



# BUILDING A CULTURE OF EVIDENCE-BASED PLANNING

A PROCESS DOCUMENT

The Nigeria Evidence-based Health System  
Initiative (NEHSI) approach in Bauchi and  
Cross River States.



The Nigeria Evidence-based Health System Initiative (NEHSI) is a collaborative project between the Government of Nigeria; Foreign Affairs, Trade and Development Canada; and Canada's International Development Research Centre to support a fair, effective and efficient primary health care system in Bauchi and Cross River States.

July 2014





## NEHSI At a Glance

### PARTNERS

Government of Nigeria; Foreign Affairs, Trade and Development Canada; and Canada's International Development Research Centre.

### FOCUS

Strengthen health systems through improvements to health information systems.

### TIME PERIOD

A planning phase (2005–2007) and an implementation phase (2008–2014)

### FUNDING

CAD 19 million

### LOCATION

Cross River and Bauchi States, Nigeria

### RESEARCH PARTNERS

CIET Trust, University of Calabar, University of Southern Maine.

Photo: UNHCR



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List of Acronyms

CHEW	Community Health Extension Worker
CSS	Community Surveillance System
DFATD	Department of Foreign Affairs, Trade and Development Canada
CIET	Community Information Empowerment and Transparency
FMOH	Federal Ministry of Health
HDSS	Health and Demographic Surveillance System
HMIS	Health Management Information Systems
IDRC	International Development Research Centre
j/CHEW	Junior Community Health Extension Worker
LGA	Local Government Area
LOS	Linkages, Opportunities, Sustainability
MSS	Multi-stakeholder Information and Planning System
NEHSI	Nigeria Evidence-based Health System Initiative
NHMIS	National Health Management Information System
NSHDP	National Strategic Health Development Plan
PAC	Project Advisory Committee
PSC	Project Steering Committee
SEPA	Socialising Evidence for Participatory Action
SHC	Sustainable Human Capital for Evidence-based Planning
SPC	State Planning Commission

Foreword

The Nigeria Evidence-based Health System Initiative (NEHSI) process document is a fitting contribution to knowledge management of a project that is widely adjudged to have uniquely contributed to strengthening aspects of the health system. It is not often that the Department of Planning, Research and Statistics of the Federal Ministry of Health would embark on an effort to tell the story of the conception, planning, implementation and outcome of a health system intervention initiative. Perhaps this should be the case as a matter of course. In any event, the overwhelming endorsement of NEHSI at the level of the National Council on Health and the series of study-tour visits to NEHSI project states by other states and partners provide a strong rationale to tell a brief but instructive story of the NEHSI experience.

Using evidence to inform decision-making for health is a priority at the Department of Planning, Research and Statistics of the Federal Ministry of Health, and is by extension a mandate for all the Departments of Health Planning, Research and Statistics across the 36 States and the Federal Capital Territory Health Department. The benefits of strengthening the health information systems as an intervention to improve health outcomes, especially at the operational levels, are clear, such as making evidence available to planners and building their capacities to interpret and use evidence to allocate resources, including empowering users to put pressure on duty bearers for action, among other benefits. The multi-dimensional sleuth of approaches used in NEHSI has served to stimulate the strengthening of the health systems in project states for better performance.

NEHSI stands out by the emphasis it has placed on working with the health system and working with those in the system. This is of utmost priority in Nigeria. Improving the health system strengthens its ability to deliver, whereas working on the margins, vertically, can have the opposite effect. As Directors of Planning, Research and Statistics, we chaired the NEHSI Project Advisory Committee and have been witnesses of and participants in the progress made over the past six years.

The NEHSI approach demonstrates the viability of focusing on strengthening the health information system as an intervention as well as an entry point in the context of the building blocks of a health system. The health information system connects communities to planners and decision-makers at different levels. As we revise the National Health Information System policy, aspects of the NEHSI approaches, especially the social audit and community surveillance system, are being integrated. We hope that other states and sectors will follow the example set in Cross River and Bauchi States on building a culture of evidence-based planning.

This publication presents the experiences of the two project states, Bauchi and Cross River, in implementing NEHSI. We are confident that there are useful lessons to be learned in pre-planning scoping/consultative missions, implementation challenges and how these were overcome, and in its overall contribution to the institutionalisation, state ownership, funding and sustainability of a culture of evidence-based planning, decision-making and action.

The NEHSI project ends in July 2014. We wish to seize this opportunity to express our gratitude to those who have been involved in the project at the community, Local Government Area, State and Federal levels; the research teams: CIET, University of Calabar and University of Southern Maine; and our development partners: Foreign Affairs, Trade and Development Canada; and Canada’s International Development Research Centre. We especially call on other states and partners to take steps to replicate the NEHSI experience across the Nigerian health system.

**Mrs. Ansa Ogu**  
Director of Planning, Research and Statistics  
Federal Ministry of Health

**Dr. Sade Yemi-Esan**  
Former Director of Planning, Research and Statistics  
Federal Ministry of Health

**Dr. Tolu Fakeye**  
Former Director of Planning, Research and Statistics  
Federal Ministry of Health

**Dr. Muhammed Lecky**  
Former Director of Planning, Research and Statistics  
Federal Ministry of Health

**Dr. Jonathan Jiya**  
Former Director of Planning, Research and Statistics  
Federal Ministry of Health

**Dr. Shehu Sule**  
Former Director of Planning, Research and Statistics  
Federal Ministry of Health

2. Introduction

The Government of Nigeria, Foreign Affairs, Trade and Development Canada (DFATD) and Canada’s International Development Research Centre (IDRC) partnered in the Nigeria Evidence-based Health System Initiative (NEHSI), to support primary health care reforms in Bauchi and Cross River States by strengthening health information systems; improving the health of mothers and children; and building a culture of evidence-based health planning, decision-making and action.

NEHSI stands out in two ways:

- 1. It explicitly links health information systems to the planning process at local and state levels, which play important roles in delivering health services.
- 2. It embeds activities to strengthen the capacity to collect and use evidence in primary health care planning at both local and state levels.

NEHSI is building bridges between departments and levels of government for coherent policy based on data, emphasizing:

- Ownership and accountability,
- High-quality, relevant data,
- Integration and coordination with existing systems, and
- The habit of evidence-based planning.

The NEHSI approach clearly demonstrates that strengthening the health information system contributes to strengthening the entire health system. For those interested in NEHSI results, contacting officials in Bauchi and Cross River States is recommended. In Cross River, the Sector-Wide Social Audit Program in

the Cross River State Planning Commission and their Program Appraisal document will be of particular use, in addition to making contact with the Ministry of Health. In Bauchi, officials from the State Ministry of Health and the State Primary Health Care Development Agency can be contacted. In addition, these results and evaluations can be found at [www.idrc.ca/nehsi](http://www.idrc.ca/nehsi).

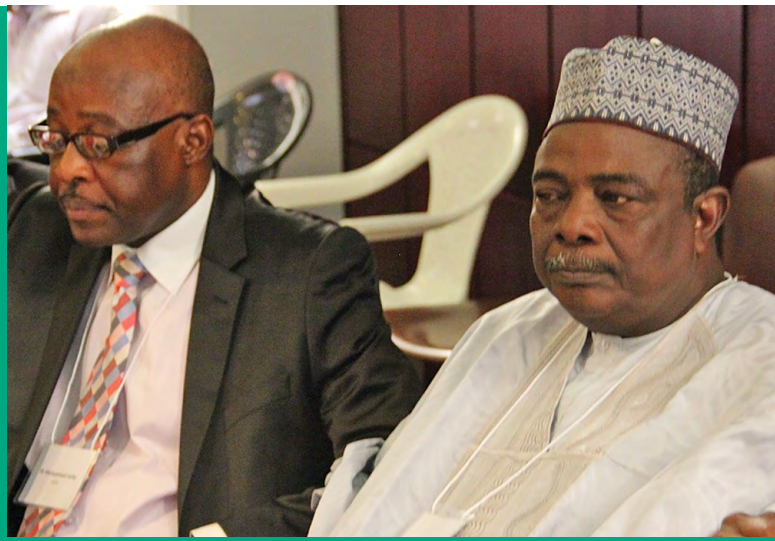
This document has been produced at the request of the NEHSI Project Advisory Committee and the NEHSI Project Steering Committee to share elements about the process that will be useful to other states in Nigeria that are interested in strengthening the culture of evidence-based planning, particularly in the health sector.

