

WEEK 3 UNDERSTANDING HEALTH SYSTEM GOALS AND SYSTEM PERFORMANCE

Objectives/learning outcomes

Students will be able to:

Recognise, understand and critically examine concepts of health system performance assessment.

Seminar: What are the normative implications of post-2000 functions for health systems

Health system performance assessment requires choice of functions and objectives. Four functions were laid down in the World Health Report 2000. What are their policy implications? 300 words for class discussion.

Lecture: Describing and evaluating health care systems

We saw in the previous lecture that policy objectives (including economic growth objectives) influence the ways in which health systems are conceptualized and defined. The same point holds true for health system performance assessment. Choices about evaluative frameworks and performance metrics depend on the wider context of government health policy goals (to the extent that these are clearly established).

Health systems are complex. They have a huge range of actors and possible purposes and functions. Governments assume different degrees of control over them. They can be analysed at a number of different levels (as a complete system or in terms of various sub-systems such as financing and administration, hospital systems or primary care) and there is a growing industry in international performance comparison. Common performance criteria are equity, effectiveness, efficiency and quality.

In this lecture we critically examine international attempts to standardize performance criteria noting the focus on outputs outcomes and benchmarking and the distancing of process measures.

Set reading

Nolte M, McKee M and Wait S (2005) Describing and evaluating health systems. In Bowling A and Ebrahim S (eds). *Handbook of health research methods*. Maidenhead: Open University Press.

Mills AJ, Ransom K (2006) *The design of health systems* in Merson MH, Black RE, Mills AJ (eds) *International public health, diseases, programs, systems, and policies*. Gaithersburg, MD: Aspen.

World Health Organisation (2005) *Strengthened health systems save more lives. An insight into WHO's European health systems' strategy*. Copenhagen: WHO.

Black N and Gruen R (2005) *Understanding health systems*. Maidenhead: Open University Press. (Section 5)

Braveman P (2006) 'Health disparities and health equity: concepts and measurement.' *Annual Review of Public Health*; 27: 167-94.

Lecture summary

Introduction

Health systems are complex with a huge range of actors and possible purposes and different degrees of government involvement. They can be analysed at a number of different levels (as a complete system or in terms of various sub-systems such as financing and administration, hospital systems or primary care) and there is a growing industry in international performance comparison.

The type of analysis affects the descriptive categories used. (For a standard account of the building blocks of health care systems students are referred to Black and Gruen (2005: 143ff)). Performance evaluation criteria frequently reflect the policy goals adopted by governments. Common performance criteria are equity, effectiveness, efficiency and quality.

Health system performance is a very broad concept and the framework for it depends on the type of questions asked and the goals governments have for health systems (to the extent that they profess to have any goals). In this lecture we will consider some of the main approaches to and problems associated with describing, comparing and assessing health systems.

Health system goals

Description and analysis are applied in the context of health system goals. What goal or goals do governments typically pursue?

So far as health *care* is concerned, the usual answer is some conception of 'equity'. However, 'equity' is a contested term. A basic distinction can be made between egalitarian and libertarian approaches to the question. Broadly speaking, an egalitarian approaches equity in terms of equality of access and a libertarian in terms of ability to choose. Egalitarian goals are associated with some form of cross-subsidisation or redistribution (risk pooling) involving the **mandatory** transfer of resources from those who are richer (and generally healthier) to those who are poorer (and generally sicker). Libertarians stress the right to choose in a market and may often oppose mandatory transfers (and therefore cross-subsidisation) which they argue are impediments to the proper operation of the market and lead to higher prices.

Although the choice agenda is being used to promote health system in many developed countries, the USA is virtually alone in elevating the market conception of equity above equity in the egalitarian sense (although the provision of federal and state funded health cover through Medicare, Medicaid and the Veterans Association mean that there is far from total reliance on the market). In consequence, health policy in the USA places great emphasis on the affordability of health services (that is, on the idea that market competition will drive down prices).

'Equity' is also applied in the wider sense of equity in health (not merely health *care*). Conceptions of this type of equity are also contested and Whitehead and Dahlgren (2007) have recently sought to clarify the definitions of equality and inequality in this context. (Margaret Whitehead has been hugely influential on this issue for more than 20 years and in the 1990 wrote the WHO's standard definition of equality).

