John Snow Inc.
44 Farnsworth Street, Boston, MA 02210, USA
Tel 617 4829485 – Fax 617 4820617

World Bank Consultancy

GDDS III: General Data Dissemination System Socio-demographic Statistics Project in Anglophone Africa

Mission to Tanzania in May 5-17, 2008

By Theo Lippeveld, MD, MPH

Consultant Report

June 28, 2008

Acknowledgements

My sincere thanks go to Mr. Josbert Rubona, Mr. Claud John Kumalija, and Happiness Katuma of the Health Information and Research Section (HIRS) of the Ministry of Health and Social Welfare, to Mr. Ibrahim Masanja of the National Bureau of Statistics (NBS, Ministry of Finance and Economic Affairs), and to Hans Hoogeveen, Senior Economist at the World Bank Mission in Dar es Salaam. I also thank the staff and care providers in the district of Kisarawe who have given me the time to brief me about the realities of the situation in the field.

Finally I want to thank Ronal Luttikhuizen and Annette Kinitz for their guidance in preparing for this consultancy and for the final report.

Boston, June 28, 2008

Theo Lippeveld

Executive Summary

Under the GDDS Phase 3 Project, technical assistance is being provided to 21 Anglophone African countries through the World Bank to help implement plans for improvement in population, health, agriculture, education, and other sector statistics. This consultancy by Theo Lippeveld particularly focused on the improvement of health information systems (HIS).

Based on the findings of a National HIS Assessment Study, undertaken in the second half of 2007, the priority problems to be addressed can be summarized as follows:

a. Lack of harmonization of National HIS data sources and more specifically of the routine health management information system (MTUHA)
b. Lack of use of the information generated for health planning and management
c. Lack of M&E policy guidelines linked to the harmonized production of HIS data.

Strategic Objectives

a. To streamline the national HIS data sources in line with MDGs, National Strategy for Growth and Reduction of Poverty (NSGRP) (MKUKUTA in Kiswahili) and with planning and management information needs at all levels, as well as introducing a gender dimension

b. To strengthen HIS through improved use of information from MTUHA and other HIS data sources for decision making at all levels

Proceedings

During his mission, the consultant met with various HIS stakeholders in the Ministry of Health and Social Welfare (MOHSW), the National Bureau of Statistics (NBS), and the donor community. He participated in the World Bank Identification Mission for the STATCAP project. Particularly related to health statistics, the consultant facilitated a meeting with the health statistics stakeholders on how STATCAP can contribute to strengthening health information systems in Tanzania. Finally, the consultant also made a field visit to rural district of Kisarawa.

Findings and recommendations

The HIS assessment and various other studies undertaken in the past years have demonstrated that in order for the HIS in Tanzania to provide full support to the decision making process at various levels of the health system, major strengthening and harmonizing interventions will be required. The current political environment presents excellent opportunities for success. The MoH&SW and its partners consider HIS as an important element of the health system. The donor community has been very supportive in the past and is ready to continue to provide aid via the SWAp mechanism.

As such the MOHSW and the NBS have launched a process to formulate a HIS strategic and investment plan as well as policy and guidelines for HIS as part of the strengthening mechanism of its Health Information System. Most of the gaps identified in this assessment are within the reach of the Ministry of Health and Social Welfare and other ministries responsible for Health Information System. It is therefore important that efforts are made to strengthen the capacity to develop and maintain a user friendly and implementable Health Information System at all levels of health delivery system in the country. Both the HMIS strengthening project, proposed under the Norway Tanzania Partnership Initiative, as well as the STATCAP project proposed by the NBS, represent excellent opportunities to launch these efforts in the near future.

The consultant therefore proposes the following recommendations, in order of priority. Given the multi-sectoral nature of health and its determinants, implementation of these recommendations will need the involvement of all stakeholders in the health sector.

1) Finalize and approve the HMN/HIS Assessment Report (June 08)

2) Develop a HIS Strategic and Investment Plan (July 08 – December 08)

3) Develop a HIS policy framework and guidelines (October 08 – March 09)

4) Develop a HIS capacity building plan (October 08 – March 09)

5) Implement HMIS (MTUHA) Strengthening Proposal (2008-2010)

6) Development of a Sample Vital Events Registration System, aka SAVVY (timeframe TBD)

Details on each of these recommendations can be found in the main body of the report.

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Consultant Report

Introduction

Under the General Data Dissemination System (GDDS) Phase 3 Project, technical assistance is being provided to 21 Anglophone African countries through the World Bank to help implement plans for improvement in population, health, agriculture, education, and other sector statistics. In this context, a workshop on health statistics was organized in Gaborone, Botswana in October 2007 for five African countries including Tanzania (see report in Annex 4). During this workshop, the Government of Tanzania (GOT) proposed three priorities for the deliverance of TA missions in the period of 2007-2009:

1. Review routine health data collection and reporting
2. Develop monitoring and evaluation guidelines
3. Improve the use of information for decision making

Following this workshop, the Ministry of Health and Social Welfare (MOHSW) in collaboration with the Ifakara Health Research and Development Centre (IHRDC) and the University of Oslo have put together a proposal for funding which includes a review of the Health Management Information System (HMIS or MTUHA in Swahili). The HMIS is the major source of routine health data. The review found major problems with the HMIS, so the proposal includes a series of actions to address these issues. For a detailed description the reader is referred to Annex 12 (MOHSW: Proposal to strengthen the Health Information System).

Therefore the MOHSW considered the first priority of its Country Work Plan as sufficiently addressed at this moment. On May 6, upon arrival in Dar es Salaam, World Bank consultant Theo Lippeveld had a briefing meeting with Mr. Josbert Rubona and Mr. Claud John Kumalija of the Health Information and Research Section (HIRS) of the MOHSW, and with Mr. Ibrahim Masanja of the National Bureau of Statistics (NBS, Ministry of Finance and Economic Affairs), both members of the National HIS Core Team. The consultant was asked to focus on the two other priorities as well as on the harmonization of national HIS data sources. As for the latter, a baseline assessment of the National Health Information System (HIS) in Tanzania was conducted from July- December 2007, using a grant as well as the tools of the Health Metrics Network (HMN), a Gates funded project promoting the establishment of standards for national HIS. The consultant was requested to assist

the GOT in finalizing the HIS Assessment Report and in preparing the HIS core team for the HIS strategic planning process.

On the same day, Lippeveld also met with Hans Hoogeveen, senior economist at the World Bank in Dar es Salaam. He invited the consultant to join the Identification Mission for STATCAP, a proposed project to strengthen statistical systems in Tanzania. Since the Identification Mission started on May 12, it was agreed that the consultant would join the Mission until his departure on May 17 to and explore with health stakeholders potential areas of strengthening health statistics to be funded under the STATCAP project. A separate trip report on activities undertaken by the consultant under this Identification Mission can be found in Annex 8.

Based on these discussions, the terms of reference of the consultant have been modified accordingly as described in Annex 2.

Problems being addressed

The National HIS Assessment Study undertaken in October 2007 shows that the performance of the HIS in Tanzania is inadequate for three of the six HIS components: HIS resources; HIS data sources; and dissemination and use of information. With an unsatisfactory resource environment for HIS (policy and planning, financing as well as institutions and human resources) there is limited capacity to disseminate and use information for planning and priority setting, resource allocation as well as for implementation and action. Although there is reasonable performance in terms of capacity of the data platform, the routine information systems are particularly weak. The facility-based health management information system (HMIS or MTUHA) needs special attention as shown in table 1. The vital registration system has low coverage, especially in rural areas.

As for the information products, Tanzania has done an excellent effort in standardizing its national indicators to measure health sector performance against the targets of MKUTUTA, Millenium Development Goals (MDGs), District Performance, and General Health Budget Support. But for a number of indicators in the areas of general service delivery, human resources, and mortality statistics, available data are incomplete or of low quality. Therefore, under pressure of the Global Health Initiatives (PEPFAR, GFTAM, Stop TB, etc.) vertical reporting systems have been created to complement the lack of quality data produced by the HMIS. But these systems create duplication which put a heavy burden on the already limited human resource capacity in health. There is little communication between these disease program information systems and the more general HMIS.

Based on these findings, the priority problems to be addressed can be summarized as follows:

a. Lack of harmonization of National HIS data sources and more specifically of the routine health management information system (MTUHA)
b. Lack of use of the information generated for health planning and management
c. Lack of M&E policy guidelines linked to the harmonized production of HIS data.

Table 1: HMIS problems and proposed solutions (based on HMN assessment report and on proposal to strengthen HIS)

HIS component	Problems	Proposed solutions
Information generation processes		
Indicators	■ Gaps and overlaps between management functions and indicators	■ Revise and standardize indicator set based on MDGs, PRSP, HSSP, etc.
Data collection	■ Registration incomplete ■ Data quality issues ■ Lack of data collection system for continuity of care ■ Data handling problems	■ Revise data collection tools ■ Data quality assurance procedures ■ Simplify data handling processes
Data reporting and transmission	■ Reporting from facility to district incomplete and not reporting on time ■ Too many uncoordinated data reporting forms from vertical programs ■ Referral hospitals are not reporting to HMIS	■ Computerize data entry at district level ■ Enforce data transmission procedures and report submission checks ■ Incentives to improve data submission (e.g. P4P) ■ Consensus-building on unified and integrated reporting system ■ Include regional hospitals in MDG reporting
Data processing and analysis	■ No data warehouse/repository whereby data across sources can be analyzed and correlated ■ No database to track achievements towards MDG 4 and 5	■ Involve district managers in data analysis ■ Develop data warehouse with web-based access ■ Import data from vertical programs into DHIS
Data dissemination	■ Little or no feedback on data reported from higher levels	■ Reinforce data flow policy ■ Create incentives for feedback
Use of information	■ Poor use of data collected at facility, district, and regional levels to improve their own management needs (service delivery)	■ Capacity building in use of information at facility, district, and regional levels ■ Reward data use (e.g. P4P)
HIS Management		
Resources	■ No designated information officer at district level ■ Low capacity in information management and data analysis at district level ■ Lack of hardware and software maintenance at district and regional levels	■ Appoint district information officers ■ In-service training of all DHMT staff ■ Create ICT support (eventually multisectoral) at district and regional levels
Policies/procedures	■ No national information system policy ■ Fragmentation of HIS with strong vertical HIS ■ Support and supervision of HMIS activities at facility level is insufficient	■ Develop national health information system policy ■ Need for strong national leadership ■ Develop data warehouse with web-based access ■ Improve information-based supervision by program managers

Strategic Objectives

a. To streamline the national HIS data sources in line with MDGs, National Strategy for Growth and Reduction of Poverty (NSGRP) (MKUKUTA in Kiswahili) and with planning and management information needs at all levels, as well as introducing a gender dimension

The Government of Tanzania considers the Health Information System (HIS) as one of the keystones for an efficient health system. Provision of information support to health system performance monitoring has been identified as a priority for health development. Tanzania is currently preparing the Third Health Sector Strategic Plan (HSSP3) covering the years 2008-13. Full part of HSSP3 is a comprehensive Monitoring and Evaluation (M&E) Plan which should allow health policymakers and senior managers to measure progress in the implementation of the Health Sector Strategic Plan. This M&E Plan will rely heavily on the production of quality information by the various data sources of the National HIS. For this purpose, the Government of Tanzania has called upon the Health Metrics Network to provide financial and technical support to the assessment of the National HIS. It is expected that this HIS assessment will inform the development process of the M&E Plan as well the production of a HIS Strategic and Investment Plan (see figure 1).

b. To strengthen HIS through improved use of information from MTUHA and other HIS data sources for decision making at all levels

Ultimately, an HIS is not performing if data produced by various data sources are not used for action. In recent years, an increasing demand for policy and planning information has come from both the Government of Tanzania and international donors. The main three plans requiring relevant and quality information are (1) The Third Health Sector Strategic Plan 2008-2013 (HSSP3); (2) The National Strategy for Growth and Poverty Reduction (MKUKUTA); and (3) The Sector-wide Approach (SWAp) involving basket funding by the government and the donor community.

But various reports have shown that information in Tanzania is poorly used at various levels of the health system, and particularly at peripheral levels. Routine data systems such as MTUHA and the Vital Events Registration are producing and reporting incomplete and poor quality data, which can not be used for planning and programming. Also, the information generated in the health facilities is poorly used for management of patients/clients and of health services.

Figure 1: Linkages of strategic planning documents

Activities

In the following paragraphs, a description of activities undertaken during this consultancy is provided. A detailed agenda can be found in Annex 1 and a detailed report is provided on meetings held in Annex 3.

1) HMN/HIS Assessment Report

The consultant met with members of the HIS Steering Committee to discuss the status of the HMN/HIS Assessment Report as well as the methodology to finalize the report. He also consulted other reports and met with other HIS stakeholders to further understand the current HIS performance in Tanzania. Based on these meetings he prepared a new draft of the HMN/HIS assessment report and submitted it as part of this consultancy report (see Annexes 5 and 6).

The HMN/HIS Assessment Report presents the findings of the baseline assessment of the National Health Information System (HIS) in Tanzania which was conducted from July-December 2007. The assessment methodology consisted of a consensus building exercise inviting various HIS stakeholders and experts to answer a series of standardized questions proposed in the Assessment Tool of the Health Metrics Network. Assessment of HIS aimed at helping the MoH&SW, NBS, and other partners to identify key impediments and opportunities for future development and harmonization of the health information

system in Tanzania, as well as informing the Monitoring and Evaluation process for the 3rd Health Sector Strategic Plan 2008-2013. The process analyzed key areas of HIS including the resource environment, data sources, information products along with quality of those products, and capacity to disseminate and use information for policy and advocacy, priority setting, resource allocation and implementation and action.

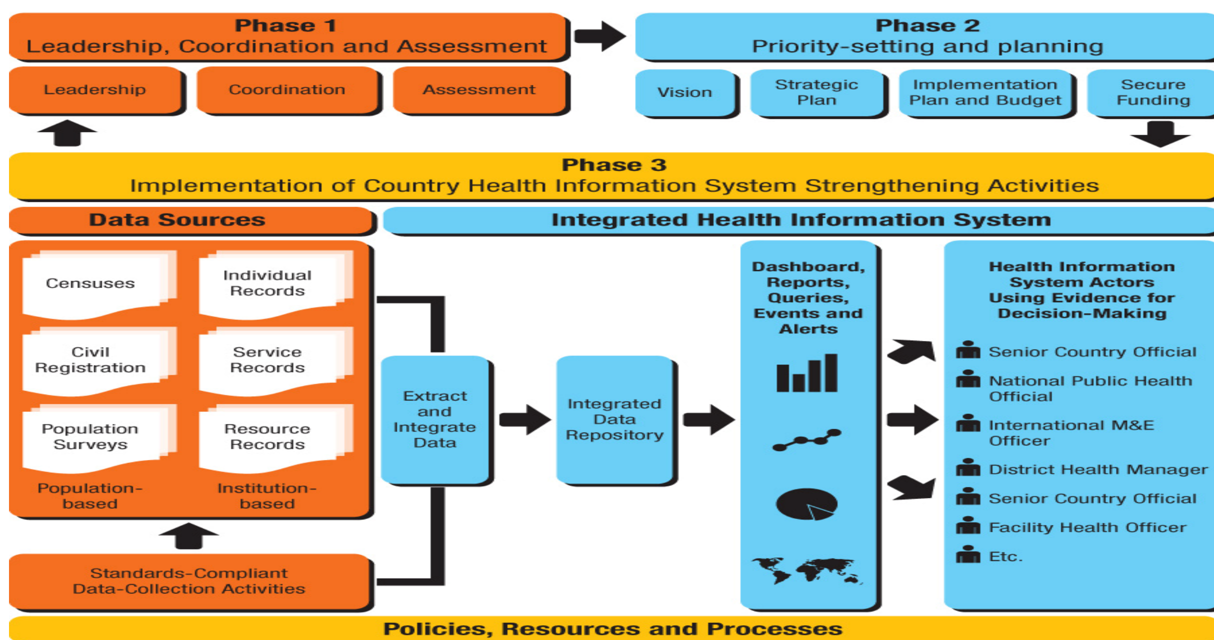
Generally, the performance of the HIS in Tanzania is inadequate for three of the six components: resources; data sources; and dissemination and use (see Figure 4). With unsatisfactory resource environment for HIS (policy and planning, financing as well as institutions and human resources) there is limited capacity to disseminate and use information for planning and priority setting, resource allocation as well as for implementation and action. Although there is reasonable performance in terms of capacity of the data platform, the health services based data sources (including health and disease records, health services records and administrative records) require special attention.

Most of the gaps identified in this assessment are within the reach of the Ministry of Health and Social Welfare and other ministries responsible for Health Information System. It is therefore important that efforts are made to strengthen the capacity to develop and maintain a user friendly and implementable Health Information System at all levels of health delivery system in the country.

