

Strengthening monitoring and evaluation practices in the context of scaling-up the IHP+ compact and Country Health Systems Surveillance¹

ETHIOPIA

¹ This report was based on a mission to Ethiopia by WHO (Ties Boerma, William Soumbey-Alley) and Health Metrics Network (Haptamu Addo, John Cutler) 17-18 March 2009. The mission included consultations with Ministry of Health, Central Statistical Agency, EHNRI, EPHA, World Bank and UNICEF.

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. Eventually, the scale-up efforts will be judged by country progress towards the health-related MDGs, the degree to which major health constraints in countries have been addressed, and adherence to the Paris Declaration on Aid Effectiveness.

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. It stresses the importance of working in ways that contribute to strengthening country organizational capacity and health information systems, as well as enabling evidence-informed decision making and improved country performance.

The global framework needs to be made operational at the country level. The Country Health Systems Surveillance platform (CHeSS) aims to improve the availability, quality and use of the data needed to inform country health sector reviews and planning processes, and to monitor health-system performance.² There are three dimensions to this process to strengthen the monitoring and evaluation component of the country compact:

- Demand and use of information: improve the use of evidence in decision-making processes, focusing on country plans
- Supply of data and statistics: increase availability and quality of data used for decision making
- Enhance institutional capacity: support country capacity for assessment and monitoring of health systems and their performance

The Government of Ethiopia and Development Partners signed the compact on '*Scaling Up For Reaching the Health MDGs*', in (September) August 2008. A High Level Mission of Development Partners was conducted in September.³ The IHP+ common monitoring framework was discussed with the Ethiopian country health sector team and considered well aligned with the results framework in the HSDP III.

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

³ Ethiopia IHP+ Compact. Development partners mission to Ethiopia: 15th - 18th September. Mission Report. 23 September 2008.

2 Demand and use of information

2.1 Country review processes and mechanisms

The strategic plan of the Health Sector Development Program (HSDP-III) 2005/06-2009/10 sets out the priority areas for health interventions and provides a basis for monitoring progress in its implementation. Annual Review Meetings (ARMs), usually take place in October and are chaired by the Minister of Health. The ARM brings together a wide range of stakeholders including federal and regional government agencies, selected *woreda* health offices, the health, population and nutrition (HPN) donors group, academic institutions, the private sector and international agencies. The 2008 ARM was attended by 389 participants, including 79 representatives from HPN development partners.

The ARM is informed by an annual performance report of HSDP-III which is prepared by the Ministry of Health, focusing on the priority programme areas and a select set of indicators and targets.⁴ The mid term review of the HSDP-III, conducted in 2008 by a large team led by international consultants, is also discussed at the ARM. For the first time, proceedings of the meeting were published.⁵

Further expansion to the *woreda* level, of which there are over 800, is a priority, given the emphasis on evidence-based planning at the district level. The average *woreda* population is about 100,000 people, which implies that it is considerably smaller than a district in most other countries in Africa. In combination with the shortages of qualified health workers, this has implications for the level of public health expertise available in the Ethiopian "districts". The ARM report 2008 did not look at *woreda* performance.

There is no special coordination mechanism for monitoring and evaluation. The Joint Core Coordinating Committee (JCCC) is the technical body under Joint Central Steering Committee, which is the overall governing body of the health sector including ministries of finance and health with development partners, chaired by the Minister of Health. The JCCC is chaired by the director of Planning and Program Department (PPD) of the Ministry of Health. The JCCC is the main coordinating body for monitoring and evaluation, which is one of the health related subjects on the agenda. Sometimes there are special sub-committees with a specific task. For instance, there was a health management information system (HMIS) reform committee (ceased to exist halfway the process), and the Demographic and Health Survey (DHS) committee for the 2010 survey has just been established.

2.2 Indicators

Indicators with targets are the basis for monitoring the implementation of HSDP-III. There are 93 indicators with 17 core indicators in the HSDP-III. About 35 indicators were used for the report to the ARM in 2007/08, although data for other indicators for which no recent data were available were presented at the ARM and are included in the proceedings. Virtually all

⁴ Federal Ministry of Health. Annual performance report of HSDP-III, EFY 2000 (2007/2008). October 2008.

