Hospitals are central to health systems development. Hospital sector reforms, and changes in hospital policies and practices, have enormous impact on health care and health systems at large, and being embedded in a broad complex environment, hospitals have to constantly adapt to changing circumstances within and beyond health systems. Factors influencing hospital development are going to continue to change, and policy makers, managers and other health care professionals should focus their special attention on hospitals rethinking their future roles, functions, organization and configuration to be ready to anticipate and respond to those changes.

This document is the report of the global study undertaken by WHO and the International Hospital Federation, involving 20 countries of all six WHO Regions, to analyze the performance of hospitals under changing socioeconomic conditions. This analytical report looking at hospitals within the context of the broad health system, examines the current characteristics and activities of hospitals, their relationships with other parts of the health system, and various broad and specific factors that influence and shape the changing roles and functions of hospitals, and defines the key determinants of hospital performance as well as challenges and opportunities for their future development.

This report provides a significant contribution to the WHO work on health systems development and service delivery, and assists health authorities in WHO Member States in informed planning and implementation of adequate and contextualized reorganization and reform of hospital services.
The performance of hospitals under changing socioeconomic conditions

A GLOBAL STUDY ON HOSPITAL SECTOR REFORM

INTERNATIONAL HOSPITAL FEDERATION

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Foreword

This report has been made possible by the collective efforts of the Department of Health Service Provision, World Health Organization (WHO), Geneva, Switzerland (currently the Department for Health Policy, Development and Services); the research centres from which the Principal Investigators were selected for each region of WHO; the Director General and other staff of the International Hospital Federation (IHF); and other ad hoc experts and independent analysts, in particular Robert Maxwell and Judith Healy.

The Regional Principal Investigators and Analysts (see Appendix B) deserve our gratitude for providing a rich base of information for our global study. They have provided responses to an extensive questionnaire for a selection of countries in their respective regions. They have also contributed illustrative boxes and case notes that have enriched the text, and participated in the analysis of the responses to the questionnaire.

We are also grateful to representatives of WHO headquarters and regional offices who participated in our meetings. Our special thanks go to Orvill Adams, the Director of the WHO Department of Health Service Provision at the time of the study for his overall encouragement and guidance; Andrei Issakov, the Coordinator of the WHO Health Facilities and Service Provision Team and currently Coordinator of the WHO Health Technology and Facilities Planning Team, for facilitating, coordinating and finalizing the work; and particularly to Ferdinand Siem Tjam, then of the WHO Health Facilities and Service Provision Team, who has initiated and led the project and has always been a careful and experienced bank of ideas and knowledge in the hospital field. We are grateful to him for giving us the chance to participate in this project. The report is linked to an agreement between WHO and IHF (HQ/01/488338) and incorporates the outcome of another agreement (HQ/01/817021).

The task of writing the text was divided between the analysts. Overall responsibility for the report is as follows: Chapter 1 – Robert Maxwell; Chapter 2 – Judith Healy; Chapter 3 – Robert Maxwell, Suryanarayan Ramanathan and Per-Gunnar Svensson; Chapter 4 – Judith Healy; coordination of the project – Suryanarayan Ramanathan. Although all four were involved in the preliminary editing of the report, Robert Maxwell played the main role. The questionnaire was also the result of collective work, again coordinated by Suryanarayan Ramanathan. Thanks are due to Ivan Hanigan for gathering statistics from various international reports and databases (for Chapter 2). First round of editing was done by Barbara Campanini in 2004, and the manuscript was finalized by Ferdinand Siem Tjam and Per-Gunnar Svensson in consultation with Andrei Issakov, and typed and collated by Sheila Anazonwu in 2006.

If references are not explicitly cited in the text, the information given was obtained from the country or case reports, in other word the responses to the questionnaire. If further information is required from the countries or cases mentioned, we recommend that the relevant Principal Investigator be contacted. We hope readers will find the contents of this report interesting and that it will contribute to a better understanding of hospitals within health systems.

For the analysts and editorial team:

Per-Gunnar Svensson
Director General
International Hospital Federation
CHAPTER 1

Introduction
For reasons that are seldom the fault of individual institutions – still less of leaders of
the institutions – hospitals worldwide are thought not to be fully meeting the needs
of the populations they serve. While there may be shining exceptions, many hospital
systems are perceived to be overburdened, under-resourced, inefficient and (in some
respects) inequitable. In the United States of America, which contains some of the best
and most expensive hospitals in the world, they have been said to be “undercapitalized,
underperforming and underappreciated” (1).

The international advocacy that has rightly focused in recent decades upon strength-
ening primary health care has to a degree compounded the problem, since in many
countries it has diverted attention from hospitals and drawn resources away from them
in order to fund community-based health activities.

Moreover, health-care needs and medicine’s capacity to respond to them do not
stand still. Therapeutic advances have called for large new investments in the more
sophisticated hospital-based services, and for continuing adaptation. Meanwhile, the
acquired immunodeficiency syndrome (AIDS) has almost overwhelmed some hospital
systems with patients for whom no cure is available.

What is a hospital?

Fundamentally, a hospital is a place where medical care is provided for the alleviation
of suffering and the restoration of functions, normally on both an inpatient (residen-
tial) and an outpatient (non-residential) basis. Miller’s 1997 definition is “an institu-
tion which provides beds, meals and constant nursing care for its patients while they
undergo medical therapy at the hands of professional physicians. In carrying out these
services, the hospital is striving to restore its patients to health” (2). What is not so
obvious, but is important to recognize in any international study, is the enormous va-
riety that the designation “hospital” subsumes. McKee & Healy, for example, in their
study Hospitals in a changing Europe (3: 5) use Miller’s definition as a starting point
and then give an example of two contrasting hospitals (see Box 1.1). In the present
study, a similar contrast could be shown between, say, a rural hospital in the United
Republic of Tanzania and the University Hospital in Cairo, Egypt, which has some
5000 beds distributed between many buildings. While these two examples both fit
Miller’s definition, they come at the extreme ends of a spectrum of size and complex-
ity. Only in the broadest sense would the same statements apply to both, so one has to
treat comparisons with great caution, to make sure that like is being compared with
like (see also Chapter 2).

Why are hospitals important?

Hospitals are not only important in themselves: they also have crucial influence on
the broader health system. Their intrinsic importance is attributable to the fact that
hospitals are the places where specific action is undertaken to comfort and reduce
need and suffering that are frequently at their most extreme and most urgent. Great
value is put on them by communities, and they are major employers in the communi-
ties of which they form a part. As their size and complexity increase, so does their
cost: at the upper end of complexity, they are very expensive and also difficult to
run well. In general, hospitals focus on advanced diagnostic and restorative medical
work.

In terms of their broader influence, hospitals typically employ around half the phys-
cians and two thirds of the nurses in most countries. They also account for between
40% and 70% of the entire national health-care budget and an even higher proportion
of its capital investment. They provide the principal setting for the education of doc-
tors, nurses and other health-care professionals, and they are the main base for clinical
research. Their influence extends far beyond the hospital walls in terms of the poten-
tial impact of their activities on patterns of medical and social care.
Two hospitals in Europe

**Potalovo Hospital Russian Federation.** In the mid-1990s, the travel writer Colin Thubron travelled through Siberia. Here is his description of a hospital in Potalovo, a small village on the River Yenisei in the north of the Russian Federation (4: 131).

"His hospital was a low, wooden ark. Reindeer moss caulked the gaps between its logs, and it buckled at either end from permafrost … Inside the building was a simple range of three-bed wards, a kitchen and a consulting room. It had no running water, and its lavatory was a hole in the ground. Between the double windows the sealing moss had fallen in faded tresses. It was almost without equipment. But the rooms were all washed white and eggshell blue, and three part-time nurses tended the five children in its narrow iron beds, while a woman recovering from premature childbirth lay silent in another.”

**Johann Wolfgang Goethe University Hospital, Germany.** Founded in 1884 by the City of Frankfurt, this municipal hospital was taken over by Goethe University medical faculty in 1914 and by the State of Hessen in 1967, and is now run by a board of directors. The hospital is a large medical complex that carries out medical treatment, research and teaching, with an annual budget of € 322 million. With over 60 buildings, 4500 staff and 1443 hospital beds, the hospital annually treats 41 000 inpatients and 170 000 outpatients in 11 medical centres that include 26 specialist departments. Research is conducted through 26 research institutes, while as a university hospital it trains annually over 3500 medical and dental students, 180 nurses and 160 medical technicians. There are close links to affiliated teaching hospitals in Frankfurt and to other research institutes around the country (5).

Source: ref. 3: 5.

In May 1999, at the Fifty-Second World Health Assembly, Member States of the World Health Organization (WHO) recognized investment in hospitals as one of the big issues facing ministries of health. The WHO Secretariat recorded that “access to hospital care … has to be universal, equitable and affordable” and that in this context the activities of the public and private sectors need to be complementary. It is against this background that WHO commissioned the research that is the subject of this report, focusing on hospitals and their performance in a broad range of countries.

**Objective and approach of the global study**

The objective is to review the roles of hospitals within health-care systems and their capacity to meet the needs of populations. This is done by:

- examining the current characteristics and activities of hospitals and their relationships with other parts of the health-care system;
- understanding what has happened in the last 10 years that has changed and shaped what hospitals do (such as the influence of reforms, specific population needs, and finance);
- defining the key determinants of hospital performance and problems or opportunities for their development.

It is fundamental to the approach of this study that hospitals are not studied in isolation but in the context of the broader health-care system of which they are key elements. Moreover, the roles of hospitals vary from country to country – and even within countries. In the survey, attention was focused on health-care activities that are curative and institutionally based, without ignoring the fact that many hospitals also include activities that fall into other quadrants (see Figure 1.1). Similarly, as illustrated in Figure 1.2, attention was focused on intensive medical interventions, while not ignoring the crucial links to longer-term care on the one hand and community-based primary health care on the other.
By way of example, it is assumed that the care of acute psychiatric illness will be a hospital function, but that the care for mental or physical handicap or residential care in old age will not necessarily be hospital functions. Most surgery is expected to be included in hospital-based activities, whether done on a day basis or involving an overnight stay.
A key element of the work has been to develop and test a methodology for describing and comparing the state of hospital systems. The results cannot at this stage be more than illustrative of the picture worldwide; however, they enable the identification of common issues and opportunities, with important policy implications.

The case studies

The study was based on WHO regions, using researchers familiar with each region. In each region, at least two countries – the case studies – were researched in depth using the questionnaire reproduced in Appendix A, which was distributed and responded to in 2001. An introductory background report summarized the position elsewhere in the region, as far as this was known to the researcher concerned from reliable sources. Appendix B lists the Principal Investigators and Analysts.

The case studies were not of individual hospitals, but of the hospital system as a whole (including both the private and the public sectors) within each of the countries selected for detailed examination. The research dealt only with individual hospitals when details were required to illustrate or clarify a specific issue.

Criteria for choosing the countries for the case studies:

- Countries from which (in the researchers’ view) there is most to be learned.
- Availability of information.
- Illustrativeness of the main models of systems within the region.
- Perceived state of the hospital system in terms of current success or failure.
- Representativeness of the country as a regional example.

Naturally, these criteria often pulled in different directions. In the event, 20 countries were selected from the six WHO regions as follows:

- Africa: Ghana, South Africa, United Republic of Tanzania
- The Americas: Chile, Colombia
- South-East Asia: Sri Lanka, Thailand
- Europe: Cyprus, France, Kazakhstan, Poland
- Eastern Mediterranean: Egypt, Lebanon, Morocco, Syrian Arab Republic
- Western Pacific: China, Japan, New Zealand, Philippines, Republic of Korea

The case study countries are anything but homogeneous: they differ radically in size, wealth, demography, epidemiology, climate, geography, culture and medical tradition. What is more, despite the common framework for this study, the scope and nature of the national findings were inevitably immensely varied, because of the differences in data availability and because of the number of investigators collaborating in the project.
Given these variations, it would be absurd to claim for the results a high degree of scholarly consistency. They represent an impression, across a heterogeneous range of countries, of the state of hospitals at this time, and no more than that. The report is more likely to be right in its broad conclusions, where these are reported from many different countries, than in relatively minor points. For this reason, information from individual case study reports will be used illustratively, rather than comprehensively.

**Structure and contents of the report**

Chapter 2 draws on a wide selection of quantitative sources to compare the 20 countries, because of their heterogeneity. This should enable the reader to position each country in relation to others across a range of relevant criteria – relative wealth, for example, and the characteristics of its health system and hospitals.

Chapter 3 contains the substance of the findings. The first section discusses the needs and demands that shape the job that health services have to do, and some of the approaches taken by the survey countries to “modernize” (for example, by planning and reforming processes). The next section looks at the place of hospitals in the context of the broader health-care system of which they are an integral and crucial part. Following sections consider questions of financing, the public–private mix, and management. The two final sections turn to two important “open frontiers” of health sector management thinking and management: access and equity, and the search for safety and quality. Chapter 4 briefly summarizes the conclusions and recommendations.
CHAPTER 2

The hospital context in 20 countries
This chapter outlines the health-care systems of the 20 countries selected for this study (which includes at least two countries from each of the six WHO regions) and flags some key policy issues for discussion in Chapter 3. The key features of the terrain are mapped and compared: the context of the countries (demographic, social and economic indicators), the health status of the population, and the level of expenditure on health care. Information on hospitals is analysed in relation to the supply of hospital beds, patterns of hospital utilization, types of hospitals and ownership, and the role of the hospital within the health-care systems. The constraints on analysis, as already noted in Chapter 1, are the scarcity of systematic and comparable information, the difficulty of fully acknowledging the great diversity across countries, and the many factors – including economic and cultural factors – that influence hospital structures and patterns of use.

The quantitative data used in this chapter, some of which are shown in tabular and graphic form, are drawn from the following sources:

- WHO: *The world health report 2000* and *The world health report 2001*;
- UNDP: *Human development report 2001*;
- OECD: *Health database 2001*;
- WHO Regional Office for Europe: Health for all database January 2002;
- Reports on 20 countries commissioned for the study.

### Country context

#### Demographic and social indicators

**Demographic factors**

The 20 countries reviewed in this study vary greatly in population size, ranging from the very large population of China (1282 million), through Japan (next in size with 127 million) and 10 countries in the 30–76 million range, to small countries such as Cyprus with 0.8 million people (see Table 2.1). Any plan for a country’s health-care system and its hospitals should take account of the distribution of a population and their health needs. Population numbers as well as the geographical size of a country may influence whether the administration of a health-care system is centrally or regionally located, though size is not necessarily the determining factor. For example, China has decentralized the administration of its health-care system but, so also has New Zealand.

The distribution of the population within a country should influence where hospitals are located. Some countries in this group of 20 are highly urbanized with more than three quarters of their populations living in towns and cities. In descending order, Lebanon is the most urbanized with 89%, followed by New Zealand, Chile, the Republic of Korea, and Japan. The least urbanized countries, with less than one third of their populations living in urban areas, are Thailand, Sri Lanka China and the United Republic of Tanzania. Countries with dispersed populations, such as Sri Lanka, thus have many small hospitals located in rural areas (with consequent limitations on resources and skills at each hospital).

The countries with high population growth rates in 1990–2000 were the United Republic of Tanzania (which had the highest rate of 3.0%), the Syrian Arab Republic, Lebanon, Ghana, the Philippines and Morocco (between 2.7% and 2.0%, in descending order), while the remainder of the 20 countries were below 2% annual growth. Countries must plan ahead to meet changing demands for health services. The total fertility rate (the number of children that a woman can expect to bear in her lifetime) was highest in the United Republic of Tanzania (5.3) followed by Ghana (4.4). The countries below population replacement level (that is, below a total fertility rate of two children per woman of reproductive age) were, in descending order, China, France,
the Republic of Korea, and Japan and Poland (both with the lowest rate of 1.4). The radical “one child” policy of China has greatly reduced the birth rate over the last two decades (despite associated heavy social costs and demographic skewing), resulting in 1.8 children per woman of reproductive age.

<table>
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<th>Population, 2000a (%)</th>
<th>Urban population, 1999b (%)</th>
<th>Annual growth rate, 1990–2000c (%)</th>
<th>Total fertility rate, 2000d (%)</th>
<th>Population aged 60 years and above, 2000d (%)</th>
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<td>0.875</td>
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a Ref. 8: Annex Table 1, Table 4.
b Ref. 9: Table 7.
c Ref. 10: Table 1. The Human Development Index (HDI) is a composite measure of average achievement in three basic dimensions of human development: a long and healthy life, knowledge, and a decent standard of living. 1 = high, 0 = low. For details on how the index is calculated, see Technical Note 1 available at: http://www.undp.org/hdr2001/indicator/indic_17_1_1.html.

Countries with rising proportions of older people can expect increasing demands upon their health-care systems (although other factors in addition to ageing influence
the demand and cost of health care). At present, 23% of the population of Japan are aged 60 years and over, followed by France with nearly 21% and Poland with nearly 17%. Generally, populations are older in western than in eastern European countries, but the latter are projected to age rapidly over the next 50 years, as are those in eastern Asia. Of the 20 countries in the study, Japan is among the currently 10 “oldest” countries in the world (23.2% of the population aged 60 years and over) but China will join the top ten by 2050 (11).

Hospitals in countries with ageing populations can expect more elderly patients who make greater use of health services and have multiple health needs. This means, first, that hospital services traditionally organized around single specialties may not be sufficiently responsive to the multiple health needs of elderly patients who require coordinated care. Second, the hospital system may need to organize “step down” rehabilitation hospitals and nursing homes for older people, who do not require further medical treatment, but do require a longer convalescence or continuing care. If this is not done, people who do not need active medical treatment occupy expensive acute-care beds (as discussed later). Hospital planners should also take into account family support and community services, since their availability often affects discharge arrangements.

Countries with less than 5% of their population aged 60 years and over include most African and some Eastern Mediterranean countries. These countries have traditionally focused their health services on maternal and child health care. For example, Morocco aims to reduce its high maternal and infant mortality by strengthening primary health care and by improving midwifery and obstetrics training (country report). Countries with young populations and high growth rates can expect increasing demands upon their maternal and child health services. These countries must consider which services are more appropriately provided as inpatient hospital care and which can be delivered as ambulatory or community-based care (both public health and clinical services). For example, in eastern European countries virtually all women deliver their babies in hospital, while in many western European countries a significant proportion of women give birth at home, with highly trained midwives in attendance.

A health-care system and its hospitals must thus respond to the needs of different population groups, which will change over time. The organization of health services and treatment modalities will therefore differ between countries with old populations, such as Japan, and countries with young populations, such as the Philippines.

**Human development**

The rationale for health sector reform is linked increasingly to broader social and economic goals: social development should accompany economic development. Better health alleviates poverty, in that people are able to participate more fully in the workforce and do not incur the high costs often associated with poor health (9, 12, 13). A healthy population is better able to contribute to the social and economic development of a country. In addition, the social capital available in a country is a key factor in the ability of its institutions to achieve economic goals and to respond to population needs, including health care. Social capital is difficult to measure but includes a well-educated population, an array of local community groups and voluntary organizations, and supportive family ties. As examples, in the Philippines the family provides the main buffer against poverty, given the lack of social security provisions (country report); the non-government sector (both for profit and non-profit) plays an important role in providing health and disability services in New Zealand and the Republic of Korea.

The level of literacy within a country is one indicator of its level of social capital. In relation to the health-care system, a literate population can better provide a skilled health sector labour force, and literate people are better-informed consumers of health services (10). Eight countries out of the 20 in the global study have adult literacy rates
above 90%, but three have 70% or below: Ghana, 70%; Egypt, 55%; and Morocco, 48%. As shown later, these three countries also have poor population health measures, such as high infant mortality.

The United Nations Development Programme has tracked trends in human development in the countries of the world over the last ten years using, among other measures, the Human Development Index (HDI) (10). This broad index, intended to counter the international preoccupation with economic indicators, contains three measures: life expectancy at birth, adult literacy, and per capita income in purchasing power parity (PPP) in US$.

The performance of the 20 countries in this study relative to the rest of the world may thus be gauged by looking at their rank order on the HDI. The highest country is ranked 1 and the lowest 174. Countries are also grouped in three broad UNDP development categories, with the 20 countries in this sample categorized as follows:

- low human development (HDI score below 0.5): the United Republic of Tanzania;
- medium human development (HDI scores 0.5–0.799), in ascending order: Ghana, Morocco, Egypt, the Syrian Arab Republic, South Africa, China, Sri Lanka, Kazakhstan, the Philippines, Thailand, Lebanon and Colombia;
- high human development (HDI score 0.8 and above), in ascending order: Chile, Poland, the Republic of Korea, Cyprus, New Zealand, France and Japan.

Figure 2.1 shows the HDI scores (with 1 the highest and 0 the lowest) for the 20 countries. A country that has not achieved a healthy adult lifespan for its people, a decent

**Figure 2.1 Human Development Index (HDI) in 20 countries, 1999**

Source: ref. 10: Table 1. The Human Development Index (HDI) is a composite measure of average achievement in three basic dimensions of human development: a long and healthy life, knowledge, and a decent standard of living. 1 = high, 0 = low. For details on how the index is calculated, see Technical Note 1 available at: http://www.undp.org/hdr2001/indicator/indic_17_1_1.html.
standard of living or basic literacy must encounter major problems in providing and maintaining an adequate health-care system. These scores also suggest the extent of human resources capacity that is available within a country in planning, managing and delivering health and hospital care. A workforce limited by low literacy and lack of basic skills, let alone professional skills, will find it extremely difficult to run a satisfactory health-care system.

Economic indicators

The 20 countries in this sample include some of the world’s richest and poorest countries. The World Bank (9: 334–335) has classified the economies of countries (by GNP per capita) into four groups. These are low-income countries (US$ 755 or less), lower-middle-income (US$ 756–2995), upper-middle-income (US$ 2996–9265), and high-income countries (US$ 9266 or more). Low-income and lower-middle-income countries are sometimes referred to as developing economies. The 20 countries in this study at that time fell into the following World Bank categories:

- low-income: Ghana and the United Republic of Tanzania;
- lower-middle-income: China, Colombia, Egypt, Kazakhstan, Morocco, the Philippines, Sri Lanka, the Syrian Arab Republic and Thailand;
- upper-middle-income: Chile, Lebanon, Poland, the Republic of Korea, and South Africa;
- high-income: Cyprus, France, Japan and New Zealand.

The placement of countries in these World Bank categories differs slightly from the UNDP human development categories, with Chile, Ghana and Poland all moving up a category in the HDI, primarily because of their high levels of population literacy.

These 20 countries thus vary considerably in the resources available to spend upon health care; both by the state and by individuals (see Table 2.2). They also vary in the resources likely to be available in future. High-income countries tend to have a steady GNP growth rate above 2% per annum, while some middle-income countries experienced rapid economic growth in 1998–1999 from a lower base, such as China with 7.2% and the Republic of Korea with 11%. The countries with negative growth in 1998–1999 were Chile, Colombia and the Syrian Arab Republic, and those below 2% growth were Japan, Kazakhstan, Lebanon, Morocco, South Africa and the United Republic of Tanzania (Japan, a high-income country, has experienced a faltering economy over the last few years).

The prosperity of a country can best be compared using per capita income, controlling for PPP, which takes into account cost of living differences between countries. Figure 2.2 shows Japan and France with the highest GNP per capita (above PPP US$ 20 000 per person) and the African countries of Ghana and the United Republic of Tanzania below US$ 2000 per capita; that is, a tenfold gap. Since the economic situation of a population is broadly related to its health, countries with low per capita income generally have more health problems and far fewer resources available with which to solve them.

Of the world’s six billion people, almost half live on less than US$ 2 a day (9: 3). A substantial body of research shows that poor countries generally have populations with poorer health (see, for example, 9, 14). Also, within a country, poorer people generally have poorer health than richer people, whether one applies a relative or an absolute measure of poverty (see, for example, 15).

In the group of 20 countries in this study, five low-income countries have more than 30% of their populations living below a US$ 2 per day poverty line (2). Given that costs differ across countries, a national poverty line (the subsistence amount that a household needs to live adequately) more accurately indicates the level of absolute poverty. Four countries have more than 30% of their populations living below their national poverty line, as shown in Table 2.2. The United Republic of Tanzania has 51%
of the population below the poverty line; the Philippines, 41%; Sri Lanka, 35%; and Kazakhstan, 35%. South Africa should also be noted, since 36% of its population live below a US$ 2 per day poverty line (9: Table 4).

Table 2.2 Economic indicators in 20 countries

<table>
<thead>
<tr>
<th>WHO region and country</th>
<th>GNP annual-average growth rate, 1998–99&lt;sup&gt;a&lt;/sup&gt;</th>
<th>GNP per capita PPP, 1999&lt;sup&gt;a&lt;/sup&gt; (US$)</th>
<th>Population below national poverty line, 1998 or latest year&lt;sup&gt;*b&lt;/sup&gt; (%)</th>
<th>Population below US$ 2 per day poverty line (international line)&lt;sup&gt;b&lt;/sup&gt; (%)</th>
<th>Gini coefficient&lt;sup&gt;c&lt;/sup&gt;</th>
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<td></td>
<td></td>
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<tr>
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<td>8 318</td>
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<td>36 (1993)</td>
<td>59 (1994)</td>
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<tr>
<td><strong>Americas</strong></td>
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<td></td>
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<td>–</td>
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<tr>
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<td>21 897</td>
<td>–</td>
<td>–</td>
<td>33 (1995)</td>
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<td>–</td>
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</tr>
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<td>Japan</td>
<td>1</td>
<td>24 041</td>
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<td>–</td>
<td>25 (1993)</td>
</tr>
<tr>
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<td>16 566</td>
<td>–</td>
<td>–</td>
<td>44 (1991)</td>
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</table>

<sup>a</sup> Ref. 9: Table 1 and Table 1a. Gross National Product (GNP) measures total value added from domestic and foreign sources claimed by residents. Data are converted from national currency to current US dollars using the World Bank Atlas method. This involves using a three-year average of exchange rates to smooth the effects of transitory exchange rate fluctuations. Average annual growth rate of GNP is calculated from constant price GNP in national currency units (9: 318). GNP measured at Purchasing Power Parity (PPP) is GNP converted to international dollars by the PPP exchange rate. At the PPP rate one international dollar has the same purchasing power over domestic GNP that the US dollar has over US GNP. GNP per capita is GNP divided by mid-year population (9: 318).

