

Holding a National Health and Mapping Summit to Build Partnerships for Improving Health Outcomes

Lessons Learned from the Nigeria Health and Mapping Summit of 2011



MEASURE Evaluation is funded by the U.S. Agency for International Development (USAID) through Cooperative Agreement GHA-A-00-08-00003-00 and is implemented by the Carolina Population Center at the University of North Carolina at Chapel Hill, in partnership with Futures Group, ICF International, John Snow, Inc., Management Sciences for Health, and Tulane University. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the United States government.

August 2012

WS-12-21

Acknowledgements

Special thanks are extended to the Federal Republic of Nigeria, the U.S. President's Emergency Plan for AIDS Relief, and the U.S. Agency for International Development for sponsoring the Nigeria Health and Mapping Summit of 2011, which provided the basis for the current document. Special thanks are also extended to the Nigeria Health and Mapping Summit 2011 Steering Committee, to MEASURE Evaluation staff in Nigeria, and to summit participants for helping lay the foundation for collaboration between the health and mapping sectors in Nigeria and elsewhere. Kola Oyediran, James Stewart, and Becky Wilkes of MEASURE Evaluation are acknowledged for their contributions to the meeting and to the development of this reference document.

Contents

<i>Acknowledgements</i>	ii
<i>Acronyms</i>	iv
Executive Summary	v
<i>Need for a Health and Mapping Summit</i>	v
<i>Benefits to Country and U.S. Government Programs</i>	v
<i>Purpose of this Document</i>	vi
Introduction	1
<i>Nigeria Expressed the Need for a Summit</i>	1
<i>Nigeria Health and Mapping Summit</i>	1
<i>NSDI/NGDI Organizational Framework in Nigeria</i>	2
<i>NSDI/NGDI Organizational Framework and the Health and Mapping Summit</i>	2
Step-by-Step Recommendations	4
<i>Overview</i>	4
<i>Before</i>	4
Step 1: Obtain Buy-in from Stakeholders.....	4
Step 2: Form Summit Steering Committee with Representation Drawn from Health and Mapping Sectors	8
Step 3: Collaborate via Steering Committee to Reach Major Planning Decisions	9
Step 4: Conduct a Pre-summit Meeting with Key Stakeholders to Make Final Decisions on Critical Details	10
Step 5: Finalize Planning for the Summit	10
<i>During</i>	10
Step 6: Hold Summit.....	10
<i>After</i>	13
Step 7: Document and Communicate the Results of the Summit and Develop a Plan for Achieving Post-Summit Action Items.....	13
Summary and Conclusions	15
Appendix A: Sample Agenda for One-Day Summit	16
Appendix B: Sample Agenda for Two-Day Summit	17
Appendix C: Additional Resources	19

Acronyms

CODIST-I	First Session of the Committee on Development Information, Science & Technology ¹
DHPRS	Department of Health Planning, Research and Statistics
FRN	Federal Republic of Nigeria
GIS	geographic information system
HS 20/20	Health Systems 20/20
M&E	monitoring and evaluation
MOH	ministry of health
NAC	national AIDS commission
NASRDA	National Space Research and Development Agency
NGDI	National Geospatial Data Infrastructure (see NSDI)
NHIS	National Health Insurance Scheme
NMA	national mapping agency
NPC	National Planning Commission
NPHCDA	National Primary Health Care Development Agency
NPopC	National Population Commission
NSDI	National Spatial Data Infrastructure
OSGOF	Office of the Surveyor General of the Federation
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
RECTAS	Regional Centre for Training in Aerospace Surveys
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNECA	United Nations Economic Commission for Africa
USAID	U.S. Agency for International Development
USG	United States government
WHO	World Health Organization

¹ CODIST is a subsidiary of the United Nations Economic Commission for Africa.

EXECUTIVE SUMMARY

Need for a Health and Mapping Summit

Ministries of health (MOHs), national AIDS commissions (NACs), and other social service agencies that wish to use geographic information system (GIS) data, tools, and methods are often hampered by a lack of familiarity with or access to GIS resources within their country. This lack of familiarity or access creates a GIS capacity gap within the health sector, which makes it difficult for the health sector to leverage the power of geographic data, software, and analytical techniques to strengthen the evidence base for decision making.

Many countries already have a national spatial data infrastructure (NSDI)² program in place through which a national mapping agency (NMA) and supporting mapping sector organizations can assist health sector organizations that are seeking to use GIS to enhance their efforts in evidence-based decision making. Often, however, the lines of communication and cooperation between the health and mapping sectors are not clearly established.

To provide an example of how to bridge the divide between the health and mapping sectors in a country as a means to improve national health outcomes, especially with respect to HIV/AIDS, MEASURE Evaluation collaborated with the Federal Republic of Nigeria (FRN) to hold a summit in October 2011 between the health and mapping sectors in that country. Beyond helping to improve health outcomes in Nigeria, the intent of the meeting was to develop guidance and recommendations for other countries that might be interested in holding a similar event.

Benefits to Country and U.S. Government Programs

Increased collaboration between the health sector and NSDI actors can have several benefits for national government and U.S. government (USG) activities in a country, as NSDI agencies are responsible for creating and maintaining many of a country's geographic data sets. Strong linkages among NSDI actors and health and social service ministries can ensure that the most recent geographic data are available to inform program planning. In turn, health ministries can share their data with NSDI agencies so that health and social service data inform program planning in other sectors. This multi-sectoral awareness ensures that health and social service issues are considered in other programs, such as agricultural and economic development, and vice versa.