The NEHSI approach has been responsive to the particular needs of Cross River and Bauchi States. This document explains how the planning phase contributed to the design and provides an overview of key NEHSI principles: the design, approach and driving pillars. It also highlights challenges and lessons related to the process.

“We will support other states to come.”

Commissioner Aminu Hammayo  
HONOURABLE COMMISSIONER OF BUDGET AND  
ECONOMIC PLANNING, BAUCHI STATE





“I see NEHSI as a model that we can easily buy into.”

Dr. Muhammed Lecky  
FORMER DIRECTOR OF THE DEPARTMENT  
OF PLANNING, RESEARCH AND STATISTICS,  
FEDERAL MINISTRY OF HEALTH





### 3. Background: The Planning Phase (2005–2007)

An extensive planning and consultation phase informed the direction and implementation of the NEHSI project. The objective of the planning phase was to set a strong foundation for the implementation phase through simultaneously identifying needs, beginning to develop an evidence base, and building on local understanding and ownership of the idea that using evidence can lead to a more fair, effective and efficient primary health care system.

NEHSI’s 18-month planning phase (2005–2007) built on a series of meetings with over 60 stakeholders in Nigeria in 2004. These meetings involved front-line health care workers and managers, community leaders, community members, NGO members, bilateral and multilateral development partners, and government officials at federal, state and local government area levels. These meetings revealed a pressing need, as well as strong local and development partner support, for the building of a responsive primary health care system. In particular, these consultations revealed significant gaps in information needed by decision-makers, front-line workers, communities and donors alike for planning, delivering and measuring the impact of primary health programs. At the same time, there was interest in and commitment to collaboratively developing ways to gather, analyse and use health information to support responsive, evidence-based primary health care.

**The planning phase consisted of number of components:**

1. Two mapping studies of data collection initiatives and primary health care–related structures, legislation, regulation and policy, and decision-making processes;
2. Review of peer review and grey literature;
3. Baseline data and development of a community-based multi-stakeholder information and monitoring system (MSS);
4. Feasibility study of demographic surveillance systems (HDSS);
5. Linking with existing initiatives; and
6. Consolidation and synthesis to finalise the implementation plan of NEHSI.

The two large components envisioned for the project – the Health and Demographic Surveillance System (HDSS) and the Multi-stakeholder Information and Planning System (MSS) – underwent extensive research and review by IDRC, resulting in a call for proposals. The institutions selected to conduct these two pieces of work were selected through transparent, competitive, externally peer-reviewed processes; they developed implementation plans during the planning phase.

**In summary, the planning phase helped identify some of the following key lessons:**

- The importance of engaging stakeholders from the start,
- Facilitating local ownership at every stage,
- Working to improve the system from within, rather than creating parallel structures,
- Understanding and being able to assess existing capacities,
- Recognising institutional strengths and weaknesses as well as inherent political realities, and
- Understanding the logistics and resource constraints for implementing such an initiative.

The planning phase was successful in building Nigerian ownership and establishing the foundation of evidence for the implementation phase.



4. Implementation of NEHSI (July 2008–July 2014)

Overview of the processes and philosophy—  
**The main goal of NEHSI was to contribute to the strengthening of the health care system to deliver effective, efficient and equitable primary health care in two states in Nigeria: Bauchi and Cross River. Ultimately, this will ensure better health for the citizens of these two states through improving the health information system, strengthening capacity to use the evidence, and linking the evidence to planning so that resources are allocated to make a difference.**

**NEHSI principles of evidence-based planning**

Working towards improving the health information system, NEHSI was premised on the following principles:

- **Data contributes to development:** Data not only documents the state of development, but also contributes to it. Having good information is the cornerstone for developing solutions.
- **Affordability and sustainability:** In resource-limited settings, an important criterion for information is that it is affordable. This is one ingredient for sustainability.

- **Linking and integrating different sources and types of data:** Data needs to be pooled and integrated between levels for effective planning at the Local Government Area, state and federal levels.
- **Building on and strengthening existing capacities:** Building on existing capacities ensures that the people and institutions with the responsibility to collect, analyse, interpret and use data take ownership and can function optimally.

**NEHSI design**

The design of NEHSI was based on four interlinked strategies, resulting in several research components. NEHSI uses a research approach to deliver results – from strengthening capacity to improving health outcomes.

Four main strategies were used to achieve the overall goal:

1. **Strengthening health information systems:** The intention was to address this area through the development of a Multi-stakeholder Information and Planning System (MSS) at the local level within each state, and through piloting a Health and Demographic Surveillance System (HDSS) in Cross River State.
2. **Strengthening community participation and engagement:** Community members were closely involved in the MSS and HDSS processes, and the information collected by these two systems was envisioned to generate health indicators that could support community demand for improved service provision.
3. **Strengthening institutional capacity:** The NEHSI design built in space to increase the capacity for collecting and analysing evidence for sound planning as well as for budgeting and delivering services. Strengthening of institutional capacity was planned for by linking different institutions and fortifying institutional processes.
4. **Strengthening local ownership and scaling up:** Involving Nigerian stakeholders in the planning phase as well as in the collection, analysis and use of data was intended to build ownership throughout NEHSI's implementation. The scale-up strategy involved documentation and evaluation of the effects that can be attributed to NEHSI to scientifically prove that interventions done by NEHSI made a difference. The evaluations can be found at [www.idrc.ca/nehsi](http://www.idrc.ca/nehsi). This process document is part of the effort to take NEHSI to other states, beyond the life of the NEHSI project.

**Research components and implementation partners**

Based on the planning phase, the NEHSI project was designed to include several distinct and interacting components, reflecting the nature of health systems and their governance. The components are designed to build on each other. Both the Multi-stakeholder Information and Planning System and the Health and Demographic Surveillance System were reviewed after their initial activities in the planning phase. This review validated the proposed implementation plan and confirmed that the institutions were technically capable. The components, summarised in Figure 1, evolved over the course of the project to include the following:

1. **Multi-stakeholder Information and Planning System (MSS)**  
The Multi-stakeholder Information and Planning System (MSS) is a primary building block that helps local governments improve their planning, data collection and health systems. Using a social audit methodology, the MSS collects data from households, communities, key health system stakeholders and health centres across Bauchi and Cross River States, in every Local Government Area. This extensive source of data provides insights into the state of illness among the wider population – not only those who access health facilities – and the health system's performance and response. At the same time, the data identifies

“From the inception of the whole process the Ministry was involved. [...] We own the research. And because of that, we follow the research every inch of the way. [...] as the Permanent Secretary, I realise that there are so many things that we need to do.”

Mrs. Amina Abubakar  
DIRECTOR, GENDER DEVELOPMENT, FCT, FORMER PERMANENT SECRETARY, MINISTRY OF HEALTH, BAUCHI STATE



prevention measures for multiple actors. Using an innovative and locally relevant approach to communications, from scorecards to docudramas, NEHSI encourages and engages communities and decision-makers to discuss findings in three focus Local Government Areas in Bauchi and Cross River States. The MSS was led by CIET Trust ([nigeria.cietresearch.org](http://nigeria.cietresearch.org)).

2. Health and Demographic Surveillance System (HDSS)

The Health and Demographic Surveillance System (HDSS) is a common method of collecting data on key demographic events (births and deaths) and some burden of disease indicators in places with weak or no health information systems. Typically, it is run in parallel to the health information system. Through NEHSI, the HDSS worked to support the Nigerian Health Management Information System (HMIS) by building capacities to implement demographic surveillance and create software that can transfer data to the state-level HMIS. Open Health and Demographic Software, which was developed by the University of Southern Maine, has the ability to transfer data from the Local Government Area to the state and federal health information systems. The HDSS was piloted in Akpabuyo Local Government Area in Cross River State by a team from the University of Calabar ([www.uncial.edu.ng](http://www.uncial.edu.ng)).

