

Development of a comprehensive M&E component of the national health plan¹

MOZAMBIQUE

¹ This report is based on a mission to Mozambique by WHO (William Soumbey-Alley, Ties Boerma), Global Fund (Daniel Low-Beer) and CDC (Michael St Louis) 7-9 July 2010, in response to a request to assist in developing a comprehensive M&E component of the national health plan. This work is related to IHP+ monitoring and the Country Health Systems Surveillance platform. The mission included consultations with Ministry of Health and in-country institutions and partners, and a desk review of several documents compiled by the WHO Country Office.

1 Background

The scale-up for better health is unprecedented in both potential resources and the number of initiatives involved. This requires a harmonized monitoring and evaluation effort that reinforces both country and global needs to demonstrate results, secure future funding, and enhance the evidence base for intervention. The IHP+ common framework for monitoring performance and evaluation of the scale-up for better health aims to ensure that the demand for accountability and results from single donors and joint initiatives is translated into well-coordinated efforts to monitor performance and evaluate progress in countries, in line with the principles of the Paris Declaration on Aid Effectiveness. It stresses the importance of working in ways that contribute to strengthening country organizational capacity and health information systems, as well as enabling evidence-based decision making and improved country performance.

The global framework needs to be made operational at the country level. WHO, Global Fund, GAVI, World Bank and partners are working together on the Country Health Systems Surveillance platform (CHeSS) which aims to improve the availability, quality and use of the data needed to inform country health sector reviews and planning, and to monitor health-system performance.² The goal is to work together - global partners and countries - towards a strong comprehensive M&E component of the national health plan/strategy, that incorporates all major disease programmes, with regular progress and performance reviews in countries. Such a platform becomes the mainstay for global reporting.

This report describes the situation in Mozambique regarding demand and use of health data, the current status of supply of data and statistics, and the institutional capacity for work on health statistics in conjunction with the development of a strong comprehensive national M&E component of the national health plan. It concludes with a set of recommendations for the development of a such a plan and review and situation analysis to inform the development of the new health policy framework and strategy.

The Mozambique Ministry of Health approached WHO to support the development of a strong comprehensive national monitoring and evaluation that serves the need of health sector reviews, disease programmes and global health partnerships. Special reference was made to integration of monitoring requirements of Global Fund and other large donors. An initial visit is proposed to assess the situation and needs in Mozambique. The terms of reference were:

1. To assess current practices in monitoring and evaluation of the national health plan and strategy, disease programmes and reporting to bilateral and global health initiatives with special reference to use of indicators, measurement and data sources, analysis and synthesis, and communication and use of data, as well as institutional capacity and country mechanisms for monitoring and evaluation.
2. To develop a proposal to collaborate with the Ministry of Health in the development of a comprehensive national M&E plan, linked to the national strategic plan, which would also form the basis for international reporting, and linked to a comprehensive health progress and systems performance assessment to inform the next health sector strategic plan

² Country Health Systems Surveillance. Report of a meeting in Bellagio, October 2008. WHO and Rockefeller Foundation.

2 Demand and use of information

2.1 Country review processes and mechanisms

In Mozambique, the *Sector Wide Approach (SWAp)* has been in place since 2000. An IHP+ Compact was developed in 2008. The health SWAp mechanism is coordinated by a sectoral coordination committee (CCS), where Ministry of Health and partners interface at the highest level, centered on the Annual Joint Review (ACA) and the endorsement of the annual sector Economic and Social Plans (PES). In the Joint Coordinating Committee (JCC) MoH and partners meet monthly to deal with planning and operational issues, and one of its ten working groups is on M&E.

Mozambique has a *national health plan* entitled, "Plano Estrategico do Sector Saude 2007-2010" (PESS). It was extended to 2012. No mid term review has been done or scheduled. The PESS includes trend data on health and demographic indicators from the DHS 1997 and 2003, a few disease and intervention trends from the Ministry of Health (e.g., leprosy, vaccine coverage), and summary of human resources. There are 80 defined objectives and targets for a variety of indicators, but there is no comprehensive M&E plan.

There are many disease specific plans such as an Immunization plan 2007-2009, Maternal health 2008-2010, Tuberculosis 2008-2010, National Strategic Plan to Combat HIV 2010-2014, and Integrated plan for MDG4 and MDG5 2009-2012, Strategic Plan for Malaria Control 2010-2014. The Global Fund grant application process galvanized the development of M&E plans specific to the successful Round 9 proposals (HIV and Malaria) which may be used as the foundation for developing the disease specific plans.