<sup>b</sup> Ref. 9: Table 4. The percentage of the total population living below the national poverty line is estimated from population-weighted subgroup estimates from household surveys (9: 319).

<sup>c</sup> Ref. 9: Table 5. The Gini Index of income inequality is a measure of the extent to which the distribution of income (or in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution (0 = perfectly equal, 100 = unequal) (9: 331).
The distribution of income within a country can vary significantly, which a per capita average may disguise. The Gini Index indicates the extent of this variation. Among the 20 countries in the study, South Africa had the most inequality, measuring 59 on the Gini Index, and Japan had the flattest income structure with 25 on the Gini Index (see Figure 2.3). An unequal distribution of income among a population indicates that the country has both poor and rich groups and hence differential financial access to health-care services, which in terms of social justice calls for the state to ensure that low-income people have financial access to health care. Countries such as China, the Philippines, South Africa and Thailand are notably lacking in this regard.

Population health indicators

Health-care systems should be designed to respond to the health needs of their populations. These 20 countries vary enormously in the overall health status of their populations and thus in the range and type of their health needs and the consequent demands upon hospitals (see Table 2.3).

Infant mortality is often taken as an indicator of the health status of the population, the adequacy of public health services (disease prevention and health promotion) and the adequacy of clinical health services. The high-income countries of France, Japan and New Zealand have very low infant mortality with only 4-5 deaths per 1000 live births (as shown in Table 2.3); rates are high in low-income countries, with 51 deaths per 1000 live births in South Africa and 49 in Morocco, and very high in Ghana and the United Republic of Tanzania (65 and 85 deaths per 1000 live births, respectively).

Figure 2.2 GNP per capita PPP US$ in 20 countries, 1999

Source: ref. 9: Table 1 and Table 1a. GNP measured at Purchasing Power Parity (PPP) is GNP converted to international dollars by the PPP exchange rate. At the PPP rate one international dollar has the same purchasing power over domestic GNP that the US dollar has over US GNP. GNP per capita is GNP divided by mid-year population (9: 318).

The distribution of income within a country can vary significantly, which a per capita average may disguise. The Gini Index indicates the extent of this variation. Among the 20 countries in the study, South Africa had the most inequality, measuring 59 on the Gini Index, and Japan had the flattest income structure with 25 on the Gini Index (see Figure 2.3). An unequal distribution of income among a population indicates that the country has both poor and rich groups and hence differential financial access to health-care services, which in terms of social justice calls for the state to ensure that low-income people have financial access to health care. Countries such as China, the Philippines, South Africa and Thailand are notably lacking in this regard.
Life expectancy at birth is a key indicator to the health status of the population. Japan has the highest life expectancy among these 20 countries and also in the world: men can expect to live for 77.5 years (see Figure 2.4) and women for 84.7 years (see Figure 2.5). The group of countries with high life expectancy (above 75 years of age) have all moved through a demographic transition, with a shift from high birth rates and high mortality to low birth rates and low mortality. The countries of the world can be grouped in 10 possible categories of mortality strata (8: 8), according to which the 20 countries in this survey can be categorized as follows:

- very high child, very high adult: (no countries in this group);
- high child, very high adult: South Africa and United Republic of Tanzania;
- very high child, high adult: (no countries in this group);
- high child, high adult: Egypt, Ghana and Morocco;
- high child, low adult: (no countries in this group);
- low child, high adult: Kazakhstan;

Figure 2.3 Gini Index in 17 countries, 1998 or latest year

Source: ref. 9: Table 5. The Gini Index of income inequality is a measure of the extent to which the distribution of income (or in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution (0 = perfectly equal, 100 = unequal) (9: 331).
- low child, low adult: Chile, China, Colombia, Cyprus, Lebanon, the Philippines, Poland, Republic of Korea, Sri Lanka, the Syrian Arab Republic and Thailand;
- low child, very low adult: (none in this group);
- very low child, low adult: (none in this group);
- very low child, very low adult: France, Japan and New Zealand.

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<tr>
<th>WHO region and country</th>
<th>Infant mortality per 1000 live births, 1998a</th>
<th>Male life expectancy at birth in years, 2000b</th>
<th>Female life expectancy at birth in years, 2000b</th>
<th>Male healthy life expectancy at birth (HALE), 2000c</th>
<th>Female healthy life expectancy at birth (HALE), 2000c</th>
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<td>57.1</td>
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<td>70.5</td>
<td>78.3</td>
<td>63.2</td>
<td>68.8</td>
</tr>
</tbody>
</table>

a Ref. 10; Table 8.
b Ref. 8: Annex Table 1.
c Ref. 8: Annex Table 4. Healthy life expectancy (HALE) at birth is calculated using disability-adjusted life expectancy (DALE). HALE summarizes the expected number of years to be lived in what might be termed the equivalent of “full health”, whereby the years of ill-health are weighted according to severity and subtracted from the expected overall life expectancy to give the equivalent years of healthy life (http://www.who.int/inf-pr-2000/en/pr2000-life.html).

The countries with high life expectancy have also been through an epidemiological transition, with a shift from communicable to noncommunicable diseases. Thus non-communicable diseases account for most deaths in the wealthier countries and, since there is greater longevity (such as in France, Japan and New Zealand), most deaths...
Figure 2.4 Male life expectancy at birth in 20 countries, 2000 or latest year

Source: ref. 8: Annex Table 1.

Figure 2.5 Female life expectancy at birth in 20 countries, 2000 or latest year

Source: ref. 8: Annex Table 1.
occur among people aged 70 years and over. For example, over 70% of the burden of disease in most high-income countries can be attributed to cardiovascular disease, cancers and injury. Noncommunicable diseases account for 89% of deaths in very low child and very low adult mortality European countries, but for only 26% of deaths in high child and high adult mortality African countries.

Communicable disease rates are high in many low-income countries. The main causes of death from communicable diseases are infectious and parasitic diseases and respiratory infections, while HIV/AIDS is a major problem in many countries. Thus hospitals in Ghana, South Africa and the United Republic of Tanzania, and also in Thailand, have been overwhelmed by AIDS patients suffering from conditions associated with their loss of immunity from diseases.

Communicable diseases, maternal and perinatal conditions and nutritional deficiencies accounted for 73% of deaths in high child and very high adult mortality African countries (South Africa and the United Republic of Tanzania), for 68% of deaths in high child and high adult mortality African countries (Ghana), and for 46% of death in high child and high adult mortality Eastern Mediterranean countries (8: Annex Table 2).

War and other crises also affect health needs and services. For example, injuries and deaths have increased in Colombia, directly attributable to the civil war as well as to increases in other forms of violence (country report).

Many infectious (and also non-infectious) diseases are preventable with better socioeconomic living conditions and effective campaigns (such as immunization, stopping smoking and promoting safer sex) aimed at preventing disease. In the absence of effective disease prevention and health promotion programmes, and in the absence of a network of competent primary care practitioners, hospitals are forced to respond to patients in the later stages of such preventable illnesses.

Much of the “east–west mortality gap” that opened up in Europe from the late 1970s onwards can be attributed to higher rates of noncommunicable disease in the eastern countries (16). Life expectancy improved steadily in western Europe, but in eastern Europe life expectancy fell, improved in the late 1980s (the so-called “Gorbachev effect” when vodka was taxed) and fell again drastically in the early 1990s; it has since improved in central Europe and to a lesser extent in eastern Europe (17). Kazakhstan illustrates this east–west gap, with its profile of low child and high adult mortality and thus a heavy burden of premature deaths in adulthood (with male life expectancy of 58 years), as does Poland to a lesser extent, where male life expectancy is 69.2 years compared with 75.2 years in France, as shown in Figure 2.2. The main immediate causes of premature death, particularly among males in central and Eastern Europe include high rates of heart disease, lung cancer and alcohol-related mortality, as well as accidents and violence. The up-stream causes of the east–west gap are complex and much discussed, but the reasons for lower life expectancy in Eastern Europe include socioeconomic factors, lifestyle including alcohol consumption and smoking, social stress, long-standing life-course factors, and sub-standard medical treatment.

The healthy life expectancy (HALE) measure shows the number of years that a person can expect to live free from disabilities (see Table 2.3). In Japan, men can expect 71.2 disability-free years of life and women 76.3 years. In contrast, at the lower end of the scale, in the United Republic of Tanzania men can expect only 38.6 disability-free years and women 37.5 years. In the United Republic of Tanzania, therefore, women on average can expect ten years of disability and illness in an average lifespan of around 47 years, compared with a woman in Japan with eight years of disability and illness in an average lifespan of nearly 85 years. This difference is indicative of the enormous burden of morbidity (as well as mortality) among populations of middle age in the African countries in this survey and shows that hospitals in different countries must respond to different patterns of mortality and morbidity in patient populations of different ages.
Health-care services need to be planned in response to disease patterns. It has been argued that poor countries with high rates of infectious disease need to focus on the socioeconomic conditions that allow these diseases to proliferate, and that they should improve the capacity of primary health care to prevent disease and to respond to patients early in the disease process. Primary health care also needs strengthening in many countries with rising rates of preventable noncommunicable conditions, such as cardiovascular diseases, with more priority to prevention and health promotion through public health programmes and to early treatment through primary health care, rather than to much later secondary and tertiary interventions by specialists and hospitals. Whether the main burden of disease lies in communicable or noncommunicable conditions, therefore, the role of the hospital must be considered in the context of the health needs of the country and within the larger health-care system, including the capacity of the types of services to provide effective health care (as discussed in Chapter 3).

**Funding health-care systems**

How much do these 20 countries spend on their health-care systems, and how does this expenditure compare with international averages? Table 2.4 sets out measures of expenditure on health care for each of the 20 countries. A caution is in order, since precise statistics are not available for some countries, so the data represent the best available estimates. First, some countries do not compile National Health Accounts or else do not subscribe to internationally standard budgetary categories. Second, informal payments by consumers to health-care professionals may be substantial, though the full extent is unknown in many countries. The important point is the approximate rather than the precise position of a country in a “league table” of health expenditure.

A standard comparative measure is the proportion of economic activity that a country devotes to health care. The proportion of Gross Domestic Product (GDP) spent on health care in these countries varies considerably (see Figure 2.6).

A disparate group of countries among the 20 in this survey (Colombia, France, Lebanon and South Africa) spend above 8.6% of their GDP (which was the 1998 average for the 15 Member countries of the European Union). Devoting such a substantial portion of GDP to health care indicates the importance accorded to it by these countries and their citizens, but in the case of low-income countries it also indicates that healthcare costs take a significant slice of their struggling economies.

A country with a small GDP generally allocates a much smaller per capita amount in real terms to health care than does a more prosperous country. A better measure, therefore, of the resources available to the health-care system is per capita health expenditure, shown in comparative form in US$ at the 1998 official exchange rate. Of the two countries that spent the largest proportion of GDP per capita on health care, Lebanon with 11.6% spends only US$ 534 per capita, while France with 9.3% of GDP spent over four times as much with US$ 2297 per capita (**17**). High-income countries, of course, have greater spending capacity and generally spend much more per capita on their health-care systems (such as France, Japan and New Zealand) than low-income African and Asian countries.

**Health expenditure patterns**

Have countries increased their expenditure on health? OECD data show that health expenditure as a percentage of GDP increased in most countries over the past decade. Of the countries in this survey, from 1990 to 1999 France increased from 8.6% GDP to 9.4%, Japan from 6.1% to 7.4%, the Republic of Korea from 4.8% to 5.4%, New Zealand from 7.0% to 8.1% and Poland from 5.3% to 6.2% (**18**). The European Union average increased from 7.7% to 8.5% of GDP – central and Eastern Europe increased from 7.7% to 8.5% of GDP – but decreased in former Soviet Union countries from 3.5% to...
3.2% along with falling GDP (17). Thus higher-income and European Region countries (except eastern European countries) increased their expenditure on health care, while expenditure on hospital inpatient care also increased though the rate of growth levelled off during the 1990s (as discussed later).

Table 2.4 Health expenditure in 20 countries, 1998 or latest year

<table>
<thead>
<tr>
<th>WHO region and country</th>
<th>Total expenditure on health as % of GDP</th>
<th>Public expenditure on health as % of total health expenditure</th>
<th>Tax-funded expenditure on health as % of public expenditure on health</th>
<th>Private expenditure on health as % of total health expenditure</th>
<th>Out-of-pocket disbursements on health as % of private expenditure on health</th>
<th>Per capita total expenditure on health at official exchange rate per US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>4.3</td>
<td>54</td>
<td>77</td>
<td>46</td>
<td>100</td>
<td>18</td>
</tr>
<tr>
<td>South Africa</td>
<td>8.7</td>
<td>44</td>
<td>99</td>
<td>56</td>
<td>22</td>
<td>275</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>4.9</td>
<td>49</td>
<td>56</td>
<td>52</td>
<td>87</td>
<td>10</td>
</tr>
<tr>
<td>Americas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>7.5</td>
<td>40</td>
<td>24</td>
<td>60</td>
<td>66</td>
<td>369</td>
</tr>
<tr>
<td>Colombia</td>
<td>9.3</td>
<td>55</td>
<td>61</td>
<td>45</td>
<td>61</td>
<td>226</td>
</tr>
<tr>
<td>South-East Asia</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>3.4</td>
<td>51</td>
<td>96</td>
<td>49</td>
<td>99</td>
<td>29</td>
</tr>
<tr>
<td>Thailand</td>
<td>3.9</td>
<td>61</td>
<td>92</td>
<td>39</td>
<td>85</td>
<td>71</td>
</tr>
<tr>
<td>Europe</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyprus</td>
<td>6.3</td>
<td>38</td>
<td>20</td>
<td>62</td>
<td>97</td>
<td>728</td>
</tr>
<tr>
<td>France</td>
<td>9.3</td>
<td>76</td>
<td>3.2</td>
<td>24</td>
<td>43</td>
<td>2 297</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>5.7</td>
<td>71</td>
<td>71</td>
<td>29</td>
<td>100</td>
<td>66</td>
</tr>
<tr>
<td>Poland</td>
<td>6.4</td>
<td>65</td>
<td>100</td>
<td>35</td>
<td>100</td>
<td>264</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>4.6</td>
<td>31</td>
<td>55</td>
<td>69</td>
<td>94</td>
<td>56</td>
</tr>
<tr>
<td>Lebanon</td>
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<td>77</td>
<td>82</td>
<td>85</td>
<td>534</td>
</tr>
<tr>
<td>Morocco</td>
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<td>90</td>
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<td>77</td>
<td>54</td>
</tr>
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<td>52</td>
<td>99</td>
<td>49</td>
<td>100</td>
<td>46</td>
</tr>
<tr>
<td>Western Pacific</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>4.5</td>
<td>39</td>
<td>19</td>
<td>61</td>
<td>80</td>
<td>34</td>
</tr>
<tr>
<td>Japan</td>
<td>7.5</td>
<td>78</td>
<td>11</td>
<td>22</td>
<td>78</td>
<td>2 244</td>
</tr>
<tr>
<td>New Zealand</td>
<td>8.1</td>
<td>77</td>
<td>100</td>
<td>23</td>
<td>72</td>
<td>1 159</td>
</tr>
<tr>
<td>Philippines</td>
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<td>42</td>
<td>85</td>
<td>58</td>
<td>83</td>
<td>32</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>5.1</td>
<td>46</td>
<td>26</td>
<td>54</td>
<td>77</td>
<td>354</td>
</tr>
</tbody>
</table>

a Ref. 8: Annex Table 5. Gross Domestic Product (GDP) is gross value added, at purchaser prices, by all resident producers in the economy, plus any taxes and minus any subsidies not included in the value of the products. It is calculated without deducting for depreciation of fabricated assets or for depletion or degradation of natural resources. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs (9; 323).

Comparable time series data are not available for other countries. Most country reports suggest an increase in total health expenditure over the past decade, although constant per capita statistics are lacking, despite lower health spending in some years in response to budgetary crises. For example, the Government of the Philippines, after increasing the health budget between 1991 and 1998, reduced it by 6.2% in 1998–1999 in response to the Asian financial crisis (country report).
Do countries spend about what one would expect on health care given their economic capacity? Figure 2.7 shows the relationship between GNP per capita and health spending per capita in 1998. Health expenditure per capita in 1998 US$ (PPP data are not available) is shown in columns that relate to the values on the left axis. The rank order of these 20 countries according to their health expenditure per capita ranges from the United Republic of Tanzania, where it is the lowest, to France, where it is the highest. France spent US$ 2297 per capita; Japan was close behind with US$ 2244; New Zealand, US$ 1159; Cyprus, US$ 728; and Lebanon, US$ 534. All the other countries spent below US$ 500 per capita on health, ranging to extremely low levels of health expenditure in Ghana (US$ 18) and the United Republic of Tanzania (US$ 10). The measure of economic capacity, GNP per capita in PPP US$, is shown in box points that relate to values on the right axis. The pattern of health expenditure per capita generally relates to the level of GNP per capita. Some exceptions can be noted. Cyprus and the Republic of Korea spent less per capita on health care than one might expect given their levels of GNP; Lebanon, however, spent more on health than one might expect, as did France and Japan.

Sources of health revenue

Where does the money come from to fund a health-care system? The countries in this survey range along the spectrum from those with high per capita health expenditure and predominantly public sources of funds (taxation or social insurance), to low per capita health expenditure countries that rely heavily upon out-of-pocket payments by individuals. The sources of revenue have implications for the sustainability of funds,
whether the system of funding is fair to the population, and whether funds can be shifted between types of health-care services. There are five main sources of funds:

- taxation (central, regional or local);
- insurance (public or private);
- out-of-pocket payments by patients (formal arrangements such as official co-payments, and informal ones such as under-the-table payments to health professionals);
- private sector contributions (such as religious organizations);
- external donors (in the case of poor countries or countries recovering from catastrophic events).

A key funding issue is the extent to which health care is publicly or privately financed. In most high-income countries (the United States being the exception) health care is considered primarily as a public or social good, not a private good where supply and demand can be left to the market. For example, OECD and western European countries have mostly publicly funded health-care systems with over 70% public expenditure on health, for example France, Japan and New Zealand (see Figure 2.8). At one end of the continuum for OECD countries, the United Kingdom had 83% public expenditure (from taxation) on health in 1998, while at the other end, the United States had only 45% public expenditure (18).

Of the 20 countries in this survey, over 50% of funds for the health sector come from the public sector in 10 of the countries, while many of the poor countries rely more on the private sector. For example, Eastern Mediterranean countries mostly have a low level of public expenditure, with Lebanon having the least public expenditure (18%); in contrast, the Syrian Arab Republic, with its mainly tax-funded health-care system and lower per capita expenditure, achieves similar life expectancy for less cost.

High public sector expenditure does not necessarily mean that the state is also the main provider of health services. For example, New Zealand has substantial private sector health services, notably in primary health care, where the state subsidizes the fees for services paid to general practitioners by people on low incomes (19).
The World Health Report 2000 on health system performance (20) found that higher levels of inequality were associated with private health financing than with tax financing, which is of considerable relevance since half the countries in this survey derive over 50% of their health funds from private sources. The level of health expenditure and the main sources of revenue in the different countries, shown in Table 2.5, can be categorized as follows:

- high per capita expenditure and publicly funded: France, Japan and New Zealand;
- middle per capita expenditure and mainly publicly funded: Colombia and Poland;
- middle per capita expenditure and mainly privately funded: Chile, Cyprus, the Republic of Korea, Lebanon and South Africa;
- low per capita expenditure and mainly privately funded: China, Egypt, Morocco, the Philippines, Thailand and the United Republic of Tanzania;
- low per capita expenditure and mainly publicly funded: Ghana, Kazakhstan, Sri Lanka and the Syrian Arab Republic.

Of the countries with the highest per capita spending on health, France obtains most health-care revenue through statutory health insurance (74%), as does Japan with 70% (18), while the health sector in New Zealand is funded mainly through state taxation plus 23% from private sources, principally co-payments from patients.

The countries in the middle group for health expenditure per capita have a mixed pattern of revenue, mainly combining public sources (taxation or social health insurance) with substantial out-of-pocket payments by patients. For example, the Republic
of Korea obtains 33% from social health insurance and 54% from private sources, principally out-of-pocket household payments. In Poland, 66% of revenue comes from social insurance since 17 public sector insurance funds (16 of which are regionally based) were set up in 1999, but the system also relies on out-of-pocket payments by patients, with the expectation that these will be reduced once the insurance schemes are better established (21). Colombia introduced a consolidated state social security and health insurance scheme in 1993, with mandatory employer and employee contributions. Chile dismantled its tax-funded national health system in the 1980s, and in 1990, 61% of the population were covered by public insurance and 28% by private insurance. In South Africa, the public sector is funded from taxation for the majority of the population (mainly black people), but there is also substantial private expenditure via private insurance from wealthier groups (mainly white people). In Lebanon, only about 25% of the population are covered by social insurance and 12% by private insurance, so that patients must make substantial out-of-pocket payments (country reports).

Table 2.5 Main source of health revenue and health expenditure per capita PPP (US$) in 20 countries

<table>
<thead>
<tr>
<th>Main source (above half) of revenue for health care</th>
<th>High per capita health expenditure &gt;US$ 1000</th>
<th>Middle per capita health expenditure US$ 201–999</th>
<th>Low per capita health expenditure &lt;US$200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxation</td>
<td>New Zealand</td>
<td>Kazakhstan</td>
<td></td>
</tr>
<tr>
<td>Social insurance</td>
<td>France, Japan</td>
<td>Poland</td>
<td></td>
</tr>
<tr>
<td>Tax and private insurance</td>
<td>South Africa</td>
<td>Thailand</td>
<td></td>
</tr>
<tr>
<td>Social insurance and out of pocket</td>
<td>Chile, Colombia, Republic of Korea</td>
<td>China, Egypt, Ghana, Morocco, Philippines, Sri Lanka, Syrian Arab Republic, United Republic of Tanzania</td>
<td></td>
</tr>
<tr>
<td>Tax and out of pocket</td>
<td>Cyprus, Lebanon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: country reports.

The countries with the lowest per capita health expenditure rely mainly on taxation and out-of-pocket payments by patients. For example, in Ghana about half the revenue for public sector health care comes from taxation, 35% from external donors and the rest from patients. In China, since the privatization of industry and agriculture and the demise of public insurance cooperatives, most health-care expenditure comes from out-of-pocket payments by patients. However, the country is in the process of setting up a health insurance scheme funded by 2% payroll tax and is considering how to revive the rural health insurance scheme (country reports).

Out-of-pocket payments

Many low-income countries now seek private sources of finance for their health systems, given falling state revenues and the near collapse of health services: for example, in central Asia, wages are not paid and hospitals run out of essential supplies (22). Three categories of out-of-pocket payments can be defined; they are difficult both to separate and to estimate, especially since some payments can be in cash or in kind. First, both government and private health providers charge users, with differing degrees of standardization and transparency. Second, semi-official charges are made for consumables such as drugs and medical supplies. Third, patients make under-the-table payments to health-care providers, either as a “gift” or, increasingly, as a pre-condition for service. All three categories of out-of-pocket payments are substantial in Eastern Europe (23), in Africa (24) and in parts of Asia (country reports).
The first category of payment, a “user pays” policy, occurs where health-care providers levy charges on consumers such as co-payments, co-insurance, deductibles, and balance billing (25). In the European Union, such cost sharing accounts for less than 20% of total health funding, although it now applies across a large range of goods and services, mainly pharmaceuticals and dental services, and also general practitioner consultations, specialist consultations and inpatient hospital care. The country reports suggest that charges are increasingly being introduced by cash-strapped hospitals with inequitable results for patients. For example, South African public hospitals officially charge income-graded fees but they are not enforced, partly because there is little incentive for hospitals to apply the system as any revenue is returned to the Treasury. A uniform fee schedule was introduced in 2002, however, in the hope that it might bring in more revenue, particularly from patients with private health insurance.

The second category, semi-official charges made for consumables, is less well documented, but is known to be common in low-income countries, where public sector health facilities faced with serious shortages require patients to bring or buy their own consumables. This is now standard practice in, for example, countries of central Asia including Kazakhstan, so that hospital inpatients must often supply their own food, launder their own sheets and towels, and buy their own medicines (22). Many hospitals in other countries, such as the United Republic of Tanzania, are also only able to function with direct patient support.

Out-of-pocket informal payments, which are often illegal, have long been a feature in the countries of the former Soviet Union (23). Such informal payments add a substantial amount to the total health expenditure within a country, for example perhaps another one third in Kazakhstan (26) and a significant amount in Poland in the mid-1990s (21). Health-care professionals in many low-income countries are paid very low wages, often months late, so they resort to seeking payment directly from patients.

The sources of revenue and their sustainability have enormous implications for hospital budgets; whether the government or other funders (such as public or private insurance funds) have sufficient financial levers at their disposal to encourage more cost-effective hospital treatment is discussed in Chapter 3. Hospitals that have to rely on selling their services to patients may be inclined to prescribe treatments – such as expensive diagnostic tests – on the basis of their profitability rather than on the basis of their clinical effectiveness. Hospitals in middle-income and low-income countries have increasingly turned to charging patients, thus raising financial barriers for the poor in the absence of public subsidies and increasing social and health inequities within their societies.

**Measuring country health system performance**

*The World Health Report 2000* ranked WHO Member States in terms of their health system performance. The report argued that a country’s health system should aim to achieve three goals: good health, responsiveness to the expectations of the population, and fairness in financial contributions. The report ranked 191 countries according to their health attainment and health system performance (with 1 being the highest rank order and 191 the lowest). The WHO measure of overall health system performance is an index of five achievements adjusted for available health resources. These five measures are: health attainment on average for the population and its distribution within the population; responsiveness to patients and its distribution within the population; and fairness of financial contribution. Although this composite measure is controversial and much criticized (for example 27, 28), and while some of the data used to derive these measures were only estimates and are being improved in subsequent measures, it is worth examining the 20 countries in terms of their rankings on this world “league table”.

