

Toolkit on monitoring health systems strengthening

HEALTH SYSTEMS FINANCING

DRAFT



**World Health
Organization**

June 2008

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1. Introduction

Health financing is fundamental to the ability of health systems to maintain and improve human welfare. At the extreme, without the necessary funds no health workers would be employed, no medicines would be available and no health promotion or prevention would take place. However, financing is much more than simply generating funds. To understand the nature of the indicators that can be used to monitor and evaluate health system financing requires explicit assessment of what it is expected to achieve.

Health financing refers to the “function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system... the purpose of health financing is to make funding available, as well as to set the right financial incentives to providers, to ensure that all individuals have access to effective public health and personal health care” (WHO 2000).

The goals can be expressed in various ways, but there is general consensus that health financing systems should not only seek to raise sufficient funds for health, but should do so in a way that allows people to use needed services without the risk of severe financial hardship – often called financial catastrophe – or impoverishment.¹ This implies two related objectives: to raise sufficient funds and to provide financial risk protection to the population. These objectives will be easier to obtain if the available funds are used efficiently – so efficiency in resource is usually taken as a third objective. As a result, the financing system is often divided conceptually into three inter-related functions – revenue collection, fund pooling, and purchasing/provision of services. Before focusing on measurement strategies and indicators for these functions it is important to understand the key components of each of them.

In most low-income and many middle-income countries, revenue collection derives from a mix of domestic and external sources. Despite the substantial increases in external assistance for health since 2000, the resources available are still insufficient in most low-income settings to assure universal coverage with even a very basic set of needed interventions. This is not the place to debate exactly how much is needed, but adjustment of Commission on Macroeconomics and Health estimates of the cost of a core package to current prices reveals a need for around US\$40 per person per year. This is an underestimate for many reasons², but even then, almost a third of the 193 member countries of WHO did not yet have access to even this level of funding in 2005, while 33 spend less than \$25 per person each year despite increased external inflows. An ideal indicator of this part of the financing system would need to capture the amount and the adequacy of the funds that are raised.

Financial risk protection is determined by how funds are raised and whether and how they are pooled to spread risks across population groups. Direct user-charges, for example, are regressive – the rich pay the same fees as the poor. They deter some people from seeking or continuing care. They also provide no financial risk protection, in that people pay when they are sick and do not pay when they are healthy. As a result of this lack of solidarity, some people incur financial hardship and can even be pushed below the poverty line. Financing policy must grapple with questions of how to raise funds equitably, which usually implies a degree of progressivity (where the rich contribute a higher proportion of their income than the poor). It also needs to consider how to ensure access to needed services while protecting people against the more severe financial consequences of paying for care. These goals cannot be achieved without some form of prepayment and the subsequent pooling of the

¹ In 2005, the countries that are members of WHO endorsed a resolution urging governments to develop health financing systems aimed at attaining and maintaining "universal coverage" - described as raising sufficient funds for health in a way that allows access to needed services without the risk of financial catastrophe.

² The original estimates did not include antiretroviral drugs for HIV, interventions for non-communicable diseases or a variety of health system strengthening costs essential to being able to deliver the package. Moreover, it assumes that only the interventions in the core set will be provided.

collected revenues – people pay into a pool when they are healthy and can draw on these funds when sick. Pooled funds can come from tax or health insurance contributions and in most countries they come from a mix. Indicators in this area need to capture the extent to which people are protected from the financial risks associated with ill health. It would also be valuable to measure the extent of progressivity in the way that prepaid funds for health (e.g. taxes and insurance premiums) are raised.

The third objective is to ensure efficiency in resource use. This is complex covering questions about how to reduce waste and corruption; what interventions should be available for the available resources; whether services should be provided by government or purchased from the non-government sector; how providers (e.g. health workers, hospitals etc) should be paid to ensure quality and efficiency; and whether to target specific types of services or incentives at the poor. Because of the multiple dimensions, it is not particularly easy to define a single, easily understandable indicator of efficiency for health system financing, something to which we return subsequently.

