WORKING PAPER

Strategic Planning for Health Information Systems

A Supplement to the Health Metrics Network's Guidance

Stephen Sapirie, MEASURE Evaluation

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Stephen Sapirie, MEASURE Evaluation

MEASURE Evaluation
University of North Carolina at Chapel Hill
400 Meadowmont Village Circle, 3rd Floor
Chapel Hill, NC 27517 USA
Phone: +1 919-445-9350
measure@unc.edu
www.measureevaluation.org

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ABBREVIATIONS

AHS	annual health survey
APHI	Afghan Public Health Institute
ARI	acute respiratory infection
ART	antiretroviral treatment
BCG	Bacillus Calmette Guerin (vaccine)
BF	breastfeeding
BPHS	Basic Package of Health Services
BSC	Balanced Score Card
CBHC	community-based health care
CCD	Control of Communicable Disease
CPR	contraceptive prevalence rate
CSO	Central Statistics Office
CT	core team
DATIM	Data for Accountability, Transparency and Impact Monitoring
DEWS	Disease Early Warning System
DG	Director General
DOTS	directly observed therapy short course
DPT	diphtheria pertussis tetanus (vaccine)
EMR	electronic medical records
EPI	Expanded Program on Immunization
FMIS	financial management information system
FP	family planning
GIS	geographical information systems
GDPP	General Directorate of Policy and Planning
GCMU	Grants and Contracts Management Unit
HIB	haemophilus influenzae type b
HIS	health information system(s)
HMIS	health management information system(s)
HMN	Health Metrics Network
HR	human resources
ICT	information and communication technology
IEC	information, education, and counseling
IIHMR	Indian Institute of Health Management Research
IMCI	integrated management of childhood illness
IS	information system
ITN	insecticide treated bed net
JHU	Johns Hopkins University
LLITN	long lasting insecticide treated net
LQAS	lot quality assurance sampling

M&E	monitoring and evaluation
MDG	Millennium Development Goals
MDR	multidrug resistance
MICS	multiple indicator cluster survey
MMR	maternal mortality ratio
MOI	Ministry of Interior
MOH	Ministry of Health
MRRD	Ministry of Rural Rehabilitation and Development
NDS	National Development Strategy
NGO	nongovernmental organization
NHSPA	National Health System Performance Assessment
NIPH	National Institute of Public Health
NMC	National Monitoring Checklist
NMLCP	National Malaria and Lymphatic Filariasis Control Program
NNM	neonatal mortality
NTCP	National Tuberculosis Control Program
OPV	oral polio vaccine
ORT	oral rehydration treatment
PHD	provincial health department
PMTCT	prevention of mother-to-child transmission
PNC	postnatal care
PPC	postpartum care
PPH	postpartum hemorrhage
PPHO	provincial public health office
PRB	Population Reference Bureau
PRISM	Performance of Routine Information System Management
PRR	Priority Reform and Restructuring
RHC	rural health center
SC	steering committee
SP	strategic planning
STI	sexually transmitted infection
SWG	stakeholder working group
TAG	technical advisory group
TB	tuberculosis
TFR	total fertility rate
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UTI	urinary tract infection
VCCT	voluntary confidential counseling and testing
WHO	World Health Organization

BACKGROUND AND PURPOSE

Management Sciences for Health (MSH) developed the original Guidance for the Health Information Systems (HIS) *Strategic Planning Process: Steps, Tools and Templates for HIS Systems Design and Strategic Planning* in 2007; the Health Metrics Network (HMN) published the most recent version (the sixth) in 2009.[1] This guidance document was created to foster principles and methods to help national health administrations respond to HIS assessment findings. The guidance outlined the phases and steps that national working groups can use to address the common needs and gaps in their HIS. The guidance consisted of principles, steps, intermediate products, formats, and proposed plan outlines to inform sound systems analysis and intervention design, planning, and implementation. The guidance detailed the processes recommended for achieving each step, sometimes offering alternative methods, as well. During the development of the guidelines, the authors had the opportunity to try out some of the phases and steps in countries that were being supported by HMN to formulate a development strategy and plan.

Over the years, many users reported that the processes described in the document were too complicated and required national health administrations to take on too much subsystem development. HIS strategy developers reported they wanted something simpler. Over the same period, eHealth has evolved and should be a larger part of the overall HIS covered in the guidance.

Because HMN no longer exists, MEASURE Evaluation supported an effort to review the original guidance to improve it and address problems reported by those who used it for strategic planning. This supplement, like the original guidance document, is intended to be used by national HIS planners, designers, and managers, along with international advisors to the strategic planning process.

The amount of so-called "strategic planning" in the health and other public sectors has grown exponentially in developing countries in recent years. Also recently, emphasis has begun to shift in the health sector beyond developing the overall HIS toward using it for monitoring and evaluation (M&E). However, the interest of health ministries in using HIS for strategic planning is subsiding at the time when it is most needed.

For these and other reasons, the approach to planning and developing HIS systems and linkages may need to be to selectively prioritize and implement certain subsystems of the overall HIS rather than to design and implement an entire HIS system at one time.

[1] Health Metrics Network. 2009. Guidance for the health information systems (HIS) strategic planning process: Steps, tools and templates for HIS systems design and strategic planning, Version 6—March 2009. Geneva, Switzerland: Health Metrics Network, World Health Organization. Retrieved from http://www.cpc.unc.edu/measure/his-strengthening-resource-center/resources/resources-1

Successful Principles and Processes in the Original Guidance

The original guidance document promoted several basic principles that countries have been able to successfully use in the strategic planning process:

- *Countries should own the HIS development process and its products.* Full national ownership can be difficult to achieve and is a vital prerequisite of a successful HIS system. If the ministry of health does not take responsibility for the strategic planning of the HIS, the result, no matter how well designed, will not be sustained and used by the national health system.
- *The HIS process should be led by national staff from the start to ensure national ownership.* External donors and advisors should support leadership by national managers in the HIS development and management process.
- *Donors and their partners should embrace a supportive approach throughout the implementation process.* This must be maintained even with turnover of national and partner organization staff and when other partners join the effort.
- *Design and implementation of a national HIS and its subsystems require continued support from national organizations.* One of the more challenging aspects of the HIS development process has been the capacity of the government and ministries to appoint working groups to fulfill well-defined responsibilities on either a temporary or permanent basis. Another challenge is the high rate of transfer of senior policymakers and technical managers and the difficulty of replacing them with equally qualified and interested colleagues. Also, different countries have different ways of working with their partners, which are usually beneficial as long as the external partners are working collaboratively rather than on their own.
- *Governments, donors, and other partners should work collaboratively to design HIS that serve national health data and information requirements and respond to international reporting requirement.*
- *HIS strategic planners should focus on selected priority HIS components and subsystems and avoid trying to do much at the beginning.* This principle was strongly defined and supported in the original guidance framework, but often ignored. Initial expectations and ambitions should be realistic.
- *All data required to be recorded and reported to higher levels of the system must have a confirmed use at the recording level.* The HIS should not require data and reporting that are only useful at higher levels of the system. This principle can be difficult to enforce and national health administrators often violate it.
- *The detailed steps, tasks, and products listed in the original guidance are useful for the HIS planning and implementation processes, but alternative, simpler approaches may also be worth considering.*

The Purpose and Objectives of This Supplement

Nine years after the creation of the original HIS guidance, this supplement aims to answer the following questions:

1. Does a national HIS warrant a six- to eight-month planning effort by a large, multifaceted group of nationals and international advisors?
2. Does the recommended set of phases and steps in the guidance actually produce a full set of products that identify priority HIS development needs, how the needs can be addressed, and how the chosen interventions can be implemented and paid for? Can something shorter and simpler serve the same purposes?
3. Are there problems with the process, the plan, or the plan's implementation that are difficult to resolve? Could the process be dropped altogether in certain situations?

In answering these questions, we came up with suggestions to improve the steps and processes needed to plan an HIS, and these are presented here.

METHODS USED TO GENERATE THIS SUPPLEMENT

This review of HIS strategic planning and the HIS guidance document included the following approaches and steps:

- *A review of the HMN framework and components document*[2] *by an international technical advisory group (TAG).* The TAG consisted of four WHO staff and consultants, three MEASURE Evaluation staff, and one field-level MSH staff person. These advisors provided comments on aspects of the original HMN HIS framework document in an effort to identify needs and opportunities for updating the document.
- *Identification of elements of the original HMN document that could be improved, added, or deleted.* TAG members' comments were consolidated in a summary article that was shared with the World Health Organization (WHO) and used for this review.
- *Design and distribution of a review framework to be used by national participants to comment on their past HIS strategic planning processes.* TAG members were asked to identify at least one country from which they could obtain feedback from national staff who participated in the HIS strategic planning process. The TAG contributed to the design of a framework of questions and subjects that could be useful in the review. The framework seeks to determine how each country applied the guidance and principles; how successful they were in producing the products and getting the plan approved and funded; and ultimately how much progress they made in implementing the HIS strategic plan. Gathering this information took a substantial amount of time, and it was difficult to compare the responses in a consistent manner given the different roles played by the respondents, the variable extent of their involvement in the planning processes, and their differing perspectives on the proper roles to be played by external advisors. A summary of the framework results appears in Appendix A and feedback is presented in Appendix B. Nine countries provided feedback on the framework in one way or another.[3]
- *Collection of actual products from past HIS strategic planning processes: steps, products, plans, and achievements.* We attempted to gather and review actual materials that countries had prepared to guide their HIS strategic planning processes. Some countries provided more information than others, but the final strategic plan documents were the most revealing. These final plans, however, do not specify how much of the plan was written by nationals and how much was written by external advisors.
- *Enumeration and comparison of common priority HIS subsystems, strategic interventions, and products of past HIS formulation efforts.* It thus became possible to review and compare the specific priorities and strategic interventions proposed by the various planning efforts, and to note similarities and differences. Attention will be devoted to this comparison in subsequent sections of this document.
- *Assessment of actual achievements and gaps.* The review noted the differences in the ways countries used these methods and products, and then attempted to discern the true achievements of each application, including the degree to which the desired principles were applied.

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[2] Health Metrics Network. 2008. Framework and standards for country health information systems, 2nd edition. Geneva, Switzerland: Health Metrics Network, World Health Organization. Retrieved from https://www.measureevaluation.org/his-strengthening-resource-center/resources/resources-1

[3] Most commentary and material came from the following countries: Afghanistan, Angola, Cambodia, Guinea, Liberia, Malawi, Mozambique, Rwanda, and Zambia.

OVERALL FINDINGS AND GENERAL IMPRESSIONS

The comments that follow were drawn from several sources: in particular, the results of the assessment framework cited above and presented in Appendixes A and B and the products of the various countries' HIS planning efforts, including the actual HIS strategic plan documents.