In addition to sharing of data, there are other benefits of enhanced cooperation between the health and mapping sectors in a country, including:

- expanded stakeholder buy-in for the national GIS and mapping strategy;

² The NSDI is composed of the data, computer systems, people, policies, programs, and standards required to acquire, maintain, use, and distribute spatial data within a country. NSDI can also be referred to as national geospatial data infrastructure (NGDI), which is the term preferred by the geospatial community in Nigeria.

- opportunities for increasing sustainable GIS capacity in health and social service ministries by partnering with NSDI actors for workshops and trainings; and
- increased country ownership of USG programs as data from these activities are integrated into the NSDI.

Purpose of this Document

The purpose of the current document is to present to health sector leaders in other countries the key requirements for planning a meeting like the Nigeria Health and Mapping Summit of 2011 and to provide them with recommendations for holding a similar event. The focus of the document is on how to ensure that a health and mapping summit is planned and executed by local stakeholders, whose leadership roles will provide a strong incentive to participate and to work together for the success of the effort.

INTRODUCTION

Nigeria Expressed the Need for a Summit

In April 2009, MEASURE Evaluation, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and the U.S. Agency for International Development (USAID) partnered with the Joint United Nations Programme on HIV/AIDS (UNAIDS), World Health Organization (WHO), and the United Nations Economic Commission for Africa (UNECA) to host a first-of-its-kind workshop in Addis Ababa, Ethiopia, to help facilitate linkages between the health sector and national spatial data infrastructure (NSDI) actors in Africa. The workshop attracted 188 participants from 36 countries, including 14 participants from Nigeria. As a result of the meeting, UNECA member states approved resolutions calling for improved cooperation between the health sector and national mapping agencies (NMAs), including ensuring that key players in the health sector—ministries of health and social services as well as national AIDS commissions—actively participate in NSDI efforts. Following the recommendation from a preconference workshop for the First Session of the Committee on Development Information, Science & Technology (CODIST-I), Nigeria participants expressed a need for a health and mapping conference in their own country. CODIST is a subsidiary of the United Nations Economic Commission for Africa.

Nigeria Health and Mapping Summit

The Federal Republic of Nigeria (FRN), in collaboration with MEASURE Evaluation, held a national summit in October 2011 to make linkages among representatives of the health sector, NSDI agencies, and other relevant stakeholders. The summit, which was led by representatives of key FRN ministries, sought to build on the momentum created by the 2009 CODIST-I meeting in Ethiopia, and by the GIS and mapping activities being conducted with the assistance of various development partners, including WHO and Health Systems 20/20 (HS 20/20), to increase cooperation between the national health and mapping sectors in Nigeria. To access the full summary report of the Nigeria Health and Mapping Summit of 2011, which complements the current document, please see <http://www.cpc.unc.edu/measure/publications/WS-12-20>.

As a result of its robust NSDI program and presence of regional centers of excellence in GIS, Nigeria was well-suited to hold such a national meeting. In addition, NSDI representatives from Nigeria had expressed a desire to expand cooperation within the health sector for the development and sharing of spatial data.

Nigerian ownership and leadership of the summit was ensured by the establishment of a summit steering committee and the active participation on the committee of key FRN representatives. In particular, the chairman of the steering committee, Dr. Ganiy Agbaje, is also director of mission planning, information technology, and data management at the National Space and Research Development Agency (NASRDA), and coordinator of the NSDI program within Nigeria. Dr. Agbaje has published several papers on NSDI development in Nigeria, and is a highly regarded leader in this area. Based on his influential role in NSDI development in the country, Dr. Agbaje was the ideal choice to lead the summit steering committee.

NSDI/NGDI Organizational Framework in Nigeria

Nigeria has taken steps towards establishing a formal NSDI development program (see figure 1). The NSDI in Nigeria is being developed and coordinated by NASRDA, which serves the dual role of space and mapping agency. NASRDA was established with a mission to pursue the development and application of space science and technology for the socioeconomic benefits of the nation. The Nigeria space program constitutes an important component of the national strategy for socioeconomic development through the application of space technology, such as satellite-based observations of Earth, to increasing economic growth and improving health outcomes.