2. Sources of information on health system financing

The national government's total budget and the part allocated to health are both usually public information and can be used to evaluate the government commitment to health in total amount as well as proportional to other priorities. A planned budget however, while an important indicator of commitment can differ significantly from the funds that are eventually released to departments and the subsequent expenditures.

In most countries, information on government health expenditures channelled through the Ministry of Health is usually available through the Ministry of Finance (MoF), or regional authorities in decentralized systems. Government expenditures for health that are channelled through non-health ministries, such as military or police health services are sometimes more difficult to attain. While budget information is available in "real time", there is often a delay of a year or so in the production of consolidated expenditure accounts. Public expenditure reviews, if they are available, are often an excellent source of information. They collate information from various sources to ask questions about whether government expenditures followed budget plans and stated strategic objectives. Sometimes they seek to examine the efficiency of resource use, though in very broad terms, as well as the ability of the financial management and accounting systems and institutions to track expenditures.³

Information on commitments to official development assistance for health made by donor countries, international organizations and some foundations have been collated by the OECD for many years, and they have reported what they believe to be reliable disbursement data since 2002.⁴ This information is available by donor and by recipient country, but caution needs to be taken when using it. Firstly, part of the reported disbursements – a large part in some cases – does not reach the recipient countries and should not be included in estimates of country health expenditure. For example, payments for technical support to countries, payments generally made to nationals of countries other than the recipient country, funds which are generally spent outside the recipient country, are included. Secondly, there has been an increasing move towards general budget support to countries, which is difficult to allocate to the different sectors. General budget support is reported in a separate section in the OECD database, and some way of allocating this between the different sectors needs to be devised. Thirdly, some emerging donors such as China and India, and some private philanthropists, are not included.

It is better to track expenditure from external sources at the country level, but this is often difficult especially where this funding is channelled through non-governmental organizations (NGOs) or the

³ Probably the bulk of public expenditure reviews have been sponsored by the World Bank and DFID to date - see, for example, http://www.opml.co.uk/services/public_expenditure_reviews/index.html.

⁴ <http://stats.oecd.org/wbos/Default.aspx?usercontext=sourceoecd>

private sector. Many countries do not require external donors or NGOs to report their in-country expenditures, or if they are required to submit budgets with proposals at the time they gain permission to work in the country, there is no database where this information is systematically captured nor where actual expenditures are recorded. This also applies to domestic NGOs and other charitable organizations supporting the health sector, where it is often difficult to track expenditures.

National-level expenditures as a result of third-party payments (e.g., from insurance and/or social security) may be available from fund managers. If third-party payers are primarily small community-based organizations, such as community-based health insurance funds, compiling expenditure information is much more difficult.

Information on household out of pocket (OOP) expenditures is only available from household surveys. The World Bank has sponsored Living Standards Measurement Surveys (LSMS) since 1980 from which information on household health expenditures can be extracted (<http://www.worldbank.org/LSMS>) and the World Health Surveys sponsored by WHO in 2000-2001 also contained a household expenditure module (<http://www.who.int/healthinfo/survey/whsresults/en/index.html>).⁵ Many countries undertake household income and/or expenditure surveys of various types from which some information on health expenditures can be gleaned. There is considerable variability in the types of questions used to obtain household health expenditures, making comparability across countries and over time in the same country quite difficult. As a longer run goal it is important to obtain agreement on a standard instrument that would enhance comparability, either for independent surveys or to piggy-back onto other household surveys carried out for various other reasons.