In the final year of implementation of the NEHSI project, building on the work of the HDSS, a certificate course on health information systems was developed to address concrete human resources up-skilling demands for the Nigerian health system, as well as to consolidate the University of Calabar’s capacities to contribute to the building and consolidation of a culture of evidence-based planning and operation of health systems in Nigeria.

3. Community Surveillance System (CSS)

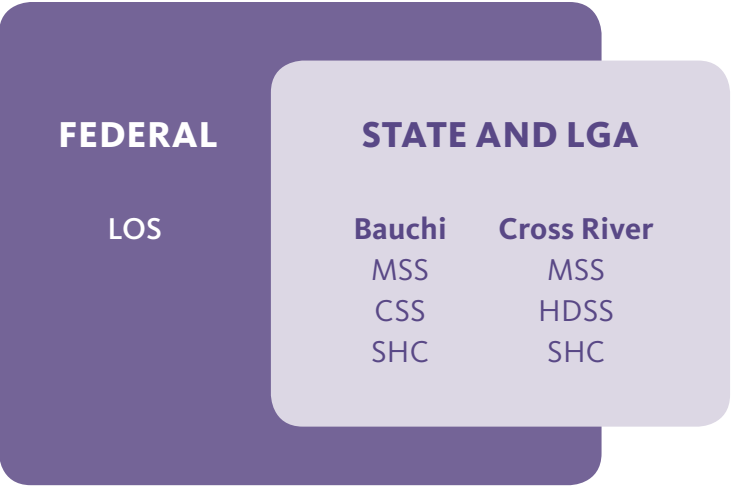
During the second year of the initiative, Bauchi State requested the development of a surveillance system that was focused on the problem of maternal

morbidity and mortality, and thus the Community Surveillance System (CSS) was developed. This surveillance system is a live system that collects data on pregnant women and infants to improve planning on maternal and child health and to bring primary health care to people’s doorsteps. Since a majority of pregnant women in Bauchi state do not have any antenatal care visits – the World Health Organisation recommends having at least four – this system brought health workers to the home to focus on the prevention of maternal illness and deaths. Mobile technologies are used to collect data, which is then integrated into the state health management information system. Health workers upload data, and potential risks are immediately shared with the patient, including supporting them to get clinical care. The CSS was piloted in Giade Local Government Area (LGA) in Bauchi State by CIET Trust. Towards the end of the project, efforts were made to expand the CSS to part of the Toro LGA as well.

4. Sustainable Human Capital (SHC)

The Sustainable Human Capital (SHC) component of NEHSI is a key part of the project’s sustainability

FIGURE 1—  
NEHSI COMPONENTS DIAGRAM



strategy. The SHC customizes training at the local government level to build and retain a cohort of planners who are skilled in using evidence, as much existing training is geared to international or national levels. Once individuals are trained, they leave the local government in order to fully utilise their new capacities. This component was led by CIET Trust.

5. Linkages, Opportunities and Sustainability (LOS)

Given the political nature of a health system and the modular and multi-partnership nature of NEHSI, this component seeks to coordinate, fill needed gaps and, together with all the other components, make an impact in strengthening the primary health care system. The International Development Research Centre (IDRC) leverages its vantage point as both donor and manager implementer to make necessary linkages and strengthen components for successful implementation of the project. IDRC ensured that the initiative was connected to the Federal Ministry of Health, built linkages between the work of Bauchi and Cross River States, and highlighted the work in regional and international forums. IDRC also was the lead in overseeing the evaluation component.

Governance

The NEHSI governance structure was built to reflect the roles of different actors in the Nigerian health system, acknowledging the oversight role of the Federal Ministry of Health. The governance structure was designed in part around the parameters required by the Department of Foreign Affairs, Trade and Development (DFATD), and at the same time was adapted to build ownership.

The governance structure involved a Project Advisory Committee (PAC) chaired by the Director of the Department of Planning, Research and Statistics, Federal Ministry of Health, with representation from state-level government (Health Commissioner and Directors of Planning and Research) and civil society. For a list of all the individuals who have been part of the Project

Advisory Committee, see Appendix 1. It was important to have high-level officials on the committee, as it thus reflected the nature of the project, which linked evidence to decision-making. DFATD and IDRC also had ex-officio representation. This committee discussed the progress of project activities and provided strategic direction for successful completion of the project. The PAC structure was tested during the planning phase; the structure worked well, so it was continued in the implementation phase. The governance structure was important to ensure ongoing ownership and sustainability of the project. The PAC met at least twice a year.

The Project Steering Committee (PSC) was composed of the Health Commissioners from Bauchi and Cross River States. The PSC was co-chaired by the Government of Nigeria (Director of the Department of Planning, Research and Statistics) and the Government of Canada (Canadian High Commission’s Head of Development Cooperation). The PSC held formal accountability for the overall project and was mandated to determine project priorities, review work plans and project progress, and facilitate partnerships with relevant Nigerian institutions.

IDRC was responsible for financial, administrative and technical management of project components and activities. IDRC also provided technical knowledge to bear oversight of other implementing partners. It acted as overall manager, accountable to the Project Steering Committee and to DFATD for the effective and efficient management of the project inputs, with responsibility for marshalling the best technical resources for the project implementation and for advancing the project purposes as outlined in the Logic Model. During the implementation of the project, IDRC continuously assessed the project in the context of Nigeria and Canada and, in reporting to DFATD, recommended any changes to the program design or work plans to ensure project success.

IDRC had project staff based in Ottawa and hired the services of senior consultants in Bauchi, in Cross River and at the Federal level to provide advice on



implementation and to pursue opportunities on the ground. IDRC Ottawa staff made approximately two visits per year, and additional visits as required, to Nigeria.

Evaluation design

A series of evaluations was built into the initiative from the outset, responding to different evaluative needs. At the same time, these evaluations provided reliable assessments of the influence of the NEHSI approach in strengthening health systems and providing ongoing insights into the factors and conditions that need to be considered in adapting the NEHSI model in the course of implementation. The different evaluations, which are outlined in Table 1, have had different intended users, including the researchers, the Project Advisory Committee, DFATD and IDRC.

For effective monitoring and planning, IDRC used an adapted outcome mapping process to answer questions from a pragmatic and day-to-day operational view of whether the project’s implementation has achieved desired outcomes. This also set the stage for the proof of influence for sustainability evaluation.

DFATD required monitoring through a Logic Model and Performance Management Framework. IDRC coordinated the regular reporting of research partners on activities, outputs, immediate outcomes and intermediate outcomes to DFATD. This work examined what was done in relation to what was planned. In addition, IDRC played a continuous monitoring role.

To understand the question of influence of “projects” from a country perspective, a proof-of-influence for sustainability evaluation was established. Given the focus, an Evaluation Subcommittee was formed from the Project Advisory Committee to lead this evaluation component. This group commissioned a country-led evaluation. The main evaluation question was: To what extent and how has NEHSI influenced the evidence-based planning and decision-making in the primary health care system in particular, and in the health system in general, at the individual, community and institutional level? The data collection period ended in February 2014 (a few months before the final closure of the project), with the report circulated before the final PAC meeting, to allow for discussion of the findings.

TABLE 1— TYPES OF EVALUATION WITHIN NEHSI

Evaluation Dimension	Monitoring for planning	Proof of impact	Proof of influence for sustainability	Logic Model and Performance Measurement Framework
Evaluation process	Outcome mapping	Impact assessment	Country-led evaluation	DFATD monitoring and reporting
Purpose	Enable IDRC to improve planning and implementation	Identify attribution to MSS component and enable transferability to other states	Understand sustainability	Accountability to DFATD
Managed by	IDRC	CIET	PAC Evaluation Subcommittee	DFATD

The CIET Trust group built a proof-of-impact evaluation into the MSS implementation research component. The intention was to measure and evaluate what success can be attributed to the NEHSI project in terms of the health of the population.

The University of Calabar also commissioned an evaluation of the HDSS and Certificate on Health Information Systems components. These assessed implementation of the two components for use by the University of Calabar.

Key NEHSI approaches

The most relevant approaches for future implementers stem from the Multi-stakeholder Information and Planning System (MSS), Community Surveillance System (CSS), Sustainable Human Capital (SHC), and Linkages, Opportunities and Sustainability (LOS) components. The SHC component is captured in Section 5, on NEHSI pillars. In this section, the social audit (MSS) and the additional step (4c) of household visits (CSS) is discussed, and an overview of LOS is provided.

