



Challenges in tracking progress and measuring achievements



An important

strength

of the MDGs is that they are associated with measurable indicators of progress and an institutionalized system of reporting. The overall exercise of MDG monitoring has led to making publicly available a reliable and comparable set of country health statistics. Indeed, it is now possible to access child mortality and health intervention coverage data for a vast majority of countries. Moreover, these data are often accompanied by explicative information on definitions, sources, methodologies for estimation, and possible sources of errors.

However, the increased focus on tracking progress has drawn attention to a number of interrelated policy, technical, and operational challenges, and to the underlying weaknesses of country health information systems upon which reliable monitoring depends. For example, if MDG monitoring generates good descriptive evidence of progress or stagnation, it falls short on analytic capacity. It is not possible to provide a well-documented explanation on how much diminishing resources in health care are associated in full or in part with deteriorating health outcomes. The absence of subnational health data also limits the possibilities for documenting relative changes and mapping inequalities at country level.

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Policy challenges

From a policy perspective, the MDG targets and indicators have played an important role in drawing attention to critical health and development needs, and in monitoring responses at the global and country levels. However, there are inherent tensions in the monitoring process that need to be managed. One of these tensions is the balance between global and country reporting. From a global perspective, the emphasis is on cross-country comparability - which countries are on track to achieve the goals and which are faltering. From this perspective, it is critical that the indicators be generated using standardized definitions and data collection approaches, and that there be agreed methods for filling data gaps.

However, from a country perspective, cross-country comparability is less relevant than ownership, representativeness, and variations among various population groups. Policy-makers at country level also need to be able to monitor the effectiveness of their policies and programmes - what works and what does not - for which the evidence base is currently quite limited.

Ideally, the identification and generation of global indicators should respond to country needs and emanate from country health information systems. In practice, it is not always the case that global and country needs coincide in the same indicators. Part of the difficulty is that many indicators - those which are most needed at country level and which are most relevant to improving performance - may not be the same as those needed for global tracking.

An added level of complexity relates to the relevance of the MDGs at the subnational level. This issue has generated considerable discussion in the context of equity. As has been pointed out by Gwatkin (1), achieving the MDGs at the national level is not the same as achieving the MDGs for all. Although the global health community has necessarily focused largely on the national level in the context of global reporting, within countries there is an urgent need to address progress among particular population groups or in particular areas of the country.

Technical challenges

From a technical perspective, the simplicity and focus of the MDG indicators mask some significant challenges. Most of the MDG health-related indicators are complex and difficult to measure because country health information systems are weak and fragmented, having suffered from a history of underinvestment.

For example, reliable annual reporting on adult mortality - number of deaths by age, gender, and cause - is possible only where there is comprehensive and accurate recording of deaths and medical certification of causes of death. Such reporting exists for only 78 countries - covering approximately one third of the world's population, mostly people living in high-income countries. For the remaining countries, estimates of mortality are indeed just estimates - based on incomplete data, extrapolation of trends, and modelling. These are precisely the countries where the overall burden of disease is greatest and where sound data are most urgently needed to guide policy formulation and programme implementation.

Attempts are being made to improve cause-of-death reporting through the use of verbal autopsy techniques, where family members and others provide lay information on the causes and circumstances surrounding a death, and the resulting information is reviewed by a medical professional to assign cause. However, the reliability and validity of verbal autopsies remain unproven, especially in relation to newborn and premature adult mortality.

Estimating disease incidence and prevalence - such as that of HIV/AIDS, tuberculosis and malaria - is also problematic. Three prerequisites are essential for obtaining sound data on diseases:

- a reliable diagnostic test for the condition (a clinical test, a survey question, or a set of signs and symptoms);
- reliable ways of administering tests to representative population groups - for example, through household surveys or surveillance;
- agreed ways of adjusting for known biases in the information, or filling data gaps.

Unfortunately, one or more of these prerequisites is frequently missing. For example, although there is a reliable diagnostic test for HIV and the test can be administered at surveillance sites - or, increasingly,





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through population-based surveys - there continue to be uncertainties concerning how to correct for the biases inherent in both these data collection approaches.

The situation is more difficult with regard to other communicable diseases, such as malaria, where either reliable diagnostic tests do not exist or where there is no efficient way of delivering them to the general population. The identification of many disease conditions relies heavily on testing among people who voluntarily seek health care, although these people are known to represent only a fraction of those in need in developing countries.

An added complication is that health status indicators such as mortality and disease prevalence are slow to respond to programme inputs because they reflect a variety of contextual, environmental, and programmatic factors, which makes them very insensitive to change. Reductions in child or maternal mortality, for example, require long-term, multisectoral efforts that address not only the health system requirements for prevention and care, but also more indirect determinants such as family and community practices and the socioeconomic and cultural context.

Fortunately, in addition to the hard-to-measure health status indicators, the MDG indicators include several programme coverage indicators such as immunization coverage, use of maternity care, and condom use. Programmatic indicators have a number of advantages over outcome indicators, not least of which is that they are generally much easier to measure - by directly asking the people themselves through household surveys.

