



Innovation in Nigeria's Health Sector

The Future of Health Engagement with Nigeria

Center for Strategic and International Studies

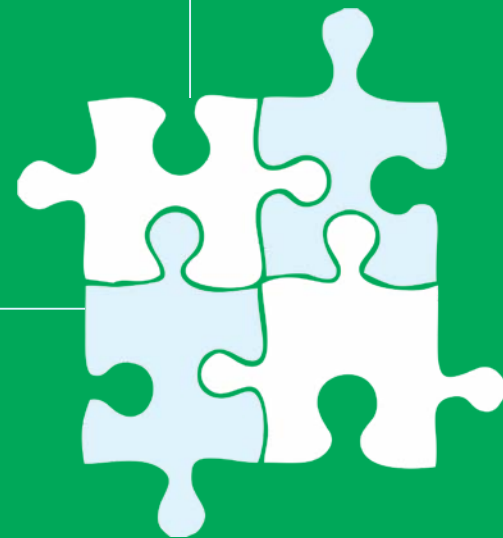
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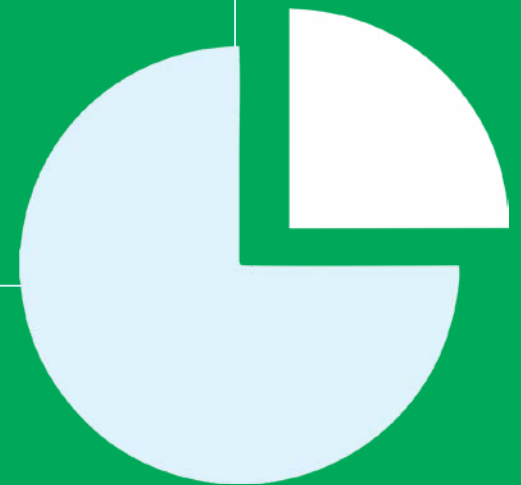
With a population of over 180 million, Nigeria is Africa's most populous country and potentially a significantly broader and deeper health market*

This would certainly be the case if the Government-led mission of Universal Health Coverage is achieved.

What is currently significant, beyond mere potential, is the current fragmentation of the Nigerian health market and the challenges of effective supply and demand*



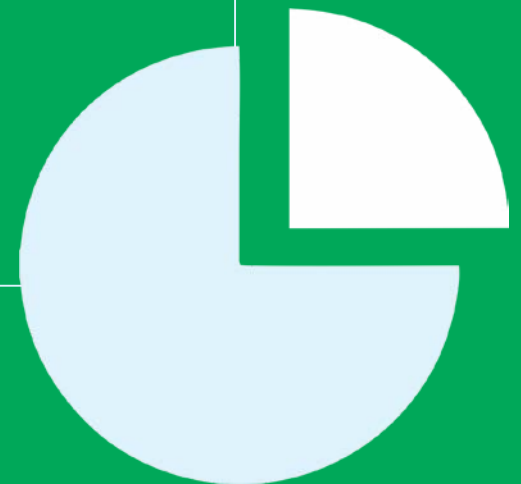
The current size of the market can be estimated from the fact that Nigeria's GDP in 2013 was about \$521.8 billion* and that health spending is less than 5% of GDP*



https://www.google.com.ng/search?q=nigeria+gdp&rlz=1C5CHFA_enNG722NG722&og=nigeria+gdp&agp=chrome_6957696046961_113307&sourceid=chrome&ie=UTF-8

http://www.huffingtonpost.com/entry/nigerias-health-market-giant-in-waiting_us_58ac666e46029c1d01f88f23

75% of all health spending is in the private sector* and 70%* of all health spending are out-of-pocket expenditure*