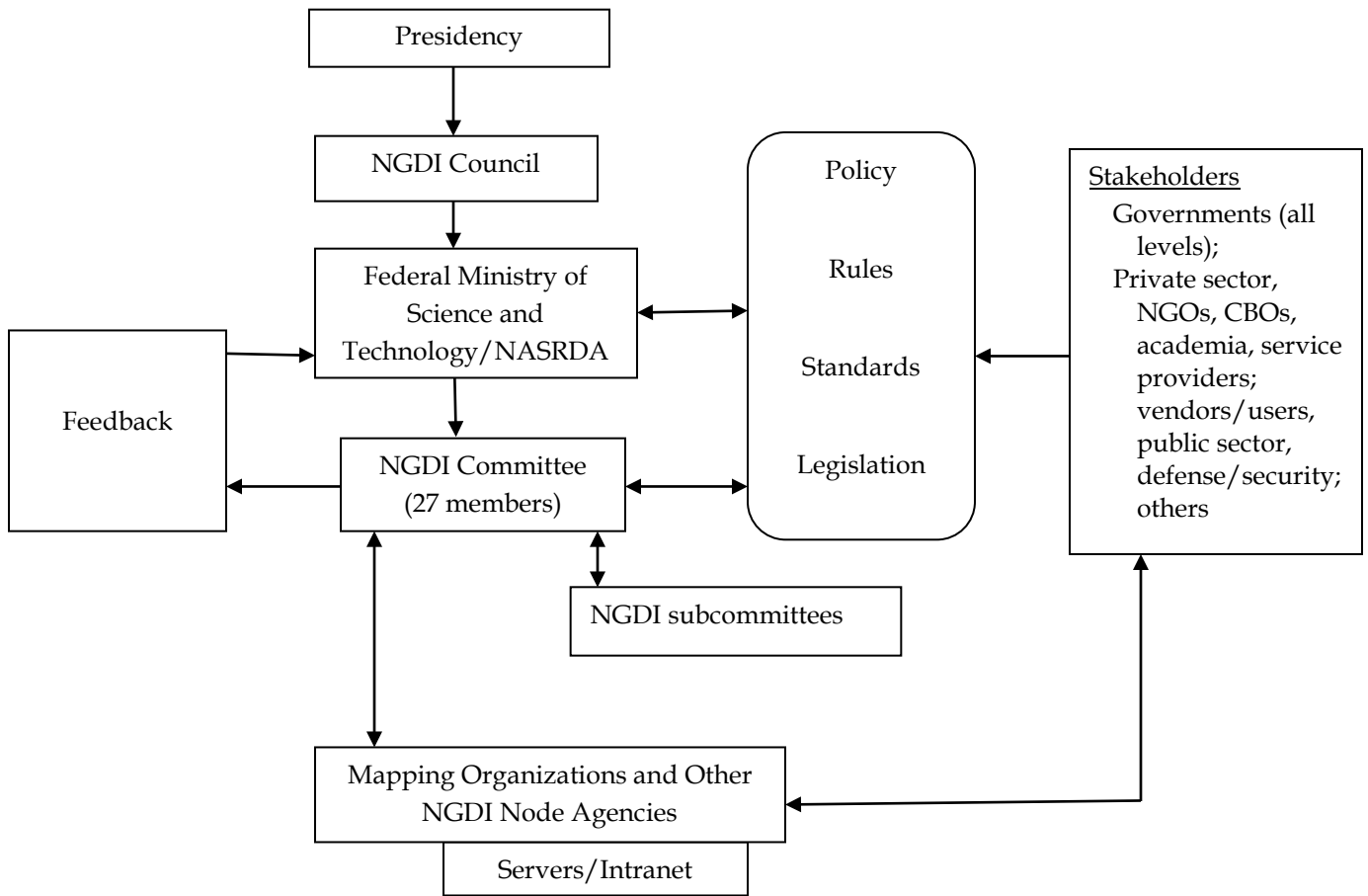
In Nigeria, the NSDI being developed by NASRDA is a system that will provide the hardware, software, and processes necessary to house, manage, produce, share, distribute, and utilize geospatial products and services. The NSDI in Nigeria will include a metadata catalogue describing the geospatial holdings within the country; storage capabilities to house significant quantities of geo-information; mechanisms to enable timely access and sharing of the holdings; and tools to enable analysts and other end users to use the NSDI holdings to address issues related to sustainable development, including those related to health.

The NSDI system and data holdings will effectively address Nigeria's geospatial data needs that are germane to her socio-economic development. Accurate geospatial products and the NSDI capabilities and benefits provided by a common, standardized geospatial clearing house accessible by key government agencies and regional governments within the country will be used for infrastructure, contingency, and security planning, disease control, environmental monitoring, etc.

NSDI/NGDI Organizational Framework and the Health and Mapping Summit

One of the key elements in establishing a formal NSDI/NGDI is the need to establish partnerships among stakeholders to promote sharing of data, technical resources, and expertise. The Nigeria NGDI organizational framework shown in figure 1 reflects a commitment to establishing these partnerships, as evidenced by the inclusion of stakeholder input as an integral part of the process. With respect to the impact of the Nigeria Health and Mapping Summit on the NGDI organizational framework, a significant outcome of the meeting was the establishment of the Federal Ministry of Health as a new NGDI node agency.

This summit's focus to achieve dialog among stakeholders from the health and mapping sectors and to help establish partnerships is a major step in the right direction. This should lead to greater awareness and sharing of geospatial resources, help build capacity within the health sector, and ultimately strengthen the NSDI.



Source: NASRDA-NGDI, 2010

Figure 1: NSDI/NGDI organizational framework.

STEP-BY-STEP RECOMMENDATIONS

Overview

The approach used in the planning, organizing and execution of the health and mapping summit ensured that the process (1) was owned and led by the country; (2) encouraged partnerships and collaboration among relevant stakeholders and (3) promoted participation and allowed for consensus building. From the conceptualization to the hosting of the summit required approximately 14 months. The relatively slow pace at which summit planning unfolded can be attributed in large part to the deliberate process required to gain buy-in and build consensus among major stakeholders. For example, gaining consent from all organizations within the Federal Ministry of Health required almost eight months as a result of the need to ensure intra-agency collaboration within the Ministry.

Based on the lessons learned in Nigeria, this section presents step-by-step recommendations for health leaders in other countries who are interested in holding a health and mapping summit of their own. The recommendations are grouped according to the three phases of the summit process: before, during, and after.

Before

STEP 1: OBTAIN BUY-IN FROM STAKEHOLDERS

Approximate duration: six months.

Gaining the buy-in of key stakeholders is an essential element for success when organizing a collaborative summit within the context of social service and mapping organizations. Buy-in of stakeholders will need to be initiated by a local champion who can spearhead the effort until a steering committee is formed. Once the steering committee is established, it can assume a greater leadership role in the buy-in process.

The buy-in should include stakeholders in the widest sense of the word: sponsors, users and suppliers, as well as support organizations that have a stake in the outcomes of the summit. The more that stakeholders feel they have been involved in the process—that their views have been considered and that their needs have been addressed—the more likely they will be to support the summit and to work toward its fulfillment.

By engaging with stakeholders early in the process, it is possible to identify their needs and requirements—as well as what will be required of them—while there is still time to address any issues or concerns. This will allow time to develop an agenda that takes all stakeholder perspectives into consideration and that, therefore, provides an accurate reflection of stakeholder interests in the country.

