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

FUNDING
CAD 19 million

LOCATION
Cross River and Bauchi States, Nigeria

RESEARCH PARTNERS
CIET Trust, University of Calabar, University of Southern Maine.
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Appendix 1: List of Nigerian Members of the Project Advisory Committee (2008–2014)

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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 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. Ansar Ogu  
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

Dr. Tolu Fakeye  
Former 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

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 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.

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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.
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

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.
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

1. 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.

2. Affordability and sustainability: In resource-limited settings, an important criterion for information is that it is affordable. This is one ingredient for sustainability.

3. 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.

4. 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 (MIS) 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 MIS 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. 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 (MIS)

   The Multi-stakeholder Information and Planning System (MIS) is a primary building block that helps local governments improve their planning, data collection and health systems. Using a social audit methodology, the MIS 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 many things that we need to do.

   Mrs. Amina Abubakar

   DIRECTOR, GENDER DEVELOPMENT, FCT, FORMER PERMANENT SECRETARY, MINISTRY OF HEALTH, BAUCHI STATE

   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.
During the second year of the initiative, Bauchi State requested the development of a surveillance system that was focused on the problem of 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 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, Research and Statistics), 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, 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 sustainability evaluation.

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 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
Communities drive the process of generating information.

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

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

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

Mrs. Iza Etemi Edu  
ASSISTANT HEALTH INFORMATION SYSTEM OFFICER, CROSS RIVER STATE MINISTRY OF HEALTH
RINGAGES, 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 socialising 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 15% of the total estimated cost of 96.12 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 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.
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:

- 19,373 women of child-bearing age
- 16,506 households
- 193 health facilities
- 25,731 women of child-bearing age
- 15,613 pregnant women

Data on child health and immunization was gathered from:

- 22,589 children under the age of 2
- 18,606 mothers and caregivers
- 214 health facilities
- 13,220 households
- 15,613 pregnant women

Data on primary health care was gathered from:

- 15,613 pregnant women
- 17,506 households
- 19,373 women of child-bearing age
- 24,787 children under the age of 5
- 18,606 mothers and caregivers
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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 skilled workforce with the confidence and qualifications to sustain an evidence-based health system.

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 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.

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.

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.
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 draft 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.

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

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
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: Building a Culture of Evidence-based Planning
A Process Document

**NEHSI is about a** system change. Changing people is extremely difficult.

Commissioner Olabisi Soyinka
HONOURABLE COMMISSIONER OF HEALTH, OUNG STATE

in NEHSI, CHEWs were provided with top-up to their salaries. Professional fulfilment 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, it 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 there were decisions to allocate financial resources to support the data collection and socialisation phase. NEHSI dealt with this challenge through technical oversight by CIET and by working at the Local Government Area and State level.

**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 understood it to be a Nigerian project, not an IDRC or DFATD project. The priorities were set by relevant 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 and 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 sustained impact on maternal and child health.
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 make 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 IOIRC 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

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 customised 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 audits 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 use of m-health initiatives that focus on improving health planning. Researchers are also 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.
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. Ademun Abubakar
- Mr. Chadi Baba
- Mr. Haladu Baraya
- Mr. Idris 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 Eleme Edu
- Dr. L I Eleke
- Dr. Tolu Fakaye
- Mr. Abubakar Fateh
- Dr. Adamu Gamawa
- Mr. Tela Garo
- Mrs. Yaguna 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. Muhammad Lecky
- Dr. Sani Abubakar Malami
- Dr. Ado Jimada Gana Mohammed
- Mrs. Hadiza Musa
- Mr. Roy Ndomba-Egba
- Mrs. Ansa Ogu
- Mr. Assishana Bayo Okaru
- Mrs. Mary Omaji
- Mr. Abubakar Othman
- Dr. Peter Oti
- Dr. Akin Oyemakinde
- Dr. Angela Oyinlaja
- Dr. Muhammad Faye
- Mr. Lawal U Shehu
- Dr. Muhammad Shehu
- Dr. Shehu Sule
- Dr. Yaya Tijani
- Dr. Iyam Ugo
- Dr. Nisser A Umar
- Mrs. Maryam Uthman
- Mr. Muhammad Yahya Jalam
- Dr. Yahaya Yarima
- Dr. Sadie Yew-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:
Capacity strengthening brief: http://www.idrc.ca/EN/Documents/NEHSI-Capacity-Strengthening-INSIGHT.pdf

Other documents:

Websites:
IDRC – NEHSI: www.idrc.ca/nehsi
CIET – NEHSI: http://nigeria.cietresearch.org