2) Prepare HMN/HIS planning process

Based on the HIS assessment study, the MOPSW and other HIS stakeholders will embark in a HIS strategic planning process in the coming months. For this purpose the consultant prepared a guidance document for the preparatory phase starting from an original HMN document "Guidance for the HIS Strategic Planning Process". Presently this document is still in draft. The HIS strategic planning process, as devised by the HMN Secretariat and the HMN Technical Advisory Group enables country stakeholders working groups to generate a health information system strategic and investment plan utilizing a number of suggested steps, tools and formats. The process consists of **three phases** (see figure 14 on next page):

1. **Leadership, coordination and assessment –** setting up the national working groups and guidance committees and carrying out an assessment of the current HIS
2. **Priority-setting and planning –** using the results of the assessment to focus the working groups' attention on the performance gaps and problems that appear to deserve priority attention and then to generate the strategic ideas needed to strengthen the priority HIS assessment components. The implementation of these interventions is then planned over medium- to long-term time period, costed and described for review and approval by stakeholders
3. **Implementation of HIS strengthening activities** – time-phased implementation of agreed strategies, with monitoring and re-planning taking place at regular intervals.



Waiting for the HMN guidance document to be finalized, the consultant prepared a document focused on the early stages of the HIS planning process taking into account the local context in Tanzania (see annex 9). The consultant discussed the guidance document in detail with Mr. Rubona and Mr. Mukasa and agreed on next steps to be implemented by the MOHSW and IHRDC in the coming months.

3) Field visits to selected number of health facilities

The consultant accompanied by Ms Happiness Katuma (HIRS/PPD) visited the Kisarawe District which is situated at about an hour drive west from Dar es Salaam in the Coast Region. It is a district of 3,535 sq km and has 110,000 inhabitants (around 30 inhabitants/sqkm). It is managed by a Council Health Management Team (CHMT) and has a 120 bed hospital, 3 health centers, and 16 dispensaries. Although close to Dar es Salaam, it is a typical rural district. Kisarawe, the capital of the district lies eccentrically and is connected with a paved road to Dar. But most of the health centers and dispensaries are far away from Kisarawe on unpaved roads. A substantial part of the population has to walk more than 4 hours to reach a health center or the hospital.

Based on informant interviews with a sample of district and health facility managers, it can be concluded that the HMIS in Kisarawe district is poorly functioning. Although most health facilities report to the district level on a monthly basis, reports are incomplete and of poor quality. Data processing had to done manually because the HMIS computer

and software were out order since 8 months and all data of the past 5 years have been lost most likely through computer viruses. HMIS management responsibility has been given to an officer who has another set of responsibilities. No dedicated HMIS staff exists at district level. Excellent vertical reporting systems exist for HIV/AIDS, TB, and leprosy, mainly in Kisarawe district hospital, and are managed with funding from the US government (PEPFAR). Several computers are kept in the hospital in air conditioned rooms but are not shared with the District HMIS. Use of information is limited. Most care providers say that they meet regularly to discuss the monthly and quarterly reports but when questioned, they were unable to provide updated information on essential indicators such as coverage for vaccinations or for obstretrical care.

4) PRISM framework and assessment methodology

Initially the consultant had planned to brief the Tanzania MOHSW MTUHA team on the PRISM methodology for routine health information system (RHIS) assessment and reform, which is particularly helpful to design interventions for improving use of information for decision making. This methodology has been developed under the USAID funded MEASURE Evaluation Project under which the consultant is a senior advisor. But given the focus of this consultancy on National HIS assessment and planning, the consultant agreed with the HIRS team that this could be addressed in later consultancies and closer linked with the planned MTUHA strengthening. For information, annex 10 gives a summary of the PRISM framework and tools.

5) World Bank Identification Mission

The consultant attended the briefing meeting on the STATCAP Identification meeting on May 12. The team leaders Lucas Ojiambo and Hans Hoogeveen explained the objectives, activities and schedule of the Identification Mission. They presented the Tanzania Statistics Master Plan (TSMP), which is the basic document for the STATCAP project. Particularly related to health statistics, the consultant was requested to get input from the health statistics stakeholders on how STATCAP can contribute to strengthening health information systems in Tanzania.

For this purpose the consultant organized a meeting between the health statistics stakeholders and members of the STATCAP Identification Mission to build consensus around potential HIS strengthening interventions to be funded through the STATCAP project. The meeting was chaired by Mr. Rubona, Head of the HIRS/PPD, and was well attended by representatives of the MOHSW – NBS – and the WB Identification Mission.

In discussing potential support by STATCAP to the national health information system in Tanzania, participants at the stakeholders meeting on May 14 have suggested the following interventions which have been ordered according to the Strategic Objectives proposed in the TSMP (pp 29-30). Priority was given to interventions which are most likely simultaneously needed in other sectors than health, to interventions requiring close

collaboration between various MDAs, and to interventions at the local government level, where the need for integration is the highest.

SO 5.3.1

- Strengthening HIS Human Resource base (lack of staff and poor staff qualifications) at all levels, but particularly at district level

SO 5.3.3

- Developing data quality assurance (DQA) systems
- Strengthening Information and Communication Technology (ICT) systems based on national standards
    - o Internet access
    - o Data warehousing to better integrate multiple data sources
- Developing a Sample Vital Events Registration System (SAVVY) as in intermediate step towards complete Vital Events Registration (long term)

SO 5.3.4

- Standardized geo-coding system of health facilities to facilitate use of information for resource and services planning

SO 5.3.5

- Collaboration between NBS and the MOHSW to harmonize the content and the organization of health indicator surveys

The participants of the health stakeholders meeting of May 14 agreed that the STATCAP support, in addition to cashing in on opportunities for "vertical synergy", should also use a long-term (10-15 years) systems approach and promote sustainability. It was therefore proposed to pilot test the various proposed statistical strengthening interventions as an integrated multi-sectoral model at district level and below. Such an integrated multi-sectoral initiative would be led by the district statistical office in close coordination with sectoral statistical units to solve human resource problems, or to implement standardized ICT and DQA systems. This would benefit both the efficiency of the interventions as well as the collaboration and coordination at district level between various stakeholders: the NBS, the MDAs and the LGAs. Given the importance of socio-economic determinants of health, such statistical systems will ultimately contribute to sustainable health systems and to sustainable development in general.

Finally, the consultant attended the WB Identification Team staff meeting and debriefed the team on his meetings with health sector stakeholders. Being unable to attend the Bagamoyo workshop on May 19-20, it was agreed that the consultant would prepare a trip report on his findings for the Identification Mission team leaders (see annex 8).

6) Debriefing of MOHSW and NBS key decision makers on the results of the consultancy

The consultant had a final debriefing meeting at the MOHSW with Mrs. Regina Kituli, Director PPD and with Mr. Rubona, head of HIRS. He briefed them on the activities and

recommendations of his consultancy and on next steps in strengthening HIS in Tanzania. Mrs Kituli ensured the consultant of her full support to the HIRS and the HIS planning process. Given the intensive agenda of the NBS senior managers related to the World Bank STATCAP Identification Mission, it was impossible to set up a joint meeting with them. Both the MOHSW and the NBS will receive a draft Mission Report before finalization.

Deliverables

1. HIS Assessment Report including recommendations on next steps (Annex 6)
2. Agenda of the meetings and time spent (Annex 1).
3. Reports of the meetings and discussions held (Annex 3).
4. Recommendations offered (see below).
5. Handouts and text provided to the staff in the country (Annexes 5, 8, 9, 10)
6. Short report on the mission for the files of Tanzania (see executive summary)
7. Full mission report for the World Bank

Wider issues

At present, the vital events registration (VER) system is managed by RITA (Ministry of Justice and Constitutional Affairs). Several policy makers and reports have expressed concern about the location of VER in the Ministry of Justice and the need for collaboration between RITA, the Ministry of Health and Social Welfare, and the Bureau of Statistics.

Recommendations (with timeframes for actions)

The HIS assessment and various other studies undertaken in the past years have demonstrated that in order for the HIS in Tanzania to provide full support to the decision making process at various levels of the health system, major strengthening and harmonizing interventions will be required. The current political environment presents excellent opportunities for success. The MoH&SW and its partners consider HIS as an important element of the health system. The Chief Medical Officer (CMO) recently expressed his full support the effort of improving the HIS in Tanzania. The donor community (mainly the World Bank, Norway, DANIDA, the Netherlands, DFID, and UNICEF) has been very supportive in the past and is ready to continue to provide aid via the SWAp mechanism.

As such the MOHSW and the NBS have launched a process to formulate a HIS strategic and investment plan as well as policy and guidelines for HIS as part of the strengthening mechanism of its Health Information System. Most of the gaps identified in this assessment are within the reach of the Ministry of Health and Social Welfare and other ministries responsible for Health Information System. It is therefore important that efforts are made to strengthen the capacity to develop and maintain a user friendly and implementable Health Information System at all levels of health delivery system in the

country. Both the HMIS strengthening project, proposed under the Norway Tanzania Partnership Initiative, as well as the STATCAP project proposed by the NBS, represent excellent opportunities to launch these efforts in the near future.

The consultant therefore proposes the following recommendations, in order of priority. These recommendations need to be further developed and refined during the HIS Strategic Planning process. Given the multi-sectoral nature of health and its determinants, implementation of these recommendations will need the involvement of all stakeholders in the health sector.

1. Finalize and approve the HMN/HIS Assessment Report (June 08)

An annotated track version of the report by the consultant has been sent to Mr. Rubona (HIRS, MOHSW) and to Dr. Oscar Mukasa (IHRDC). It is expected that a final version of the report will be submitted for approval and disseminated to the HIS stakeholders during the month of June 08

2. Develop a HIS Strategic and Investment Plan (July 08 – December 08)

Through a consensus building process involving all the major stakeholders the plan will define priority interventions for HIS improvement in the short, medium, and long term (10 years), as well costing of the interventions. It is advised that the development of the plan follows the HMN Guidelines on HIS strategic planning. Given that the final version of these guidelines has not been released at the time of this consultancy, the consultant has prepared a provisional document to assist the GOT in preparing for the HIS strategic planning process (see annex 9).

3. Develop a HIS policy framework and guidelines (October 08 – March 09)

The HIS Policy Framework and Guidelines will define the institutional roles and responsibilities of all stakeholders related to the production and use of health determinant information (demographics, health status, health care, behavioral determinants, environment, etc.) and ensure accountability for health information and for supporting the system through which it is generated. It will address all components of the HMN framework. Examples of possible topics are provided in Box 1. Once developed, the HIS policy guidelines will be disseminated to HIS stakeholders at all levels of the health system.

4. Develop a HIS capacity building plan (October 08 – March 09)

The HIS capacity building plan will address HIS performance at all levels meaning the production of quality data and improving use of information for action. It will address the human resources needed to operate the national HIS, both in term of staff positions as well as staff training (in-service as well as pre-service). The focus will be on the district level and the frontline workers to ensure effectiveness at the level of operations. For

example, dedicated staff needs to be appointed at district levels to manage the HMIS and other data sources.

Box 1: HIS Policy Framework and Guidelines

- HIS resources
  - Human resources policies to ensure HIS management at all levels
  - Guidelines and standards for ICT infrastructure
  - Budgetary guidelines to ensure HIS recurrent funding
- HIS indicators
- Data sources and their integration, for example
  - Guidelines on methods and schedules for census and surveys
  - HMIS reporting schedules
  - Legislation on birth and death reporting
  - Policies on data sharing and dissemination
- Data management and quality
  - Policies on involvement of private sector
  - Policies on data quality assurance
  - Policies on communication technologies
  - Data confidentiality and security
- Policies promoting information culture and incentives for information use at all levels.

5. Implement HMIS (MTUHA) Strengthening Proposal (2008-2010)

The HIRS of the MOHSW, in collaboration with the IFHRC, the University of Dar es Salaam, and the University of Oslo, has developed a proposal to revitalize the HMIS, using a paper-based system at facility level and a computerized data processing application at district level. The consultant has reviewed the proposal and has the following recommendations:

- The proposal addresses most of the needs to strengthen the current MTUHA and should be implemented as soon as possible.
- The MOHSW needs to ensure that sufficient government and donor resources are available to implement the revised MTUHA nationwide within a reasonable time period (3-5 years).
- The focus should be on using information for action at district level and below. Based on the consultant's experience, it is mostly not sufficient to only address technical factors such as computerized data analysis and dissemination of feedback reports. To successfully create an "information culture" interventions are needed to address organizational factors (such as the decision making process at the level of the CHMT) and behavioral factors (such as incentives to use information).

- The consultant is ready to mobilize additional technical assistance in this area to introduce the PRISM framework and toolkit, which were developed under the USAID funded MEASURE Evaluation Project (see annex 10)

6. Vital events registration SAVVY (timeframe TBD)

The current vital events registration system is managed by the Registration Insolvency and Trusteeship Agency (RITA) and under the Ministry of Justice and Constitutional Affairs. It has a low coverage for birth and death registration, particularly in rural areas. It seems unlikely that complete vital events registration is a feasible goal in the immediate future. The current system of Demographic Surveillance Sites (DSS) produces quite reliable mortality data but they are not representative for the whole country. It is therefore proposed to examine the possibility of developing a "sample vital events registration system". Such a system, with a coverage of around 10% of the population, could produce representative birth and mortality statistics and, if used in combination with verbal autopsies (SAVVY), can also generate cause-specific mortality rates. Possible technical assistance for such a reform could be provided through the HMN or through the USAID funded MEASURE Evaluation project, which has developed a toolkit for developing SAVVY.

Dates and objectives for the next missions

The original Terms of Reference of the consultant mention the possibility of two additional consultancies in the time period until March 2009. The consultant proposes the following dates and objectives for these consultancies:

Two week consultancy in October - November 2008

- To assist the GOT with the development of a HIS strategic and investment plan in close collaboration with the HMN team (see recommendation 2).
- To assist the GOT to produce an outline for the HIS policy and guidelines (see recommendation 3)

Two week consultancy in February - March 2009

- Assuming that the HMIS strengthening project will have started implementation, to assist the GOT to improve use of information from routine data sources for decision making at all levels of the health system (see recommendation 5)
- Pending a request by the GOT, this could include a PRISM assessment and intervention plan. Such an assessment and intervention plan would be undertaken in close collaboration with the HMIS strengthening project team.

Working relations

The consultant mostly worked with the Health Information and Research Unit (HIRS) of the MOHSW, the National Bureau of Statistics Team (NBS), and the Ifikara Health

Research and Development Center (IHRDC). The consultancy coincided with the World Bank Identification Mission for the STATCAP project which resulted in less availability of the NBS staff for joint meetings with the HIRS staff. Also, Mr. Claud John Kumalija, the main counterpart in the MOHS, was called to attend a meeting in WHO/Geneva during the second week of the consultancy. Finally, the consultant has not been able to meet with the RITA staff to discuss the vital events registration (VER) system. All information related to VER has been obtained via NBS staff, who work in close collaboration with RITA staff.