As part of the SWAp Mozambique has a poverty reduction strategic plan (PARP) and conducts annual review meetings in June of each year, including the health sector. PARP III is under development (for a three year period), and a list of health indicators (38) has been put forward as part of the *Performance Assessment Framework* (PAF referred to as QAD-SAUDE). The targets and performance of the sector are based on the joint QAD-SAUDE. In addition to the annual joint review (ACA) which is conducted in February of each year the Ministry of Health assesses its progress against annual operational plans (Balanco de -PES), organized by in July. The inputs from the QAD-SAUDE are used.

2.2 Indicators

The National Health Plan does not include a comprehensive health systems performance framework, indicators and targets, etc. The joint M&E process (QAD) uses a set of 38 indicators in the health sector performance assessment framework (PAF) which are reviewed in the ACA on an annual basis. Technical notes (essentially indicator reference sheets) have been developed for all indicators in the QAD. Among the 38, 33 are for the health sector and 5 indicators are intended to measure the performance of the cooperating partners. All indicators are either process/outputs or outcome (intervention coverage), divided equally between the two groups. There is only one malaria indicator, but there are 5 HIV indicators and 3 on TB. There are an additional 16 outcome/ impact indicators that include child and maternal mortality, HIV prevalence etc. This list includes three HIV indicators.

In a recent review meeting, 31 indicators of the PAF-Health were used to evaluate the performance of the MOH for the year 2009. There was information on 27 indicators and there is no information to four indicators.

The disease specific plans, most of which have been developed recently, have more specific indicators on each disease. For instance, the TB plan has 16 indicators and the malaria strategic plan has 25 indicators.

3 Supply of data and statistics

This section briefly reviews the data sources, quality control mechanisms, data compilation and access, analytical work and communication of data.

3.1 Data sources

HMIS

The Health Management Information System is the responsibility of a unit (DIS) in the department of Planning and Cooperation (DPC) in the Ministry of Health. The HMIS is comprised of multiple systems. The majority of these systems are based on paper-based individual data collection (in a health register or patient file) at the service level; aggregate facility data are reported monthly through the national data flow. The DIS has the mandate for coordinating the strengthening of these systems, defining common standards across systems, and coordinating the flow of data and linkage of data to programs and planning.

A key tool of the HMIS is the aggregate data reporting system, which is the conduit for data flow for the majority of program data from facility to district to province to the central level. Several years ago, an effort to implement the District Health Information System (DHIS) reportedly yielded poor results. Following that, Mozambique developed its own approach and a software package called the *Modulo Basico*, and has since experienced success with implementation of this approach to essentially all parts of Mozambique. Paper-based reports with aggregate data from peripheral health units are entered into a computer database at district level, and then electronic aggregate reports are transmitted mostly by flash drive or CD to the provincial level, aggregated there and then transmitted onward to the central level. A recent evaluation of this system found widespread adoption (approximately 122 of 144 districts using and reporting) and substantial success, but also important technical limitations in the scalability, ease of making enhancements, and of Mozambique's ability to provide widely-distributed technical support for the system. The DIS is helping to lead an ongoing process to define updated requirements for this information and reporting system to address some of the recognized limitations of the current system and to ensure a more robust and sustainable system in the coming years.

The Health Metrics Network supported an assessment of the health information system. This was considered a very useful exercise in identifying areas needing strengthening. An effort was made to use this assessment as a basis to develop a draft HIS strategic plan, but that plan was never fully cleared and approved by the MOH. However, its content was useful and contributed in an important way to the development of the National Health Information System Strategy (2010-2014) (NHSS). Notably, unlike the HMN Framework, that NHSS only included information elements that were within the span of control of the MOH, and did not include Vital

Registration, Census, and other information streams that are essential to comprehensive health information but fall under the administrative responsibility of a different part of the Government of Mozambique than the MOH.

M-OASIS. A notable recent success story in capacity building and clever institutional co-development on the part of the MOH is represented by the M-OASIS Project. M-OASIS is the Mozambican node of a global network of centers participating in the Open Architecture, Standards, and Information Systems (OASIS) approach. M-OASIS is based at UEM in the mathematics department, and now includes a growing cadre of health informatics specialists with advanced training in health enterprise architecture, software design and development, database system design and management, and other critical expertise domains related to health informatics. M-OASIS receives substantial technical and networking support from the South African NGO Jembi, and has been supported financially by Canadian IDRC and by U.S. CDC. In 2009, a MoU was signed between MOH and M-OASIS for M-OASIS to provide prioritized development and implementation support for key HIS projects. M-OASIS has undertaken several initiatives, including the large-scale training of provincial and district health staff in basic health informatics and in use of existing HIS tools such as Modulo Basico, with approximately 500 persons trained in 2010 and a planned 1,500 persons to be trained in 2011.

