted in two southern states showed that 15% of the study households experienced catastrophic health expenditure at a threshold level of 40% of non-food expenditure (7). Another study recorded a level of 24% (22). In terms of location, the incidence of catastrophic health expenditure was generally greater in the rural areas compared to the urban areas.

The contributions of development partners towards primary care are mostly in terms of funding to bolster the provision of primary care services and infrastructural development. Their commitment to vertical health programmes, including through funding for staff capacity-building and supply of medicines and commodities, has contributed to control and eradication of some diseases, such as polio. The government on the other hand pays staff salaries and maintains the infrastructure for provision of all health services (15).

Revenue collection and administration is highly centralized; the federal government collects most of the government revenues (primarily from oil) on behalf of the three tiers of government. The revenues that are collected by the federal government are pooled into the excess crude account, the federation account or the value-added tax (VAT) pool account, and are subsequently shared among the three tiers of government in accordance with existing revenue-sharing formula (15).

Of the funds in the federation account, 48.5% go to the federal government (and an additional 4.18% are passed through the federal government to special funds), 26.72% go to the state governments and 20.6% go to the LGAs. Of the funds in the VAT pool, 14% go to the federal government (and an additional 1% goes to Federal Capital Territory through the federal government), 50% go to the state governments and 35% go to the LGAs. In addition to the shares from the federation account and VAT pool, The state governments and LGAs also have their own internally generated revenues, which are only a small proportion of their overall revenues (15).

The federal government channels resources for health through the Federal Ministry of Health, the state ministries of health and the departments of health at the LGA level. The National Health Account shows that the total government health expenditure as a proportion of total health expenditure was 23.9% in 2013, while private expenditure on health as a proportion of total health expenditure was 76.1% in 2013. Resource allocation to the health sector at less than 5% of the total budget is less than the WHO recommendation and the 15% Abuja Declaration target (23). Also, the proportion of state and LGA budgets allocated to health remains below 15% (19, 23).

Although states allocate reasonable budgets to their health sectors, there is evidence of erratic or lack of release of the allocated budgets. For example, in Kaduna state, the health budget in 2009 constituted about 12.8% of total state government revenues, and the actual amount of health funds released was about 6.7%. Actual release of funds for the health sector in Kaduna state hovers at 53% of planned budgetary allocations, and has been in decline since 2004 (15). All in all, the total federal-level capital budget allocation for health that was released was 38.8 billion Nigerian naira (₦) out of the ₦63.4 billion budgeted (61.2%) for 2011, and of this, only ₦26.02 billion (67%) was utilized (24). In many states of the federation, the non-release of funds affected both recurrent and capital budgets and led to significant poor implementation of programme activities. At the LGA level, the financial allocations do not extend beyond the payment of salaries and consequently not much, if anything, remains to pursue health programmes, including the issue of monitoring and supervision of and logistics support for outreach services (19).

Accountability has been noted as a key element in implementing health sector reform and strengthening health system performance (25). In Nigeria, accountability and transparency is one of the weakest areas of the public finance system, especially at the LGA level. The DFID-supported PATHS2 project conducted a public expenditure management review in five states (Kano, Kaduna, Enugu, Jigawa, and the Federal Capital Territory) and confirmed that sharing financial information in Nigeria is a very sensitive issue, with a lack of political will to share financial data. In addition, lack of financial information is widespread, especially at the LGA level.

The per capita health expenditure of US\$ 10 is far below the US\$ 34 recommended by the Macroeconomic Commission on Health (23). However, there has been significant improvement in funding for some diseases and programmes, including for immunization, HIV/AIDS, tuberculosis, malaria, midwife services and the Subsidy Reinvestment Programme on Maternal and

Child Health (19). The contribution of development partners to health care financing was about 4% of total health expenditure (₦27.87 billion) in 2003, 4.6% of total health expenditure in 2004 (₦36.04 billion) and 4% of total health expenditure in 2005 (₦36.30 billion) (26).

The National Health Insurance Scheme was launched in 2006 with the Formal Sector Social Health Insurance Programme to protect households from continuing health expenditure (27). Other programmes in the scheme aim to cover the students of tertiary institutions, old and disabled people, and those in the informal sector (28). The 2008 Nigeria Demographic and Health Survey found that about 98% of women and 97% of men had no insurance coverage (29).

The Federal Ministry of Health enunciated a National Health Financing Policy in 2006. The policy seeks to promote equity and access to quality and affordable health care, and to ensure a high level of efficiency and accountability in the system through developing a fair and sustainable financing system (20). The National Health Act on the other hand targets universal coverage through an efficient primary health care system providing at least basic services in primary care facilities. Specifically, the National Health Act establishes the Basic Health Care Provision Fund, which is to be financed from the consolidated revenue of the federation with an amount not less than 1% of its value, and from other sources such as grants by international donor partners.

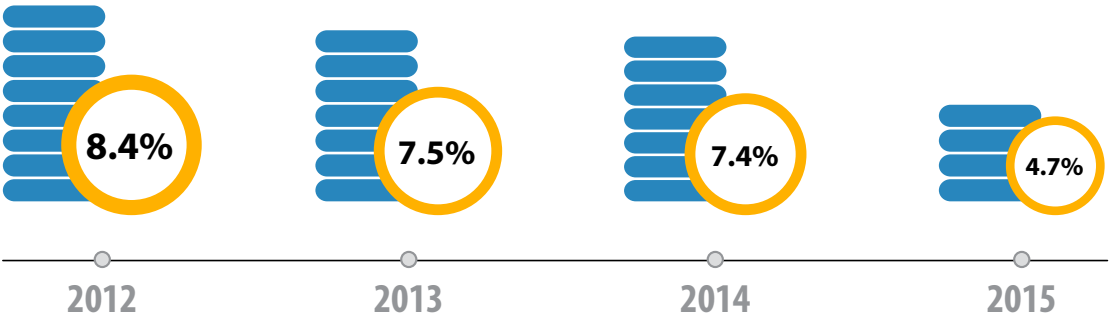
Funds for PHC flow to the LGA level through a variety of disparate channels – through the Federal Ministry of Health, the states, the National Primary Health Care Development Agency, and from resource generation at the LGA level itself (15). Also, local government expenditure responsibilities are financed largely through statutory allocations from the federation account, with LGAs regularly receiving about 20% of total federal resources in the divisible pool (30, 31). Since oil revenues are part of the federation account, LGAs receive substantial revenues from this statutory allocation. LGAs are also entitled to a

share of federally collected VAT revenues (outside the federation account) (30, 31).

Among government agencies, the LGA is the main source of financing of PHC service delivery at the facility level (31, 32). Staff salaries, facility construction and maintenance, and supply of drugs, equipment and other medical commodities are all predominantly provided by local governments. Hence, financing of day-to-day facility functioning is largely provided by local governments. However, the National Health Policy provides general guidelines to all three tiers of government to prioritize resource allocation in favour of preventive health services and PHC, which is the cornerstone of the national programme. In this spirit of prioritization, the federal and state governments are expected to provide logistical and financial assistance to the LGAs, primarily for programmes of national importance such as the National Programme of Immunization, or controlling the spread of HIV/AIDS (31).

The federal budget in recent years has included programmes of construction of PHC facilities in LGAs by the National Primary Health Care Development Agency (31). LGAs are supposed to receive statutory allocations from state government revenues; however, there are no established rules or policies for the provision of financial assistance from the higher tiers of government, and it is not clear how well any assistance that is forthcoming is coordinated with LGA budgets and plans for PHC services. The federal PHC budget – which includes spending on the National Programme on Immunization, the Roll Back Malaria initiative, the Midwives Service Scheme, PHC, and community and environmental tutor programmes – has been steadily decreasing over the past four years as a proportion of the total federal health budget. It decreased from 8.4% of total spending in the health sector in 2012 to 4.7% in 2015 (Figure 3) (13). Overall, there is the perception that funding for health and for PHC is inadequate.