Other donors involved

The consultant mainly worked with the local World Bank staff, but the consultant had meetings with a broader group of donors involved in HIS strengthening (see detailed meeting reports in annex 3):

- Development Partners Group Health (DPGH), which includes all donors involved in health interventions
- The Norwegian Development Assistance
- The Netherlands Development Assistance
- World Health Organization
- UNFPA
- USAID via the DELIVER, SCMS, and MEASURE Evaluation projects
- UNESCO

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Annexes

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2. Terms of Reference
3. Meeting reports
4. GDDS workshop on Health Statistics in Gaborone, Botswana, October 2007
5. Comments on draft HMN Assessment Report
6. Updated version of the HMN Assessment Report
7. World Bank Identification Mission – list of participants
8. Trip Report on Identification Mission for the STATCAP project May 12-17, 2008
9. Guidance for the HIS Strategic Planning Process – Adapted for Tanzania's development of a HIS Strategic and Investment Plan.
10. PRISM Framework and Tools
11. Proposal to strengthen health information system (HIS)

ANNEX 1

GDDS III Mission to Tanzania May 5-17, 2008
Agenda of meetings and time spent

Date	Time	Topic
May 5	10pm	Arrival in Dar Es Salaam Set up in Hotel Movenpick
May 6	8-10am 10-12am 12am – 3pm 4-6pm	Document Review Meeting with Claud John Kumalija, GDDS/Health Coordinator Working lunch with HMN Steering Committee members Meeting with Hans Hoogeveen, Senior Economist World Bank Dar Es Salaam
May 7	9am -11am 1 – 3pm Rest of day	Meeting with Oscar Mukasa, IDRDC Meeting with Development Partners Group Health (DPGH) Document review
May 8	8-11.30am 12 – 2pm 2 – 5pm 5 – 6pm	Draft comments on HMN Assessment report Meeting with Berit Austveg at Norwegian Embassy Draft comments on HMN Assessment Report Meeting with Claud John Kumalija
May 9	8 – 10am 10–12am 12 – 2pm 3 – 5pm	Document review Meeting with HIR Unit MOHSW Meeting with WHO/Tanzania office Meeting with DELIVER/SCMS/MMIS project staff
May 10	Whole day	Produce refined version of HIS assessment plan
May 12	8 – 9am 9 – 11 am 11am – 1pm 1 – 3pm	Document review WB Identification Mission staff meeting Meeting at NBS Presentation of TSMP at the World Bank
May 13	8 – 9 am 9am –6pm 7 – 10pm	Prepare for field trip Field trip to Kisarawe District Dinner with Arthur Heywood (consultant) and Paul Smithson (IHRDC)
May 14	7.30 – 8am 8 -10am 10 – 11am 11am – 1pm 3 – 5.30pm	Meeting with Dr. Lamine Thiam, WHO Document review Meeting with Josbert Rubona, Chief HIRS Meeting MOHSW – NBS – WB Identification Meeting team Meeting with IHRDC team
May 15	8 – 5pm 5 – 6.30p	Prepare HMN Planning Tool hand out Meeting with Henry Mnanyika, IHRDC
May 16	8-10am 10am – 1pm 2 – 5pm	Prepare HMN Planning Tool hand out Discuss HMN HIS planning process with Josbert Rubona (HIRS) and Oskar Mukasa (IHRDC) World Bank Identification Team staff meeting
May 17	8 – 6pm Evening	Write Identification team trip report Departure for Amsterdam

ANNEX 2
GDDS III: General Data Dissemination System
Socio-demographic Statistics Project in Anglophone Africa

Mission to Tanzania in May 5-17, 2008
Theo Lippeveld

Revised Terms of Reference (version May 7, 2008)

Background

Under the GDDS Phase 3 Project, technical assistance is being provided to 21 Anglophone African countries through the World Bank to help implement plans for improvement in population, health, agriculture, education, and other sector statistics. In this context, a workshop on health statistics was organized in Gaborone, Botswana in October 2007 for five African countries including Tanzania. During this workshop, the Government of Tanzania (GOT) proposed three priorities for the deliverance of TA missions in the period of 2007-2009:

1. Review health routine data collection and reporting
2. Develop monitoring and evaluation guidelines
3. Improve the use of information for decision making

Based on the priorities of the GOT, initial terms of reference were drafted for a first mission by World Bank consultant Theo Lippeveld. On May 6, the consultant had a briefing meeting with Mr. Josbert Rubona and Mr. Claud John Kumalija of the HIRS (DPP/MOHSW), and with Mr. Ibrahim Masanja of the NBS (Ministry of Finance and Economic Affairs). The consultant also met with Hans Hogeveen of the World Bank (Tanzania). Based on these meetings the terms of reference (TOR) of the consultant were slightly revised as follows:

Problems being addressed

a. Lack of harmonization of National HIS data sources and more specifically of the routine health management information system (MTUHA)
b. Lack of use of the information generated for health planning and management.

Strategic Objectives

a. To streamline the national HIS data sources in line with MDGs, National Strategy for Growth and Reduction of Poverty (NSGRP) (MKUKUTA in Kiswahili) and with planning and management information needs at all levels, as well as introducing a gender dimension
b. To strengthen HIS through improved use of information from MTUHA and other HIS data sources for decision making at all levels

Methodology
The consultant will work with the Health Metrics Network Steering Committee members to finalize the report on the HIS Assessment which was undertaken in the summer of 2007. The findings of this report will feed directly into the drafting of a Monitoring and Evaluation Plan for the 3rd Health Sector Strategic Plan (2008-2013) and into the preparation of the HIS Strategic and Investment Plan.

The consultant will also participate in selected activities of a Tanzania Statistics Project Identification Mission which will start work in the week of May 12. This multisectoral Mission will examine the objectives, scope, components, implementation arrangements, preliminary cost estimates, and project processing timetable of a World Bank project to strengthen statistical systems in Tanzania.

As for MTUHA, the consultant will undertake field visits to a small sample of health facilities and will brief the Tanzania MOHSW MTUHA team on the PRISM methodology for RHIS assessment and improvement.

Activities required

7) Meet with HMN Steering Committee (May 6)
    - Discuss status of HMN/HIS Assessment Report
    - Discuss on methodology to finalize HMN/HIS Assessment Report and on preparation of HMN/HIS planning meeting
8) Meet with other HIS stakeholders (May 7-9)
    - NBS, IHDRC, WHO, Norwegian Embassy, and DANIDA.
    - Development Partner Group Health (DPGH)
    - Other stakeholders TBD
9) Finalize HMN/HIS Assessment Report (May 7-10)
    - With guidance of HMN Steering Committee
10) Prepare HMN/HIS planning meeting (May 14)
    - With guidance of HMN Steering Committee
11) Field visits to selected number of health facilities (May 12-13)
    - With MTUHA Management Unit
    - Ideally: 1 rural HC, 1 urban HC, 1 District hospital
12) Present and discuss PRISM assessment and improvement methodology (May 15)
13) Debriefing of MOHSW and NBS key decision makers on the results of the consultancy (May 15)
14) Participate in workshop define more precisely the health components of the proposed project to strengthen statistical systems based on the revised Strategic Plan issued by NBS (May 16-17)

Resources required from World Bank
- Financial assistance with logistic arrangements for conducting HMN Steering Committee and other HIS related meetings
- Financial assistance with arrangements of field trips

Input required from Tanzania HMN Steering Committee

1. To identify key resource persons to work with external consultant
2. Prepare list of stakeholders to be visited by consultant and make appointments
3. To identify key resource persons to work with external consultant
4. Prepare for field visits on May 12-13

Deliverables:

15) Final HMN/HIS Assessment Report including recommendations on next steps
16) An agenda of the meetings and time spent.
17) Reports of the meetings and discussions held.
18) A report on recommendations offered.
19) If required, more detailed reports of the topics treated in the annexes.
20) Handouts and text provided to the staff in the country
21) Drafting a short report on the mission for the files of Tanzania (to keep the essentials)
22) Drafting a full mission report for the World Bank, using the format presented.

Duration & Timing:

The mission will last 2 weeks. The total number of working days will be 13 divided as follows: 10 working days in the country and 3 days for preparation and report writing. The mission has to be completed by May 2008.

N°	**Activity**	**MAY 2008**												
		1-5	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
1	Prepare for Mission – Travel to Tanzania													
2	Meeting with HMN Steering Committee													
3	Finalize HMN/HIS Assessment Report													
4	Meet with other HIS stakeholders													
5	Field visits to sample of health facilities													
6	Prepare for HMN/HIS Planning													
7	Debrief with MOHSW and NBS partners													
8.	Participate in WB workshop in Bagamoyo for TZ Statistics Project Identification Mission													

ANNEX 3
GDDS III Mission to Tanzania May 5-17, 2008

REPORT ON MEETINGS HELD

May 6, 10-12 am Meeting with Claud John Kumalija, GDDS/Health Coordinator

In this first meeting, Mr. Kumalija explained the consultant how routine reporting is not more the first priority of Tanzania under the GDDS project. A proposal to reform the HMIS (MTUHA), the main source for routine reporting, has been submitted for funding to the Government of Norway.

The consultant has been requested to focus on the Health Metrics Network (HMN) driven harmonization process of the National HIS. This includes fine tuning the assessment report and preparing the HIS Core Team for the HIS planning process. The other priorities of developing M&E policy guidelines and improving use of information will be explored in subsequent missions.

May 6, 12 am – 3pm Working lunch with HIS Core Team members

Mr. Rubona, Team Leader HIRS/PPD
Mr. Claud John Kumalija, I/C MTUHA
Mr. Ibrahim Masanja, Senior Statistician NBS

Dr. Oscar Mukasa, the fourth member of the HIS Core team was not available for this meeting. During the meeting we discussed the process of the HMN assessment as well as the establishment of a HIS Development Steering Committee as well as a Stakeholders working group (SWG). Most governments have found it useful to establish a senior-level Steering Committee to sponsor and monitor the HIS strategy design and implementation process. Such committee can be comprised of three or four senior policy-makers, one from each of the Ministries that are contributing to the process and the subsequent implementation of system improvements. These normally include the Ministries of Health, Interior, Planning and Finance, along with the Census Bureau and National Institute of Statistics or similar bodies. After the preparation phase for the HIS planning, the HIS Core Team will call together a broader group of stakeholders to develop a HIS strategic and investment plan.

May 6, 4-6 pm Meeting with Hans Hoogeveen, Senior Economist World Bank Dar Es Salaam

The consultant discussed the modified scope of work of his consultancy with Hans Hoogeveen, as well as the need for coordination of various ongoing initiatives to strengthen health statistics in Tanzania. Given the focus of the consultant on the broader HIS development and strengthening, Mr. Hoogeveen proposed that the consultant join the World Bank Identification Mission for a

more general statistical systems strengthening project proposed by the Government of Tanzania. This Mission, which would start its work on May 12, focuses particularly on routine data systems in local government, education, health, and agriculture. It was agreed that the consultant would be in contact with Ronald Luttikhuizen to approve this additional expansion of his scope of work.

May 7, 9-11am Meeting with Oscar Mukasa, IHRDC

Oscar Mukasa is a staff member of the Ifakara Health Research and Development Center (IHRDC). This autonomous center has assisted in the past years the MOHSW in epidemiological and health systems research as well as in evaluation and knowledge management. Dr. Mukasa, who is presently preparing a doctoral thesis on the role of ICT in strengthening health information systems in Tanzania, is part of the HIS Core Team on HIS assessment and planning. The consultant discussed the present status of the HIS assessment report and his plans for fine tuning it.

May 7, 1-3pm Meeting with Development Partners Group Health (DPGH)

The consultant attended the monthly meeting of the Development Partners Group Health (DPGH), which was attended by most of the donors presently supporting health interventions in Tanzania. The meeting was chaired by the representative of the Irish Development Cooperation. The consultant presented hi scope of work and was asked to coordinate his recommendations with the ongoing interventions in strengthening HIS in Tanzania.

May 8, 12 am – 2pm Meeting with Berit Austveg at Norwegian Embassy

The MOHSW with the Ifakara Health Research and Development Centre (IHRDC) and the University of Oslo have put together a proposal for a project to restructure the Health Management Information System (HMIS or MTUHA in Swahili) and submitted it for funding to the Norwegian Development Agency (NORAD) as well as to other donors. The consultant discussed this proposal with Dr. Berit Austveg of the Norwegian Embassy. Other participants were Rik Peeperkorn, I/C health at the Embassy of the Netherlands, Hans Hoogeveen of the World Bank, and a representative of UNFPA. It is planned that Arthur Heywood, independent consultant to NORAD will further work on the costing of this project. A broader discussion was held on the importance for this project to become national in scope, as well as its focus on improving use of information for decision making.

May 8, 5-6pm Meeting with Claud John Kumalija

The consultant had a brief meeting with Mr. Kumalija, the GDDS Health Module Coordinator and main counterpart to the consultant. He announced that the MOHSW had requested him to attend a meeting on hospital mortality statistics in

Geneva and would not more be available to the consultant for the second week. It was agreed that Ms Happiness Katuma, health statistician at HIRS, would take over as GDDS Health Module Coordinator.

May 9, 10 - 12 am Meeting with HIR Unit MOHSW
Mr. Rubona, the head of HIRS/PPD
Mr. Claud John Kumalija
Ms. Happiness Katuma

During this meeting the consultant discussed the findings of the HMN Assessment Report and made suggestions for fine tuning (see annex 5). It was agreed that the consultant would introduce the changes and provide an updated version of the assessment report to the MOHSW (see annex 6).

May 9, 12 am – 2pm Meeting with WHO/Tanzania office
Mr. Max Mapunda, NPO/WHO Dar Es Salaam
Dr. Eli Nangawe, NPO/WHO Dar Es Salaam
Mr. Josbert Rubona, HIRS/PPD

During this meeting the consultant briefed the WHO officers about his scope of work. The WHO officers stressed the importance of HIS/M&E in monitoring the implementation of the Sector Wide Approach (SWAp) funding mechanism.

May 9, 3-5pm Meeting with DELIVER/SCMS project staff
Tim Rosche, Country Representative for the DELIVER project
Abdou Diallo, Country Representative for the SCMS project

Both the DELIVER and the Supply Chain Management System (SCMS) projects assist the GOT with the delivery and security of health commodities. DELIVER works on all health commodities while SCMS focuses on HIV/AIDS drugs and supplies. Both projects have worked in the past years on the introduction an integrated Logistics Management Information System (ILS), which allows health facilities to order most health commodities (drugs and contraceptives) on a demand-supply basis (pull system). Only vaccines and TB/Leprosy drugs continue to have a separate information system. ILS is being scaled up nationwide. DELIVER also assisted the Medical Store Depot (MSD) to computerize the supply chain management system.

May 12, 9-11am STATCAP Identification Mission staff meeting
Members of the Identification Mission as well as NBS staff (see annex 7)

The consultant attended the briefing meeting on the STATCAP Identification meeting. The teamleaders Lucas Ojiambo and Hans Hoogeveen explained the objectives, activities and schedule of the Identification Mission. They presented the Tanzania Statistics Master Plan (TSMP), which is the basic document for the STATCAP project. Particularly related to health statistics, the consultant has been

requested to get input from the health statistics stakeholders on how STATCAP can contribute to strengthening health information systems in Tanzania.

May 12, 11-1pm Meeting at NBS
Members of the Identification Mission as well as NBS staff (see annex 7)

This meeting was held at the headquarters of the National Bureau of Statistics and was chaired by Albina Chuwa, NBS Director General. Dr. Chuwa welcomed the team members of the Identification Mission who introduced themselves. The participants then examined the agenda of the Mission.

May 12, 1-3pm Presentation of TSMP at the World Bank
Members of the Identification Mission as well as NBS staff (see annex 7)

The National Consultant to NBS presented the process, objectives, and activities of the TSMP.

May 13, 9am – 6pm Field trip to Kisarawe district
Happiness Katuma, HIRS/PPD

The consultant visited the Kisarawe District which is situated at about an hour drive west from Dar es Salaam in the Coast Region. It is a district of 3,535 sq km and has 110,000 inhabitants (around 30 inhabitants/sqkm). It is managed by a Council Health Management Team (CHMT) and has a 120 bed hospital, 3 health centers, and 16 dispensaries. Although close to Dar es Salaam, it is a typical rural district. Kisarawe, the capital of the district lies eccentrically and is connected with a paved road to Dar. But most of the health centers and dispensaries are far away from Kisarawe on unpaved roads. A substantial part of the population has to walk more than 4 hours to reach a health center or the hospital.

Upon arrival, the consultant met with acting District Medical Officer (DMO), Dr. Ngome. The DMO and most of the CHMT members were absent to attend a HIV/AIDS counseling workshop in Bagamoyo. He also interviewed Mr Ali Mdangaya who is in charge of the HMIS for the whole district, but combines it with other responsibilities. The consultant then visited the hospital as well as the Health Center of Masaki, situated one hour drive away on a bad track road.

The HMIS in Kisarawe district is poorly functioning. Although most health facilities report to the district level on a monthly basis, reports are incomplete and of poor quality. Data processing has to done manually because the HMIS computer and software are out order since 8 months and all data of the past 5 years were lost. Vertical reporting systems exist for HIV/AIDS, TB, and leprosy and are managed with funding from the US government (PEPFAR). Several computers are kept in the hospital in air conditioned rooms but are not shared with the District HMIS. Use of information is limited. Most care providers say that they meet regularly to discuss the monthly and quarterly reports but when

questioned, they were unable to provide updated information on essential indicators such as coverage for vaccinations or obstretrical care.

May 13, 7-10pm Dinner with Arthur Heywood (consultant) and Paul Smithson (IHRDC)

The consultant met with Arthur Heywood, independent consultant, and Paul Smithson (IHRDC) to discuss the MTUHA reform project proposal. While the proposed HMIS design objectives and activities are relevant and feasible, there is some concern about the scaling up of the HMIS. In order for the HMIS to be scaled up nationwide within a reasonable time period, at least two conditions need to be fulfilled : (1) availability of management expertise for scaling up the HMIS nationwide; and (2) the availability of sufficient financial resources. Dr. Heywood will in the coming weeks produce detailed cost estimates for the project.

May 14, 7.30 – 8am Meeting with Dr. Lamine Thiam, WHO

The consultant met with Dr. Lamine Thiam from WHO/Dar es Salaam to discuss the preparation process for a Global Fund proposal (round 8) on health system strengthening including a HIS component. Since he was unavailable himself to provide TA, he provided names of potential consultants to assist PPD in the preparation of the proposal.