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**THE PERFORMANCE OF HOSPITALS UNDER CHANGING SOCIOECONOMIC CONDITIONS: A GLOBAL STUDY**

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28
The first goal of a health system, good health for the country’s population, was measured in *The World Health Report 2000* (with updated tables produced in the 2001 report) as the number of years lived in good health without a disability (HALE). The report then adjusts this HALE indicator by the country’s available health resources in order to produce a “performance on population health” indicator (20: 40). In this calculation, healthy life expectancy at birth is taken as one of the outcome indicators of a good health-care system, though the cause–effect relationship is much debated. The “responsiveness to patients” measure (and distribution within the population) was highly speculative, being based on a small key informant survey in each of 35 countries which was then generalized to comparable countries. Surveys are now under way in some countries on much larger consumer samples. The “fairness of financing” measure (and distribution within the population) is based on the idea that all households should spend the same proportion of their total expenditure on health care, and measures of this were derived from household surveys.

Of the 20 countries in the present survey, only eight reached the top quarter of the 191 Member States ranked for their health-care system’s performance. Figure 2.9 shows that France ranked first out of all countries, with Japan in 10th place and surprisingly high rankings for some other countries. For example, Colombia ranked 22nd mainly because it had introduced a relatively fair financing system, and Morocco ranked 29th mainly because it had achieved higher than anticipated life expectancy given its low per capita income. The methodology is being refined and the positions of countries on the league table may not necessarily hold in the next round of measures. Reference is also made to a WHO 1994 report on hospital performance (29).

*Figure 2.9 Health system performance in 20 countries, country rank order, 1998*

![Graph showing health system performance in 20 countries, country rank order, 1998.](image)

Source: ref. 8: Annex Table 1.
The hospital sector

It must be kept in mind in reviewing the hospital sector, as Chapter 1 points out, that a “hospital” may mean different things in different countries and that hospitals may carry out different functions. Across the world the term hospital covers very diverse structures, ranging from a 10-bed building – run by nurses with basic training who provide mainly social care – to a complex centre equipped with the most advanced technology and staffed by a large array of medical specialists. Many countries include as hospitals, therefore, institutions that provide social and nursing care and primary-level health services, as well as those providing secondary or tertiary care. Many a small rural hospital with fewer than 30 beds in low-income countries would be termed a “nursing home” in other countries. To add to the complexity, private hospitals in India, for example, are also called nursing homes (30). Further, many countries make little distinction between functional levels, since a tertiary hospital by default may provide all types of care.

What trends are under way in hospitals around the world, and where do the 20 countries in the survey stand? Hospitals in European and OECD countries have undergone dramatic changes over the past two decades in response to external and internal pressures for change. These pressures include the impact of changes in demographic composition of populations and patterns of disease, more opportunities for medical intervention with new knowledge and technology, the push to contain costs, and rising public expectations for cost-effective and responsive care (31). These pressures have changed how hospital care is provided, since new methods of patient management require new configurations of buildings and new ways of working. For example, patients needing only nursing and social care are discharged to nursing homes or community services: quicker and more intensive treatment of inpatients and the availability of less invasive techniques of treatment mean shorter hospital stays and more people treated as day patients or in ambulatory care clinics. Hospitals in European and OECD countries, therefore, are reducing their supply of inpatient beds and are shifting more inpatient and outpatient care to alternative settings. At the same time, hospitals have become even busier places, since more medical interventions are possible and more people expect treatment for their conditions. For example, elderly people who once would have endured arthritic hips can now opt for hip replacement surgery. The situation is very different in many low-income countries where, although some similar pressures apply, severe cost constraints leave little capacity to adopt new technology and to redesign hospitals, while weak community-based health services mean that expensive hospitals tend to provide the whole range of health care.

For a discussion on the future of hospitals in the 21st century, see Jolly (32) and Jolly & Gerbaud (33).

Definition of a hospital

This topic was touched upon in Chapter 1, where Miller’s definition of a hospital was quoted (2). At a basic level, for example a commune hospital in China, a hospital has fewer than 20 beds and is supervised by medical officers with no more than three years’ medical training. Moving up to the next level, a district hospital, as in Sri Lanka, has 50–200 beds and is staffed mostly by general physicians. A large tertiary care hospital, such as the Pitié-Salpêtrière Hospital in Paris, has an extensive array of advanced medical specialties and high-technology equipment and is well known for its research and teaching.

In some countries, a tertiary care hospital may provide a substantial amount of secondary and even primary health care. For example, the Muhimbili National Hospital in Dar es Salaam, United Republic of Tanzania, provides primary and secondary as well as tertiary care, given the scarcity of alternative hospital beds in the city and the weak primary health-care system (country report).
A simple count of hospitals does not tell us much, since hospitals vary in size from under 20 to over 1000 beds. Clearly, a bed count is no more informative, as the treatment available to a patient in a commune hospital in China is very different to the treatment available to a patient in Pitié-Salpêtrière Hospital.

In categorizing types of hospitals, a distinction is usually made between acute and long-term care. In other words, between whether the hospital provides short-term active restorative medical treatment or longer-term nursing care for chronic conditions, convalescence, rehabilitation and palliative or social care for dependent people. In some countries in this survey, however, no distinction is made between acute and long-term care; the desirable label of “hospital” is applied to all types of health facilities where patients occupy beds. The roles and functions of different types of hospitals are discussed by van Lerberghe & Lafort (34) and Puzin (35).

National hospital plans

Most high-income countries have engaged in major reforms to their health-care systems over the last two decades, including restructuring their hospital sectors (see, for example, McKee & Healy (31) and Saltman & Figueras (36)). These countries have produced national or regional plans for their hospital sectors, and the resulting strategies are in various stages of implementation. The production of such plans indicates that, despite privatization and its many manifestations, most governments regard themselves as responsible for ensuring that their populations have access to appropriate, affordable and good quality hospital services. Indeed, the condition of hospital services is high on the political agenda in many countries. In a minority of high-income countries, however, such as Japan and the United States, and also in some middle-income and low-income countries, governments do not play an active role in driving the hospital sector: the state may collect statistics on public hospitals but not private hospitals, which are thus seen as being outside state scrutiny, making it impossible to produce a comprehensive strategy for the hospital sector.

In the period of hospital building during the 1960s and 1970s, hospitals were seen as the pre-eminent health service and the main indicator of a good health-care system. Most countries aimed to locate a hospital in each district, a secondary or tertiary care hospital in each region, and specialized hospitals in the national capital. This remains the extent of policy in some countries, while others are reassessing the role and function of hospitals in the health-care system. Additional considerations now include ways in which to allocate hospital resources according to population need, classify the function of hospitals, license and accredit hospitals, decide the balance between public and private hospitals, devolve autonomy to lower levels of government and to hospital managers, and introduce new hospital payment methods. Not all country reports provided information on public policies for the hospital sector, but the following are examples of some country initiatives.

- France devolved responsibility for public and private hospitals to regional boards in the early 1990s. In 1997, a national accreditation agency was set up to implement compulsory accreditation, with which all hospitals are expected to comply by 2004. The functions and standards of both public hospitals and private hospitals (for-profit and non-profit) are set out in legislation (37: draft report 2001).
- New Zealand has restructured its health-care system several times during the past two decades. Hospitals were moved from the central Department of Health to 14 area health boards during 1984–1993, became part of 23 Crown Health Enterprises in 1993–1996 and were expected to make a profit, were relieved of the profit requirement when they were transferred to hospital and health services trusts in 1997–2001, and from 2001 moved under the administrative umbrella of the 26 District Health Boards. Out of 158 acute-care hospitals, 91 are government owned (mainly autonomous entities), 9 are non-profit and 58 are for profit (19).
South Africa retained central government control of health policy and finance after 1994 but devolved responsibility for health-care delivery to the nine provinces, while the policy emphasis shifted from hospitals to primary care. The district health-care system and its primary care focus remain weak, however, exacerbated by the territorial divide between provincial and local governments, while patients still bypass district clinics and go directly to hospital. The public hospital sector, which caters for over 70% of the population, has deteriorated despite its plight being identified in a series of reports, most recently in the health sector strategic framework for 1999–2004. Revitalizing public hospital services will be a tremendous task, because the Treasury’s intergovernmental fiscal review revealed a R12 billion (US$ 1.2 billion) backlog in facilities in public hospitals (country report).

In Egypt, the Ministry of Health and Population embarked on a hospital renovation programme after several decades of neglect; nearly half the general hospitals have now been renovated or rebuilt and re-equipped. The 1998 health sector reform plan aims to expand population coverage, improve the quality of health services, adopt a family health approach, integrate health programmes and establish a new system of health insurance (country report).

Sri Lanka adopted a plan for the health sector in 1997, drawn up by a Presidential task force. Five priorities were identified for immediate implementation, including upgrading one hospital in each district with the aim of alleviating serious overcrowding in regional and national hospitals (country report).

Throughout the 1980s, the Government of Thailand concentrated on establishing hospitals in all 795 districts and health centres in all 7255 subdistricts. The government, in view of its policy of favouring the free market, has not intervened in the growth of private hospitals; as a result, private hospitals with their high-cost technologies are concentrated in Bangkok and wealthier provincial cities (country report). This situation is discussed further in Chapter 3.

The supply of hospitals

The number of hospitals and hospital beds in a given country or locality is frequently taken as an indicator of the quality of health care. While this may be true for individual restorative and rehabilitative health care, medical and hospital investment has only an indirect impact on the health status of populations as expressed in a country’s vital statistics. Demographic indicators such as overall morbidity and mortality, life expectancy and infant mortality are hardly influenced by individual medical care, whose aim is the relief of suffering and restoration of function and whose effectiveness is greatest in dealing with malfunctions attributable to genetics and organ degradation.

Major improvements in demographic indicators occur only as a function of control over hazards in the physical, biological and socioeconomic environments. This is the domain of collective health care and of classic public health, which aims at health status improvement of whole populations through preventive and promotional action. Major aims are improving the conditions of daily life, work and leisure through better hygiene, water and sanitation, control of specific biological hazards, and occupational safety; other contributing factors are literacy and economic provisions such as shelter, jobs and disposable income. Major determinants are industrial development, environmental and civil engineering, human development, and social organization in many forms so as to enhance solidarity and mutual support.

The use of demographic indicators to understand and calculate the need for medical care and hospital provisions is therefore a fallacious approach, but a common one of long standing. The significance of medical care for collective health status is in the information it generates. If medical care cannot directly improve morbidity and mortality statistics, it nevertheless contributes significantly to understanding the nature and mechanisms of hazards to human lives, thus providing the essential basis for coming to grips with them.
Hospitals, in particular, are cardinal places to learn about human suffering and the hazards causing them. As such, hospitals are essential in generating information and teaching health workers, both of the clinical and non-clinical variety, but the relation between morbidity and mortality statistics and the number of hospitals and hospital beds is not a causal one. More hospital resources do not produce better population health outcomes, and more hospital beds do not necessarily result in healthier populations.

Figure 2.10 shows the correlation between life expectancy and acute-care hospital beds across the European Region. There is a possible inverse relationship in these countries between life expectancy and number of hospital beds: the fewer the hospital beds the higher the life expectancy. It could be argued that countries with sicker populations need more hospital beds but, as shown above, the number of hospital beds has little to do with improving the overall health status of the population. This view reflects a change in thinking that has occurred progressively over the last 10–15 years. There were large numbers of hospital beds in countries of the former Soviet Union because, quantitatively, hospitals and doctors were taken as indicators of a good health-care system, a concept that was shared by many other countries in the 1960s and 1970s. This view has now been abandoned.

The following sections examine the supply of hospitals and beds in the 20 countries of the study, and Table 2.6 sets out the available information in comparative form. Unfortunately, such data are available only for countries in the WHO European Region and OECD countries. The data on other countries, taken from the country reports, must be regarded as general indications only: as noted earlier, definitions and categories may vary. For example, many small hospitals in Africa and Asia would be categorized as nursing homes in OECD countries and, where possible, these have been excluded from the count.

Hospital share of health budget

One reason why hospitals are a crucial component in health system reform is that they consume the largest share of the health-care budget. Two points are evident from the international databases. First, hospital inpatient care consumes less than half of total health expenditure in most high-income countries, but more than half in many middle-income
and low-income countries. Second, after rapid growth in spending on hospitals in high-income countries throughout the 1970s, growth slowed in the 1980s and the hospital share of total health expenditure was reduced somewhat during the 1990s. Figure 2.11 shows these trends in relation to selected European countries, though there is considerable diversity across Europe; for example, Denmark allocates over half of its health expenditure...
to hospitals. Patterns of spending on hospitals differ across the European Region, however, with the countries of the former Soviet Union spending a larger share of the health budget on their hospital systems (up to 75%) than the countries of the European Union (less than 50%) (31). These statistics are for inpatient care but it should also be noted that hospitals in some countries provide a substantial amount of ambulatory care.

Figure 2.11 Hospital inpatient expenditure as percentage of total health expenditure, selected European countries

![Graph showing hospital inpatient expenditure as percentage of total health expenditure for selected European countries.](image)

Source: ref 17.

Only limited information is available on the proportion of the health budget spent on hospitals in the 20 countries, and most statistics refer only to public sector spending. A survey of Asian countries in the early 1990s (Bangladesh, China, Indonesia and Thailand) showed that these countries spent over half their budgets on hospitals (country report). Table 2.6 suggests that most countries in this survey spend over half of their health budgets (or at least the public budget) on hospitals:

- high budget proportion (over 70% of health budget): Chile and South Africa;
- medium budget proportion (50–69% of health budget): China, Egypt, Ghana, Kazakhstan, Lebanon, Morocco and Thailand;
- average budget proportion (OECD average less than 50%): France, Poland, Japan and the Republic of Korea.

Numbers of hospitals and beds

The number of all hospitals in the European Union has been reduced from 4.1 per 1000 population in 1990 to 3.4 in 1999 (17), although closures and mergers of hospitals have proven extremely difficult to manage. Number of beds is the standard international measure of hospital supply, but this measure is difficult to interpret, since a hospital “bed” must be understood as a shorthand label for the package of professionals, services and equipment that accompanies the bed. The number of all hospital beds per 1000 population has decreased across western European and OECD countries over the past two decades (31). OECD countries have reduced their stock of hospital beds for the population, in large part by moving the care of dependent people out of hospitals to nursing homes or to community-based treatment or care, a shift which – despite some notable problems – is generally regarded as successful. Both acute-care beds and
psychiatric hospital beds per 1000 population have therefore dropped steadily, while beds in nursing homes have risen.

Figure 2.12 shows three broad patterns for all hospital beds across Europe. The 15 countries of the former Soviet Union traditionally had many hospital beds, because hospitals were regarded as the dominant providers of health care and normative planning guidelines were set at 12 beds per 1000 population. These countries began to downsize in the early 1990s in an attempt to contain costs and to shift resources to other forms of health care. The 12 countries of central and Eastern Europe had fewer hospital beds, while the 15 European Union countries have been steadily reducing all hospital beds and acute-care beds as a population rate since at least the 1970s.

Comparative information is limited on the 20 countries, especially since some countries make little distinction between acute-care beds, long-term beds and nursing homes. The European Union average in 1999 per 1000 population was 6.0 all hospital beds and 4.2 acute-care beds (17). As shown in Table 2.6, the supply of all hospital beds is much lower in the countries of Africa, the Americas, China and some Asian countries, with fewer than 3 beds per 1000 population. Of countries in the South-East Asia Region, in the mid-1990s Sri Lanka had the most hospital beds for its population (2.7 per 1000) followed closely by Bhutan, the Maldives and Thailand, with very few hospital beds for the populations of Bangladesh, India, Indonesia, Myanmar and Nepal (regional report). Japan differs greatly from others in the sample, with 16.5 beds per 1000 population: although its health system is clearly dominated by hospitals, this count probably includes beds that elsewhere would be classified as nursing homes.

The relationship of the countries for which information is available to the European Union average for all hospital beds per 1000 population is as follows:

- above EU average (more than 6 beds): France, Japan, Kazakhstan and New Zealand;
- just below EU average (around 4–6 beds): Poland and the Republic of Korea;
- way below EU average (fewer than 3 beds): Chile, China, Colombia, Egypt, Ghana, Morocco, South Africa, Sri Lanka, Thailand and the United Republic of Tanzania.

Has the supply of hospital beds per 1000 population in the 20 countries of the study increased or decreased over the past decade? High-income countries in general have decreased their hospital beds, but we cannot be precise about low-income countries (with generally a low supply of hospitals beds) because comparable time series infor-
mation is not available. The following categories indicate the trends per 1000 population over the past decade:

- increased supply of hospital beds: Egypt, Japan, Morocco, the Republic of Korea, South Africa, Sri Lanka and Thailand;
- decreased supply of hospital beds: France, New Zealand and the Philippines.

All hospital beds in Japan increased over the past decade from under 14 to over 16 beds per 1000 population (though this may include nursing-type beds for the large numbers of elderly people), and in the Republic of Korea from under 2 to over 4 beds per 1000 population (18). In South Africa, private hospital beds have increased by 44% between 1994 and 1999. In Thailand, hospital beds have increased since the 1980s, but mostly in the private sector. In Egypt, hospital beds have increased, though some argue that the country has sufficient (2.1 per 1000 population) and cannot afford more. In contrast, the Philippines had 1.4 beds in 1990 compared with 1.1 in 1999, as the supply of hospital beds has not kept pace with population growth.

### Inequities in the distribution of hospital beds

In many countries, hospital beds are not distributed equitably in response to population health needs, with many more hospitals and beds in urban than in rural areas, even allowing for specialized hospitals with large catchment areas. The following examples are drawn from the country reports. Ghana has a threefold difference in the number of hospital beds per 1000 population between the best-served and the worst-served regions; South Africa has a nearly twofold difference; Egypt has a fivefold difference between Cairo and poor rural regions; Thailand has a fourfold difference between Bangkok and the North-East region; and the supply of hospital beds across regions in the Philippines is inversely related to the incidence of poverty. Such inequities result from differences between regions in revenue capacity as well as historical factors, failure to adjust to demographic change, and professional preferences as physicians prefer to work in cities.

In addition, these inequities are exacerbated in countries with a large private hospital sector, because private hospitals locate in areas (usually national and regional capitals) where patients can afford to pay the hospital fees, either out of pocket or through private insurance schemes. In Thailand, for example, over 40% of private hospital beds are in Bangkok (country report).

Many people cannot use the hospital services they need, either because the hospitals are geographically inaccessible or because the patients cannot afford to pay either the official or the unofficial hospital charges. In Thailand, for example, those with private health insurance cover are four times more likely to be hospitalized than those with no private cover (country report). In the Philippines, a lower proportion of people in poor regions visit health services than in higher-income regions (country report).

### The distribution of health professionals

The difficulty of attracting doctors and nurses to work in rural areas contributes to inequities in the distribution of health services. The health sector is a major employer, accounting for 4–7% of the workforce in many high-income countries, and hospitals employ around two thirds of the health-care workforce (18). Nurses are the largest group of health-care professionals working in hospitals, and hospitals also employ around half the physicians in the European Union (17).

High-income countries and eastern European countries have more doctors for their populations than other countries. The European Union average is 3.9 physicians per 1000 population, but the considerable variation between countries bears no relationship to the health status of the populations served. In the group of 20 countries in the study, Kazakhstan with its 3.5 doctors per 1000 population (Figure 2.13) illustrates
the pattern for countries of the former Soviet Union, where the supply of doctors was regarded as a key indicator of a good health-care system.

Figure 2.13 Physicians per 100 000 population in 20 countries, 1998 or latest year

The supply of trained nurses is another important indicator of human resources, but comparable information is lacking on the 20 countries since there is no consensus on the definition of a trained nurse. Many high-income countries have between 6 and 8 qualified, practising nurses per 1000 population (18). Countries also vary in the skill mix of their health-care workforce such as the ratio of doctors to nurses. European countries have more nurses than doctors (particularly the Scandinavian countries), except for Greece and Italy (17), while among the countries considered in this study, Chile has twice as many doctors as nurses (country report).

Hospital utilization patterns

How are hospitals being used? Is the throughput of patients increasing or decreasing? Table 2.6 shows the information available on standard hospital activity measures (average length of stay, occupancy levels and admission levels) in the 20 countries of the global study. When analysing these figures, it is important to keep in mind that they are influenced by the country’s patient mix, availability of other health-care institutions, and other factors.

As noted earlier, the trend in high-income countries has been to reduce the average length of stay in acute-care hospitals (38). The interconnected factors contributing to shorter stays include moving patients, who formerly remained in hospital for long periods, into specialized facilities such as nursing homes, discharging patients earlier with support provided at home from community health and social services, changes in patient management such as earlier mobilization after surgery, budgetary pressures to reduce patient unit costs, and managing many more cases as one-day admissions.

Figure 2.14 shows the steady reduction in the average length of stay in acute-care hospitals in countries of the European Union, now around 8 days, compared with the current 13 days in Central and European countries. The average length of stay has
dropped to 5–6 days in some OECD countries, such as France, New Zealand, Sweden and the United Kingdom. In eastern Europe, however, and in many other parts of the world, little medical treatment or social care is available outside hospital, the patterns of disease are different, alternative forms of medical treatment and less invasive surgery are not available, and out-dated clinical protocols call for lengthy hospital stays.

Among the 20 countries of the study, the average length of stay in acute-care hospitals is below 8 days in several countries (Chile, France, Morocco and New Zealand) but is 11 days in the Republic of Korea, 12 days in Kazakhstan, and 13 days in China. There are likely to be several reasons for these longer stays, including some blurring between acute and long-term care hospitals, as in Japan.

The occupancy rate of acute-care hospitals in many of the 20 countries (Table 2.6) is well below the 75% occupancy common in the acute-care hospitals of the European Union; in some countries many hospitals are only half full, as in Colombia and Egypt. The reasons for this are not clear, but they may include excess hospital capacity, the inability of patients to pay hospital charges, and shortages of drugs and equipment. Whatever the causes, low hospital occupancy levels are cost-inefficient.

Admissions to acute-care hospitals have risen over the past decade in European Union countries, from 14.7 per 100 population in 1985 to 17.1 in 1995; for example, France had 20 admissions per 100 population in 1999. The reasons for the rise are complex, including the availability of more medical interventions, an ageing population, and the dramatic growth in one-day admissions. The raw numbers supplied in some country reports suggest a rise in hospital admissions.

Types of hospitals

Hospitals can be categorized according to their functional level of care (secondary or tertiary), administrative level of ownership (national, regional or city, district and local), size (number of beds), type of ownership (permutations on public and private ownership), range of specialties, and whether they are for general health care or a single specialty.

The trend in high-income countries has been to move from multiple functional divisions to a two-level division, while single-specialty hospitals are being merged with
general hospitals (31). This means that all hospitals offer advanced general care, while some also specialize in particular types of tertiary care such as neurosurgery or liver transplants. Many small district hospitals are being closed or merged (despite local opposition) or upgraded, because many are unable to offer a full and cost-effective range of standard hospital specialties, including 24-hour emergency care. Small secondary care hospitals are now located mainly in rural areas that need accessible and basic secondary care and also “step-down” hospital care after transfer from a tertiary care hospital. Most hospitals do not provide primary care, except after hours in emergency departments, which is regarded as an inappropriate use of a hospital, but remains a perennial issue. Furthermore, except in emergencies, hospital consultations and admissions are controlled by referrals from community-based general or specialist doctors or from other hospitals (as discussed later). Community-based specialists, general practitioners and nurse practitioners now undertake many secondary-level diagnostic and treatment procedures previously done in hospital.

The situation in low-income countries (and also in some high-income Asian countries) is very different: there are different, long-standing hospital traditions. The following examples of hospital classification systems are drawn from the country reports. France (population: 59.2 million) has 709 acute-care hospitals that fall into two categories: 684 (96%) are regional general hospitals that offer secondary and tertiary care, and 25 (4%) hospitals offer advanced and highly specialized treatment and take referrals across regions and nationally. France also has 349 small local hospitals that provide mainly post-acute nursing and social care, that do not undertake surgery, and can be considered more akin to a “step-down” hospital or, perhaps, a nursing home.

Poland (population: 38.6 million) has 694 hospitals classified into three levels and run by different government administrations. At the first level, 2% are local hospitals and 57% are district hospitals, at the second level 32% are regional hospitals, and at the third level 9% are tertiary-level national teaching hospitals.

Japan (population: 127 million) has 9333 hospitals classified by size and whether they are general or single-specialty hospitals (82 hospitals provide tertiary care), but there is little distinction between acute and long-term care. Therefore, many small hospitals provide mainly nursing care for dependent elderly people, while many large hospitals have geriatric units that tend to have lengthy patient stays.

A four-level distinction is common in Eastern Europe and in many low-income countries: national, regional or city, district, and local hospitals. For example, a city may contain hospitals owned by the central ministry of health and the city administration. There are also many single-specialty hospitals (for heart disease, cancer, maternity care, etc), as well as traditional medicine hospitals in some countries such as China, the Republic of Korea, and Sri Lanka. The structure of the hospital sectors in many countries is characterized by complexity, administrative fragmentation, functional overlap and cost-inefficiency. Divisions between hospitals correspond more to administrative levels of ownership than to a hierarchy of functional levels of treatment; the many single-specialty hospitals add another level of complexity; and much primary and social care is undertaken in hospital rather than in less institutional and less expensive community-based alternatives.

South Africa (population: 43.3 million) has 822 hospitals; its mostly public hospitals (80%) are the responsibility of the nine provinces, the hospitals being organized into three main categories. District hospitals are the first level of hospital care and typically offer basic surgical, medical, paediatric, maternity, radiography, casualty and theatre services (for example, Free State Province has five district hospitals). Regional hospitals offer a broader range of services, including tertiary care, and teaching hospitals offer specialties and subspecialties as well as sophisticated diagnostic and rehabilitative services. National tertiary hospitals are usually also university teaching hospitals and offer a more advanced level of skills and facilities. A few hospitals specialize in chronic psychiatric disorders or tuberculosis. In addition, 25 mining hospitals are located in
the main mining centres and offer mainly secondary care, referring patients requiring specialized care to private hospitals.

Egypt (population: 67.8 million) has 2461 hospitals organized in five categories. There are 207 rural hospitals offering mainly primary care, plus small general hospitals of 20–60 beds, with X-ray equipment and a laboratory, that provide primary care and secondary medical and surgical services to 10 000–25 000 people. District hospitals with 100–200 beds, located in every district, serve between 50 000 and 100 000 people and provide more specialized services. At the regional level, a general hospital in the capital of every governorate has more than 200 beds. There are also more than 100 single-specialty hospitals in the capitals of governorates specializing in, for example, psychiatry, cardiac disease, ophthalmology, cancer, and obstetrics and gynaecology.