SOCIAL AUDITS AND THE INTEGRATION OF A COMMUNITY SURVEILLANCE SYSTEM

NEHSI introduced methods developed over 25 years by the research and training organization CIET, engaging communities throughout Bauchi and Cross River States in addressing a crisis in maternal and child health. Social audits help to pinpoint actionable factors affecting the health of mothers and their children and facilitate discussions with communities, service workers and planners. The method creates a space for planners, communities and families to digest the evidence and apply it in their daily decision-making. Here is how a social audit works and how it improves maternal and child health.

1. Looking “upstream” to prevention

Most evidence available for planning comes from health facilities like hospitals and clinics. But sometimes the

“Data direct from communities allows communities to participate more in their health. People become part of the solutions to their health problems.”

Mr. Salisu Abubakar Galda  
MONITORING AND EVALUATION OFFICER, PRIMARY HEALTH CARE DEPARTMENT, TORO, BAUCHI STATE

cost, distance or quality of services will stop people from using these facilities. For services to meet the health needs of all citizens, planners also need information on the most vulnerable – those who do not reach the facilities. Another challenge with routine data from health services is that it captures health issues only after they have happened, such as births, deaths and illness. Planners also need to know about root causes that can change to improve health outcomes.

The social audit looks “upstream” from these outcomes, getting actionable evidence from households that can prevent disease and death. For example, what is the difference between women who have problems in pregnancy and those who do not? These data come from household questionnaires administered to a carefully balanced random cluster sample of each local government authority in the state. Teams then discuss findings with focus groups in the sample communities, documenting their views of potential solutions. So the social audit contributes two types of evidence from the communities: what needs to be done to improve health outcomes, and how, in the eyes of the communities, to do it.

2. Who gets the evidence and how

The social audit begins by assessing existing data sources, priorities and scientific literature. Then interviewers visit thousands of households in a carefully selected sample of communities to interview women and their



families. They ask about recent pregnancies, general health, use of services, and issues at home that influence all of these, such as family violence. The sample is carefully balanced to ensure the evidence represents the full range of communities in the state. Interviewers contact all households, leaving out none, so each cluster is a “mini-universe.” The first two cycles in NEHSI used paper questionnaires, so double-data entry and cleaning of data removed keystroke and logical errors. The third cycle in 2013 used Android touchscreen tablets, allowing for much quicker turnaround of the household data. Social audit conclusions come from combining data from household surveys, focus groups and health facilities.

**3. Analysis by computer; interpretation by communities, service workers and planners**

A preliminary epidemiological analysis identifies possible causes of health problems: some that services can act on and some that communities can act on. The team discusses these findings with men and women separately in focus groups in every sample community: This is what people said in the interviews; what can be done about it? For example, the survey revealed a gap in knowledge in the management of childhood diarrhea, so

“Communities drive the process of generating information.”

**Dr. Nisser Umar**  
EXECUTIVE CHAIRMAN, BAUCHI STATE  
PRIMARY HEALTH CARE DEVELOPMENT AGENCY

the discussions focused on how to get this information to those who need it. Further discussions with service workers and state level planners allow for input on institutional responses and resource implications. These data are triangulated and analysed using multivariate modelling to provide sound evidence on what needs to be done to improve health outcomes, and how.

**4. Socialising Evidence for Participatory Action (SEPA)**

The social audit shares the evidence with decision-makers in participating households, in health services and at various policy levels. At each of these levels, the social audit carefully documents stakeholder responses, generating another layer of evidence of what it would take to roll out this action throughout the state, beyond the sample communities:

**4a) Scorecards** summarize health indicators for state and local government policy makers and planners. This includes, for example, the percentage of pregnant women who visited government health facilities, the frequency of visits, and the percentage that experienced complications. Scorecards show how each Local Government Area (LGA) is doing in relation to the state as a whole, providing a snapshot for planners and policy makers to start to discuss how the LGA can improve. Scorecard discussions are timed to fit into budget and planning cycles so conclusions can flow directly into the budget proposals.

“Evidence gathered from the field now goes into planning.”

**Prof. Ndem Ayara**  
VICE CHAIRMAN AND CHIEF  
EXECUTIVE OFFICER OF THE CROSS  
RIVER STATE PLANNING COMMISSION

**4b) Docudramas and community action planning:** The team turns household evidence and subsequent community discussions into short docudrama videos in local languages, using local actors. Encapsulating the findings with local voices and images, the docudramas set up structured discussions with communities, their leaders and local health services. Each docudrama ends with questions about what can be done, and the structured discussions draw people into the topic. For example, some communities responded to a docudrama on maternal health by taking measures to address heavy workload and domestic violence during pregnancy.

**4c) Household visits:** Scorecards get planners talking and docudramas get the community opinion makers talking; household visits get individual women and men involved. A new approach to surveillance was piloted in two LGAs in Bauchi state, building on the social audit methodology. One of the findings of this piloted community surveillance system in the Bauchi LGA of Giade was that universal coverage, combined with community engagement, is important to catalyse change in the health system. The social audit method was then adapted for both states in the final feedback stage. Brief information exchanges every month or two keep the results current through household visits by government community health extension workers (CHEWs). This guarantees universal coverage, at least within the sample area, as every pregnant woman and every newborn child get involved. In addition to the contact with pregnant women and

mothers, a separate information exchange with their husbands by male health workers provides an enabling environment for changes in each home. This provides yet another layer of evidence for how households experience the intervention.

**5. Building the habits: recurring measurement, technical skills and space for evidence**

Engaging communities in dialogue builds a picture of how people see a priority health issue and what they think can be done about it. Doing this repeatedly builds capacities of communities to engage, of technicians to gather and to process evidence, and of planners to use the evidence for change. In Bauchi and Cross River, the quality of the evidence and the involvement of government officials in all steps of the process have led to the use of dialogue in the state budgeting processes.

Through these cycles of data collection, analysis, community feedback and interpretation, followed by socializing evidence for participatory action, social audits make sense of health challenges in light of available resources and government priorities. The methods strengthen Nigerian health information systems, building local ownership and capacity for using evidence to deliver better health services. States can also provide better-quality information to the national health information systems, and planners can develop regional health strategies that reflect community-led solutions.

“The women and men are willing to listen to the lessons in the docudrama.”

**Mrs. Isu Elemi Edu**  
ASSISTANT HEALTH INFORMATION SYSTEM  
OFFICER, CROSS RIVER STATE MINISTRY OF  
HEALTH

LINKAGES, OPPORTUNITIES AND  
SUSTAINABILITY

While much of the work happens at the state and LGA level – where delivery of primary health care takes place – there needed to be a recognition that the federal level has a role in ensuring an effective health care system for Nigerians. The federal–state–LGA structure of the Nigerian health care system requires information flows, linkages and feedback mechanisms among the three levels. Thus, IDRC, in addition to holding accountability of the initiative, played a role in supporting the exchange of information and experiences between the two states and making links to the Federal Ministry of Health, the National Primary Health Care Development Agency and other key federal level stakeholders, including development partners. IDRC supported federal initiatives through technical assistance, along with offering some support for exchange and meeting activities. IDRC also built connections with people and institutions in Cross River, in Bauchi and at the federal level, and helped to encourage the linkage of results to policy. IDRC facilitated sharing results from NEHSI in a global forum, as well as socialising them within Nigeria.

The sustainability aspect is integrated into the design – from the sustainable human capital component, to the selection of the implementing partners who understood development and the importance of strengthening existing systems, to engaging and empowering communities, to supporting Nigerian ownership, to IDRC’s focus on strengthening capacity.

A strong gendered analysis sensitive to power relations was included in the research question and implementation. The overall design sought to address the more structural issues resulting in dysfunctional health systems that require a strong gendered approach and analysis. Addressing structural issues lends itself to sustainability of the investment.

Contributions to the social audit

Cost is an important consideration for states that wish to implement NEHSI approaches. This section provides information about the financial and human resources that were used for the social audit.