May14, 10-11am Meeting with Josbert Rubona, Chief HIRS

In preparation of the meeting between the health statistics stakeholders and members of the STATCAP Identification Mission, the consultant discussed with Mr. Rubona about possible interventions in HIS strengthening through the STATCAP project. Most of the recommendations agreed upon have been captured in the Identification Mission report provided in Annex 8.

May14, 11am – 1pm Meeting MOHSW – NBS – WB Identification Meeting team

This purpose of this meeting was to build consensus around potential HIS strengthening interventions to be funded through the STATCAP project. The meeting was chaired by Mr. Rubona, Head of the HIRS/PPD, and was well attended by representatives of the MOHSW – NBS – and the WB Identification Mission. The outcome of this meeting has been captured in the Identification Mission Report prepared by the consultant (see Annex 8). Following is a detailed list of participants:

- Josbert Rubona, Head of HIRS/PPD, MOHSW
- Happiness Katuma, HIRS/PPD, MOHSW
- Anchilla Vangisada, DSS/HIRS/PPD, MOHSW
- Dorothy Semu, National TB and Leprosy Program, MOHSW
- Amour Seleman, Environmental Health, MOHSW
- Joel Ndayungeje, National AIDS Control Program, MOHSW

- Amina Hamis, Department of Social Affairs, MOHSW
- Aldegunda Komba, Socio-Demographic Statistics, NBS
- Benedict Mugambi, GIS section, NBS
- Ibrahim Masanja, STATCAP coordinator, NBS
- Hans Hoogeveen, Id Mission, WB
- Bernard Muhwezi, Id Mission WB

May14, 3 -5.30 pm Meeting with IHRDC team

The consultant accompanied by Mr. Rubona (HIRS, MOHSW) visited the Ifakara Health Research and Development Center (IHRDC). He met with a team led by Dr. Hasan Mshinde, IHRDC Director. Other team members were Oscar Mukasa, I/C HMN TA, Henry Mnanyika, PhD student on HIS/ICT, and Paul Smithson, researcher. The IHRDC team presented the objectives and activities of the Institute which exists since 50 years and was originally managed by the Swiss Tropical Institute in Basel. The IHRDC does action research on various health problems and programs, as well as Operations Research. It manages six field sites of which 3 are DSS. More recently, IHDRC has collaborated with the MOHSW on the development of a proposal to restructure and strengthen the HMIS (MTUHA). The consultant discussed with the IHDRC team on the role of IHRDC in the MTUHA project. While the design and pilot testing phase fits well with the expertise of IHRDC, the scaling up phase will involve a large capacity building component. It would be advisable to include another partner in the consortium with managerial expertise in such large projects.

May 15, 5 – 6.30pm Meeting with Henry Mnanyika, IHRDC

The consultant had a meeting with Henry Mnanyika who is currently preparing a doctorate in public health at the Swiss Tropical Institute on the relation between HIS and ICT. He also works with HMN on a paper on Enterprise Architecture (EA) for HIS, in which the consultant is involved. The possibility was discussed of potentially piloting a first draft EA framework in Tanzania.

May 16, 9-10am Meeting with Mrs Regina Kituli, Director of the Planning and Programming Department (PPD), MOHSW

The consultant, accompanied by Mr. Rubona, met with Mrs. Regina Kituli, Director PPD, and briefed her on his consultancy and on next steps in strengthening HIS in Tanzania. Mrs Kituli ensured the consultant of her full support to the HIRS and the HIS planning process.

May 16, 10am – 1pm Discuss HMN HIS planning process with Josbert Rubona (HIRS) and Oskar Mukasa (IHRDC)

Based on the HIS assessment study, the MOPSW and other HIS stakeholders will embark in a HIS strategic planning process in the coming months. For this

purpose the consultant prepared a guidance document for the preparatory phase based on an original HMN document "Guidance for the HIS Strategic Planning Process". The document prepared by the consultant takes into account the local context in Tanzania (see annex 9). The consultant discussed the guidance document in detail with Mr. Rubona and Mr. Mukasa and agreed on next steps to be implemented by the MOHSW and IHRDC.

The consultant also discussed possible next visits to Tanzania to provide technical assistance to the HIS strategic planning visit.

May 16, 2-5pm World Bank Identification Team staff meeting

The consultant attended the WB Identification Team staff meeting and debriefed the team on his meetings with health sector stakeholders. Being unable to attend the Bagamoyo workshop on May 19-20, he promised to leave a trip report on his findings with the Identification Mission team leaders as well as for Julie McLaughlin, who will join the team as health expert.

ANNEX 4

General Data Dissemination System (GDDS) Project - Phase 2
Socio-Demographic Statistics Project for Anglophone Africa

Report of the Launch Workshop of the Module on Health Statistics

Gaborone, Botswana
October 8-12, 2007

Organizer:
World Bank

Consultant:
Stanislaw Orzeszyna, MD, DPH

October 2007

Acknowledgements

The consultant would like to thank Mr Ronald Luttighuizen, the GDDS Manager for having given this opportunity to support a Launch Workshop for the Health Statistics Module. The consultant also expresses thanks for advice and encouragement to Dr Sally K. Stansfield, Executive Secretary and Dr Carla Abou-Zahr, Deputy Executive Secretary of the Health Metrics Network.

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Abbreviations

DQAF	Data Quality Assessment Framework
GDDS2	General Data Dissemination System Phase 2
HMN	Health Metrics Network
ICT	Information Communication Technology
IMF	International Monetary Fund
IT	Information Technology
NBS	National Bureau of Statistics
StatsSA	Statistics South Africa
TA	Technical assistance
WB	World Bank
WHO	World Health Organization

1 Background

A launch workshop on the health statistics module was held from 8th to 12th October 2007 in Gaborone, Botswana, and was attended by participants from five countries that had selected the health statistics module from the GDDS Phase 2 project for Anglophone Africa. The participating countries were: Botswana, Lesotho, Mauritius, Sudan and Tanzania. Additionally, one person from South Africa took part in the workshop as an observer.

The objective of the health statistics module is to improve the coverage and the quality of statistics on health outcomes, and on the delivery and use of health services. A main purpose of the launch workshop is to choose three priorities for each country and a work program including a timetable for the country visits by the technical expert.

The workshop participants from countries were:

Botswana	5 participants
Lesotho	1 participant
Mauritius	3 participants
Sudan	3 participants
Tanzania	3 participants

In addition, the following attended the workshop throughout the week: the World Bank GDDS Manager, Ronald Luttikhuizen; the International Monetary Fund Resident Coordinator, GDDS Project, Kenya, Oliver Chinganya; a World Bank Senior Demographer, Sulekha Patel, a World Bank Consultant, Stanislaw Orzeszyna. A list of participants is included in Annex A.

2 Workshop proceedings

The workshop agenda is included in Annex B.

Opening session

The workshop started on Monday, 8th October with an opening session that included the following items:

A welcome address by **Mrs O. Mokopakgosi**, Director of Policy, Planning, Monitoring and Evaluation of the Ministry of Health, who officially opened the workshop. The opening was followed by short introductions by the participants.

The GDDS Manager, **Mr Ronald Luttighuisen**, of the World Bank, presented a workshop overview.

An overview of the General Data Dissemination System (GDDS) modular approach was done by **Mr Oliver Chinganya**, International Monetary Fund. He described the principles of modules for strengthening statistics. The General Data Dissemination System (GDDS) builds on the main elements of the UN's Fundamental Principles of Official Statistics around four aspects: data (relevance, coverage, timeliness and periodicity); quality (methodology, sources); integrity of the data production processes; and, access to the data by the public. This presentation is included in Annex D.1.

A welcome message was delivered by **Dr Sally K. Stansfield**, Executive Secretary, Health Metrics Network.

An **introduction** to workshop objectives, expected products and methods of work was done by Dr Stanislaw Orzeszyna, WB consultant. The presentation is included in Annex D.2. A compact disk (CD) that was distributed to the participants consists in its substantial part of a set of selected readings aimed at facilitating the preparation and conduct of the launch workshop and helping to implement the module on strengthening health statistics. The CD contains also all the presentations that were available at the time when it was produced. The reader is described in a Reader Content, a document attached to this report in Annex C.

The **Reader** is divided into following parts: general principles, assessing health information systems, strengthening health information systems and country data. Each reference quoted in the reader content is hyperlinked to the corresponding document placed on the CD. Additionally, each reference is also hyperlinked to the original uniform resource locator (URL) if the document was downloaded from the Web.

Country presentations

The afternoon session on Monday started with country presentations on their current status of health information system development and plans for improvement. These presentations were delivered by all five participating countries, and, additionally, by an invited representative from Statistics South Africa. All country presentations are included in Annexes[1]:. The country presentations brought very useful information on countries' current status of development of their health information systems. Thanks to this high level of understanding and professionalism, it was possible to change the agenda of the meeting. It was decided to replace some general presentations on the principles of health information system to allow the countries to share their practical experience, their issues and problems that they want to solve with international collaboration.

Ms Ntebaleng Chobokoane, Executive Manager: Health and Vital Statistics, Statistics South Africa, described the current situation and plans in the production of health information, in particular, death registration, birth registration, and health statistics. The presentation is included in Annex D.14.

Presentations of cooperating agencies

Dr Sally K. Stansfield, Executive Director of the Health Metrics Network made a presentation on the HMN goals and objectives. She described the governance and management of the Network and its achievements up to now. In particular, she described the HMN country work, including leadership, coordination and assessment, planning and priority setting and implementation of HIS strengthening. Lessons from country work include: aligning HIS reform with management reform, structure systems and processes to assure prompt, local use, engage a high-level "champion", involve a broad range of stakeholders, obtain expertise in communication and advocacy, and link HIS subsystems through a comprehensive HIS architecture. The presentation is included in Annex D.5.

Mrs **Sulekha Patel** of the World Bank described the data quality assessment framework that provides a structure for assessing existing practices against best practices, including internationally accepted methodologies. The data quality assessment framework serves two purposes: it guides country efforts to prepare self-assessments of the environment in which

[1] Country presentations: Botswana - Annex D.3.1, Lesotho - Annex D.3.2 –, Mauritius - Annex D.3.3 –,– Sudan - , Annex D.3.4, Tanzania Annex D.3.5

statistics are prepared, and the quality of those statistics; it guides data users in evaluating data for policy and planning purposes. The framework addresses five dimensions of data quality: assurances of integrity, methodological soundness, accuracy and reliability, serviceability and accessibility. The presentation is included in Annex D.8.

Mr Johan Saebo of the University of Oslo described a pilot district health information system established in four districts in Botswana. The pilot system uses a free and open source software that was initially developed in South Africa and is now operational in several countries. The strengths of the software cover the flexibility to customize data elements and indicators, organizational structure, language and graphical user interface, reports and graphs. The presentation is included in Annex D.10.

Selecting priorities

The **Consultant** presented a checklist of topics that were discussed by the participants of the workshop. The checklist consists of 66 items grouped in the following sections: participative review of the present HIS system; supporting health information system reform; capacity development program targeted at all users; strengthening data processing and analysis; improving the use of health information; strengthening population-based data sources; strengthening facility-based data sources; strengthening of information and communication technology. The presentation is included in Annex D.7 and file with a needs assessment checklist is included in Annex E. This checklist was used to develop and describe their priorities.

In **Botswana**, data is received from 26 health districts and all hospitals are staffed with medical record officers. Health care delivery and thus health information is a shared responsibility of different ministries. Primary health care is under the Ministry of Local Government, hospitals are under the Ministry of Health and civil registration is under the Ministry of Home Affairs. Further, a Health Statistics Unit of the Central Statistics Office is under the Ministry of Finance and Development Planning. The Unit is seconded to the Ministry of Health under the Department of Policy, Planning, Monitoring and Evaluation. Data collection tools were revised in 2004 and new software implemented. It is planned to increase capacity of health statistics staff in epidemiology and demography. Dissemination of annual reports on timely basis will make available statistics for planning and evaluation purposes and will increase its use at different levels. Another aspect of capacity building will be ICD-10 training to alleviate existing coding problems. Integration of the health information system at the national level, revision of the current set of core health indicators and support to benchmarking have been specified as priority activities. The file containing this summary is in Annex F.1.

In **Lesotho,** routine data are used for evaluation of health systems. Fifteen national core health indicators and 105 district indicators were developed and are used to track progress and measure performance of health services. It is felt that there is poor demand for data and low quality and timeliness of statistical reports. Other weaknesses include a lack of satisfactory information dissemination system, poor harmonization of vertical programmes and an absence of metadata dictionary. Building consensus of different stakeholders around health information issues is an important part of country priorities. Another priority is directed at the district level, decentralization of data processing, increasing capacity for data analysis and use, creation of a district based data warehouse. On the other hand, it is foreseen to develop a strong central support system to provide professional back-up, quality control

and stewardship. It is also planned to enhance data use. The file containing this summary is in Annex F.2.

The **Mauritius** delegation presented a summary of the current status of the health information system in their country. The civil registration system of births, deaths and marriages is complete and comprehensive hospital service and disease surveillance data are available. The international classification of diseases ICD-10 is implemented and health information data are easily accessible and timely disseminated. It is felt, however, that the health information system should be more aligned to Health Metrics Network principles. Data producers should have their analytical and reporting skills strengthened. There are some data gaps, mainly related to the private sector in health. The research component of the health information system should be enhanced and integrated. It is planned to strengthen collaboration between data producers and users in view of making the health information system "action driven" rather than "data driven" and enhance the culture of data use. The file containing this summary is in Annex F.3

In **Sudan**, low coverage and quality of health information is due to shortages of human and material resources and to inadequate skills of staff. Also, insufficient communication facilities, networking and other equipment can be observed. Lack of supervision and monitoring and evaluation activities is due to inavailability of transportation means and appropriate guidelines. There is insufficient coordination between producers and users of health information resulting in low utilization of available information for planning and decision making. Insufficient coordination of vertical programs results in duplication of work and overloading of HIS staff, particularly at the peripheral levels. To remedy this situation, the following activities are considered appropriate: designing a meta data dictionary; revision and finalization of the strategic plan framework and policy; revision of the intermediate health statistics diploma curricula; improve the utilization and dissemination of information; revising the network and databases, improving supervision and monintoring and evaluation.

The **Tanzania** delegation presented a summary of their status and priorities for action. The health information activities are implemented by several sectors under coordination of a monitoring and evaluation technical committee for health. In the Ministry of Health and Social Welfare the unit responsible for health statistics is a Health Information and Research section of the Department of Policy and Planning. The National Bureau of Statistics produces health and demographic statistics in line with Millennium Development Goals. At present there is no intersectoral data warehouse. Among the challenges it is felt that there is much health data but poor information is disseminated to the public; data generated is not adequately used for decision making; a lack of competent staff at lower levels in statistical analysis and computer applications. The plans to strengthen the health information system include developing monitoring and evaluation policy guidelines for health statistics; capacity building of health managers to use evidence based data for decision making; improving capacity for analysis and use of information at lower levels of health services; improving monitoring and supervision at all levels; and, conducting a major review of data collection, reporting tools, computer software and developing a data warehouse. The file containing this summary is in Annex F.5.

3. Country priority and action plans

Mr Ronald Luttighuisen, the GDDS Manager described the work plan structure and planning of activities.

Following country presentations and discussions, it was possible to group the activities proposed by participating countries. The grouping of activities was done with respect of GDDS classification of activities into seven major categories. The following table allows distinguishing clusters of country activities. It thus appears that most demand was expressed for activities in the group of organization and management, present in all countries. The issues of use of data, dissemination and ICT were also represented. Relatively little interest was shown in question of integration, registers and sample frames and surveys. One country expressed interest in five groups of activities and the remaining four countries indicated one or more activities in four groups.

Areas of proposed HIS strengthening by GDDS activities					
	Sudan	**Mauritius**	**Lesotho**	**Tanzania**	**Botswana**
1 Use of data	x	xx	x	x	
2 Dissemination (existing data and quality, data gaps)	x		x	xxx	xx
3 Integration					x
4 Surveys	x	x			
5 Registers / sample frames	x				
6 Information and communication technology		x	xxx	x	x
7 Institutional framework, management, organization	xxx	x	xx	xxx	xx

Bilateral discussions were held on Thursday afternoon with Mauritius and Lesotho to prepare a country work plan following a predetermined pattern. Bilateral discussions with Botswana, Sudan and Tanzania were conducted on Friday.

Each country plan specified three priorities selected by the country. For each priority, the following characteristics had to be indicated:

1. Problem being addressed
2. Strategic objectives
3. Activities required
4. Input required (international)
5. Own preparation required
6. Output planned
7. Changes anticipated
8. Linking with further activities
9. Other donors supporting this topic
10. Timing

A Country Work and Action Plan Template is included in Annex G.