Whitehead and Dahlgren argue that clarification is necessary for 3 reasons:

1. New evidence on social inequalities
2. New debates about how to measure health inequities
3. And the need to link principles to action (policy relevance)

According to Whitehead and Dahlgren (2007, Part 1), debates about the definition and measurement of health inequalities arise because the term has social and political connotations. They argue that social inequities in health (or 'social inequalities' in UK usage) have the following characteristics:

1. Systematic – the social gradient shows systematic differences between social groups
2. Socially produced, i.e. not biological
3. Unfair – the product of 'unjust social arrangements'.

Appeals to social produced injustice makes health inequality a function of *social class* rather than an individual responsibility. This view is challenged and in the next sub-section I examine the terms of this debate.

Understanding health inequity and challenges to its social class basis

The question of 'equity' in health is generally addressed by first defining health inequality or 'inequity'. Whitehead's 1990 formulation is generally cited as the classic statement:

the term 'inequity' as used in WHO documents refers to **differences in health which are not only unnecessary and avoidable but**, in addition, are considered **unfair and unjust**. Judgements on which situations are unfair will vary from place to place and from time to time, but one widely used criterion is the degree of choice involved. **Where people have little or no choice in living and working conditions**, the resulting health differences are more likely to be considered unjust than those resulting from health risks which were chosen voluntarily. The sense of injustice increases for groups where disadvantages cluster together and reinforce each other, making them very vulnerable to ill health. (Whitehead, 1991, emphasis added)

This understanding of inequity also informs the WHO's 1986 definition of 'equity':

"Equity in health implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should

be disadvantaged from achieving this potential, if it can be avoided"
(Quoted by Whitehead, 1991).

The point to emphasise in this definition is that our attention is drawn to avoidable differences that are also unjust. (We should also note that the choice concept is internal to this concept of 'inequity' because it is the operational term when evaluating the justice of a system).

The terms 'health inequalities' and 'health inequities' are often used to make this distinction. 'Health inequalities' are mere differences and 'health inequities' are unjustified differences. This is discussed by Leon et al (2001):

Inequalities in health, formally defined, refer to a broad range of differences in both health experience and health status between countries, regions, and socioeconomic groups. Most inequalities are not biologically inevitable but reflect population differences in circumstances and behaviour that are in the broadest sense socially determined. However, in industrialised countries such as the United Kingdom, the term "inequalities in health" has tended to refer to differences in health status between regions and population subgroups that are regarded as inequitable.

Health inequities, formally defined, are avoidable inequalities that are unfair and unjust. In reality, however, the term is mainly applied to unfair and unjust differences in access to health services between regions and population subgroups within a country. In developing countries, inequities in access have been the dominant preoccupation of those working on health inequalities and inequities.

However, as Braveman (2006) points out, for practical purposes a conception of injustice is implicit in both terms: 'In Europe and most other regions of the world, health inequalities have implicitly been understood to refer to health differences between better- and worse-off socioeconomic groups.' Since socio-economic position is not a matter of choice, health inequalities between classes are generally seen as unjust.

(Students should be alert to variations in emphasis: 'In countries such as the United Kingdom, Sweden, and the Netherlands, much of the research on inequalities in health has focused on the mechanisms that generate socioeconomic gradients in ill health and mortality. From this perspective, inequalities in health are mainly a function of the aetiology of disease, and the policy solutions that arise are around primary prevention. In low and middle income countries, by contrast, people working on inequalities in health tend to see the problem as one of devising policies to ensure more equitable provision of health care (Medact, 2003, Global Health Studies: teaching pack. Available from www.medact.org.uk)').

But is the divide between classes the right measure of health inequity? How the social class gradient has been challenged.

Whilst Whitehead's and the WHO's definition has been described as succinct, intuitive, and easily understood (Braveman, 2006) and for many years provided a strong policy steer, Braveman points out that in the late 1990s there arose a challenge to the idea that the relevant differences are between 'better- and worse-off socioeconomic groups'.

Hitherto, 'In accordance with the comparisons that implicitly underlie Whitehead's definition of health inequalities, established methods for measuring health inequalities have always compared more and less advantaged social groups with each other.'