MORTALITY SURVEILLANCE. Mortality and cause of death surveillance is currently based on a three-tiered strategy:

- 1) Verbal Autopsy as follow up to the Census [INCAM]: this was done in 2007. Will provide a broad picture of age and sex specific cause patterns once every ~10 years.
- 2) Mortality surveillance through Demographic Surveillance Sites: is currently operational in one district; second being established.
- 3) Facility based mortality registration/surveillance.

The latter has been established at the Central Hospital in Maputo. In terms of policy and regulatory framework, ICD-10 has been adopted and implemented in Mozambique as a data vocabulary standard. However, there is not currently capacity to code all deaths to the full ICD-10 standard, even in hospital. With the support of M-OASIS, the MOH has identified a reduced set of standard codes that captures the great majority of causes of death that can be reliably ascertained in Mozambique. This set of codes was developed to conform with the Mozambican national death certificate and with the standards established by Ministry of Justice, which has jurisdiction over vital registration in Mozambique, and the National Institute of Statistics, which has official responsibility for vital statistics. Moreover, the mortality surveillance system has been developed within the Enterprise Architecture framework for Health Information in Mozambique, so that this mortality surveillance system should be able to exchange data freely with other health information building blocks that are also developed within the Mozambican Health Enterprise Architecture.

Mozambique Health Enterprise Architecture (EA). One of the priorities identified in the National Health Information Systems Strategy is the development of a national health architecture. MOH, in collaboration with the M-OASIS program, are in the initial stages of planning for the development of an overarching EA for health information in Mozambique. Should Mozambique decide to participate in the new Health Informatics Public Private Partnership (HI-PPP) of USG/PEPFAR, there will be additional technical and financial resources to help catalyze this positive development. An explicit Mozambican EA and associated information system standards

and requirements for the country will provide an explicit rulebook for developing applications for Mozambique that should allow interoperability and scalability. Critical decisions such as how to ensure greater operability between the various sub-systems within the HMIS and how to move forward with the enhancements to the current Modulo Basico information system would be greatly rationalized by having an explicit EA and by detailed examination of the functional requirements of this system in Mozambique, and especially being attuned to the reasons underlying evidence of success of widespread adoption of objects such as Modulo Basico in Mozambique.

Administrative data systems

There are several systems which are being strengthened, with support from USG. These include a financial management, logistic, human resource information and laboratory information systems.

- Financial data: First NHA is completed in 2010 with data for 2006 and 2010; SISTAFE is overall financial tracking system in MOH Dept of Admin and Finance
- Human resources: HRIS annual data are published on the number of health workers active in the health statistical report; system to capture in-service training among health care workers implemented nationally (Central and all provinces) and to capture pre-service training activities under development; ongoing assessment to inform planning of more robust HRIS (currently funded by PEPFAR). There is a human resource plan 2008-2015.
- Infrastructure: a national database of facilities with GPS coordinates is available using the results of the service availability mapping (SAM) carried out in 2007.
- MOH (with USG support) in process of strengthening logistics management information systematic
- Focus on strengthening lab information systems

Surveillance

The Ministry of Health surveillance system collects information on 10 priority diseases (malaria, measles, meningitis, diarrhea, dysentery, cholera, acute flaccid paralysis [poliomyelitis], rabies, plague, and neonatal tetanus). Data are reported weekly via a reporting system known as BES (Boletim Epidemiológico Semanal). Aggregate case data on these diseases are reported from health facility in a paper-based system and computerized at the district/province level before being sent to the Surveillance program which sits within the Public Health Directorate at the National level at MOH; typically data are entered into the aggregate reporting system Modulo Basico at the district and province level and sent to the national level. Data are analyzed and feedback provided on a weekly level; summary reports are generated at the national level every quarter.

To complement the BES, implementation of an Integrated Disease Surveillance and Response (IDSR) system is being initiated to enhance monitoring and supervision of notifiable diseases; instruments have been developed and MOH staff have been trained in use of the system. Once implemented, the IDSR will provide additional information on the performance of the surveillance and response system (e.g. case investigation rate) with this information collected through complimentary activities, including quarterly integrated monitoring and supervision visits.

