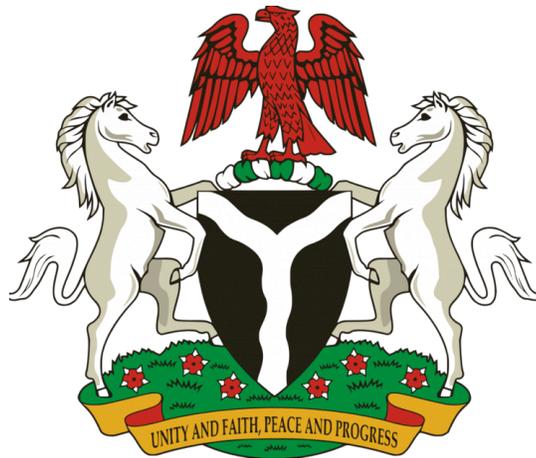


Nigeria Health ICT Framework Development Workshop

Abuja, Nigeria
January 28-29, 2015



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Background

The Information Communication Technologies for Saving One Million Lives (ICT4SOML) initiative launched on September 1, 2013, aims to put in place the building blocks to enable Nigeria to leverage information communication technologies (ICTs) to achieve Millennium Development Goals 4 and 5 (child and maternal health, respectively) and ensure universal health coverage. ICT4SOML is one of the cross cutting pillars of the Saving One Million Lives (SOML) initiative of the Federal Ministry of Health (FMOH) and Federal Ministry of Communication Technology (FMCT). This initiative is supported with funding from Norwegian Agency for Development Cooperation (Norad) through United Nations Foundation (UNF).

The two main areas of work related to this engagement:

1. Strengthening the enabling environment by (a) conducting a baseline assessment, (b) establishing a government-led national coordinating mechanism for health ICT activities, (c) developing an health ICT framework, and (d) addressing critical gaps in capacity, policy, standards and interoperability.
2. Supporting the scale up of high priority ICT-based programs, including (a) scale-up of the National Health Management Information System (NHMIS), (b) mobile payments for conditional cash transfer, (c) mobile inventory tracking of essential commodities, and (d) demand generation of maternal-child health services through client messaging.

Introduction

From January 28-29, 2015 in Abuja, Nigeria, the ICT4SOML initiative held a workshop on the Nigeria Health ICT Framework. This workshop is the second in a series of multi-stakeholder convening that will be held throughout the year, bringing together representatives from the Federal Ministry of Health, Federal Ministry of Communication Technologies, associated government agencies, non-governmental organizations, foundations, multilaterals and others (please see Annex 1 for a full list of participants).

The first workshop, on November 5-6, 2014, kick-started the collaborative development of the health ICT framework document expected to strengthen the enabling environment in Nigeria. The workshop convened a wide range of stakeholders to facilitate dialogue and collaboration as a first step in the framework development process. As a result, the prioritized components of the health ICT framework were identified and component groups formed that are responsible for determining the milestones, deliverables and focus for each. The January 2015 workshop was a follow up to this workshop and interim component group meetings that have been launched since the November convening.

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The “National eHealth Strategy Toolkit” development by the World Health Organization (WHO) and the International Telecommunications Union (ITU) provides a roadmap for the framework’s development, contextualized for Nigeria. The toolkit provides a methodology for developing an eHealth vision statement, action plan and monitoring framework, all of which is guided by the ICT4SOML core strategy team.

Overall, the workshop was very well received, achieving an overall satisfaction rating of 4.86/5.00. Participants found the knowledge sharing and collaboration of high value across organizations and agencies. Additionally, they agreed that the workshop provided a comprehensive understanding of the eHealth Framework and various toolkits that have been used in other geographic contexts.

Workshop Objectives

The workshop was designed to achieve the following objectives:

Objective 1: Establish a shared vision for digital health in Nigeria.

Objective 2: Review and validate components and sub-components for the development of the Health ICT Framework

Objective 3: Present and apply the findings of the field assessment

Objective 4: Identify and prioritize next steps.

These objectives were achieved over the course of the two-day workshop that engaged all stakeholders to participate and frame the discussion on the framework development process.