Chile (population: 15.2 million) has 187 public hospitals (and few private hospitals) organized in four functional levels. At the most basic level, 57% of the hospitals are local hospitals staffed by general doctors; 12% of hospitals offer basic specialties, 15% have more advanced specialties, and 11% offer advanced tertiary care.

Colombia (population: 42.1 million) has 1006 hospitals: three functional levels of general hospitals and very few single-specialty hospitals.

The Philippines (population: 75.6 million) has 623 public hospitals; since 1991, most of them have been devolved to provinces, cities and municipalities. The hospitals can be classified into three functional levels. Of the 1712 licensed hospitals, 50% provide primary care, 36% provide secondary care, and 14% provide tertiary care. Most of the tertiary care hospitals are run by the central Department of Health.

China (population: 1 282 million). The country report mentions a total of 17 306 hospitals comprising 16 817 acute hospitals (8 025 National & Provincial general or single-specialty hospitals, 7 516 City & Prefecture hospitals, 1 276 District & County hospitals that serve over 100 000 people), plus 489 Convalescent hospitals. In addition there are 49 958 Commune hospitals (43 581 Township & Village plus 1 276 “Street” hospitals, many of which might correspond to nursing homes).

Sri Lanka (population: 18.9 million) has 1134 hospitals classified into three functional levels. Primary care hospitals include central dispensaries, maternity homes, rural hospitals, peripheral units and district hospitals. Secondary care is provided in base hospitals of 200–600 beds and provincial hospitals offering general medicine, surgery, paediatrics, obstetrics and gynaecology, and dental services. Tertiary care is provided in teaching and specialized hospitals. Most hospitals are small: 500 district hospitals with fewer than 200 beds are run by generalist physicians (90% of all hospitals), compared with only 58 hospitals with more than 200 beds that provide specialized medical care. In addition, hospitals may offer western or ayurvedic medicine.

Thailand (population: 62 806) (1290 total hospitals) has three referral levels of public hospitals. The first level consists of 716 district hospitals (88% of all public hospitals) with 10–120 beds, covering an 80 000 population catchment area and staffed by 1–6 mainly generalist physicians, while some larger hospitals are staffed by basic specialists such as surgeons, obstetricians, paediatricians and internists. The 92 provincial hospitals (11% of public hospitals) have 150–800 beds, are well equipped (some with CT scanner, laser, echocardiograph and ultrasound) and are staffed by 20–100 specialists; some hospitals are affiliated to medical and nursing schools. Tertiary-level hospitals (nine university hospitals or 1% of public hospitals) offer more advanced care and are located in Bangkok and regional cities (North, North-East, Central and South regions). In addition, 473 private hospitals, mostly in the cities, provide comprehensive curative care.

Hospital ownership

In the past, hospitals fell into three ownership groups: government, voluntary sector non-profit, and private sector for profit. More recently, various models have emerged in
which the distinctions between public and private ownership are increasingly blurred (39). These models include hospitals that are owned and managed by the government, public sector autonomous hospitals, hospitals owned by district health boards, state-owned enterprises, voluntary sector non-profit hospitals, joint stock company hospitals, private management of public hospitals, public management of hospitals built with private capital, and private for-profit hospitals. Most hospitals in countries of the European Union are variations within a public sector framework, but the trend is for public hospitals to become autonomous entities responsible for managing their own budgets and services. Furthermore, in many countries, the ownership of government hospitals has been devolved from central ministries of health to lower levels of government at regional and district levels.

Table 2.7 shows a simple two-category division into public and private sector hospitals for the 20 countries in this survey. It is not always clear, however, whether public hospitals are run directly by the state or are autonomous entities, or whether private hospitals are for profit or non-profit. In Western Europe and many OECD countries, the majority of hospital beds are owned by the public sector, but the ownership pattern is different in other parts of the world. In South America, for example, about 46% of hospitals are public and provide 54% of the stock of beds (country report, 40), while some Asian countries also have a substantial proportion of private hospital beds.

In many of the 20 countries in the survey, public and private hospitals exist in parallel with no formal links and no government oversight of the private sector. For example, the statistics provided from several countries cover only the public sector. The private sector is regarded as outside the purview of the state even when the state subsidizes the care of public patients in private hospitals. The introduction of state or quasi-state insurance schemes, however, usually results in some monitoring of private sector hospital activities.

The distribution of publicly funded hospital beds in the 20 countries of the survey varies considerably; three categories of distribution are:

- mostly public hospital beds (over 80%): China, Egypt, Kazakhstan, Morocco, Poland, New Zealand, the Republic of Korea, South Africa and Sri Lanka;
- a majority of public beds (50–79%): Chile, Colombia, France, Ghana, the Philippines, the Syrian Arab Republic, Thailand and the United Republic of Tanzania;
- less than half public beds: Japan and Lebanon.

Among the countries where hospital beds are mostly public, in Morocco most hospitals under the Ministry of Health (70% of 106 public hospitals in 2000) are autonomous; they receive an annual grant that covers two thirds of their budget and seek the rest from other sources, mainly patients. The hospital is responsible for managing its own budget and activities, except the hiring and firing of staff. In Egypt, the Ministry of Health and Population owns most hospitals but private patients occupy about 25% of beds in government hospitals and pay the actual cost of treatment with no profit to the hospital.

Of the countries with a majority of public beds, in Ghana the Ministry of Health owns 49% of the 193 hospitals, less than 3% are quasi-government, 22% are owned by the missions and 26% are private. In Thailand, the private sector share of all hospitals beds has doubled from 10% throughout the 1980s to 23% by 1997. Private hospitals are classified as private for profit (limited company and public company registered on the stock market) or not for profit (operated by charity foundations that are exempt from 30% corporate tax).

In Japan, nearly 80% of hospitals are private, accounting for over 60% of the bed stock, although this includes nursing-home type hospitals and beds for long-term care.
### Table 2.7 Distribution of public and private hospitals in 20 countries, 2000 or latest year

<table>
<thead>
<tr>
<th>WHO region and country</th>
<th>No. of public hospitals</th>
<th>No. of private hospitals</th>
<th>Total no. of hospitals</th>
<th>Public hospitals (%)</th>
<th>Public bed stock (%)</th>
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<tr>
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<td>99</td>
<td>43 mission 51 private</td>
<td>193</td>
<td>51</td>
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<td>822</td>
<td>80</td>
<td>–</td>
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<tr>
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<td>84</td>
<td>79 volunteer 10 private</td>
<td>173</td>
<td>49</td>
<td>53</td>
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<td>Chile</td>
<td>187 (1995)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>73 discharges</td>
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<td>Colombia</td>
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<td>Mostly public</td>
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<td>997</td>
<td>2 461</td>
<td>60 (85?)</td>
<td>88</td>
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<td>167</td>
<td>12</td>
<td>10</td>
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<tr>
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<td>22 volunteer 170 private</td>
<td>298</td>
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<td>Cyprus</td>
<td>–</td>
<td>Mostly &lt;20 beds</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>France</td>
<td>–</td>
<td>–</td>
<td>709</td>
<td>–</td>
<td>65 acute beds</td>
</tr>
<tr>
<td>Kazakhstan</td>
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<td>few</td>
<td>965</td>
<td>Mostly public</td>
<td>Nearly all public</td>
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<td><strong>Western Pacific</strong></td>
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<td>17 306</td>
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<td>100</td>
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<td>Japan</td>
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<tr>
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<tr>
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<td>1 089</td>
<td>1 712</td>
<td>36</td>
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<tr>
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<td>501</td>
<td>564</td>
<td>11</td>
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<tr>
<td>Thailand</td>
<td>943</td>
<td>473</td>
<td>1 416</td>
<td>66</td>
<td>77</td>
</tr>
</tbody>
</table>

Sources: ref. 40 and commissioned reports.

- Excludes small facilities (usually <20 beds) not staffed by physicians.
- Excludes commune hospitals.
- Based on 1999 survey of 564 hospitals.

### Role of the hospital in the health-care system

The core function of a hospital is to provide treatment (comprising diagnostic, restorative, convalescent and palliative care) to patients who are ill. As well as patient care, however, a hospital may engage in teaching and research, support its surrounding health-care services, act as a major employer, and carry out important social functions such as providing social care and acting as a base for the health professions (38).

In supporting its surrounding health-care services, a hospital may not deprive these services of their share of resources and patients. The relationship between a hospital and its surrounding health-care services is complex and varies considerably between countries.
countries. Hospitals in many low-income countries typically dominate other health-care services and their specialists enjoy much more power than general physicians. In contrast, the United Kingdom recently transferred budgets for purchasing hospital care to groups of primary care physicians, thus giving them power as gatekeepers to hospital services.

The role of the hospital in the wider health-care system can be classified into four models (see Figure 2.15): the dominant hospital, the hub hospital, the comprehensive model and the separatist hospital (38). This nomenclature is used below for ease of discussion.

Figure 2.15 Possible roles of a district general hospital in a health-care system

A dominant hospital monopolizes skilled staff and equipment and consumes most of the health-care budget, with the result that many patients bypass community providers and go straight to hospital so as to have the best physicians with the most resources. The dominant hospital model thus undermines rather than supports primary health care, and such a hospital does not necessarily offer good primary health care to its patients.

A hospital may act as the hub of an integrated district health system, being involved in planning, administering and funding (but not necessarily providing) community health services. For example, the chief physician of the district hospital may administer the surrounding community clinics.

A comprehensive model hospital undertakes all levels of health care and also delivers services outside its walls. This is a common model in many developing countries, with district hospitals, in particular, urged to provide preventive as well as curative care. A recent experiment in the United States, where the health-care system is highly fragmented and expensive, uses the comprehensive model in order to reduce costs and increase market share, so that hospitals now own other health-care services such as rehabilitation day hospitals and nursing homes (this is known as vertical integration).

The separatist hospital is the prevailing model in many high-income countries. The acute-care hospital divested itself of all but the core functions of short-stay, highly specialized care, retaining only the provision of services that community-based specialists are unable to undertake. The rationale is, first, that hospital staffs are trained and hospitals are equipped to provide specialized medical care; and, second, that hospital-based health care is expensive and must be used cost-effectively.
Few middle-income and low-income countries have adopted the separatist model of an acute-care hospital, because scarce resources of skilled staff and equipment are concentrated in hospitals, community-based primary and secondary health services are weak, and the general public believes that hospitals offer the best care for all conditions. This is a vicious circle. Dominant hospitals make it difficult to strengthen primary and secondary health care in the community, because hospitals attract the most funds, the best staff and the most patients. A weak primary health care system then increases patient demand and overloads the hospital, thus dragging down the quality of hospital care, as there is insufficient time to diagnose and treat each patient and responding to many minor cases prevents the development of skills in treating difficult cases. Few of these low-income countries have been able to design, implement and reinforce a functioning referral system, whereby lower levels of care act as gatekeepers to the higher levels. Many patients bypass community-based health services and local hospitals and go directly to tertiary care hospitals for both outpatient and inpatient care. This common story is illustrated in the following examples from Sri Lanka and Thailand.

In Sri Lanka, tertiary care hospitals, by convention and long practice, continue to offer primary, secondary and tertiary care. A formal forward referral procedure exists but is not enforced, and there is little referral of patient management back from hospitals to other health services. Neither health professionals nor patients have been prepared to accept a strict referral system within the theoretically graded health-care delivery system. Depending on country context, the consequent burden of work on secondary and tertiary hospitals lowers their quality of care (country report).

In Thailand, primary medical care is not well developed, so that outpatient departments of public and private hospitals provide most ambulatory care (54% of all ambulatory care visits in 1998). Patients are free to seek whichever health service they choose and, since they have little confidence in health centre paramedical personnel, they go to district and provincial hospitals for minor conditions that could be managed at health centres (90% of hospital outpatient cases, according to one provincial hospital). Outpatient services in large secondary and tertiary hospitals are therefore seriously overcrowded. An outpatient study in one provincial hospital, for example, found that patients waited over 52 minutes to see a doctor for a four-minute consultation. Welfare beneficiaries are entitled to free care at health centres and district hospitals and require a referral letter to higher levels of care, but it is not politically feasible for provincial hospitals to charge patients who arrive without a formal referral. Further, referral procedures between hospitals are not well established: a regional hospital study reported that nearly half of surgical cases were inappropriately referred by district or other regional hospitals. Another study reported that in nearly 90% of surgical referrals to a provincial hospital, the referring hospital should have been able to undertake the standard surgery involved, such as appendicitis, indirect inguinal hernia and perforated peptic ulcers (country report).

Concluding remarks

The 20 countries in the survey include some of the world’s richest and some of the world’s poorest countries, with consequently very large differences in the health-care needs of the population and in the resources available for the health system, including the hospital sector. Four main issues emerge from this overview of hospitals: diversity in health needs of populations, the importance of a national strategy for the hospital sector, inequities in access to hospitals, and changing patterns of hospital utilization.

Hospitals must respond to very different population structures and health needs across these 20 countries. The countries with long life expectancy have been through demographic and epidemiological transitions so that noncommunicable conditions now account for much of the burden of disease, which is concentrated among people
aged 70 years and over. In contrast, five of the countries in this group experience a high burden of communicable disease, particularly among their young populations. A health-care system must therefore be designed to respond to very different health needs and one hospital sector model does not fit all countries.

Many countries have not developed a national strategy for their hospital sector. Most high-income countries are implementing national plans but many middle-income and low-income countries have no such strategy. This is a missed opportunity for considering the function of hospitals within the wider health-care system and for improving their cost-effectiveness; this is particularly important in low-income countries, especially where hospitals consume over half the severely limited health budget. The lack of standard and systematic information on hospitals in many countries reflects this lack of a national strategy. For example, the term “hospital” in some countries covers a facility that would be termed a nursing home in others, while some countries do not differentiate between acute treatment and long-term care.

There are considerable inequities between rich and poor countries, and also within countries, in patient access to health and hospital care. Per capita expenditure on health care in the 20 countries in the survey ranges from US$ 2297 in France to US$ 10 in the United Republic of Tanzania: an over 200-fold difference. The countries exhibit a mix of funding patterns, but high per capita expenditure countries have mainly publicly funded health-care systems. In contrast, out-of-pocket expenditure is growing in many low-income countries, and many under funded hospitals are forced to introduce both formal and informal charges – usually with inequitable results for patients. The supply of hospital beds per 1000 population has decreased steadily in most high-income countries (except Japan and the Republic of Korea) as more care has been shifted outside hospitals and hospitals have improved their cost-effective management of patients. The supply of hospital beds in low-income countries has increased only slightly from a very low base, while the primary health-care system has remained weak. The increase in hospital beds in middle-income and low-income countries has mainly been in the private sector. This has occurred in the absence of any state oversight, with private hospitals locating in wealthier geographical areas and a resulting increase in inequities of access. Hospital beds tend to be inequitably distributed in many countries, with some countries having three times more beds for the populations in richer urban settings than in poorer rural areas.

Hospital utilization patterns have changed dramatically in most high-income countries over the past decade. Patient throughput has increased, with shorter average lengths of stay and higher occupancy levels and admission rates. Hospital utilization remains very inefficient in some countries, even in countries with an inadequate supply of hospital beds; this poor use is exacerbated by hospital fragmentation. Divisions between hospitals correspond more to administrative levels of ownership than to functional divisions in the level of care; the many specialized hospitals add another level of complexity, and much primary and social care is undertaken in expensive hospitals. Scarcе resources of skilled staff and equipment are concentrated in hospitals, community-based primary and secondary health services are weak, and the general public believes that hospitals offer the best care for all conditions. This situation acts as a vicious circle that prevents the development of primary health care that might reduce the load of routine care upon hospitals, and prevents hospitals from improving the quality of advanced care that they are able to offer their patients.
CHAPTER 3

Analysis of country reports
Changing needs and demands

Each country’s health service provision and its health policies ought to reflect the needs of its population, within the limits of its means and shaped by its culture. As shown in Chapter 2, hospitals are key components. Hospitals deal with only a minority of episodes of illness, but include the more serious events. Hospitals are the places where large numbers of medical, nursing and other health-care professionals are based, and where research and education are traditionally concentrated. In most of the countries in the survey, hospitals account for about half of total national health-care expenditure (see Table 2.6); the main exceptions are Japan and the Republic of Korea: 38% and 29%, respectively. If all is not well in the hospitals, therefore, the effectiveness of the whole health sector is bound to be adversely affected.

Needs for medical and surgical restorative care vary from country to country and they also change over time. Among the factors at work are: demographic change and population distribution, changes in disease patterns, medical technologies and treatment patterns, conflict and calamity, infrastructure, globalization, and public expectations.

Demographic change and population distribution

The rapid rise in life expectancy in most of the survey countries, together with a fall in the birth rate, has meant that hospital patients in countries such as France and Japan are, on average, substantially older and more frail than a generation ago. By 2050, China is predicted to have 470,000 people aged 100 years or more (compared with around 7000 in 1990), which will be the largest population of very old people in the world. Throughout the world, the continuing shift in population distribution from the countryside to the cities, and the consequent outward expansion of the cities, has typically meant that hospital services are difficult to maintain in remote areas and that reconfiguration is needed within the cities from old residential areas to new ones.

Changes in disease patterns

The most obvious example is AIDS, affecting all the survey countries to some degree but particularly the African countries and Thailand. Tragically, HIV/AIDS sharply reduces average life expectancy, including among health professionals. Effective counter-strategies depend on drug therapy and safer sex, but there is also a major impact on hospitals, because conditions such as tuberculosis and respiratory illness surge as the immune responses of people living with AIDS weaken. More generally, patterns of disease in the survey countries reflect their economic development. In countries such as Ghana and the United Republic of Tanzania, many deaths still occur among children – at least in the rural areas – as a result of infection, dehydration and malnutrition. At the other extreme, in France and Japan, most deaths occur among elderly people, with chronic diseases such as heart disease, cancers and stroke as the main killers. In between the poorest and the richest countries are others that are in the process of economic change and demographic transition. Their patterns of disease may well include some similarities with the United Republic of Tanzania at one end of the continuum and also with France or Japan at the other. In countries such as the Philippines or Thailand, there are rural communities at a relatively early stage of transition as well as urban communities, some of which have characteristics much closer to those of wealthier countries. Their health and hospital systems therefore need to deal with two different patterns of disease at the same time. To characterize this situation as a contrast between rural and urban areas is too simple, however, for there may often be a large, rapidly growing deprived urban population, whose health statistics may seem better than the rural average but whose quality of life in some ways may be worse.
Medical technologies and treatment patterns

The past 50 years have been a period of rapid medical advances: where the resources are available, medical care has been transformed, as in the treatment of chronic renal failure or psychotic mental illness, for example. Typically, medicine has become more specialized, many serious conditions are more treatable (though not necessarily curable) and hospital stays are much shorter. Such changes affect all the survey countries, though where new treatments are expensive – as they often are – there is an acute problem of affordability in low-income countries such as Ghana and the United Republic of Tanzania, and indeed in middle-income countries too.

Conflict and calamity

Among the countries in the survey, Sri Lanka is an example of a country where the impact of conflict is obvious, in the sense that health services, including hospitals, are difficult to maintain in the most affected northern areas. Colombia is another example. Needs are bound to be increased by violence, at the same time that the viability of services is reduced. Different in its impact, but also serious, is economic dislocation of the type that has occurred in countries under the influence of the former Soviet Union: Kazakhstan and Poland are examples of countries where life expectancy had dropped before communism collapsed. The dislocation that followed the collapse, however, has had a fundamental impact on every aspect of health care from the recruitment, training and pay of doctors and nurses to the size and structure of the hospital system.

Infrastructure

Changes in physical infrastructure, particularly transportation, also have an impact on health services and on hospitals in particular. The impact can be profound even without conflict or calamity, which are obvious causes of change. The popularity of the automobile, for example, has usually meant increased congestion and parking problems at inner-city hospitals and worsening access for anybody dependent on public transport, especially in rural areas.

Globalization

Because of increased travel, patterns of disease are less constrained by geographical location than they used to be. Consequently, infections acquired in a remote place may present for diagnosis and treatment in any part of the world, constituting a considerable challenge to medical and other staff unfamiliar with them. Diseases are not the only entities to travel further and faster: globalization also affects expectations. Even in the poorest countries, people increasingly know what treatment is available at the cutting edge of medical advance: patients who can afford to do so travel abroad to obtain treatment. The non-availability of treatment in poorer countries becomes a matter of major concern, not only in those countries but worldwide: hence the pressure on pharmaceutical companies for special concessions, for example for drugs used in the treatment of AIDS. Finally, globalization entails a greater potential for the mobility of health-care professionals in short supply, in general – unsurprisingly – from poorer countries to richer ones. Traditionally, this has been the case with doctors; now it applies at least equally to nurses.

Public expectations

Expectations change over time, not only because of globalization and medical advance. What is felt to be a generally acceptable standard of care also changes. In many wealthy countries, for example, inpatient treatment is now expected to entail accommodation in single rooms rather than in open wards. To segregate people who have long-term
mental illness or learning disabilities in isolated institutions is no longer acceptable in most countries, unless they are a danger to others. The evidence is clear: in general, most people who are mentally ill or who are mentally handicapped want to lead as normal a life as possible, with the choices and freedoms available to others, and long-term institutionalization is harmful to them.

For the purpose of the study, the implications of the above seven factors are, first, that hospitals need to adapt, change and develop, not stand still; and, second, that they cannot safely be seen on their own, separate from the broader context of health and social care in which they are set. The emphasis on adapting to change is a common theme in today’s rapidly changing world, but it poses special problems in hospitals. The buildings themselves are in many cases more than a century old, dating from an entirely different medical era. While adaptation will continually occur within hospitals, the buildings cannot be moved to another location and some aspects (such as basic ward design) are not easily changed. To replace one hospital by another, in a different place, may not seem insurmountable, but experience demonstrates strong opposition from the surrounding community to any such move. It is not only the hospital buildings that have a long life: many health-care professionals take a long time to train – the more highly specialized they are, the longer their training – and they will typically continue in the same specialized field until they retire.

Among the survey countries, there are numerous examples of national plans for hospital reform and development. Such plans rarely start from an explicit analysis of population needs, but are based on assumptions shaped by the period in which they were conceived. The former Soviet Union, for example, and the countries under its influence, had large hospital systems based on assumptions that more beds and more hospital doctors were good for population health, with a hierarchy of institutions from the local networks to the national level. Countries such as Ghana and the United Republic of Tanzania, after achieving independence, also had ambitious plans for hospital development throughout the country based on similar principles. Typically, following the Alma-Ata Declaration on primary health care, the emphasis switched from a hospital-centred model of development to one of population health, with little explicit mention of hospitals. More recently, national initiatives for reform have tended to be based on attempts to bring costs under control, sometimes by restraining demand but more often by controlling supply.

At times, a reform idea has rapidly crossed national boundaries and has had influence in more than one country. This may be a technical device, such as diagnosis-related groups or a resource-based relative value scale, either of which can be a valuable mechanism for more rational budgeting and fairer reimbursement. Or it may be a “grand design” such as the separation of commissioning from provision in securing access to health services, where the concept is that the public sector need not necessarily have to provide everything itself in order to ensure that good care is available; at the same time, it is recognized that planning and securing care to meet the health needs of the population calls for much more attention and skill than they have generally received.

It has to be said that, in many countries, there is now considerable weariness of past reforms and wariness of further ones, both among those who work in the health sector and in the general population. Part of the problem is that reforms have not always been well conceived, and that they have often been over-promoted. This has lessons for the future, which are discussed in the management section of this chapter. It is also very important to recognize that, whatever the potential benefits, reform will take time to achieve and there will inevitably be some unintended consequences. Moreover, to reorganize every year or two to reflect the view of a new government or minister is a cumulative recipe for demoralization. This does not mean that reform should not be attempted. It does mean, however, that reform needs to be selective, well conceived and carried through over a substantial period, with a willingness to adapt and modify along the way.
Hospitals within health-care systems

An issue common across countries is how the individual hospital relates to other hospitals, and to non-hospital-based health services, both locally, regionally and nationally. At one extreme there may be very little relationship. In Japan, for example, the answer to the survey question about whether each hospital has a defined catchment population was a robust “No”. In Japan, health and medical services are provided under a policy of free access: “Patients can visit any hospital that they want”. Similarly, in the Republic of Korea, “There is no defined geographical catchment area for hospitals by national policy mandate. All hospitals across the nation are in free competition based on market demands.”

There are, in fact, some advantages to such independence for both the hospital and the user, and even from the point of view of the third party payer. The hospital can get on with its job, free from external bureaucracy and responding to demand. No planning mechanism balances demand and provision as flexibly as does a free market. It also gives the patient the choice as to where he or she goes, which is important in terms of user satisfaction. If demand changes, or the hospital does not do its job, it will be forced out of business.

But there are also disadvantages. The work of hospitals is not self-contained. Typically – and particularly in the case of chronic illness – the care given in hospital is simply one episode in a much longer train of events that begins before admission and continues after discharge. Nor is hospital work homogeneous; instead, it is immensely varied, from the straightforward to the enormously complex. Conceptually, one has a situation in which most health-care needs are relatively simple and do not require hospital admission, let alone the intervention of a regional or national centre of excellence (see Figure 3.1).

Figure 3.1 Health-care needs and corresponding resources

For an entire population, probably no country can afford to allow relatively simple needs to be dealt with by the expensive and sophisticated resources of its most advanced hospital. To an extent, that is precisely what happens in some private hospitals and in some public hospitals in capital cities. When this situation occurs, it may create user satisfaction, but it will be wasteful of scarce resources and will deny access to those resources by people who need them more, unless they happen to be insured or wealthy (in the case of private hospitals) or live close by (in the case of public hospitals in urban centres).

Hence it is relatively unusual today for hospitals in most countries to act in the mode of Japan or the Republic of Korea, as though they are self-contained entities. Indeed, even in these two countries – or in the private sector of the United States – they do not do exactly that, but create alliances and referral links and even
joined-up systems, backed by custom and practice or by contracts or common ownership.

Three important issues emerge in terms of the relationships between the individual hospital and the rest of the health-care sector:

- clarity of role and referral patterns relative to other hospitals;
- links with activities and services that are not hospital-based;
- cooperative arrangements among hospitals to increase value for money (for example, purchasing, human resource management and information technology).