A summary of priorities selected by the countries is presented in the following table.

	Summary of selected country priorities		
	Priority 1	**Priority 2**	**Priority 3**
Botswana	Integration of HIS at National level.	Revision of the current Health Indicators and data collection tools..	Timely production of Annual reports and Improve data dissemination.
Lesotho	ICT support for improvement of the existing application	Consensus building around health information	Improve use of data at the district level

	(Access)		
Mauritius	Review HIS in order to make it compliant to HMN Framework by 2010	Address issues of data gaps	Strengthening the data producer's skills
Sudan	Designing a metadata dictionary	Revision and finalization of the policy and the strategic plan	Technical assistance in revising the network and databases
Tanzania	Major review of routine data collection and reporting tools	Development of the monitoring & evaluation Policy guidelines	Improve use of information for decision making

The complete country priority and action plans are included in Annexes H.1 (Botswana), H.2 (Lesotho), H.3 (Mauritius), H.4 (Sudan) and H.5 (Tanzania).

During the bilateral discussions with countries a draft country action plan was completed for each country. These drafts will be submitted to the participating countries for comments and changes and presented back to the GDDS Manager.

4. Workshop evaluation and closure

A workshop evaluation questionnaire form was administered at the end of the workshop. The form is included in Annex I. The results of the evaluation by participants are available from the GDDS 2 management.

The GDDS Manager summarized the country work and action plans that were produced by countries, thanked and congratulated the country teams on their achievements.

The Director of Policy, Planning, Monitoring and Evaluation, Ministry of Health, Botswana, Mrs O. Mokopakgosi officially closed the workshop.

ANNEX 5

Report for the Health Metrics Network
Assessment of the Country Health Information System in Tanzania

Initial comments by Theo Lippeveld
GDDS/WB Consultant

General Comments

The report reads very well and is in general well structured. To make more informed comments on the findings of the assessment, I will need a copy of the spreadsheet with the detailed scores on the individual questions and of most of the annexes mentioned on page 7.

As for the general structure of the report, I suggest to start with a background section which would have three parts:
1) a short explanation on the HMN framework and its components
2) geography, demography and organizational set up of health sector in Tanzania
3) overview of HIS in Tanzania following the HMN components

Sections 12-15 can be combined in a Summary section which would include four parts
1) Summary of the findings
2) SWOT analysis
3) Policy implications
4) Opportunities for donor coordination

The consultant has been asked to make sure that the HIS Assessment report feeds directly into the M&E chapter of the 3rd Health Sector Strategic Plan as well as into the HIS planning process that ultimately will lead to the production of a National HIS Strategic and Investment Plan (see figure 1). These objectives can be achieved by revising and expanding several sections in the report, such as the background section, the objectives, and mainly the summary and the way forward sections.

Finally, as a more obvious statement, the report needs thorough copy editing, spell checking, and formatting.

Figure 1: Linkages of strategic planning documents

Specific Comments

5. Abstract (better to call it "Executive Summary")

- This section needs to be expanded to include a summary of the findings as well as the way forward.

6. Overview of HIS in Tanzania

As indicated above this section will be part of a more broader background section which starts by explaining the HMN framework and its components. Indeed, most HIS stakeholders are not used to an HIS overview following the data sources proposed by HMN. This is then followed by a section on the geography, demography, and the health system organizational set up.

- I suggest to change the term "information subsystems" to "HIS data sources", just to stay closer to the HMN terminology.
- 6.6 Other household surveys: take out
- 6.7 Health Status Records System: under the new version of the HMN framework this is called "Individual Records System". Let us discuss this. I suppose that you also used an earlier version of the assessment tool.
- 6.8 Need to mention the proposed MTUHA reform project (Norway-Tanzania Partnership Initiative)
- 6.9 Need to mention if any routine information exist related to human resources and to health commodities (logistic management information systems)

7. Geography and Demography

- Could come more upfront under the background section (see above).

8. Objective of the Assessment
- This section needs to be reworked so that the objectives also reflect the importance of HIS for the monitoring and evaluation of the health sector performance.

9. Methodology and Assessment Process
- I suggest to add a column to table 1.0 with the time table of the assessment process
- On page 17 it mentions that the assessment report has been approved – is that so? How does this fit with this revision process?

10. Assessment findings
- As mentioned above, I will need the scores of individual questions to make more informed comments on these findings
- It would be useful for me to know the informants involved in scoring the questions (need to look at annex 13.
- 10.2 Indicators: could I have the list of the 33 essential indicators?
- 10.3.1 Census: need to add % under each column
- 10.3.2 Vital statistics: it is quite surprising that the VRS is considered as "the most adequate of all data sources". It is clear that the coverage and quality is actually very low and does not permit to have a representative picture of mortality and of cause specific mortality rates. This section needs to be discussed and reworked.

11. Dissemination and use
- This is one of the HMN components and should be labeled as 10.6

12. Conclusion
- As suggested above sections 12-15 could be listed all under the header: "Summary of the HIS Assessment and Policy implications"

13. Policy implications
- More write-up is needed to show this assessment findings feed in the Health Sector M&E plan

16. Way forward
- This section needs to be further expanded

Next steps:

These are my first rather superficial comments. I am working already on some of the suggested changes. It should be specified what exactly is expected from me:

1) A fully reworked version of the report using "track version"
2) A separate report with my comments and proposed improved write-ups of key sections of the report.

In the latter case it will be up to the HMN Steering Committee to finalize the report using some of my suggested changes.

ANNEX 6

ASSESSMENT OF THE COUNTRY HEALTH INFORMATION SYSTEM IN TANZANIA

See attached file

ANNEX 7

Joint World Bank – Donors Identification Mission
STAT CAP Project
May 12-24, 2008

List of Team Members

- Lucas Ojiambo (Senior Economist and Task Team Leader)
- Johannes G. Hoogeveen (Senior Economist, AFTP2)
- Tim Harris (Statistics Advisor, DFID)
- Donald Mnene (Procurement Specialist, AFTPC)
- Mercy Sabai (Financial Management Specialist, AFTFM)
- Johan Mistiaen (Economist/Statistician, DECDG)
- Zainab Semgalawe (Rural Development Specialist, AFTAR)
- Bernard Muwezi (Consultant, UBOS, Uganda)
- Julie McLaughlin (Lead Health Specialist, AFTH1)
- Theo Lippeveld (Consultant working on Health Statistics, JSI/Boston, USA)
- Hassan Mshinda (Consultant, IFAKARA)
- Rest Lasway (Senior Education Specialist, AFTH1)
- Marc Bernal (UNESCO, DSM)
- David Mulongo (Urban Specialist, AFTU1)
- Andrew Norton (Lead Social Development Specialist, SDV)
- Grant Hawes (consultant working on SWAP)
- Jill Larose (consultant working on HR)
- Mary-Anne Mwakangale (Program Assistant, AFCE1).

JOINT WORLD BANK/DONORS IDENTIFICATION MISSION
NBS Participants
MAY 12-24, 2008

S/No	Name of NBS Staff	Activity	Mobile Phone
1.	Albina A.Chuwa	Counterpart of Mission leader	O784581101
2.	Radegunda H.Maro	Director of Statistical Operations	0754583415
3.	Ahmed Makbel	Mission Coordinator	O713334355/ 0773334355
4.	Ibrahim S.M Masanja	TSMP Coordinator/Local Government Statistics	O784471189
5.	Sange Mbaruku	Economic Statistics	0754222723
6.	Stanley Mahembe	Implementation Arrangement	0754296328
7.	Gabriel G.Madembwe	Capacity Building	0754287233
8.	Sospeter Muhizi	NBS Building and Procurement	0713224342
9.	Emphraim Kwesigabo	CPI	0754312699
10.	Morice Oyuke	National Accounts/Financial Statistics/BOT	0786876188
11.	Mathias Masuka	TRA	0754487143
12.	Aldegunda Komba	Education/Health/RITA	O754583416
13.	Said Aboud	Agriculture Statistics	0754373581
14.	Wilfred Mwingira	Contact person on Spatial Data	0754289380
15.	Vincent Mugaya	Spatial Data	0784272121
16.	Oscar Mangula	Statistical Act	0713328795
17.	Elide Mwanri	TSED	0755689742
18.	Mwanaidi Mahiza	Information Technology	0754864441
19.	William Mabusi	Information Technology	0713327945
20.	Herbert Malisa	Mission Secretary	0713667784

JOINT WORLD BANK/DONORS IDENTIFICATION MISSION OTHER STAKEHOLDERS
MAY 12-24, 2008

S/No	Positions	Sector/Institution	Contact Persons
1.	Deputy Permanent Secretary	Finance	Ramadhani Kija
2.	Director of Planning	Agriculture	Kwayu /Tabwene
3.	Director of Planning	Health	JJ.Rubona/Kumalija 0754095817/0754279211
4.	Executive Director Att.Principal Statistician	TRA	James Mbunda 0754394054/0787394055
6.	Directorate of Economic Policy	BOT	D.D.Thewa 0754339933 255222127960/1
5.	Director of Policy and Planning	Education	Assella Luena/Kirumba O755750595
6.	Director of Planning	PMO-RALG	R.Kiwelu-C.Mpemba/E.Mahinga 0754294538/0784292639
7.	Chief Executive Officer	RITA	P.Saliboko/G.Malima O754289145/0754361880
8.	Executive Director/TSMP Consultant	Daima Associates Ltd	Dr S.M.Nyantahe 0754278444/0784278444
9.	Mission Leader	World Bank Office	Lucas Ojiambo 25420260448 or 25420260300/400/714141
10.	TSMP Adviser	World Bank –DSM Office	Hans Hoogeveen 0755860806 or 255222163200
11.	TSMP Stakeholder	DFID	Tim Harris 0754210701
12.	Counsellor /Analyst Development	DPs Coordinator	Stephen Potter 0784780982
13	Chief Government Statistician	Office of the Chief Government Statistician in Zanzibar	Mohamed H.Rajab 2554747415764/2554741295718

ANNEX 8

Proposed STATCAP Project for Tanzania
Joint World Bank/Donors Identification Mission
May 12-24, 2008

Trip Report on Health Information Systems (HIS)

By Theo Lippeveld, Consultant

Introduction

This report summarizes the meetings and findings undertaken by the Consultant May 12-17, 2008 related to the health sector statistics. The consultant was invited by Hans Hoogeveen, Senior Economist at the World Bank/Dar es Salaam to join the Identification Mission for STATCAP, a proposed project to strengthen statistical systems in Tanzania. The Consultant coincidentally was in Tanzania for another consultancy related to the GDDS III Project and managed by Ronald Luttikhuizen, senior health economist at the World Bank/Washington. It was agreed that he would join the Identification Mission until his departure on May 17. For the remaining activities of this Mission, which will continue until May 24, Julie McLaughlin, lead health specialist, will join the team starting May 19. This report assures continuity of the work started by the Consultant and will inform the final Aide Memoire of this Mission.

Background

The World Bank identification mission will be in Tanzania during May 12-24, 2008 to discuss and agree with the Government of Tanzania staff on the objectives, scope, components, implementation arrangements, preliminary cost estimates, and project and processing timetable of STATCAP, a project proposed by the Government of Tanzania to strengthen statistical systems in the country. The project proposal is captured in the Tanzania Statistical Master Plan (TSMP) 2008-2011 prepared by the National Bureau of Statistics (NBS) of the Ministry of Finance and Economic Affairs.

The Identification Mission team is led by Lucas Ojiambo (Senior Economist) and Johannes G. Hoogeveen (Senior Economist, AFTP2). Members are Tim Harris (Statistics Advisor, DFID), Donald Mnene (Procurement Specialist, AFTPC), Mercy Sabai (Financial Management Specialist, AFTFM), Johan Mistiaen (Economist/Statistician, DECDG), Zainab Semgalawe (Rural Development Specialist, AFTAR), Bernard Muwezi (Consultant, UBOS, Uganda), Rest Lasway (Senior Education Specialist, AFTH1), Marc Bernal (UNESCO, DSM), David Mulongo (Urban Specialist, AFTU1), Andrew Norton (Lead Social Development Specialist, SDV), Grant Hawes (consultant working on SWAP), Julie McLaughlin (Lead Health Specialist, AFTH1), Jill Larose (consultant working on HR), and Mary-Anne Mwakangale (Program Assistant, AFCE1).

Objectives

The objectives for the health consultant are:

- In collaboration with staff from the Ministry of Health, outline a vision on how to collect and strengthen health statistics, propose a strategy towards achieving health statistics data, and prepare a work plan that takes account of existing initiatives;

- Formulate areas for strengthening health statistics to be addressed through the proposed project, including areas to be addressed through a project preparation facility;
- Propose an integrated approach to the collection and use of administrative data kept by various agencies/departments responsible for delivering health services in the country

Activities and Meetings

The consultant attended the core staff meeting of the Identification Mission on May 12 at the World Bank office to discuss the agenda of the Identification Mission (see Annex 2). He also attended on the same day an introductory meeting at NBS led by Albina Chuwa, NBS Director General, as well as a presentation by NBS staff on the TSMP.

On May 14, he co-organized a meeting with representatives of the Ministry of Health and Social Welfare and NBS to discuss the potential contributions of the STATCAP project to the production and use of health statistics in Tanzania. The meeting was attended by various information producers and users (see list of contacts in Annex 1). Mr. Rubona gave an overview on the current situation of health information systems (HIS) in Tanzania and on current initiatives to address current gaps. The participants discussed potential activities by the STATCAP project to complement these initiatives. A summary of these discussions is given in the following sections of this report.

Finally, the Consultant attended the Identification Staff meeting on Friday May 16 at the World Bank Office. This meeting focused on the agenda of the Bagamoyo Retreat which will be organized on May 19-20. During the retreat, the information collected from various stakeholders during the first week of the Identification Mission will be discussed in working groups.

Current assessment of HIS and planned activities

In the last six months of 2007, the MOHSW and NBS undertook an HIS assessment study using the assessment tools of the Gates funded Health Metrics Network. Via a series of questions, the various HIS components were assessed via a consensus building exercise. Following are the main findings:

Generally, the performance of the HIS in Tanzania is inadequate for three of the six HIS components: HIS resources; HIS data sources; and dissemination and use of information. With an unsatisfactory resource environment for HIS (policy and planning, financing as well as institutions and human resources) there is limited capacity to disseminate and use information for planning and priority setting, resource allocation as well as for implementation and action. Although there is reasonable performance in terms of capacity of the data platform, the facility-based health management information system (HMIS or MTUHA) needs special attention. The vital registration system has low coverage, especially in rural areas.

As for the information products, Tanzania has done an excellent effort in standardizing its national indicators to measure health sector performance against the targets of MKUTUTA, Millenium Development Goals (MDGs), District Performance, and General Health Budget Support. But for a number of indicators in the areas of general service delivery, human resources, and mortality statistics, available data are incomplete or of low quality. Therefore, under pressure of the Global Health Initiatives (PEPFAR, GFTAM, Stop TB, etc.) vertical reporting systems have been created to complement the lack of quality data produced by the HMIS. But these systems create duplication which put a heavy burden on the already limited

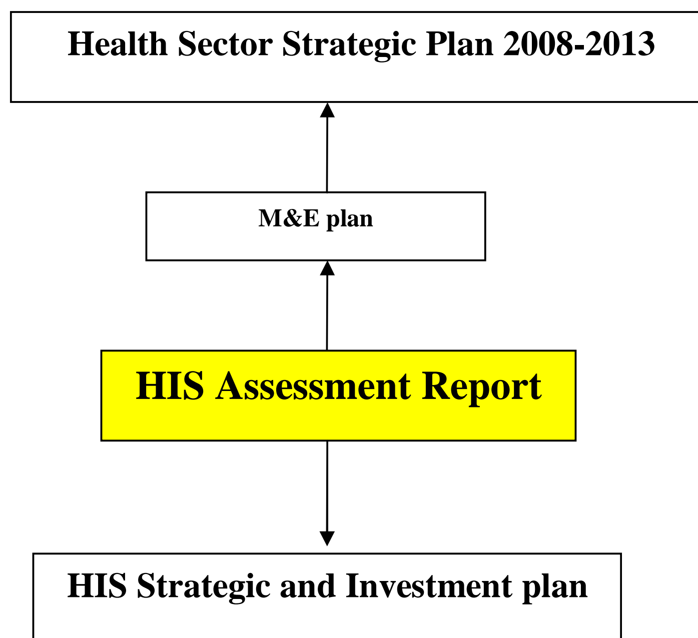
human resource capacity in health. There is little communication between these disease program information systems and the more general HMIS.

It follows that there is an urgent need to improve the balance between the capacity in terms of inputs and environments (resources, data sources and processes) and the capacity to use the information for action at all levels, put particularly at district level and below.