Figure 3. Proportion of budget for PHC activities



Source: Federal Ministry of Health (2012–2015 Budget)

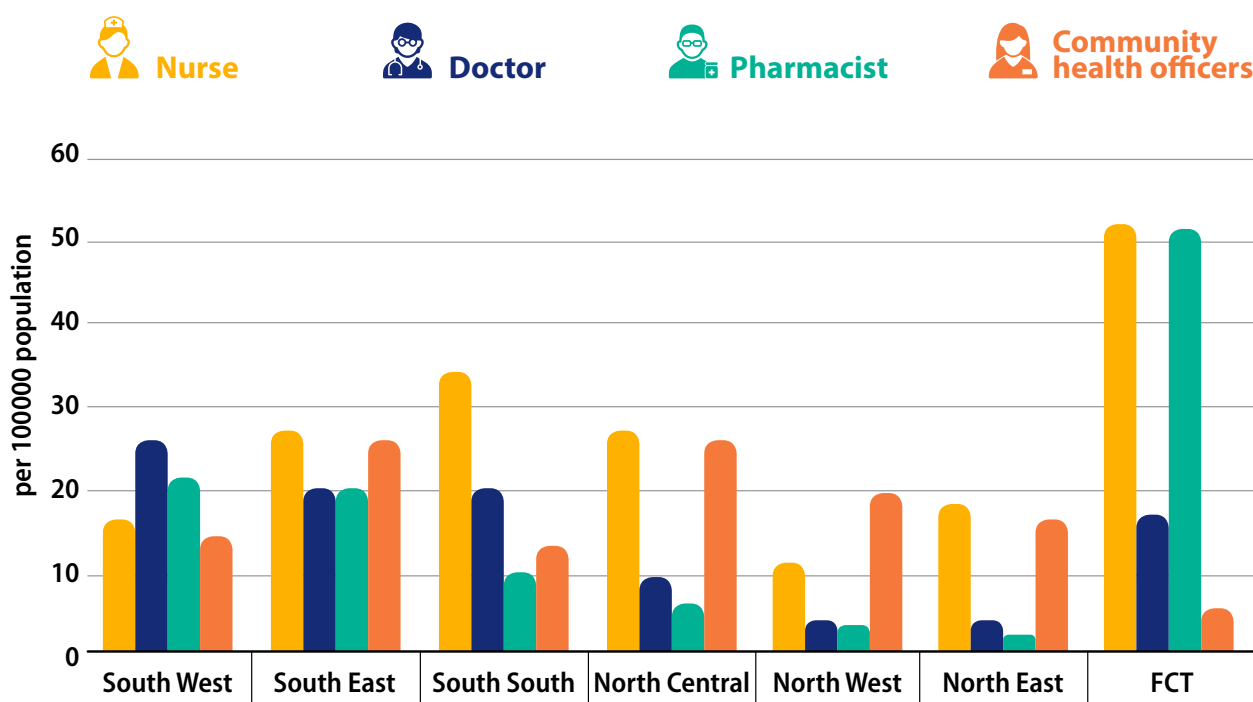
4. Human resources for health

The main categories of human resources for health are doctors, nurses, midwives, laboratory staff, public health nurses, public health nutritionists, and community health and nutrition workers, including community health officers, community health extension workers and community health assistants (13). Health care workers are paid by the level of government where they work, though there are some exceptions where professionals working in PHC facilities are employed by the state (13). Staffing per 100 000 population varies from one zone to another. For example, whilst the national average for doctors per 100 000 population is estimated at 12, some zones – notably North West and North East – have as low as 4 (Figure 4). Whereas the national ratio of nurses and midwives to 100 000 population stands at 21, the South West, North West and North East zones have 16, 11, and 18 respectively (33). The majority of health workers in PHC facilities across all the states

are CHEWs. Doctors, nurses and midwives are more available in non-PHC health care centres (33).

Studies have shown that health workers perceive rural life as difficult and lack the desire to work in PHCs located in rural communities. Reasons include lack of basic amenities that characterizes rural areas; poor personnel and equipment, leading to difficult working conditions and dissatisfaction; lack of electricity and water in the facilities, leading to poor quality of care and performance; and inadequate supply of drugs, which is a considerable constraint to service delivery (34–36). Separation from families is another significant challenge for health workers who have to leave their families and social responsibilities to work in rural areas (37). These factors have a negative impact on job satisfaction, staff performance and health service delivery, and consequently lead to high staff turnover.

Figure 4. Zonal disparities in human resources for health



There are provisions for quality professional education and in-service training as well as regular reviews of training curricula to ensure standards are maintained. However, it seems that little attention is paid to appropriateness, given emerging trends and new technologies. There is the general perception that in-service support is not sufficient and that targeting is poor. Although there are 14 professional regulatory bodies charged with regulating and maintaining the standards of training and practice for various health professionals (13), there are inconsistencies in training of primary care professionals in terms of regularity and who gets trained. Those who require training support are often not those who are selected to be trained, resulting in staff demotivation and attrition.

There are strategies for in-service support in terms of staff training at all levels of care in the Nigerian PHC system. Staff of primary care teams are encouraged to undergo recommended or self-driven trainings in health services management and update courses in service delivery (including prevention, treatment and control) of priority health problems. However, there appear to be limited opportunities to undergo these trainings, and the extent of support may vary by state or LGA. A respondent observed: "There is [in-service training] but to a limited extent. Some states and LGAs in Nigeria offer some benefits to their staff in in-service training" (KI9).¹

Nevertheless, in some states of the federation, some health care professionals benefit from generous scholarships while undertaking their basic professional training. But upon graduation, they do not pay anything back to the sponsoring states through services and become "lost" within the system, because there is no accountability or process in place for monitoring (24). And in other states, a range of health workers – doctors, nurses and midwives, pharmacists, and community health workers – are said to be trained at great expense to the state and, upon graduation, are not employed, thus again being lost to the system (KI2).

¹ "KI" numbers refer to key informants, as detailed in Annex 2.

Federal, state and LGA entities were expected to be actively using adapted versions of the National Human Resources for Health Policy and Plan by the end of 2015 (38). However, a midterm review of the National Strategic Health Development Plan 2010–2015 showed that only 15 states (42%) had adopted the Human Resources for Health Policy (39). None of the 774 LGAs in the country have so far elaborated policies or strategic plans for human resources for health, leading to poor coordination of efforts addressing critical shortages, maldistribution of the available health workforce, weak governance and capacity related to human resources for health, and limited production and training capacity (39).

A major challenge limiting effective and evidence-based planning and management of human resources for health is the dearth of data and baseline information. Imbalances in the skills mix and large disparities in the distribution of the health workforce between rural and urban areas and across the six geopolitical zones compound the matter further, with the northern areas being particularly underresourced (40).

Mention was also made by respondents during interviews of the gap between training and performance of roles. It was stated that the CHEWs do not actually undertake community practice, as is expected. This was attributed to a number of factors, including lack of understanding and clarity of roles; poor staffing in terms of number and composition; and negative organizational culture and attitude, which is transferred among staff. "There is a gap between training and performance of expected role after training. CHEWs are expected to spend 80% of their working time in the community and 20% in the health facility. This is not so ... for the following reasons: poor understanding of what the CHEWs should do in the community; inadequate staff such that many PHCs are manned by CHEWs instead of CHOs [community health officers]; and bandwagon effect of those already in the system" (KI2).

Supportive supervision is a process of guiding, monitoring, and coaching workers to promote

compliance with standards of practice and assure the delivery of quality care service. The supervisory process permits supervisors and supervisees the opportunity to work as a team to meet common goals and objectives. Supervision is frequently thought of as the main link between CHEWs and the health system. The national strategic health development document recognizes the need to establish and institutionalize a framework for integrated supportive supervision with adequate committed resources for all types and levels of care providers across public and private sectors. Mechanisms will be established to monitor health worker performance, including use of client feedback (exit interviews). However, despite the availability of mechanism for supportive supervision, there is the perception that inadequate capacity (in terms of people, equipment and funds) to provide supportive supervision and misuse of available resources negatively impact quality of supervision. Nonetheless, many states and health facilities have reported improved quality of care through improved supportive supervision and teamwork, but these are yet to be documented and validated by studies (24).