The following sections examine what the survey suggests is the current position about each of these issues and summarize the conclusions.

Clarity of role and referral patterns

Almost all the survey countries classify their public hospitals into a number of types and levels, although the actual definitions vary. The types are essentially whether they are specialist (psychiatric disorders, gynaecology and obstetrics, leprosy, etc.) or general. The levels may be local, regional and national, or first referral, secondary and (in some countries) tertiary. Teaching hospitals usually receive special recognition, often at the tertiary level: teaching status in this sense is mainly about medical education, with nursing and other professional education being more widely disseminated. There may well be (as in China, the Republic of Korea, and Sri Lanka) a distinction between western medicine and traditional or indigenous medicine, with a number of hospitals practising the latter. Another distinction that is sometimes made is about ownership, even within the public sector; for example, the armed forces may have their own hospitals. Private hospitals to some extent fit into the same classifications – specialist or general, western or traditional – but may or may not be differentiated by hierarchical level within a referral system.

In the less well-off countries, the local hospital is likely to be very basic indeed. In the United Republic of Tanzania, for example, services provided at the district level hospital include general outpatient care, maternal and child health services, and emergency medical, surgical, obstetric and paediatric care. There are no specialist services at this level in the United Republic of Tanzania, though there are basic laboratory and X-ray facilities. Staffing comprises a general duty medical officer, supported by paramedical and nursing staff (country report). In Thailand, in 1997, some district hospitals had no doctor at all, while four out of ten district hospitals had only one or two new graduate physicians or one senior doctor (see Table 3.1).

**Table 3.1 Physician staffing profile in district hospitals, Thailand, 1997**

<table>
<thead>
<tr>
<th>Staffing pattern</th>
<th>No. of hospitals</th>
<th>% of total hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>No doctor at all</td>
<td>25</td>
<td>3.7</td>
</tr>
<tr>
<td>One junior doctor</td>
<td>108</td>
<td>16.1</td>
</tr>
<tr>
<td>Two or more juniors or one senior</td>
<td>162</td>
<td>24.1</td>
</tr>
<tr>
<td>Senior staff, two to three doctors</td>
<td>270</td>
<td>40.1</td>
</tr>
<tr>
<td>Senior staff, more than three doctors</td>
<td>108</td>
<td>16.1</td>
</tr>
<tr>
<td>Total hospitals</td>
<td>673</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: ref. 41.

In China, great changes have taken place in hospitals since 1970, particularly in the rural areas. In the latter, however, there are still three levels of doctors. The lowest level is the countryside doctor, who now receives 3–12 months’ training from county hos-
hospital doctors, with the emphasis on learning to manage common diseases that will be encountered at the village level commune hospital. The middle level are doctors who have trained for 3–4 years at medical schools, which are mostly located in rural areas: they mainly work in township commune hospitals and county hospitals. The top level for physician training is from medical universities, with 5–6 years’ training. Most of these graduates are working in the county hospitals (country report).

Not surprisingly, the local or district level hospital is quite different in a country such as France or New Zealand, with a wide range of medical specialties available (for example, general medicine, general surgery, orthopaedics, gynaecology and obstetrics, paediatrics, accident and emergency services, ophthalmology and dermatology), all staffed by teams headed by physicians and nurses trained at the postgraduate level in their specialties. In terms of the range of specialties available, the only difference between the district and regional or national hospitals is the addition of those specialties that are better provided in fewer centres for more than local populations (country reports). The definition of such regional and national specialties changes over time, as they evolve from being relatively novel and expensive to become staples of the district-level service. Renal medicine or cardiology have moved from regional to district hospitals (though they may still benefit from being part of regional networks), while organ transplants have typically moved from national to regional centres.

The concept of distinct roles is thus widely accepted in countries with very different levels of available funding, but the skills and the range of services available vary markedly.

In general, among the countries included in the survey, nearly all hospitals provided outpatient as well as inpatient services (Germany, which is an exception, was not included in the survey). Moreover, most hospitals, even at the regional and national levels, provide some primary (that is, self-referred) access services. As a consequence, in all the countries included in the survey, the notion of a tight referral hierarchy from the primary care level through district to regional and national (central) hospitals, on the basis of need, is compromised or at least imperilled. It may be perfectly rational to envisage a general practitioner or key worker in the role of gatekeeper to the referral system, and to suppose that there will be orderly referral from the local and district hospital upwards (and back down) in a hierarchical system. The facts, however, reveal otherwise. Almost everywhere, the patient bypasses the referral system, particularly in urban centres, overloading the outpatient services of regional and national (central) hospitals and leaving local ambulatory and inpatient services underused.

In Sri Lanka, for example, because of the role definition and distribution of medical care institutions, a well-coordinated referral system should theoretically be easy to operate. What militates against it is mainly the high reputation of the tertiary-level hospitals, and the fact that they continue to offer primary and secondary care in addition to their main focus on tertiary services. Patients can seek treatment from any hospital in any part of the country; not surprisingly, they tend to bypass smaller health-care institutions, leading to overcrowding of the higher status institutions, whatever their theoretical referral status.

A similar situation pertains in Thailand, resulting in gross overcrowding of outpatient departments in the more prestigious public hospitals. At Ayudhaya Hospital, for example, in 1996, a study by Srivanitchakorn showed that outpatients on average took 2.7 hours for a hospital visit, of which four minutes were spent with the doctor. Another study by the same researcher at Khon Kaen Hospital in 1998 showed that bypassing lower-level facilities reflected both patient and provider factors. Patients often felt that their medical conditions had not been, or would not be, relieved at the district hospital. In the view of physicians at Khon Kaen, 90% of their conditions could have been cured at lower-level facilities, but there was more confidence over quality of services at the tertiary level, and ease of transport facilitated the bypassing of primary care services, even though chronic conditions could be handled by health centres and
district hospitals. A study on surgical referral at a Thai regional hospital by Sanguanwongwan (42) is summarized in Box 3.1. It shows that nearly half the surgical referrals from the district and provincial hospitals nearby were considered by the receiving surgeons to be inappropriate. Interestingly, the larger the referring hospital, the higher the percentage of inappropriate referrals, presumably reflecting the judgement of the receiving surgeons that the smallest hospitals had better grounds for their decisions than the larger ones.

**BOX 3.1**

**Referrals to Sappasitthiprasong Hospital, Thailand**

A study on referral profile by Sanguanwongwan (42) reveals that 47% of the total surgical cases in Sappasitthiprasong regional hospital were inappropriately referred by district and provincial hospitals nearby (see table A below). Of the inappropriate referrals reported in table B, 87% were “for proper management”. Three common diagnoses were appendicitis, indirect inguinal hernia, and perforation of peptic ulcers, all of which could have been dealt with at the referring hospitals according to standard performance guidelines laid down by the Ministry of Public Health. Financial incentives did not explain the inappropriate referrals.

**A. Inappropriate referrals to Sappasitthiprasong hospital, 1994**

<table>
<thead>
<tr>
<th>Category of referring hospital</th>
<th>No. of referred cases</th>
<th>Inappropriate referrals (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 beds</td>
<td>277</td>
<td>27.1</td>
</tr>
<tr>
<td>30 beds</td>
<td>317</td>
<td>49.5</td>
</tr>
<tr>
<td>60 beds</td>
<td>247</td>
<td>63.2</td>
</tr>
<tr>
<td>General hospital</td>
<td>46</td>
<td>67.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>887</strong></td>
<td><strong>47.2</strong></td>
</tr>
</tbody>
</table>

**B. Reasons for inappropriate referral to Sappasitthiprasong hospital, 1994**

<table>
<thead>
<tr>
<th>Reason given for referral</th>
<th>Percentage of inappropriate referrals</th>
</tr>
</thead>
<tbody>
<tr>
<td>For proper management</td>
<td>87.6</td>
</tr>
<tr>
<td>Required by patient or relative</td>
<td>6.4</td>
</tr>
<tr>
<td>No doctor</td>
<td>1.9</td>
</tr>
<tr>
<td>Operating room incompletely prepared</td>
<td>1.9</td>
</tr>
<tr>
<td>No anesthesia nurse</td>
<td>1.2</td>
</tr>
<tr>
<td>Reason not given</td>
<td>1.2</td>
</tr>
<tr>
<td>No anesthesia nurse assistant</td>
<td>0.5</td>
</tr>
<tr>
<td>No blood</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100 (n = 419)</strong></td>
</tr>
</tbody>
</table>

Incentives or sanctions can, of course, be devised to seek to enforce the disciplines of a referral system. For example, hospital referral may, as in New Zealand, normally depend on the decision of a general practitioner, although direct admission is likely to be the rule for emergencies. Equally, there can be a rule that patients go to one particular hospital in the first instance, either because they live within its catchment area or because their insurance requires them to go there (through a health maintenance organization or otherwise). Freedom of patient choice of hospital is highly prized, both by the general public and, in many countries, by the medical profession. Priority may be promised for patients who follow an approved referral pathway, or those who
do not do so may face a higher direct payment. In practice, however, such differences are often difficult to enforce. In Thailand, for example, beneficiaries under the social welfare scheme, which entitles people on a low income, elderly people and children under 12 years of age to free health care at a designated local primary care outlet, are also entitled to the advantage of free referral to specialist care at a higher level. People who bypass the local level and go directly to the higher level are supposed to be fully charged, but in practice it has proved politically unfeasible to collect the charge (country report).

This does not necessarily mean that nothing can be done, even in a country that puts a high value on freedom of choice, to counter the problem of bypassing. Under the Fifth National Health Plan of Thailand (1982–1986) there was a major successful attempt to expand ambulatory care, particularly at the level of local hospitals and clinics. Between 1977 and 1998, ambulatory care visits rose in total from 11.9 million to 96.5 million. Whereas, in 1977, 46.2% of these visits were in provincial hospitals, 24.4% in district hospitals and 29.4% in health centres, in 1998 the distribution of the much larger total was provincial hospitals 18.8%, district hospitals 35.1% and health centres 46.1% (country report). What seems to be required to make a dramatic shift of this kind is an increase in supply, of a high enough quality at the local level to command public and professional confidence. Where local hospitals have shown low levels of outpatient or inpatient utilization over a long period, as in Colombia, for example, this question of confidence is likely to be a key explanatory variable, indicating a problem in the perceived (and perhaps the actual) quality of care at this local level.

In summary, referrals seem more likely to occur systematically in a "structured" market.

**Links with activities and services that are not hospital-based**

It was expected that more evidence would have been forthcoming in the study about the relationships between hospitals and other agencies serving the same population. Question A3 of the questionnaire specifically asked about the relationship between clinics, hospitals and other health-care facilities in the same district, including support services provided by the hospitals to other entities, and about the teaching and research links. Information was also requested about transport to and from hospital (question B4), and about links with social services (question B6). Behind these questions lay an assumption that these links are important, on a broader front than the appropriateness of patient referrals. Hospitals can become preoccupied with the workload that faces them day in, day out, and with their own difficulties; yet they need to have a very clear understanding not only of individual patients and their medical conditions, but of their home circumstances and of the communities from which they come, including the health-related characteristics of the community as a whole. They will not have this understanding without close two-way links and information that is broader and fuller than the anecdotal. Furthermore, doctors, nurses, health auxiliaries and others working in local communities, outside hospitals, will often be professionally isolated in their work unless they receive good support from the institutions that represent the main concentration of specialist medical and related skills and physical resources in their area.

Several WHO publications have discussed the role of the first referral hospital within its district, promoting the idea of close integration and mutual support (43, 44). In some cases, the countries included in the survey have adopted the concept of a local health district as the basic building block of their hospital and health-care system. China, Ghana, New Zealand, Poland, South Africa and the United Republic of Tanzania all provide examples. In many other instances among the survey countries, public planning and monitoring of health-care services are increasingly done on the basis of defined local communities (for example, departments in France), even if the
concept of the health district is less clear-cut. Of course close, mutually supportive working relationships can exist without the formal definition of a district, nor are they guaranteed by such a definition. South Africa, for example, reports: “Government restructuring in the past six years has intended that the district hospital, clinics and other health-care providers operate as an integrated service delivery network with the district hospital in a pivotal position within the district. In other words, one specific area of clinics, hospitals and other health-care facilities should operate as a unit. However, according to the Department of Health, the continuing divide between provincial and local governments bedevils the consolidation of the district health system.”

As discussed below in the section on the public–private mix of health care, the existence of a large private sector component presents at least a complication in the operation of an integrated health district. Does the private sector work entirely separately from the public sector? What public funding, incentives or tax concessions does it receive? How fully is information shared, for example about population needs, quality and effectiveness of care, costs and satisfaction? How is close cooperation achieved if, for example, as in the Lebanon, the vast majority of all hospital and health care is in the private sector, or if, as in France, New Zealand or the Republic of Korea, most community-based medicine is in the hands of private practitioners who are fiercely independent and deeply suspicious of government?

Another complication is raised by the degree of centralization or decentralization with which government acts in the health sector, and its past history in this regard. There is, for example, a large difference in the idea of an integrated health system tightly managed by the national ministry of health, through its local appointee, and one that is more locally accountable and possibly less hierarchically organized – a matter which is considered in the section on management.

The survey shows some evidence of increased use of tools that can encourage cooperation among hospitals, and between hospitals and other agencies, in the provision of local services and the promotion of health. For example:

- Population-based capitation funding, adjusted for differences in need and cost, not only helps to promote greater national equity, but can also increase awareness locally of the advantages of interagency cooperation.
- Information sharing (with protection of patient confidentiality and sensitive competitive data) can give all parties a clearer picture of how well they are serving the relevant population, collectively, and how they might do even better.
- Contracts or service level agreements negotiated between the relevant parties are the principal method used by insurers to define for what services they will pay. Such agreements can have wider application, for example, between a local government agency and a range of public, voluntary and for-profit providers, or between general practitioners (on behalf of their patients) and secondary and tertiary care providers such as hospitals.
- Clinical protocols or guidelines, as long as they are appropriate and accepted, can offer a good way to define care that needs to cross organizational boundaries, for example in the treatment of chronic health conditions.

**Cooperative arrangements among hospitals to increase value for money**

In the survey questionnaire, details were requested about the management of human resources in hospitals (section E), materials, equipment, supplies and services (section F) and information management (section H). Relatively few of the questions related specifically to cooperative arrangements among the hospitals to increase value for money. With hindsight, this subject should have been explored more. The survey findings on these topics are discussed in the management section, but the issue of interhospital cooperation arises more naturally here.
To some degree at least, as far as public hospitals are concerned, interhospital cooperation is affected by the government centralization/decentralization variable mentioned above. If government actions and controls are highly centralized, one might assume—though not necessarily correctly—that there will be a high degree of coordination among the hospitals, in line with approved government policy. If, for example, all staffing establishments are set hospital by hospital at the national level, and if all salary scales are centrally approved, the scope for counterproductive interhospital poaching of staff ought to be limited. But there are other reasons to favour a more decentralized approach, giving greater management autonomy at the hospital level; in any case, the evidence from the survey suggests that somewhat greater decentralization of public sector management is the direction in which most of the survey countries are currently moving.

Whatever one’s views on decentralization, the case for interhospital cooperation is strong. Hospitals can share information (above all on their performance), consult one another about problems, learn from one another and use their collective buying power. Often, of course, as with negotiating pharmaceutical prices or national agreements over staff terms and conditions, government will be an essential partner. Even where it is not, experience in the United States has shown the enormous advantages to be derived from cooperation among independent not-for-profit hospitals, both in terms of reductions in costs and other measures of better value. Among the countries in the study, the Philippines provides interesting reflections on the value, over a long period, of networking among hospitals (see Box 3.2).

Concluding remarks

Most of the survey countries report that most hospitals (though not necessarily the smaller ones) have mission statements, defining their role as their board perceives it. In the case of large public hospitals, this is likely to have been approved implicitly or explicitly by the ministry of health. All hospitals are also classified in various ways, for example, general or specialized clinical functions, western or indigenous medical traditions, and their perceived level in terms of referral. This last definition, particularly if the classification is secondary or tertiary, is very important in terms of funding, staffing and educational role status, but is not clear-cut in terms of clinical functions. Almost all hospitals, however prestigious, have a primary care function, even if their classification is secondary or tertiary. Some of these various classifications apply as much to private hospitals as to public hospitals, but they may not be officially recognized in terms of a defined population or referral responsibility. The private hospitals may well have a public responsibility, but this will often be less than clearly laid down.

In all the countries that purport to have a hierarchical referral system (from primary contact to primary, secondary and tertiary referral) bypassing is a major problem, though less in some countries than in others. Lower-level institutions are underused, while more prestigious, more expensive institutions become grossly overloaded. This may well mean a spiral of decline for the underused institutions, unnecessarily long waits for patients in the overused institutions, higher than necessary costs, and much frustration for all concerned. In societies that value freedom of choice, controls and sanctions do not seem to be an effective solution to the problem. That does not necessarily mean that there is no answer. What seems to be required to make a dramatic shift in the proportional distribution of hospital outpatient activity is an increase in supply at the local level of a high enough quality to command public and professional confidence. Experience in Thailand between 1977 and 1998 suggests that this can be done.

On the relationships between hospitals and relevant services outside hospitals, the study suggests that the integrated health district (including at least one hospital) is not the norm in the survey countries, at least in a formal sense. It does, however, exist in six of the 20 countries in the survey.
A three-tier system of care is in place in the public health sector. Treatment for routine ailments, and services for prevention and promotion, are provided by primary (local) public health facilities, namely the barangay health stations and the rural health units located in the community or villages. Complicated ailments and curative cases are referred by the barangay health stations to the provincial hospitals, which have 100–150 beds. Special cases are referred to medical centres or specialty or regional hospitals. There are approximately 50 such hospitals and all of them are to date retained and managed by the Department of Health.

Public hospitals of all types generally provide curative and rehabilitative health care and services. They are complemented by the preventive and promotive services provided by other public health facilities. Those that are technologically equipped also perform research and training functions. Today, public hospitals in the Philippines provide preventive health-care services such as immunization, family planning counselling, health and nutrition education, growth monitoring, and breastfeeding opportunities similar to those provided by baby-friendly hospitals.

Private hospitals provide primarily curative and rehabilitative health-care services. They also perform research and training functions, particularly the hospitals that are affiliated to colleges and universities offering medical and health professional degree courses.

At present, there is much debate and discussion about the major functions of hospitals, particularly tertiary hospitals. While most health professionals see hospitals as health service institutions providing curative and rehabilitative services, others see them as institutions that should perform mainly teaching and research functions; government must therefore provide support for these types of hospitals to maintain themselves rather than rely on their earnings and income. At present, little study has been made of the roles and functions of hospitals (ascribed vs performed), particularly as regards the tertiary and specialty hospitals.

Networking among hospitals existed as early as the 1970s. According to Caragay (45), in 1986 this hospital networking was formalized on the initiative and leadership of the then Secretary of Health, Alfredo Bengson. It was later advocated by the Philippine Hospital Association and continues at the present time, coordinated by the Hospital Association and the Philippine Accreditation Organization. The underlying, predominant reason was to solicit support and the sharing of resources. Collaborative activities still exist in the areas of research training. In the survey conducted by Caragay, it was shown that participating hospitals perceived the benefits of networking: better quality patient care, accessibility to health services, and cost savings. Sharing of manpower and physical resources have also been highlighted. Research on networking among hospitals will need to be conducted in the near future, since field visits and key informant interviews indicate that the practice has diminished in recent years. Moreover, some hospitals have not formalized the networking practices in their areas.

Source: country report.

Of course, effective cooperation within the district is not guaranteed by formal recognition or by a unified organization, though it may be assisted by them. Evidence shows that networking is of crucial importance at this level, and among hospitals more generally, in order to achieve value for money.

**Financing**

Good financial management is essential to the smooth functioning of a health-care system. The objective of the survey was to identify some of the key elements of proper financial management in health-care systems of the case study countries, with focus on the twin aspects of funding of health care and hospitals, as well as the efficient use of the funds through appropriate control mechanisms. First, were there any attempts to link health-care funding decisions to the health-care needs of the target population? Were these needs assessments then translated into the resources required to satisfy them, and were these costed to determine levels of funding? Within the overall allocation, did the funds follow needs? Were they distributed to areas and projects where they were required? Second, once funding decisions were taken, were there systems in
place to ensure that funds were spent for the purpose for which they were allocated? In general, were there adequate management reporting systems to ensure accountability and proper utilization of funds? Did those systems include steps to identify wastages, and countermeasures to eliminate them? Third, wherever applicable, were there systems to ensure that all revenues due to the health-care organization or hospital were accounted for and collected?

Discussion of the funding aspects has been divided into two parts – the first part deals with the issues related to the quantum of funds allocated and available for health-care and hospital expenditures, while the second part deals with the mechanisms used for distributing these funds.

Quantum of funds allocated

It can be said with certainty that there is great disparity in the level of financing for health between countries. In general, poor developing countries are able to allocate lesser amounts for health care, both in absolute terms and as a proportion of their GDP. Middle-income countries allocate more financial resources, but allocation varies considerably. Finally, developed countries allocate considerable amounts for the health-care needs of their citizens. In the 20 countries in the survey, Sri Lanka spent the least proportion of its GDP (3.4%) on health care, with Lebanon spending the most (11.6%) in absolute per capita terms, using 1998 figures at the official exchange rates, the United Republic of Tanzania spent the least (US$ 10) with France spending the most (US$ 2297), followed closely by Japan (US$ 2244). Despite these huge disparities, the common consensus among health-care professionals and the general public across the spectrum of countries is that not enough is being spent to provide individual restorative care. In New Zealand, for example, which spent 8.1% of its GDP on health care (US$ 1159 per capita) the health-care system is beset with long waiting lists and unnecessary suffering by patients. Such symptoms of underfunding manifest themselves in almost all the countries studied. They manifest in different ways in different settings, resulting either in unmet health-care needs or in financial deficits or both. For example, the Republic of Korea’s health insurance organization, which is responsible for collecting premiums and paying providers, has, since the late 1980s, posted rising deficits (excess of disbursements over receipts) such that the cumulative deficits amount to a significant proportion of the annual health expenditures and will need to be tackled sooner or later. Another example is Japan, where in the 1980s in response to rapidly increasing health-care expenditure, the government substantially increased co-payments for older patients. This was judged acceptable in the prevailing situation as the older population were generally better off because of rapidly rising property prices (see also Chapter 2).

While underfunding is a constant and common cry, adverse economic events or situations compound the problem. The Asian financial crisis of the late 1990s has seriously affected allocations to the health budgets across the region. In many countries, allocations to health care were reduced more than those to other sectors. In the Philippines, for example, when government expenditure had to be adjusted downwards as a result of the Asian financial crisis, the biggest reduction was made in the health budget (16.4%), as against only 0.9% for education and an actual increase in social welfare payments of 16.8% and a 1% increase in the allocation for housing and community development (country report).

The most serious cases of underfunding are in the countries of Africa. Out of the 20 countries analysed, Ghana and the United Republic of Tanzania spend the least on health care in per capita terms (US$ 18 and US$ 10, respectively). In both countries, these amounts include substantial patient contributions and aid from external sources. The fact that per capita spending is lowest in Africa is ironic, as the burden of disease is probably the greatest in these countries, based on major health status and social development indicators.
The financial situation in the hospital sector generally shadows that of the health-care system as a whole: underfunding in the health-care system is reflected in insufficient funds provided to the hospital subsystem in many countries. It is generally difficult to assess the extent of underfunding in the hospital sector as this information is not collected in many countries. Moreover, the role of hospitals varies substantially from one country to another: in many countries, hospitals perform tasks that would usually be performed elsewhere in others; in some, there is no distinction between acute and long-term care beds, whereas, in others, long-term care is separate and is not included in hospital statistics.

Hospital sector financing has also been affected by prevailing political ideology. In the study, a clear example is provided by Ghana, as described in detail in Box 3.3.

**BOX 3.3**

**Hospital sector development and political ideology in Ghana**

After independence in 1957, the health system in Ghana focused on developing hospitals as the central point of the health-care delivery system. This era was characterized by the reorganization of the Ministry of Health to support hospital-based care in the form of a country-wide hospital plan backed up by smaller hospitals and a rural health service integrated into the hospital system. The concept of having big hospitals to serve each region, a small hospital for each district, a health centre for each town, and community health nurses and midwives within the communities was laudable at that time. The focus of hospital development was on public sector hospitals owned by government and, to some extent, efforts from churches in establishing hospitals as part of their missionary work.

With the advent of the primary health care initiative in 1978, hospitals were seen as inefficient for the development of primary care activities. The attention given to non-hospital primary care was appropriate because of the cost-effectiveness of those interventions compared with those of hospitals.

The beginning of the 1990s saw the onset of health sector reforms in Ghana. These reforms reaffirmed the importance of hospitals and reorganized health-care delivery into a system of coexistence between primary health care and hospital-based care, thus recognizing that, in Ghana, both are needed in order for the health-care system to be effective.

Hospital development has been hampered by the lack of a comprehensive plan and appropriate policies, inadequate planning, lack of a clear definition of services (leading to uncertainties as to the different types of hospitals and what they do), the inappropriate situation of hospitals (e.g. the site and size being politically motivated), absence of a long-term financing plan, no cost data, and public perception that hospital services should be free. Regulations in hospitals are not well developed and are poorly implemented, with weak organization and management systems and structures (including staff, drugs and medical technology). Hospital development until recently was unsympathetic to the private sector and there were no incentives for private participation. The end result of all these difficulties is that hospitals in Ghana are ill-equipped to deal with both current and anticipated future health problems.

Source: country report.

Prior to the 1970s the predominant view was that district hospitals were the main focus of health-care delivery, resulting in large investments in hospitals and equipment in almost all countries. Since then, the ideology has shifted from an emphasis on hospitals to an emphasis on health-care systems based on primary health care, which has often resulted in the neglect of hospitals and equipment. In the poorer countries in particular, infrastructure created in the 1950s and 1960s became dilapidated, and this, in turn, has contributed to a perception that the district hospitals are not capable of providing good quality health care. Patients then prefer to go directly to tertiary and teaching hospitals for their health needs or, where they can afford it, to the private sector. An example of the diversion of funds away from district hospitals is the reduction of training funds available for hospital-based programmes and an increase of such funds for
primary health care programmes. To renovate and restore these hospitals to a reasonable standard would be impossible from the existing meagre allocations to health care in many poor countries: the only viable option is to introduce funds from external sources. In health-care systems with efficient hospital licensing regimes, lack of funding and the resulting deterioration of hospitals have led them to be derecognized or downgraded. In the Philippines, there is a large increase in the number of primary hospitals between 1989 and 1999 (from 799 to 864) but a decrease in secondary hospitals (from 637 to 615) and tertiary hospitals (from 260 to 233) in the same period (country report). This has been attributed to the decrease in the level of funding provided to these hospitals after health care was devolved from the national ministry of health to the provincial governments.