Based on this assessment, the MOHSW proposes to develop in the next months a HIS Strategic and Investment Plan, defining priorities for improvement of various HIS components. These priorities will be defined taking into account the information needs of the Monitoring and Evaluation (M&E) plan for the 3rd Health Sector Strategic Plan (HSSP), which is currently under development (see Figure 1). In order to further strengthen the linkage between M&E and HIS, the MOHSW has proposed the creation of M&E/HIS Section under its Planning and Programming Department (PPD)
As shown by the assessment findings, two HIS data sources need urgent attention. For the Health Management Information System (HMIS), a reform project is proposed under the Norway Tanzania Partnership Initiative focusing on seven regions. Additional donors need to be lined up to ensure that this project can be scaled up nationwide. It does not seem appropriate to ask for support of STATCAP in this typical sectoral MIS.

As for the vital events registration system, it seems unlikely that complete vital events registration is a feasible goal in the immediate future. The current system of Demographic Surveillance Sites (DSS) produces quite reliable data but they are not representative for the whole country. It is therefore proposed to examine the possibility of developing a "sample vital events registration system". Such a system, with a coverage of around 10% of the population, can produce representative birth and mortality statistics and, if used in combination with verbal autopsies (SAVVY), can also generate cause-specific mortality rates. Since such a system will need the involvement of other MDAs (Ministry of Justice) and the NBS, support is requested under the STATCAP project.

Figure 1: Linkages of strategic planning documents



Proposed support in the health sector under STATCAP

In discussing potential support by STATCAP to the national health information system in Tanzania, participants at the stakeholders meeting on May 14 have suggested the following interventions which have been ordered according to the Strategic Objectives proposed in the TSMP (pp 29-30). Priority was given to interventions which are most likely simultaneously needed in other sectors than health, to interventions requiring close collaboration between various MDAs, and to interventions at the local government level, where the need for integration is the highest.

SO 5.3.1

- Strengthening HIS Human Resource base (lack of staff and poor staff qualifications) at all levels, but particularly at district level

SO 5.3.3

- Developing data quality assurance (DQA) systems
- Strengthening Information and Communication Technology (ICT) systems based on national standards
    - Internet access
    - Data warehousing to better integrate multiple data sources
- Developing a Sample Vital Events Registration System (SAVVY) as in intermediate step towards complete Vital Events Registration (long term)

SO 5.3.4

- Standardized geo-coding system of health facilities to facilitate use of information for resource and services planning

SO 5.3.5

- Collaboration between NBS and the MOHSW to harmonize the content and the organization of health indicator surveys

Proposed approach (to be discussed in Bagamoyo)

The participants of the health stakeholders meeting of May 14 agreed that the STATCAP support, in addition to cashing in on opportunities for "vertical synergy", should also use a long-term (10-15 years) systems approach and promote sustainability. It was therefore proposed to pilot test the various proposed statistical strengthening interventions as an integrated multi-sectoral model at district level and below. Such an integrated multi-sectoral initiative would be led by the district statistical office in close coordination with sectoral statistical units to solve human resource problems, or to implement standardized ICT and DQA systems.

This would benefit both the efficiency of the interventions as well as the collaboration and coordination between various stakeholders: the NBS, the MDAs and the LGAs. Given the importance of socio-economic determinants of health, such statistical systems will ultimately contribute to sustainable health systems and to sustainable development in general.

Annex 1: List of Contacts

Identification Mission

- Lucas Ojiambo (Senior Economist), Team leader
- Johannes G. Hoogeveen (Senior Economist, AFTP2), Co-team leader
- Tim Harris (Statistics Advisor, DFID)
- Donald Mnene (Procurement Specialist, AFTPC)
- Mercy Sabai (Financial Management Specialist, AFTFM)
- Johan Mistiaen (Economist/Statistician, DECDG)
- Bernard Muhwezi (Consultant, UBOS, Uganda)
- Rest Lasway (Senior Education Specialist, AFTH1)
- Marc Bernal (UNESCO, DSM)
- David Mulongo (Urban Specialist, AFTU1)
- Grant Hawes (consultant working on SWAP)
- Jill Larose (consultant working on HR)
- Mary-Anne Mwakangale (Program Assistant, AFCE1).

Meeting with MOHSW and NBS, May 14, 2008

- Josbert Rubona, Team Leader Health Information and Research Section (HIRS), PPD, MOHSW, Chair
- Aldegunda Komba, Social and Demographics Statistics, NBS
- Anchilla Vangisada, HRIS/DSS, MOHSW
- Happiness Katuma, HRIS/HMIS, MOHSW
- Dorothy Semu, National TB/Leprosy Program, MOHSW
- Amina Hamis, Department of Social Affairs, MOHSW
- Joel Ndayungeje, National AIDS Control Program, MOHSW
- Amour Seleman, Environmental Health Unit, MOHSW
- Ibrahim Masanja, TSMP Coordinator, NBS
- Benedict Mugambi, GIS, NBS
- Hans Hoogeveen, AFTP2, World Bank Identification Mission
- Bernard Muhwezi, Consultant, UBOS, Uganda

ANNEX 9

HEALTH METRICS NETWORK

Guidance for the Health Information Systems (HIS) Strategic Planning Process

Steps, Tools and Templates for HIS Systems Design and Strategic Planning

Planning Module I – Preparing for HIS Strategic Planning

Adapted for Tanzania's Development of a HIS Strategic and Investment Plan

(Based on original HMN document Version 4, Feb. 29, 2008)

May 26, 2008

Guidance for the Health Information Systems (HIS) Strategic Planning Process

Steps, Tools and Templates for HIS Systems Design and Strategic Planning

Introduction

This document is an adaptation of the first version 4 of the HMN Document on Guidance for the HIS Strategic Planning Process. After the general guidance for the overall planning process, it focuses on the Planning Module 1: Preparation of the Planning Process. It was prepared specifically for the Tanzanian HIS Steering Committee to allow them to move from the HIS Assessment Plan to the development of a HIS Strategic and Investment Plan.

A complete HIS Planning Tool is under preparation by the HMN Secretariat and will be shared as soon as ready. This tool is for use by national health managers in planning and carrying out the design of strategies and operational plans for strengthening their national health information systems. It is designed to help apply and implement the concepts and principles presented in the "Health Metrics Network Framework and Standards for Country HIS", Second Edition, issued by the HMN Secretariat in September, 2007.

At the outset it is important to reiterate the **five principles** defined in the HMN Framework document for guiding health information system design, planning and implementation: Health information systems development and strengthening should be characterized by:

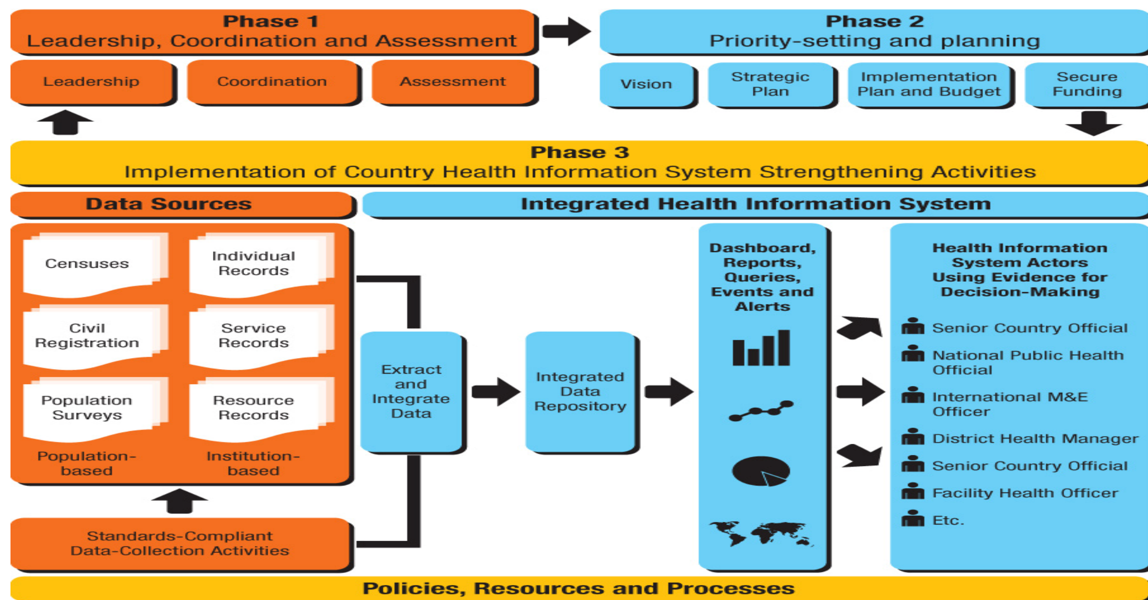
1. **Country leadership and ownership**
2. **Responds to country needs and demands.**
3. **Builds upon existing initiatives and systems (national and international)**
4. **Built upon broad-based consensus and stakeholder involvement.**
5. **Strives for gradual and incremental progress toward the achievement of a long-term vision.**

The process of designing and implementing a strengthened health information system is defined in the Framework document as consisting of **three phases** (see figure on next page):

4. **Leadership, coordination and assessment –** setting up the national working groups and guidance committees and carrying out an assessment of the current HIS
5. **Priority-setting and planning –** using the results of the assessment to focus the working groups' attention on the performance gaps and problems that appear to deserve priority attention and then to generate the strategic ideas needed to strengthen the priority HIS sub-systems. The implementation of these interventions is then planned across a medium-term time period, costed and described for review and approval by stakeholders
6. **Implementation of HIS strengthening activities** – time-phased implementation of agreed strategies, with monitoring and re-planning taking place at regular intervals.

While this guideline focuses on the steps and products of the second phase, there are important linking activities and products with the other phases. This guidance document presents phase two as consisting of **three planning modules**:

I. **Preparing for designing the HIS Strategy**
II. **HIS Priority-setting and Strategy Design**
III. **Detailed strategy design, implementation planning and costing**.



The activities of Planning Module I include efforts by the Core Team to analyze the results of the assessment, identify the low scoring questions, and review health sector strategies/interventions and related indicators. Based on the findings the Core Team will proceed to a first ranking of HIS assessment components which appear to require priority attention. In addition, an effort is made to inventory HIS strengthening efforts already under implementation or planned, and to assemble relevant additional information needed during the strategy design process. In the same time, the team will prepare the program to be followed by the Stakeholder Working Group during Planning Module II.

During Planning Module II the Stakeholders Working Group reviews and approves or revises the proposed priority HIS assessment components and their constituent problems as identified in Module I. A vision of the future HIS is formulated. It then sets performance improvement objectives for each of the priority HIS assessment components and generates ideas for strategic interventions to reduce the problems and improve the performance of the priority HIS components, while taking into consideration the HIS improvement activities already underway or planned. These interventions are then placed within a phased implementation plan, indicating which office is responsible for each strategy.

Module III is intended to guide the remaining Phase II work of the Core Team (CT) and various technical working groups in undertaking detailed strategy design, activity implementation planning, strategy costing, and preparing for monitoring and evaluating the progress and impact of the Strategy, tasks that are better carried out in small working groups. The document describing the strategy is also finalized, reviewed and approved as a step within Module III.

General Guidance

The HIS strategic planning process, as devised by the HMN Secretariat and Technical Advisory Group and described in this document, enables national working groups to generate specific health information system planning products utilizing suggested steps, tools and formats. The following paragraphs describe the organization and management recommended, as well as the nature of the process.

1. Organization and Management

It has been found that a simple and flexible structure of leadership, management and working groups helps to keep the process on track. Generally, the following bodies are required, either by using existing committees and groups (preferable), or by creating temporary ones for the duration of the HIS design and planning process, and early implementation:

The HIS Development Steering Committee (SC) – Most governments have found it useful to establish a senior-level Steering Committee to sponsor and monitor the HIS strategy design and implementation process. Such committee can be comprised of three or four senior policy-makers, one from each of the Ministries that are contributing to the process and the subsequent implementation of system improvements. These normally include the Ministries of Health, Interior, Planning and Finance, along with the Census Bureau and National Institute of Statistics or similar bodies. The continual presence, oversight and direction of these national senior managers is a critical pre-requisite to the success of the process, which should not be initiated without such senior level interest.

In Tanzania, instead of creating a new Committee, it was proposed to designate the Monitoring and Evaluation Committee of the Sector Wide Approaches (SWAp) to take up this additional role as HIS Development Steering Committee.

The HIS Core Team (CT) - The technical management of the process is usually provided by a small core team consisting of operational managers and senior staff from the principle departments that will be implementing system improvements. In most cases this includes:

- The Health Information Department of the Ministry of Health
- The Census planning and analysis unit
- The Department of Civil Registration in the Ministry of Interior
- Other departments and institutes heavily engaged in social and health measurement

The size of the core team is usually no more than six to eight staff, who must devote considerable amounts of time prior to and during the periods of intense group work. This team is the primary source of management and facilitation of the group processes described in this guidance document. The steps of the process define which tasks should fall to the Core Team and which should be carried out be the larger group of stakeholders.

Currently, the HIS Core Team in Tanzania is made up of the following members:

- Josbert Rubona, head of the HIRS/PPD, MOHSW
- Aldegunda Komba, socio-demographics statistics, NBS
- Oscar Mukasa, IHRDC
- Dr. Mboira, National Institute for Medical Research (NIMR)

The HIS Stakeholder Working Group (SWG) – This group contains appropriately qualified staff from the offices and programs that are in a position to contribute to the design of the information system improvements, and then eventually take responsibility for

implementing strategies and activities that fall in their functional areas of work. Commonly the SWG has 40 to 60 members, including the Core Team and advisors. In Tanzania, the SWG could be drawn from the following offices:

- Ministry of Health and Social Welfare : Planning, Budgeting, Finance, Human Resources, and priority programs such as disease prevention and control, MCH, hospital services and primary health care
- Ministry of Planning and Finance
- Ministry of Justice and Constitutional affairs: Registration, Insolvency and Trusteeship Agency (RITA).
- National Bureau of Statistics: Departments of survey management, data analysis, storage and retrieval,
- Non-governmental organizations supporting health and development planning, project implementation and monitoring,
- External technical and donor organizations and agencies active in health program planning, funding, implementation, monitoring and evaluation,
- During certain strategic planning and review activities, it may be useful to have appropriate representatives of service level managers and staff, and representatives of service client groups join the SWG.

2. Technical Support and Facilitation

Normally several agencies and donors are providing technical cooperation to various aspects of health information systems and data management in a country at one point of time. Several of them will likely have national experts and resident advisors, and consultants who could be interested and available to support this process, particularly WHO, UNICEF and UNDP, plus other major donors and bilateral projects. In addition, while the HMN is often in a position to provide qualified facilitators who are familiar with these procedures, they are not always able to do so. The source of qualified external facilitation needs to be confirmed well in advance, if the national authorities feel it is needed. Additionally, it is appropriate for experienced HMN facilitators to provide some orientation and training in the use of this guidance document and its formats to the national facilitation team, who are generally the members of the Core Team. This should take place during Phase I, or Planning Module I of Phase II.

The HMN principles for HIS development cited in the Executive Summary suggest that facilitators must maintain a low profile and defer all analysis and decision-making to national members of the working groups. The overall management of the process should be carried out by designated national officers. This is to insure that the priorities, strategies and implementation approaches are determined and owned by the national officers and groups. This should not prevent the facilitators from sharing ideas, and helping the groups adhere to their own criteria and principles. The steps of the various phases of the HIS assessment and design process are designed to help insure that all analysis and idea generation is carried out by national officers, while using procedures and formats that have proven useful elsewhere.

3. Principal Products

Each step of the HIS strategic planning process is designed to generate specific products that when taken together enable the HIS strategy to address priority deficiencies and information needs in a cost-effective manner. The major organizational and planning products required for and expected from this process by phase are the following:

Phase I - Leadership, Organization and Assessment

- The HIS advisory, monitoring, management and working groups
- The roadmap and schedule of the HIS strategy design and planning process
- The HIS assessment is conducted, analyzed and interpreted during this phase

Phase II - Priority-setting and Planning

Planning Module I

- Structured results of the HIS assessment (average scores by assessment category and HIS subsystem)
- The current Health System Strategic Plan, information needs/indicators, and M&E Plan
- Information materials required in Planning Module II, including an inventory of on-going and planned HIS improvement efforts

Planning Module II

- Confirmation of priority information needs for the current Health System Strategic Plan, information needs/indicators, and M& Plan
- The HIS Vision
- On-going and planned HIS strengthening efforts reviewed, expanded and linked to the priority HIS Subsystems and problems
- HIS improvement objectives and strategic interventions
- The HIS intervention implementation phasing and responsibilities
- Revised HIS Strategy Roadmap

Planning Module III

- HIS strategy design details and specifications
- The HIS activity implementation plan
- HIS strategy costs
- HIS strategy monitoring and evaluation framework
- HIS strategic plan document
- Reviewed and approved Strategic Plan

Phase III - HIS Strategy Implementation

- Periodic monitoring reports
- Strategy and Plan Revisions

Note about the HIS Vision: One of the early products of the process is the "Vision" of the future health information system. It has proven helpful for the first attempt to define the HIS vision to actually take place before the HIS assessment is designed and conducted in Phase 1. There are several subsequent opportunities to enrich the vision description with additional elements resulting from problem definition, idea generation and system design expectations that arise during planning modules I and II. Thus the product entitled "HIS Vision" listed above under Planning Module II, may have gradually emerged over the preceding steps and is the final vision at this stage of the planning process.