Findings from the interviews indicate that there is a structure in place to ensure that primary care teams are accountable to the health sector. There are also guidelines for reviewing and reporting performance of primary care teams. According to one respondent (K19), the state government is expected to support

and oversee the primary care activities of the local government while the latter supervises the activities at the primary care facilities. The health facilities report monthly to the local government health authority, which in turn reports to the state ministry of health. “Yes, we have a reporting channel for supervisory support. The state should support the local government by having an oversight function, while they [states] get feedback from them [local governments]. The local government should in turn support the health facilities” (K19). However, there is the perception that inadequate capacity (in terms of people, equipment and funds) to provide supportive supervision and misuse of available resources negatively impact quality of supervision. “The supportive supervision is poor – even if it is available, it is not thoroughly done. How many people will you supervise? The government does not provide enough funding to support supportive supervisory visits. And talking about vehicles with which to do supervision, sometimes vehicles are given and they use them for other purposes” (K19).

The interviews showed that there are no government-led, established strategies for staff recognition among primary care teams. However, this is said to occur at the programme level and probably at the discretion of the programme manager. According to a respondent, the extent to which staff recognition occurs – if at all – at different levels of the health system is unclear (K12).

5. Access to health care

Health care services in Nigeria are provided by a multiplicity of health care providers in the public and private sectors. As at December 2011, 34 173 health facilities from 36 states and the Federal Capital Territory were listed in the National Health Facility Directory. Of this number, 30 098 (88%) are PHC facilities, 3992 (12%) are secondary-level facilities, while 83 (1%) are tertiary-level facilities. More than 66% of the facilities are public (government) owned. There are efforts to make the master facility list interoperable with the national District Health Information System platform to strengthen routine health data analysis (23).

Most services provided by private and public formal establishments are clinic based, with minimal outreach, home and community-based services. Provision of community-based health services by CHEWs is severely lacking, with very few or no CHEWs spending 80% of their time in the community, mainly because of challenges with logistics. There is consequently weak community participation and ownership (23).

Private providers include formal and informal for-profit or not-for-profit establishments such as private hospitals, maternities, pharmacies, patent medicine vendors and traditional health care providers. The private sector delivers health care to approximately 60% of the population and serves as the first point of call for over 80% of people (23). However, the engagement of the private sector through private–public partnership mechanisms is currently weak, as the exact nature of the role that private sector actors might play is far from certain. Some see working with the private sector as a pragmatic necessity in a government-dominated system, others see the role for the private sector as focusing on service provision, while others see a distinct role for private financing (41).

Most primary health facilities across the country are poorly equipped, with only a quarter of health facilities having more than 25% of the minimum equipment package. A large proportion of these facilities are in deplorable condition, largely due to poor funding at the state and local government levels. The functionality of PHC facilities varies with geographical location and geopolitical zone. The proportion of PHC facilities providing immunization services ranges from 0.5% in the North East to 90% in the South West. The capacity to provide basic emergency obstetric services remains very limited – only around 20% of PHC facilities have that capacity (23).

The availability of basic amenities to support an enabling working environment and quality services (for example electricity or generator, emergency transportation system, and good sanitary and waste management practices) is poor in many of the PHC facilities. Data on the case management competency of health facility staff across a number of tracer diseases, including malaria and other common conditions with a high burden, show that on average only 37.4% of all cases considered were correctly diagnosed by all health workers (primary health care review, 2012).

Utilization of services in the primary health facilities is limited and varies across socioeconomic and geopolitical categories. Antenatal care attendance ranges from 31% in the North East to 87% in the South West, whereas health facility delivery ranges from 8.4% in the North East to 73% in the South West (23). In addition, the majority of PHC facilities in the country do not run 24-hour services, thereby denying many patients the opportunity to use such centres in cases of emergency. The poor quality of services at PHC facilities and the limited periods of operation force clients to use secondary and tertiary facilities. There is a national referral system but its functionality has not been assessed. Overall, there

is the perception that people have lost confidence in the PHC facilities and bypass this level of care to higher levels to access care when needed (37).

Although primary health centres were established in both rural and urban areas in Nigeria with the intention of equity and ease of access, the rural population is seriously underserved compared TO their urban counterparts (42). This inequity has been attributed to (a) governmental factors, such as lack of political commitment, inadequate funding or misappropriation of funds, weak intersectoral collaboration and intergovernmental struggles for power and control; (b) people- or client-related factors, such as community perceptions of poor quality and inadequacy of available services in the PHC centres, underutilization of PHC services and low levels of community participation; and (c) other factors, such as lack of motivation in the workplace (for example due to poor remuneration), unhealthy rivalry between various categories of health workers, non-involvement of the private health sector in the planning and implementation of PHC, poor management of information systems and heavy dependence on initiatives funded by foreign donors (42).

There have been recorded improvements in the utilization of some primary care services, though there are still widespread variations in urban and rural outcomes. For example, the proportion of births attended by skilled birth attendants increased from 38.9% in 2008 to 53.6% in 2012 and further to 58.6% in 2014. The urban areas, with 79.2%, had a higher proportion of deliveries assisted by trained personnel compared to about 46.6% in rural areas. The proportion of children aged under 1 year immunized against measles has increased, from 41.4% in 2008 to 55.8% in 2012 and 63.1% in 2014. However, rates of immunization for children were higher in the urban areas (56.2%) than in the rural areas (39.9%) (43).

With respect to access to medicines, less than half of PHC facilities have the listed essential drugs in stock. This results from lack of government commitment to the establishment of procurement systems for health commodities and allows for the proliferation of patent medicine vendors and drug hawkers, further compounding the problem of irrational drug use (23). Irrational drug use and the potency of drugs are major issues of concern, with about 40% of drugs in the market found to be fake or substandard (23).

6. Timeline of relevant PHC policies

The development of PHC in Nigeria follows the 1978 Health for All endorsement at the International Conference on Primary Health Care in Alma-Ata and prior reforms such as the Basic Health Service Scheme of the Third National Development Plan (1975–1980), which set out the PHC philosophy (44). The basic elements of the scheme were to build in each LGA one comprehensive health institution (which would serve as the headquarters), four primary health centres, and 20 health clinics (14). This complement of facilities was called the “basic health unit”, designed to serve a threshold population of 150 000. The clinic was the base facility while the primary health centre was a referral facility to four clinics. The arrangement was aimed to increase the proportion of the population receiving health care from 25% to 60%; initiate the provision of adequate and effective health facilities for all Nigerians; correct the imbalance in the distribution and location of health facilities; correct the imbalance between preventive and curative care; establish a health care system best adapted to the local conditions and level of health technology; and provide infrastructure for all preventive health programmes (45, 46).

In 1986, the Federal Ministry of Health selected 52 LGAs to be developed as models for PHC services, and these were paired with a college of medicine or school of health technology to provide technical assistance. Village health services and village health committees were set up in these 52 LGAs.

The Nigerian National Health Policy of 1988, which was based on the principles of PHC, culminated directly from the Alma-Ata Declaration. In addition to the National Health Policy, a major element of the new system was the creation of the Primary Health Care Directorate in the Ministry of Health, under Dr Ransome-Kuti as Minister. The directorate was charged with the responsibility of “formulating, developing and implementing the National Primary Health Care System” (47).

In 1992 the National Primary Health Care Development Agency, with zonal offices in Enugu, Ibadan, Kaduna and Bauchi, was set up. The country was also divided into health zones for effective programme implementation and supervision, supported by the appointment of PHC coordinators in LGAs and zonal and state coordinators. This was done to extend health care delivery services to the rural areas, a role that was taken over from the Federal Ministry of Health. There was also the creation and training of a new staff line of community health workers to carry out the PHC programmes (CHEWs, community health officers). The mandate of the agency includes providing support to the National Health Policy as it relates to primary health care; providing technical support to the planning, management and implementation of PHC; mobilizing resources at the national and international levels for the development and implementation of PHC programmes; providing support to monitoring and evaluation of PHC and by extension the National Health Policy; promoting development of human resources for health; and promoting and supporting the Village Health System (13).

There was also restructuring of the Federal Ministry of Health, for example through creation of more departments, such as a PHC department, which did not exist before the creation of National Primary Health Care Development Agency. Since inception, the agency has implemented a number of federal government programmes aimed at revitalizing PHC in Nigeria, such as the Midwives Service Scheme and the Subsidy Reinvestment Programme on Maternal and Child Health (45). Another policy, the Bamako Initiative Programme, the health component of the National Economic Empowerment and Development Strategy (2003–2007), was implemented. All these reforms resulted in the revision of existing health policies and plans or the production of new ones. The need for collaboration between the public and private sectors was addressed by the health sector

reform document and a framework was developed to make this operational (12).