Workshop Agenda

Wednesday, January 28, 2015

Time	Activity
8:30 - 9:00	Tea and coffee
9:00 - 9:15	Welcome Remarks
9:15 - 10:00	Introductions and Workshop Overview
10:00 - 10:30	Overview of Strategic Context for Health ICT Framework in Nigeria
10:30 - 11:00	Nigeria Health ICT Framework Overview
11:00 - 11:15	Tea break
11:15 - 12:00	Vision Drafting Exercise
12:00 - 13:00	Lunch
13:00 – 13:15	Presentation of harmonized draft vision
13:15 - 14:45	Review framework, components and sub-components

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	Exercise - ICT Framework sub-components
14:45 - 15:00	Wrap up

Thursday, January, 29, 2015

Time	Activity
8:30 - 9:00	Tea and coffee
9:00 - 9:30	Day One Recap
9:30 - 10:30	Field Assessment Results
10:30 - 11:00	Tea break
11:00 - 13:00	Review and complete sub-component maps vis-à-vis field assessment Exercise - ICT Framework sub-components
13:00 - 14:00	Lunch
14:00 - 15:00	Group Report back
15:00 - 15:30	Workshop wrap up
15:30	Closing Remarks

Day 1: Setting the Stage and Vision Drafting

The first day of the workshop provided an overview of the Nigeria Health ICT Framework as well as drafting a vision statement that will guide the remainder of the framework development. The unified vision for health ICT was the key output of the first day.

Introduction and Tea

Familiarization and informal introduction were held over morning tea.

Welcome Remarks

In the welcome remarks, the Director of Planning, Research and Statistics (DPRS), Federal Ministry of Health was represented by the head of the Monitoring and Evaluation (M&E) Unit and Deputy Director who encouraged all participants to work towards the realization of a National eHealth strategy document by May 27, 2015. The efforts of the ICT4SOML team were applauded for sustaining the momentum since the last meeting in November 2014.

Workshop Overview

The Deputy Director of DPRS also provided an overview of the workshop objectives, motivating the group to take the task seriously as a critical foundation for eHealth strategy in Nigeria.

Nigeria Health ICT Framework Overview

The United Nations Foundation Nigeria Country Director for ICT4SOML presented an overview of the Nigeria health ICT framework. He provided a brief background to Saving One Million Lives (SOML), which has the primary aim of saving the lives of women and children, noting that ICT4SOML is focused on utilizing ICTs to meet SOML goals with the following guiding principles:

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- Empowering patients
- Empowering health workers
- Empowering the health sector
- Provision of a platform for shared knowledge

He stressed and validated the essential role of mobile technology in promoting health in Nigeria. For example, he noted that mobile subscriptions are over 100% in Nigeria and Internet users continue to increase, currently at 38.4% of the population. He also discussed the prospects of numerous mHealth projects underway, citing the benefit of existing NHMIS with 65% public health facilities formerly reporting into the national reporting platform. He highlighted, however, that eHealth policy generally lags behind technology. Conceptual challenges he mentioned include:

- Limited guidance on m/eHealth implementation, standards, information exchange
- Fragmented mHealth landscape and micro-strategies
- Limited ICT workforce and health workforce ICT capacity and
- Limited infrastructure in rural areas (power, connectivity, broadband)

The role of a National Health ICT Framework was noted as “an umbrella for planning and coordinating various national ICT activities related to the health system, in a manner that drives investments and progress towards national health system priorities while considering foundational elements of regulatory, governance, standards, human capacity, financing and policy contexts.”

His overview of the WHO-ITU National eHealth Strategy Toolkit described it as a resource and practical guide for developing or renewing a country’s eHealth strategy/framework, and primarily designed for countries at any level of eHealth investment and development.

He continued that the toolkit prescribes a development approach in three phases:

- **Phase 1:** National eHealth Vision (Jan-March 2015)
- **Phase 2:** National eHealth Action Plan (April – May 2015), and
- **Phase 3:** National eHealth Monitoring and Evaluation (June-July 2015)

In conclusion, he noted that Nigeria’s Health ICT Framework development process is currently in the Phase 1 stage i.e. the definition of a roadmap and drafting of the framework vision statement. This process would involve strategic planning and setting of deadlines for stipulated accomplishments.

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Vision Drafting Exercise

The United Nations Foundation Senior Project Manager facilitated the vision drafting exercise. She explained that an eHealth vision statement “describes how eHealth will contribute to achieving a country’s health goals. It reflects stakeholder input, informed by research, context and global eHealth trends and practices”. She first introduced the vision statement and the key questions from the WHO/ITU Framework:

1. What are the key health system priorities in Nigeria?
2. What are the strategic benefits and outcomes for the health system and population that you want to see achieved?
3. How can eHealth achieve the desired health outcomes?