Moreover, to the extent that coverage indicators are shown to be associated with hard-to-measure outcomes, they can be used as intermediate measures of progress. Thus, for example, whereas malaria mortality is very difficult to measure with any degree of precision, the proportion of households using insecticide-treated bednets can be estimated through household surveys - and the use of bednets is known to be closely associated with both malaria prevalence and mortality.

On the other hand, heavy reliance on household surveys means that the costs of regular monitoring can be prohibitive. For frequent monitoring, it is essential to identify intermediate indicators that are readily measurable, at low cost, and sensitive to change. The selection of such indicators is a delicate exercise:

on the one hand, the indicator needs to be simple and easily measurable, but on the other hand, it cannot compromise too much in specificity, meaning it must remain a strong predictor of the health outcome in question.

Underlying the technical complexities related to the measurement of specific health indicators is a simultaneous need to be able to monitor the performance of the overall health system. But monitoring health system performance is difficult, and there are currently no universally agreed indicators of health system performance that can be monitored alongside the disease-focused indicators.

In the education sector a single indicator - primary school enrolment - is used as a proxy for overall performance of the sector. Having such a single, recognized measure of progress is useful for advocacy purposes and can facilitate communication with non-education specialists, such as ministers of finance (2).

Work is now under way within WHO and among partners to agree on a core set of health system metrics, including location and distribution of health facilities; location and distribution of key services (public health mapping); human resources level and distribution; financial information (expenditure, budgets, and health accounts); and drugs, equipment, and supplies (service delivery). Most information should be derived from administrative records, and thus be readily available on a regular and cost-effective basis.

Operational challenges

The reporting of MDG statistical information is often perceived as a burden on the national health information system. Many of the indicators are of limited use at the national level, and the effort to ensure cross-country comparability for global reporting requires statistical capacities that are not always available. Moreover, countries vary greatly both in the quantity and quality of health data available and, more seriously, in their willingness to generate and use sound data for decision-making. It has even been suggested that new approaches and mechanisms are needed to overcome the potential for conflict of interest when programmes or countries are responsible for monitoring their own progress (3).

Notwithstanding the practical difficulties and political implications, the MDGs have succeeded in focusing attention on the importance of sound data as a basis for public policy decision-making. There is universal acknowledgement that better use of health data will lead to better policy and health outcomes, including in areas of health currently not addressed by the MDGs (such as noncommunicable diseases). Importantly, making available information concerning the location, functioning, and performance of health services should also improve transparency and accountability in the management of the health sector.

International reporting obligations of Member States - including those associated with the MDGs - create opportunities to mobilize investments

in national information systems and serve as a good entry point for reform. The pressure to demonstrate sectoral performance and accountability for results is stimulating better linkages between data collection, analysis, and use in order to improve performance and accountability - especially at district level (4). Public health programmes that have built strong routine reporting systems, such as for immunization, polio eradication, and TB treatment, present a foundation upon which to build more integrated systems.

Health Metrics Network

Moving beyond building disease-specific information systems to strengthen national health information systems



overall requires the mobilization of all partners at country level, regionally and globally: hence the establishment of the Health Metrics Network (HMN), designed to capitalize on a variety of expertise and resources. The purpose of the HMN is to synergize donors and implementing agencies to reverse past

underinvestment in health information systems and to support their modernization and reform. More specifically, the HMN aims to address the technical, operational, and policy challenges by:

- forging consensus around technical approaches including tools, indicators, and analyses to drive the development of country health information systems and enhance access to and quality of data;
- providing technical and financial support to countries to strengthen their health information systems; and
- developing policies, systems and incentives to ensure access to and use of information for decision-making both at country level and globally.

Central to the philosophy of the HMN is the premise that strengthening country health information systems requires that all partners, both in country and in the donor community, come together around an agreed set of standards that focus actions and guide the overall direction of reform. By bringing together all partners (including donors and technical agencies) around a country-owned plan for health information, it will be possible to reduce overlap and duplication and seriously address some of the policy, technical, and operational constraints that impede effective national and global monitoring - including that of the MDGs.



Conclusion

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information is important not only to the health sector, but also to other sectors. Additional efforts to streamline data production across sectors - both technically and operationally - will improve capacity to compare progress and achievement. Moreover, consideration of MDG data should not be monolithic. Rather, only cross-tabulation and trend-comparison of indicators - within and across MDG goals and targets - can identify priorities.

- 1 - Gwatkin DR. How much would the poor gain from faster progress towards the Millennium Development Goals for health? *Lancet*, 365:813-817(<http://www.lancet.com>, accessed 27 April 2005)
- 2 - Health Metrics Network funding proposal, Annex A, 1 September 2004.
- 3 - Murray CJL et al. Monitoring global health: time for new solutions. *British Medical Journal*, 2004, 329:1096-1100 (http://bmj.bmjournals.com/cgi/reprint/329/7474/1096?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&andorexactfull-text=and&searchid=1112876550903_8943&stored_search=&FIRSTINDEX=0&sortspec=relevance&volume=329&firstpage=1096&esourcetype=1, accessed 27 April 2005).
- 4 - The Tanzania Essential Health Interventions Project, Dar es Salaam, Tanzania, info@tehip.ortz (http://www.idrc.ca/en/ev-64404-201-1-DO_TOPIC.html, accessed 27 April 2005).