CIET Trust used a very small number of expatriate staff to accompany health officials in both states to collect, analyse, interpret, and use and socialise data through three social audit cycles. The teams that collected the data for the social audit in Cross River and Bauchi were from various relevant ministries, local government, community-based organisations and teaching institutions.

As part of the sustainability strategy, using existing resources and strengthening budget lines for evidence-based planning has always been part of the goal. Over the course of the project, both Cross River and Bauchi State governments contributed significantly to the social audit. These contributions (in-kind financial and human resources) reduced the cost of the social audit. The state contributions also built in the sustainability of the project. In Cross River, a formal budget line was introduced for social audits at the State Planning Commission. There have been efforts to do the same in Bauchi.

The three social audits in Bauchi and Cross River States account for the bulk of the spending in NEHSI. However, some of the other spending, including in the planning phase, and on the Sustainable Human Capital and the Linkages, Opportunities and Sustainability components, also fed into the base for the social audits. The first two cycles of the social audit implemented in Cross River and Bauchi were each about two years long, with a full year of socializing evidence with communities and decision-makers at different levels in the state. As discussed earlier, the socializing component of the social audit is integral to the uptake and use of evidence. Each two-year cycle of the social audit cost approximately 290 million Naira per state.

The third cycle of the social audit in both States was only one year long and consisted of data collection across both states, with more limited socialisation of data in communities than the first two social audit cycles. The budgets that were created by CIET and officials in both states are discussed below in more detail for the third cycle. However, the full cost of technical assistance from CIET and IDRC is not captured in these budgets, which are consequently less than the 290 million Naira for the full two-year cycle.

In the third cycle of the social audit, Cross River State contributed approximately 13% of the total estimated cost of 56.12 million Naira for a one-year social audit cycle, as explained above. This covered the stipend for state personnel, an inception meeting, printing the scorecards, equipment and office supplies. Other costs covered by the NEHSI project included project personnel, designing the questionnaire through consultations and piloting, training the field teams in data collection (surveys, focus group discussions, key informant interviews and institutional reviews), doing the household surveys, focus group discussions, key informant interviews and institutional reviews, data management, and socialising the evidence for participatory action. In terms of weighting, project personnel was approximately 31% of the total cost; data collection (qualitative and quantitative) was approximately 29% of the total cost; and training was less than 10% of the total cost.

The third cycle of the social audit budget in Bauchi State has a total cost of approximately 39,653,500 Naira. As in Cross River, the third cycle focused less on socialising evidence than in the two previous cycles. In Bauchi, the State Primary Health Care Development Agency and the State Ministry of Health planned to provide more than 60% of the total funds. Budgets were made to this effect; however, the release of funds was less than this amount. CIET ended up covering more of the expenses. The most significant expense was the fieldwork, which represented approximately 41% of the total expenditure. This was followed by technical assistance (32%); training for data collection (surveys, focus group discussions, key

informant interviews and institutional reviews) (16%); and designing and piloting the third social audit, printing and launching scorecards, which together amounted to approximately 6% of the total expenditure.

The fieldwork for the quantitative data collection (surveys) from households, from the sampling frame of 90 communities distributed across the 20 LGAs in Bauchi and the 18 LGAs in Cross River, was an important cost in both states. The qualitative fieldwork was much less expensive. When the fieldwork uses existing state resources (vehicles, personnel) and is integrated into health programming more broadly, the additional cost is reduced. At the same time, the costs are borne by a functioning health information system – and so are the benefits.

“ I have seen for myself  
how the states are using  
evidence to change. ”

Dr. Azeez Aderemi  
DEPUTY DIRECTOR, DEPARTMENT OF  
RESEARCH, PLANNING AND STATISTICS,  
FEDERAL MINISTRY OF HEALTH



5. The Two Pillars of NEHSI

To go beyond the standard approaches used by many initiatives, it is important to understand the drivers that not only motivated the design but are interwoven in every step of the implementation. These drivers are the pillars of NEHSI: building a culture of evidence-based planning, and strengthening capacity. These supporting and complementary pillars were integral to achieving success in NEHSI.

Building a culture of evidence-based planning

Nigeria’s national health management information system is undermined by political, social and technical gaps and weaknesses. There is a fundamental disconnect between those who manage the health information system and the people and processes involved in health planning and budgeting. As in many countries, the decision-making environment is not always conducive to using evidence in planning. Meanwhile, front-line health workers are overwhelmed by the volume of data they must collect.

Building new approaches for existing systems

For six years, NEHSI tested new approaches to strengthening the quality of health information systems in Bauchi and Cross River states. NEHSI has worked closely with senior health officials and workers and the communities they serve. It strives to ensure local ownership

and sustainability by involving key stakeholders while respecting local culture and decision-making processes. These processes are not always tangible or explicit.

Core principles: Data contributes to development.

Health outcomes can be improved by investing in

- Actionable data, generated in ways that are affordable and sustainable;
- Effective links between people and data systems at the local, state and federal levels; and
- Building existing human and system capacity.

NEHSI is building on existing systems, making them more manageable, transparent and science based. In light of Nigeria’s decentralized health care system, NEHSI integrates knowledge from communities and multiple levels of government to enhance the information system. And to ensure local capacity to sustain these changes, it trains and mentors health workers in epidemiologically sound methods of data gathering, analysis and use.

Starting with the right data

Because evidence is essential to shaping better health outcomes, NEHSI has focused on giving health planners access to reliable, timely and affordable data derived from processes that can be sustained in Nigeria.

Nigeria’s health information systems rely on data gathered from institutions, such as hospitals and clinics. But to meet the needs of the most vulnerable, planners need to reach those without access to clinics or hospitals.

Building communities into the evidence base: data contributes to development

Data on maternal health was gathered from

- 17,506 households
- 193 health facilities
- 25,731 women of child-bearing age
- 15,613 pregnant women

Data on child health and immunization was gathered from

- 13,220 households
- 214 health facilities
- 22,589 children under the age of 2
- 18,606 mothers and caregivers

Data on primary health care was gathered from

- 16,506 households
- 19,373 women of child-bearing age
- 24,787 children under the age of 5

They also need to go beyond the kinds of data routinely captured – such as births, deaths and illnesses – to address root causes and factors that can improve health outcomes.

Front-line health workers endlessly fill out forms to satisfy multiple demands, but the resulting information is cumbersome, inconsistent and of little use in health

planning. NEHSI uses a social audit process developed by CIET that complements facility-based data with input from households, communities and key health system stakeholders. Gathering the “right data” begins with prioritizing local information needs. A structured household survey process gathers information on health issues, as well as their possible causes and solutions. In later stages, potentially life-saving information on maternal and child health risks is brought back to communities, in forms they can relate to everyday decisions on issues such as care and nutrition.

By going beyond health facilities to households, NEHSI accesses data and insights on the causes of death and illness from the viewpoint of those the health system is intended to serve. Input from health workers and others in the community helps to pinpoint solutions that are feasible and actionable with local resources.

Closing gaps in the system

The best evidence is of little use if it does not reach those making decisions on a timely basis. Nigeria’s health system is undermined by gaps between those departments responsible for health planning and budgeting and those that manage research and data. This has produced a major disconnect between health care needs and health care planning, delivery and spending. The

cultural shift that NEHSI aims for demands that different parts and levels of the system work together.

Research has been undertaken in collaboration with officials involved in health care decision-making from the state to the local level. With technical support, NEHSI strengthens existing planning processes and builds bridges between various ministries and agencies.

“Before, women went to see friends for antenatal care. Now they are asking for urine tests and blood pressure checks.”

Mrs. Yagana Gidado  
FEDERATION OF MUSLIM WOMEN'S ASSOCIATIONS IN NIGERIA

In Bauchi and Cross River, state health commissioners and other state and local primary health care officials have been closely involved, as has the Governor’s Office in Cross River. Lessons from research are also shared with federal health officials to inform potential uses in other states.

In Bauchi, channels for data sharing have been opened between the State Ministry of Health and the State Ministry of Budget and Economic Planning. The latter has been provided with high-quality data, timed to coincide with budgeting and planning deadlines. It also uses this data as part of the state requirements set by the National Strategic Health Development Plan evaluation framework.