4. Time phasing and Scheduling

The assessment review, prioritizing and strategic planning process described in this Guidance document comprises a sequence of 12 specific steps placed into three planning modules. Figure 1 below depicts these steps in their recommended sequence. Each step is to be completed before proceeding to the next.

Figure 2 displays proposed activity sequencing and scheduling for the assessment and planning phases, and suggests that a satisfactory achievement would be the initiation of HIS strategy implementation after about 6 months of preparation. This achievement would require that considerable priority be assigned by the participating ministries to the pursuit of the strategy design and planning, and that products would be continuously reviewed along the way by the Steering Committee, so that the necessary decision-making can be swiftly carried out.

5. Preparation for Group Processes

Most of the steps of the three modules are carried out by groups of staff, which often break into sub-groups in order to enable maximum participation in the analysis, idea generation and decision-making. These types of group processes are most effective if the groups are accommodated in appropriate working spaces and provided necessary working materials.

Since the Core Team and small technical working groups require less space, they are usually accommodated within normal departmental offices and meeting rooms of one of the participating departments. However the processes they carry out usually benefit from having materials such as flip charts and felt pens, computers and overhead projectors to facilitate displaying the products of their analysis and discussion at all times. Each step is not finished until the products of that step have been documented within the recommended formats, and responsibilities should be clear for doing so and distributing the products to all the members.

The steps carried out by the Stakeholder Working Group, principally the steps of Planning Module II pertaining to HIS strategy design, require more sizeable accommodations. These include a plenary room capable of accommodating 40 - 60 people, and space or rooms for three to six sub-group. Each room should be equipped with a computer and an LCD projector, and/or flipchart easels, paper and pens. These larger working sessions benefit from the provision of coffee/tea and lunch. Participants should be encouraged to bring their own calculators, paper and/or laptop computers.

This guidance document is formatted to facilitate the briefings required at the beginning of each step, but supporting programs and local materials, such as required for Planning Module II need to be prepared in advance. The recommended tables and formats can be prepared and made available in computer files in advance, in order to save time.

Figure 1 – The HIS Strategy Design and Implementation Planning Process

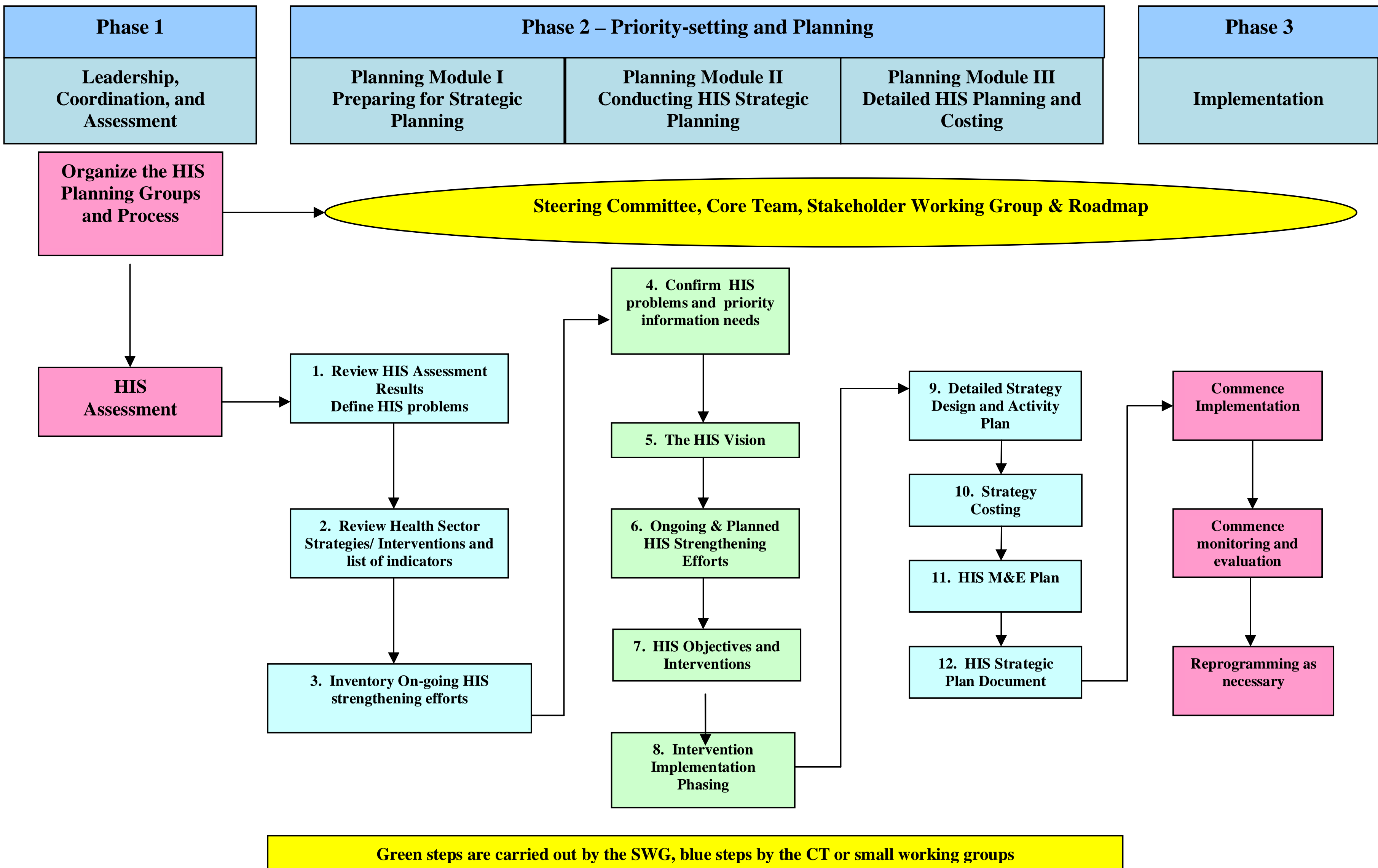
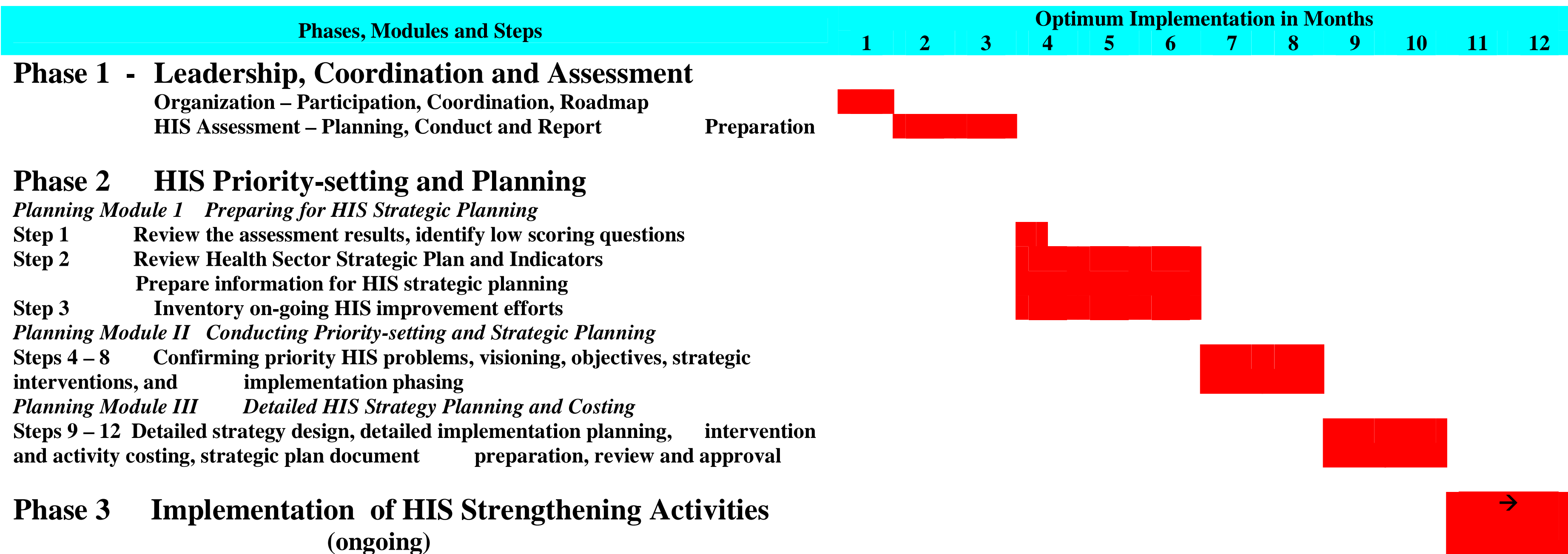


Figure 2 – HIS Strategy Development Process and Time-phasing (across 3 phases)



Planning Module I

Preparing for HIS Strategy Design and Planning

Introduction

Two major activities are carried out in Phase 1 of the HMN Strategy Design and Implementation Process for HIS Strengthening that are critical for setting the stage for the strategy design and planning process of Phase 2: 1) setting up the leadership, coordination, organization and management of the HIS strengthening process, and, 2) designing, conducting and reporting the results of the HIS Assessment.

Once the assessment of the HIS has been conducted, and the results have been enumerated using the HMN assessment spreadsheet tool, it becomes possible to begin preparing for the HIS Strategy Design, which is the purpose of Planning Module 1. There are 3 steps within Planning Module 1; all carried out by the staff of the Core Team, supplemented as necessary with staff support from various other offices and programs, particularly those that participated in the assessment.

Once the three steps have been completed, the Stakeholders Working Group will be called together in a stakeholders consensus building workshop to complete Steps 4-8 of the planning process.

Step 1 – Reviewing the HIS Assessment Results - This step may begin with the review and verification of the scores derived from the HIS assessment tool to identify and resolve any anomalies (missing or miss-coded values) in the scoring. If such review and verification was already carried out during the assessment analysis and report preparation, it does not need to be done here.

The main task of this step is to determine the assessment scores for the main assessment categories, identify the low-scoring questions (generally scores below 1.8 out of 3.0) and define important problems (see annex 1).

Step 2 – Reviewing Health Sector Strategies and Priority Interventions

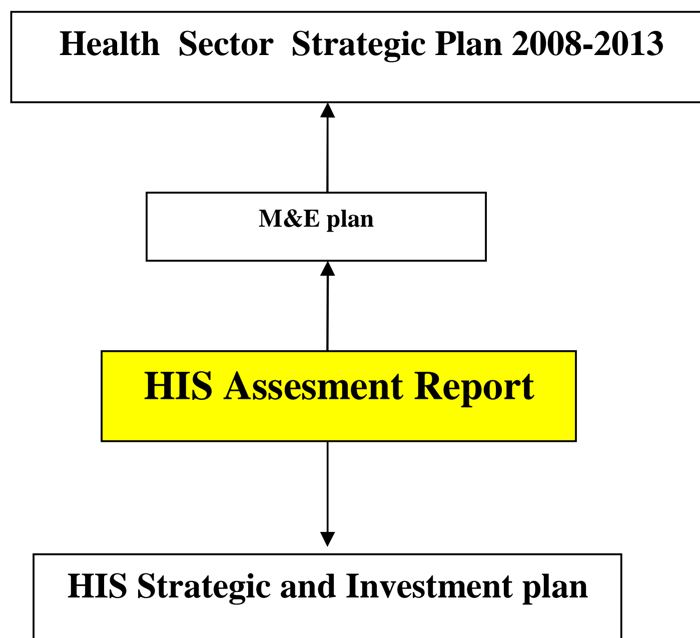
An important link needs to be made between the HIS assessment plan and the current policy guidance for national health sector and system development including:

- Health problems (risk factors, diseases and conditions) having a national priority for prevention and reduction, including national problem reduction objectives.
- Health services defined as essential for achieving the reduction and control of priority health problems, and for which coverage and quality targets have been set
- National health policy and strategy statements defining visions, principles and target population groups and communities

Tanzania is in a critical phase of finalizing its 3rd Health Sector Strategic Plan (HSSP3) and linked to it the Monitoring and Evaluation Plan. Based on the list of progress indicators from this plan, the HIS assessment plan can identify weaknesses in producing the data required to measure these indicators. This in turn can help during Planning Module II to identify priority HIS strengthening interventions (see figure 3)

During this preparatory phase the necessary data can be prepared for Planning Module II (see annex 2-3-4)[2]

Figure 3: Linkages of strategic planning documents



Step 3 - Prepare an inventory of on-going and planned HIS improvement efforts

It is important to enumerate on-going and planned HIS strengthening efforts, and their sources of financial and technical support. For this purpose, an inventory of on-going HIS development projects and activities is created at this point. Annexes 5 and 6 provide a template and an example of such an inventory[3].

[2] The indicators in Annex 3 and 4 are illustrative and not from Tanzania

[3] The examples in table 6 are illustrative and not from Tanzania

Annex 1: Identify key low scoring questions and define problem statements

The Health Metrics Network Secretariat, recognizes that the HIS Assessment Tool contains a large number of questions across the six categories of inquiry. It has therefore reviewed the entire set of questions and identified those questions which are felt to address the most important HIS capacities in all countries. It is proposed that when such key questions receive scores below the agreed cut-off value (normally 1.8 or 1.2), they should become the subject of problem statements. This is to avoid missing crucial "hidden" aspects of HIS functionality within an assessment category. The current list of Key HIS Assessment Questions is shown below. It is followed by examples of HIS problem statements.

Key Questions Within the HIS Assessment Framework

Question Code	Items
I	POLICY AND RESOURCES
I.A.1	The country has up-to-date legislation providing the framework for health information covering the following specific components: vital registration, notifiable diseases, private sector data including social insurance, confidentiality, and fundamental principles of official statistics
I.A.5	Country Statistical Office and Ministry of Health have established coordination mechanisms (e.g. task force on health statistics; this mechanism may be multi-sectoral)
I.B.3	At sub-national levels (e.g. regions / provinces, districts) there are designated full-time health information officer positions and they are filled
I.B.5	HIS capacity building activities have occurred over the past year for health facility staff (data collection, self-assessment, analysis, presentation)
I.C.4	Are computers available at the relevant offices at national, regional, and district levels to permit rapid compilation of sub-national data?
I.C.5	Is the basic communication technology infrastructure (telephones, internet access, e-mail) in place at national, regional and district levels to ensure rapid compilation of sub-national data?
II	INDICATORS
II.A.1	National minimum core indicators have been identified for national and sub-national levels covering all categories of health indicators (determinants of health; health system inputs, outputs, outcomes; health status)
II.A.5	Reporting on the minimum set of core indicators occurs on a regular basis
III	DATA SOURCES
III.A.1.1	Mortality questions were included in the last census, by asking recent household deaths and questions for indirect estimation for child and adult mortality
III.A.2.1	The country has adequate capacity to (1) implement data collection, (2) process the data and (3) analyze the data
III.B.1.2	Coverage of civil registration (Vital events registration) of deaths (in percent)
III.B.2.1	The country has adequate capacity to (1) implement data collection, (2) process the data and (3) analyze the data from vital registration or SRS or DSS
III.C.1.1	In the past 5 years, a nationally-representative survey has measured the percentage of the relevant population receiving key maternal and child health services (family planning, antenatal care, professionally attended deliveries, immunization)
III.C.1.2	In the last five years, a nationally representative survey has provided sufficiently precise and accurate estimates of infant and under-five mortality.
III.C.2.1	The country has adequate capacity to (1) conduct household surveys (including sample design and field work), (2) process the data and (3) analyze the data
III.C.4.1	There are meetings and a multi-year plan to coordinate the timing, key variables measured and funding of nationally representative population-based surveys which measure health indicators