⁵ Ministry of Health, HSDP secretariat. Report on the proceedings & results of the tenth annual review meeting of HSDP, Mekelle, October 8-10 2008.

indicators have targets. Also the HSPD-III *woreda* based annual core plan for 2008/09 (EFY 2001) includes targets for 27 indicators for all *woreda*'s (this implies over 20,000 targets, which are presented in a booklet).⁶

The classification of indicators into the categories of a monitoring and evaluation (M&E) results chain differs from standard practices in several instances. Table 1 shows the number of indicators by category in different plans and reports, using (a) generic categories to classify the indicators. There is fairly good overlap of the indicators, with the HSDP-III as the basis.

Table 1
Use of indicators (with targets) in HSDP-III and monitoring processes, by category, Ethiopia

	Input	Process	Output/ quality	Outcome	Impact	Total
HSDP-III	4	19	19	31	12	93
HSDP-III, core	2	4	6	4	1	17
Annual performance report 2007/8	6	7	5	11	4	35
<i>Woreda</i> based annual core plan	2	3	2	20	0	27
IHP+: HSDP results framework	3	7	15	8	13	46

Annex 3 of the Ethiopia IHP+ Compact (draft July 25 2008) presents 46 indicators including 13 impact indicators. Most indicators overlap with the HSDP-III. The Annex includes a 2005 baseline and 2010 target for the majority of indicators. The most common means of verification is the HMIS, which was the basis of concerns raised by the development partners' mission in September 2008.⁷ The targets are very ambitious for many indicators: for instance, the proportion of families using a sanitary latrine is supposed to quadruple in 5 years from 20 to 80%; the proportion of children under five years and pregnant women are to increase from 2% in 2005 to 100% in 2010.

3 Supply of data and statistics

3.1 Data sources

HMIS

The reform process has been going on for several years. The new system was designed with technical support from JSI and focused on rationalizing the number of indicators, forms and procedures for data collection, increasing health information staff numbers (5,000 health information technicians to be trained) and scaling up training of health workers. The new cadre

⁶ Federal Ministry of Health. HSDP-III *woreda* based annual core plan EFY 2001 (2008/09).

⁷ The mission of development partners in September 2008 (see footnote 2) noted that the monitoring plan relies heavily on the Health Management Information System and that efforts to strengthen HMIS need to be accelerated. It was also concluded that the constant deluge of information requests from the regional and global level needs to be addressed by agreeing on a minimum set of indicators, linked to the common framework. This would need to be promoted at the global level by senior management, boards and the H8. Global efforts are also required to gain a consensus that the common results framework in Ethiopia is adequate for all development partners. It was recognized that many partners still want to see attribution of their efforts; experience on how to handle this demand from the global level, when pooled efforts are required in-country, should be further explored.

of 30,000 health extension workers will also play a key role in generating community level data. The new system will be paper-based with electronic transfer of information from woreda to the higher levels of the system where possible. The new system is operational in four of the smaller regions and a recent grant of the Global Fund (\$27 million) is aiming to roll out to all regions. The total costs is budgeted at US\$100 million for five years.

The new HMIS has about 105 indicators. Of the initial set, 60% were HIV indicators, but this has now been reduced to about 18 indicators. There is still considerable confusion around the role of specific technical support agencies in the roll-out of the HMIS, especially Tulane University which has been leading this work in the past two years. The National HMIS Advisory Committee (task force) is currently inactive. Health Metrics Network is supporting a JSI regional adviser for one year and also supports special studies to facilitate an effective roll out.

The HIV/AIDS Prevention and Control Office (HAPCO) is a national autonomous body under the Federal Ministry of Health. Its director, however, is appointed by the Prime Minister's Office and it is multi-sectoral. PEPFAR has been supporting the reporting of health facility based interventions (ART, PMTCT and counselling and testing). Monthly reports from all service delivery points with summaries and site specific data are available on the web with a delay of less than two months.⁸ At present, there is no linkage between the HMIS reform and the HAPCO reporting system supported by PEPFAR.