Disease-specific Monitoring and Evaluation Systems. Data from disease- or program-specific systems such as TB and EPI are reported and quite good in Mozambique, especially EPI. These

systems meet the needs of the individual national disease programs, but their deployment requires peripheral health workers to complete a large number of different forms. In some cases where services have been scaled up rapidly and where reporting was not yet integrated into the Modulo Basico, parallel reporting systems have been set up (reporting to programmatic officials at district and provincial level rather than through focal points in Planning and Cooperation at these levels; in many cases, data quality and consistency continues to suffer from a clear reporting flow that ensures high quality timely data in these programs. Furthermore, in some cases, such as HIV care and treatment where patient care and reporting are significantly challenged with sole reliance on the paper based systems, individual level electronic systems have been set up by international partners to capture these data. Given the lack of clear guidance or standards for such systems in Mozambique, this has resulted in a proliferation of systems that are fragmented and not harmonized and greatly complicate the health information environment at the district, provincial, and national levels.

Population-based surveys

The National Bureau of Statistics (INE) is in charge of large population-based surveys. INE has a 5 year strategic plan (2010-2014) that defines the key priority surveys and surveillance activities planned; however, implementation to this plan is sometimes challenged by requests for specific surveys or studies by specific donors, etc. It is not easy to get access to the main survey reports through the INE website. The main sources of health data are:

- 1998, 2003, 2010-11: DHS
- 2008: MICS
- 2007: Malaria Indicator Survey
- 2009: AIDS indicator Survey
- 2007: Census (including follow-up INCAM to look at Mortality)

Facility assessments

Only one assessments of the status of facilities and service delivery have been conducted:

- 2007: Service availability mapping through a district key informant survey and 1200 facilities
- 2007: Drug availability: external assessment of the availability was carried out for 15 essential medicines.
- 2009: Emergency Obstetric Care facility assessment (EMOC), including child health

There is current work within DIS to develop a more routine system to maintain up to date basic information on health facility (e.g. updating via Modulo Basico).

Vital events

- Census 2007 - mortality and cause of death follow-up survey with verbal autopsy
- Efforts (with assistance from UNICEF and MMAS) to promote registration of children
- DSS sites: in one district (Manhica), second being established

Special studies/Evaluation/Research

There are research studies conducted by a variety of institutions but there is no operational research agenda or process to define priorities for additional research, evaluation, etc.

3.2 Data quality control mechanisms

The joint annual review (ACA) not only includes an analysis of progress of key indicators against targets but also field data collection that includes on record reviews to verify the quality of data

(usually in three of the ten provinces). A specific DQA protocol has been developed in Mozambique, based on the Global Fund RDQA tool, is used to conduct a multi-record review to assess if recording and reporting has been consistent at two levels: at facility level, comparing consistency of source data with reported data and comparing the consistency of data as it flows from facility to district to province to national levels. For instance, in 2010 14 facilities were visited and reporting of deliveries had a perfect score, while several problems were found in ARV therapy and PMTCT reporting.

In general, there is no system of assessing data quality and making adjustments for clinical and administrative data. There is no reporting on completeness and accuracy from facility or districts to national levels.

3.3 Access, analysis and dissemination

Statistics

- The Ministry has produced several publications with health statistics. Annual health statistical abstracts are not widely disseminated. Reports have covered 2002-2006 and recently 2009.
- HIV surveillance reports and survey reports

Databases

- There is no public national database on the Ministry of Health website, only a health fact sheets derived from its publications. Some program-specific data however are routinely reported on the MOH website (e.g. official ART summaries published on website on a monthly basis—this may be a medium that can be strengthened for better and more routine dissemination)
- The National Bureau of Statistics has no functioning databases accessible on the web at the time of this report; however some statistics on maternal and child health, equipments and infrastructures are published for the period covered 2004-2008/9.

Synthesis and analysis

- Annual health performance report: prepared annual for reviews
- Global Fund sponsored impact evaluation of collective investments to reduce disease burden of TB, malaria and HIV in Mozambique, prepared by Mondlane University staff
- WHO Report on Inequities in Maternal and Child Health 2007
- UNGASS HIV/AIDS report 2008-2009

4 Institutional capacity

National Bureau of Statistics

The Bureau of Statistics (called INE) conducts most of the national population based surveys Annual health statistical reports have been published and covered 2002-2006 and recently 2009. The data collection and analytical capacity of INE was not assessed as part of the CHeSS assessment.