The Health Sector Reform Programme was implemented from 2004 to 2007 to reposition the health sector for improved service delivery, leading to better health outcomes. The seven strategic thrusts of the Health Sector Reform Programme were to (a) improve the stewardship role of the government; (b) strengthen the National Health System and its management; (c) reduce the burden of disease; (d) improve health resources and their management; (e) improve access to quality health services; (f) improve consumer awareness and community involvement; and (g) promote effective partnership, collaboration and coordination. The Health Sector Reform Programme however adopted a top-down approach in its implementation, hence the persistence of the problems it was designed to address. Also, despite the centrality of PHC to health development in Nigeria, the role and contributions of local government to revitalization of PHC were not defined in the Health Sector Reform Programme document (11).

Alongside the Health Sector Reform Programme, several significant new policy initiatives in the health sector were developed. These include:

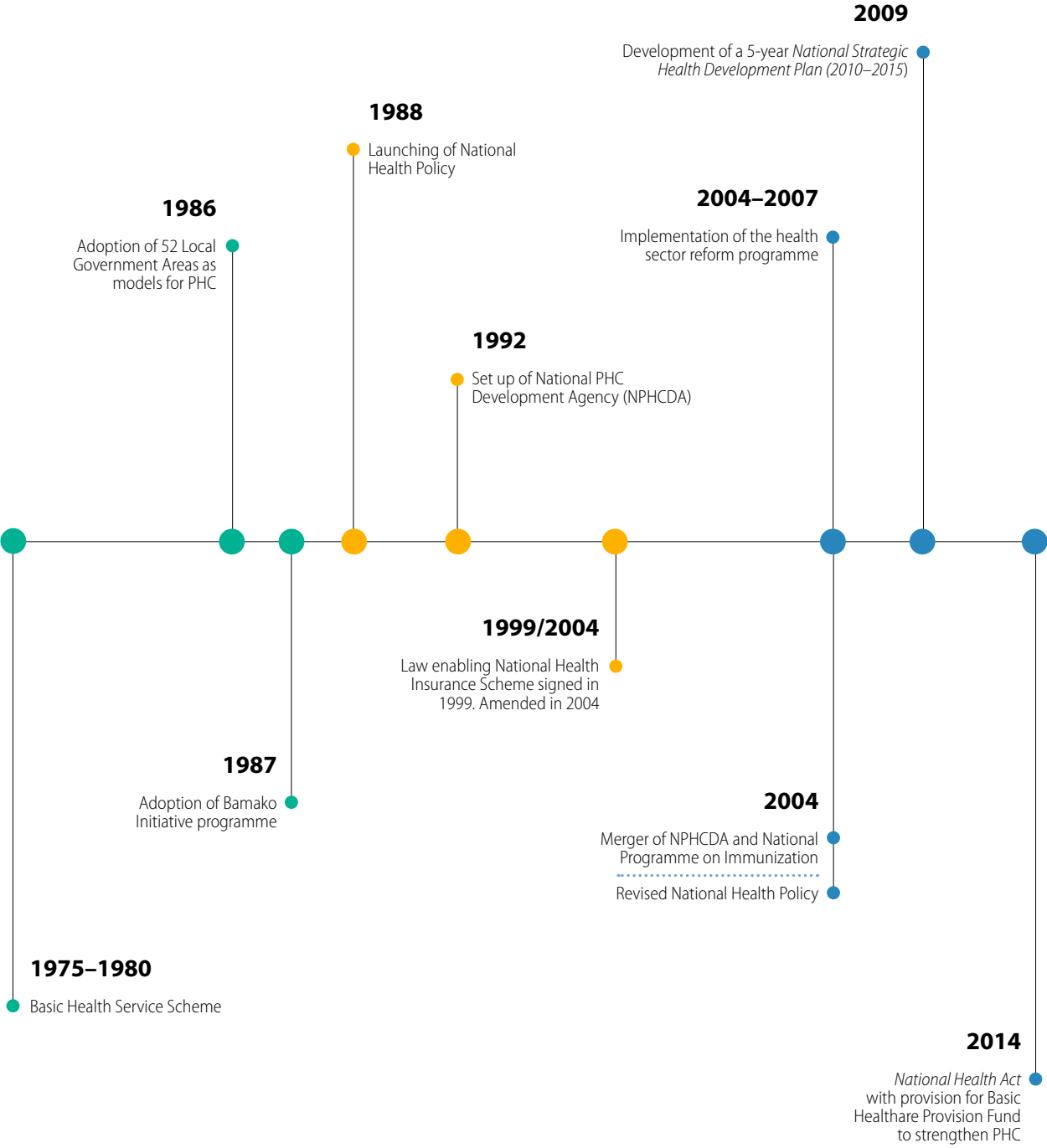
- the merger of the National Primary Health Care Development Agency and the National Programme of Immunization;
- revision of the National Health Policy;
- development of a framework for achieving the health-related Millennium Development Goals in Nigeria;
- formulation of the National Primary Health Care Development Agency draft plan of action for the delivery of the Ward Minimum Health Care Package;
- drafting of the National Health Bill;
- revitalization of the National Council on Health;
- publication of a report on repositioning the Federal Ministry of Health;
- the formal launch of the National Health Insurance Scheme;

- development of several subsectoral policies, including on public–private partnership, human resources for health, health financing, health research, equipment, infant and young children feeding, maternal, newborn and child health, adolescent health, health sector response to HIV/AIDS, and health promotion, as well as a National Drug Policy and National Malaria Strategic Plan;
- development of an integrated Maternal, Newborn and Child Health Strategy.

Two key policy documents were developed to guide and sustain the reforms in the future. These policy initiatives laid a firm foundation for further action to revitalize the health sector and accelerate previously stalled progress towards the health-related Millennium Development Goals. The first was the Five-Year National Strategic Health Development Plan 2010–2015 with eight strategic priority areas developed by departments of the Federal Ministry of Health, state ministries of health, local government departments of health and other federal health institutions (13). The second was the National Health Policy, which was reviewed, updated and harmonized into a National Health Bill that described the redefined National Health System and the functions of each level of government, including the PHC level (48).

Figure 5 presents a timeline of relevant PHC policies in Nigeria.

Figure 5. Timeline of policies and other developments relevant to PHC in Nigeria



7. Planning and implementation

The epidemiology units of the federal and state ministries of health, National Centre for Disease Control and Surveillance, and notification units of the LGAs were said to be notable structures that are in place for identifying, measuring and responding to the disease burden. These structures are intended to track diseases using the surveillance and notification system. The reporting system, which starts from the community to the health facility, to the LGA, to the state and Federal level (13), is case based for the different endemic and epidemic-prone diseases (with 21 diseases on the reporting list), and the case reporting system is thought to be an effective strategy. However, there are inadequate human resources for surveillance and a poor notification system, due to the weak network structure. “The case reporting is good but the network is quite small compared to the population. The surveillance strength is inadequate, that is why you’d see outbreaks popping up from time to time” (K18). Nevertheless, Nigeria’s response to the Ebola virus disease outbreak and more recently the Lassa fever outbreak showed some evidence of a sensitive surveillance system. This was attributed to the polio eradication initiative by some respondents: “The long struggle to eradicate polio in Nigeria has led to the strengthening of the surveillance system by the World Health Organization and other diseases surveillance has benefited from this” (K11).

Availability of medical products at the PHC level is grossly inadequate, with reported cases of stock-out of essential medicines due to irregularities in the supply of products from the local government stores to health facilities. This irregularity has been attributed to weak logistics management and poor funding. The local governments’ first priority is often payment of staff salaries, and when this is done little is left for other recurrent costs such as procurement of medical products and equipment (49, 50). It has been reported that front-line providers often resort to purchasing medicines and selling them privately to clients to meet the challenge of frequent stock-outs

(50, 51). However, this practice has the tendency to weaken health system accountability.