Financing mechanisms within health-care systems

Another important aspect of financing is the efficiency with which funds are deployed in hospitals and in the health sector in general. In many instances, existing health-care structures and institutions dictate how available money will be spent: if large urban hospitals dominate the health-care system, they swallow the lion’s share of resources. In Kazakhstan, for example, even though the budget allocations for health decreased in the 1990s, the amounts spent on overheads and utilities (such as electricity) were maintained because the facilities had to stay open. A more rational distribution system would have directed some of the funds to tackling worsening health problems, such as the increasing incidence of tuberculosis and other communicable diseases, increased incidence of cardiac diseases and certain types of cancers, and the high maternal and child mortality rates prevalent in Kazakhstan (26). This is a clear case of funds not following needs.

In many instances, radical decisions are needed to maximize impact on health-care needs and minimize waste. In the above case, for example, it may be appropriate to close down at least some of the hospitals, spend more money on preventive care and promotion, and increase the allocation to the remaining hospitals so that they can spend adequate amounts on maintaining and repairing existing buildings and equipment. Such decisions run against entrenched interests of hospital personnel, local population groups and others.

The second aspect of financing in health care concerns the method that is used to distribute funds in the health-care system. Many methods are in use in different countries, including block grants from governments, funds paid on the basis of line item budgets presented by the health-care industry, fees for services rendered either directly from the government or through an insurance intermediary, and a capitation method that uses demographic and, to a limited extent, morbidity statistics to allocate funding for health services. Apart from the source of funding, the method or mechanism used to reimburse providers has an impact on the equity as well as the efficiency of a health-care system. Some methods are allied to the source of funding. In all case study countries, for example, it was observed that block grants based on a line item budget presented by the providers (usually hospitals) is the main method of funding employed in systems where the government is the principal funding source. In this system, budgets are usually prepared by the hospital authorities, based on figures from previous years, which form the basis of allocation of funds for their operations. Such a system embodies continuity and stability of funding, but suffers from some disadvantages over the other methods.

A second method is fee for service, where providers are reimbursed on the basis of services provided. This method relates financing to actual provision of services. The fee for service is the most common method of recovering co-payments from patients and is also the preferred method used by many insurance schemes. Many of them use variations of it, such as negotiating a flat rate for each service at the beginning of the
year. Fee for service is common among private providers where the payer is the patient or the patient’s insurer.

Another method of paying providers (or reimbursing payments made directly by patients), which can be used either as a modification of block budget-based grants or as a modification of fee for service, is by constructing costs using diagnosis-related groups. This method of reimbursement is used generally by well-established insurance schemes; even then, it is used in combination with other reimbursement methods, as diagnosis-related groups are not developed for all pathologies. Diagnosis-related groups are akin to standard costing in financial management. By definition, their efficacy depends on how closely the standard costs based on these groups reflect real costs and how demanding the benchmarks are, in terms of both costs and quality.

Capitation as a method of financing is used increasingly for ambulatory care by publicly funded systems and managed insurance schemes. Capitation systems are easy to administer and are loosely linked to usage – as long as the equation accurately reflects demography and morbidity patterns and these factors are stable over the period for which funding is decided.

Most health-care systems use some combination of the above financing methods. Among the case study countries, the Syrian Arab Republic is unique in that health-care providers, who are predominantly in the public sector, are directly financed by government allocations. Such allocations are made without the aid of annual budgets. Revenue for nongovernmental organizations and private sector providers is mainly through payments from patients for services used. The Syrian Arab Republic is the survey country with the least financial planning or bureaucratic intervention in health-care provision.

Fee for service is the most widely used method of financing among the countries in the survey. It is used for co-payments by patients and, frequently, where provision is funded by insurance schemes. The Republic of Korea has been experimenting with reimbursement methods based on diagnosis-related groups: in the latest experiment, which ended in 2001, about 24% of health-care expenditure was financed using this method. From 2002, this method is being introduced on a voluntary basis for some pathologies; fee for service is the method adopted for the remainder of services. This method is also used for collecting co-payments from patients, which are substantial in the Republic of Korea. Public hospitals receive funds for their capital investment projects from government on the basis of approved schemes. Poland is another country that uses a form of funding based on diagnosis-related groups for its health-care providers, as does France for its public hospitals.

In New Zealand, the distribution of funds to the district health boards is decided on the basis of population in the districts (a crude capitation method). These allocations are then distributed to various hospitals and other health service providers based on services provided in individual hospitals – in other words, volume of services weighted by hospital type – and hospital budgets. In theory, with adequate funding, using the capitation method of reimbursement should leave no unmet health-care needs among the population. In practice, however, there are substantial unmet needs in New Zealand, which manifest themselves through long waiting times and poor quality of services. It is fair to say, however, that, except for the Maori and Pacific Island populations, such problems are more or less evenly distributed in the country.

In Colombia, after the 1993 reforms, all health-care financing was routed through the unitary social insurance system (SGSSS). Reimbursements to providers, who can be either in the private or the public sector, are based on fees for services. After the reforms, hospitals were to function as autonomous institutions, but they did not have the managerial capabilities to adopt commercial practices essential for their successful continuation. “Public hospitals have, on average, proven slow to acquire the tools and skills required to generate accurate bills and to collect their fees, very few have generated costs of services or the ability to study the proposed fees, and even fewer have
generated any changes in their organizational cultures. As a result of their inability to respond to the new conditions, public hospitals and many of the non-profit hospitals face serious financial difficulties, as the insurance intermediaries have preferred to contract with private hospitals with greater capacity to compete (country report). The new reimbursement systems have affected private hospitals as well: some did not adapt to the new regime and, as a result, have ceased to function. Even institutions providing high-quality services were not rescued by the government. Fees that were previously collected as out-of-pocket payments from private patients were now set by insurance intermediaries, and the negotiated amounts were much less than before.

In the private hospital system in South Africa, a small proportion of the revenues is from fees for services collected from private patients. The bulk of the revenue is based on amounts negotiated for different types of services with the board of health-care funders. In the public health-care system, funding for hospitals is based generally on block grants which are, in turn, based on line item budgets, with some adjustments for local demography and morbidity patterns.

Chile has two main insurance systems: the public insurance scheme FONASA and the private system, with several schemes known as ISAPRES. Both systems use predominantly the fee-for-service method for reimbursing providers. Payments to public providers are regulated by the government, while the private providers negotiate their reimbursement rates periodically with the insurance schemes.

Among all the countries in the survey, Thailand has provided the most information on revenue sources and funding mechanisms. Government payments for inpatient care in public hospitals are based on block grants. User fees, which form a significant proportion of hospital revenues, are based on services provided. The social security system, which is a public insurance system and covers approximately 8.5% of the population, uses the capitation method to reimburse providers. Other sources, such as workmen’s compensation insurance, accident insurance schemes, the civil servants’ insurance scheme and most private insurance schemes, use the fee-for-service method to reimburse providers.

All the other survey countries, where the revenues are mainly from government or from user fees, receive their revenues mainly from the governments through block grants based on line item budgets. User fees are usually based on services provided and account for a minor proportion of overall revenues. In Ghana, the nongovernmental sector is a major contributor of revenues and funds, usually from the headquarters of the various charitable organizations involved, together with government grants based on line item budgets.

In a few of the countries in the survey, hospitals are allowed to retain a proportion of the revenues earned from user fees and other non-public sources. In many instances, use of these funds is severely circumscribed by legislation. In a few countries, such as Egypt (see Box 3.4), such revenues are used to pay performance incentives to clinical and other staff. Here one sees a contradiction: locally generated funds can provide extra revenues and incentives, but central government is very reluctant to grant enough local autonomy to allow this to happen in reality.

In predominantly government-funded systems, hospitals receive their revenues based on a line item budget in the form of a block grant. This method clearly does not relate revenues to services provided and may postpone much needed improvements in the structure of health provision. For example, in Egypt it has been estimated that, based on current needs, on average the hospital beds that are currently provided, amount to double the required number. At the same time there is a mal-distribution of beds ranging from 4.5 per 1000 population in Cairo to 0.97 in Fayoum and 0.88 bed per 1000 population in Kena. (Country report) With very low utilization rates, it is easy to conclude that substantial resources are wasted, resources that could be used to provide services that are currently in short supply, or to improve the quality of services provided. “The excessive bed capacity in Egypt places significant financial burden on..."
the health-care system. It also prevents the Ministry from allocating resources to primary and preventive care” (country report).

**BOX 3.4**  
**Incentive system in hospitals in Egypt**

During the last five years, the Ministry of Public Health issued several ministerial decrees regulating the financial incentive system in hospitals, with the aim of improving the income of hospital workers. In addition, the Minister of Health sent personal letters to senior hospitals officers to thank them for their outstanding performance.

Hospitals are entitled to retain revenues generated from user fees, which they deploy according to a formula set by the Ministry: 20% is used for expenses associated with temporary contract staff, 30% is spent on service improvement, and the bulk of the remainder pays incentives to staff. Distribution of incentives is usually equal among all staff but, in some governorates, a portion is based on performance assessments.

Source: country report.

Fees for services, where established billing and costing services exist, are an acceptable method of financing. If safeguards are not in place to protect the poor and vulnerable sections of society, however, there will be serious access problems. This method is also prone to abuse by providers in the private sector. Lebanon is a case in point: with funding coming mainly from the public insurance system, private providers are known to have overprovided services. Even though Lebanon spends 11.6% of its GDP on health care, its health status indicators are similar to its neighbours who spend 4–6% of their GDP on health care. This is probably an indication of poor or inefficient use of resources or wastage.

Two countries in the survey that use reimbursement methods based on diagnosis-related groups have both reported serious financial problems in their provider set-up. In the Republic of Korea, these have been passed onto the insurance organization, while in Poland direct government intervention was needed several times in the past few years to bail out bankrupt hospitals. Box 3.5 describes Thailand’s experience with this system of financing.

Reimbursements based on diagnosis-related groups need to be developed and assessed in more detail; in particular, they need to take account of local factors and conditions in calculating reimbursement rates. Diagnostic groupings cannot be transported from one health-care system to another. For example, in a recent study of costs for certain pathologies, it was noted that the amounts in the United States were 80–200% higher than those in Germany (46). Systems based on diagnosis-related groups need to keep pace with advances in technology as well as with new pathologies. In general, this approach presupposes a high level of skills in the health-care administrative set up.

Capitation methods are not extensively used despite conceptual advantages of simplicity and equity. Capitation is being introduced in some insurance schemes in Chile. This method presupposes the existence of a clear geographical or membership-based delineation of health-care responsibility among providers. Elsewhere in this report it has been shown that referral systems, which are essential to maintain the integrity of capitation-based funding arrangements, are rarely respected.

**Concluding remarks**

The study has reinforced some widely held beliefs – for example, that not enough resources are being spent on health care. Despite huge differences in the amounts spent, the complaint from comparatively well-funded systems, as well as from systems that receive only a small fraction of what is required in their health systems, is that more needs to be spent. What is surprising is that wastage and inefficiency were identified
even in systems that were relatively poorly funded. People working in these systems are aware of instances of wastage and inefficiency, but little has been done to eradicate them and redirect the resources to better use.

**BOX 3.5**

**Financing by diagnosis-related groups in Thailand**

During the period 1993–1997, Thailand examined the application of the diagnosis-related group (DRG) principle of financing and developed the first version of the Thai DRG; subsequently, a second version was developed and a third version was due to be implemented in late 2002.

DRG was not applied directly to pay hospitals, because of its weaknesses such as “creeping” and false reporting. It was recently used as a case-mix index to set up a global budget for paying hospitals. This was first applied in the low-income card scheme for poor people for the payment of high-cost cases. Hospitals sent individual inpatient data compatible with the specified data sets: one relative weight was paid at 10 000 Baht (42 Baht to US$ 1 in 2001).

Recently, DRG was planned for wider application, especially as a case-mix indicator to set up a global budget for hospitals providing inpatient care under the Civil Servant Medical Benefit Scheme as well as the universal coverage scheme. The table below shows the relative case-mix severity among different levels of care.

**DRG relative weights for inpatients, 1997**

<table>
<thead>
<tr>
<th>Type of hospital</th>
<th>Inpatient relative weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>0.6736</td>
</tr>
<tr>
<td>General</td>
<td>0.8330</td>
</tr>
<tr>
<td>Regional</td>
<td>1.0763</td>
</tr>
<tr>
<td>Specialized, in Bangkok</td>
<td>1.4826</td>
</tr>
<tr>
<td>Medical school</td>
<td>1.4181</td>
</tr>
</tbody>
</table>

Source: ref. 47.

The study also showed that health outcomes relate only in a very general way to the amounts spent on health care in different systems. A clear example is that of Lebanon and its neighbours where, in comparative terms, the amounts spent bear no relation to the health status improvements in the target populations.

Audits and other control mechanisms were reported from almost all countries in the study. The main fault lay not in whether funds were being used as intended, however, but in the basic decision-making systems, which rarely considered priorities among health-care needs when funding decisions were made. Such decisions require strong political will and the power to see through changes which may, at times, be unpopular with various interest groups and stakeholders in the system. They also need stable political systems and a consensus among the political elite on the fundamental aspects of the health-care system and what such a system should seek to achieve. Further, when changes are being implemented, there should be a careful study of their immediate and medium-term consequences, and every effort should be made to avoid unnecessary suffering and dislocation. Much could be learned from the Colombian experience of its 1993 reforms, when many health-care institutions had to close down because they could not cope with the demands placed on them by the new health financing system.
Public–private mix in the financing and provision of health care

The relative roles of the public and the private sectors in health care have been discussed extensively in recent years and, in many instances, this issue has been the trigger for major reform initiatives. These discussions, and some of the resulting programmes for reform, have questioned the appropriateness of the role of one sector or the other in the various areas of health-care financing and provision. This study has attempted to ascertain answers to some of the questions, for example: how much of the financing is from public sources and how much is from private sources? What proportions of the services provided are controlled by either the public or the private sectors? What links, if any, exist between the public and the private sectors in the financing and provision of health care? Are there any attempts to coordinate the activities of the sectors to ensure that between them they cover the entire spectrum of services and 100% of the target population? What are the observed shortcomings of mainly public, mainly private, and mixed systems? What remedial measures have been taken to overcome these shortcomings?

Health care is predominantly publicly funded in half of the countries in the study, while in all except Japan, Lebanon and the Republic of Korea, hospital care is chiefly provided through public institutions. This dependence on the public sector for both finance and provision is now being questioned and is one of the important reasons for reforming health-care systems in some countries. Pressures on government budgets on the one hand, and increasing costs of medical care on the other, have resulted in a situation where many governments have been forced to look at alternative models of financing as well as provision. The original principles of equity and solidarity that shaped public financing and provision of health care continue to be valid, but there are increasingly strident calls for “customer responsiveness” in many countries. Higher disposable incomes and a new health awareness, combined with an increased sense of personal freedoms, have resulted in greater demand for private health care. More importantly, the failures of public health-care systems have added credibility to calls for private participation in health care. Though fully private health care (i.e. that which is provided and funded privately) currently accounts for only a small proportion of care in many health systems, the combined effects of government withdrawal and more demand for private health care mean that this proportion will probably increase substantially in the coming years. Moreover, private provision (including non-profit providers) is also likely to grow as a means of delivering publicly funded programmes.

Numerous arguments have been offered in country reports for and against the involvement of the public and the private sectors in health care. Some of the arguments against public sector domination of health care are as follows:

- In many instances, health services provided in the public sector have been available free of charge. Though user fees, or at least patient co-payments, are slowly being introduced, they are fiercely opposed by patient groups and have not been very successful. In many cases this results in inappropriate use, leading to inefficiencies that ultimately affect the long-term viability of public health services.
- Where the public sector is the predominant or sole provider of health services, there is a lack of competition between the various provider institutions. Users are captive, and therefore service providers have little incentive to please them. The absence of competition also stifles innovative practices and thus adversely affects the quality of health services.
- Political interference in the day-to-day running of the health-care services has been reported on many occasions. This has ranged from sabotaging admission procedures and forcing hospitals to waive user fees from patients (the Philippines) to inappropriate purchasing decisions, interference in personnel decisions (Colombia) and fundamental planning misjudgements such as faulty location of hospitals (Ghana and the United Republic of Tanzania). Such interference has
lessened the incentive for managements to take initiatives, forcing them to think more politically and to abandon long-term strategic planning. Some of these measures have seriously affected the efficiency of the public health-care system in many countries, raising costs and eroding quality of care.

- Too often, the organization is captured by the people working within it. This usually results in decisions being made in which the patient is not the central concern, but the interests of employees and management take precedence. The series of strikes resorted to by clinical staff in the Republic of Korea, when the government tried to improve the system of prescription and dispensing of medicines, is an example.

- In most instances where the public sector is the sole or predominant provider of health services, there has been serious underinvestment in health care. The state has to worry about its total budget, and health care – as one of the substantial components – can, at best, only receive equal treatment along with the other claimants such as defence and education and may, at worst, fare worse than these other sectors. It has been reported that in adverse situations, the health sector suffers disproportionate reductions (for example, in Kazakhstan, the Philippines and Poland).

The opponents of private sector involvement in health care put forward the following arguments in favour of the public sector:

- Profit maximization as the primary motive is usually in conflict with the provision of health care as a public service. Profit maximization induces provider organizations to act in ways that may be detrimental to the quality of health care, for example reducing quality by cutting costs, or worsening the terms and conditions of service offered to employees.

- The profit motive and the pressure to pay dividends may divert resources away from much needed investments.

- There is an inherent conflict in accountability in private organizations: their responsibilities to the public are overshadowed by their commitment to the owners and the investment community.

- Since investment decisions are market determined, there may be adverse repercussions on equity. It has been noted in almost all the countries in the survey that private health-care providers are concentrated in urban areas, leaving rural populations with less than adequate coverage. Further, in some instances, this urban concentration may lead to over-provision of services in some areas or certain specialties, leading to low utilization levels, at the same time causing shortages in other areas or specialties. Investment in high technology in Thailand is a case in point.

- Given that health-care provision is in short supply in many countries, the prices charged by private providers are high and are out of the reach of poorer population groups.

Some quality concepts

Even though there is active debate about the public–private mix in health care, there is some confusion about what exactly defines either a public or a private health-care system. There are two main variables to be analysed in determining if a system is public or private: the source of financing and the control of provision.

First, one should look at how health care is financed. Public or private sources of finance can be made up of many subsources. Thus private finance may be in the form of patients’ out-of-pocket payments at the point of use, funds routed through private insurance schemes, funds provided by employers, and so on. In many countries, there is also significant involvement of the charitable sector in health care. Largely, these
organizations are independent of direct government control and, in most health-care literature, finance raised from charities from nongovernmental sources is defined as private. Public funding of health care is usually from government at various levels, such as national, provincial or municipal. Public funding of health care can also be routed through public insurance schemes. Funding of health care in most countries is a combination of public and private involvement, with input from a variety of sources in each category. The precise source of funding can have a significant impact on health care: for example, if financed predominantly by patients’ out-of-pocket payments, it is usually the case that there will be substantial unmet health-care needs, because some patients are unable to pay. If funding is predominantly through private insurance schemes, there is usually relatively high consumption of health-care services by participating members. This tends to divert health-care provision and, hence, excluded segments of the population cannot afford to access providers for some or all of their health-care needs.

If funding is from public sources, a different set of factors comes into play. For example, funding from the national government tends to be chronically short of the required levels, though there is likely to be some stability in the amount of finance available; it may also be more difficult to obtain funds for capital projects. Funding allocations may not take into account local needs, as national governments are often seen as remote and not in touch with the local situation. Funding through provincial or municipal governments is supposed to be more responsive to population needs. In practice, this is partially true in some of the more advanced countries, where local democracy is well established and local governments have the capacity to raise revenues. In the majority of instances, however, local or even provincial governments have to depend on the national government for the bulk of their finances. This puts control on spending back to the national government. Some national governments have used decentralization of health care to provincial or municipal governments as an excuse to reduce health-care expenditures. Where spending decisions lie with provincial or municipal governments, political interference is more immediate and may affect the quality of health services. A decentralized system can also result, over time, in distortions in health status between different provinces, as a result of variable levels of funding made available for health care.

In general, publicly funded systems tend to suffer from low allocations for health care, while privately funded systems distort spending by over-providing in some areas and specialties (where there is demand and the capacity to pay) and under-providing elsewhere in the system.

The second question that determines the public or private nature of a health-care system is: who controls the provision of health care in the system? Here again, the entire health-care industry may be controlled by the government (as in Cuba) or other public sector agency, or it could theoretically be entirely in the private sector (as is the case in Paraguay). In practice, it is nearly always a mix of public and private provision. In some systems, there is a segmental approach: for example, the primary care segment is in the public sector, while both the public and the private sectors participate in the provision of hospital services. In other systems, both sectors may participate in all areas of health care.

There are at least four conceptual models of public–private health-care division:

- systems where the funding as well as the provision is from public sources;
- systems where the funding as well as the provision is in the private sector;
- systems where the funding is from public sources and the provision is in the private sector;
- systems where the funding is from private sources and the provision is in the public sector.
In practice, no system precisely corresponds to any of the four models. Most countries have a mix of public and private sources of funding, and public as well as private providers. What characterizes a system as predominantly public or private, therefore, is the extent to which it is publicly or privately funded and the proportion of health-care organizations in either the public or the private sector.

There are other finer distinctions between health-care systems depending on the relationship (or link) between the public and the private sectors, and the role each plays in meeting the health-care needs of the population. Several models have been postulated (48).

- Parallel and separate development, where the public and the private sectors operate independently. In other words, private providers cater to the needs of private patients either through out-of-pocket payments or through their membership of private health insurance. The public sector caters for everything else.
- Public core and private supplementary, where a guaranteed core set of services is publicly funded and provided, which ensures that the most important health needs are met for all citizens, at no or low cost. Private providers specialize in providing more convenient services or services that are not considered publicly essential.
- Predominantly private, with a public safety net. In this model the public sector provides only basic services for the poor, or those not covered or provided by the private sector. Most people have private health insurance or pay directly for services, and most services are privately provided.
- Partnership and experimentation. In this model, the public sector finances most services and provides some. It contracts with private sector providers where they are clearly of lower cost and of the same or higher quality, and where equity of service to different groups is not affected. There is freedom to experiment, but a requirement that the experiments are evaluated.

Another model can be added to the above four, where the public sector, instead of acting simply as a guarantor of minimum access and health service provision, coordinates its role in conjunction with the private sector. In other words, while neither sector is dominant, the role of each one is regulated so that, between them, they cover the health-care needs of the entire population.

In addition to funding and provision, power, as a third dynamic, may determine the true character of a health-care system. For example, a system may be funded from a variety of private and public sources, with much of the health-care provision in the private sector. If there is state control, however, on levels of insurance contribution, co-payment levels and amounts, methods and reimbursement formulae for every kind of service, even though the system may be defined as predominantly private – based on the two variables model – because of extensive public control it may have the character of a publicly controlled system (as in Japan and the Republic of Korea).

Finally, in many poor countries, the health-care system may not fit into any of the above categories. In many of them, the public health-care system is simply not able to cope with the burden of demand. Private providers have set up shop and, usually, they are financed by out-of-pocket payments from better-off patients. Far from any coordination, in such instances there is not even the basic oversight of private providers. Sometimes (as reported from Ghana) patients are forced to visit “quacks” or resort to self-medication, as they cannot access the mainstream health-care providers. In such circumstances, fundamental reforms are necessary before there is likely to be any significant increase in the quantity and quality of health-care provision. Critical factors, such as lack of skilled health-care and allied personnel, or a lack of basic drugs, mean that any shift from public to private provision or vice versa would not result in any real improvements in health-care provision.
Case study analysis

Most of the countries in the study have predominantly publicly funded systems. Private funding of health care is on a small scale, but in many instances there are plans to increase the private sector’s share of health-care funding. Historically, private sector funding of health care has generally begun with the direct payment of medical bills on a fee-for-service basis. Then, as the costs of care rose, private insurance schemes were introduced, often related to employment. As reported from Egypt there are problems in establishing private insurance schemes because of government control of premium levels, the low market absorption rate for private schemes and the complex legal framework through which, at least initially, new schemes operate.

In the provision of health care, both public and private sectors participate in varying proportions. In general, primary care has more private sector involvement in the form of private clinics owned and operated by individual doctors. At the district (secondary care) hospital level, there is significant private sector participation, though university hospitals and other high-technology (or high-cost) hospitals tend to be in the public sector. In entrenched public provider systems, it has been difficult to move the ownership to the private sector, as reported from Poland. In most cases, the private sector has entered the market by building new provider institutions.

In all the countries in the survey, the links between the public and the private sectors are very weak. There is little or no coordination between the two sectors, so that those who participate in private schemes may nevertheless use the public health-care system where it is available free or is considerably cheaper than the private system. While it is true that the public system is released from the burden of demand to the extent of individuals accessing private facilities, the public system tends to be burdened with high-cost treatments where there are no limits of access to its services. Mixed systems often have situations where there is substantial spare capacity in the private hospitals, whereas the public system is overburdened and is not able to cope with the demand from patients. Some countries have tried to redress this by allowing the public system to purchase health care from private providers. In predominantly public systems the progress on this front has been very slow, for example in Poland, though the government is in favour of privatizing the health-care industry. This is probably because of resistance from the public and from clinical staff (who, in Poland, may have to lose their “envelope payments” if there is to be any major change in the system) and because of general resistance to change. In very poor countries such as Ghana, while there may be innovative ideas in government plans, unless measures are taken to correct critical shortages in health-care manpower and basic drugs the situation may not improve.