The challenge to this view came in 2000, surprisingly enough, from the WHO, which, by now under new leadership, decided to end its long-standing equity initiative. The revised view of universality was famously included in the World Health Report 2000.

The key to the challenge is the idea that inequities should not be 'artificially' grouped into classes or socio-economic groups; instead avoidable health differences should be measured among individuals that were not grouped a priori according to social characteristics.

This approach, which is extensively covered by Braveman (2006), attacks the basic idea that health inequities are socially structured. It constitutes a rebuttal of the concept of **social disadvantage** that has traditionally informed so much of the public health focus.

The practical implications of this approach are first that it directs health systems policy towards **individual determinants of sickness and disease and away from social determinants** (thereby limiting health system performance assessment to proximal rather than social structural causes of ill-health).

The second implication is that it is associated with health system goals other than equity. For example, Murray (1995) argues that the objective of health systems is "to provide interventions and services that maximize welfare or, in other words, some aggregation of individual utilities." This type of analysis substitutes the economist's conception of 'utility' for equity. (This topic is dealt with in lecture 4).

The WHO 2000 analysis was prepared by Christopher Murray (now director of the Gates' funded Institute for Health Metrics and evaluation, Seattle) in collaboration with Julio Frenk, formerly the Mexican Minister of Health. The analysis has been extensively criticised (see, for example, Almeida et al, *Lancet* 2001; 357: 1692-97). The concept of a **social gradient** in any measure of health status remains the standard view in public health science.

What is equal access? Equity of access has at least three different connotations

- Equity of access by place or geographic area
- Equity of access by income level ('economic access')
- Cultural equity of access

Geographic inequalities were famously and succinctly captured by Julian Tudor Hart's 'inverse care law' who had surveyed health care provision in Welsh coal mining areas where health needs generated by poverty and industrially-related disease were high. This stated (Tudor Hart, 1971): 'The availability of good medical care tends to vary inversely with the need for it in the population served. This inverse care law operates more completely where medical care is most exposed to market forces, and less so where exposure is reduced. The market distribution of medical care is a primitive and historically outdated social form, and any return to it would further exaggerate the maldistribution of medical resources.'

(Notice that Tudor Hart links geographic inequality of access to market forces. You will find that whilst his inverse law is often quoted it is rarely quoted in full).

Geographic variations in access are substantial. For example, Whitehead & Dahlgren (vol 1, p8) point out that: 'Studies from around Europe have found large differences in geographic access for different population groups. In northern Europe, for instance, recent studies in Sweden have shown a clustering of specialists serving the more affluent neighbourhoods in Stockholm and a scarcity in the low-income areas of the same city.'

Economic access refers to the affordability of services and applies in situations where charges are levied for health care:

The starkest example of the problem of economic access is when people in need of emergency care are turned away from a clinic or hospital and left to die, because they cannot afford to pay. This is very rare in Europe, but there are an increasing number of instances of patients delaying seeking non-urgent care for financial reasons. In Belgium, for example, recent surveys found that patients with chronic illnesses spent an average of 23% of their disposable income on care. Also, about a third of the Belgian population reported that they experienced difficulty in paying for medical care, and 8% of families postponed seeking medical care because of the cost. (Whitehead & Dahlgren, 2007, vol 1, p8)

Finally, cultural access refers to cultural barriers to access such as dietary and language barriers, and to barriers experienced by marginalised groups such as migrants and the poor.

The functions of description and standard descriptive templates

There are various approaches to describing health systems. Information about health systems is required for a number of reasons and descriptive categories reflect these different functions.

For what reasons is information required?

- To improve health outcomes by measuring needs
- To help decide what resource inputs are required
- To monitor the provision of services
- To measure the level of health service outputs

- To assess effectiveness, efficiency, quality of care, and equity
- And to assess performance such as the effects on health outcomes. (WHO Task Force, 2005)

There is a range of descriptive templates:

- OECD reports
- EU Observatory (health systems in transition)
- WHO standardised accounts
- International network for Health policy and Reform

Health economics and performance measurement

Quantitative studies in health economics are widely advocated. For example, the OECD seeks to associate 'number of input and process indicators such as health care expenditure, number of physicians, type of provider payment or access to services with health outcome such as premature mortality and infant mortality' (Nolte, 2005: 24). This type of performance evaluation is closely aligned with policies of cost containment and the search for more cost effective methods of organisation.