Each individual was asked to write his or her own vision statements. Then, working as a group at their respective tables, harmonized all of the individual answers to arrive at a vision statement that represented the collective thoughts of the group.

Samples of individual contributions included:

- Question 1 (Health system priority)
 - Health care administration and delivery
 - Enhancing the primary health care service
 - Delivering of an effective health care delivery service
 - Improving maternal mortality
- Question 2 (strategic benefits and outcomes)
 - Better coverage
 - Patient satisfaction
 - Improving life expectancy
 - Data dissemination, collaboration and excellence
- Question 3 (eHealth role)
 - Awareness and connectivity
 - Improve access to health information
 - Ensure that set standards are achievable
 - Reduce barriers and cost of health through access to information

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There were a total of eight (8) tables, and their draft National eHealth Vision Statement are as follows:

Table 1	Table 2	Table 3	Table 4
By 2020, eHealth will deliver universal health coverage (equity, accessible and affordable) through the implementation of WHO-ITU Framework of eHealth for impact on contributing to improvement on health indices e.g.: IMR, MMR, Under 5, Immunization, health seeking behaviors	By 2020, eHealth will deliver National Health vision (national health Strategic development Plan) through increased access, affordability, quality and sustainability of health care delivery service for impact on health and productive nation.	By 2020, eHealth will deliver a robust health system that serves as a great foundation for providing quality health services through cost effective health care delivery system, health workers empowerment, data management capacities for accessible quality health care services.	By 2020, eHealth will enable a greater patient satisfaction and exponentially improved health care experience for all stakeholders through leverage on eHealth application using simplified tools (with appreciable local context) for impact on health care administration and delivery

Table 5	Table 6	Table 7	Table 8
By 2020, eHealth will delivery healthy and productive society through capacity building, awareness, creation, legal framework, monitoring and evaluation of health system for access to effective and affordable health care service.	By 2025, eHealth will delivery improved accessibility to health commodities at all levels through a mobile-based LMIS at SDPs integrated with the NHMIS for sustainable health commodities supply chain.	By 2025, eHealth will delivery available, affordable, accessible quality health services through established national infrastructure, improved workforce, monitoring and evaluation, set standards and polices for impact in life expectancy (improved) improved.	By 2020, eHealth will deliver access to health information and professionals through an institutionalized information platform for enhanced socio-economic growth and development.

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Presentation of Harmonized Draft Vision

UNF Senior Program Manager and the ICT4SOML Country Director facilitated this session to harmonize all table visions into a single output from the workshop. They began with the presentation of sample visions from other countries. Following the report back of the table vision statements, the group at plenary harmonized the table visions into a comprehensive draft vision statement, integrating key components and perspectives.

Key terms deduced from the draft visions of each table were access, information, sustainability, quality and affordability. Individual arguments were of the view that if it is not accessible that it is not affordable hence affordability and accessibility of eHealth are intertwined. It was further discussed that affordability was relative and that the key word should be cost-effectiveness and availability to quality information at all levels.

After the deliberations and extensive debate, a final National eHealth Vision was drafted as thus:

“By 2020, eHealth will deliver access to quality, affordable, sustainable health services, commodities and information through web and mobile tools and applications for data management for impact on healthcare delivery and administration for improved health indices, status and outcomes.”

At the end of the exercise, she explained that the draft vision statement would be further reviewed and finalized with help from higher-level stakeholders (like ministers of health and communications technology) on or before March 2015.

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Health ICT Framework Subcomponent Reviews

The ICT4SOML Country Director also made a presentation on the seven core components of a Health ICT Framework according to the WHO/ITU toolkit. It should be noted that during the first workshop, these seven component groups were combined into four component groups.

No.	Component	Group
1	Leadership, governance and multi-sector engagement	1 (Leadership & Strategy)
2	Strategy and Investment	
3	Legislation, policy and compliance	2 (Policy & Standards)
4	Standards and Interoperability	
5	Workforce	3 (Workforce)
6	Infrastructure	4 (Infrastructure, Services & Applications)
7	Services and Applications	

Participants were then grouped according to the four existing component groups to review activities and subcomponents with the aim of completing the component group map vis-à-vis the articulated draft vision.