National Health Accounts (NHA): Despite these qualifications, the best source of health expenditure data is from national health accounts which combines expenditure data from all sources and through all types of financial agents. The System of Health Accounts (SHA) developed by the OECD for its countries has become, more or less, the internationally agreed classification standard although some country analysts prefer to use variations on this theme, including a technique called national account sub-accounts. In general, it is possible to modify the figures emerging from one method to make them consistent with the other. More recently, WHO/World Bank/USAID developed a guide to undertaking national health accounts in low income countries based on SHA, adapting it in some ways to meet the needs of low income countries.⁶ Application of the methods in a variety of settings has resulted in collaboration between OECD, Eurostat and WHO to revise SHA with the goal of making it more appropriate to countries at all income levels.⁷

Some countries undertake regular NHA studies. Others have undertaken one or two studies, but do not undertake them routinely, while still others have yet to undertake a full NHA exercise. In the latter case, data on health expenditures need to be collated from various sources. WHO works with countries to collate information from these sources which, combined with the information provided by countries who have undertaken NHA studies, allows annual reports of selected health expenditure aggregates for 192 of its 193 member countries.⁸ These figures also form the basis of the health expenditure data reported in the World Bank's World Development Indicators.⁹

Support to countries seeking to develop better information on health expenditures is currently provided from various sources, including the USAID supported Health Systems 20/20 project, WHO and the Swedish aid agency SIDA, though there is still some way to go to have full NHA analyses institutionalized in all countries.

⁵ Demographic and Health Surveys (DHS) sponsored by USAID and UNICEF's Multiple Indicator Cluster Surveys (MICS) include modules on household assets, but not expenditures.

⁶ www.who.int/nha/docs/English_PG.pdf

⁷ www.who.int/nha/methods/en/index.html

⁸ www.who.int/nha

⁹ www.worldbank.org then data and research

3. Core indicators

Building on the discussion in section 1) above, core indicators for the availability of funds and the extent of financial risk protection have been agreed at various fora¹⁰.

Recommended core indicator #1: Total Health Expenditure (THE) per capita in international and US\$

This indicator provides information on overall availability of funds. Sufficiency must be judged as a second step, in relation to country-specific estimates of the funds needed to ensure access to the desired level of services, or in terms of comparisons with other countries with similar levels of GDP per head. Some countries also seek to compare their total health expenditures as a proportion of GDP with those in other countries, so this is included in Table 1 as a possible additional indicator.

Definition

- Numerator: The sum of all health expenditures (ideally from National Health Accounts and including all sources of funds – external, government, and non-government including household OOPs).
- Denominator: Total population.

Data collection methodology

Country-specific reporting by the MoF/MoH/ other relevant ministries (for government expenditures), donors (for funding not channeled through the MoF/MoH), insurance fund managers (for third-party funding) and household surveys (for OOP expenditures) using National Health Accounts methodology. Population numbers should ideally be de facto rather than de jure population, with the most complete cross country source being the UN Population Division.

Periodicity

Health expenditures should ideally be calculated on an annual basis. Full surveys of household expenditure are quite expensive and might need to be done less frequently, with extrapolations in the inter-survey years.

Cost

The cost of initially producing NHA varies considerably depending on the information and bureaucratic structure already available and the need for external technical assistance. Experience in some countries has shown that the costs to pull together existing information for the first NHA could be as low as US\$ 50 000 to US\$ 75 000 with subsequent year costs largely related to producing recurrent statistics. This assumes that household expenditure surveys are already available and that international consultants do not do the bulk of the work. Initial costs include a) training personnel; b) ensuring adequate computers and office infrastructure; c) logistics related to explanatory meetings and training on completing reporting forms or collecting information; and d) development of reports templates relevant for national planning (WHO 2003b).

Recommended core indicator #1a: General government health expenditure as a proportion of total government expenditure (GGHE/GGE).

This is related to the question of how much funding is raised for health and reflects government commitment. African heads of state committed to ensuring that 15% of overall government expenditure goes to health in the Abuja Declaration of 2001. This can be taken as an aspirational goal,

¹⁰ Health System Metrics Technical meeting September 28-29 2006, Glion

although few of even the richer countries in the world currently achieve it. While it is difficult to justify why 15% is the ideal cut point, many countries still devote less than 4% of GGE to health suggesting low levels of government commitment.