The linkages within and between different levels of care are perceived to be weak (52). The secondary care facilities in most states of Nigeria do not function effectively, with implications for linkage with primary care facilities. The challenge of access and mobility from an initiating to a receiving facility compounds the problem of referral in the Nigerian PHC system. In instances where initiating facilities have been able to overcome the barriers of access and make an outward referral to a receiving facility, no feedback occurs from the receiving facility or the referred patient or client. Once referrals are made, there is practically no follow-up of the referred clients.

The departments of primary health care at the state and local government levels have specialized units, in line with the stipulations of PHC policy, whose duty it is to ensure that health promotion and prevention actions are implemented at health facility and community levels. The primary care facilities are equipped for and are expected to deliver promotive, preventive and curative services. However, they appear to have limited human resources capacity to effectively implement services other than curative: “How comprehensive could it be when one person is to give injections, do training and document the data? I have already told you that the staff strength is an issue” (K18). There is also the perception that lack of incentives for staff is reflected in their demotivation to take on additional roles, such that their commitment to service delivery depends on “he who pays the piper”: “One human being is giving antimalarial, doing immunization, ... and they are paying him extra money for that. So, when malaria is doing a project and pays him ₦50 000, he abandons all the other work to go and collect the money” (K18).

The main approach deployed in the Nigerian health system to represent the citizens’ voice is

the involvement of community representatives through the health facility committees, also referred to as village health committees. Health facility committees are recognized entities that are set up by the government to represent the citizens' voice in health service planning and evaluation, including identification of priority health needs and community mobilization for action. They also act as a link between the health facility and nearby communities. Their roles include monitoring the work of the health facility and supporting the health facility through community health volunteers (53). There is, however, the perception that health facility committees lack the technical and managerial skills to fulfil their roles as an external accountability structure. The effectiveness of these committees towards performance of their roles and achievement of their mandate is also limited by the absence of incentives for members, unclear relationships and lines of reporting between the committee members and heads of health departments, and weak linkages to other health system institutions (53).

The Nigerian Government has long recognized the importance of community participation in the delivery of basic health care services and has thus tried to involve communities in the development of PHC along the lines of the Bamako Initiative's promotion of drug revolving funds (54). Indeed, the guidelines for the development of the PHC system (17) established the development of the following health committees as an accountability structure to support activities at village and ward level: village/community development committees, ward development committees and local government development committees. These committees have been in existence but with varying degrees of functionality. In principle, they are expected to perform the three main functions of accountability at their different levels, namely financial, service delivery performance and political/democratic accountability.

The failure to achieve some of the Millennium Development Goals has been linked in part to a failure to reach the most vulnerable populations

and the failure to address the social, economic and environmental determinants of health and not just the proximal causes of illness and disease. Although some of the inequities in health outcomes are due to differences in access to health services, the majority are attributable to the conditions in which people are born, grow, live, work, and age. In turn, poor and unequal living conditions are largely the result of poor social policies and programmes, unfair economic arrangements, and politics driven by narrow interests (55). Article VII(4) of the 1978 Alma-Ata Declaration recognizes intersectoral collaboration as one of its key principles, and the Nigeria National Strategic Health Development Plan makes provision for this.

However, efforts to establish such mechanisms in Nigeria have been very limited. Presently, there is little intersectoral collaboration with key relevant sectors such as finance (adequate budgetary allocation and prompt release of funds); education (school health and health promotion, girl child education); agriculture (food security, adequate and proper nutrition); water resources (adequate and safe clean water); environment (pollution and vector control); industry (production of critical inputs such as food and drugs and occupational health); and planning (economic development and poverty reduction strategies) (56). The major intersectoral approach in Nigeria's national response to the control of HIV/AIDS is a health sector initiative supervised by the Presidency (57). It includes a National Action Committee on HIV/AIDS with membership drawn from the justice, social welfare, health, education, information, and other sectors. Similar bodies exist at state and LGA levels. For a holistic approach to health, all sectors must be mobilized through good governance, strong political will and commitment to galvanize all stakeholders towards a common purpose – better health for all. However, respondents have raised many issues concerning this approach that need to be addressed when a framework is being produced.

8. Regulatory processes

There are policies and implementation guidelines for health service quality and medicines regulation among state and non-state sector health care providers. The ministries of health are responsible for providing oversight and maintaining and enhancing the quality of health services provided within their spheres of control (49, 50). Nigeria's revised National Drug Policy (2003) aims to ensure access to safe, effective and good-quality drugs at all levels of health care and to strengthen regulatory controls. It clearly stipulates that the government through the Federal Ministry of Health shall establish a National Drug Policy Monitoring and Evaluation Division, and enact, strengthen and provide necessary resources for the enforcement of appropriate legislation to ensure quality assurance (58). The quality, safety and efficacy of medicines are regulated by the National Agency for Food and Drug Administration and Control (49). Although the government appears to be well structured and capacitated to regulate professional practice, enforcement is a major challenge. Some practitioners, particularly in the informal sector, were said not to abide by regulations and guidelines of practice, often overstepping their boundaries and avoiding any penalty even when they are caught. "The government has the capacity but not the discipline. For example, the patent medicine vendors are regulated ... There are certain drugs that they should not even dispense, but they do not abide to that, they go beyond their boundaries. You can get somebody arrested and he'd be released. So,

government has the structure and regulation, but complying with the regulation is not possible" (KI8).

The government has a structure for regulating professional education. While the Medical and Dental Council of Nigeria regulates the training of doctors, the Nursing and Midwifery Council of Nigeria regulates the training of nurses and midwives and the Community Health Practitioners Council regulates the training of community health officers and CHEWs. Others include the Pharmacist Council of Nigeria for pharmacists and the Medical Laboratory Council for medical laboratory technologists. Existing policies specify the training and skills requirement of various cadres of primary care providers. These policies are backed by training curricula with content appropriate for specific health worker cadres and periodic reviews to ensure time relevant content: "Regular review of curriculum that is used in training of the professionals [is done] ... to ensure adequate training of different cadres of primary care providers" (KI9). In practice, there appears to be a mismatch between training and performance of duties, due in part to the shortage of skilled health care personnel at the primary care level, especially community health workers. This results in tasks being shifted to health workers with inadequate skills to perform them. "Training content may be adequate depending on the facilities and availability of committed teachers in the school but the community practice is deficient" (KI2). "We have CHEWs performing the work of midwives" (KI12).

9. Monitoring and evaluation system

In 1988, Decree 43 of the Federal Government of Nigeria created national monitoring and evaluation units to provide necessary mechanisms for tracking government budget and performance. This was followed by the establishment of the Primary Health Care Management Information System in 1990 with a review in 2001. Equally, an integrated National Health Management Information System (NHMIS) was formally developed in Nigeria in 1992, following previous attempts at vertical data collection, collation and analysis systems. In 2006, eventual harmonization of vertical monitoring and evaluation tools and systems culminated in the incorporation of key programmatic indicators in the health sector into the NHMIS, as captured in the current NHMIS Policy (59).

A health systems assessment in 2014 revealed a weak NHMIS in Nigeria, despite the significant investments made to date in this area of the health system. However, the analysis indicated that the NHMIS demonstrates the potential to be transformed into a strong and viable building block for the Nigerian health system. Most of the challenges are in the areas of data governance, data quality and use of information. The roadmap for implementing this coordinated approach is guided by the national NHMIS Policy and elaborated in the Strategic Plan.

Standard treatment protocols and job aids are available to primary care teams to guide them in making diagnoses and instituting appropriate treatment for minor illnesses. The standing order contains specific guidance and instructions regarding treatment of common conditions that the community health worker may meet at the primary care level. It gives the community health worker a legal right to provide treatment for those conditions in the absence of a nurse or doctor. However, it appears that most of them, for personal reasons, do not use the designated aids while attending to patients. One explanation for this could be the

lack of appropriate monitoring and enforcement mechanisms.

The establishment of an NHMIS for comprehensive monitoring and evaluation of health care and as a management tool for informed decision-making at all levels of government is enshrined in the National Health Policy. The minimum broad categories of indicators include health policy, health status, social and economic indicators, and indicators on provision and utilization of health care services. A review of the system was carried out in 2004 with a view to developing a more unified system with relevant indicators to capture the Millennium Development Goals (59, 60). The Department of Planning, Research and Statistics is responsible for collation of routine health information from the community and facility levels and onward transmission to the federal-level database (59).