Public health questions can also motivate performance evaluation. For example, systems might be compared in order to discover which ones better serve the health care needs of geographic populations.

There are three types of problem associated with the use of performance indicators.

1. Indicators do not identify the source of health improvements within a health system.

Mulligan et al (2001) argue that performance indicators cannot distinguish between good and bad performance because indicators do not show which part of health systems are the source of health improvement: 'The WHO's rankings concealed a range of performance on individual indicators. The United Kingdom, for example, scored second highest on the distribution of health gain, yet dropped to 18th place overall.' Success in one area of a system has to be weighed against failure in another area and it is not at all clear how this can be done.

2. Indicators do not identify the role of health systems in health improvement.

Performance indicators do not provide any clue to the contribution of health care to health outcomes: 'There is no way of knowing, on the basis of the indicators alone, whether high death rates in some parts of the country are due to poor care (Mulligan, 2001).' That is, it is not known when or whether health outcomes can be attributed to health system activities (Nolte, 2005). In the first place, health status is affected by factors other than health care and it is not at all clear how or whether these policies are factored into accounts of health systems. There is also growing evidence that health status substantially reflects long-established patterns of behaviour (and notably diet), for example, the 'Mediterranean diet'.

Hutton (2000) refers to the delayed impact that policies can have on health, the 'lag between the time of impact and the time it is feasible to collect data relating to the impact', confounding factors that may invalidate measures of effect, such as war, famine or economic shocks), or changes in economic success, the fact that process indicators ('such as whether managerial objectives are met') 'are easier to measure and monitor than epidemiological indicators', and the fact that '[other] objectives of health sector reform, such as sustainability and decentralisation, are not captured by short-term changes in health indicators' (Hutton, 2000).

3. Indicators may require data that is unavailable

The World Health Report 2000 became notorious for interpolating or estimating data where none existed in order that modelling could be undertaken. For the majority of countries and several indicators most of the data was estimated (Almeida et al, 2001). The poverty of data should not be under-estimated and in many respects is the key hurdle for evaluation. In most countries of the world basic information about their populations is simply absent. In Africa, for example, it has been said that most people are born and die without leaving any official trace (Setel et al, 2007). This point applies to vital information, disease surveillance, national accounts (economic information) and global burden of disease data. Data availability is a growing problem with health services privatisation which has led to data becoming commercially confidential and to the abandonment of data series that were formerly collected routinely¹.

Measures of health system expenditure - availability of information

Needs assessment and performance can involve international comparisons and historical trend analysis. However, availability of data is a serious problem. Health systems in developed countries usually include provision for collecting routine data. This is not the case in developing countries, where too there are other serious problems with the availability for describing and prioritising health system policy. In low resource settings data problems are found with respect to:

- routine activity data
- expenditure data
- burden of disease data
- vital statistics data

Data of the most basic kind is often missing. For example, the WHO has identified major gaps in expenditure data:

"Few countries have been able to integrate the collection and use of data on public and private expenditures into the routine business of policymaking and

¹ Students should familiarise themselves with the WHOSIS and the OECD databases. See the standard account in the World Health Report 2006 (WHO, 2006: 158), and OECD definitions at <http://www.oecd.org/health/healthdata>.

program implementation. Such institutionalization is hampered by lack of resources, limited in-country capacity, and weak coordination among donor agencies [...] Despite the fact that private spending can account for half or more of all health expenditures, information on private spending is hard to obtain. Surveys that seek to capture information on household spending tend to be expensive, infrequent, and subject to significant measurement error.

“The World Health Organization (WHO) NHA database publishes information for its member states annually on indicators of health expenditures, including external flows spent in the country for its member states annually’ but these are based on country data and much of the primary data from the public financial management system is of inadequate quality. Among organizations working on national health accounts, there has been only limited success to date in generating national-level demand for, and institutionalization of, expenditure tracking, and subaccount exercises often are not well integrated into a broader NHA framework” (Following the Money: Toward Better Tracking of Global Health Resources, 2007).