- *The choice by governments (ministries of health) to undertake HIS strategic planning often appears to be the result of donor and external suggestion, pressure, and support.* To some extent, this is to be expected. HMN itself frequently promoted strategic planning activities as a follow-up to the HIS assessment, both of which they often supported. It is difficult to determine whether a government willingly embraced this work or whether it was just a polite response or a search by the government for external funding. However, feedback from the countries participating in this review suggests that to a large extent, the governments were serious about wanting to carry out HIS strategic planning for their own reasons.
- *Ministries of health were generally in charge of the process (at least in appearance) through appropriate temporary organizations, which on occasion, became institutionalized.* The HIS guidance document recommends three organizational entities to be set up to oversee and carry out the process: a senior HIS steering committee; a core technical working group, which guides and supports the process; and a stakeholder working group, which generates ideas, prioritizes them, and participates in detailed design work. For the most part, countries used this arrangement, even though the degree of involvement of the groups in each country varied considerably. As the plan was being reviewed and implemented, most countries found it necessary to maintain the senior HIS steering committee and the technical working group in order to monitor implementation progress and problems.
- *The degree of independent government thinking and decision making varied from country to country and over time within each country.* It was difficult to assess the degree of national decision making regarding the priorities and product design, in relation to the amount of support and promotion by external advisors and donors. In most cases, the resulting decisions and products represented a consensus among national departments and the donors supporting them. As plans moved to the implementation stage, support from donors may have been less visible but it was more prevalent.
- *Donor and project advisors often became too involved in the actual work and product generation.* This was especially true if the activity was part of an existing project, and therefore had to be completed within a specific period. That being said, the average duration of an HIS strategic planning process was about nine months—certainly long enough if full participation was maintained during that period. Maintaining balance between national HIS and department managers and the external staff supporting them was not easy, and it varied according to the skills and make-up of each group.
- *HIS priorities and strategies were fairly well defined, in terms of expectations, although, on occasion, the degree of technical design was minimal.* The appropriate amount of technical specification needed within an HIS strategic plan may vary across countries, but it should clearly define the nature of the product or subsystem to be developed, and not simply ask for budgets and plans to be worked out at the next stage. The plan needs enough detail about the intended functionality of the subsystem to allow reviewers to judge the relevance and priority of the proposed intervention and product.
- *The guidance document and the prevalence of donor support in combination with governments' own aspirations may have led countries to develop overly ambitious implementation plans.* Guidance documents should clearly specify why and how planners should prioritize HIS activities and implement them in a logical sequence. Countries should be aware of their limits in technical expertise and limits in funding that constrain ministry support for development of systems such as HIS.

Specific Findings

These bulleted sections provide more specific observations that were drawn from the collection of country experiences and products.

- At the beginning of HIS strategic planning and implementation, activities usually stayed on schedule, but schedules often slipped later in the process.
- National responsible offices and officers were designated for priority strategy design and implementation, but not all of them adequately completed the description of viable interventions.
- Implementation plans were created with greater attention to Years 1 and 2, but these plans often attempted to include too many interventions and activities at the same time.
- M&E frameworks were completed and applied at the beginning, but they often lacked measureable indicators. Clear products from completed activities were often not defined well.
- Much of the work at the beginning on detailed procedures and products may have led planning groups away from the more important aspects of identifying and focusing on the true priority subsystems.

Aspects That Were Generally Done Well

- Assessment results were used to identify priorities for HIS development.
- Lists of ongoing and planned HIS development activities were developed at the beginning of the HIS strategic planning process.
- HIS visions, missions, and characteristics were defined fairly well.
- Planners defined HIS problems and constraints from the low assessment scores.
- Planners defined specific strategies, objectives, and benchmarks.
- Phased implementation plans were created, although they were often too ambitious.

Aspects That Often Were Not Done Well

- Preparation and updating of the national guidelines and schedules for the strategic planning process were often not well done.
- The strategic and implementation plans were sometimes too comprehensive and ambitious to be feasible.
- Strategic implementation approaches often were inadequately worked out.
- Estimation of important resource requirements and their sources was often inadequate, particularly for resources required for HIS operations and maintenance.
- The extent and quality of information and communications technology (ICT) development plans were often inadequate.
- Responsibility for implementation and coordination was often not sufficiently thought through or designed and implemented well.

Common HIS Development Priorities

- Improvement of the capture, analysis, and use of data for decision making
- Strengthening data quality and accuracy
- Integration of the national HIS across priority programs
- Strengthening mortality data and measurement
- Patient information: health management information systems (HMIS) and electronic medical records (EMR)
- Strengthening the national health M&E system
- Strengthening the disease surveillance system
- Strengthening HIS training and supervision
- Strengthening the logistical management information system (LMIS)
- Advancing the ICT and geographical information systems (GIS)
- Developing financial and resource information systems
- Mobilizing resources from national and donor sources for HIS development and maintenance

Number of Priority HIS Strategies

Among the HIS plans reviewed, the number of priority HIS development objectives or strategies ranged from 6 to 20, and were of varying detail and comprehensiveness.

Evidence of the Degree to Which HIS Strategic Plans Were Implemented

- Evidence of extensive implementation success was limited.
- There was some evidence of the continuation of guidance and management bodies for the first few years of implementation.
- In at least one country, planners assembled evidence from the implementation of the first set of HIS interventions to support a second HIS strategic planning process.
- Implementation of the elements of an HIS strategic plan was often not documented and reported, which makes it difficult to assess the extent of implementation actually achieved over time.

Evidence of Donor Support

- Many donors were interested in supporting HIS development planning.
- Participation by donors during the HIS strategic planning processes is a positive result leading to increased collaboration and coordination among donors in support of the national HIS plan and its implementation.
- There was considerable evidence that external donors and project staff provided many of the ideas for HIS problem definition and priority development, and donors wrote much of the plan content. This is not necessarily a bad thing, but should be moderated to ensure national ownership and increase the country's likelihood of sustaining the effort.
- There was some evidence that existing donor projects, activities, and funding were continued along with new funding that was provided for new activities outside of the content of the HIS strategic plan.

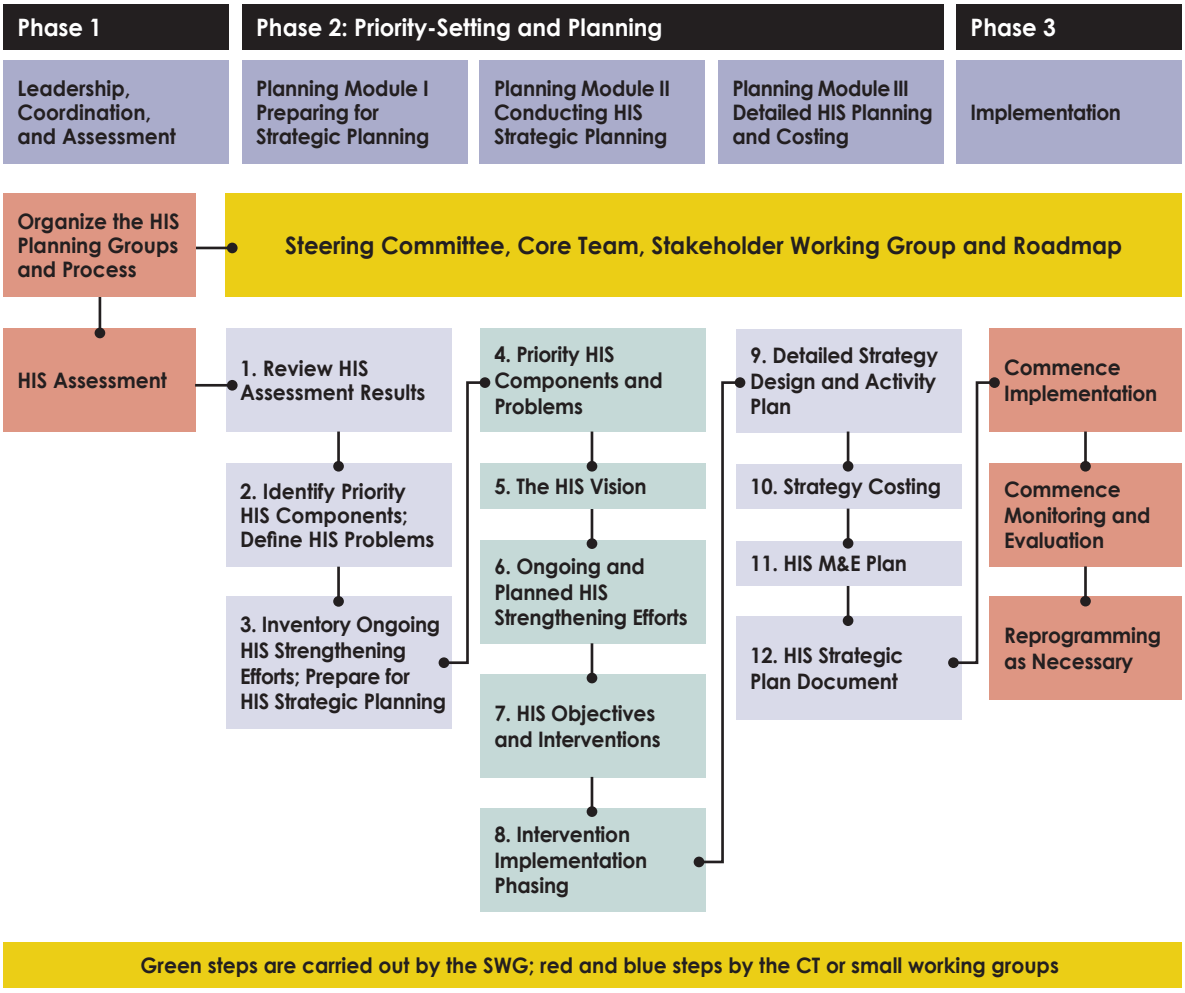
STEP-BY-STEP RECOMMENDATIONS

The original guidance did address most of the issues cited above, but clarification and flexibility are needed to prevent these issues from arising. The following sections present the issues and subjects that need emphasis and/or clarification, along with some alternative means of addressing these issues. In some cases, the sequence of steps can be slightly adjusted or simplified processes can be developed.

The original guidance document should be used to support future HIS planning efforts, along with this additional guidance, which is aimed at avoiding the common deficiencies noted. In some cases, efforts will be made to simplify the process.

The schematic plan in the original guidance depicting the steps in the HIS planning process (Figure 1) is thought to be very useful. HIS planners felt that the process—its phases, modules, and steps—represent well the recommended process, even though the contents of each step may be modified somewhat to suit the current local situation.

Figure 1. The HIS Strategic Planning Process



Phase I: Leadership, Coordination, and Assessment

Creating a core team and advisory group is normally the first step in setting up the organization and processes for HIS strategic planning. The core team normally contains national HIS managers and selected national and international HIS advisors. Core team members may or may not have experience in the HIS strategic planning process. In any case, the core team should be fully familiar with the HMN guidance document and begin to outline the process required for this specific application in their country.

Several questions need to be addressed at this point:

1. Is this the first time that the HIS strategic planning process has been applied in the country? If so, planners should normally use the generic guidance. If this is a subsequent application, the process may be adjusted to focus more on the assessment of the implementation of the first plan, and then select the priority problems and interventions still requiring attention or new priorities that are seen now as important to address.
2. Has there been a sound assessment of the current array of HIS components and subsystems? If not, then planners could conduct the HMN assessment and/or a series of specific important subsystem assessments.
3. Does the full array of HIS components and subsystems warrant review and consideration for priority attention or should only a subset of components and subsystems be prioritized in terms of assessment and development? Both situations may exist, but it is good to know from the beginning if certain subsystems need more attention.
4. How many staff and how much time is available for the planning process for producing a medium-term plan? A full review and selection of priority subsystems and interventions followed by production of the intervention plan and budget can take six to nine months with reasonably continuous effort by the groups involved. Leadership at the MOH should clearly inform participants at each level of the management structure how much of their time will be required and the importance of their regular attendance. If the necessary staff time is not available, the schedule should be adjusted accordingly or the planning scope should be reduced.