Following group discussion, presentations were made to the plenary by the all groups with the following key notes:

Group 1: Governance, leadership and Strategy

- Engage in more planning meetings
- Stakeholders' engagement to be continuous
- Identify relevant stakeholders across the relevant ministries and agencies
- Inauguration of Program Management Team across all the relevant ministries
- Proposes the possible merger of some overlapping components, to be discussed further.
- To ensure that the issue of clinical safety is properly considered by the legislation, Policy and Standards and oversight team. This is with a view to ensuring that all rules and regulations are followed. Example is in Radiation services and other health hazards.

Group 2: Policy and Standards

- Ensuring the security of information
- Ensuring the storage of electronic data
- Address workforce issues in the portal
- Institutionalizing legislation on privacy issues
- Ensuring compatibility of search engines (google, bing, etc)

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- Audit trail/ to ensure accessibility in case of possible litigation
- Data sharing and privacy issue by safeguarding the security of patients

Group 3: Workforce and capacity Building

The Workforce component group considered the following sub-components as being relevant:

- Evaluation of all ICT necessary security
- Review of ICT literacy competency of all health workers
- Inclusion of computer education into pre-service curriculum for all categories of health workers
- Computer professionals' registration council to popularize the use of computer and necessary security architectures.
- Addressing the issue of discrepancies in placement of officers in some government agencies, which disposes IT personnel to lower grade levels. This was identified as a huge challenge to ICT and eHealth in Nigeria.
- Ultimately, making all Nigerians Computer literate.

Group 4: Infrastructure services and Application

The Infrastructure, services and application component group considered the following sub-components as being relevant for the infrastructure:

- High speed data connectivity, and that the current state needs improvement
- Computing infrastructure including traditional computers and new tablets etc
- Identification and authentication services, Health information datasets and Directory services
- Health care provider, point of care services and electronic health records

Under the services category, identified sub-components are:

- Individual electronic health information
- Health-care communications and collaboration
- Health care service delivery tools
- Electronic logistics management tools
- Health care management and administration

While none of the groups identified definitive next steps, the review of components and sub-components would continue through March 2015.

Closing Remarks:

The Principal Analyst at the Federal Ministry of Communications Technology summarized the day's proceedings with a brief wrap-up while SOML lead gave the closing remarks expressing his appreciation for the successful articulation of a draft National eHealth Vision during the meeting, recalling the long process, which has spanned over 2 years.

The day's programme ended by 3:35pm.

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Day 2: Component and Sub-component Maps

The component group discussions were meant to help populate the Health ICT Framework component maps for each of the component groups.

The second day's activities commenced at 9:55 am.

The ICT4SOML Country Director delivered the opening remarks. He applauded the participants for the sustained interest and excellent group work of the previous day, which produced the draft vision.

Day One Recap

The Senior Medical officer, M&E unit of DPRS at FMOH gave a brief review of the first day's activities, highlighting all the activities that were undertaken. There were no additions or modifications to her day one recap.

Field Assessment Results

The primary investigator for the health ICT field assessment presented the preliminary findings and recommendations. He posited that this Phase 2 Field Assessment exercise that was carried out in December 2014 was building upon the baseline assessment. The Field Assessment Results reviewed in the presentation reflect preliminary findings; a detailed report will be disseminated in the following weeks with additional detail.

Highlights and Reactions (Field Assessment Results presentation):

ICT4SOML Phase 2 Field Assessment results were categorized according to the recommended components of health ICT Framework: Workforce, Standards and Interoperability, Infrastructure, Services and Applications. The assessment primarily appraised the current state and experience of relevant ICT health implementations and capacity across all levels of the system – federal, state, LGA, and facility levels – from service delivery, health administrative and costing perspective.

Details of the baseline report that informed the Field Assessment Results were presented. Access to the baseline assessment findings and recommendations can also be found at:

<http://www.health.gov.ng/index.php/resources/reports/ict4somal-reports>

Review and completion of Sub-component maps vis-à-vis field assessment

The report findings and reactions informed the group work on review and completion of the sub-components of the eHealth framework. The participants re-formed their previous day's groupings and concluded their discussions. The following guidance was provided to participants:

- Discuss field assessment findings (Current state of relevant ICT for health

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- implementations & capacity across the system – federal, state, LGA, and facility levels)
- Review components, apply draft vision and identify sub-components (the various groups)
- Identify component group next steps (Next meeting, comparison of required and existing eHealth components)

A facilitator provided guidance, anchored the groups' discussions. The resource on the current eHealth environment provided a guide for the discussions.