African Region

Ghana

Ghana has a predominantly public health-care system with some private participation. The public health-care system is mostly financed from tax revenues, with about 14% of revenues coming from co-payments. Of the 193 hospitals, 94 are in the public sector, with a further five financed entirely from public sources; of the rest, 43 are run by charitable missions and are mostly located in rural areas; the remaining 51 hospitals are private, located mainly in cities. Mission hospitals receive some financial assistance from public sources in the form of a contribution to non-wage recurring expenditure. Otherwise, there are no links between the public hospitals and the charitable or private hospitals. The critical factor affecting the growth of the private sector is the acute shortage of skilled health-care personnel. There is some coordination between
the mission hospitals through the Christian health association of Ghana. The medium-term health strategy includes plans to coordinate health-care provision between the public, mission and private sectors.

South Africa

At present, the system is a mixed public–private system, both in terms of funding and provision. It can best be described as “parallel but separate” with little connection between the two. The public system is funded from tax revenues and is available to all citizens free of charge. Public hospitals account for roughly 50% of all hospitals. In addition, some 20% of the hospitals receive public subsidies as part of their revenues. Private hospitals account for approximately 30% of total hospitals and are mostly financed by private insurance schemes. Public funding agencies do not use private providers, which have significant spare bed capacity. About 18% of the population have some sort of private health-care cover. The government is trying to limit the growth of private hospitals; currently, no new licences are being issued for private hospitals. Simultaneously, there are moves to introduce pay beds in public hospitals with a view to increasing revenues in the public health-care system.

United Republic of Tanzania

Until recently, the public health-care system was wholly public. All private hospitals were nationalized in 1977 and there was a ban on private health care until 1991. Currently, there is a mainly publicly funded and provided system, the funding coming principally from tax revenues. The government owns approximately two thirds of the hospitals, the balance being private hospitals. Private health care is mainly funded by patients’ payment for services received. There is no connection between the public and the private sectors in health care.

Region of the Americas

Chile

Chile has a mixed system based on public and private insurance schemes. The public insurance system, FONASA, is financed by income-based contributions. All employed persons have to contribute, unless they opt to be in the private insurance scheme, ISAPRES. Individual contributions to the private scheme should be at least equal to contributions to the public scheme, though higher contributions are accepted and even encouraged. Provision of health care is through separate organizations for the public and the private systems. The private system should offer at least the services available to members under the public system. Approximately 61% of the population is insured with FONASA, with a further 28% insured through ISAPRES. The balance (11%) of the population is covered for health-care provision either through special schemes available to the army, police, etc., or are uninsured. There are some links between the public and private system:

- a 2% subsidy is offered to employers to increase workers’ contributions in the private scheme;
- all maternal health-care expenses are paid by FONASA, including for members of ISAPRES;
- immunization and nutritional health care are paid for by the state;
- there are cross-subsidies from the public to the private system for high-cost treatments;
- recently, the public scheme (FONASA) has started purchasing health care from private providers.
Colombia

Funding for health care is through a unified public insurance scheme (SGSSS), membership of which is mandatory for all employed and self-employed people. Substantial contributions are paid into this system (sums totalling more than 20% of income). Providers can be either in the public or the private sector. Reimbursement methods are different for the two sectors – the amounts for public sector providers are regulated by government, whereas private providers negotiate fees periodically (mostly on a fee-for-service basis, but increasingly by a capitation method). The system allows for some sort of managed competition between the public and private providers. Poor people who are not members of the insurance scheme are entitled to free preventive, promotive and primary care, and limited secondary and tertiary care. There are some identified problems with the public sector provider organizations: public provision does not sufficiently take into account the health-care needs of the population; serious problems with personnel policies have been attributed to political interference, resulting in shortages in some specialties and overprovision in some others, affecting the overall efficiency and cost of care in the public sector.

South-East Asia Region

Sri Lanka

Sri Lanka operates a mainly public health-care system. Funding is primarily from the central ministry of health. Health services are available to all citizens free of charge in the public system. Health-care provision is also mostly in the public sector, though there are signs of more activity recently in the private hospitals market. Government-employed doctors are allowed to engage in private practice in their free time, and this constitutes the bulk of the private sector in primary health care. There are no links between private clinics and the public hospital system – private doctors are not allowed to admit patients to public hospitals.

Thailand

Thailand has a mixed public and private health-care system. The public system is basically financed by government budget allocations, which account for approximately 50% of revenues. The balance comes from a variety of sources including patient co-payments. Beneficiaries of social welfare schemes can access primary care facilities free of charge. Private hospitals’ revenue is based on fees for services, collected mainly from patients. There are some emerging private insurance schemes but, currently, enrolment in the schemes is low. The government is trying to encourage private sector participation in health schemes. Provision is through government-owned hospitals as well as private facilities. Hospital beds in public ownership account for 77.4% of the total, and private beds for the remainder. The government hopes to increase the private share of hospital beds and provides incentives to achieve this: for example, all equipment is exempt from import duties, and private not-for-profit hospitals are exempt from income taxes, etc. At present there is not much interaction between the private and the public hospital systems. The public hospital system has adopted many characteristics of private organizations in the way it operates. One manifestation is the increasing tendency to outsource hospital services to the private sector (see Box 3.6). Finally, employees in public sector hospitals are allowed to engage in private work. The practice is quite widespread as many employees in the public sector need to supplement their salaries with income from private work (50).
**BOX 3.6**

**Outsourcing of hospital services in Thailand**

The objective of contracting for services is efficiency, to be achieved through streamlining the manpower element of the public sector. The cost of services obtained by competitive contracting is believed to be lower than the cost of those provided in-house. The Ministry of Finance’s Comptroller General Department has laid down the legal framework and regulations for contracting out to private providers, including prices for non-clinical services such as cleaning, maintenance, security and gardening. Any government units can contract these services at prices not exceeding the standard rates, which are unfortunately lower than market rates as they have not been updated for several years. There is no framework for the contracting of clinical services: the department reacts to requests by hospitals on a case-by-case basis.

Studies in 1996 (49) showed no significant cost difference between services performed in-house and those contracted out, but higher satisfaction and ease of personnel management were reported in respect of services performed under contract. Several weaknesses were identified, among them the poor capacity of hospitals to monitor contractor performance in order to introduce sanctions if necessary. The competitive bidding process is hampered by official price controls being far lower than market prices. As a result, the quality of contracted-out services, though marginally better than those performed in-house, is not as high as it could be. The table below compares the cost and quality of contract cleaning services with hypothetical in-house provision.

**Comparative cost of hospital cleaning, in-house and under contract**

<table>
<thead>
<tr>
<th>Public hospital</th>
<th>In-house cleaning (hypothetical)</th>
<th>Actual contract</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost per m² per year</td>
<td>Satisfaction</td>
</tr>
<tr>
<td>Noparat main buildings</td>
<td>Rajavithi</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sa-Ad buildings</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>EMS buildings</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Neurological main buildings</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Chareonkrung</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bhumiphol</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Salarik building</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Thonglor building</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Kumkhlao building</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Veteran main building</td>
<td>201</td>
</tr>
<tr>
<td></td>
<td>Ramathibodi lecture building</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>All hospitals</td>
<td>88</td>
</tr>
</tbody>
</table>

**European Region**

**Cyprus**

Cyprus has a mixed public–private system for both financing and provision of health care. The public system is funded from tax revenues and is available free to all citizens. The private system operates independently from the public system and is funded through private insurance schemes and patients’ out-of-pocket payments. Reform proposals include the introduction of some sort of managed competition between the private and the public sectors in health care.

**France**

Funding for health care is mostly from public sources, financed by social security contributions and tax revenue. A small proportion of the funds come from patient co-
payments. Provision of health care is through public as well as private sources. Most primary care clinics are in the private sector. Hospitals can be either in the public or the private sector. Public sector hospitals are reimbursed by way of block grants (covering 90–95% of their revenue) based on workload-adjusted diagnosis-related groups, and private hospitals by way of fees for services. There are some cross-links between the public and the private systems. Doctors working in the public hospitals, for example, are entitled to engage in private practice in the same specialty in which they are engaged in their public sector role. They are allowed to use the facilities of the public institution for their private practice, subject to certain limits (a maximum of two beds per full-time doctor). The private activities of public doctors are subject to scrutiny by the private activity committee, which produces an annual report of all such activities in its hospital. In addition, hospitals (public as well as private) are allowed to sign agreements with other hospitals, which may cover various aspects of their operations. In practice, such agreements are signed to share high-cost equipment (such as scanners), and will define the timetable for the use of such equipment and the manner in which management costs associated with the shared equipment will be allocated between the participating hospitals.

Kazakhstan

Kazakhstan began the 1990s with, in theory, a wholly government funded system of health care. Patients were expected to pay something, known as “envelope payments”, towards the cost of their care, though this was officially denied. A mandatory health insurance fund was established in 1996, intended to cover primary care other than emergencies, plus inpatient care and drugs, and public health activities; by 1999 the scheme was insolvent and passed to direct government control. Therefore health services are now funded by government (by a mix of general taxation and payroll), with very substantial unrecorded, unofficial direct payments by users and a small amount of private health insurance. The health system has remained severely underfunded for years, receiving in some periods only one third of its budget requests, while the expected budget is usually revised downwards during the course of the financial year.

Poland

Funding for health-care is through public employment-based sickness funds, which account for over 89% of hospital revenues, the balance coming from government payments (3.7%), out-of-pocket payments (3.8%) and other sources (2.9%). There is a practice of “envelope payments” by patients to physicians for services provided. According to some estimates, such payments amount to approximately 38% of the total health-care expenditure. There are moves to create private insurance schemes which are expected slowly to replace the public financing system. Provision is predominantly in the public sector. Of the 750 hospitals, 712 are in public control, with only 32 in the private sector, the remaining six being unexplained in the country report. Though the government has been encouraging the public sector hospitals to transfer to the private sector, there has been very little progress in that direction. In a recent survey, of the 353 hospitals that responded, only 111 were planning privatization, as against 196 that were expressly against privatization. The remaining respondents did not commit themselves either way.

Eastern Mediterranean Region

Egypt

The Egyptian health-care system is predominantly a public system with both funding and provision in public control. Funding is currently predominantly from tax revenues, and administered by the national ministry of health. There are proposals to
convert to an insurance-based funding system, though such proposals have faced some initial drawbacks (see Box 3.7). Provision is mainly through government-owned hospitals (88% of hospital beds are in public institutions) and health care is available to all, free of charge, at these hospitals.

**BOX 3.7**

**Private health insurance in Egypt**

In the present regulatory environment, private health insurance does not represent an attractive business opportunity for enterprises in Egypt, as it is difficult to make a profit from it. Premiums are regulated and are too low compared to the costs. In addition, an insurance law guarantees employees the right to refuse to participate in a copayment mechanism.

Health insurance in Egypt is regulated by more than 30 applicable laws and decrees. Any company that develops a health insurance plan has to have it passed by Misr Reinsurance and the Insurance Review Organization, an independent public sector body with review authority over insurance contracts and negotiations.

In 1995 there were 11 insurance companies in Egypt, three of which offered health insurance. These three companies are the largest in Egypt and are all government-owned parastatal organizations (Al Shark, Misr and Al Ahlyia). The largest one – Al Shark – continues to lose money on its health insurance policies. Although only a small part of the company’s portfolio, health insurance causes a disproportionate amount of trouble, and Al Shark might ultimately discontinue the option.

Over the past few years and as part of the structural adjustment process, the private insurance environment started to become less restrictive. A new law was passed to allow the opening of private foreign insurance companies; under the General Agreement on Tariffs and Trade (GATT), the minimum capital requirement has been lowered.

A private health insurance programme “Medicare” was introduced a few years ago by the Nile Badrawi Hospital, with most of its beneficiaries drawn from the upper and upper-middle classes. The premiums are reasonable and the programme has a copayment ingredient. In addition, a European private insurance firm has recently been allowed to operate in Egypt, through a Cairo office; its services are provided through Egyptian private sector providers, mainly to Egyptians in the upper income level.

Source: country report.

**Lebanon**

The financing of health care is through a combination of public insurance schemes and out-of-pocket payments. Public patients account for 70–80% of bed occupancy in hospitals. Provision is predominantly in the private sector, though efforts are under way to increase the public share of health-care provision. Reimbursement is mostly on the basis of fees for services. There is a climate of mistrust between the payers (the public insurance scheme) and the providers. It is felt by the payers that providers overprovide services in order to maximize revenue; the providers complain that they do not receive enough incentives to introduce new ideas and practices, because of extensive bureaucracy, and that payments are considerably delayed, affecting the liquidity of health care providing institutions.

**Morocco**

The Moroccan health-care system also is a mix of public and private systems. The public system is funded through tax revenues and is available free of charge to all citizens. In practice, the system is used mainly by the poorer sections of society. Private funds account for the bulk of health-care spending (it is estimated that approximately 90% of household medical expense is in the private sector). Proposed reforms include measures to coordinate provision between the public and the private sectors, with access being allowed to all through a system of *cartes sanitaires* (health cards).
Syrian Arab Republic

The health-care system is a mix of public and private sectors, with the majority of funding and provision in the public sector. There is very little connection between the two sectors and therefore the system can be characterized as “parallel but separate”. The public system is free to all patients, while private hospitals are financed by patients paying for services received.

Western Pacific Region

China

The health-care system is predominantly publicly administered. There are complex formulae governing patient co-payments, which form a significant proportion of total health-care expenditures (54% in 2000). Patient payments are much higher in rural areas, and measures are being adopted to tackle this inequality. Public financing is primarily through public, employment-based insurance funds, with a small proportion coming directly from governments at various levels, the balance being met by the patients themselves. Provision is largely in the public sector, though about 40% of primary care clinics are privately owned. Although the majority of the funding is from patients, it may be classified as a publicly controlled system because of extensive government control.

New Zealand

The health-care system is predominantly publicly funded (77%) with providers in the public as well as private sectors. Private insurance schemes are the second largest source of finance, with approximately 40% of the population participating in private schemes. The majority of acute-care hospitals are owned by the government; long-term care institutions are mainly privately owned. The hospital system can be best described as “public core and private supplementary”, whereas primary care is predominantly private, with public protection for the poor. There are reports of shortfall of provision for the very poor and the ethnic Maori and Pacific Islanders populations.

Philippines

The country operates a mixed system with public–private health-care funding as well as provision. Most private health expenditure is in the form of patients’ out-of-pocket payments (approximately 46% of total health-care expenditure). The system can be described as “parallel and separate development” where there is little connection between the private sector and its public counterpart. Usage patterns are highly skewed, with the poor using the public system and the well-off opting for private health care. Access for the poor to private hospitals is simply not available, in spite of government regulations stipulating that 10% of bed capacity in private hospitals should be reserved for charity patients, and that no patient should be refused treatment on financial grounds. Private hospitals are also concentrated in urban areas, leaving rural health care needs mostly in the public sector.

Republic of Korea

Health-care funding is administered through a unified public insurance scheme, which mandates set levels of premiums from the employed, self-employed, etc. There is limited coverage for those who are not members of the scheme, hence there is some disparity in health provision between members and non-members of the insurance scheme. Furthermore, out-of-pocket payments have been increasing over the years, which may deter even the insured from seeking health care. Health-care provision is through both public and private providers, though private hospitals far outnumber...
those in the public sector. The insurance fund contracts with all health-care providers, and reimbursement is generally based on diagnosis-related groups and fees for services. The system has the characteristics of a publicly controlled system, even though the majority of funding is from private (out-of-pocket) sources and provision is also mainly through private hospitals. The public insurance system has incurred huge and increasing deficits, however, and the system will break down unless this situation is successfully tackled by government.

Concluding remarks

Many problems have been identified in systems where both public and private providers co-exist, as described below.

- Private insurance schemes are “creaming” off paying patients, that is, they select low-risk and high-solvency individuals and leave the public sector with the burden of providing the bulk of the health-care needs of poor and sick people (as reported from Lebanon and South Africa). Without specific regulation, the economically weak such as elderly people are priced out of private insurance as their incomes drop and their needs rise. As a corollary, any mixed system must ensure coverage for those sections of the population who will be left out of any private health schemes. Such coverage has been incorporated in the health planning exercise in Chile, for example: while adopting private sector models of reimbursement to providers, specific provisions are made to secure basic health services such as health promotion and nutrition, obstetric care and health care where the costs are considered too high to be met by direct payment or private insurance.

- Private insurance schemes often impose limits on individual claimants: when they exceed this limit, or when the insurance schemes run out of funds, the public sector has to take over responsibility for health-care provision (reported from South Africa).

- The private sector health-care organizations draw much human resources talent away from the public sector, because they are able to pay higher salaries and financial incentives to their employees. This results in poorer quality human resources in public health-care organizations. In extreme cases, the public sector may face serious shortages of skills, creating bottlenecks in the system which in turn lead to inefficient use of resources. Bottlenecks also mean that poorer patients and those who depend on the public sector are not able to fulfill some of their health-care needs.

- Where clinical staff are permitted to work in both sectors, their performance may be affected. For example, it has been reported that the quality of clinical care in private hospitals in England is not optimal. This is because clinicians who work primarily in the public sector, the National Health Service (NHS), are only allowed to work privately outside their NHS committed hours, and they may be tired by the time they complete their shifts in the NHS. Alternatively, their involvement in the private sector may affect the performance of their public sector responsibilities. It has also been noted (in Egypt) that some of the referrals of patients for private consultations are inappropriate, because treatment could have been carried out in the public system.

- Unless there is a seamless continuity of coverage, a mixed health-care system usually results in a segment of the population having no access to health care. Such individuals could (as reported from the United States, for example) be in low-paid employment, who, while they may not qualify for public health care reserved for the very poor, may at the same time not be able to afford the high premiums for private insurance or the high cost of services.

- Private providers often resort to inappropriate clinical procedures with a view to maximizing revenues and profits. For example, it has been noted in Thailand
that caesarean sections were much higher as a proportion of deliveries in private hospitals compared with those in public hospitals (see Box 3.8).

BOX 3.8

**Incidence of caesarean sections in public and private hospitals in Thailand**

The rate of caesarean sections performed in private hospitals in Thailand in 1996 was 51%, compared with 22% in public hospitals (49). It was found that financial incentives played a significant role in physician practice variations.

Private practice is defined as a “voluntary, unofficial gratitude payment for an obstetrician’s private attendance during labour and delivery of a pregnant woman”. This is not uncommon in public hospitals and is well accepted by social norms. A one-month survey of deliveries in 29 public hospitals in 2000 (57) showed that 37% (range 16–80%) of patients paid unofficial gratitude money for an obstetrician’s personal services. Caesarean section rates were three times higher among private patients, as shown in the table below. Compared with non-private patients, the relative risk of private patients to undergo caesarean section was 2.9. This study hypothesizes that physician “leisure time” is a strong determinant of unnecessary caesarean sections.

**Childbirth practices in Thailand, 2000**

<table>
<thead>
<tr>
<th>Delivery pattern</th>
<th>Private patients (%)</th>
<th>Non-private patients (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>33 (8–75)</td>
<td>77 (64–100)</td>
<td>61 (36–82)</td>
</tr>
<tr>
<td>Caesarean section</td>
<td>46 (12–89)</td>
<td>16 (0–27)</td>
<td>27 (8–45)</td>
</tr>
<tr>
<td>Forceps, vacuum, breech</td>
<td>21 (0–50)</td>
<td>7 (0–16)</td>
<td>12 (2–27)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (n = 3262)</td>
<td>100 (n = 5502)</td>
<td>100 (n = 8764)</td>
</tr>
</tbody>
</table>

Unnecessary caesarean sections lead to economic losses because of the need to prescribe antibiotics, longer hospital stay and delayed mother–baby bonding; they also put the patient at a higher risk of having to undergo blood transfusion and anaesthesia. Private practice may also discriminate against non-private patients and lead to a loss of confidence in the quality of obstetric and physician services when they are medically indicated.

Source: country report.

**Management**

Typically, management is poorly regarded in the world of medicine. As the Japanese case study reported, in response to the question asking whether there are clearly defined skill requirements for each position in the hospital, “We Japanese are not interested in business affairs”. While others might not be so blunt about it, such a view is widely held by senior doctors in many systems. Moreover, politicians and the public can be equally dismissive.

A hospital is an organization that is far too complicated and too important not to be well managed. While the proper care of each patient calls for clinical decisions untramelled by management constraints – so that nurses and doctors are encouraged to get on with their jobs and are supported in doing so – the management task is there in the background. A few questions illustrate the nature of this task, for example:

- Granted that almost every public hospital is short of money, how can the available resources be used efficiently?
- With finite resources and changing needs, how much should be allocated to each service or department?
If there are grounds for concern about the quality of any service, how will the causes be tackled and put right?

How will the hospital make its case in the broader political and financial arenas, obtain the resources it needs to do its job, and account for its expenditure and the work it does?

How is morale created and maintained? (Morale makes a crucial difference in any organization doing its job under stress, whether it is a police service, a school, a business or a hospital.)

The need for high-quality management at the hospital level also applies to wider systems, particularly the large, publicly financed systems present in most of the countries that comprise this study.

In Ghana, for example, the problems are many, against an historical background of the post-independence (1957) development of a system of local health centres and district and regional hospitals, which were mainly government owned but also included some missionary hospitals. There was a major planned expansion of hospitals during this period, with a large investment in infrastructure but without adequately dealing with the issues of maintenance, staffing and replacement cost. On the model of the United Kingdom's National Health Service, all government health services were free at the point of use. Post-1977 the emphasis swung away from hospitals as priority was given to primary health care. Hospitals were seen as “bad” and “inefficient”, compared with the potential offered by non-hospital primary care. As a result, their conditions declined to the state indicated in Box 3.9 and adversely affected the morale of hospital workers.

**BOX 3.9**

**Hospitals in Ghana**

The 1990s saw the onset of health sector reforms in Ghana, as it was recognized that both non-hospital primary care and hospitals have parts to play in the delivery of health care. Before that, hospital development had been neglected for 20 years, so there was no clear definition of services required, no cost data, and no long-term financing plan, despite public expectation of free services. Regulations in hospitals are not well developed and are poorly implemented, with weak organization, management systems and procedures (including staffing, drugs and medical technology). Hospital development until recently was anti-private. The end result is that the hospitals in Ghana are ill equipped to deal with present and future health needs. Past policies have left a legacy of large hospitals, some of them in the wrong places, which in many instances are seriously dilapidated. The key problems include:

- no clear guidelines for hospital development;
- political interference in the running of the hospitals;
- no standardized management structures for levels of hospitals;
- no documentation of the roles and responsibilities of hospitals within the broader system;
- no clear definition of the services to be provided by hospitals at each level;
- a poor referral system;
- a lack of sustainability in hospital financing (though the introduction of some user charges, including a cash and carry system for drugs, is promising in its implications).

Source: country report.

These problems are by no means peculiar to Ghana. With relatively few exceptions, the picture painted of public hospitals in most of the survey countries is one of dilapidation, long waits by patients, and low staff morale. In the United Republic of Tanzania,
for example, difficulties are noted in financing hospital activities within a fixed grant, maintaining equipment, and long waiting times in hospitals that have high status and reputation. In South Africa, the public sector has a poor image: “Accreditation surveyors note that public hospitals do not meet the standards set down for hospital management, that facilities and technology are poorly maintained, and that health and safety measures are not well observed.” Sri Lanka notes: “The health personnel in the public sector generally lack motivation, satisfaction and discipline.” In the Philippines, following devolution from the central government to local government in 1993, “many public hospitals performed poorly”, partly because of funding cuts, which have had an impact on the state of buildings and equipment, quality standards and (no doubt) morale. The Asian Financial Crisis in 1997 will not have helped, with substantial cuts imposed by central government on all departments and agencies. Both Kazakhstan and Poland, where economic problems have also caused sharp cuts in public expenditure, note reductions in hospital beds, physician and nurse staffing levels, and standards of care. In Kazakhstan, the European Observatory reported in 1999 that “about two thirds of equipment in health facilities is said to be out-of-date or in need of repair … the standard of care in many hospitals is poor given their poor state of repair and lack of even essential medical supplies such as antiseptics”. Hospital infection rates are rising (26: 37). In Poland, following a drop in capital spending on hospitals, “many facilities require repairs and lack modern equipment”. Moreover, “pay levels, working conditions and morale remain problematic among health-care personnel in Poland” (21: 30, 35).

Admittedly, these countries are at the low end of the health-care spending spectrum or have suffered major economic setbacks in recent years, or both, but the problems are not confined to them. New Zealand, which is the third highest spender on health care in the survey, reports among the problems noted by hospital accreditation surveyors “older facilities, inadequate for modern care, and lack of privacy for patients”.

Tackling these problems will require money, but money alone will not be enough without management and leadership of a high order. The umbrella terms “management” and “leadership” require definition. Without being exhaustive, the following four elements are crucial:

- political vision, translated into a feasible national plan and sustained over a long enough period to take effect;
- investment (capital and recurrent) on the scale required to finance the plan, including maintaining the hospital infrastructure in good condition;
- human resource management of a high order, including an effective partnership between political will, space for local management and initiative, and space for clinical judgement and responsibility;
- information management to ensure that the plan is relevant and realistic, and to monitor progress and performance.

Each of these elements is discussed below, followed by the important question of decentralization, which cuts across them all.

**Political vision, leadership and a feasible plan**

The case of Ghana has already illustrated how, in the post-independence era, a hospital system was put in place over a 20-year period. Subsequently, this proved to be both a strength and a weakness: a strength in creating a comprehensive hospital infrastructure throughout the country, but a weakness in that it was not sustainable in the long run and is having to be refashioned.

Among the countries in the study, the United Republic of Tanzania tells a similar story in creating a large, comprehensive, free system of government-provided health care, which proved unsustainable in the long term under changed circumstances.
Kazakhstan and Poland are both countries grappling with transformation following the breakdown of central governments; each, like other countries in central and eastern Europe, has had to reinvent its hospital system. This has typically involved substantial switches in emphasis (for example, from polyclinic- and hospital-based care to general practice), changes in financing (from a purportedly free service to one recognizing and requiring direct payment) and a very difficult period of retrenchment. South Africa is another dramatic example: a system that was clearly unfair to the majority of its citizens, moving to one that must deliver greater fairness without destroying the institutions and professional skills and morale on which the hospital system depends.

These are dramatic examples of turbulence and the need for fundamental change; every health-care system, however, even in quieter times, requires a clear sense of what it is trying to achieve and how it needs to adjust what it is currently doing. In large governmental systems, the lead can only come from government. Typically, though, governments work to short time scales – mainly the period between elections – and are tempted to reach for “quick-fix” solutions, such as organizational change, to problems that call for quite different responses pursued systematically over a long period. Among the requirements for government is a resistance to such quick-fix options.