III.D.1.1	For each of the key epidemic-prone diseases and diseases targeted for eradication/elimination appropriate case definitions have been established and cases can be reported on the current reporting format
III.D.1.2	For health conditions of substantial importance other than in 1.1 above (i.e. leading causes of morbidity, mortality and disability), a measurement/assessment strategy exists and is reflected in appropriate plans, tools, supporting structures, and assignments of responsibility
III.D.2.1	The country has adequate capacity to (1) diagnose and record cases of notifiable diseases, (2) report and transmit timely and complete data on these disease (3) analyze and act upon the data for outbreak response and planning of public health interventions
III.D.2.3	Percentage of health facilities submitting weekly or monthly surveillance reports on time to the district level
III.D.2.6	Individual patient records (patient charts or patient-retained "health passports") support quality and continuity of care
III.E.1.2	There is a systematic approach to evaluating the quality of services provided by health facilities. This includes both: (a) systematic standardized supervision with reporting of findings to district and national levels; and (b) a health facility survey of all facilities or of a nationally-representative sample at least once every 5 years
III.E.2.5	There are mechanisms in place at national and sub-national levels for supervision and feedback on information practices
III.E.3.2	Districts or similar administrative units compile their own monthly, and annual summary reports, disaggregated by health facility
III.E.4.1	Vertical reporting systems such as those for tuberculosis and vaccination communicate well with the general health service reporting system
III.F.1.1	There is a national roster of public and private sector health facilities. Each health facility has been assigned a unique identifier code that permits data on facilities to be merged.
III.F.1.3	There is a national human resources (HR) database that tracks the number of health professionals by major professional category working in either the public or the private sector
III.F.1.5	5 Financial records are available on general government expenditure on health, private expenditure on health (and its components) and external expenditure on health
III.F.1.6	There is a system for tracking budgets and expenditures from all sources of finance (general government including social security and local government, donors, health insurance, out-of-pocket) disaggregated by sub national / district level
III.F.1.7	Each facility is required to report at least annually on the inventory and status of equipment and physical infrastructure
III.F.1.8	Each facility is required to report at least quarterly on its stock of health commodities (drugs, vaccines, contraceptives, other supplies)
IV	DATA MANAGEMENT
IV.A.1	There is a written set of procedures for data management including data collection, storage, cleaning, quality control, analysis, and presentation for target audiences, and these are implemented throughout the country
IV.A.2	The HIS unit at national level is running an integrated "data warehouse" containing data from all data sources (both population-based and facility-based sources including all key health programmes), and has a user-friendly reporting utility accessible to various user audiences
V	INFORMATION PRODUCTS
V.A.1.1	Under-5 mortality (all causes) data collection methods used for most recent data
V.A.2.1	Adult mortality (all causes) data collection methods used for most recent data
V.A.3.1	Maternal mortality data collection methods used for most recent data
V.A.4.1	HIV prevalence data collection methods used for most recent data (1.1. if generalized epidemic, 1.2. if concentrated epidemic)
V.A.5.1.	Underweight in children (<59 months or <36 months) data collection methods used for most recent data
V.B.6.1	Outpatient attendances data collection methods used for most recent data

V.B.7.1	**Measles coverage can be estimated from routine administrative statistics submitted by at least 90% of immunizing health facilities. These statistics are systematically reviewed at each level for completeness and consistency and inconsistencies are investigated and corrected. To calculate coverage, reliable estimates of population are available**
V.B.9.5	**TB treatment success rate under DOTS, coverage of data upon which last estimate is based -- % of sub national DOTS quarterly reports received by national TB programme in most recent year**
V.B.10.1	**Proportion of children (<59 months or <36 months) sleeping under insecticide-treated bednets, data collection methods used for most recent data**
V.B.11.1	**Private expenditure on health per capita (households' out-of-pocket, private health insurance, NGOs, corporations), data collection methods used for most recent data**
V.B.13.1	**Density of health workforce (total and by professional category) by 1,000 population. Routine administrative records are validated with findings from a regularly conducted health facility survey/census, labor force survey or the national population census**
V.C.14.1	**Smoking prevalence (15 years and older), data collection methods used for most recent data**
VI	**DISSEMINATION AND USE**
VI.B.2.	**Integrated HIS summary reports covering at least a minimum set of core indicators, including of MDGs and global health partners (GHPs) where relevant, are distributed regularly to all relevant parties**
VI.C.1	**Health information (population health status, health system, risk factors) is demonstrably used in the planning process, e.g. for annual integrated development plans, medium-term expenditure frameworks, long-term strategic plans, and annual health sector reviews**
VI.C.2	**District health workers analyze health statistics in their district, compare them with national benchmarks and act accordingly.**
VI.D.2	**HIS information is widely used, by district and sub-national management teams to set resource allocation in the annual budget processes**
VI.D.3	**HIS information is used to advocate for equity and increased resources to disadvantaged groups and communities by e.g. documenting their disease burden and poor access to services.**
VI.E.1	**Managers at all levels use health information for local health service delivery management, planning and monitoring**
VI.E.2	**Care-providers at all levels use health information for local service delivery, planning and monitoring**
VI.E.3	**Information on health risk factors is systematically used to advocate less risk behaviour in the general public as well as in targeted vulnerable groups.**

Examples of HIS problem statements from low scoring questions and other assessment results

Following are some examples of formulating HIS problem statement based on actual scores obtained during the Tanzania Assessment Study. Because of the way some multi-part questions are formulated, groups may wish to break a single question into more than one problem statement. Conversely, some questions are so similar that several questions might be summarized with a single problem statement (e.g. problems with indicators where the same set of questions are repeated). Use should be made of other assessments to provide ingredients and measures for problem statements whenever relevant. Examples of this are shown above for death registration and coding. Cross-cutting information problems such as uncoordinated survey planning, are formulated in a similar manner.

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Quest. #	***Question***	***Relevant Vignette***	***Problem statement***	***Score***
I.A.5	Country Statistical Offices and the Ministry of Health have established coordination mechanisms (e.g. task force on health statistics; this mechanism may be multi-sectoral)	Yes, in theory, but these mechanisms are not operational	Coordination among ministries and departments handling social statistics is not taking place	1.3
III.B.1.2	Coverage of vital registration of deaths (in percent)	< 50%	Coverage of vital registration of deaths is way below 50%	0.8

III.C.4.1	There are meetings and a multi-year plan to coordinate the timing, key variables measured and funding of nationally representative population-based surveys which measure health indicators	Plan exists but is incomplete and/or coordination group is unable to effectively coordinate surveys	Despite our best intentions, we have been unable to plan, fund and implement population-based surveys in a continuously coordinated manner.	1.7

ANNEX 2

List of Information Required and Desirable for Supporting the HIS Strategy Planning Process during Planning Modules II and III

Information required during Planning Module II

1. Current National Health Development Policies, Goals, Strategies, Objectives, Targets and Political/Societal Values (available from the current medium-term national health strategic plan = HSSP 3).
2. Priority health problems (for which national reduction objectives have been set)*
3. Essential Health Services (for which national targets have be set)*
4. Current key health indicators*
5. Current HIS development efforts and external support*
6. Recent HIS development strategies and plans
7. HIS Strategy Design Principles and Criteria (drawn from the HMN Framework Document and tailored for the local situation by the Core Team).

* Possible formats and examples attached

Information required during Planning Module III

8. Current basic and in-service training of relevance to HIS
9. A list of existing health and population data bases, data warehouses, meta-data dictionaries, their content, and the responsible organizations
10. Unit, staffing and activity costs relevant to HIS development and operations

Additional Information of use during both Planning Modules

11. An inventory of current technical cooperation in health
12. A list of routine and periodic health publications and information promulgated in various media
13. Existing health and population data processing centers
14. Number and location of full-time HIS management and support staff by type
15. Results of in-depth sub-system and data assessments, such as

15.1 Disease Surveillance and Outbreak Response System
15.2 Drug Management System (ILS)
15.3 Human Resource Management System
15.4 PHC facility routine recording & reporting
15.5 Service and program data quality audits
15.6 Results of health indicator data analysis and validity checks
15.7 Essential service coverage surveys (e.g. immunization, maternal care) and comparison with routine data
15.8 Health Sector Joint Program Reviews
15.9 Special Program Reviews (e.g. TB, Malaria, HIV/AIDS, Leprosy, Goitre)
15.10 Results of health and social surveys
15.11 Facility and staffing surveys
15.12 Results of geo-coding of facilities and service availability mapping
15.13 Assessment of health service communications and internet access
15.14 Inventory of IT access
15.15 Lab system service and quality assessments
15.16 Quality of care assessments at various levels
15.17 Vehicle and equipment surveys

ANNEX 3: Illustrative Table of National Priority Health Problems and Related Essential Services*

Priority Health Problems	Related Essential Health Services
Maternal and Child	
Infant Deaths	ANC, TT, delivery attendance, PP care coverage
Newborn complications	Qualified delivery attendance, TT immunization coverage
Under-five Children Deaths	IMCI services and coverage
Childhood Diseases – ARI, Diarrhea, Dengue, Malaria, Malnutrition, Measles	IMCI – diarrhea Treatment (ORT + Zinc), continuous feeding, Malaria Treat’t, Pneumonia Treat’t (antibiotics),
Childhood Immunizable Diseases	Childhood Immunization coverage by antigen and district
Malnutrition	Breastfeeding Promotion (early intro., exclusive for 6 m), Complementary Feeding, Growth monitoring, Iodized Salt, 6 m Vit A Supplementation, de-worming
Maternal Deaths	Maternal Health Education, Qualified Delivery Attendance, ANC, EOC, maternal death audits, Maternity Preparedness Planning, Maternity Waiting Homes
Maternal Complications	ANC, EOC, PNC
Total Fertility Rate, Birth interval	BCC/IEC, provision of birth spacing services, CB FP
Maternal nutritional deficiency	Iron/Folate supplementation, Post-partum Vit A supplem’n
Reproductive Track Infections	Treatment, Health Education
Abortion	Safe abortion practice, post-abortion care and counseling
Communicable Diseases	
STI	Education on STI prevention, Case detection, treatment, contacts
HIV/AIDS	Education on condom use, VCT, PMTCT, ART, Blood donation screening
TB	Case detection, DOTS, Health Education
Leprosy	Case detection and referral, Health Education, Treatment
DHF	Health Education, Case Detection, Treatment, Vector control activities (breeding site control), epidemic surveillance and early warning of outbreaks
Malaria	Case detection, treatment, health education, promotion and use of ITNs, vector control and provision of insecticide
Filariasis	Case detection, mass drug administration
Schistosomiasis, Helminthiasis	Case detection and case management
Non-Communicable Diseases	
Blindness	Vitamin A supplementation, screening, Cataract removal
Dental Problems	Dental screening and treatment
Mental Health Problems	School and community case detection, counseling
Health Problems of the Elderly	Community care
Injuries and Accidents	Emergency transport, trauma management
Cancers	Anti-smoking legislation and promotion, screening
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 and access to safe water

**Extracted from the National Health Development Plan and national health programme documents.*

Annex 4: National Health Indicators (Illustrative)

Health Problems			Essential Services		
Problem	**Indicator**	**Source**	**Service**	**Indicator**	**Source**
Infant mortality	**IMR**	DHS	TT immunization	% of pregnant women with 2 TT	
<5 mortality	**U5MR**	DHS	IMCI	No. health centers implementing IMCI	
			Immunization	**% <1 y receiving DPT 3 immunization**	HIS/MoH
				% <1 y receiving measles antigen	HIS/MoH
<5 Diarrhea	Cases Deaths		Diarrhea case mgt	% <5 y diarrhea cases treated with ORS	
<5 ARI/Pneum	Cases Deaths		Pneumonia Treatment	% Pneumonia cases receiving antibiotics	
Child Malnutrition (6 mos to 5 yrs)	Cases Severe mal		BF Promotion	**% Mothers who start breastfeeding within 1 hour of birth** **% aged 0-6 months exclusively breastfed**	
			Vit A Supplement'n	**% 6-59 m receiving vit A every 6 months**	
			De-worming	% 2-59 m receiving mebendazole every 6 months	
Iodine deficiency	Cases		Iodized Salt	% Households consuming Iodized Salt	
Maternal mortality	**MMR**	DHS	Delivery	**% births attended by skilled personnel**	HIS/CDHS
			ANC	**% pregnant women receiving 2 ANCs**	
Maternal Nutritional Deficiency	**% Pregnant & all Women 15-49 with iron deficien. anemia**		Iron Supplementation	% pregnant women rec'g 60 Iron/folate tabs during 1st and 30 during 2nd consultation % postpartum mothers rec'g 42 Iron/folate	
			Vitamin A Supplementation	% postpartum women who received 1 Vit A capsule within 8 weeks of delivery	
Fertility	**TFR**	DHS	Birth spacing	**% married women using modern contraceptive methods**	HHS/HIS
HIV/AIDS	**Prevalence in adults 15-49** and **among pregnant women at ANC**		Voluntary counseling/testing	# Operational Districts with VCCT	
			Blood Testing	% blood donor samples from Provincial level sent to NIPH for testing	
			HIV treatment	**% advanced HIV cases receiving ART combination therapy** **% HIV-infected pregnant women attending ANC and receiving complete course of ARP**	
			Condom Use	**% sex workers who used condoms during last intercourse** **% 15-24s who used condoms during last intercourse with Non Risk Sex Partner** **% condom use - high risk married women**	
Pulmonary TB	**Smear positive cases per 100,000** **Death rate per 100,000**	TB Survey /CENAT	Case detection	**Detection rate of smear positive pulmonary TB**	
			DOTS	No. health centers implementing DOTS **TB case cure rate (%)**	
Malaria	Cases Deaths Incidence /1000 pop		Insecticide Treated Bednets	% <5 y children and **total population who slept under an ITN last night** % of endemic villages that have re-treatment and replacement of bed nets annually	
			Malaria diagnosis	**% PH facilities able to confirm diagnosis re. national guidelines with 95% accuracy**	
			Malaria Treatment	**Cases treated in PH sector per 1,000 pop** **Malaria severe case fatality rate (%)**	HIS/MoH
Dengue Fever	Cases		Dengue Treatment	**No. cases treated in PH sector /1,000 pop** **Dengue case fatality rate (%) in PH facilities**	
Environment			Water supply	% pop with access to safe water (U&R)	
			Sanitation	% pop with access to improved sanitation	

Note: Indicators in **bold** are listed in the National Millennium Development Goals Re

Annex 5: Template for Inventory of On-going/Planned HIS Strengthening Efforts

Please list below all HIS or Health Information development efforts and activities that are known to be underway or approved for implementation by your programme or service. Place in order of relative importance.

Department : ……………………………………………….

No.	Title and Subject of the Strengthening Activity	Important Products	Time Period of Implementation	Amounts of Financial and Technical Support	Sources of external support
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Annex 6: Example of Inventory of on-going and planned HIS Strengthening Efforts

No.	Subject of the Strengthening Activity	Important Products	Time Period of Implementation	Amounts of Technical & Financial Support	Sources of Support
		Ministry of Health			
1	Develop HIS Strategic Plan 2008-2015	HIS Strategic Plan	Apr - Oct, 2007	3 p/m STCs	HMN
2	Introduction of new GIS software version and functions and HIS Database. Training for its use	Province, OD HIS Staff trained	Jun 07-Dec 07	Software and 2 p/m of STC	HSSP
3	First training course on basic epidemiology and statistics	30 HIS Managers at central and provincial levels trained	1 – 30 Aug 2007	$5,000 and 2p/m of STC	HMN
4	Pilot study in 5 districts on vital statistic data collection (death & birth) from health facilities	Report of B/D registration at facility level in 5 study districts	Jan – Dec 07	3 p/m of STC	HMN
5	New training course on Data Use for Local Planning	Course assessed and improved; 25 Province, OD, HC HIS Staff trained	Started March 07, next March-June, 2008	Guidelines and materials	HSSP
6	Introduce ICD 10 coding in the dossiers du malade (medical records) through a phased plan	15 Hospitals having implemented ICD 10	Sep 08 – Dec 08	1 p/m STC	HMN
7	Develop framework for monitoring and evaluation of HSSP 2008-20015	Monitoring & Evaluation framework document	Jan 08 – Aug 08	Materials and Guidelines	HSSP
		Ministry of Interior			
8	Research on policy, procedures and legislation related to Civil Registration	Report of best practices from around the world	First quarter, 2007	Materials, 1 STC	Gov't of ________
9	Update existing and formulate new regulations and laws related to civil registration	Improved draft Legislation on civil registration	First quarter, 2007	2 p/m STC	Gov't of ________
10	Strengthening of civil registration policy and procedures	Improved CR policy and procedures	Second quarter, 2007	2 p/m STC	ADB
11	Improved VR computer data entry	Improved Data Entry screens and editing program	Second quarter, 2007	$5,000 and 1 p/m STC	ADB

Annex 10

PRISM Framework and Tools

See attached file

Annex 11

Proposal to strengthen the health information system

By the Ministry of Health and Social Welfare

Version October 30, 2007

See attached file