

# Structuring information and incentives to improve health

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In human societies, the method by which any phenomenon is measured shapes the collective perceptions of it. Within the health sector, choices made in the collection and use of information will determine the system's effectiveness in detecting health problems, defining priorities, identifying innovative solutions and allocating resources to improve health outcomes (1).

Despite these fundamental realities, there has been little awareness so far of the potential ramifications that improved use of information can have for advancing the cause of health. Even less attention has been given to the development of systems needed to provide timely, accurate and relevant information. This issue of the *Bulletin* reflects a growing recognition of the importance of investing in health information systems (HIS) for the developing world.

Global infectious threats such as severe acute respiratory syndrome and avian influenza, scrutiny of progress towards the Millennium Development Goals, and performance-based release of donor funding have all contributed to this increased awareness of the need for evidence. "Basket" funding and sector-wide approaches to development assistance for health place pressures upon countries to seek evidence for establishing priorities. Decentralization and devolution of budgetary controls have shifted much of this growing burden to the periphery, requiring districts to provide local health statistics as a basis for decisions. Increases in the global investment to control AIDS, tuberculosis and malaria have begun to lift the historical financial barriers, but have brought into sharper focus the dual underlying constraints of human resources and health information.

Better information supply and use within countries have been shown to deliver cost savings, system efficiencies (including increases in quality and

coverage) and even improved health outcomes (2). Information from the HIS has also been used in many developing countries to hold politicians accountable for health indicators and to advocate for increases in overall resources for health (2, 3).

Few studies have established the cost of improved information. Salaries, which account for more than 90% of HIS costs, are expenditures that are already being made in most settings. So the marginal cost of improvements and improved decision-making can be modest, primarily comprising the costs of planning, training, technical assistance and information technology upgrades. The costs for a comprehensive HIS (census, vital events monitoring, service statistics, surveillance, periodic surveys, and resource tracking) have been estimated to be in the range of US\$ 0.50 (for low-income countries) to US\$ 3.00 (in middle-income countries) annually per capita, including salaries, planning and information technology (2), according to Rommelmann et al. (pp. 569–577). Although these costs might represent a substantial portion of the budget for health in many countries, they may be fully offset or even exceeded by the savings from the resulting improvements in efficiencies in the health-care system.

The Tanzania Essential Health Interventions Project (TEHIP) measured both the cost and the effectiveness of investment in information systems (including technical support for district level decision-making) in improving health outcomes. The cost-effectiveness of these HIS improvements in reducing child mortality in the United Republic of Tanzania has been calculated to be US\$ 68.50 per disability-adjusted life year (DALY) gained (2). Even in the poorest countries, this is well below the gross national product per capita benchmark for what is considered worthwhile for government investment in health.

These calculations of the cost-effectiveness of investments in an HIS for child health are highly conservative, since the investments in HIS can drive improvements in resource allocation and health outcomes across a much broader range of interventions and population groups.

More than ever before, it is in the mutual interest of both the developing and industrialized worlds to invest in strengthening systems for collection and management of health information. Towards this objective, the Health Metrics Network has been established as an alliance of countries and agencies committed to a parsimonious "framework" of standards for HIS policy, for system design and development and for the sharing and use of information. The broad donor and developing country support for the network reflects a growing commitment to transfer the "power" of shared information to stakeholders — including both government and civil society — in the developing world.

Although historically neglected, investments in comprehensive development of the HIS will clearly deliver good value for money. HIS improvements can accelerate broad improvements in health if they are engineered to reflect, reinforce, evaluate and even drive improved performance. It is intriguing to think that investments in the HIS could make health the "leading edge" in the evolution towards more stable and just societies, by creating new norms and a "culture of evidence" among government officials and overcoming the natural disincentives to transparency and accountability (3). HIS investments hold promise, therefore, not only of transforming public health, but also of accelerating progress towards good governance in every sector. ■

### References

Web version only, available at: <http://www.who.int/bulletin>

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