Ministry

The Department of Planning and Cooperation (DPC) in the Ministry of Health is the lead for monitoring and evaluation. It includes a unit responsible for HMIS for monitoring and evaluation, called DIS. The plan is to coordinate with newly developing M&E sub-units in each of the four directorates, but continue to provide policy direction, leadership, and coordination from DPC.

A key focus of DIS (in line with the NHISS) is capacity building at sub-national levels. For example, a national curriculum has been developed (DIS in collaboration with UEM) focusing on planning, M&E, and information systems. This training was implemented with key training staff in planning in all 11 provinces in 2009; currently there are plans to further disseminate these trainings to the district and facility levels.

National Health Institute (INS)

The INS is embedded within the Ministry of Health, but has historically been semi-autonomous which allows it to respond more flexibly to demands for their services. Its role focused on lab and surveillance, but INS is also involved in routine surveys/surveillance (e.g. antenatal sentinel surveillance), ad hoc surveys and contributed technical expertise to the 2009 AIDS Indicators Survey. The plan is to strengthen INS capacity.

Academic institutions

There are only a few institutions that can support public health research, and there are no parastatal institutions. The Eduardo Mondlane University (UEM) in Maputo, Faculty of Medicine, may provide consultants, for instance from the Department of Community Health. There are however very few senior staff. However, the M-OASIS hub at UEM discussed earlier in this report is one example of the recent strategic development of a health informatics capability within a University context that has provided substantial support to the Ministry of Health. There are new medical schools of two other universities: Nampula (government) and Beira (private, Catholic university). At present, public health M&E and research capacity is limited.

Private sector

There are individual consultants and small consultancy agencies who can be used to collect data and conduct analyses. These often are individuals also linked to government institutions.

5 Conclusion and recommendations

Many of the building blocks of the integrated M&E system are present, but they require coordination in capacity building, analysis and use of data which builds country institutions.

5.1 Demand and use of information

- There are many positive developments in Mozambique regarding the M&E in the context of disease plans, SWAp and IHP+, which are indicative of a greater demand and use of health information for decision making
- Many of the components of a good progress and performance review are present, but there is a need to structure the components into a common and comprehensive framework that covers indicators, data sources, analysis and synthesis including data quality and communication and use of the data. CHeSS provides such globally agreed comprehensive framework and platform.
- The current health sector strategic plan is past its mid point between 2007 and 2012. There is a need to carry out a comprehensive evaluation of progress and performance as well as conduct a situation analysis as a basis for the development of a new health plan including a comprehensive M&E component.
- Availability of data has been increasing over time, however its utilization for planning and driving policy and program decisions remains limited at multiple levels. Increasing skills in analysing and translating data into policy and program may be an area for further investment in capacity building.

5.2 Supply of data and statistics

- Data sources: there are multiple data gaps in the availability and quality of health statistics as is the case in many countries. They must be improved to be able to implement a sound progress and performance monitoring system:
 - HMIS: progress has been made with Modulo Basico which could be used to further strengthen data quality and reporting. This is an important priority.
 - Surveys: more frequent surveys are conducted which enhance data availability. These include DHS, MICS, Malaria Indicator Survey, AIDS indicator survey. There is a national survey plan but adherence to the plan needs to be improved, with a recommended DHS survey every five years and a mid-term survey every 2-3 years. These will improve the evaluation of the national health plan.
 - Vital events monitoring: the census follow up mortality study provided unique data on causes of death in Mozambique. The hospital monitoring system has improved the quality (e.g. use of simplified ICD), is expanding and will provide more data on causes of hospital deaths. There is a need to consider innovative ways to monitor and improve the coverage of birth and death rate information, with a cause of death where feasible in communities.
 - Service readiness assessments: building upon the annual facility data quality reviews, a regular system of assessment of service readiness, with data quality record reviews, would be an important input into annual reviews, enhancing the credibility and quality of data presented. A common tool meeting global standards should be used.

- Data quality assessment
 - There is a need to further develop a systematic and integrated approach to data quality assessment, by the MOH DIS department and subnational levels but also involving external institutions and global partners.
 - Increased institutional capacity and involvement in this process will be essential
- Synthesis and analysis
 - An evaluation situation analysis to inform the new health policy framework and plan needs to be done in 2011.
 - A dashboard or other means (for national and provincial levels) needs to be developed to effectively communicate the performance of the health system on a regular basis

5.3 Institutional capacity

Institutional capacity is currently weak and not integrated, especially in the areas of data quality assessment, analysis and synthesis and linkage to programmatic decision making and strategic planning. There is no clear institutional leadership of the M&E component of the national health plan. The move towards strengthening the M&E component of major programmes within the Ministry of Health can have positive effects, but there is a need for leadership for overall M&E work. This should not only include the responsibility for the clinic reporting system, but also bring together data from all sources. Analytical capacity and clear reporting and coordination mechanisms are needed.