Of particular concern is the need to avoid schedule conflicts to ensure that key stakeholder representatives participate in the summit. Timing is essential, as even the days of the week

chosen for the summit can pose a potential problem. In Nigeria, for example, it is generally not possible to have the participation of the Minister of Health or heads of agencies on a Wednesday, as that is the day set aside for the Federal Executive Council meeting with the President. Booking key health and mapping sector representatives well in advance is critical; otherwise, their attendance at the summit cannot be guaranteed.

Within the overall group of stakeholders, some will be more important in terms of their ability to influence the summit, either because of the relevance of GIS to the services their organization supplies, or because of the level of GIS resources their organization requires. As a result, some stakeholders will be more able to be involved in the process of developing the summit strategy than others.

Unfortunately, the most important stakeholder representatives are not always as available as they need to be. To maximize the win-win benefits of engaging key stakeholders, it is important at the beginning to build a working relationship based on respect for their time and effort. Expecting a busy stakeholder to participate in a poorly planned meeting, or to travel a great distance with little advance notice, is not likely to achieve a positive result. Also, being well-prepared and to the point when communicating is essential when working with key stakeholders.

While the list of stakeholders will vary, the example below provides a list of important stakeholders who were approached during the planning for the Nigeria Health and Mapping Summit of 2011. For convenience, the list has been classified based on stakeholder roles and responsibilities.

Funding agency:

USAID, through the USAID mission in Nigeria

Health sector:

Federal Ministry of Health and related agencies:

- Department of Health Planning, Research and Statistics (DHPRS);
- HIV/AIDS Division of the Department of Public Health;
- National Health Insurance Scheme (NHIS); and
- National Primary Health Care Development Agency (NPHCDA).

Mapping sector:

Federal Ministry of Science and Technology and related agencies:

- National Space and Research Development Agency (NASRDA);
- Office of the Surveyor General of the Federation (OSGOF);
- National Population Commission (NPopC); and
- Regional Centre for Training in Aerospace Surveys (RECTAS).

Other key stakeholders:

- Donors that had previously supported or currently support mapping activities, including WHO and The World Bank.
- Implementing partners working on health and HIV/AIDS projects that are currently conducting GIS/mapping activities in the country.
- Other departments and agencies within the Federal Ministry of Health, Federal Ministry of Science and Technology and National Planning Commission (NPC). The NPC is the coordinating government agency responsible for economic and social development.
- The National Bureau of Statistics and training institutions that have departments of geography and geo-informatics.
- Finally, the private sector has been playing a key role in maintaining geospatial information in Nigeria; thus, a number of private organizations were also invited to participate in the summit.

Following are some additional details related to obtaining buy-in from the primary categories of stakeholders. The details are provided simply as a baseline for reference, as the specifics of stakeholder buy-in will vary from country to country.

Obtain buy-in from USAID mission:

To initiate the buy-in process for the Nigeria Health and Mapping Summit of 2011, MEASURE Evaluation drafted a proposal for review by the USAID mission in Nigeria. The draft proposal provided background information, identified potential participants, and described the anticipated benefits to the FRN and USG agencies working on HIV/AIDS and related social services in the country. MEASURE Evaluation discussed the proposal with USAID/Nigeria and made revisions based on the need to coordinate with other on-going mapping activities in Nigeria, especially those being supported by the mission. A key consideration was the need to coordinate with the activities of HS 20/20, which was providing technical assistance to the HIV and AIDS Division of the Federal Ministry of Health in the mapping of health facilities.

The key considerations at this point were the need to discuss the summit idea with USAID before contacting other stakeholders, and the need to synchronize the event with on-going GIS activities in the country.

Obtain buy-in from health sector:

After gaining the concurrence of the USAID mission, MEASURE Evaluation contacted the HIV and AIDS Division and the Department of Health Planning, Research and Statistics of the Federal Ministry of Health. The division is responsible for managing the HIV and AIDS health sector responses within Nigeria, while the planning, research, and statistics department is statutorily responsible for the coordination of the health information system, including the use of such for health planning and policy formulation. Contact was initiated with these organizations based on their significant roles and responsibilities in the coordination of health sector activities within the country.

The proposal that contained revisions from USAID was shared, and comments on how the summit should be planned and executed were discussed. An important development at this stage was the suggestion to increase the stakeholders from the Ministry of Health to include the NPHCDA and NHIS, due to their roles in health management and their previous activities with respect to health facility mapping.

The general process recommendation for obtaining health sector buy-in is to identify the key stakeholders first, and to engage them in a dialog to see whether the list of health sector actors should be expanded.

Obtain buy-in from mapping sector and other key stakeholders:

After receiving the buy-in of USAID/Nigeria and key stakeholders in the Ministry of Health, the next line for consultation was the mapping organizations. Based on discussions with other stakeholders and on interactions with mapping representatives at the CODIST I preconference workshop in Ethiopia in 2009, MEASURE Evaluation contacted the following lead GIS and mapping organizations: NASRDA, NPopC, OSGOF, and RECTAS.

Due to the diversity of mapping and other stakeholder organizations, their lack of a central geographic location, and some unavoidable delays, securing their buy-in required several months. One such delay was the presidential election in April 2011. Another delay was caused by the desire to have available for the summit the results of the HS 20/20 health facility mapping project, which was scheduled to be concluded in June 2011.