Phase I consists of the following steps:

1. *Definition of the governance and working group structure and the membership of the various bodies.* These steps remain the same as in the original guidance, but with a few caveats:
   - **A.** *The core HIS strategic planning working group.* Leaders of the HIS strategic planning process should identify the key staff they feel are needed to lead and administer the process, and have their senior managers' agreement for these assignments. This group should contain three or four key HIS development and management staff and, if necessary, one or two external advisors. This core group should be prepared to work on this activity at least half of the time during the formulation process.
   - **B.** *The HIS strategic planning steering committee.* This body may already exist, but if not, it should be created. It is normally led by a deputy minister or director-general responsible for the HIS and M&E. Other national members should be heads of relevant departments, institutions, and service programs whose responsibilities include generation of and need for data and data management. In addition, heads of important external organizations, both national and international, should be included. Usually, the steering committee has about 10 to 14 members. It should meet at least monthly, and sometimes as often as weekly during peak periods of planning activity.

C. *The HIS strategic planning stakeholder working group (SWG)*. This body provides the cumulative input on all steps of the planning process. It often functions as a set of subgroups, each assigned to a subset of topics or a given HIS subsystem for analysis, problem definition, the setting of improvement objectives, and the designing of the strategic interventions. Thus, the SWG needs a broad membership covering all substantive departments, programs, and institutions that contribute to and use the HIS and its support systems. If possible, SWG membership should remain constant throughout the planning process, but new members may be needed if unanticipated subsystems and strategic interventions are identified and prioritized. Experts can be invited for certain topics. The size of the SWG typically has varied from 15 to 40. The SWG will be fairly active at certain times, sometimes meeting daily, and then have periods of inactivity. Key to the success of the SWG is the importance that the HIS steering committee attaches to its work. Occasionally, SWGs functioned more as a large group reviewing substantive work done by the Core HIS strategic planning working group. This is not the proper role of the SWG and should be the role of the senior HIS strategic planning committee.

2. *Assembling and finalizing the results of the HIS component and subsystem assessment.* The original guidance adequately defines this preparatory step. The only variation arises when a subsystem has been assessed with a specialized assessment tool or effort, because it was known to be a priority from the beginning and warranted a more detailed assessment than the approach specified in the guidance document. Such subsystems often include the disease surveillance and response system; the drug supply system; the laboratory information system; the human resources (HR) management system; and the ICT system. Several additional or new assessment tools are now being used—the Performance of Routine Information System Management (PRISM) tool, eHealth/ICT, and drug-supply information system tools, among others—making it difficult to prescribe only one standard approach in the guidance. The planning process can include scores from these other assessment approaches, such as PRISM, within the framework of the HMN assessment tool.[4]

3. *Preparing the list of critical products, activity roadmap, and schedule of the HIS strategic planning process.* The core HIS strategic planning working group should specify the steps and products of the entire process during this preparatory phase. Unfortunately, the core group has not always done this, and the process can suffer as a result. While the description does not need to be overly detailed at this point, it should be clear enough for all participants to understand what needs to be done and when. The description of the main steps and products are provided here to clarify the minimum needs, while the full description is described in the original guidance document. A minimum list of products from the overall HIS strategic planning process includes the following:

- *An inventory of all components and subsystems of the overall HIS, along with the inventory of ongoing and currently planned HIS strengthening efforts* (a preparatory product which has been expanded in this supplement; see Appendix C). The inventory now lists all components and subsystems of the HIS—service-related and institutional—along with all support systems. This description may already exist, but will probably need to be updated, with more detail for certain subsystems. In addition, this inventory should include the complete list of ongoing and planned improvements of the HIS.

[4] Health Metrics Network (HMN). (2007). Strengthening country health information systems: Assessment and monitoring tool. Version 2.0. Geneva, Switzerland: HMN, World Health Organization. Retrieved from https://www.cpc.unc.edu/measure/his-strengthening-resource-center/resources/resources-1.

- *A list of the most important HIS problems*, as derived from the HMN assessment and other assessment tools
- *The definitive list of HIS components, subsystems, and problems that should be prioritized for attention over the medium-term*
- *The HIS vision and notable results expected from the implementation of the strategic plan*
- *Strategic HIS development objectives and interventions*
- *The overall intervention implementation plan*
- *Detailed HIS strategy design and an activity plan*
- *Intervention strategy costing*
- *The HIS development M&E plan*
- *The HIS strategic plan document*
- *The HIS strategic planning process for all steps and products (see Appendix C-1)*

In the country description, the HIS strategic planning process should be described in local terms as much as possible, although at this point in the process, details of each step may still have to be worked out. The process description should include many of the necessary background materials, such as:

- Current national priority health problems and related services, targets, and indicators as defined in the most recent national health plan and policy documents
- An inventory of the current components and subsystems that compose the HIS in its entirety (as described above and developed during the preparatory phase)
- An inventory of ongoing HIS strengthening efforts, and their responsible offices, and sources and amounts of donor support (prepared during the preparatory phase)
- List of existing databases, along with who is responsible for their maintenance and use
- List of routine reports required across departments and levels of the system
- Currently required or scheduled M&E and data quality assessment activities
- List of ongoing HIS and M&E training activities (examples of many of these are shown in Appendix C)

Phase II: Priority-Setting and Planning

Module 1. Preparing for Strategic Planning

1. *Review the health system development plans and priorities*. Current priority health problems, services, programs, and support systems derived from the most national recent strategies, plans, and evaluations should be reviewed quickly to confirm any recent adjustments and to note new priorities that have special requirements for HIS and data use. Reviewing current service and system priorities at this point is an important reminder for the HIS planners that the HIS data systems have a higher purpose: supporting the delivery and management of health service and support systems. This review, therefore, deserves more attention and emphasis at the outset of Phase II than was specified in the original guidance. During this review, those most familiar with each of the priority issues and programs should highlight any special and evolving requirements for data use and communications.

2. *Review the HIS assessment results*. This allows planners to assess the true priorities in terms of HIS subsystems most needing development at the moment, using the comprehensive and/or subsystem-specific assessment tools. The HIS strategic planners seem to have performed this task fairly well, in that low assessment scores reveal the subjects that most need attention. However, the assessment processes are becoming more complicated, owing to the many special subsystem assessments that are being used. In addition, some of the subsystems may have been earmarked for attention already. For example, in West African countries that recently experienced the Ebola epidemic, work may be under way to improve their disease surveillance and outbreak response systems.

The review of assessment results and other factors should inform a preliminary listing of priority components and subsystems that need attention.

Note: It appears that certain subsystems and HIS needs will require attention during every medium-term HIS planning effort. This module allows for an additional step to review and define the need for further development of important components, such as:

- Information and communications technology (ICT)
- Data support to new health financing mechanisms, including performance-based financing
- Addressing the expanding role and reporting of the private healthcare sector
- Updating and strengthening the HR information system
- Continual strengthening of the surveillance system
- Strengthening data generation and monitoring at the community level
- Strengthening HIS governance mechanisms: legislation, regulations, policies, incentives, and penalties

3. Define HIS problems. The best way to clearly define the problems encountered within individual subsystems is to divide the list of priority subsystems into groups, which are then assigned to appropriate working subgroups made up of well-informed subsystem managers. The approach to problem definition as described in the original guidance document has been criticized for being too complex. A simpler form could be used with straightforward definitions of the problems encountered, supported as much as possible with data from the assessments. A sample form for such problem definitions is shown below:

Table 1. Example of a form to identify HIS problems

HIS Problem Definition			
Subsystem:			
Problem #	**Problem Statement**	**Baseline Indicator**	**LOC* or Priority**

* LOC = Level of concern, such as high, medium, low, or priority score

Note: The sequences of the steps in Module 1 are slightly different from the flow diagram, but they are all carried out in preparation for the next module.

Module 2. Conducting HIS Strategic Planning

4. *Assign priority to HIS components and problems.* This step remains essentially as defined in the original guidance document, except that the results can be formatted as shown above, rather than using the more complicated original form. The subsystems are divided into groups for review by appropriate subgroups of the SWG. Expected changes in the list of priorities and problems are likely to be additional problem statements and indicators for some of the components, possible removal of some subsystems and components, and occasionally the addition of a component or subsystem. The SWG can assign an overall priority score, based on agreed criteria, such as the following:

- Contributes to creating more evidence-based decision making
- Pursues national health system and service policies and priorities
- Supports the integration or interoperability of reporting systems and data from multiple sources
- Avoids disrupting current HIS developments.
- Focuses on what is feasible and affordable for development and for operations in the long run
- Stresses enhancing data quality from all sources
- Maximizes integration and efficiency in data assembly, analysis, and information dissemination, increasing the ability for departments to work together
- Is already under implementation and has necessary funding (as long as it fits with the overall set of priorities)
- Is necessary to enable other important interventions to be subsequently implemented

The product of this step is essentially a consensus adjustment by the SWG of the previous HIS problem statement and its priority scores.

5. *Define the HIS vision.* The HIS vision statement can be defined at a number of points early in the strategic planning process, but just after the confirmation of priorities is appropriate in most situations. Vision statements are created in many development planning processes, and various approaches and degrees of detail can be used. When the TAG reviewed the vision statements in the strategic plans of the nine countries participating in our survey, all kinds of additional characteristics and linkages with the subsequent products on objectives and priority interventions emerged.

   All plans had a rather simple single-sentence vision statement, which, by itself, did not say much. Some plans inserted a mission statement for the ministry of health; others used the mission statement for the organizational unit responsible for developing and managing the HIS. Other elements of the vision statements were values, strategic principles, goals, characteristics, and general objectives. These elements add depth to the vision statement and are recommended. They fit with other vision statements appearing in national health plans and strategies and should be tailored to lead to the next planning steps and products.

6. *Review ongoing and planned HIS strengthening.* This review should be conducted as defined in the original guidance document, except that it should be conducted in relation to the overall inventory of all of the components and subsystems of the HIS. Essentially, the HIS strategic planning core working group, which prepares these inventories, will present them to the assembled SWG, whose members should note the new developments that appear to be ongoing or planned and identify subsystems needing priority attention.

   It then becomes the task of the SWG to add any missing development activities and confirm the donor support committed to each effort. This SWG should repeat this review from time to time, in order to update the ongoing work and compare it to the strategic plan.

   The definition and set of examples illustrating HIS strengthening activities that appear in the original guidance document should note which types of HIS work are considered HIS development activities and which ones are more in the nature of routine maintenance and training, and therefore should be dropped from the list.