Some improvements have been noted in the country's NHMIS in terms of establishing an integrated disease reporting system in line with the recommended horizontal approach. The DSN 001 form, which is used at the PHC level, captures 48 health care indicators and is adjudged to be comprehensive enough. Although the current information management system is deemed adequate in terms of structure of collation and transmission, there are notable shortfalls in its ability to deliver timely, reliable and complete data. The Nigeria *Health sector performance report*, however, showed that many states report in a timely manner and there is a regular return of NHMIS data from the LGAs, though it noted that a culture of routine analysis of NHMIS data and feedback to health institutions, and use of the data for health planning and improvement of health outcomes, is yet to take root (24).

Respondents also expressed the opinion that information on services delivered in the non-state sector was lacking, and there was no mechanism to

capture such data. Weakness in data gathering was apparent at all levels of the health system and was attributed to weak governance, lack of commitment to duty, inadequate funding and infrastructure, low capacity, shortage of personnel, and deficient skills in data management. "The wrong people are used, in terms of their approach. ... The infrastructure backbone is not there, the human beings are not there, the governance is weak, even the people who are there are not ready to do the work" (K16). Capacity to collect, collate and analyse data is perceived to be relatively poor at the primary care facility level compared to higher levels of reporting and service delivery: "Simple analysis happens at the upper level but it cannot happen at the low level

because of the capacity" (K18). However, it was stated that health information management for vertical disease control programmes such as HIV and malaria is more effective at generating reliable data than the integrated system.

As a consequence of the above, health planning and priority setting are not based on an accurate epidemiological profile of the population. Data use for decision-making and programme planning is generally poor; and on the rare occasions that evidence informs decision-making, population estimates of disease profile and health service utilization rather than actual consumption rates are used.

10. Policy considerations and ways forward

Table 5 shows successes and failures related to PHC policy and strategy, and barriers to and enablers of change, while Table 6 shows priorities in primary care provision at various levels.

Table 5. Successes or failures and key barriers to and enablers of primary health care

Successes or failures	Barriers	Enablers	Remarks
PHC has been a veritable tool for achieving essential care for all in Nigeria	Gap between policy formation and implementation, as only immunization services are provided in a comprehensive manner at PHC level	NA	
Poor utilization of services offered in primary health facilities	Lack of trust in the health system due to frequent stock-out of commodities and medicines Inadequate community participation	NA	Women wield enormous influence in the community and this should be harnessed by bringing them into the PHC mainstream
Poor coverage of primary care services	Geographical inequities in distribution of resources for PHC Acute shortages of staff in the PHC facilities at the rural level Poor coordination between and within levels of government and of partners	NA	
Weak governance and lack of transparency and accountability	Inadequate managerial staff and poor management capacity Weak external and internal accountability structures Donor-driven, technocratic approach to determining health priorities detracts from the grass-roots approach to health development recommended in the Alma-Ata Declaration	Provisions of the National Health Act likely to address this	
Weak capacity to provide basic and emergency services	Inadequate and uneven distribution of health workforce Poor infrastructure and insufficient or outdated materials and equipment	NA	
High health staff attrition, particularly qualified and higher cadres of staff	Poor staff motivation and capacity development	NA	
Reduced burden of vaccine-preventable diseases in most states and improved coverage of immunization in children aged under 5 years	NA	Delivery of quality routine vaccination supported by ad hoc campaigns, mobile clinics and outreaches Improved quality of care mainly through in-service training and supportive supervision of health workers	

Table 6. Priorities in primary care at the district, regional and country levels

Priorities	Type of respondent	Health system level
Intersectoral collaboration	Health policy analyst	Primary
Control of priority diseases, including prevention, treatment and rehabilitation	Academic	All levels
Reduction of morbidity and mortality among women and children	Programme officer	All levels

10.1 Pathways of success

10.1.1 Basic Health Care Provision Fund under the new National Health Act

In October 2014, following a decade of planning, the Nigerian President signed into law the National Health Act, which provides a legal framework for the provision of health care services to all Nigerians and for the organization and management of the health system. A key component of the National Health Act is the establishment of the Basic Health Care Provision Fund, which will be predominantly financed through an annual grant from the federal government of not less than 1% of the Consolidated Revenue Fund (total federal revenue before it is shared to all tiers of government). Half of the fund will be used to provide a basic package of services in PHC facilities through the National Health Insurance Scheme; 45% will be disbursed by the National Primary Health Care Development Agency for essential drugs, maintaining PHC facilities, equipment and transportation, and strengthening human resources capacity; and the final 5% will be used by the Federal Ministry of Health to respond to health emergencies and epidemics. Additional sources of funding could include grants by international donors and funds generated from innovative sources such as taxes on cigarettes and alcohol. Respondents were of the opinion that having a separate fund that is dedicated to PHC and making this available at the primary care level would improve access to services at that level. Leveraging of this new funding for health would also result in improved health indices and enhanced operational management of PHC activities.

10.1.2 Strengthened surveillance system through the polio eradication initiative programme

One of the success stories of the Nigerian PHC system is the eradication of polio. This has been linked to a strengthened surveillance system and other efforts, such as increased domestic funding for polio, strengthened vaccination campaigns (particularly in hard-to-reach and insecure areas), and improved

routine immunization. In addition, the organization and quick response times that stopped the Ebola virus from spreading in Nigeria have also been linked to the sensitive surveillance system, as detection delay could have facilitated the transnational spread of the virus. When the first Ebola case was confirmed in July 2014, health officials immediately repurposed polio technologies and infrastructures to conduct Ebola case finding and contact tracing. The use of cutting-edge technologies, developed with guidance from the WHO polio programme, put the global positioning system (GPS) to work as support for real-time contact tracing and daily mapping of links between identified chains of transmission (61).

10.2 Pathways of barriers

10.2.1 Corruption within the health system

Corruption in the health sector has made various health institutions ineffective, while scarce resources invested in the sector are wasted. Health system corruption prevails in Nigeria because there is no adherence to the rule of law, coupled with lack of transparency and trust. In addition, the public sector in Nigeria is ruled by ineffective civil service codes and weak accountability mechanisms, among others (62). Corruption occurs among different actors, including senior and junior administrative officers in health ministries, parastatals and agencies. There is also corruption among health officials and personnel (including doctors, nurses, laboratory attendants and pharmacists), and among political office holders (health ministers and commissioners, chairpersons of health-related boards and agencies) (62).

According to one report,² Gavi, the Vaccine Alliance, which provides funding to increase access to immunization for children in the world's poorest countries, released its Nigerian audit report covering the expenditures incurred and procurement activities conducted at the Federal Ministry of Health, the National Primary Health Care Development Agency, and states in the fiscal years 2011–2013. The cash programme audit of Gavi in Nigeria determined that

² The Nigerian *Standard* newspaper, 17 August 2015.

US\$ 2.2 million had been misused by Nigerian officials and requested reimbursement of that amount, which was subsequently refunded by the Nigerian Government. A 10% increase in corruption could reduce immunization rates by 10% to 20%. Reducing corruption can therefore result in significant social gains as measured by decreases in child and infant mortality rates, as well as the proportion of low-birthweight babies. The present political leadership is addressing corruption in Nigeria and it is hoped that this will be extended to the health sector.

10.2.2 Apportionment of responsibility to deliver PHC to local government

The current National Health Policy document, revised in 1996, indicates that local governments are expected to be the main implementers of PHC policies and programmes, with the federal government responsible for formulating overall policy and for monitoring and evaluation, and state governments for providing logistical support to the LGAs, such as personnel training, financial assistance, planning and operations. Yet, the current Constitution (1999) of Nigeria is ambiguous with regard to the authority and autonomy of local governments in providing basic services, such as primary health, for which they have been assigned responsibility through sectoral directives. According to the Constitution, it is the state governments that have principal responsibility for basic services such as primary health and primary education, with the extent of participation of LGAs in the execution of these responsibilities determined at the discretion of individual state governments. The constitutional existence of state-level discretion may lead to disparities across local governments or across states in the extent to which responsibility for PHC services are effectively decentralized.