Recommended core indicator #2: The ratio of household out-of-pocket payments for health to total health expenditures.

The ideal indicator of financial risk protection is the proportion of the population is incurring catastrophic health expenditure due to OOPs. A variation is the percentage that is impoverished as a result of out-of-pocket.

WHO has defined financial catastrophe for the last 8 years as direct OOPs exceeding 40 percent of household income net of subsistence needs. Subsistence needs are taken to be the median household's food expenditure in the country. Expenditures in excess of the 40% cut point generally require reallocation of household expenditures from basic needs, sometimes even from children's education¹¹. More recently, the World Bank has found it simpler to define financial catastrophe occurring when OOPs exceeds 10% of a household's total income. While this does not incorporate the progressivity allowed by the deduction of basic subsistence needs, it is probably simpler to estimate and seems to provide more or less the same estimates as the WHO method.

In most cases, it will be possible to estimate the incidence of financial catastrophe by income quintile, or by wealth quintile if a separate wealth or asset index can be constructed from the same household survey, to explore questions of equity. Indeed, in most developing countries, self reported total expenditure is regarded as a more reliable indicator of command over resources than self reported income, so these comparisons are usually made in terms of total expenditure quintiles.¹² In any case, such comparisons need to be interpreted carefully. In many countries the quintile with the lowest income (or lowest level of total expenditure) has a lower incidence of catastrophic payments than richer quintiles. This reflects the perverse nature of user fees. When people are very poor, they simply do not use services for which they have to pay, so do not suffer financial catastrophe. As they grow slightly richer, they begin to use services, but then suffer the adverse financial consequences linked to paying for care.

Definition

Number of households in each region where direct out-of-pocket payments to providers for health during the past 12 months was more than 40% of their household income net of subsistence, or 10% of their total income.

- Numerator: Household out of pocket expenditure for health during the past 12 months.
- Denominator: Household income. As argued above, in most developing countries it is accepted that self-reported total health expenditure is a more reliable indicator of household purchasing power than self-reported income, so this should be used as the denominator in those settings.

Data collection methodology

Household interview surveys.

Periodicity

The ratio is not likely to change dramatically over time unless there are substantial health financing reforms. In most countries, measurement each five years would be adequate.

¹¹ Xu, K., Evans, D.B., G. Carrin, A.M. Aguilar-Rivera, P. Musgrove, T.G. Evans. "Protecting households from catastrophic health expenditures", *Health Affairs*, 26(4):972-983, 2007.

¹² Xu, K, Evans D.B., P. Kadama, J. Nabyonga, P. Ogwang Ogwal, P. Nabukhonzo, A.M. Aguilar, "Understanding the impact of the elimination of user fees: utilization and catastrophic health expenditures in Uganda", *Social Science and Medicine*, 62(4):866-876, 2006.

Cost

The cost for undertaking a national level household survey with a sample size sufficient for regional level disaggregation specifically for the purpose of collecting health expenditure data varies widely depending on the existing in-country capacity. The range may be from \$350 000 to \$1 000 000 depending on the level of technical support required. However, usually health expenditure data would be collected as part of a broader income and expenditure survey, or as an added module in a broader health survey. Accordingly, the additional costs are likely to be relatively small. The main new cost will be incurred by personnel who analyze the data and produce the information for policy makers.

Despite the logic of using the incidence of financial catastrophe as the core indicator, it is sometimes argued that a simpler indicator of financial risk protection is the ratio of out of pocket spending to total health expenditure (OOPs/THE) – or the inverse, the ratio of prepaid expenditures (taxes and insurance) to THE. Undoubtedly there is a high correlation between this indicator and the incidence of financial catastrophe (and impoverishment), so we include this as the core indicator here.