Key activities included:

- meeting with key stakeholders, especially HS 20/20 based on a recommendation from USAID/Nigeria and the HIV/AIDS Division of the Federal Ministry of Health;
- identifying and conducting a series of discussions with key representatives from the mapping sector, which included Dr. Agbaje, the steering committee chair, and Mr. Francis Adeniyi Fadairo, Deputy Director, Automated Mapping and GIS, Cartography Department, NPopC;
- sharing a draft summit proposal with mapping sector representatives and making revisions based on comments and suggestions on how the summit should be organized and who should be invited; and
- organizing a multi-sectoral summit steering committee, based on a proposal from the mapping sector representatives, to guide the planning and actualization of the summit and to harmonize the summit effort with existing NGDI activities within the country.

Although the organizations and individuals will vary by country, the most critical aspect of obtaining buy-in from the mapping sector is to begin with the NMA and to conduct a dialog with the NMA representative regarding which other GIS and mapping stakeholders should be consulted during the planning stage. If there is uncertainty regarding the NMA contact for a

country, a useful resource is a list of NMA contacts on the United Nations Second Administrative Level Boundaries Web site at: www.unsalb.org/.

STEP 2: FORM SUMMIT STEERING COMMITTEE WITH REPRESENTATION DRAWN FROM HEALTH AND MAPPING SECTORS

Approximate duration: one month.

Based on a recommendation from stakeholders during the consultative and buy-in period, a summit steering committee was established, consisting of representatives from the health and mapping sectors. Due to their GIS/mapping activities in the country, health sector representatives were drawn from the HIV/AIDS Division of the Department of Public Health, DHPRS, NHIS, and NPHCDA. The mapping sector was represented by OSGOF, NPopC, NASRDA, and RECTAS. RECTAS is a training institution focusing on training professionals who work with maps.

Steering committee purpose, structure, and composition:

The key role of the steering committee was to oversee the planning, organizing and implementation of the summit activities as well as to ensure follow-through on summit resolutions and recommendations. The committee consisted of nine members drawn from government agencies that played lead roles in health and mapping activities within the country. MEASURE Evaluation served as secretariat for the committee, and functioned primarily as a facilitator. A chairman was selected to coordinate and lead the business of the committee, such as presiding over meetings. The selection of the chairman was guided by the need to balance NSDI development expertise with strong leadership ability. As previously mentioned, Dr. Agbaje was selected as chairman.

To avoid duplicating the activities of other committees in either the health or mapping sectors, the committee was initially planned to be temporary. After the summit, however, it was recognized that there was no existing committee that could easily serve as a liaison among health and social services and the mapping agencies. As a result, it has been proposed that the committee should continue as a GIS and mapping subcommittee of the Health Data Consultative Committee of the Federal Ministry of Health.

The steering committee scheduled monthly meetings, but changed to every two weeks in the two months preceding the summit. This provided committee members with adequate time to follow through on deliverables and to ensure that meeting preparations were progressing on schedule. In addition, members held one-on-one meetings, conference calls, and used e-mail to communicate. In the final days leading up to the summit, e-mails and conference calls took priority.

STEP 3: COLLABORATE VIA STEERING COMMITTEE TO REACH MAJOR PLANNING DECISIONS

Approximate duration: three months.

Steering committee members will need to collaborate in order to reach the major planning decisions required to hold a successful summit. The major planning decisions can be summarized as follows:

- **Agree on the overall structure and duration of the meeting.** The Nigeria mapping summit began with a proposal and progressed to a draft agenda from MEASURE Evaluation as a starting point for discussions with key stakeholders. The steering committee is the recommended mechanism for review and discussion of a draft agenda in order to reach agreement on the overall structure and duration of the meeting. The draft agenda proposed by MEASURE Evaluation was revised by the steering committee to include more time to welcome distinguished guests and to allow for opening remarks by key stakeholders. To accommodate the content changes, the duration of the meeting was increased from one day to two days.
- **Draft a more detailed agenda.** Drafting a more detailed agenda is an iterative process, but one that should begin to flow fairly naturally after agreeing on the overall structure and duration of the meeting. The detailed agenda for the Nigeria summit sought to achieve a balance between presentations, group work, and fostering direct communications between resource seekers and resource providers. For sample agendas for holding a health and mapping summit, please see appendix A (one-day summit) and appendix B (two-day summit).
- **Identify potential stakeholders to invite.** Development of the agenda will facilitate the identification of stakeholders to invite, including distinguished guests, speakers, and leaders for group work or other technical activities.
- **Set tentative date for summit.** After agreeing on some of the other key details, the steering committee can select a tentative date for the event. The summit date should be chosen so as to avoid interfering with national and religious holidays. In Nigeria, for instance, after allowing for delays caused by the presidential election and the health facility mapping activity by HS 20/20, the summit was scheduled to be held after Ramadan to accommodate Muslim participants.
- **Schedule a pre-summit meeting.** It is to be expected that some steering committee members will not be able to attend every meeting. To ensure agreement among members with respect to final summit details, however, such as the detailed agenda and invitees, it is recommended to hold a face-to-face meeting of the full steering committee at least a month before the summit. This will enable any remaining issues to be discussed and resolved quickly, and will allow enough time to complete the necessary planning tasks.

STEP 4: CONDUCT A PRE-SUMMIT MEETING WITH KEY STAKEHOLDERS TO MAKE FINAL DECISIONS ON CRITICAL DETAILS

Approximate duration: two weeks.

The pre-summit meeting should address all outstanding issues, including updates on venue selection, distribution of letters of invitation, and finalization of the agenda. After finalization of the agenda, the pre-summit meeting participants should agree on the list of speakers and the identification of leaders to facilitate group work and technical sessions. To address all outstanding issues, the steering committee should allow up to two days for the pre-summit meeting.

STEP 5: FINALIZE PLANNING FOR THE SUMMIT

Approximate duration: one month.