Group Plenary report back

Each group reported back to plenary on the above discussions.

Group 1: Governance, leadership and Strategy

- Suggestion that the Department of Planning, Research, Statistics of the Federal Ministry of health should coordinate eHealth programs as against the present situation, which sees eHealth activities been managed under the Hospitals' Management Unit of the Ministry.
- There should be Organization of monthly, quarterly and bi/yearly eHealth Meetings for the local government, state government and federal government respectively. These meetings are believed to be avenues for experience sharing, identification of challenges and determination of solutions addressing them.
- Establishment of desk officers at the local, state and federal levels to oversee eHealth programmes at the respective levels.
- Ensuring the availability of unlimited non-proprietary applications at the facility level
- Integration of existing platforms and applications. A unified system/portal for eHealth integration.
- Provision of high speed internet service, power supply and connectivity across health care providers.
- Encouragement of Public-Private Partnership for eHealth programming
- Enactment of safety policy, eHealth clinical safety should be in line with internationally accepted standards.
- Greater government financial commitment and statutory budgetary allocation at all levels of national health care, and actual release of the allocated funds.
- Next Step: Emphasized the need for the establishment of an autonomous secretariat to coordinate eHealth Programming. This secretariat is proposed to oversee all eHealth activities in the country and will incorporate existing structures from the respective ministry and agencies. Reactions held that there was no need for a separate secretariat to administer eHealth in Nigeria as there are other programme bodies currently providing such directives though on parallel levels. Suggestion was to leverage on these existing structures than establish a new body with the attaining work burden on

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government staff and conflict of interest that might arise from the overload of work.

Group 2: Policy and Standards

- Message: Identifying secured messaging platforms as it relates to security of patient's file
- Data Storage: identifying the infrastructural requirements and length of stay of data before deletion.
- Legal issues: involvement of competent legal experts that understands the intrigues of eHealth, to help with relevant policy formulations. It is also suggested that other relevant experts such as Health Informatics Experts be included in the policy drafting process as they are also well groomed for such assignments.
- Security: keen consideration of health security as regards the confidentiality of privacy of health records of patients
- Next Step: The group agreed to interfere with relevant agencies, and review existing laws on consumer protection at their next meeting in March, 2015.

Group 3: Workforce and capacity Building

- Identify specific gaps to inform competency intervention to be recommended
- Accreditation – adopt the point grading model as currently applied in professional licensing for doctors, other health professionals
- Education and training: inclusion of the DHIS programme in training M & E Officers. eHealth application software should also be included in training curriculum for health care providers
- Provision of constant user-specific trainings as may be required
- Merger of health and IT knowledge of health workers such that the users learn and apply both skills as the situation demands
- M & E: design a functional M & E system for eHealth and ensure its proper assessment when required.
- Inclusion of potential incentives for health care workers like a tenable career path
- Next Step: Proposal to meet 1st week of March to articulate more appropriate inputs

Group 4: Infrastructure, Services and Application

Group members considered questions from the toolkit bothering on the following:

- eHealth services and application across the health sector
- Prospects of current projects on eHealth
- Current electronic information flow pattern
- Level of diversity in eHealth application use.
- Level of adoption of eHealth standards
- Level of investment in eHealth services and application
- National eHealth information sources

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Workshop wrap up

The SOML ICT pillar lead provided a brief wrap-up of the of the day's activities and the head of ICT at the Federal Ministry of Health gave the closing remarks and vote of thanks. He appreciated the group for not only working on a framework but also on the next steps and operationalization of the framework to ensure that it had lasting relevance and impact in Nigeria.

He eulogized the participants for their efforts and active engagement and encouraged them to be well prepared for the March Workshop and maintain their resolve and enthusiasm until eHealth is firmly institutionalized in the country. He also acknowledged the support of FMCT, UNF and other partner organizations present.

The workshop ended by 4:25pm.

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Annexes

- 1) List of participants
- 2) November workshop summary
- 3) Presentation from both days
- 4) Field assessment preliminary results presentation

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