While it may appear simpler, it requires exactly the same data from household expenditure surveys as the indicator on financial catastrophe described above. So if the surveys are available to estimate OOPs/THE, they are available to estimate the incidence of financial catastrophe. Experience has shown that policy makers can immediately see the political relevance of the incidence of financial catastrophe and/or impoverishment, whereas the ratio of OOPs to THE may not have the same immediate policy impact. For the purposes of discussion, at this stage we use OOPs/THE as the recommended indicator in table 1, with the incidence of financial catastrophe as an optional indicator. However, the preference ordering could easily be reversed.

At this stage, we are not recommending a core indicator to capture the efficiency of the health financing system because it is difficult to define a single indicator that is relatively simple to measure and easy to interpret. We have included the proportion of total government health expenditure spent on salaries as one possible optional indicator, but we need to emphasize that this needs to be interpreted very carefully. Certainly if this proportion is very high, health workers will not have sufficient drugs or other inputs to be able to do their jobs properly. However, in some countries this proportion is low because governments choose to contract out the provision of services to the private sector or NGOs rather than employ their own personnel. In this case, the proportion spent on salaries seems to be very low because payments to external contractors do not appear as salaries. It then is not a very useful indicator of efficiency.

In addition, we have suggested some optional indicators that could be measured depending on the capacity of the country. Some reflect processes or outputs, while some are more related to outcomes. They are summarized in Table 1 below, with appropriate comments in the text.

Needs assessment for institutionalizing collection of data for monitoring finance indicators

Since THE is currently being reported for 192 of the 193 WHO member countries, the primary need is to improve the quality of the information that is already being collected, and to strengthen the institutionalization of the generation and utilization of this information. This requires regular and accurate reporting of government expenditures at all levels of government, regular household expenditure surveys, and some method of routinely tracking expenditure by NGOs, faith-based organizations, philanthropies and the private sector.

WHO has identified four steps essential to the process of institutionalization of NHAs (WHO 2003). These are a) Creating demand on the part of policymakers for institutionalization; b) Determining a location where NHA is housed; c) Establishing standards for data collection and analysis; and d) Instituting data reporting requirements.

The process for institutionalizing NHA requires an assessment of existing infrastructure and systems.

Critical information includes:

- 1) Government and stakeholder commitment to NHA as indicated by such steps as delegation of responsibility for generating NHA to a specified body and allocation of a budget for implementation.
- 2) An assessment of existing human resources numbers and capacity, and infrastructure for generating NHA data.
- 3) Clarity of health financing mechanisms including funding sources, processes for channelling funds, and information on where information on external health funding and third-party funding is available including if it is provided to any central or coordinating body. An assessment of the process currently used by WHO for NHA estimates for the country and identification of which data is weakest or least reliable should provide this information.
- 4) Identification of problems with regards to transparency in national or donor health funding, and the need for policy changes or advocacy to improve this.
- 5) Development of an audit function within the NHA to periodically assess the completeness and accurate of the submitted or collected information is, with a systematic strategy for feedback to the data sources to improve availability and quality of needed information.

4. Using the financial indicators for health system strengthening

In general, THE should be rising both in absolute terms and as a proportion of GDP in low income countries, while the proportion of households facing financial catastrophe as a result of OOPs should be falling.

Other types of uses are suggested below. For example:

- 1) Is the THE per capita within the range defined internationally to be potentially reasonable to allow universal coverage of key health interventions (e.g., at least \$40 per capita)?
 - a. Is the percentage of the national budget that goes towards health reasonable given the national situation? Does it reflect a strong government commitment to health?
 - b. What proportion of THE is dependent on external funding which might not be sustainable in the long run? What steps can be taken domestically to raise additional funds for health?
 - c. Where THE is high, is this reflected in health outcomes? If not, efficiency and quality of service issues need to be reviewed. Also transparency and corruption issues may be relevant.
- 2) What policies or implementation practices are needed to decrease catastrophic expenditures?
 - a. What does the assessment of OOP catastrophic expenditure show in terms of health finance mechanisms that contribute to, or hurt, equity in financing health. What other options are there to improve equity?
 - b. Are existing health finance policies being implemented in a transparent manner (e.g., are the households receiving exemptions or subsidized services and medicines if they are eligible?).
 - c. Are there regional disparities that need to be addressed separately?