Population-based surveys

The Central Statistical Agency is in charge of surveys and its main preoccupation is currently economic surveys. Coordination of health surveys is poor and there is no national health survey plan. Some of the health surveys in the pipeline are:

- 2009 HIV-hepatitis- HSV-2, syphilis survey (EPHA and CDC-Atlanta, with Global Fund funding),
- 2009 nutritional survey (Somali region, UNICEF, DFID)
- 2009 GAVI immunization coverage survey with possibly biomarkers, under discussion
- 2009-2010 tuberculosis prevalence survey (Global Fund funding, costs about US \$3 mln),
- 2010 Demographic and Health Survey: coordinating committee has been established
- 2010-11 malaria indicator survey, possibly

Facility assessments

A few assessments of the status of facilities and service delivery have been conducted:

- 2005: HIV facility assessment, by Addis Ababa university
- 2008: ENHRI conducted a facility assessment of about 180 hospitals and health centres as part of the Global Fund Evaluation study in 2008
- 2008-09: UNICEF, UNFPA and WHO supported a survey of all hospitals and health centres (about 800) with a focus on emergency obstetric and neonatal care (EONC) (results not yet available).

There is no national database of facilities with GPS coordinates, but data on the number of public and private facilities are published annually. Work is on the way to obtain GPS data:

- 2008-09: the EONC facility assessment also collected GPS coordinates for the facilities. In addition, UNICEF has also gathered GPS coordinates for 4000-5000 health posts which have received kits. In total, there are about 15,000 health posts.

⁸ <http://www.etharc.org/>

- 2007: the census conducted by the included the collection of GPS coordinates of all health facilities, but no data were collected on facility names. The Central Statistical Agency is in the process of publishing a socio-economic atlas which will include the location of all health facilities.

Vital events

There is a push for civil registration in Ethiopia and a revised law has been drafted. Until now, there have not been any major investments in strengthening birth registration. The 2007 census (results on vital events not yet available) and demographic surveys are currently the main source of birth and death rates.

The current four local Demographic Surveillance Studies (DSS) may provide some data but these are presently not used in health sector reviews. The plan is to add four more DSS, funded by the Round 8 Global Fund grant. The EHNRI has been given responsibility, but currently has no expertise. The Central Statistical Agency however has some specific expertise in this area. Health Metrics Network is planning to support a study tour for an Ethiopian team [- where to?](#).

There is an independent effort to obtain better information on mortality and causes of death, focusing on HIV. The Ethiopia Public Health Association has been supported by CDC to carry out mortality surveillance since 2006. The project includes four universities which have villages under surveillance. It also includes studies of burial registers in Addis Ababa, and includes the oldest DSS site in Ethiopia, Butajira.

Administrative data

- Financial data: a new NHA will be conducted in 2009 with assistance from Abt Associates and generous US funding.
- Human resources: annual data are published on the number of health workers active in the health statistical report; also data on training centre outputs (of for instance health extension workers) are available
- Logistics management information system:

3.2 Data quality control mechanisms

At present, there is no system of assessing data quality and making adjustments. For instance, there are no data on completeness, timeliness and accuracy of reporting, or adjustments made to health facility based coverage estimates based on population-based surveys.

In 2006, a review of data quality was conducted focusing 109 health facilities showed major problems in data quality⁹. Of the facilities only half had archival procedures that permitted comparison of registers and compiled reports for new consultations. Comparison of immunization records was only possible in one third of facilities. Among those that could be compared there were major discrepancies in the majority of cases. Problems were also found in the use of population denominators (for coverage estimates and targeting), disease reporting (with an excessive 12 age-sex categories), and completeness and timeliness of reporting.

⁹ Federal Ministry of Health. HMIS business process re-engineering assessment report. HMIS core process. HMIS reform team. September 2006.

The ongoing "business process re-engineering" in the health sector has resulted in a plan that includes several measures to improve data quality. An integrated supportive supervision system will be operational at all levels with much emphasis on targets. At the *woreda* level much more attention will be paid to evidence based planning and decision making with emphasis with targets and a select set of (27) indicators. This system will be based on improved recording and reporting, as part of the new HMIS, and link the results to performance review mechanisms. It will not only involve data generated at the health posts, but also the health extension workers (of which more than 30,000 will be put in place). A related element is the inspection system which will use a set of data quality assessment tools which will be employed by the Ministry of Health: the higher levels in the system assess the lower levels. For instance, the regional staff will assess the quality of data produced by the *woreda* staff.