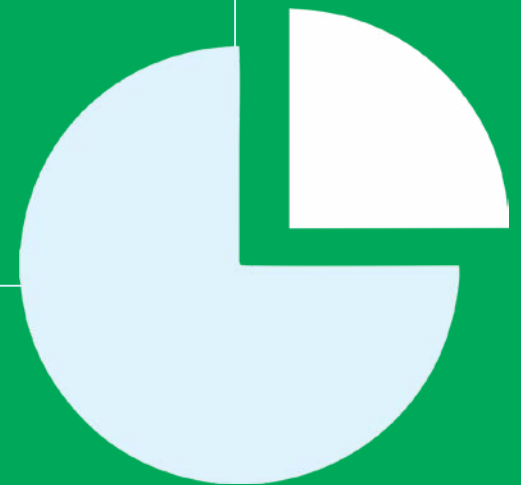


http://www.huffingtonpost.com/entry/nigerias-health-market-giant-in-waiting_us_58ac666e4b029c1d1f8af23

p. 5 of 'Promoting Accountability in Nigeria's Health System' by Richard Downie

See section on Health financing https://en.wikipedia.org/wiki/Out-of-pocket_expense

In contrast, public health spending is less than 5% of the Federal Government's budget even though in the past 15 years Government has acknowledged that it ought to allocate no less than 15% of its budget to health



The low level of public spending is further compounded by the fact that most of the federal spending goes to paying the salaries of health workers



Citizens, foreign donors and the private sector have attempted to fill the gap left by Federal Government spending









Government's mission, its struggles and the activities of citizens, foreign donors and the private sector have created a hothouse for health innovation.



A new method, a new idea, a new product

Innovation in health care can come in these areas:

	Medicine and Surgery
	Pharmaceuticals
	Epidemiology
	Policy
	Program design
	Information and Communications Technology

Information and Communications Technology

Effectively means computational power and telecommunications for recording, processing and transmitting information, but how is this connected to health care and more specifically to innovation in Nigeria's health sector?



How can ICT contribute to Universal Health Coverage?

1. Measure and record health information in accessible and transferable modes
2. Enable payment for health services
3. Provide timely, periodic updates for patients, health workers and policymakers
4. Facilitate capacity building for all health care workers and policymakers
5. Raise the level of citizen health education



A look at Nigeria's eHealth space reveals that the various actors and initiatives can be treated under one or more of those five categories.

Also, the eHealth space can be divided down the middle into the public sector half and the private sector half.



While there is a significant level of collaboration between the public and the private sectors, there is also much duplication on both sides of that divide.



However, one can use the private sector half to give a sense of the current dynamics, and I will briefly introduce 7 different eHealth initiatives out of a larger selection of 21



Find-a-med

Helps users find the closest health and medical centers around them with turn-by-turn directions to the centers using an Android app.



Ubenwa

Application which analyses the frequency patterns in the cry of a new born baby in order to quickly diagnose birth asphyxia.



Kangpe

Interactive platform which encourages users to ask real doctors their health questions and get answers in less than 10 minutes. It also has "Find a Doctor" and "Book Appointment" features, as well as health tips and featured questions.



Meditell

Enables hospitals assist their patients in taking their drugs through reminder alerts. The patient receives the exact time to take their medications via an automated voice call and a text message that is sent to his or her phone.



Redbank

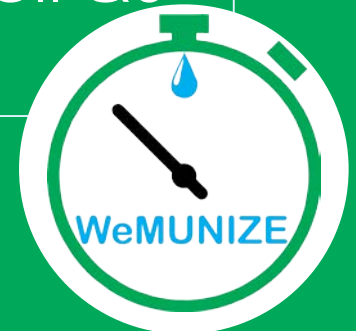
A service that helps hospitals and patients quickly and easily search and find safe blood in real time via SMS.



WeMUNIZE

Schedules immunization appointments for children under 12 months and uses robocalls and SMS to persuade and remind their primary care givers and other relatives to take them for those immunization appointments.

It also provides real-time indicator reporting and generates data to support health management decisions as well as policy making.



Innovation Case Study

The idea for WeMUNIZE was developed early in 2015 and was accompanied by a process of rapid prototyping.