7. *Identify HIS objectives and interventions.* The form for recording ideas for objectives and interventions should be simplified in a manner similar to that done for defining the problems. The form should have a separate page devoted to identifying each priority subsystem and defined problem from Step 4 and the objectives for resolving or reducing the problem in terms of a reduced indicator, along with a brief description of the interventions proposed for doing so. The format of this product could be as follows:

Table 2. Example of a form to identify HIS objectives and interventions

HIS Objectives and Interventions				
Subsystem:				
Problem #	**Baseline**	**Objective**	**Intervention**	**Priority**

Subgroups of the SWG can generate these ideas, with these subgroups probably being the same as those that defined the problems for each subsystem. It is possible that proposed interventions cannot be found for all problems or that only parts of some problems will be addressed. A possible challenge for setting a quantified objective could be the absence of a quantified problem indicator. In such cases, the SWG subgroup should estimate the prevalence of the problem and possibly be allowed to conduct a special rapid assessment of the problem.

Each subgroup should present their ideas for objectives and interventions to the assembled SWG. This presentation should lead to ideas for consolidating some interventions, which can benefit more than one subsystem problem and strengthen linkages. The objectives and interventions would then be placed in consolidated tables, as shown in the original guidance document.

The following box lists lessons learned across a number of past HIS strategic planning efforts, in no particular order. This list illustrates some of the challenges and risks that are encountered during the HIS strategic planning and implementation process.

HIS Strategic Planning Experiences and Lessons

- Data sources must be expanded to include the various types of monitoring, evaluation, and research activities that are growing in all countries.
- The disease surveillance and outbreak control system needs to be maintained as an essential public health function, and should be continually improved by clearly defining office responsibilities at all levels—particularly at the peripheral service levels—and improving communications and data exchange.
- All countries should recognize the importance of continuing to improve the ability to update local population estimates with the use of civil registration and post-census surveys. This requires new activities and procedures at the district, facility, and community levels, such as local lot quality assurance sampling (LQAS) and post-enumeration efforts.
- The expansion of national and local surveys managed by national departments and institutions must be recognized as a key feature of evolving health problem and service monitoring, with less input and design by donors.
- Community-based information systems are rapidly advancing with particular attention to services rendered and received in communities, mortality reporting, and availability of commodities.
- Data quality and completeness are increasingly recognized as important, but must be addressed in better ways, which include the processes of data generation and recording in support of care management. Consistency checks across levels of the system are only part of the challenge.
- Information products need to be more focused on the community and facility levels while still maintaining data presentations at the provincial and central levels.
- Data use must increase at the levels of service delivery. Such data use will increasingly involve special systems being developed by specific donors for their programs. PEPFAR's DATIM (Data for Accountability, Transparency, and Impact) dashboard is an example. Countries must make every effort to include such special-purpose systems within their development plans.
- Resource records will gain in importance and become more specialized as financing mechanisms expand. Moreover, increasing requirements for linkages among subsystems will be necessary. Thus, the HR system will be linked to health personnel accounting and to the financial payment system. Most countries will need to review their integrated systems for resource management.
- Interoperability is a challenge that is receiving more time and attention. The core indicators that need multiple sources of data the most, and the requirements for using such indicators, need to be carefully defined and designed before relevant databases are added to central and provincial warehouses.
- The advancement of EMRs must be recognized and built into the overall improvement of individual patient records and the development of ICT, and reach down beyond the bigger hospitals.
- The derivation of the overall integrated approaches to ICT development must prevent totally independent subsystem development planning, despite the availability of dedicated donor funding. Linkages enabling interoperability are essential.

8. *Outline the phases to implement the interventions.* This step needs to be rethought, particularly the notion of the core working group including all the priority interventions in a five-year implementation plan. One solution is to expand the planning horizon to 10 or more years. But this requires realizing that needs and technologies will change rapidly and that future efforts will likely need to be revised and recosted. Thus, the more important aspect of this step is to identify those interventions that require continuation or early implementation near the beginning of the process due to existing funding and because they build capacity that will be needed by other interventions later on. The question that remains is how many major HIS subsystems may be developed at the same time, and how long to allow for their development and scale-up.

Caveat: The expanding array of country HIS strategic planning experiences has amply demonstrated that the implementation of priority HIS interventions is considerably more difficult than planning them. These difficulties arise from a number of factors, but the most common is the lack of either government or donor funding. Thus, the phasing of the various interventions needs to take into account the availability of funds and the availability of technical staff needed for detailed planning and management. Senior health managers in the MOH must preserve the interventions chosen for early implementation and help make resources available.

Here are the main points to stress in this step:

- Consider extending the implementation phasing of the priority interventions over more than a five-year period.
- Recognize the linkages among the interventions, so that the interventions can be scheduled in a logical order. (A network diagram may be helpful for this.)
- Choose the interventions under way and of highest priority for the early years of the plan.
- Choose the interventions that already have or can expect funding for early implementation.
- Remember that certain HIS intervention subjects need to be repeated every five years, owing to the rapid advancement of supporting technology, such as ICT and disease surveillance.

The forms illustrated in the original guidance document serve the purposes of presenting this product, even if they are expanded for as long as a 10-year period.

Module 3. Detailed HIS Planning and Costing

Most of the national and international technical advisors who responded said that ALL priority interventions prepared in Module 2 were used for detailed planning and costing. This indicates that the core working group and members of the steering committee did not review the interventions to determine which were true priorities for the benefit of the national health system and which were less important. The most likely feeling among the planners was that if the interventions had made it that far in the planning process they should go forward to be designed in further detail and costed.

Unfortunately, after detailed design and costing work has been completed, the senior decision makers are even less likely to disapprove proposed intervention priorities for early implementation, and thus the strategic plan will include the whole set of interventions. Thus, implementation becomes a game of survival of the fittest and the interventions that have donor funding will survive. For the most part, this practice of overly general prioritization has not worked, with actual implementation progress becoming the exception, not the rule.

A serious review and limited approval of proposed priority interventions at the end of Module 2 must take place, prior to the beginning of detailed design and costing. It may be valuable to construct a tool for comparing the validity and potential of proposed strategic interventions at this point. The core team can use such a tool to provide the steering committee with a rational means to compare strategies and interventions across the full array available for consideration. The number of such interventions should be limited and linkages among them confirmed. An example of such a form appears below:

Table 3. Intervention implementation prioritizing

#	Strategic Inttervention	Criteria						
		Most Urgent	New Priority	Underway	Funding Available	Must Precede	Must Follow	Other
1								
2								
3								
4								
5								
6								

9. *Design a strategy and plan activities to carry it out in detail.*

10. *Cost the strategy.* The products of these two steps, as reviewed from different countries, varied considerably by virtue of the breadth and depth of their coverage of HIS components and subsystems. The approaches, steps, and products were designed according to national and international donor experience and inclination, although they largely followed the examples provided in the original guidance document. By and large, these products meet the purpose of better describing the priority objectives and interventions. More detail for the chosen interventions is desired, but not always possible at this juncture. Many of the activities planned for implementing the interventions referred to the need for completing detailed design work, and this will often be the case.

11. *Create an M&E plan for the HIS.* Of the steps in Module 3, the design of the HIS M&E plan was perhaps the one handled least well by the countries reviewed. The subjects and levels of M&E were fairly well defined, in terms of:

- The resources required, and the degree to which they were mobilized
- Development activity progress, problems, and milestone achievement
- Product completion, quality, and timeliness
- Progress on the indicators defined for measuring the achievement of objectives of each component
- Progress in improving indicators for measuring and monitoring the extent of problems with HIS components and subsystems
- Progress in achieving the vision of the HIS strategic plan

The measurement of progress was often hindered by the lack of quantitative or qualitative indicators. The indicators used to measure the problems in each component at the beginning of the planning process were rarely referenced in the M&E plan. Most often, the products and indicators of achievement proposed for monitoring were defined in very general terms.

The process would benefit from defining fewer priority problems, objectives, interventions, activities, and products. For the interventions selected, planners should clearly identify the problem it addresses and the progress expected in terms of improvement in measurable performance indicators

An example of a form for monitoring HIS strategy and intervention implementation progress is provided here:

Table 4. Example of an HIS subsystem strategy M&E form

Priority HIS Subsystem: *Public Health Surveillance System and Outbreak Response*
Reporting Responsibility: Director of the Department of Disease Control

Component and Subsystem Improvement Indicators (Objectives in **Bold**)	**Baseline Value**	**Objective**	**Objective Year**	**Data Source**	**Frequency of Measurement**
The percentage of disease outbreaks that are investigated and controlled in a timely manner each year	**45%**	**100%**	**2010**	**CDC Records**	**Annually**
Number of notifiable diseases mandated for surveillance by legislation	**0**	**8**	**2009**	**Legislation**	**Once**
Notification of work- and traffic-related injuries and deaths mandated by legislation	No	Yes	2009	Legislation	Once
Assessment score for surveillance function	1.7	3.5	2010	HIS Assessment	Mid-plan
Percentage of outbreak investigations with lab confirmation	45%	75%	2012	CDC	Annually

Table 5. Example of HIS component and subsystem intervention implementation monitoring

Priority HIS Subsystem: *Public Health Surveillance System and Outbreak Response*
Reporting Responsibility: Director of the Department of Disease Control

Activity		**Schedule**				**Expected Product or Milestone (▲)**	**Actual Product**	**Resources**	
#	**Short Title**	**Scheduled Start**	**Actual Start**	**Scheduled Completion**	**Actual Completion**			**Required**	**Available**
Intervention 8.1: Strengthen Disease Surveillance System and Procedures									
8.1.1	Update notifiable diseases	July 2008		Sept 2008		▲ Revised list of notifiable diseases		Meeting costs	
8.1.2	Update case definitions	Oct 2008		Nov 2008		Revised case definitions		TA and meeting costs	
8.1.3	Update surveillance procedures and forms	Nov 2008		Jan 2009		Revised procedural guidelines and forms		TA and meeting costs	
8.1.4	Map populations at risk of CD and NCD	Apr 2009		Sept 2009		Public health risk population identified and mapped		TA and working group costs	
Intervention 8.2: Training in Surveillance Data Analysis and Lab Diagnosis									
8.2.1	Training on analysis and response	Feb 2009		June 2009		▲ 15 PHDs, 40 districts, and 450 RHCs		TA and training costs	
8.2.2	Training in lab diagnostic procedures	Dec 2008		Feb 2009		5 NIPH and 24 PHD lab technicians trained		TA and training costs	

Key: PHD = provincial health department; NIPH = National Institute of Public Health; RHC = rural health center; TA = technical assistance

12. *Write the HIS strategic plan.* The guidance provided for Step 12—preparing the plan document—remains the same. However, some of the points deserve highlighting. They are as follows:

- The writing should be organized as a small group process, and closely managed and monitored in order to complete the document over a short period of time.
- Qualified and experienced technical writers should be chosen from the core team and the SWG to ensure that they are familiar with the content of the strategy and its interventions.
- The narrative portion of the document should be brief and clear; 12–15 pages should be enough to describe the strategy and plan.
- The narrative can be supplemented with a number of annexes, most of which are the tabular products of selected steps.
- Highlight the following in the narrative section:
  - The nature of the more important HIS performance problems
  - The focus that the strategy and its prioritized interventions provide
  - The beneficial results expected within the plan period
  - The gradual, progressive nature of the implementation effort, which is constrained by limited resources, both financial and technical
  - The opportunities and strengths that the strategy is drawing on
  - The assumptions being made and risks being taken
  - A strategy for mobilizing needed resources, which can either be included in the plan document or as an addendum

Additional Caveats about Costs That Emerged from the TWG's Review

- As the planning begins to focus on specific subsystems and applications, it may become apparent that the technical managers needed for such development work often do not work within the responsible department, or within the government at all. Thus, public-private partnerships will be needed to carry out the work, and these skilled personnel can be expensive. This will invariably require donor support, which must be arranged with care to ensure government management and oversight. Care should also be taken to maximize the use of national private-sector technical firms and experts rather than foreign, to the extent that they are available.
- A two-pronged process for assessing the cost requirements emerges at this point. As the subgroups make cost estimates for the subsystems that were prioritized for development, current and future operating cost estimates must also be generated and updated.
- The growth of the national budget for HIS development and management should be considered, as well as the need to obtain firm commitments for funding since donors may shift their priorities over time. Gradually, funding for development costs should shift toward the government, but not necessarily to the health sector. Many governments are saving money by designing and pursuing common information system and ICT strategies across sectors.