The month preceding the summit is the time to finalize preparations for the event. If not already done, the steering committee should ensure completion of the following:

- Booking a location for the meeting.
- Sending invitations to speakers, session facilitators, all other participants, and the media.
- Making final revisions to the agenda depending on invitation responses.
- Announcing the meeting to the general public, including creation of a print version for e-mail distribution and posting of an announcement on select Web sites. For the Nigeria summit, for example, an announcement was made on the MEASURE Evaluation Web site.
- Creating meeting materials, including a banner, handouts, group worksheets, and flash drives distributed to participants with relevant publications.
- Optional hiring of a videographer to record the meeting.
- Hiring an event planner to liaise with the steering committee and to manage the meeting's details.

DURING

STEP 6: HOLD SUMMIT

Approximate duration: one week.

Bringing everyone together:

The FRN collaborated with MEASURE Evaluation, which is funded by USAID, to organize the Nigeria summit. The conference was the first of its kind at the country level in Africa, as it marked the first time government representatives from the health and mapping sectors have met

on such inter-ministerial or agency levels to harmonize national efforts to improve health outcomes through more effective leveraging of the NSDI.

The conference, which drew 120 participants from the health and mapping sectors including implementing partners, training institutions, the NPC, and the media, sought to initiate a pan-Nigeria community of practice to increase involvement of the Nigeria Federal Ministry of Health in the NGDI process and to build linkages between these health sector agencies and NGDI actors, including NMAs.

As can be seen in the agenda for the Nigeria Health and Mapping Summit of 2011 (appendix B in the full summary report, available at: <http://www.cpc.unc.edu/measure/our-work/publications/WS-12-20>), Nigerian stakeholders sought to achieve a balanced, two-way exchange between the health and mapping sectors. In addition to opening remarks and a keynote address, there were technical sessions focused on the identification of challenges to geospatial resource sharing, and there was a breakout session of group work to prioritize those challenges and to recommend solutions.

Based on feedback from participants, the summit agenda was successful in achieving a balanced, two-way exchange between the health and mapping sectors. As a result, a similar approach to agenda development is advocated for other countries.

Following is a discussion of some of the key agenda activities, as well as the primary outcome of the summit, the crafting of a communiqué containing joint resolutions by the health and mapping sectors.

Opening remarks and keynote address:

The agenda should include ample opportunity for opening remarks by distinguished guests and key stakeholders. In addition, there should be a keynote address to set the tone for the summit.

Technical sessions:

It is recommended that there be technical sessions consisting of two tracks: the first track devoted to presentations by health organizations on geospatial resources maintained versus needed, as well as on top NGDI challenges affecting their work, and the second track centered on presentations by national mapping organizations concerning the geospatial resources available to assist the health sector (data, software, hardware, technical expertise, training, etc.). Discussions should focus on current or upcoming projects, and on the geospatial resources that will be developed or needed to implement the projects, including opportunities for collaboration and top NGDI challenges needing solutions. If possible, a presentation should be included that demonstrates the experience of a country with a good spatial data infrastructure linked with effective and improved social services, with emphasis on improved health outcomes.

Collaborating through group work:

Based on the positive experience of the Nigeria summit, it is recommended that a summit include a breakout session for group work to identify and prioritize the challenges to geospatial resource sharing and development of NSDI touched on in the technical sessions. Not only does the group work reinforce collaboration among summit participants, it also leads to the creation of a prioritized action plan for NSDI improvement.

Identifying leaders:

As with any group activity, a health and mapping summit presents an opportunity for leaders to step forward. Leaders will be needed to serve as organizational or sectoral champions in order to advance the cause of linking the health and related social service sectors with the mapping sector. The presentation sessions and group work should provide an excellent opportunity to identify these key individuals. Steering committee members should pay special attention to the leaders who emerge, and should make every effort to cultivate their participation in the implementation of the post-summit action plan and in the follow-on activities that arise.

Crafting a communiqué:

Two key results of the Nigeria conference were the identification of the main issues affecting Nigeria's ability to improve health outcomes, especially the need for coordination of various efforts in the health and NGDI sectors, and the drafting of a communiqué that could be presented to the executive and legislative arms of the government, as well as relevant stakeholders (e.g., donors and ministerial agencies), with the intent of improving the NSDI needed to combat HIV/AIDS and related health and social service challenges. The communiqué is a bold statement of intent by summit participants, and establishes a clear vision for the direction of NSDI development in Nigeria. The clarion call to action contained in the communiqué also provides an extremely useful point of reference for communicating the health sector's NSDI development needs to parties who were not able to attend the summit.

One of the most critical commitments identified in the communiqué is the decision to include the Federal Ministry of Health as a new sectoral node agency within Nigeria's NGDI organizational framework (see figure 1). This elevation of status for the MOH should greatly facilitate cooperation between the health and mapping sectors in Nigeria.

To view the full communiqué developed at the Nigeria Health and Mapping Summit of 2011, please see the summit communiqué section of the summary report at <http://www.cpc.unc.edu/measure/our-work/publications/WS-12-20>.

AFTER

STEP 7: DOCUMENT AND COMMUNICATE THE RESULTS OF THE SUMMIT AND DEVELOP A PLAN FOR ACHIEVING POST-SUMMIT ACTION ITEMS

Approximate duration: three months.

The results of a health and mapping summit should be documented. Shortly after participants departed from the Nigeria summit, the steering committee held a post-summit meeting to review and document action items and to commit to a proactive plan of action in order to maintain the enthusiasm and the overall momentum created by the summit. Steering committee resolutions included commitments to the following action items:

- Disseminate the summit communiqué as widely as possible.
- Develop and post a Web report of summit proceedings.
- Publicize summit results by leveraging a videotape of the event to create a 30-minute program for airing on national television.
- Maintain the dialog started between the health and mapping sectors.
- Begin implementing the post-summit action plan.