Health “scorecards” have been an invaluable tool for linking research findings to budgeting and planning processes. Scorecards provide a statistical summary of major findings on health indicators by local government area. For example, a scorecard on maternal health reveals the percentage of pregnant women who visited government health facilities, the frequency of visits, and the percentage that experienced a variety of complications. This allows planners and policy makers to compare performance between local areas and against state results, to pinpoint needed improvements.

Findings from household surveys are also brought back to community members and leaders for discussion in the form of short and informative “docudrama” videos. For example, following a first data-gathering cycle on maternal health, communities watched a drama focused on heavy workloads and domestic violence, which research showed to be pregnancy risks. These videos are screened in public and followed by discussions on what can be done in a local context. These viewings deepen the culture shift by raising expectations that these local realities will be addressed in decision-making.

Through these practical, recurring measures, NEHSI is bridging the divide between evidence and action, and bringing greater transparency to decision-making in the health system.

Building evidence into plans and budgets

Sustaining these changes demands that those who play crucial roles in managing and implementing the Nigerian health system have the skills to gather, interpret and use evidence in health planning – and the will to invest in these new approaches over the long term.

There are signs, too, that a culture of evidence is taking root beyond the health sphere. In Cross River, a Sector-Wide Social Audit Program has been created. This will expand the social audit methodology to other sectors, including agriculture and education.

Lasting change: strengthening capacity to improve health systems

Through an integrated program of capacity strengthening and technical support, and by bridging multiple levels and agencies, NEHSI has increased coherence and accountability in health decision-making. It is building a skilled workforce with the confidence and qualifications to manage an effective primary health system beyond the project’s conclusion. Capacity strengthening has been embedded across the spectrum of research activities over the last five years.

“For me the success story is that now we work more with evidence.”

Mr. Bassey Okon Effiong  
HEALTH INFORMATION SYSTEMS  
OFFICER, CROSS RIVER STATE

“NEHSI is getting people involved in their own health needs.”

Dr. Angela Oyo-Ita  
HEALTH COMMISSIONER,  
CROSS RIVER STATE

NEHSI’s approach to sustaining human capital:

- Weave capacity strengthening across project activities.
- Tailor training to local realities, especially at the district level.
- Target individuals working within the system.
- Integrate classroom learning with day-to-day responsibilities.
- Reinforce through mentoring and peer support.

Changes in practice: new habits of evidence use

Ingraining evidence use in health planning requires cultivating the necessary human capital – nurturing the skills, knowledge and willingness to work effectively with data. This is NEHSI’s core contribution. Using an intentional capacity-strengthening approach, the project is laying the groundwork to sustain these skills over the long term.

An integrated approach to capacity strengthening

NEHSI actively involves and responds to the needs of those who play an essential role in improving health information and outcomes. For example, Nigerian ownership has been strengthened through close collaboration with three levels of government. Health officials, planners and community health workers have actively participated in designing and carrying out new methods of data collection, analysis and use. Through technical support and mentoring, new skills in evidence gathering and use have been reinforced. And to equip current and future cadres of health planners with the knowledge and qualifications to sustain an evidence-based health system, the research and training organization CIET has customized a master’s and diploma-level program in epidemiology.

Using a mentorship and accompaniment model, NEHSI builds the appropriate skill sets of people at different levels in the system, enabling them to carry out their tasks with more confidence, pride and efficiency. By directly involving stakeholders from the Federal Ministry of Health, Bauchi and Cross River state health systems,

and local government authorities in project activities, NEHSI has created the conditions for “learning by doing,” while establishing a solid base for health system planning that is grounded in local realities. Integrating capacity strengthening across project activities allows individuals and institutions within the health system to lead, simultaneously building their expertise.

Level matters: focusing on those delivering primary health care

NEHSI has put states and local government areas – the jurisdictions responsible for primary health care – front and centre, with health workers and officials being the primary candidates for capacity strengthening. They have also been deeply involved in implementing and evaluating NEHSI activities. This reinforces local ownership while increasing skills and knowledge.

In Nigeria, the professionals and institutions working at the local level are the main interface between the health system and the communities served. Yet, most training resources relevant to health decision-making have been developed overseas and are ill-suited to the Nigerian reality, particularly for those working with scarce resources. Reaching the right individuals, within the right institutions, is key. In both Bauchi and Cross River, officials have been seconded by the State Ministry of Health to work with NEHSI, actively participating in social audits to garner and understand evidence of local health needs. Similarly, community health workers have been trained to collect data and interact with households, to better capture community health needs and present data in forms that are useful for planning. As well as targeting individuals, units within the health ministries are supported. For example, the NEHSI team facilitated an initial organizational assessment within the Federal Ministry of Health’s Department of Planning, Research and Statistics, which monitors state health delivery performance.



**Building a professional base for evidence-based planning**

Faced with a lack of locally appropriate formal training, NEHSI launched a customized graduate program in evidence use for public health professionals. In consultation with health system stakeholders in each state, CIET designed an interdisciplinary curriculum that draws on master's in public health programs at the Universidad Autónoma de Guerrero in Mexico. Delivered in modules, the program is geared to health planners from state ministries of health and local government authorities. It draws on and reinforces participants' own professional experience, which is deepened through participation in NEHSI social audits. Learning in interdisciplinary teams, they share their practical challenges through frequent presentations and discussions. The program, which is offered at both the diploma and master's level, grounds participants in the basics of epidemiology and statistics and how these apply to health planning. It also draws on social and behavioural sciences that shed light on the determinants of health. Ethics and conflict management skills are other important ingredients.

By focusing on working professionals, these new skills and knowledge are anchored in the agencies responsible for shaping and administering health agency plans and budgets. Supported by tutors, participants drafted papers for submission to academic journals. Topics reflect priority areas highlighted by the state governments, including maternal care and services, and prevention and management of childhood illnesses.

While nurturing this first cadre of graduates, NEHSI is preparing the ground for a consortium of institutions to sustain and widen this certification. An important measure of NEHSI's success will be the extent to which a local market develops for skills in evidence use, as other local and state governments adopt these health-planning approaches.

To this end, CIET is working in pioneering an open and distance learning version of the master's program, which will offer the flexibility and reach that practitioners need while working with the challenges posed by Nigeria's weak Internet infrastructure. To address a lack of health informatics training and knowledge in Nigeria, the University of Calabar is developing a certificate-level program in Cross River.

*“I have seen the transformation happening under our eyes from inclusive planning process, input from all stakeholders. From day one, we were carried along. NEHSI is a home-grown intervention. This is a Bauchi project. That is what has sustained the momentum.”*

**Dr Sani Malami**  
HEALTH COMMISSIONER, BAUCHI STATE

*“We know that without the correct type of data we cannot plan effectively. Data is very, very important to us.”*

**Dr. Sade Yemi-Esan**  
A FEDERAL PERMANENT SECRETARY AND  
FORMER DIRECTOR OF THE DEPARTMENT  
OF PLANNING, RESEARCH AND STATISTICS,  
FEDERAL MINISTRY OF HEALTH

*“It takes political will to propose and implement projects to strengthen health systems [...] and courage to base them on evidence.”*

**Mrs. Amina Abubakar**  
DIRECTOR, GENDER DEVELOPMENT, FCT,  
FORMER PERMANENT SECRETARY, MINISTRY  
OF HEALTH, BAUCHI STATE

“ [NEHSI] is a paradigm shift on two levels: 1) focusing on evidence-based planning, and 2) results from and with communities. It is not just about data for its own sake, but rather data that informs us. ”

Prof. C. O. Onyebuchi Chukwu  
HONOURABLE FEDERAL  
MINISTER OF HEALTH, NIGERIA

“ This is the type of thing we need to do in all LGAs of all states, and until we learn to dirty our fingers with fieldwork like this, we would not see much improvement in our health system. ”

Mrs. Ansa Ogu  
DIRECTOR OF PLANNING, RESEARCH AND  
STATISTICS, FEDERAL MINISTRY OF HEALTH

## 6. Challenges, Lessons and Looking Ahead

Challenges— Working to improve the health information system entailed dealing with some challenges. None of these were unexpected. The strength of any initiative lies in how all stakeholders come together and work out solutions. Some of the challenges included the following:

### Turnover of officials

As in all government departments, officials at the Federal, State and Local Government Area levels changed several times during the planning and implementation of NEHSI. NEHSI made efforts to continue to reach out to officials as they moved and retired, recognising their increased networks. This led to deeper collaboration between ministries, at times. However, it also meant that new officials had to be repeatedly brought on board. By working with institutions as well as individuals, the project has helped to ensure that changes do not depend on a single individual.

