

# MONITORING THE BUILDING BLOCKS OF HEALTH SYSTEMS:

A HANDBOOK OF INDICATORS AND  
THEIR MEASUREMENT STRATEGIES



**World Health  
Organization**



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# Abbreviations

ARV	antiretroviral
DQAF	Data Quality Assessment Framework
GAVI	Global Alliance on Vaccines Initiative
GDDS	General Data Dissemination Strategy
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GDP	gross domestic product
GGE	general government expenditure
GGHE	general government expenditure on health
HAI	Health Action International
HISPIX	Health Information System Performance Index
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
HMIS	Health Management Information System
HMN	Health Metrics Network
HRIS	Human Resources Information System
IHP+	International Health Partnership and related initiatives
ICPD	International Conference on Population and Development
IHR	International Health Regulations
IMCI	Integrated Management of Childhood Illness
IMF	International Monetary Fund
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification of all Economic Activities
MDG	Millennium Development Goal
MSH	Management Sciences for Health
NHA	National Health Accounts
NGO	nongovernmental organization
NMP	National Medicines Policy
OECD	Organisation for Economic Co-operation and Development
OOP	out-of-pocket spending
PEPFAR	United States President's Emergency Plan for AIDS Relief
SHA	System of Health Accounts
THE	total expenditure on health
TPE	total pharmaceutical expenditure
USAID	United States Agency for International Development
WHO	World Health Organization

# Introduction and objectives of the handbook

In recent years, significant progress has been achieved in delivering health-related interventions that are designed to achieve goals relating to improving maternal and child health, and reducing mortality and ill-health due to HIV/AIDS, tuberculosis and malaria. It is increasingly apparent, however, that the gains have been neither universal nor sufficiently broad-based and sustainable. Progress at the national level has not necessarily resulted in gains for most vulnerable population groups; in some instances, progress has stagnated or been reversed. There is mounting evidence that health systems that can deliver services equitably and efficiently are critical for achieving improved health status. Thus, many global health initiatives now incorporate attention to health systems strengthening in the support they provide to countries.

While this increased attention to the strengthening of health systems is welcome, it would not be sustainable in the absence of a sound monitoring strategy that enables decision-makers to accurately track health progress and performance, evaluate impact, and ensure accountability at country and global levels. Moreover, the use of results-based financing mechanisms by major global donors has created a further demand for timely and reliable data. There is also increasing in-country demand for data in the context of annual health sector reviews.

Information is needed to track how health systems respond to increased inputs and improved processes, and the impact they have on improved health indicators. This implies the need to define core indicators of health system performance while developing and implementing appropriate sustainable measurement strategies to generate the required data. However, on the supply side, there are major gaps in data availability and quality. Few developing countries are able to produce data of sufficient quality to permit the regular tracking of progress



in scaling-up health interventions and strengthening health systems. Data gaps span the range of “input”, “process”, “output”, “outcome” and “impact” indicators: e.g. few countries carry out regular national health accounts studies; data on the availability and distribution of health workers are often incomplete, inaccurate and out of date; few countries have systems that can monitor service delivery; and data on population access to essential services are limited.

## What is a health system?

A health system consists of all the organizations, institutions, resources and people whose primary purpose is to improve health.<sup>1,2</sup> This includes efforts to influence determinants of health as well as more direct health-improvement activities. The health system delivers preventive, promotive, curative and rehabilitative interventions through a combination of public health actions and the pyramid of health care facilities that deliver personal health care — by both State and non-State actors. The actions of the health system should be responsive and financially fair, while treating people respectably. A health system needs staff, funds, information, supplies, transport, communications and overall guidance and direction to function. Strengthening health systems thus means addressing key constraints in each of these areas.

## Frameworks for monitoring health systems performance

The multifaceted nature of health systems and the spread of direct and indirect responsibilities across multiple sectors, pose challenges in monitoring performance. In response, over the past several years, the World Health Organization (WHO) and its partners have been working to reach a broad-based consensus on key indicators and effective methods and measures of health systems capacity, including “inputs”, “processes” and “outputs”, and to relate these to indicators of “outcome”. It is widely known that there are many potential advantages of a harmonized approach to health systems monitoring and evaluation, including reduced transaction costs, increased efficiency, and diminished pressures on countries. However, there are also identified practical issues to be addressed before greater harmonization can become a reality. The existence of multiple analytical and strategic frameworks for health systems results in considerable potential for duplication, overlap and confusion.<sup>3</sup> Existing frameworks include the WHO framework for health systems performance assessment (1); the World Bank control knobs framework (2); and the WHO building blocks framework (3). Such frameworks have varying starting points, resulting in emphases on different outcomes to be tracked. Work is on to develop conceptual frameworks for health systems strengthening and to create a taxonomy that would permit clarification of the indicators, data sources and collection methods, and the analytics underpinning monitoring and evaluation. However, the choice of the strategic framework does not necessarily substantively affect the monitoring and evaluation strategy. There are many commonalities in the various strategic frameworks for health systems that permit a coherent approach to the choice of indicators and measurement strategies.

## Health systems framework and building blocks

This handbook does not attempt to cover all components of the health system or deal with the various monitoring and evaluation frameworks. Instead, it is structured around the WHO framework that describes health systems in terms of six core components or “building blocks”: (i) service delivery, (ii) health workforce, (iii) health information systems, (iv) access to essential medicines, (v) financing, and (vi) leadership/governance (see Figure 1).