Phase III: Implementation

The implementation section in Phase III in the original guidance document contains the commencement of implementation, the commencement of M&E, and reprogramming as necessary. However, little guidance is provided.

Several key requirements have emerged in the implementation period as more countries embark upon the implementation of ambitious HIS development plans:

- The first and most important requirement deals with the assignment of organizational and managerial responsibility across the priority subsystems. The responsibility for implementation should remain clear, and in the hands of the most appropriate government departments and managers. Implementation of the predominant requirements for design and management of chosen priority interventions will normally fall under one department in the health sector. But because each intervention is a product of the overall HIS strategic planning process, the designation of one organizational unit responsible for the implementation of the intervention was presumably decided in a collegial and collaborative manner. All the priority interventions slated for the first year or two of the plan period should have intervention responsibilities defined very clearly. Only a few countries have achieved this. Furthermore, the countries that proceeded the farthest with the implementation of their plans generally received consistent support from one or more donors.
- Monitoring development progress and product delivery is essential to understand how well the development effort is progressing. Generating the required tool or approach is important, but it must be accompanied by monitoring of the scale-up and rollout of the new method across the country. Detecting and resolving problems during scale-up will not be easy, because often the principal constraints on progress fall into one or both of two categories: (1) the absence or default of promised development assistance funding and technical support; and (2) a transition in ministerial or departmental leadership. Therefore, senior policymakers and managers must recognize when a priority strategic intervention is in jeopardy and take immediate action. This often does not happen in practice.
- Organization and management must be maintained for oversight, monitoring, and problem-solving across the overall implementation effort, as well as for the individual priority strategies and interventions. This usually proves to be less easy than the initial planning effort. However, the same groups from the planning stage can usually be maintained to carry on the implementation and monitoring effort: a central HIS development steering committee, a central core technical working group, and various members of the SWG, each responsible for one or several interventions. All levels of this structure must meet several times a year to maintain awareness of progress and problems.
- Donors are often impatient with the effort and progress of the government, and they may begin to move toward strategic interventions of their own, which parallel or conflict with those of the government. The MOH must exert its influence on such donors to persuade them to support the existing plan and use their development assistance in concert with the priorities in place. If new priorities suddenly arise, the HIS steering committee should consider them and revise the interventions, tailoring them to fit within the existing framework, or revise the strategic framework to accommodate them.

SUMMARY OF THE OVERALL HIS STRATEGIC PLANNING REVIEW

Most Common Products of the HIS Strategic Planning Process

Presented within the Strategic Proposal Document

- List of priority HIS problems and constraints
- HIS vision, mission, and characteristics
- List of HIS objectives and targets
- Strategic interventions
- Objectives and specific interventions
- The implementation plan
- Summaries of HIS resource requirements
- Assumptions and risks
- Results monitoring framework and responsibilities

Often Appearing within Appendixes

- List of participants in the supporting groups
- List of stakeholders of the HIS
- Glossary of terms
- Priority health problems, related services, targets, and indicators
- Core health indicators
- Summary of HIS subsystems and problems
- HIS assessment scores by group and health system building block
- Inventory of ongoing and planned HIS strengthening efforts
- Detailed estimate of resource requirements
- Strategic monitoring and evaluation framework
- Detailed activity implementation plan
- Ongoing capacity-building activities

Basic Issues and Alternatives

- What are the basic issues that must be confronted in the process of designing and conducting a national HIS strategic planning process?
  - Does it make sense to focus planning attention on the overall or selected components of the HIS, given the alternative health system development initiatives being promoted and supported by such other agencies as WHO (strengthening M&E of the health system) and the Health Data Collaborative?
  - How do you gain the support of major donors who are likely to be most interested in supporting HIS development, either overall or in certain subsystem areas?

- How do you handle donors who are able to allocate considerable resources to HIS subjects of their own interest?
- How do you moderate the ambition of program managers who seek to advance their subsystem in a vertical or autonomous manner, without regard for the overall integrated approach supported by the consortium of stakeholders?

- Are there general alternative approaches that can be considered for the first application of the process (e.g., full-blown assessment as compared to a highly prioritized strategy)?
- Are there general alternatives that can be considered for subsequent applications of the process (e.g., a technical assortment of subsystems, some of which require further development every five years and others that need major revision less often)?

The Initial Questions Posed by this Review

1. *Does a health service support system such as a national HIS warrant attention by a large, multifaceted group of nationals and expatriates for producing such a complex set of ingredients over such a long period of time (usually six to eight months)?*

As evidenced by the examples reviewed, the answer seems to be positive, although there are a number of opportunities to improve and speed up the process.

2. *Does the recommended set of phases and steps actually produce a full set of products, which, when taken together, serves well the purposes of identifying priority system development needs?*

Again, the answer is yes, but reducing and streamlining the content that is placed within the proposal should be possible.

3. *Are there problems with the process, the plan, and the plan's implementation that are difficult to resolve? Could the process be dropped altogether in certain situations?* There have been problems with the implementation of the resulting plans, which relate primarily to the ambition reflected in the total number of priority interventions that were proposed. An approach that stresses the need to define priorities at several points in the process could help resolve this. In certain situations, it may be best to focus the process on planning an initial selection of priorities rather than review the entire landscape of possibilities.

4. *Can the suggested improvements in the process and its procedures be packaged in a relatively brief supplemental document that can be shared by WHO or other agencies along with the original document and serve any benefit?* The response to and continued development of this supplement will help answer this question. There is no doubt that further improvements to the process in its various forms must continue, and probably requires the attention of a small group of experts with experience in HIS strategic and development planning to move beyond what the TAG was able to produce in the time available.

CONCLUSION

The HMN, through its various documents and tools, succeeded in developing a systems approach for national HIS strategic development planning as a primary way to assess and then develop the overall HIS needed to support the development and operations of the health sector.

That said, the approach used, while sound overall, was complicated by considerable detail and product specification. Large challenges remain, and most of them pertain to national health sector governance and management, as well as international agency and donor presence. No sector and support system is confounded to such an extent as national HIS are by technical detail and the requirement for cross-sector linkages and interoperability.

Efforts first by HMN and then by this TAG to improve the HIS planning process respond to the rapid increase in national and international concern and interest. Many HIS needs and problems are obvious and just need to be addressed. National prioritization of the most important subsystem development needs is possible at any point. Gaining experience and success in one priority area will provide more evidence and momentum to continue to additional priority areas.

Thus, the process needs enough flexibility to address the most important subsystems within an overall long-term scheme, in order to reduce the amount of new systems to be designed and introduced at the same time. But as progress in some of these priority subsystems occurs, the changing system and changing environment alter the requirements that have been defined for other systems slated for implementation in subsequent planning periods. All of this simply emphasizes the need for organizational and technical flexibility in strategy and intervention design.

A constant and increasingly important need is to expand national ownership and management of HIS development and the processes that guide it. Part of this nationalization effort is to build funding for an increasing share of the development costs within national budgets. As government ownership grows, so will sustainability. However, this trend of nationalizing HIS development does not diminish the role of international development assistance. It just requires a change in mindset and new styles of technical cooperation that foster flexibility, in order to respond to technical approaches that are often not built by the donor.

APPENDIXES

A. HIS Strategic Planning Review

B. Respondent Scores from the HIS Strategic Planning Review

C. Materials Prepared by Respondents in Phase I

C-1. Example of an HIS Strategic Planning Process and Roadmap

C-2. Example of National Priority Health Problems and Related Essential Health Services

C-3. Example of National Health Indicators

C-4. Example of an Inventory of Ongoing and Currently Planned HIS Strengthening Efforts

C-5. Example of an Inventory of Health Sector Databases

C-6. Example of an Inventory of Health Sector Routine Reports

C-7. Example of an Inventory of Health Information System (HIS)-Related Training

D. Example of Alternative Draft HIS Visions for the Review and Consideration of an HIs Stakeholder Working Group

E. Example of a Draft Outline of an HIS Development Strategy and Plan

APPENDIX A. HIS STRATEGIC PLANNING REVIEW

General Information Required from Each Respondent

1. Country of Application _____

2. Inclusive Dates of the HIS SP Process: Started: _____ **Completed:** _____

3. Responder: (Individual forms to be completed by each responder from same country)

a. Name: _____ **b. Email:** _____

c. Organization: _____ **d. Position:** _____

a. Role(s) in the HIS SP Process: (Steering Committee (SC), Core Management Team (CT), Stakeholder Working Group (SWG), Advisor/Facilitator, Other): _____

4. ___ Degree to which the HMN HIS SP Guidelines were applied in this process:

a. ___ Fully, with only minor adjustments to steps and products

b. ___ Partly, with major adjustments to steps and products

c. ___ Partly, in combination with other guidance documents

d. ___ Not at all, while applying other guidance and technical advice

e. ___ Not at all; we did not really follow any guidance nor technical advice other than that of the national process managers and technical advisors.

Explanatory comments: _____

_____

5. Principal national and external providers of general guidance and/or technical advice to the process:

	Name and Title	Organization
a.		
b.		
c.		
d.		