The participatory design phase for WeMUNIZE began in August 2015 when WeMUNIZE went through a one-week redesign process during the National Health Innovation Challenge funded by Bill and Melinda Gates Foundation and the Dangote Foundation.



WeMUNIZE Case Study

The Routine Immunization Working Group of the National Primary Health Care Development Agency (NPHCDA) became involved in the design process for WeMUNIZE beginning in February 2016, after a presentation by Black Swan Tech Ltd, and over a period of three months made significant inputs to the design.



WeMUNIZE Case Study

A key actor in Nigeria's immunization space is the CORE Group, a coalition of technical stakeholders that includes the NPHCDA, WHO, UNICEF, BMGF, the International Vaccine Access Center of the Johns Hopkins Bloomberg School of Public Health, the US Centers for Disease Control and Prevention, the Clinton Health Access Initiative, Rotary



WeMUNIZE Case Study

The CORE Group also gave input to the design to WeMUNIZE, following a presentation by the Routine Immunization Working Group of the National Primary Health Care Development Agency (NPHCDA) in May 2016.

In September 2016, the US Government through USAID, decided to support an assessment of the feasibility and acceptability of WeMUNIZE to inform scale up in Northern Nigeria, beginning in Sokoto State.



Sokoto Field Testing



WeMUNIZE Case Study

Over the past 18 months, almost parallel to the design evolution of WeMUNIZE, considerable investment from development partners and the State Government, through the vehicle of an MoU, has been directed to building the capacity of Health facilities and furnishing them with cold chain equipment. These initiatives address supply-side challenges for Routine Immunization.



Sokoto Field Testing

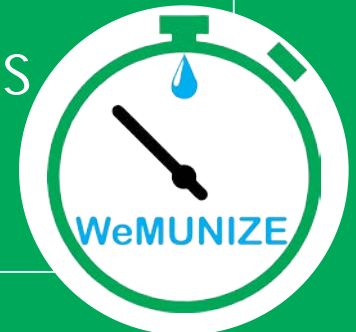


WeMUNIZE Case Study

Essentially, health facilities are now service delivery ready but communities are not turning out to use these services.

WeMUNIZE, is therefore perceived by many stakeholders to be workable and likely to be successful in demand promotion.

USAID and health policymakers in Sokoto State believe in the prospects WeMUNIZE and are eager to see it deployed in the state.



Sokoto Field Testing



WeMUNIZE Case Study

In part, the eagerness of the Sokoto State policymakers is related to a controversial health information management issue.

Over the years, policymakers in the State have led an increasingly intensifying effort to turn around the State's immunization situation. They have recorded some successes but growth has not been exponential.



WeMUNIZE Case Study

Convinced that they are already on the path of incremental improvement, the Sokoto State policymakers were astounded when the latest Report on the Nutrition and Health Situation of Nigeria claimed that the North West Region (including Sokoto) had reported the greatest drop in immunization coverage, as compared to 2014, with the least coverage at state level being recorded in Sokoto.



WeMUNIZE Case Study

In the surveys on which that Report was based, mothers were asked to provide vaccination card and interviewers copied vaccination information from the cards onto the questionnaire.

Sokoto State policymakers have argued that their citizens attach no importance to the vaccination cards so that they are easily misplaced after a child has completed the immunization course. They say this human element accounts for what they consider under-reporting.



WeMUNIZE Case Study

During enrollment for WeMUNIZE, the mother is given a photo album (tagged with a unique identifier – either an RFID (Radio Frequency Identification Device) tag which will serve to help carry and protect the state-issued immunization card.



WeMUNIZE Case Study

On field trips to adapt the WeMUNIZE design to the Sokoto context, keeping the card from getting damaged was cited as an issue in several interviews with policymakers, health care workers and parents, therefore a plastic cover to retain the card is helpful.



WeMUNIZE Case Study

Photographs of all children are taken after they have received their shots as part of the WeMUNIZE process to be instituted at health facilities. Printed copies of the photographs, which are time-stamped and immunization code-stamped, are given to the primary care giver.