Another new aspect is the joint review mission (JRM), involving the government and development partners. This process used to exist but was abandoned a few years ago. The new JRM will be more analytical and aim to synthesize information to assess performance. Tools will need to be developed to guide the JRM. It will focus on selected priorities each year.

Finally, operational research in the health sector will need to be strengthened through the Ethiopian Health and Nutrition Research Institute (EHNRI), to be renamed Ethiopia Public Health Institute. This may include surveys on specific topics and evaluation.

3.3 Access, analysis and dissemination

Statistics

- The Federal Ministry of Health publishes annual health statistical abstracts and the most recent report is available for 2006/07 (Annual Health and Health related indicators). The report is available on the Federal Ministry of Health website and contains statistics on diseases (health system building blocks, outpatient visits and admissions, causes of death, MCH), but no assessment is provided of reporting completeness, coverage and data quality.
- The HAPCO site publishes monthly information for all (public and private) facilities (site-specific) that provide HIV services and includes summary reports
- International reports: for instance the annual MDG report and the UNGASS HIV/AIDS 2008 report.

Databases

- No public national database on the Ministry of Health website, only a health fact sheet with multiple years
- The Central Statistical Agency has no functioning databases accessible on the web at the time of this report
- There is a health extension workers program database, developed by Addis Ababa University. The goal is to have regional databases and eventually a web-based system that reaches the *woreda* level.

Synthesis and analysis

- Annual health performance report: is published every year for the ARM. It focuses on assessment of progress against trends, mainly based on HMIS data

- ARM presentations: included the results of the annual health performance analysis, but also some assessments of regional performance against regional targets and a comparison of survey-based trends in key health indicators with the overall trend in sub-Saharan Africa
- HIV/AIDS: in 2006 Ethiopia published its 6th AIDS review report and in 2008 it completed a joint World Bank analysis of the AIDS situation

4 Institutional capacity

Ethiopia Health and Nutrition Research Institute (EHNRI)

The EHNRI plays a major role in supporting the Ministry of Health in data collection and analysis. As an outcome of the recent government Business Process Re-engineering the status of the EHNRI will be changed to a kind of CDC. Several surveillance functions will be conducted by the institute which may be renamed Ethiopia Public Health Institute. The EHNRI covers a wide range of activities including antenatal clinic HIV surveillance, the laboratory component of DHS, nutrition surveys, the Global Fund evaluation survey, and HIV work with most at risk populations. Private sector partners may be engaged to do the field work.

The current capacity of EHNRI is very modest and the number of highly qualified staff is going down because of more attractive job offers elsewhere (from the private sector and international agencies). Two demographers recently left. Currently, there are only four public health staff with a master's degree or higher. The EHNRI has 40 highly qualified staff (Master's or higher), but most are not in public health.

Central Statistical Agency (CSA)

Health statistics fall under the Population and Social Statistics Department, which includes population and housing, social statistics and manpower, and vital statistics. There are 25 branch offices in the regions. At the central level the Department has more than ten demographers, but the numbers are decreasing, as well-qualified staff are attracted by the private sector and international organizations. Because of the reduced capacity, CSA is increasingly playing the role of technical advisers and takes the lead in some areas such as sampling, survey design, and data processing.

The National Strategy for the Development of Statistics (NSDS) has been completed and a national survey plan is in draft. This includes all major national surveys, although there does not appear to be a comprehensive health survey plan. Economic surveys take the bulk of the 10-12 surveys that CSA does each year.

Ethiopian Public Health Association (EPHA)

The EPHA has a staff of 40, including 16 professionals with Master's degrees or higher, and over 3,000 members. There are 22 universities of which six have public health or community departments. It is funded by membership and project support from CDC, Packard Foundation, Canada Public Health Association and others. EPHA's portfolio is currently dominated by HIV and includes HIV/TB mortality surveillance, surveys and behavioural surveillance surveys. EPHA can mobilize technical support from its network of universities and often works together with other institutions such as CSA.