### Recruitment of junior and Community Health Extension Workers

At the community level, NEHSI relied heavily on junior and Community Health Extension Workers (j/CHEWs). CIET invested time and resources in training them, but attrition continued at a steady rate during the implementation period. Thus, new j/CHEWs needed to be recruited on a regular basis. In addition, there were not enough j/CHEWs to do the necessary work, and so volunteers from community-based organisations were enlisted and trained to take on the responsibility. Many difficult-to-reach communities provided accommodation for the CHEWs to facilitate their access. Moreover, through their work



“ [NEHSI is about a] system change.  
Changing people is extremely difficult. ”

Commissioner Olaokun Soyinka  
HONOURABLE COMMISSIONER OF HEALTH, OGUN STATE

in NEHSI, CHEWs were provided with top-ups to their salaries. Professional fulfillment was another incentive for health workers, as they received training, supervision and positive feedback from the communities.

Coordination

Bringing all the relevant stakeholders on board and keeping them involved is key to the success of NEHSI. Since this involves a wide range of people, from community leaders and local authority councils to the ministry of local government, from the Ministry of Health and the State Ministry of Budget and Economic Planning to community organisations, coordination can be a challenge. It requires strong and committed leadership.

Quality control

Any data collection process needs to pay attention to the quality of data. During the social audit, standard data collection errors and the falsification and duplication of records were sometimes noted. Thus “cleaning” the data is critical to ensure high quality. The introduction of mobile phones that were able to track the location of data entry increased the efficiency of the monitoring to improve the quality of data. However, manual checking of the errors to make the corrections still needed to take place. Quality is also a result of scientific rigour employed throughout the data collection and analysis phase. NEHSI dealt with this challenge through technical oversight by CIET and by working at the Local Government Area and State level.

Allocation to release of funds

Evidence-based planning took root in Bauchi and Cross River States, and there were decisions to allocate financial resources to support the data collection and socialisation efforts, as well as decisions based on the findings. However, while the allocation and budgeting was evidence-based, this is only one step in the actual release of funds.

Closing chapters

As the activities planned for under NEHSI wrapped up, momentum was building in both Bauchi and Cross River States and at the Federal level. This energy lends itself to domestication processes, which are playing out in

different ways in the different contexts. The interest is a testimony to the use of NEHSI. While a high level of energy is an optimal time for activities funded by a donor to end, it is also a difficult time, given demands from states. The transition from activities carried out and funded in the context of NEHSI to ones carried out and funded by Local Government Areas, States and the Federal Ministry of Health will continue to be a challenge.

Lessons

Information as an intervention can make a difference. Strengthening the health information systems improves health outcomes by a) getting actionable evidence to planners; b) building planners’ capacities to interpret and use evidence to allocate resources; c) providing space for community input, interpretation and action; and d) sharing information about risk factors with households in real time. The multi-pronged approach used in NEHSI stimulates both the supply of and demand for more effective health systems with an immediate and sustainable impact on maternal and child health.

Below are the key lessons that emerged related to the process of revitalising a health information system to make it work for both policy makers and households.

Taking the time to understand the context and challenges

The planning phase allowed NEHSI to research the main challenges and priorities related to primary health care and health information systems in Bauchi and Cross River States. Listening to both communities and decision-makers was key. This approach directed NEHSI’s implementation.

Building ownership

One of the strengths of NEHSI is that Nigerian officials understand it to be a Nigerian project, not an IDRC or DFATD project. The priorities were set by relevant

Prof. Neil Andersson reminded members of the Project Advisory Committee of the “jewels” to protect when moving forward with NEHSI:

- **Breadth-depth:** NEHSI found a good balance of priority questions that are actionable. States have set the tone and content. Note the difference between the social audit and Multi Indicator Cluster Surveys – each have their place, but the focus of the social audit is on the state priorities that are actionable and provide an in-depth understanding of what can be done.
- **Skill asymmetry:** This type of work requires skills that can be learned, but take time to learn. The skills individuals have acquired in NEHSI are hard-earned skills.
- **Linking with existing systems:** NEHSI built up from existing systems and indicators – not as a parallel system. It builds the Nigerian system and Nigerian epidemiologists – this matters.
- **Implementing and reporting style:** NEHSI is characterized by development of rapid instruments (based on international standards) and varied reporting formats: e.g. scorecards, fact sheets, video dramas and peer-reviewed articles.

decision-makers, and health officials at all levels have driven the work. In this case, the deep understanding of health information (including its organization and the content) that was developed in Bauchi and Cross River States was useful for health officials in carrying out the tasks of providing and planning for health. Key decisions were deferred to Nigerians to make. Nigerian officials were profiled in meetings, accorded due respect and asked to take the lead on issues and discussions. Political will affects how successful and sustainable the approach can be. Establishing a unit within the Ministry of Health or State Planning Commission can also be useful.

Setting priorities

The type of information collected in the health information system affects how useful it is to planners. In NEHSI, health planners in Bauchi and Cross River were involved in deciding what they needed to know versus what they wanted to know. Maternal and child health

were the priorities set by both Bauchi and Cross River. This set the agenda of the research.

Working with the right people

Collaborating with people who are working within the State at different levels builds continuity and can contribute to a culture change in the institution. When individuals are moved from one department to another or retire, the knowledge and know-how remain intact, because work has occurred with a spectrum of participants. While some loss in momentum is possible, working with people in the existing system is considerably more valuable than the alternative of creating a parallel system.

Honing skills over time

Building the capacity of people and institutions is at the heart of sustainable improvements. It takes time to build the type of skills needed to coordinate, collect, analyse, interpret and use data for an effective

health information system that feeds into planning and budgeting decisions. These skills are developed through practice over time, not through one-off workshops.

Being committed over an extended period

Including the planning and implementation phase, NEHSI was active for approximately eight years. This serious time commitment allows for process and culture changes to take root and is appropriate for systems-oriented interventions.

Doing research as an intervention

NEHSI demonstrates the power of implementation research. By using research to understand and improve existing systems, this becomes the intervention. When researchers work closely with implementers and other research users, they get a system working more effectively as their approach has the effect of immediate uptake and

“This is a very important health project in Nigeria.”

Dr. Edet Ikpi  
FORMER HEALTH COMMISSIONER, CROSS RIVER STATE

integration of research findings. In NEHSI, addressing the challenges of poor-quality data, limited use of evidence in planning, and weak human resources was the focus of the research process. With this as the foundational base, socialising evidence back to communities was also part of the implementation research process. For example, this process was done through the intervention of docudramas on maternal and child health practices, which in turn demonstrated the potential to bring about household and community behaviour changes. Communities, front-line workers and decision-makers uptake evidence that they are part of generating, without waiting for peer review publication. The research process enables the improvement of both the quality and the equity impact of health services. In the case of a specific intervention like the docudramas, in Cross River the docudrama was soon broadcast on state television, going beyond the research sites so more households could benefit.

**Looking upstream for maternal and child health**  
While much attention is focused on the immediate cause of death, NEHSI demonstrated that investigating root causes and addressing them can be an effective way to approach health. This involves ensuring that data is collected about particular kinds of information. Addressing the root causes of maternal and child health also means delving into upstream determinants of health, including power, inequity, culture, tradition, and gender roles and relationships.

**Connecting with communities**  
Communities offered an extra layer of evidence when they were consulted to interpret findings from the social audit. This information provided context and possible avenues for action for policy makers. The docudrama videos developed in local languages, with local actors, were of interest to the people of Nigeria, the home of “Nollywood”. These videos presented information in a way that generated discussion and action at the community level. Correcting for the health information asymmetry, communities can use health information to protect their own health and to demand higher-quality and better access to services.