Explanatory comments: _____

_____

Measures of HIS Strategic Planning Achievement		Extent of Achievement			
		Fully	Largely	Partly	Not at All
1	***Criteria and principles—the degree to which:***				
1.1	The idea to undertake the HIS SP largely originated with external donors who provided technical assistance and helped pay for the process				
1.2	The decision to undertake the HIS SP process was the government's				
1.3	National health sector leadership was engaged in the process from the beginning and owned the process and its products				
1.4	National health system policy, strategy and programing was identified, recognized and maintained as the main purpose of the HIS and the HIS SP process.				
1.5	The HIS SP was designed to build upon on existing HIS initiatives, systems and practice, along with national and international development strategies.				
2	***The SP process preparation, management, and participation—the degree to which:***				
2.1	The current HIS and subsystem functionality and performance was assessed prior to the SP process, and identified components performing least well.				
2.2	A straightforward and functional structure of leadership, management, and working groups was created, approximating: a. An HIS development steering committee (SC) – for oversight and decisions b. An HIS core team (CT) – for the technical management of the process c. An HIS stakeholder working group (SWG) with designated subgroups				
2.3	Principle preparatory and planning products—degree to which they were completed:				
2.3a	The organization of the HIS SP process				
2.3b	Preparation of a tailored set of HIS SP steps and products, including the roadmap and schedule of the process				
2.3c	Structured results of the HIS assessment (average scores by component)				
2.3d	Review of the national health system development strategy and national health problem priorities				
2.3e	Inventory of ongoing and planned HIS improvement efforts				
2.4	Group and subgroup planning processes achieved broad-based consensus				
2.5	Lead sponsors and national champions were identified for strategic interventions				
2.6	The guidelines and formats used were appropriately adjusted for the country situation				
2.7	Facilitators and advisors, both national and external, maintained a low profile, leaving all analysis and decision making to national working groups				
3	***The process and its products—the degree to which:***				
3.1	Each step of the strategic planning process generated specific products that when taken together enabled the HIS strategy to be easily assembled				
3.2	Coordination and consultation mechanisms were created and maintained that brought together all key stakeholders, producers and users of health data				
3.3	Donor and project partners offered low-profile, flexible support, information, guidance and harmonization				
3.4	The desired strength of the core team (leadership, management, and activism) was achieved				
3.5	A comprehensive, shared vision of the future HIS that addresses institutional and organizational objectives and constraints was developed				
3.6	Strategic actions to achieve the agreed vision, including priority tasks and products, were defined				
3.7	A detailed and costed action plan with a timetable and responsibilities was produced				
3.8	The HIS SP provides a coherent framework for international support in strengthening the HIS				
3.9	Confirmation of priority HIS problems was given by the SWG and endorsed by the Steering Committee				

Measures of HIS Strategic Planning Achievement		Extent of Achievement			
		Fully	Largely	Partly	Not at All
3.10	HIS improvement objectives and strategic interventions were clearly defined				
3.11	HIS strategy design details and specifications were clearly defined				
3.12	HIS intervention implementation phasing and responsibilities were clearly defined				
3.13	Early (Year 1) activity implementation plan was prepared in detail				
3.14	HIS strategy costing was produced in detail for Year 1 and estimated for later years				
3.15	HIS strategy M&E framework was completed with measureable indicators				
3.16	HIS strategic plan document was completed and produced by the SC and CT				
3.17	The degree of HIS SP document suitability for review and decision making				
3.18	Adequacy of time management and schedule adherence of the HIS SP process				
3.19	The adequacy of the attendance of members of the SC, CT, SWG, and subgroups				
3.20	• It was possible to calculate the staff time and costs of the HIS SP process • The duration of the process in weeks _____ • The staff time required for the process in person-years _____				
	The major problems of the HIS SP process were:				
4	***The implementation process—the degree to which:***				
4.1	The HIS strategic plan was efficiently reviewed, approved and promulgated				
4.2	The HIS strategic plan was given the policy and organization support it required				
4.3	MoH departments and programs fulfilled their responsibilities in supporting plan implementation in a coordinated manner				
4.4	Donor organizations and projects confirmed their support to the HIS SP in a coordinated manner, and resisted proposing their own ideas for HIS development				
4.5	The HIS SP steering committee remained active during the plan implementation for monitoring progress and agreeing on changes to the plan				
4.6	Implementation M&E was used to identify and make revisions				
4.7	Resource shortfalls for strategy implementation were recognized and addressed				
4.8	Year 1 of the plan proceeded with full attention and achieved successful implementation of early activities				
4.9	The government and its HIS strategic plan approached HIS development as a gradual, incremental process requiring continued monitoring and updating.				
	The major implementation problems encountered were:				
5	***Implementation results***				
5.1	Extent to which priority strategic interventions, activities and products were implemented				
5.2	a. The more important activities and products of the plan were delivered, including: b. The more important products of the plan that were not delivered:				
5.3	The HIS strategic and implementation planning proved to be effective				
5.4	The MoH is satisfied sufficiently to apply the process again for the next cycle				
5.5	The government is prepared to sustain the necessary longer-term investments				

Ideas for improving the HIS SP process
A. Preparations
B. Conduct and management
C. Completion of products and the plan document
D. Strategic intervention implementation process
E. Institutionalization of the interventions and products of the plan (assurance of continuation)
Any other comments and suggestions

APPENDIX B. RESPONDENT SCORES FROM THE HIS SP REVIEW

Country	Subject	Afg	Afg	Afg	Afg	Moz	Mal	Lib	Rwa	Gui		Tot	Avg
Respondent		1	2	3	4	5	6	7	8	9	10		
Staff		Ham	Ros	Ickx	Azim	Gon	Mon	Lipp	Wil	McK			
4 - G/L	Degree to which guideline (G/L) was applied*	5	4	3	4	3	5	4	4	4		36	4
1.1	Idea was external donors'	2	2	2	2	3	3	2	2	4		22	2.444
1.2	Government decision to undertake	3	3	3	3	4	2	2	3	2		25	2.778
1.3	National leadership was engaged	3	4	3	3	4	4	3	3	3		30	3.333
1.4	National health policy supported	3	4	4	4	x	x	3	x	4		22	3.667
1.5	Built on existing initiatives	4	4	4	4	x	x	3	x	4		23	3.833
2.1	Assessment preceded process	4	3	4	3	4	4	3	4	3		32	3.556
2.2	Organizational structure was set up	4	4	4	4	3	4	4	4	3		34	3.778
2.3a	Organizational was set up in advance	3	3	4	3	4	x	4	3	2		26	3.25
2.3b	Process was set up in advance	4	3	4	3	4	4	4	1	3		30	3.333
2.3c	Results of assessment prepared	3	4	4	4	4	4	3	2	2		30	3.333
2.3d	Health strategy and priorities	2	3	4	3	4	4	3	4	3		30	3.333
2.3e	Inventory of ongoing/planned	4	x	4	3	x	2	3	x	3		19	3.167
2.4	Processes achieved consensus	3	3	4	3	x	x	3	x	3		19	3.167
2.5	Sponsors & champions identified	3	1	4	1	x	x	2	x	2		13	2.167
2.6	Guideline & formats were adjusted/ used	2	4	3	3	x	x	2	x	3		17	2.833
2.7	Facility maintained low profile	2	3	3	3	4	2	2	2	3		24	2.667
3.1	Each step generated a product	3	3	3	2	4	3	2	3	2		25	2.778
3.2	Coordination mechanism maintained	4	3	3	3	4	4	3	3	3		30	3.333
3.3	Donors behaved	2	3	3	2	4	x	3	x	3		20	2.5
3.4	Core team had desired strength	3	3	3	3	4	x	2	x	2		20	2.5
3.5	Comprehensive vision developed	2	3	3	3	4	3	3	2	2		25	2.778
3.6	Strategic actions defined	3	3	4	3	4	3	3	3	3		29	3.222
3.7	Action plan developed/costed	4	3	3	3	4	3	3	3	2		28	3.111
3.8	Provides framework for support	4	4	3	4	4	3	3	4	3		32	3.556
3.9	Priority problems endorsed	4	4	x	4	4	3	3	3	3		28	3.5
3.10	Objectives of the strategic intervention defined	4	3	3	3	4	3	3	3	3		29	2.444
3.11	Design details/specifications defined	4	3	3	3	4	x	3	x	2		22	3.143
3.12	Implementation phasing/responses defined	4	3	2	3	4	2	2	3	2		25	2.778
3.13	Year 1 plan defined in detail	4	3	3	2	4	2	3	1	3		25	2.778
3.14	Year 1 costing produced in detail	4	2	3	2	x	2	2	2	3		20	2.5
3.15	M&E framework in detail	4	2	2	2	x	4	2	2	3		21	2.625
3.16	Plan completed by steering committee/core team	4	4	3	4	x	4	3	4	3		29	3.625
3.17	Plan suitable for revision and decision making	3	3	3	2	x	4	3	3	3		24	3
3.18	**Time management was adequate**	3	3	2	3	x	x	2	x	2		15	2.5
3.19	**Attendance was satisfactory**	2	3	2	2	x	x	2	x	3		14	2.333
3.20	**Staff time**												

Country	Subject	Afg	Afg	Afg	Afg	Moz	Mal	Lib	Rwa	Gui		Tot	Avg
3.21	Major problems												
4.1	Plan was reviewed and approved	3	3	2	3	2	3	2	2	2		22	2.444
4.2	Plan received policy and organizational support	2	3	2	3	x	x	2	3	3		18	2.571
4.3	MoH fulfilled responsibility in implementation	1	2	2	2	3	2	x	3	2		17	2.125
4.4	Donors provided appropriate support	2	2	2	2	2	3	x	3	3		19	2.375
4.5	Steering committee remained active in implementation	1	2	3	2	x	x	x	x	2		10	2
4.6	Implementation M&E used for revision	2	2	3	2	x	x	x	x	x		9	2.25
4.7	Resource shortfalls recognized/ addressed	2	1	2	1	2	2	x	2	x		12	1.714
4.8	Year 1 successfully implemented	2	2	x	2	x	x	x	x	x		6	2
4.9	Implementation approached as gradual process	2	3	x	4	x	x	x	x	x		9	3
4.10	Major implementation problems												
5.1	Extent priority interventions implemented	3	2	2	3	2	x	x	3	x		15	5
5.2 a-b	Import intervention implementation or not												
5.2	HIS strategic plan proved effective	2	1	2	2	2	x	x	3	x		12	2
5.3	MOH will reapply	2	3	3	2	x	3	x	3	x		16	2.667
5.4	Government prepared to sustain investment	2	3	2	3	x	x	x	3	x		13	2.6

APPENDIX C. MATERIALS PREPARED BY RESPONDENTS IN PHASE 1

APPENDIX C-1. Example of an HIS Strategic Planning Process (Roadmap)

Step	Title	Group	Products	Schedule
Phase 1: Assessment				
	HIS assessment	CT	Assessment scores	Last 18 mos.
Phase 2. Module I: Preparing for HIS Strategic Planning				
1	Review assessment results	CT	Table 1.1–Low scoring questions	Feb–Sep '08
2	Identify priority HIS components and problems	CT	Table 2.1–Average assessment scores by HIS component Table 2.2–Priority HIS subsystems & and HIS	Feb–Sep '08
3	Preparing the information required in the HIS strategic planning process	CT	Materials: • HIS strategic planning principles and rationale • Table 3.1–Inventory of ongoing and planned-HIS developments and funding sources • HIS strategy development roadmap/schedule • Priority health problems and essential services • Key health indicators • Module II program materials (Steps 4 through 8)	Sept–early Oct
	Steering committee meets	**SC**	**Endorsement of HISSP products, process, and timeline**	**7 Oct**
Phase 2. Module II: Conducting HIS Strategic Planning				
	Opening session	SWG	Briefing and review of background materials	Day 1 (12 Oct)
4	Priority HIS components and problems	SWG	Table 2.2–Priority HIS problems reviewed and confirmed Format 4.1 (left column) Priority HIS problems and indicators	Day 1
5	The HIS vision	SWG	Format 5.1–A consolidated vision description	Day 1
6	Current and planned HIS strengthening efforts	SWG	Format 6.1–Expanded list of HIS strengthening activities, and determination of which activities address priority HIS components and problems	Day 2 (14 Oct)
7	HIS objectives and interventions	SWG	Format 7.1 for each priority HIS subsystem provide improvement objectives and a list of strategic interventions Formats 7.2 and 7.3–Summaries of HIS objectives and interventions	Day 2
8	Intervention implementation phasing	CT	Format 8.1–Intervention implementation Gantt chart	15 Oct
	Steering committee meets	**SC**	**Module II products reviewed; decide when Module 3 begins**	**16 Oct**
Phase 2. Module 3:Detailed HIS Planning and Costing				
9	Detailed strategy design and activity implementation planning	CT and Tech Working Groups	Each proposed subsystem strategy and set of interventions described in detail. Format 9.1–Completed activity implementation plans for the strategies of each HIS component	3 weeks 18 Oct to 8 Nov
10	HIS strategy costing	CT and Tech Working Groups	Table 10.1–Common HIS development cost elements Table 10.2–Strategy resource requirements for each HIS subsystem and intervention Table 10.3–Summary information of costs by HIS subsystem, type of activity and year	2 weeks 9 to 21 Nov
	Preparation/conduct of results conference		CG and technical working groups fully engaged	1 week 22–30 Nov
11	HIS strategy monitoring and evaluation plan	CT and Working Groups	Format 11.1–HIS strategy evaluation framework Format 11.2–HIS strategy monitoring framework	5 days 1–6 Dec
12	HIS strategic plan document	CT with SWG and SC	1. A completed draft HIS strategy and plan document, including all annexes 2. A final document prepared for distribution, discussion and review 3. Process and responsibilities for managing plan review, approval and funding	5 weeks 7 Dec to 15 Jan, 2009
	Review of the plan	SWG and SC	Approved HIS strategic plan	15 Feb, 2009