Private organizations

A growing number of private organizations are involved in health information. Examples include:

- BETA is a private firm that won a UNICEF tender for the emergency obstetric and neonatal care facility assessment (there were 3-4 applicants).
- Addis Continental Institute of Public Health (ACIPH): has training and research center in Addis and is opening training sites in other parts of the country.
- Miz Hasab Research Centre: focuses on social and behavioral science.

5 Conclusion and recommendations

4.1 Demand and use of information

- The focus on measuring progress through a defined set of indicators and targets and reporting on those in a well-prepared format on an annual basis at a broad forum is a major achievement and provides a good foundation for further strengthening accountability and results focus.
- Given the increased investments and importance attached to health information it should be considered to set up designated M&E committee linked to JCCC, ensuring the participation of local and development partner expertise. This committee should support the HMIS reform, coordination of national surveys etc.
- The IHP Compact monitoring builds upon the HSDP-III core indicators and minimizes the introduction of additional indicators. There is a need for a smaller set of core indicators that could be presented in a dash board on an annual basis. This should include trends and target monitoring, subnational and equity performance assessment and benchmarking with peer countries.
- The monitoring of the implementation of the principles of the compact, that is the associated behavioural changes of the signatories (and others), should be done by an annual qualitative assessment of the 4-5 core principles of the Compact, supplemented by data on funding flows.
- The annual ARM proceedings summarize the results for the HSDP-III priority health areas as achievements, challenges and next steps. This important synthesis report could benefit from a simple scoring for each HSDP-III priority area (e.g. on a five point scale from achievement above expectations (target) to not at all) and should be discussed at the ARM.

4.2 Supply of data and statistics

- Data sources: there are multiple data gaps in the availability and quality of health statistics which must be addressed to implement the accountability and results framework:
 - HMIS: the new HMIS will be a step forward, but it is likely that, given the size and scope, it will take quite some time before this will bear fruits. It should be explored to what extent the health facility based component of HAPCO can be integrated with the new HMIS, and can provide ways to accelerate and improve the roll-out of the new HMIS. The implementation of electronic reporting systems as part of the new HMIS will be critical to improve data quality.
 - Surveys: there is considerable scope for better alignment. The apparent weakening of the Central Statistical Agency (CSA) as the main survey organization may further

contribute to fragmentation and duplication. There is an urgent need for a simple and clear national survey plan that informs the core indicators, using standardized survey modules, transparent data quality assessment and adjustment methods and effective communication of results.

- Vital events monitoring: at present, it is not clear to the main users what can be expected from the expansion of DSS in Ethiopia or how they should be run; coordination with CDC supported work on mortality surveillance is essential to minimize duplication; there is no expertise in the Ministry of Health or EHNRI, but CSA has a vital statistics unit.
- Facility assessments: an annual assessment of selected woreda's, with facility level data collection on the state of health services and data quality assessment should be done prior to the ARM to inform the review and planning.
- Data quality assessment
 - There is a need to increase data access and transparency to allow regular assessment of data quality
 - This should also include the adjustments made to the HMIS based on survey results
 - Increased institutional capacity and involvement in this process will be essential
- Synthesis and analysis
 - Building upon the work that has been done by the Ministry of Health, further work can be done to assess subnational and country performance, comparing inputs and outputs/outcomes/impact
 - A dashboard needs to be developed to effectively communicate the performance of the health system on a regular basis
 - International methods of computing key health indicators should be used to strengthen the analysis of health data

4.3 Institutional capacity

Institutional capacity is weak, and more systematic investments of partners and government are needed. The two strongest candidates are currently the ENHRI and EPHA. The ENHRI will be transformed into a public health institute which is an important development, but the capacity is inadequate in analysis and synthesis, development of estimates using standardized methods and data quality assessment. The EPHA is a broad organization, but it is able to mobilize a large number of staff in various universities. The quality of the work may be variable, depending on who will be engaged for a specific assignment.

The Central Statistical Agency should be supported to play a lead role in health surveys, both in coordination and execution, in close collaboration with the Federal Ministry of Health, development partners and other institutions working in this field.