**Using state resources**  
Over the course of the social audits in Bauchi State, for instance, ownership by the state was evident through the use of existing resources (personnel, vehicles). This reduced the amount of additional funds needed to conduct the social audit. Conducting a social audit in parallel to the existing infrastructure is more expensive than mobilising the state system.

**Connecting with the Federal Ministry of Health**  
While it is appropriate to work on primary health at the state and local government area level, the Federal Ministry of Health (FMOH) must be included. It has an important role to play in promoting effective approaches that are tested in different states. Clearly stating this role at the outset and taking steps over the course of implementation to facilitate it support both the health system and sustainability. Beyond the FMOH’s regular participation in the governance of NEHSI and regular debriefs, visits to the project sites were integral to building understanding and interest at the federal level. In NEHSI, this linkage resulted in the incorporation of aspects of the social audit into the revised Health Information System policy; as well, the FMOH played a role as convenor regarding the sharing of results.

**Using senior advisors**  
Over the course of NEHSI, several well-respected and connected Nigerians were contracted as senior advisors. These individuals advised IDRC and the research teams in navigating the Nigerian context, were the liaison between and within the state and federal levels, and served as ambassadors of the NEHSI approach in key forums.

“Evidence-based planning is about building a skill set, an environment, a set of habits, a way of thinking, and a career structure that can see future generations of managers and planners. It is a different way of doing business, one with evidence as the currency that prioritizes what needs to be changed and how to change it. And it is a reiterative process where the ability to make better decisions gets internalised, reinforcing the mandate of health systems to deliver quality care.”

Prof. Neil Andersson  
EXECUTIVE DIRECTOR, CIET

“Now I can say I do planning. I help ensure health system decisions are informed by evidence from communities in our state.”

Mr. Malam Chadi Baba  
FORMER DIRECTOR OF PLANNING, RESEARCH AND STATISTICS, BAUCHI STATE PRIMARY HEALTH CARE DEVELOPMENT AGENCY

**Integrating technology**  
Mobile health (m-health) initiatives need to be embedded in broader efforts to strengthen the system to be effective in improving health planning and, ultimately, health outcomes. M-health initiatives that focus on the problem and identify where technology can play a role, without getting sidetracked by the tool, are more likely to be successful. Technologies were integrated into NEHSI once some other key health information challenges were addressed. Technologies were used in NEHSI to improve timeliness, quality and accountability.

Looking ahead

NEHSI operates on the basis that sound data is an essential starting point for a strong health system and, ultimately, for sustainable development. NEHSI has focused on creating strong links among the key actors involved in Nigeria’s health systems. It has worked towards incremental and subtle changes to build new skills, new habits and new understandings about the value of evidence.

Enhancing Nigerian health system capacity on this scale is a long-term effort, with results being manifested in steady but subtle shifts in the decision-making culture: an official who asks for evidence of need before approving a new investment; a planner who analyses health information system data; a health worker who collects that data and better understands its value. Investing in capacity strengthening demands patience and some tolerance of risk, as it lacks the gratification of quick and visible results. The skills built in NEHSI cannot be imported: they must be nurtured locally, with training and mentoring customized to local realities. To sustain these changes, however, knowledgeable and committed health professionals must take the lead.

The experience in Cross River and Bauchi States– with the full cycle of the social audit and of training for health planners through the sustainable human capital

component, and the additional experience of pilot LGAs in Bauchi with the community surveillance system – merits attention and scale-up in other states in Nigeria. This document can be one starting point for that process. Both Bauchi and Cross River States have presented their experiences with NEHSI at the National Council on Health in an effort to share with other health commissioners. Likewise, other health commissioners have been invited to Project Advisory Committee meetings and to the release of NEHSI results in Abuja. Health planners and researchers are in the midst of publishing results on the impact of the intervention in research journals to further disseminate knowledge about the NEHSI approach. In both states, institutionalising the approach has been a priority. These efforts ensure that evidence continues to be embedded in planning.

Information begets a demand for information. The culture of evidence-based decision-making at the community level through to the state level in Bauchi and Cross River is evident. Local action groups will likely continue to socialise the findings related to the proper management of pregnancy and childhood illnesses. Planners in Cross River and Bauchi will also likely continue to demand high-quality actionable information. Demand from levels of leadership sets the tone for a culture of evidence-based planning throughout the institution, making space for continued skill building, data collection, analysis, interpretation and use. In this way, health information systems can continue to improve to serve beneficiaries and planners better. The commitment and integrity that households, communities, health workers, planners, officials and the researchers have demonstrated has laid the foundation for better health. This is, however, just the beginning. The momentum of the power of information and of people working together cannot be stopped, but it needs to be nurtured.

“There is no doubt the focus LGAs have taken over the ownership and are committed to sustaining it. I am moved by the way they formed committees by themselves and are working with other stakeholders for the success of the social audits.”

Mr. Abubakar Othman  
FORMER DIRECTOR OF PLANNING, RESEARCH AND STATISTICS, BAUCHI STATE



Appendix 1— List of Nigerian Members of the Project Advisory Committee (2008–2014)

- Dr. Idriss Abdulahi
  - Mr. Bimbo Abiyoe
  - Mrs. Amina Abubakar
  - Mrs. Ladi Abubakar
  - Dr. Okey Akpala
  - Habiba Ahmed Ali
  - Mrs. Hadiza Ali
  - Dr. Joseph Ana
  - Mr. Victor Archibong
  - Dr. Ndem Ayara
  - Dr. Aderemi Azeez
  - Mr. Chadi Baba
  - Mr. Haladu Baraya
  - Mr. Jibrin Barnoma
  - Dr. Joseph Bassey
  - Dr. Dachi
  - Dr. Muhammad Musa Dambam
  - Dr. Lola Dare
  - Dr. Bong Duke
  - Mrs. Chinwe Ebere
- Mr. Elder Ita Edem
  - Mrs. Isu Elemi Edu
  - Dr. L I Eleke
  - Dr. Tolu Fakeye
  - Mr. Abubakar Fateh
  - Dr. Adamu Gamawa
  - Mr. Tela Garo
  - Mrs. Yagana Gidado
  - Dr. Aminu Hammayo
  - Dr. Mohammad Hassan
  - Dr. Edet Ikpi
  - Mr. Adamu Imam
  - Dr. Chris Ita
  - Mrs. Helen Jamal
  - Dr. Muhammad A Jarma
  - Dr. Jonathan Jiya
  - Mr. Baba Lamido
  - Dr. Muhammed Lecky
  - Dr. Sani Abubakar Malami
  - Dr. Ado Jimada Gana Mohammed
- Mrs. Hadiza Musa
  - Mr. Roy Ndoma-Egba
  - Mrs. Ansa Ogu
  - Mr. Asishana Bayo Okaru
  - Mrs. Mary Omaji
  - Mr. Abubakar Othman
  - Dr. Peter Oti
  - Dr. Akin Oyemakinde
  - Dr. Angela Oyolta
  - Dr. Muhammed Pate
  - Mr. Lawal U Shehu
  - Mr. Muhammad Shehu
  - Dr. Shehu Sule
  - Dr Yaya Tijani
  - Dr. Iyam Ugot
  - Dr. Nisser A Umar
  - Mrs. Maryam Uthman
  - Mr. Muhammad Yahya Jalam
  - Dr. Yahaya Yarima
  - Dr. Sade Yemi-Esan

\* Note that this list does not include, CIET, the University of Calabar, the University of Southern Maine DFATD or IDRC.

Appendix 2— References

NEHSI project materials:

Project update: <http://www.idrc.ca/EN/Documents/NEHSI-Update-English.pdf>  
Capacity strengthening brief: <http://www.idrc.ca/EN/Documents/NEHSI-Capacity-Strengthening-INSIGHT.pdf>  
Build a culture of evidence-based planning brief: <http://www.idrc.ca/EN/Documents/NEHSI-Evidence-based-plan-ning-INSIGHT.pdf>

Other documents:

Cross River Sector-Wide Social Audit Program, State Planning Commission. (2013). Project Appraisal and Operational Manual.

Websites:

IDRC – NEHSI: [www.idrc.ca/nehsi](http://www.idrc.ca/nehsi)  
CIET – NEHSI: <http://nigeria.cietresearch.org>