Key: SC = steering committee (deputy ministers and directors-general); CT = core team; SWG = stakeholder working group

APPENDIX C-2. Example of National Priority Health Problems and Related Essential Services*

Priority Health Problems	Related Essential Health Services
Maternal and Newborn Health	
Maternal mortality	Health education, family planning education and services, antenatal care (Fe/FA, multi-micronutrients, TT vacc, IPT, malaria Rx, diagnosis and Rx of UTI, STI, Rx of complications), skilled delivery attendance and care, transfer and Rx of complications (EOC), postpartum care (vit A, detect & Rx anemia, puerperal infection, FP & BF counseling)
Complications of pregnancy, delivery and postpartum period	
Neonatal mortality	
Newborn complications	Care of the newborn (PNC) including education, early & exclusive BF, resuscitation, BCG/HepB, manage infection
Child Health	
Infant & under-five child mortality	IMCI
ARI and pneumonia	Diagnosis and community Rx (antibiotics), referral and Rx
Diarrhea and dysentery	Diarrhea treatment (ORT + Zinc), referral
Ear infection	Referral and treatment
Fever UO, malaria	Promotion, distribution and monitoring of use of LLITNs Malaria diagnosis and treatment
Vaccine preventable diseases (tetanus, pertussis, diphtheria, hepatitis B, HIB, measles, polio)	IEC, vaccine management, childhood immunization (BCG, DPT, HepB, HIB, measles, OPV)
Malnutrition and anemia	BF promotion (early intro., exclusive for 6 mos), comp feeding, growth monitoring, vit A supplementation, de-worming, iodized salt, therapeutic feeding
Communicable Diseases	
Tuberculosis	Community education, BCG vacc, case detection (sputum exam), community DOTS, MDR control & DOTS-plus, preventive Rx for contacts, in-patient care for severe cases
Malaria	Community education, promotion and use of LLITNs, case detection (clinical and blood exam, RDTs), treatment with ACT, refer and treat complicated cases
STI	Education on STI prevention, case detection and treatment
HIV and AIDS	IEC, referral for VCCT, *PMTCT, ART, Blood donation screening* and *transfusion services*
Cholera	Community education, water supply, sanitation, food safety, case notification, investigation and treatment, outbreak control
All the above categories	*Access to essential drugs*
Noncommunicable Diseases and Conditions	
Injuries and accidents	Emergency transport, trauma management, blood transfusion services, treatment, rehabilitation
Disability and handicaps	Education, referral, assessment, treatment, prostheses,
Mental health problems	Education, case detection, classification, community care
Substance abuse	Health education, identification and support
Diabetes	Education, screening, case management
CVD	Health education (diet), hypertension monitoring and control; anti-smoking education
Other Health Problems	
Disaster response	Disaster preparedness
Environmental health risks	Improve sanitation, access to safe water, food safety

*Extracted from the *National Health and Nutrition Sector Strategy* and the *Basic Package of Health Services* (Afghanistan)

APPENDIX C-3. Example of a Set of National Health Indicators

Health Problems			Extent of Achievement		
Problem	**Indicator**	**Source**	**Service**	**Indicator**	**Source**
Maternal and Newborn Health					
Fertility	TFR		Family planning	**% married women using modern contraceptive methods (CPR)** **Proportion of women's need for FP met**	
Maternal mortality	**MMR**		Delivery	**% births attended by skilled birth attend** CEOC coverage – # provinces with at least one facility providing emerg ob care	
Maternal Complications	No. cases ***Adolesc BR***		ANC TT Immuniz.	**% women with at least one ANC** % of pregnant women with 2 TT	
Neonatal Mortality	NNM		PNC, PPC	Rate of postpartum visits within 7 days	
Child Health					
Infant Deaths	**IMR**		IMCI	No. health centers implementing IMCI	
<5 Mortality	**U5MR**				
Vaccine Preventable Diseases	No. cases No. deaths		Immunization	% <1 receiving DPT 3 immunization % <1 immunized against measles	
<5 Diarrhea	No. cases No. deaths		Diarrhea Case Material	% <5 diarrhea cases treated with ORS	
<5 ARI/Pneum	Cases Deaths		Pneumonia Treatment	% <5 pneumonia cases receiving antibiotics	
Fever of Unknown Origin	Cases Deaths		Management of Fever (malaria)	**% <5 children with fever treated with appropriate anti-malaria drugs**	
Child Malnutrition (6 mos. to 5 yrs)	Cases Severe mal		BF Promotion	% mothers who start breastfeeding within 1 hour of birth	
			Vit A Supplement'n	% aged 0-6 months exclusively breastfed	
			De-worming	% 6-59 m receiving vitamin A every 6 months	
			Hospital Mal-Nutrition Mgt.	% 2-59 m receiving mebendazole every 6 months	
				Proportion of under-fives hospitalized for malnutrition that were discharged successfully	
Communicable Diseases					
TB	**New cases** **Total cases/ rate** **No/rate of deaths**		TB Case Detection	**No./% TB cases detected**	
			DOTS Treatment	No./% TB cases completing DOTS **TB cure rate (%)**	

Health Problems			Extent of Achievement		
Problem	**Indicator**	**Source**	**Service**	**Indicator**	**Source**
Communicable Diseases (continued)					
HIV/AIDS	**Prevalence among blood donors** **HIV prevalence 15-24 years**		Voluntary Counseling/ Testing	# VCCT **15-49 with comprehensive, correct knowledge of HIV/AIDS** **Condom use at last high risk sex** **Condom use as a proportion of CPR** **Proportion of IV drug users treated**	
			Treatment (ART)	***Proportion of the population with advanced HIV infection with access to ART***	
			Blood Safety	***Proportion of blood samples screened for HIV/AIDS and STIs***	
Malaria	**No./rate Cases** **No./rate of Deaths**		Insecticide Treated Bed Nets	**% <5 y children who slept under an ITN last night**	
			Malaria Diagnosis	**Proportion of population in malaria risk areas using effective prevention and Rx**	
			Malaria Treatment	No. of ITNs distributed in the last year	
				No. of positive malaria rapid tests	
				No. of completed malaria treatments	
Noncommunicable Diseases and Conditions					
Mental Health Problems			Mental Health Services	Proportion of districts with at least one facility providing mental health services	
All Above Categories of Service					
			Contacts with the Health System	# of consultations per person per year in BPHS facilities	
			Treatment	**Proportion of the population with access to affordable essential drugs**	
			BPHS Coverage	% of the population residing in districts with administrative and financial arrangements to provide the BPHS	
			PRR Implementation	% of central and provincial MoPH technical staff who have PRR status	
Other Health Problems					
Environment			Water supply	***% pop with access to safe water***	
			Sanitation	***% pop with access to improved sanitation***	

Note: Drawn from (1) the *National Health and Nutrition Sector Strategy*, (2) BPHS/EPHS indicators listed in Annex 1 of the *National HMIS Procedures Manual*, (3) the M&E Strategic Plan, (4) the MDG Goals Report, and (5) 2008 MDG and Indicator List (Afghanistan).

Indicators in **bold** are listed in the National Millennium Development Goals Report. Those in ***bold italics*** are in the MDG 2008 indicator list, but not so far monitored in Afghanistan.

APPENDIX C-4. Example of an Inventory of Ongoing and Currently Planned HIS Strengthening Efforts

	Title and Subject of the Strengthening Activity	Responsible Office	Important Products	Implementation Period	Financial-Technical Support	Sources of External Support
1	Develop HIS strategic plan	GDPP & BSC	HIS strategic plan	2009–2013		HMN
2	Improve human resources database (decentralization)	HR Dept & HMIS	Manual and database	2009–2010		MSH
3	Revise community-based HMIS	CBHC & HMIS	Forms, manual, and database	2009–2011		GAVI, MSH
4	Revise hospital HMIS	CCD & HMIS	Forms, manual, and database	2009–2011		MSH, GAVI
5	Standardize patient record system at hospitals	CCD & HMIS	Policy, required information products, database	2009–2011		MOPH
6	Revise balanced scorecard	3rd party	Manual and database	2009–2013		World Bank (WB)
7	Develop drug management information system	DG pharma-ceutical	Manual and database	2009–2011		MSH
8	Design and implement measurement system for results-based financing	GDPP	Project design and evaluation document	2009–2013	12 million	WB/NG
9	Support development of program budgeting initiative	MOF & HCF	Program objectives, indictors, budget doc	2008–2009		MOF, EC
10	Support development of provincial planning initiative	GDPP	Guidelines, training manual, pilot document	2008–2009		EPOS/EC
11	Support development of cadre of district health officers	GDPP	DHOs at the district level	2008–2012		GAVI
12	Revise national monitor-ing checklist and improve database	GDPP / M&E	Guidelines and implementation plan by provinces	2009–2012	800 x 34	GAVI
13	Design and implement integrated behavioral and biological surveillance for HIV	3rd party	Guidelines, manual, and database	2008–2012		WB
14	Design and implement community demographic surveillance system	3rd party	Guidelines, manual, and database	2009–2011		GAVI
15	Support further expansion of pilot vital registration system	MOI	Guidelines, manual, and database	2008 – 2010		UNICEF
16	Updating DEWS database	DEWS	Database	2008–2009		WHO
17	Financial management system (FMIS)	Finance department	Database	2008–2010		USAID