HSS Building Block	Objectives and actions	Possible Output Indicators	Data Sources	Associated Outcome Indicators
Health system financing	<p>1. Raising sufficient funds for health. In low income countries this must come from external and internal sources. More, and more reliable, external funds are needed in most countries, but more can be done to raise funds, or raise them more efficiently, domestically.</p>	1. Data on total health expenditures routinely collected and reported	1. National health accounts	<p><i>Core:</i> C1. total health expenditure (THE) per capita in international and US\$ C2. government health expenditure (GGHE) as % total government expenditure <i>Optional:</i> O1. total health expenditure as % GDP</p>
	<p>2. Improvement of financial risk protection and coverage for vulnerable groups. In most countries this requires moving away from direct out of pocket payments and towards a form of prepayment with risk pooling – tax or insurance – based.</p>	<p>2a. Patient / household out of pocket expenditures of accessing or obtaining services collected intermittently. 2b. In countries with widespread health insurance: Number (%) of people/ households covered by health insurance, by population group and specifically for poor/vulnerable groups</p>	<p>2a. household expenditure and utilization surveys 2b. health insurance enrolment records</p>	<p><i>Core:</i> C3. OOPs as % THE <i>Optional:</i> O2. % households impoverished annually by OOPs, by expenditure quintile</p>
	<p>3. Improvement in the efficiency of resource utilization</p>	<p>3a. Information on government expenditures on wages and salaries readily available 3b. Availability of data on government expenditure on priority problems, by level of government.</p>	3. government expenditure accounts	O3. government expenditure on wages and salaries as % GGHE
	<p>4. Improved financial transparency and management at operational levels</p>	4. Number and % of facilities meeting established national financial management criteria	4. audit office	

Annex: selected tools

Selected tools

- CHOICE costing tools for scaling up: <http://www.who.int/choice>
(CHOosing Interventions that are Cost Effective – to estimate the financial costs of scaling up a package of interventions over the medium term)
- Country health expenditures database: <http://www.who.int/nha>
- *Guide to producing national health accounts with special applications for low-income and middle-income countries.*
World Health Organization, World Bank, USAID, Geneva, 2003 [<http://www.who.int/nha/docs>].
- *Making choices in health: WHO guide to cost-effectiveness analysis.*
Tan-Torres Edejer T, Baltussen R, Adam T, et al. (eds.).
World Health Organization, Geneva, 2003 [<http://www.who.int/choice/book>].
- OASIS (*forthcoming*): http://www.who.int/health_financing/tools
(Organizational Assessment for Improving & Strengthening Health Financing – to analyse performance of a health financing system by assessing key design issues and implementation, identify bottlenecks in the way institutions and organizations function and help in finding institutional and organizational alternatives.)
- SimIns: http://www.who.int/health_financing/tools/simins
(SimIns is a computerized tool to aid in health financing policy decision-making. It projects health expenditure and funding and allows to evaluate alternative mixes of financing sources.)

Background documents

Health expenditure

- A System of Health Accounts.
OECD, Paris, 2000 [<http://www.oecd.org/health/sha>].

Financing policy

- *A descriptive framework for country-level analysis of health care financing arrangements.*
Kutzin J.
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<http://www.journals.elsevierhealth.com/periodicals/heap/article/PIIS0168851000001494>
- *Approaching health financing policy in the European Region (EUR/RC56/BD/1)*
World Health Organization, Regional Committee for Europe, Fifty-sixth session, Copenhagen, 2006
http://www.euro.who.int/Governance/RC/RC56/20060622_1.