11. Conclusion

Summarily, the Nigeria PHC system suffers from fragmented services, weak referral systems and poor infrastructure, and there are serious gaps in access to basic health services. The multiplicity of vertical disease control programmes, with poor integration of services at suboptimal levels, results in low coverage of high-impact, cost-effective interventions. There is poor linkage between the different levels of care. Materials and equipment for service delivery at the PHC facilities are hardly available or functional.

Most health centres no longer have functional drug revolving schemes, resulting in shortage of essential and critical medicines and commodities at point of service delivery. A good number of the components of PHC are not provided at most service delivery points. All of these challenges are worsened by professional conflicts within the health system, and by insurgence and conflict, especially in north-eastern Nigeria. This has hampered effective PHC service delivery in the country.

References

1. Nigeria Demographic and Health Survey. National Population Commission; 2013.
2. The World Factbook: Nigeria. Central Intelligence Agency (<https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html>, accessed 31 July 2017).
3. Global Health Observatory country views: Nigeria statistics summary (2002–present). Geneva: World Health Organization (<http://apps.who.int/gho/data/node.country.country-NGA>, accessed 31 July 2017).
4. Nigeria economy profile 2017. Index Mundi (http://www.indexmundi.com/nigeria/economy_profile.html, accessed 31 July 2017).
5. Nigeria demographics profile 2017. Index Mundi (http://www.indexmundi.com/nigeria/demographics_profile.html, accessed 31 July 2017).
6. Global Health Expenditure Database. Geneva: World Health Organization (http://apps.who.int/nha/database/Key_Indicators/Index/en, accessed 31 July 2017).
7. Onoka CA, Onwujekwe OE, Hanson K, Uzochukwu BS. Examining catastrophic health expenditures at variable thresholds using household consumption expenditure diaries. *Tropical Medicine and International Health*. 2011;16:1334–41.
8. Nigerian human resources for health country profile. African Health Workforce Observatory.
9. Constitution of the Federal Republic of Nigeria. Government of Nigeria; 1999.
10. Olaniyan O, Lawanson AO, Olubanjo O. Economics of health system governance and financing in Nigeria. Ibadan University Press; 2012.
11. Strengthening national health systems: a country experience. Abuja: Federal Ministry of Health; 2009.
12. Federal Republic of Nigeria: revised National Health Policy. Abuja: Federal Ministry of Health; 2004 (<http://cheld.org/wp-content/uploads/2012/04/Nigeria-Revised-National-Health-Policy-2004.pdf>, accessed 1 August 2017).
13. National Strategic Health Development Plan. Abuja: Federal Ministry of Health; 2010.
14. Institutionalization of the primary healthcare planning and reviews in Nigeria: progress and status. Abuja: Federal Government of Nigeria, National Primary Health Care Development Agency; 2013.
15. Wang H, Hansen M. A rapid assessment on country financing for primary health care service in Nigeria. 2013.
16. Uzochukwu BSC, Ajuba M, Onwujekwe OE, Ezuma N. Examining the links between accountability, trust and performance in health service delivery in Orumba South local government area, south-east Nigeria. 2010.
17. Ward health service operational guide. Abuja: National Primary Health Care Development Agency; 2004.
18. Integrating primary health care governance in Nigeria: PHC Under One Roof. Abuja: Federal Government of Nigeria, National Primary Health Care Development Agency; 2013.
19. Uzochukwu B, Ughasoro MD, Etiaba E, Okwuosa C, Envuladu E, Onwujekwe OE. Health care financing in Nigeria: implications for achieving universal health coverage. *Nigerian Journal of Clinical Practice*. 2015;18:437–44.
20. National Health Financing Policy 2006. Abuja: Federal Republic of Nigeria; 2006 (<http://cheld.org/wp-content/uploads/2012/04/National-health-financing-policy.pdf>, accessed 2 August 2016).
21. Onwujekwe O, Hanson K, Ichoku H, Uzochukwu B. Financing incidence analysis of household out-of-pocket spending for healthcare: getting more health for money in Nigeria? *International Journal of Health Planning and Management*. 2014;29:e174–85.
22. Uzochukwu A, Ezenekwe U. Implications of households catastrophic out of pocket (OOP) healthcare spending in Nigeria. *Journal of Research in Economics and International Finance*. 2012;1(5):136–40.
23. Report of the expert group on revitalization of primary health care in Nigeria. Abuja, Nigeria: National Primary Health Care Development Agency; 2015.
24. Nigerian health sector performance report 2011. Abuja: Federal Ministry of Health; 2012.
25. Brinkerhoff D. Accountability and health systems: overview, framework and strategies. Abt Associates; 2003.

26. Soyibo A, Olaniyan O, Lawanson AO. National Health Accounts of Nigeria 2003–2005: incorporating sub-national health accounts of states. 2009.
27. National Health Insurance Scheme: Formal Sector Social Health Insurance Programme (<http://www.nhis.gov.ng/formal-sector-social-health-insurance-programme-fsship-/#.VqvNLSorLIU>, accessed 2 August 2017).
28. National Health Insurance Scheme: objectives of the scheme (<http://www.nhis.gov.ng/objectives-of-the-scheme/#.VqvMVCorLIU>, accessed 2 August 2017).
29. Nigeria Demographic and Health Survey 2008. National Population Commission and ICF Macro; 2008.
30. Khemani S. Local government accountability for service delivery in Nigeria. Washington (DC): World Bank, Development Research Group; 2004.
31. Primary health care in Nigeria: 30 years after Alma Ata. Nigerian Health Review. Health Reform Foundation of Nigeria; 2007.
32. Gupta MD, Gauri V, Khemani S. Decentralized delivery of primary health services in Nigeria: survey evidence from the states of Lagos and Kogi. Washington (DC): World Bank, Development Research Group; 2003.
33. National Human Resources for Health Strategic Plan 2008 to 2012. Abuja: Federal Ministry of Health; 2007.
34. Obembe TA, Osungbade KO, Olumide EA, Ibrahim CM, Fawole OI. Staffing situation of primary health care facilities in Federal Capital Territory Nigeria: implications for attraction and retention policies. *American Journal of Social and Management Sciences*. 2014;doi:10.5251/ajsms.2014.5.2.84.90.
35. O'Neill C, Edim M, Obarein B. Causes of prolonged waiting time in public health facilities among health care seekers in Calabar Municipal Council of Cross River state, Nigeria. *Research on Humanities and Social Sciences*. 2014;4:43–7.
36. Abimbola S, Olanipekun T, Igbokwe U, Negin J, Jan S, Martiniuk A et al. How decentralisation influences the retention of primary health care workers in rural Nigeria. *Global Health Action*. 2015.
37. Enhancing the distribution and performance of primary health care force in Nigeria: the case of Delta state. Centre for Population and Environmental Development; 2014.
38. Nigeria. Geneva: World Health Organization, Global Health Workforce Alliance (<http://www.who.int/workforcealliance/countries/nga/en/>, accessed 3 August 2017).
39. Mid term review of the National Strategic Health Development Plan (2010 to 2015). Abuja: Federal Ministry of Health; 2014.
40. Ward Minimum Health Care Package 2007–2012. National Primary Health Care Development Agency; 2007.
41. Stallworthy G, Boahene K, Ohiri K, Pamba A, Knezovich J. Roundtable discussion: what is the future role of the private sector in health? *Global Health*. 2014;10:55.
42. Abdurraheem IS, Olapipo AR, Amodu MO. Primary health care services in Nigeria: critical issues and strategies for enhancing the use by the rural communities. *Journal of Public Health and Epidemiology*. 2012;4(1):5–13.
43. Millennium Development Goals performance tracking survey: 2015 report. Abuja: Federal Republic of Nigeria, National Bureau of Statistics; 2015.
44. Kuti OR. The genesis of primary health care in Nigeria. *New Era Nursing Image International*. 1986;2:28–33.
45. Omuta G, Onokerhoraye A, Okonofua F, Obanovwe G, Isah E, Chiwuzie J et al. Perspectives on primary health care in Nigeria: past, present and future. 2014.
46. Metiboba S. Primary health care services for effective health care development in Nigeria: a study of selected rural communities. *Journal of Research in National Development*. 2009;7(2).
47. Adeyemo DO. Local government and health care delivery in Nigeria: a case study. *Journal of Human Ecology*. 2005;18:149–60.
48. National Health Act 2014. Abuja: Federal Government of Nigeria; 2014.
49. Nigeria: health systems and services – human resources for health. World Health Organization, Regional Office for Africa (<http://31.3.96.8/en/nigeria/country-programmes/health-systems-support.html>, accessed 15 August 2017).
50. The Nigerian health system. Geneva: World Health Organization (www.who.int/pmnch/countries/nigeria-plan-chapter-3.pdf, accessed 15 August 2017).
51. Soremekun RO, Ogunbanjo OA, Ogbo PU. Accessibility of antimalarials in secondary health care facilities and community pharmacies in Lagos state: a comparative study. *Journal of Community Medicine and Primary Health Care*. 2103;25(19):17.