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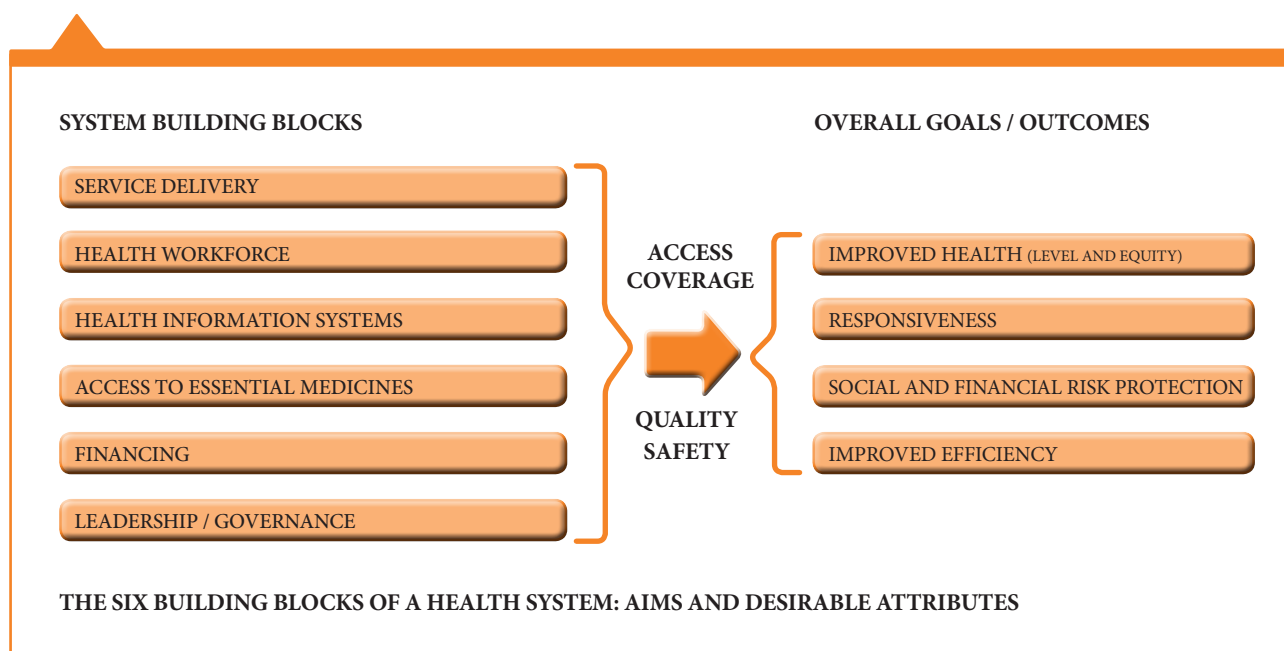
1 World Health Organization, <http://www.who.int/healthsystems/about/en/> accessed June 2010.

2 The terms “health system” and “health sector” are often used interchangeably with the latter interpreted as restricted to the actions of the government. This handbook focuses on aspects of the health system that are under the responsibility of ministries of health, including the provision of personal health services by both State and non-State actors.

3 For a recent overview see Shakerishvili G. *Building on health systems frameworks for developing a common approach to health systems strengthening*. Prepared for the World Bank, Global Fund to Fight AIDS, Tuberculosis and Malaria, and GAVI Alliance, Technical Workshop on Health Systems Strengthening, Washington, DC, June 25–27, 2009.



**Figure 1. The WHO Health Systems Framework**



Source: (3)

The six building blocks contribute to the strengthening of health systems in different ways. Some cross-cutting components, such as *leadership/governance* and *health information systems*, provide the basis for the overall policy and regulation of all the other health system blocks. Key input components to the health system include specifically, *financing* and the *health workforce*. A third group, namely *medical products and technologies* and *service delivery*, reflects the immediate outputs of the health system, i.e. the availability and distribution of care.

Inevitably, any type of division of a complex construct such as the health system is fraught with problems. This is also true for the framework, which focuses on health sector actions and underplays the importance of actions in other sectors. It does not take into account actions that influence peoples' behaviours, both in promoting and protecting health and the use of health-care services. The framework does not address the underlying social and economic determinants of health, such as gender inequities or education, and also does not deal with the substantial and dynamic links and interactions that exist across each component.

On the other hand, focusing on these separate components helps put boundaries around this complex construct and permits the identification of indicators and measurement strategies for monitoring progress.

## **Towards a common monitoring and evaluation framework**

Interest in a common monitoring and evaluation framework was stimulated as a result of the International Health Partnership and related initiatives (IHP+).<sup>4</sup> Launched in September 2007, the IHP+ aims to better harmonize donor funding commitments, and improve the way in which international agencies, donors and developing countries work together to develop and implement national health plans. The IHP+ has developed a common monitoring and evaluation framework to enable targeted monitoring and evaluation of health system strengthening efforts (Figure 2). This framework is country-focused and supportive of country needs while also providing a basis for global monitoring.

4 For more information, visit <http://www.internationalhealthpartnership.net/en/home>, accessed May 21, 2010.