- *An overview of health financing patterns and the way forward in the WHO African Region*
Kirigia JM, Preker A, Carrin G, Mwikisa C, Diarra-Nama AJ.
The East African Medical Journal, Vol 83 (8), 2006 (Supplement)
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- *Community-based health insurance in developing countries: a study of its contribution to the performance of health financing systems*
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[<http://www3.interscience.wiley.com/journal/118667685/issue>].
- *Contracting and health services – special theme issue*
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- *Health financing: a strategy for the African region (AFR/RC56/10)*
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[http://www.who.int/health_financing/documents/cov-afrostrategy].
- *Health financing policy: a guide for decision-makers – health financing policy paper*
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- *Health financing revisited: A practitioner's guide*
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World Bank, 2006
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- *Cost valuation in resource-poor settings*
Hutton G, Baltussen R.
Health Policy and Planning, 2005, 20(4): 252-259
[<http://heapol.oxfordjournals.org/cgi/reprint/20/4/252>].
- *Health Systems Performance Assessment: Debates, Methods and Empiricism*
Murray CJL, Evans D (eds.).
Chapter 18: Monitoring the Health Financing Function
World Health Organization, Geneva, 2003 [http://www.who.int/health_financing/documents/cov-hspa].
- *Strategy on Health Care Financing for Countries of the Western Pacific and South-East Asia Regions (2006–2010)*
World Health Organization, Regional Office for South-East Asia & Regional Office for the Western Pacific, New Delhi & Manila, 2005 [http://www.wpro.who.int/sites/hcf/documents/hcf_strategy.htm].
- *Sustainable health financing, universal coverage and social health insurance*
World Health Assembly, Resolution 58.33, Geneva, 2005
[http://www.who.int/health_financing/documents/cov-wharesolution5833].
- *The impact of health expenditure on households and options for alternative financing (EM/RC51/4)*
World Health Organization, Regional Committee for the Eastern Mediterranean, Fifty-first session, Cairo, 2004 [http://www.who.int/health_financing/documents/cov-emrc-healthexpenditureimpact].

- *The role of contractual arrangements in improving health systems' performance*
World Health Assembly, Resolution 56.25, Geneva, 2003 [http://www.who.int/gb/e/e_wha56.html].
- *The World Health Report 2000 – health systems: improving performance.*
World Health Organization, Geneva, 2000 [<http://www.who.int/whr/2000>].

Financial catastrophe and impoverishment

- *Protecting Households From Catastrophic Health Spending*
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Health Affairs 26, no. 4 (2007): 972–983 [<http://content.healthaffairs.org/content/vol26/issue4>].
- *Designing health financing systems to reduce catastrophic health expenditure – technical briefs for policy-makers*
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- *Preventing impoverishment through protection against catastrophic health expenditure*
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Bulletin of the World Health Organization 2002, 80 (8)
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Related links

- International Consortium on Social Health Protection in Developing Countries: <http://www.socialhealthprotection.org>
- OECD data on health expenditures: <http://titania.sourceoecd.org/vl=1105119/cl=13/nw=1/rpsv/statistic/s37>
- WHO CHOosing Interventions that are Cost Effective (CHOICE): <http://www.who.int/choice>
- WHO Contractual arrangements in health systems: <http://www.who.int/contracting>
- WHO's Department of Health Systems Financing: <http://www.who.int/healthsystems/financing>
- WHO National Health Accounts: <http://www.who.int/nha>
- WHO Health Financing Policy: http://www.who.int/health_financing
- WHO Regional Office for Europe, health systems financing programme: <http://www.euro.who.int/financing>

- WHO Regional Office for South-East Asia, health care financing: <http://searo.who.int/EN/Section1243/Section1307.htm>
- WHO Regional Office for the Western PacificSouth-East Asia, health financing and social protection: <http://www.wpro.who.int/sites/hcf/overview.htm>
- WHO Statistical Information System (WHOSIS): <http://www.who.int/whosis>
- WHO health systems performance: <http://www.who.int/health-systems-performance>
- World development indicators 2008: <http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS>

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