5.4 Recommendations

The recommendations cover short term development of a provisional M&E plan and coordinated support to strengthen the country in its review and strategy development process.

Develop Intermediate provisional M&E plan (short term priority)

- Based on the existing plans, indicators and review processes, in a relatively short period of time, it is possible to develop an intermediate provisional M&E plan that is linked to the national health sector strategic plan 2007-2012. This plan will have to include an overall framework for the selection of indicators, data sources, analytical requirements and data communication and use (as in the CHeSS framework). This is the highest short term priority.
- Strategically prioritize, minimize and stratify the number of indicators and clearly structure the indicators according levels of a M&E pyramid (Level - 1 overall health sector; Level 2 - disease programme areas; Level 3 - program management), and should represent a balanced selection of the different areas in the results chain framework
- The disease specific plans should be developed according to this overall health framework and presented as a series of sub-plans (TB, malaria, HIV/AIDS, sexual-reproductive and child health, human resources).
- The intermediate framework for the Global Fund grant and other donor support should be consistent with the longer term vision of moving to a comprehensive CHeSS framework for the next health plan.
- Time period: finalized by October 2010

Process to develop new health sector plan with a comprehensive M&E component (mid term priority)

- The joint mission recommends that the MOH commits to developing a comprehensive plan that meets the international standards for attributes of such plans and forms a solid basis for accountability and results monitoring during the plan period, starting 2012. The following elements are recommended:
 1. Strengthening analytical capacity and peer learning: participation of a team representing the key institutions involved in health reviews in the multi-country analysis workshop focusing on health progress and performance reviews, convened by WHO, GAVI, Global Fund, World Bank and USG Global Health (October 2010)
 2. Develop roadmap for the process that will lead to the next health sector strategic plan. This should include (a) an evaluation and analytical review of health progress and performance during the previous plan, (b) a systematic qualitative component of the evaluation should include a policy review, recommendations of improved efficiency of resources from all sources, and assessment of key factors that have contributed to health changes (c) integration of the quantitative and qualitative components (d) a participatory and comprehensive development of the new strategic plan based on the situation analysis. The work could run from March - Oct 2011.
 3. Evaluation /analytical review: this process should be led by country institutions with the support of international partners, and critically review and analyse all data available for the last decade. It could start off identifying the lead institutions in country and the international partners that are supporting the analytical process, followed by a data review workshop, a period of analysis and synthesis and an analysis workshop. The analysis work could run from Oct 2010 - Aug 2011 (to allow the inclusion of the DHS 2010-11 results).
 4. M&E component: review of existing M&E instruments, processes and map these according to a coherent CHeSS framework. This should also include a mid to long term perspective on institutional capacity strengthening and performance reviews to allow strong M&E of the national health plan, including the disease components.

Strengthening data systems (mid to long term)

Country and partner resources need to align to be able to more effectively and jointly address the following key areas identified as weaknesses using the CHeSS framework:

- Clear leadership and coordination mechanisms for the M&E component of the national health plan; an institutional base needs to be designated and adequate technical expertise should be concentrated in it.
- Strengthen DPC: 1) strengthen GF unit 2) strengthen capacity in general 3) merge M&E processes across diseases use joint evaluation to accomplish

- Strengthen the progress and performance reviews to shift from reviews of indicators to overall programme performance, with a defined reporting structure that synthesize all information and translate these into program and policy implications
- Improve administrative data sources - financing, human resources, infrastructure - so that annual data are provided
- Build on and significantly strengthen existing routine health information system
- Expand the data quality assessment, building upon the pre-ACA reviews, and include a facility service readiness component in addition to the record reviews.
- Develop a comprehensive health information system document that includes the current HMIS plan but also surveys, other population-based data sources, and administrative data and supports the comprehensive national M&E plan, corresponding more closely to the HMN technical framework. This will likely involve greater formal collaboration with INE and other units of government.
- Strengthen analytical capacity involved in health progress and performance reviews, with defined roles of key institutions, such as INS, UEM and perhaps other institutions
- Agree upon structured and regular reporting mechanisms (reports, web) and defined institutional roles in building a country health "observatory" or centre of "intelligence". Improve the coordination and transparency of performance reviews from different stakeholders.