Disseminating the communiqué:

As discussed previously, a key outcome of the summit was the adoption of a communiqué, which identified the resolutions adopted at the meeting for improving the NSDI in Nigeria with respect to the inclusion of health sector needs. The communiqué was written at an executive level to facilitate presentation of summit resolutions to both the executive and legislative branches of the government, as well as to other key stakeholders, such as donors and ministerial agencies. Once written, the communiqué should be distributed as widely as possible, including to news media.

Publicizing summit results:

In order to reach the widest audience possible, the results of a summit should be posted on the Web. To provide access to the results of the summit in Nigeria, the steering committee recommended that a Web page be created by both the FRN and MEASURE Evaluation. The MOH, on behalf of the FRN, intends to post the final report on its Web site. MEASURE Evaluation published a Web page that contains presentations and other materials developed for the Nigeria summit. Each section of the outline on the MEASURE Evaluation site provides links to relevant content, such as the agenda, presentations, and reports. The MEASURE Evaluation Web page can be accessed at www.cpc.unc.edu/measure/our-work/gis/summit2011.

The results of a health and mapping summit should also be publicized using whatever other methods are most effective and feasible. To continue the momentum generated by the Nigeria Health and Mapping Summit of 2011, for example, the FRN, in collaboration with MEASURE Evaluation, produced a 30-minute video documentary for airing by the Nigerian Television Authority, which has approximately 30 million viewers in Nigeria. The video is targeted at

increasing awareness among the public, as well as educating policy-makers and program managers regarding the need to improve coordination and collaboration among health and mapping sector organizations. The documentary highlights the importance of building health and mapping sector partnerships with respect to the attainment of the United Nation's Millennium Development Goals (see <http://www.un.org/millenniumgoals/>). A summit might also be publicized through other means, such as newspaper or journal articles, radio broadcasts, etc.

Maintaining the dialog:

In order to continue the collaboration begun at the Nigeria summit, the steering committee agreed to take positive steps to foster dialog between the health and mapping sectors. To that end, pending the establishment of a dedicated Web site at DHPR, the steering committee created the Nigeria Health and Mapping Network, which is a listserv based on the e-mail addresses provided by participants at the summit. The listserv used by the Nigeria summit participants allows them to communicate with one another concerning important events, such as the Pan African Tse-Tse and Trypanosomiasis Eradication campaign (PATTEC), which was carried out by the Nigerian Institute and Trypanosomiasis Research Agency Kaduna in 2011.

Implementing the post-summit action plan:

The most important requirement for ensuring the success of a health and mapping summit is to implement the post-summit action plan for improving collaboration between the health and mapping sectors. In the case of the Nigeria summit, the communiqué's commitment to establishing the MOH as a new NGDI node agency should advance this cause significantly. In addition, the summit steering committee could be transformed into a GIS subcommittee of the national Monitoring and Evaluation/Health Management Information System Technical Working Group. If that does not prove feasible, the mission of the existing GIS working group could be reviewed to see how it is possible to integrate new ideas and activities based on the results of the summit.

The key issue is ownership. Ensuring full implementation of the post-summit action plan will most likely require the steering committee members—or at least a champion on the steering committee—to retain some degree of ownership of the process, to remain active, and to engage other leaders and champions identified during the summit.

SUMMARY AND CONCLUSIONS

Based on the experience of the Nigeria summit of 2011, it can be expected that a health and mapping summit will raise awareness among high-ranking government officials of the need to support multi-sectoral collaboration as a means to improve health outcomes in a country. In the short term, this greater awareness should facilitate progress in intervening to reduce HIV/AIDS and other high-priority health concerns, especially with respect to creating a higher receptivity to new initiatives. In the long term, if sustained, it should lead to more effective GIS resource sharing within the country and to more evidence-based decision making and better overall health for the general population.

A health and mapping summit can also be expected to stimulate dialog among stakeholders. There will be a great deal of dialog among key stakeholders via the summit steering committee, and among all stakeholders during their participation in the summit. In addition to the immediate benefits of increased communications for establishing working relationships and solving problems, an enhanced dialog between health and mapping sector representatives should help lay the groundwork for building long-term partnerships.

A health and mapping summit should produce an action plan for moving the country forward in terms of multi-sectoral collaboration to improve health outcomes. The action plan can be captured in a communiqué, such as the one developed by participants of the Nigeria summit (see <http://www.cpc.unc.edu/measure/publications/WS-12-20>).

The net short-term result of a health and mapping summit will be momentum. This momentum should not be squandered, but should be sustained by following through on action items and by producing tangible results. Momentum can also be sustained by making the health and mapping sector summit an annual event. This would reinvigorate the process each year by stimulating fresh dialog, reinforcing working relationships, and facilitating creation of an updated action plan. Most importantly, however, stakeholders should act to establish health and mapping sector collaboration as an integral component of NSDI/NGDI development in their country. In Nigeria, for example, the summit resulted in the identification of the MOH as a new NGDI node agency.

In conclusion, it is essential to realize that a health and mapping summit is just the beginning of the process for engaging the mapping sector in the effort to improve health outcomes in a country. If the summit is a one-time event with no follow-through, it will have little long-term impact.