Similar problems have been found for global burden of disease data and vital statistics data. There are currently several initiatives to improve data availability and quality. See for example, the ‘health metrics’ work of Murray and Frenk (2008). EUROSTAT (the EU’s statistical body, and WHO collaborate on the further development of methodologies for health accounts. According to the WHO, national health accounts (NHA):

‘are a tool specifically designed to inform the health policy process, including policy design and implementation, policy dialogue, monitoring and evaluation of health care interventions. [...] Country experience shows that NHA information is used to answer questions such as:

- How are resources mobilized and managed for the health system?
- Who pays and how much is paid for health care?
- Who provides goods and services, and what resources do they use?
- How are health care funds distributed across the different services, interventions and activities that the health system produces?
- Who benefits from health care expenditure?”

Standard measures of health system expenditure are available from the WHO, http://www.who.int/gho/health_financing/en/index.html. Expenditure is expressed as a proportion of gross domestic product (GDP), which is a measure of a country’s total productive output (frequently taken as a synonym for its wealth).

WHO Factsheet:

| | |
|---|--|
| Total global expenditure for health | US\$ 4.1 trillion + |
| Total global expenditure for health per person per year: | US\$ 639 |
| Country with highest total spending per person per year on health: | United States (US\$ 6103) |
| Country with lowest total spending per person per year on health: | Burundi (US\$ 2.90) |
| Country with highest government spending per person per year on health: | Norway (US\$ 4508) |
| Country with lowest government spending per person per year on health: | Burundi (US\$ 0.70) |
| Country with highest annual out-of-pocket household spending on health: | Switzerland (US\$ 1787) |
| Country with lowest annual out-of-pocket household spending on health: | Solomon Islands (US\$ 1.00) |
| Average amount spent per person per year on health in countries belonging to the Organisation for Economic Co-operation and Development (OECD): | US\$ 2716 |
| Percentage of the world's population living in OECD countries: | 18% |
| Percentage of the world's total financial resources devoted to health currently spent in OECD countries: | 80% |
| Annual spending by the municipal government of New York City (population 8.2 million) on health: | US\$ 429 million |
| Annual spending by the government of Bénin (population 8.2 million) on health: | US\$ 86 million |
| WHO estimate of minimum spending per person per year needed to provide basic, life-saving services: | US\$ 35 to US\$50 |
| Number of WHO Member States where health spending--including spending by government, households and the private sector and funds provided by external donors--is lower than US\$50 per person per year: | 64 |
| Number of WHO Member States where health spending is lower than US\$20 per person per year: | 30 |
| Percentage of funds spent on health in WHO's Africa Region that has been provided by donors: | 14% |

<http://www.who.int/mediacentre/factsheets/fs319/en/index.html>

World Health Report 2000 evaluative framework

The WHO performance framework published in the World Health Report 2000 provides an example of a contested performance assessment framework. Described in Murray CJL, Frenk J (A WHO framework for health system performance assessment. Bulletin of the World Health Organization, 2000, 78(6),

it is still current, though a single index of performance has been dropped following substantial criticism.

The framework is based on the following evaluative criteria or system goals:

Fig. 2. Health system goals in relation to components for assessment

| Goals | Components for assessment | Average level | Distribution |
|------------------------------------|---------------------------|---------------|--------------|
| Health improvement | | ✓ | ✓ |
| Responsiveness to expectations | | ✓ | ✓ |
| Fairness in financial contribution | | — | ✓ |

WHO 00200

Source: Murray and Frenk, 2000.

Navarro (2001) has discussed the social and political principles underpinning this approach. Navarro claimed Murray’s and Frenk’s framework medicalised social problems. He also claimed that measurement methods and concepts were deeply political. Of health system responsiveness findings he wrote:

“the survey of responsiveness reveals that the countries with more responsive healthcare systems are those whose health policies better fit what has become the new conventional wisdom. In this thinking, health-care services that combine public funding with public provision of health care (which has characterised national health services) are out. They are constantly referred to as examples of “heavy handed state intervention . . . the type of intervention discredited everywhere”, “highly impersonal and inhuman (as in the pre-1990 Soviet Union)”, and “monolithic”.”

His essential criticism was that the performance framework tended to attribute high scores to health systems structured along lines preferred by a relatively small group of health policy analysts. Murray and Frenk have sought to rebut his criticism (2001).