APPENDIX C-5. Example of an Inventory of Databases

	Name	Department or Organization	Support Agency	Maintained by	Database	Period-icity	Summary
1	HMIS	HMIS	Tech-serve	HMIS	Access	Quarterly	Routine reporting from health facility
2	NHSPA	M&E	JHU / IIHMR	JHU / IIHMR	Stata	Annual	Sample survey of health facilities
3	HR database	HR	Tech-serve	HMIS	Not computerized	Quarterly	Details of all personnel working in the health system
4	Training database	All related departments	Tech-serve	HMIS	Access	Quarterly	All training of health personnel
5	Grant database	GCMU	Tech-serve	HMIS	Access	Quarterly	
6	NMC database	M&E	Tech-serve	Tech-serve	Access	Quarterly	
7	Private pharmacy	Legislation department			Not computerized		List of private pharmacies in Afghanistan
8	Private clinics	Private facility unit		Private facility unit	Not computerized		List of private clinics
9	Private hospital	Central hospital directorate			Not computerized		List of private hospitals
10	Construction	Construction department		Construction department	Not computerized		List of newly constructed health facilities
11	Financial management	Finance department		Finance department	Excel	Quarterly	Details of budget and expenditure from the core budget
12	TB	NTCP	WHO	WHO	Excel/Access	Quarterly	TB diagnosis and treatment
13	Malaria	NMLCP			Excel	Quarterly	Malaria diagnosis and treatment
14	Immunization	EPI	WHO	WHO	Excel	Quarterly	Number of children immunized
15	Disease sur-veillance	DEWS	WHO		Excel	Weekly	No. of reported and confirmed cases
16	Special studies	Research de-partment			Access		Details of new research conducted
17	LQAS		Tech-serve			Every two years	Sample-based household survey database
18	NRVA	CSO & MRRD	Various	CSO	Access	Every three years	Sample-based household survey database
19	Population estimates	CSO	EU	CSO	Excel		Population estimates

APPENDIX C-6. Example of an Inventory of Routine Reports

	Name	Department/ Organization	Support Agency	Media	Periodicity	Summary
1	HMIS feedback	HMIS		Print	Quarterly	Feedback to provinces based on HMIS report
2	Health sector BSC	M&E	3rd Party	Print and online	Annual	Findings of sample survey of health facilities
3	Hospital sector BSC	M&E	3rd Party	Print and online	Annual	Findings of survey of hospitals
4	Health factsheet	M&E		Online	Annual	Priority health indicators
5	PHD report	GD PPH			Quarterly	Performance reports by PHDs to central ministry
6	NRVA		CSO & MRRD		Every three years	Sample based household survey report. Provides estimates at provincial and central
7	CSO yearbook	CSO	CSO	Print	Annual	Multisector priority indicators
8	World Health Statistics	WHO		Print and online		
9	WHO indicators report	WHO		Print and online	Annual	Report on global health indicator
10	MOPH report	MOPH		Print	Annual	MOPH report to the parliament
11	MDG report			Print and online	Every three years	Multisector priority indicators
12	National human development report		UNDP	Print and online		Multisector indicators
13	NDS progress report	GDPP		Print	Annual	Submitted by MOPH to ANDS reporting progress on NDS indicators
14	Household survey reports (MICS, AHS)	3rd Party		Print and online	Every 2–3 years	Sample-based household survey report
15	State of the World's Children report	UNICEF		Print and online	Annual	Multisector indicators
16	PRB datasheet	PRB		Print and online	Annual	Multisector indicators
17	Countdown report	UNICEF				Tracking progress in maternal, newborn and child survival

APPENDIX C-7. Example of an Inventory of Health Information System-Related Training

	Title of Training	Brief Description	Lead MOH Department or Partner
1	HMIS training: initial	A one-week course to introduce HMIS forms and case definitions	MOPH HMIS
2	HMIS training: refresher	A three-day course to troubleshoot the HMIS forms and some introduction to data use	MOPH HMIS
3	HMIS database training	A three-day course, including work with M&E	MOPH HMIS
4	HMIS networking workshop	A three-day workshop for PPHO HMIS officers to share and learn best practices in HMIS	MOPH HMIS
5	HMIS data use training	A three-day course to use HMIS database data extraction features for calculating commonly used indicators	MOPH HMIS
6	Basic statistics and epidemiology	A two-weeks course for mid-level MOPH officers on basics of descriptive and inferential biostatistics	MOPH M&E/JHU
7	NHSPA, BSC training of surveyors	XX-day training for using the NHSPA data collection tools	MOPH M&E/JHU
8	BSC course for PPHOs	XX-day training for PPHOs on use of BSC	MOPH M&E/JHU
9	Use of available sources of health information in Afghanistan	A one-day course for PPHOs on use of HMIS, BSC, household survey, NMC	Tech-Serve
10	National monitoring checklist (NMC) training	A two-day course for PPHOs, NGOs and MOPH to use NMC, its database and the data	MOPH M&E
11	Supervision, M&E	A two-day course for NGO supervisors to enhance supervision skills with an introduction to M&E	HSSP
12	Supervision, monitoring and evaluation	TBD	APHI
13	Target setting workshop	A one-day training for NGOs and the PPHOs to assess the previous performance and set program targets	PPG and Tech-Serve
14	Geographic information system training: basic	A general GIS course, of two weeks duration, provided to basic and advanced GIS users by AIMS	AIMS
15	GIS training	A one-day course for PPHOs to enable them to use Arc View 3 for putting simple indicators on the maps	MOPH HMIS
16	Lot quality assurance sampling (LQAS0	A two-day course on LQAS introduction, sampling, questionnaires, interview skills and data collection	Tech-Serve
17	Lot quality assurance sampling (LQAS	A two-day course on LQAS data analysis, reporting and target setting	Tech-Serve
18	Epidemiology and biostatistics course	A one-week training course for a variety of health professionals providing	Ibn Sina
19	Public health surveillance	TBD	APHI or NMLCP
20	Malaria M&E	TBD	NMLCP
21	Malaria data management	TBD	NMLCP
22	Malaria Global Database training course	TBD	NMLCP
23	Malaria quality assurance of microscopic diagnosis	TBD	NMLCP
24	Report writing	TBD	APHI
25	Computer training course	TBD	APHI
26	Research methodology	TBD	MOPH M&E
27	Epidemic preparedness and response course	TBD	MOPH DEWS (APHI)
28	Quality assurance standards	TBD	HSSP
29	DEWS data collection and reporting	TBD	DEWS

APPENDIX D. EXAMPLE OF ALTERNATIVE DRAFT HIS VISIONS FOR THE REVIEW AND CONSIDERATION OF AN HIS STAKEHOLDER WORKING GROUP

Alternative 1

In 2013, the health sector is served by a reliable and sustainable health information system producing timely, comprehensive, standardized, high quality, accurate and easily accessible information in accordance with updated health legislation. The HIS is dedicated to providing information of use to health policy-makers and service managers at all levels of the health system to enable them to make evidence-based decisions for providing optimal health services and promoting the physical, social, and mental well-being of the population.

Alternative 2

In 2013, the HIS will display the following characteristics:

- The scope of the HIS is comprehensive enough to provide necessary information for decision making to policymakers and other health managers at all levels of the system, with attention focused on key programs in the Health and Nutrition Sector Strategy.
- The HIS functions, organization, scope, products, processes, and tools have been defined and implemented with contributions from all stakeholders involved in health data collection, analysis, interpretation, and dissemination (directorates, departments, and programs of MOPH, NGOs, CSO, MOI, and others) and are in compliance with recently updated health legislation.
- *A high performance system of standardized and user-friendly IT technology is fully functioning at central, provincial, and district levels.*
- The components of the HMIS (routine data collection, analysis, and management) are being maintained without donor funding.
- Full functionality and sustainability of the HIS is ensured through adequate resource availability (HR, facilities, technology, and finance).
- High quality and accurate data are being provided in a timely manner, and are being made easily available on a regular basis through a system of broad dissemination for routine use.
- Use of health data is systematic and standardized at all levels of the system and users are able to properly analyze and interpret data for improving performance (coverage and quality) of health services.
- *Decentralization of the management and use of the HIS is achieved through empowerment of provincial and district managers and periodic capacity building.*
- *The system has been designed and procedurized to minimize the burden of data collection, maintenance, and reporting, while maximizing its use.*

APPENDIX E. EXAMPLE OF A DRAFT OUTLINE OF AN HIS DEVELOPMENT STRATEGY AND PLAN

Executive summary. The main problems and features addressed by the HIS strategy and plan and their relevance to health system performance. This is a brief description of the process and participation.

1. The Current HIS Situation

1.1 The Health System Policy Framework and Situation. This forms the backdrop for further development of the HIS.

1.2 Assessment Results. A brief summary of the current performance of the health information system, its subsystems, and categories of information based on the findings of the HIS assessments and other inputs.

1.3 Priority HIS Components, Subsystems, and Key Questions. A brief explanation of the derivation of priority information components and health subsystems, including low-scoring Key Questions.

2. HIS Problems, Vision, and Development Objectives

2.1 HIS Problem. Summarized with reference to Annexes E and F.

2.2 Vision. The HIS Vision and Characteristics Statement for the plan period, with brief explanation.

2.3 Objectives. A summary of the HIS performance objectives as defined for each priority HIS information category and subsystem. Refer to Annex I.

2.4 Critical Assumptions and Risks. A summary of the principles used by the HIS planning team (SC, CT and SWG) to derive the proposed strategy design and the assumptions being made about critical policy and organization support, and technical and financial resources to be mobilized. Refer to Annexes C and I.

3. Strategy for Strengthening the HIS during the Plan Period

3.1 Strategic Interventions. A succinct, but descriptive discussion of the sets of interventions proposed to address the problems and objectives of each priority health subsystem and HIS component. Refer to Annex I.

3.2 The Implementation Plan. Description of the content and rationale for the proposed implementation schedule for priority interventions. Refer to Annexes K and L.

4. Summary of HIS Resource Requirements

4.1 Categories of Resources. A brief discussion of "additional" development and recurrent (operating) resource requirements generated by the HIS strategy, along with routine operation costs.

4.2 Summary of Cost Requirements. A brief discussion and tabular summaries of additional development and operating cost requirements by type, year, and plan period. Refer to Annex M.

5. **Expected Products, Milestones, and Benefits.** Summary of the principle products of the strategic interventions, and implementation activities and milestones related to each priority HIS Component and Health Subsystem, while reflecting the performance benefits being derived within the context of the HIS Vision. Brief description of how the strategy implementation will be monitored. Refer to Annexes L, M and N.

6. **Conclusion.** A brief concluding statement reminding the reader about the important linkages between the HIS components, their use for supporting M&E, and efforts to improve the performance of the health system, while imparting a sense of priority toward those subsystems and HIS components proposed for attention within the strategy.

Possible Appendixes to an HIS Strategic Plan Document

A. Participants in the HIS strategic planning by organizational level

B. The HIS strategy design and planning process diagram

C. Principles guiding the HIS strategic planning

D. Health sector policy, priorities and principles of relevance to the HIS strategy

E. National priority health problems and related services

F. Current core health indicators

G. Table of the assessment results (average scores, low-scoring questions, and priority categories of information and HIS subsystems)

H. Definition of priority HIS subsystems and problems

I. HIS subsystem objectives and interventions

J. Current HIS strengthening activities, their funding and responsibilities for the HIS strategy

K. HIS intervention implementation phasing

L. HIS strategy activity implementation plan

M. HIS strategy resource requirements (development costs and implications on recurrent costs)

N. HIS strategy monitoring and evaluation framework

MEASURE Evaluation
University of North Carolina at Chapel Hill
400 Meadowmont Village Circle, 3rd Floor
Chapel Hill, NC 27517 USA
Phone: +1 919-445-9350 • measure@unc.edu
www.measureevaluation.org

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