APPENDIX A: SAMPLE AGENDA FOR ONE-DAY SUMMIT

Nigeria Health and Mapping Summit 2011: Enlisting National Mapping Agencies in the Fight against HIV/AIDS

October 2011, Abuja, Nigeria

Morning

- 8:30 – 08:50** Opening remarks
- 8:50 – 09:00** Purpose of workshop: facilitate geospatial resource awareness and sharing within framework of national data infrastructure
- 9:00 – 10:15** Presentations by mapping organizations on geospatial resources that can be shared as well as those under development or to be developed
- Geospatial resources available
 - Data Overview (e.g., name of data set; type of data [roads, facilities, etc.]; collection date; geographic coverage [national vs. regional; etc.]; data format [shapefile, etc.]; how to obtain the data [contact/cost info, Web address, etc.])
 - Software and hardware maintained by organization (key resources)
 - Technical expertise (number of people, skills and experience, etc.)
 - Training resources available (online courses, tutorials, training personnel, etc.)
 - Current or upcoming projects and what data, software/hardware, technical expertise, and training resources will be developed and/or needed by the organization
- 10:15 – 10:30** Questions from audience
- 10:30 – 10:45** Break
- 10:45 – 12:00** Presentations by health organizations on geospatial resources that can be shared as well as those under development and/or needed to fulfill their missions
- 12:00 – 12:15** Questions from audience
- 12:15 – 12:30** Summary of morning session and overview of afternoon session
- 12:30 – 14:00** Lunch: includes networking opportunities for summit participants

Afternoon

- 14:00 – 14:15** Introduction to afternoon work
- 14:15 – 15:15** Facilitated discussion to identify issues that interfere with sharing of geospatial resources
- 15:15 – 15:30** Break
- 15:30 – 16:30** Prioritize issues, recommend solutions, and develop an action plan
- 16:30 – 16:45** Summary and next steps
- Evening** Resource exchange: networking event to allow resource seekers to connect with resource providers

APPENDIX B: SAMPLE AGENDA FOR TWO-DAY SUMMIT

DAY 1

Opening Ceremony

08:30 – 09:30	Registration
09:30 – 09:45	Arrival of the Guests of Honour
09:45 – 10:00	Arrival of the Honourable Ministers
10:00 – 10:10	National Anthem and Opening Prayer
10:10 – 10:20	Welcome Address
10:20 – 10:30	Chairman’s Opening Remarks
10:30 – 10:35	Objectives of the Summit
10:35 – 10:45	USAID Opening Remarks
10:45 – 11:10	Keynote Address
11:10 – 11:25	Goodwill Messages
11:25 – 11:35	Declaring Summit Open
11:35 – 11:45	Vote of Thanks
11:45 – 11:50	National Anthem
11:50 – 12:20	Tea/Coffee Break
12:20 – 12:30	Departure of honourable ministers and other dignitaries

Technical Session One

Chairman:

12:30 – 13:30	15-minute Presentations by Health Organizations <ul style="list-style-type: none">• Presentations by health organizations on geospatial resources maintained versus needed, as well as on top NSDI challenges affecting the organization’s work
13:30 – 13:45	Questions and Comments
13:45 – 14:45	Lunch

Technical Session Two

Chairman:

15:00 – 16:00	15-minute Presentations by Mapping Organizations <ul style="list-style-type: none">• Geospatial resources available to assist the health sector (data, software, hardware, technical expertise, training, etc.)• Current or upcoming projects and geospatial resources that will be developed and/or needed by the organization, including opportunities for collaboration• Top NSDI challenges affecting the organization’s ability to work effectively with the health sector
---------------	--

16:00 – 16:15 **Questions and Comments**

16:15 – 16:45 **Tea/Coffee Break**

18:00 – 19:00 **Cocktail Party/Social Networking Event** to allow resource seekers to connect with resource providers

DAY 2

08:30 – 08:45 **Introduction to Day Two Activities:** Chairman

08:45 – 09:15 **Health Sector Challenges and Constraints:** Mapping content to illustrate challenges and constraints to collaboration and coordination

09:15 – 10:00 **Effective Health and Mapping Sector Collaboration:** Demonstrating the experience of country or countries with good spatial data infrastructure linked with effective and improved social services (especially health sector)

10:00 – 10:15 **Questions and Comments**

10:15 – 10:45 **Tea/Coffee Break**

10:45 – 12:30 **Breakout Session:** Facilitated discussion to agree on and prioritize challenges that affect sharing of geospatial resources and development of NSDI

12:30 – 13:00 **Report of Breakout Session**

13:00 – 14:00 **Lunch**

14:00 – 15:00 **Summary of Next Steps**

15:00 – 15:30 **Tea/Coffee Break**

15:30 – 16:00 **Reading of Summit Communiqué**

16:00 – 16:10 **Closing Remarks:** Chairman, Summit Steering Committee

16:10 – 16:15 **Closing Prayers**

16:15 – 16:30 **Departure of Invited Participants**

16:30 – 17:00 **Steering Committee Post-Summit Meeting**

APPENDIX C: ADDITIONAL RESOURCES

Resources from the Global Spatial Data Infrastructure Association: <http://www.gsdi.org/>

NMA contacts information from the United Nations Second Administrative Level Boundaries site: <http://unsalb.org/>

NSDI resources from the United States Federal Geographic Data Committee (FGDC): <http://www.fgdc.gov/nsdi/nsdi.html/>

Web links related to the Nigeria Health and Mapping Summit of 2011:

- News article on the MEASURE Evaluation Web site announcing the successful completion of the summit: <http://www.cpc.unc.edu/measure/our-work/gis/nigerian-summit-maps-path-to-better-data-sharing>
- Full summary report of the summit: <http://www.cpc.unc.edu/measure/our-work/publications/WS-12-20>
- Web page containing separate links to the individual sections of the full summary report: <http://www.cpc.unc.edu/measure/our-work/gis/nigeria-health-and-mapping-summit-2011-1>