52. Akande TM. Referral system in Nigeria: study of a tertiary health facility. *Annals of African Medicine*. 2004;3:130–3.
53. Green C, Soyoola M. Strengthening voice and accountability in the health sector. *Nigeria Partnership for Transforming Health Systems (PATHS)*; 2008.
54. Uzochukwu BSC, Akpala CO, Onwujekwe OE. How do health workers and community members perceive and practice community participation in the Bamako initiative programme in Nigeria? A case study of Oji River local government area. *Social Science and Medicine*. 2004;59(1):157–62.
55. Ban Ki-Moon. Remarks at Secretary-General's Forum on Global Health: the tie that binds. New York: United Nations; 2009 (<https://www.un.org/sg/en/content/sg/speeches/2009-06-15/remarks-secretary-generals-forum-global-health-tie-binds>, accessed 15 August 2017).
56. Comprehensive EPI Multi Year Plan (CMYP) 2011–2015. Abuja: National Primary Health Care Development Agency; 2009.
57. Adeleye OA, Ofili AN. Strengthening intersectoral collaboration for primary health care in developing countries: can the health sector play broader roles? Benin City, Nigeria: Department of Community Health, School of Medicine, University of Benin; 2010.
58. Revised National Drug Policy 2003, second edition. Abuja, Nigeria: Federal Ministry of Health; 2005.
59. Revised Policy-Programme and Strategic Plan of Action. Federal Ministry of Health, Department of Health Planning and Research, NHMIS Unit; 2006 (<http://cheld.org/wp-content/uploads/2012/04/NATIONAL-HEALTH-MANAGEMENT-INFORMATION-SYSTEM.pdf>, accessed 15 August 2017).
60. Adindu A. Health management information and the incongruity paradigm. DERHES Publications; 2008.
61. Courage KH. How did Nigeria quash its Ebola outbreak so quickly? *Scientific American*, 18 October 2014.
62. Kamorudeen A, Bidemi AS. Corruption in the Nigerian public health care delivery system. *Sokoto Journal of the Social Sciences*. 2012;2(2):98–114.

Annex 1. Sources of information

Key databases

The key databases identified and searched were:

Information source	Website address
Primary Health Care Performance Initiative	http://phcperformanceinitiative.org/sub-saharan-africa/nigeria-0
CIA World Factbook: Nigeria	https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html
National Bureau of Statistics: Socioeconomic statistics	http://www.nigerianstat.gov.ng
National Population Commission: 2013 Nigeria Demographic and Health Survey	https://dhsprogram.com/pubs/pdf/FR293/FR293.pdf
National Primary Health Care Development Agency (NPHCDA)	http://www.nphcda.gov.ng/
World Bank: Nigeria economic report 2014	http://documents.worldbank.org/curated/en/2014/07/19883231/nigeria-economic-report-no-2
World Health Organization – Global Health Observatory: Nigeria statistics summary 2002–present	http://apps.who.int/gho/data/node.country.country-NGA
Centre for Population and Environmental Development	http://www.cpedng.org
Country statistics and global health estimates by WHO and United Nations partners, Global Health Observatory	http://who.int/gho/mortality_burden_disease/en/
Index Mundi: Nigeria demographics profile, Nigeria economy profile	http://www.indexmundi.com/nigeria/demographics_profile.html ; http://www.indexmundi.com/nigeria/economy_profile.html

Key documents reviewed

The key reports, books and mimeographs reviewed were:

- Nigerian Health Review 2007–2008; published by Health Reform Foundation of Nigeria (HERFON)
- Reports of the expert group on revitalization of primary health care in Nigeria; published by NPHCDA
- Integrating primary health care governance in Nigeria: PHC under one roof; published by NPHCDA
- Institutionalization of the primary healthcare planning and reviews in Nigeria: progress and status; published by NPHCDA
- 2009 external review of EU-Prime (Partnership to Reinforce Immunization Efficiency), version 2: final report
- National Health Accounts of Nigeria 2003–2005
- Nigeria in 2014: economic review and 2015–2017 outlook; published by National Bureau of Statistics
- Perspectives on primary health care in Nigeria: past, present and future; Omuta et al., 2014
- A Bill for an Act to Amend the National Primary Health Care Development Agency Act, 1992 No. 29, and for Matters connected Therewith (2012); published by the Federal Government of Nigeria
- Strengthening National Health System: a country experience; published by Federal Ministry of Health
- National Strategic Health Development Plan (2010–2015); published by Federal Ministry of Health
- National Primary Health Care Development Agency (NPHCDA): minimum standards for primary health care in Nigeria
- 10 years capacity profile and report of Primary Health Care and Health Management Centre (PriHEMAC): 1998–2008
- Nigeria health sector performance report 2011; published by Federal Ministry of Health, 2012

In addition, the following published articles and grey literature were reviewed:

- Olarenwaju et al. 2012. Economics of health system governance and financing in Nigeria
- Onoka et al. 2011. Examining catastrophic health expenditures at variable thresholds using household consumption expenditure diaries
- Metiboba. 2009. Primary health care services for effective health care development in Nigeria: a study of selected rural communities
- Adeyemo. 2005. Local government and health care delivery in Nigeria: a case study
- Alenoghena et al. 2014. Primary health care in Nigeria: strategies and constraints in implementation
- Aigbiremolen AO, Alenoghena I, Eboreime E, Abejegah C. Primary health care in Nigeria: from conceptualization to implementation
- Uzochukwu B, Ughasoro MD, Etiaba E, Okwuosa C, Envuladu E, Onwujekwe OE. Health care financing in Nigeria: implications for achieving universal health coverage. Nigerian Journal of Clinical Practice. 2015;18:437–44
- Ossai EN, Nwobi AN, Uzochukwu BSC. 2015. Spatial differences in quality of maternal health service in primary health centers of Enugu state, Nigeria

Annex 2. Details of key informants identified

Descriptor	Main areas of expertise	Main constituency represented	Remarks
K11	Health system governance and accountability	Politician, policy elite	Face-to-face interview
K12	Service delivery and health services management	Bureaucrat	Email interview
K13	Health financing, governance and service delivery	Implementing partner	Face-to-face interview
K14	Health care financing and citizens' involvement in health	Civil society actor	Skype interview
K15	Citizens' involvement and health systems governance	Commentator, civil society actor, service provider	Telephone interview
K16	Health economics, health care financing, health systems governance	Academician	Face-to-face interview
K17	Health economics	Academician	Skype interview
K18	Primary health care	Development partner	Face-to-face interview
K19	Health services management, professional regulation	Regulatory body, service provider	Skype interview
K110	Health policy and management, health economics	Bureaucrat, policy elite	Face-to-face interview
K111	Citizens' engagement and health systems governance and accountability	Commentator	Skype interview
K112	Child health and professional regulation	Regulatory body, service provider	Face-to-face interview

This case study was developed by the Alliance for Health Policy and Systems Research, an international partnership hosted by the World Health Organization, as part of the Primary Health Care Systems (PRIMASYS) initiative. PRIMASYS is funded by the Bill & Melinda Gates Foundation, and aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance. The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries.



World Health Organization

Avenue Appia 20
CH-1211 Genève 27
Switzerland
alliancehpsr@who.int
<http://www.who.int/alliance-hpsr>