WeMUNIZE Case Study

Given the socio-economic context of Sokoto, it is anticipated that the photographs will serve as a subtle incentive for routine immunization attendance and it is expected that their sentimental value will contribute to the retention of the immunization cards which have a place in the protective, plastic jacket designed for holding the photographs.



WeMUNIZE Case Study

The controversy over health information management ramifies in another direction.

At an operational level, serious discrepancies exist between the immunization data managed and owned by the WHO, and that managed and owned by the State Government's (LGA) M&E Officer.



WeMUNIZE Case Study

The WeMUNIZE process has a 'feedback loop' through RFID readers, which are located in the immunization centers. The RFID readers automatically detect the presence of the RFID tag on the transparent photo album.



WeMUNIZE Case Study

The service provider is then prompted by the RFID reader to confirm that the automatically detected presence of the tag corresponds to the physical presence at the health facility of the client to whom the tag was assigned during enrollment. Only with that confirmation is the photograph taking possible.



WeMUNIZE Case Study

In conclusion, there is a raging battle over data and the actuality of the situation it purports to capture. An eHealth innovation is expected to serve as an arbiter in Sokoto – the health information measured and recorded by an eHealth innovation through a credible, transparent process is expected to shift the balance.



The 7th eHealth Initiative

Apmis

Captures, stores, exchanges and utilizes healthcare data or information easily, transparently, and securely in an affordable cost effective manner using information technology – a service that is generally referred to as “Hospital Information Management Systems”, adapted to the Nigerian context.



APMIS
ALL PURPOSE MEDICAL
INFORMATION SYSTEM

Compare the claims made for Apmis to the fact that the National Health Management Information System (NHMIS) is a public sector-led initiative that has a similar vision



APMIS
ALL PURPOSE MEDICAL
INFORMATION SYSTEM

The fact that the NHMIS is the most prevalent eHealth application in the Nigerian health system* has not daunted the promoters of Apmis



APMIS
ALL PURPOSE MEDICAL
INFORMATION SYSTEM

This proliferation and duplication is not a problem from an innovation perspective. It is an indicator of the vibrant dynamics of the eHealth space



What is needed is a three-step process:

Continuously track the dynamics of the eHealth space

Facilitate the emergence of processes that repeatably and reproducibly produce positive health outputs and outcomes

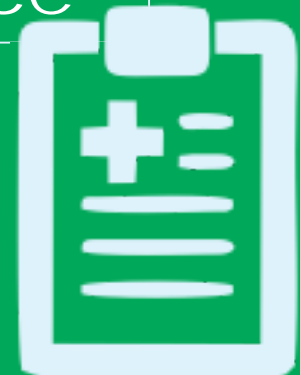
House those processes with positive, repeatable and reproducible health outputs and outcomes within sustainable structures



The three-step process can be structured by focusing on two types of policy:

Policy to ensure consistent standards and interoperability of systems

Policy to manage the data being collected and/or generated by the various activities in the eHealth space



The National Health Strategic Framework and the need to move beyond 'strategy' to 'policy'.



National Health Data Governance Council (NHDGC) 1

“This Health ICT Strategic Framework is designed to address this anomaly. The Framework is a roadmap of actions for the strategic application of ICT to help achieve universal health coverage and other health goals and priorities. This effort will yield a harmonized and favorable environment for sustainable application of ICT in the health sector.”



National Health Data Governance Council (NHDGC) 2

“The plan will also guide State Ministries of Health Development partners and the Private Sector in the applications of ICT to meet Nigeria’s health goals and strategies. We therefore call on stakeholders in health and ICT to support our vision that, through strategic and coordinated investment and deployment of ICT based schemes in Nigeria” - Prof

Issac Adewole

Honorable Minister of Health
Federal Republic of Nigeria





Innovation in Nigeria's Health Sector

THANK YOU