New Zealand is one of the countries where, from the 1970s onwards, there have been very frequent changes in the organization and financing of the health and hospital services. Today, however, excellent planning processes exist within the 21 district health boards, which are responsible for securing local services, either by providing them or by purchasing from private providers. The boards are required by law to assess the health status and needs of their populations, develop 5–10-year strategic plans in consultation with the community, and develop annual district plans which must fit in with national health strategies. Individual hospitals and services are involved in the planning for their areas.

Generally, in the survey countries, large public hospitals publish statements of their mission, reflecting their role as they perceive it. Private hospitals often do the same. More questionable is how much difference such statements make in reality. How firmly are they linked into a national sense of strategy and purpose? Do the hospitals receive the resources and other support and guidance that they need to do what is asked of them? Do the incentives that are in place encourage or discourage them? Is their performance monitored and progress of the national plan reviewed? Weaknesses in this chain may arise because, as in Lebanon or the Republic of Korea, the majority of hospitals are not under direct government authority. (This is also true of Japan, but the government seems more prepared to intervene directly, whatever the technical position about ownership. In Japan, the doubts about strategic management appear to stem from doubts about its relevance: “We think that large hospitals do not pay attention to a strategic planning and development process.”)

Often, the lack of linkage between strategic intent and actual delivery may arise more by accident than design (see Box 3.10).

Since 1991, France appears to have taken an effective and powerful approach to hospital planning. While the statutory framework is national, the lead is taken at the regional level by the director of the regional hospital agency, using two tools. One of these is quantitative, based on norms such as bed/population ratios, which currently tend to call for bed reductions and restructuring. The other is more qualitative, setting out the goals for the development of regional provision over a five-year period, including ways in which services ought to be reconfigured, with a strong emphasis on the development of regional clinical networks (see Box 3.11).

Of course, when money for health and hospital care is as severely limited as it is in some of the survey countries, there is a temptation for governments to allocate what money there is, ignoring its inadequacy. This must be particularly the case when public expenditure is being reduced, since the nature of medical care is that costs tend to
rise faster than general inflation; it is seldom a matter of simply trying to maintain services on a reduced budget, but of knowing that the gap between what is needed and what is available is widening year by year. This is the uncomfortable truth in countries such as Ghana or the United Republic of Tanzania.

BOX 3.10

The strategic plan and development process in Thailand

To some extent, the strategic plan and development processes for hospitals were built into the system as a whole, through the Ministry of Public Health and related ministries, with the intention, for example, of increasing access to district hospitals throughout the country. There is no systematic planning for the totality of private hospitals, however, and strategy is left to each individual hospital.

At the local level, public hospitals produce annual strategies and plans at the beginning of the fiscal year, but, unfortunately, they are not consistent with the hospitals' overall missions and goals. For example, the mission statement to ensure equal access for the whole population on the basis of need requires an extensive understanding of the current failures in access, particularly for the poor, based on household surveys. There is no such understanding; consequently, annual strategies and plans do not adequately take account of the missions and goals of the hospitals.

Source: country report.

Such a situation actually strengthens the case for a clear national strategy, in which each hospital knows what is expected of it and that it will be resourced accordingly and held to account for its performance. Any other approach is bound to lead to a sense of being asked to do the impossible and a feeling of injustice and helplessness. This is not an argument for centralization but for a balance between centralization and decentralization, which is discussed later in this chapter.

Investment to achieve the plan

If health care were market driven by the normal forces of supply and demand, these forces would generate the resources required to reach equilibrium. This is the case, however, almost nowhere, except in the private sector. In nearly every country there are some private providers of care, but they work alongside a large publicly financed system, and may indeed have contracts with it. For any system that is reliant on public finance, the plan to which it is working must be consistent with the resources available to it in human, physical and financial terms. In many of the countries in the survey, this is simply not the case. Their hospital systems are chronically underfinanced for the demands made upon them.

The United Republic of Tanzania, for example, reports that "a substantial proportion of public facilities were built 40 to 50 years ago and are in a poor state of disrepair, requiring massive rehabilitation efforts". In Ghana, "there is a mass of [hospital] infrastructure to be maintained, which calls for a comprehensive strategy to deal with it. The ministry of health, since the health sector reforms, has begun a programme to address the deterioration of health infrastructure. Problems with infrastructure range from a poor maintenance culture to inconsistencies in the purchase of medical technology, the non-existence of a database on the state of the infrastructure, and the uncoordinated approach to the siting and development of hospitals." Similar statements are made in other country reports.

There are at least three basic investment requirements. One (already discussed in part) is that what the hospitals are expected to do by governments is clear and is in line with the funding available to them; the second is that the equipment is properly maintained; and the third is upkeep, adaptation and (when necessary) replacement of buildings.
Box 3.11

Hospital strategic planning in France

Hospital planning involves a combination of two tools, the medical chart as a quantitative estimate and the regional strategic health plan as a more qualitative approach.

The medical chart divides each region into health sectors and psychiatric sectors. No health-care sector can have less than 200,000 inhabitants, unless it consists of an entire department. Within the sectors or groups of sectors, the director of the regional hospital agency decides on the quantitative norms, in terms of beds per population, for each discipline: medicine, surgery, obstetrics, psychiatry, follow-up care and rehabilitation, and long-term care. All proposals for establishing new beds or changing the use of existing ones, whether in public or private hospitals, are subject to authorization by the agency, in accordance with the norms set out in the medical chart. In practice, most sectors are considered to be in excess of the targets set and authorizations essentially involve restructuring, conversions or mergers. The medical chart also applies to certain expensive diagnostic or treatment equipment, either in hospitals or elsewhere, such as dialysis apparatus, radiotherapy equipment, magnetic resonance imaging, scanners and lithotripters. In certain cases, norms for assessing needs have been specified but, in others, authorizations are granted on the basis of a case-by-case evaluation of local needs.

For the past ten years or so, authorization has also been required for certain very specialized types of care, such as organ transplantation, treatment of major burns, cardiac surgery, neurosurgery and medically assisted reproduction, or for more common procedures such as the treatment of emergency cases, resuscitation and radiotherapy.

The fact that authorization is now required not just for equipment, but also for actual medical procedures, indicates a change in hospital planning from quantitative quotas towards a more qualitative and medicalized concept of the organization of the supply of services and a better distribution of that supply over different regions. The regional strategic health plan is the chosen instrument of this approach. It sets out the goals for the development of regional provision over a five-year period, proposing redeployments, restructuring and cooperative measures. It also provides the regional hospital agencies with a framework for granting authorizations, approving proposals submitted by institutions and negotiating contracts concerning targets and resources.

One of the most striking recent trends has been the willingness of the public authorities to promote institutional networks, with each institution in the network accepting responsibility for patients at a level appropriate to its degree of technical capacity, in cooperation with other institutions responsible for more or less serious cases. These networks are incorporated into official texts.

- There is provision for institutions with obstetric or neonatal functions in the perinatal period, to be categorized into four levels, according to their technical capacity (from the local centre providing prenatal and postnatal consultations to the specialized centre capable of providing intensive neonatal care).
- The reception of emergencies should be organized according to the degree of gravity, in local units or emergency centres; all emergency structures should be governed by contract (including, in particular, the possibility of rotating emergency staff in less busy locations).

This coordination represents a radical transformation of the way in which institutions usually operate. A certain number of the current regional strategic health plans, applying to the period 1999–2004, emphasize these qualitative aspects of changing behaviour as being as important as the more traditional planning tools, such as authorization of equipment.

Source: country report.

As described in the finance section of this chapter, the principal element in any hospital’s operating budget is personnel. Historically, in public hospitals this has generally been centrally controlled by the ministry on the basis of line items, often position by position. This method is still quite commonly used in the survey countries; its main drawback is that it gives too little local flexibility and scope for management action. Moreover, from the ministry’s viewpoint, it does not directly focus on whether the funded establishment is efficient relative to workload. Consequently, the trend in the
past 20 years has been to move towards global budgets, which should allow greater local flexibility and are far less detailed in terms of financial control. There remain questions about whether one public hospital’s budget is fair compared with another’s and whether either is adequate for what the hospital is being asked to do – questions that can only be answered by workload comparisons, weighted for clinical complexity and other relevant factors, such as cost variations. France, in particular, has been using such approaches for some time in setting budgets for the public hospitals through a global budget based on diagnostic-related groups, now varied by the director of the regional hospital agency in light of interhospital quantitative comparisons and the regional strategic health plan (see Box 3.11).

Non-personnel costs include pharmaceuticals, medical and non-medical supplies, energy costs and a variety of other items. In most of the survey countries, the public hospitals are required to go through stringent tendering procedures aimed at preventing fraud or collusion and obtaining low prices, such as the regulatory framework established in Thailand (see Box 3.12).

**BOX 3.12**  
**The procurement system in Thailand**

The Procurement Regulation laid down by the office of the Prime Minister is the general legal framework for procurement by all public agencies, including hospitals. For large value purchases, a stringent procedure through competitive bidding is enforced; for smaller values, a simpler tendering process. For major equipment and building construction, procedures include the publication of a specification, an invitation to tender, a bidding process and public announcement of the result. A contract is then signed with the successful bidder. A committee is appointed to oversee the handover of goods and services by contractors before authorization of payments.

The Procurement Regulation stipulates that the Government Pharmaceutical Organization is sole provider to all public hospitals of drugs listed in the national essential drugs list. The standard price announced by the Ministry of Public Health is the reference price at which all public hospitals purchase items included in this list.

Procurement procedures are more flexible in the private sector, with the administrator or a committee taking responsibility for the whole process and for ensuring transparency. Large procurement or service contracts are made through open bidding.

In the public sector, the decision to procure major equipment is based on care needs and budget availability. In the private sector the criteria are more about financial feasibility, the payback period for each investment and its estimated profitability. There is no dialogue on investment in high-cost technologies between the two sectors or within the public or the private sectors. As a result, there are duplications, under-utilizations and system inefficiency.

Recently, private not-for-profit hospitals joined together to procure common items such as drugs and medical supplies, and have obtained very competitive prices as a result.

Special tendering procedures for infrastructure projects in public hospitals to prevent cartels have not been very successful to date. Recently, the government began to take serious steps towards breaking down such cartels.

As a response to the 1997 Asian economic crisis, the Ministry of Public Health introduced a “good health at low cost” initiative by limiting the number of drugs that would be available in public hospitals and by introducing bulk purchase of drugs and medical supplies at the provincial level. This was done through a survey of items common among district and provincial hospitals, estimating the quantities required and then inviting open bids. The result was very competitive prices.

Source: country report.

Relatively new high-cost technologies represent a special problem, as in Thailand, and there is considerable evidence from the survey countries of the proliferation of items such as CT scanners, particularly in the private sector, and their uneven distribution.
Because of budget constraints in the public sector, public hospitals may lag behind in the introduction of new technology and new equipment. Meanwhile, in the private sector the financial controls are less rigid, and the decision to purchase or lease new equipment may be attractive in competitive terms, even if the overall result makes little sense.

Another special problem concerns equipment maintenance in general, particularly in the public sector. It is not uncommon to find equipment so badly maintained that it is unreliable or more or less permanently out of use. This may be because of lack of money or lack of skill, or both. In less developed countries in particular, such as the United Republic of Tanzania, it calls for a systematic response (see Box 3.13).

BOX 3.13

Health-care technology in the United Republic of Tanzania

A policy guideline for health-care technology was developed by the Ministry of Health in 2001–2002. Previously, health-care technologies were functioning poorly and needed a major overhaul and reorganization. In the past, a well-functioning laboratory maintenance programme was established with the assistance of the German Government, comprising a central workshop and three zonal workshops. This system collapsed when the donor-funded programme ended, mainly because the zonal configuration did not fit the Government’s administrative structure for planning and budgeting, and there was no revolving funding mechanism to make the system sustainable.

Recent initiatives have included the establishment of a Health Care Technical Service organized by the Christian Social Services Commission, and an X-ray maintenance system to be introduced as part of the Rehabilitation Project for Diagnostic Services jointly funded by the Governments of the Netherlands and the United Republic of Tanzania. In order to avoid previous mistakes, the zonal workshops initiative of the Christian Social Services Commission includes the introduction of a self-sustaining revolving fund mechanism.

Source: country report.

Public hospital buildings are often run down and may be unfit for their current purpose. Often their age is not the main problem. In England, France or Italy, there are some hospital buildings that are centuries old and yet are still good places to be a patient or to work. The temptation to skimp on their upkeep is, however, very real when budgets are tight. The maintenance of buildings – even more than that of equipment – nearly always seems postponable in the short term, but leads in time to an obvious state of neglect and a less obvious cumulative investment shortfall of large dimensions.

The problem is especially serious when the issue is not simply one of neglect but of innate unsuitability. Old buildings, if soundly constructed, can be surprisingly adaptable. However, needs and treatment standards change. In the treatment of mental illness, for example, there is a fundamental change from large isolated inpatient institutions to short inpatient stays and a life based as far as possible in ordinary communities. For the medical and social care of older people, to take another example, the change is towards more privacy, more activity and stronger community links.

One response to the problems of chronic underfunding in public hospitals has been to raise money from new sources, whether these are international aid, earmarked taxes or user charges. At one time, many countries avoided or minimized user charges, because (unless there are extensive exemptions) they create substantial access barriers for the poor. There is no doubt that they impact most on poor people, thus increasing inequities. In contrast, if the amount of revenue raised is substantial and is a locally retained “add-on” to the hospital budget (as in China or Thailand), it can transform the financial sustainability of the public hospitals.
Human resources management

Poor management of human resources is widespread. It is relatively rare in the public hospitals of the countries in the survey for there to be any incentives or rewards for good performance, either at the individual level or at the level of teams or institutions. What is all too common is a workforce where people feel undervalued and unable to influence or shape the contexts in which they work. In cases where doctors are paid civil service salaries with privileges for private practice within government facilities, the tendency is towards exploitation and outright abuse of government resources.

Colombia, for example, notes that “the problems of human resources in the health sector can be grouped into three main categories. First, there is an imbalance between the supply of professionals and the demand for their services. Second, there is an imbalance between the different areas and municipalities in the supply of health care. Third, there is an imbalance in the distribution of different professions and specialties. There is also an apparent dissatisfaction of professionals with the incentives currently operating in the health-care sector in terms of contracting and payment modes, employment and work conditions, motivation, performance evaluation, continuing education and supervision.”

For medical and nursing staff in the public sector, Sri Lanka reports a general problem of low morale, low motivation, low satisfaction and poor discipline. “The jobs have, for many categories, tended to be routinized for want of systematic plans for human resource development and management. There are limited opportunities for promotion and career development. More often, promotions are made on the basis of seniority alone and merit is not taken into consideration. There are limited performance standards. Absence of such standards is an impediment to objective assessment. There are limited incentives and disincentives. The available ones are not always linked to performance. Certain external influences tend to distort objective decision-making in posting, transfer, promotion, the award of training fellowships, and so on.”

No doubt there are examples of excellent personnel practices in the survey countries, but the general picture is gloomy. In medicine, at least until very recently, the main problems have not lain in initial recruitment into medical education, where, in most countries, the profession attracts a strong field of high ability. The difficulties come later: staffing remote areas, obtaining the numbers needed in less popular specialties and in family practice, attracting people to a career in the public sector, motivating them throughout their careers, and ensuring that they keep their skills up to the mark, perform well and take pride in their work. International migration can also be a problem, with richer countries tending to ease any health sector staffing shortages by selective recruitment from poorer ones.

The difficulties are not lessened by a general fall in the last two decades in the deference paid to the medical profession, in the standing of public sector employment and in the permanence of careers, notwithstanding that each of these changes has its advantages as well as disadvantages.

In nursing, initial recruitment is often more of a problem than in medicine, and retention is an even greater difficulty. Nursing is seen the world over as women’s work rather than men’s, which can be a problem in the Moslem world, where fewer women are in paid employment. Internationally, nursing education has tended to move towards a university-based model, which may have helped in recruitment and status but can leave major shortages in hands-on personal care. Traditionally, many young women have trained as nurses and have later left the profession to bring up children or to turn to other occupations. Hospital nursing, in particular, has had a retention problem, partly because it requires a round-the-clock continuity and partly, perhaps, because it took for granted a discipline and dedication that are less common than they used to be. This, too, is now an international career, perhaps even more so than medi-
cine: a well-trained nurse can move relatively easily across international boundaries to an attractive job.

Today there are many other health professions besides medicine and nursing. They have a lower profile, but the issues of recruitment, retention, motivation, development and performance apply equally to them.

Also, of course, there are all the occupations not classed as professions, but vital to keeping a hospital going: cleaning, portering, maintenance, catering, secretarial, clerical and administrative occupations, and so on. These, even more obviously than nursing, are always in competition with other local occupations, whether in the private or the public sector. According to the survey, outsourcing is increasingly common, though by no means universal for any service. Japan, for example, reports that “outsourced services expand gradually. Cleaning and laundry are outsourced almost 100%, catering 60%, medical office work 30%, and the outsourcing of laboratory examinations is gradually increasing”. What is important – more so than is generally recognized, perhaps – is that outsourcing should not be decided on the basis of price alone, and that an outsourced service requires continuing management, not only by the contractor but by the hospital as well. In a hospital, more than in almost any other institution, overall performance is crucially affected by everyone who works in it: any patient will attest to the difference, for better or worse, a cleaner or porter has made. Just as involved in this perception are those who are not seen by the patient: the cook who makes the hospital food attractive or inedible, the secretary who eases discharge, and the laboratory technician or maintenance engineer.

Finally, there is the much underestimated task of management. As the Ghana respondent puts it: “Hospital management is very weak and unable to respond positively to the challenges of modern times. This in a way has contributed to low utilization and poor quality of care in our hospitals.” One common model (in Egypt, Japan and the Republic of Korea, for example) has a hospital director who is medically qualified and who reaches that position primarily through a medical route, via an orthodox career in clinical medicine. The director will have acquired substantial management experience along the way, but may have little formal training in management. In a second model (found in France and New Zealand) the top management position is a managerial or administrative one, and the holder is unlikely to be medically qualified. Initial education in a field such as economics or law will have been followed by a career in hospital management or public administration. In this second model, historically the authority of the non-medically qualified director over the medical staff has often been weak. As the respondent from France reports: “the chief executive has authority over non-medical staff, but doctors have the organizational authority ... The chief executive has no hierarchical authority over doctors”.

Whatever the historical model, it is increasingly clear that the overall direction of a hospital relies on effective teamwork and leadership of a high order. The Chile respondent notes, for example, that there has to be effective interaction between clinical staff and financial or administrative staff. This has been a major aim of public care management reform in Chile since 1994.

Worldwide, there is a growing recognition that there is a common weakness in health services management, including hospital management, and that this needs to be dealt with (see Box 3.14).

Information management

Whether the issue to be tackled is about the care of an individual, the needs of a whole community, or the performance of an institution or system, good information is crucial. Never before has there been such a wealth of skills, techniques and tools to collect, process, analyse and present information. Unfortunately, hospital systems typically do not do this well. In the poorer countries, particularly those where hospitals have
faced large cuts in funding (Kazakhstan and the United Republic of Tanzania, for example), what can be done in terms of information management is minimal. In most other places, however, the main problem lies rather in making the connection between information generated at one level and its use at another, whether this is within the same hospital or more remotely, at regional or national level. As an example, Box 3.15 describes the position in Sri Lanka.

**BOX 3.14**

**Staff development courses in management**

Many countries, particularly developing ones, lack the human resources capacity to plan, manage and evaluate their health-care systems. The physicians who typically administer state departments of health or who run health services organizations are seldom trained in management. Medical schools usually do not offer courses in health administration, and there are few Schools of Public Health in these countries to offer courses in policy, planning, management and research. Various initiatives have been set up to help fill this gap. For example, the World Bank Institute runs a regular 1–3-week "flagship course" on health sector reform and sustainable financing that is offered usually through university locations such as Chulalongkorn University in Bangkok, Thailand (www.worldbank.org/wbi/courses). The Health Services Management Training Centre at Semmelweis University in Budapest, Hungary, also hosts this course, and has gone on to develop its own management training programmes for hospital managers to help them to respond to the major changes under way in the Hungarian hospital sector over the last decade (52).

**BOX 3.15**

**Hospital information in Sri Lanka**

Most hospital information is handled manually. The director of health information at the Ministry of Health is responsible for developing plans to improve and modernize the information system; this involves developing the required software, providing hardware and training personnel. Steps have been taken to develop a computerized management information system. Databases have been established at the central level and are gradually being set up at the provincial and institutional levels as well.

All hospitals provide clinical information to the Medical Statistics Unit, which is the central statistical department in health. Clinical data are coded at the hospital level daily and collected quarterly. There are established guidelines in converting the data collected for management information purposes. Medical records officers have been trained and appointed up to the level of base hospitals (200–600 beds, situated in large towns). The officers receive daily, weekly, monthly and annual reports from various sections of the hospitals and send monthly, quarterly and annual returns to the provincial and central levels.

There are established procedures for the reporting and transmittal of information: hospital morbidity and mortality statistics are sent quarterly to the medical statistician at the Ministry of Health. These statistics are compiled by the Department of Health Services and published in the *Annual health bulletin*, which is available to hospitals and other government institutions and also on the ministry’s web site.

There are no well-developed procedures to determine to what extent the information provided is used in management decision-making and assessment processes. It is known to be used to some extent at the central and provincial levels for planning purposes, but hardly at all at the institutional level.

Source: country report.

According to country reports, the confidentiality of patients’ medical records is not a problem, possibly because full computerization is not yet common in the majority of countries. Traditionally, most of the data transmitted beyond the hospital level are about activities and broad patterns of expenditure, neither of which categories is particularly valuable for analytical purposes. Increasingly, people need to know not
merely about quantities of work done and total spending but about how one is related to the other – in other words, about unit costs – and about the quality of care. When this information cannot be provided on a routine basis it can probably be obtained by studying a sample, or by some other appropriate research method, and there are a number of good examples quoted in the country reports that have been received in the present study.

Centralization, decentralization and autonomy

Among the survey countries, Lebanon is the extreme example of a predominantly privately funded, privately provided set of health-care arrangements: 82% of health expenditure is private and 90% of hospital beds are privately owned (see Table 2.4 and Table 2.7). Hence, not surprisingly, the management of hospitals in Lebanon is highly decentralized. The result is not reassuring, as reflected in the survey respondent’s description (see Box 3.16). While customer satisfaction is high, with unconstrained choice of hospital for most people and perceived high quality, the arrangements are extremely expensive relative to GDP (Figure 2.6 and Figure 2.7) and there is no mutual confidence between the providers and the payers of care.

**BOX 3.16**

**Public payment for private hospital care in Lebanon**

The Ministry of Health purchases most of its services from the private sector, so that public patients constitute around 70–80% of the patient load in many hospitals and around 50–60% in almost all others. However, the share of hospital revenues from public patients is a lot less. Most of the contracts are based on a fee for service, which gives an incentive to all providers and recipients of care to overutilize inpatient services. The providers overprescribe, and users overdemand and overutilize services. The result is an escalating cost of hospital and health care.

Attempts by government and insurance companies to control costs by freezing or reducing prices are counterbalanced by overutilization of high technology. In general, there is a lot of mistrust between the purchasers and providers of hospital services. The providers think of public payers as ineffective, not dynamic or adaptive to the continuous development in the field. They also think that the present rates of reimbursement are not enough and they are not changing with the general inflation; many of the discounts and delays in payments are seen as unfair. The paperwork required by payers is seen as very tedious, time-consuming and delaying the care delivered to patients. On the other hand, all payers think that there is overutilization of services, especially those related to expensive high technology, which in turn generates more paperwork.

Source: country report.

In most of the other countries in the study, however, hospitals are predominantly public institutions or are dependent on public funding. The vices of public systems differ from those of private markets. When the system is dominated by central government, as is often the case with hospitals, the management of them tends to be grossly overcentralized. Ministries are good at many things – handling the political interface, for example, and protecting ministers from the embarrassment that would stem from misappropriation of funds – but managing dispersed institutions is not typically one of them. It is not sensible or constructive to seek to control at the national level the detailed establishment and expenditure of each hospital department. For example, all Eastern Mediterranean countries included in the study report that their public hospitals are subject to over-detailed central control. The problem is partly that detailed management by central regulation is rule-bound, inflexible and slow; it also undermines the willingness of everyone at the local level (managers, clinical staff and the local community) to stand on their own feet as far as they are able and to tackle local problems in
their own way. Therefore it is welcome that Egypt (via its Curative Care Organizations described in Box 3.17), Lebanon (through autonomous public hospitals) and Morocco (via foundation hospitals) are all experimenting with the concept of public hospitals that are run under the ultimate authority of the ministry, but with substantial managerial independence. In Thailand, there is one similarly autonomous public hospital, run by a locally and nationally accountable governing board (see Box 3.18).

**BOX 3.17**

**Curative Care Organization in Egypt**

The Curative Care Organization is a not-for-profit system under the ultimate authority of the Minister of Health and Population, which was established in 1964 when several private and charitable society hospitals were nationalized. The Cairo and Alexandria branches were established in that year, and there are currently four additional ones in operation (in the Canal governorate of Port Said and in the Delta governorates of Qalyoubia, Damietta and Kafr El Sheikh). There is no such presence, however, in Upper Egypt. The six organizations operate a total of 21 hospitals, which together account for about 4% of Egypt’s total hospital beds.

Each organization is run independently on a non-profit basis, with surplus revenue being invested into service improvement. It is not an integrated provider organization, but operates as a loose confederation of hospitals without a centralized corporate management structure.

The Cairo Curative Care Organization is a multihospital system of approximately 4000 beds, consisting of 12 hospitals and a corporate headquarters in metropolitan Cairo. In general, the 12 hospitals are high quality, “middle and top of the market” institutions, providing a full range of high quality curative care services and programmes. Although most of the hospitals are in physically good condition, a number of them are undergoing major repair, renovation and refurbishment at considerable expense. The headquarters of the Cairo CCO is the support function to the 12 hospitals and provides the overall corporate strategic direction and leadership. The staff of 180 positions two years ago is being reduced to a smaller staff of 70 highly qualified personnel. These key positions provide a variety of staff support programmes and services to the 12 hospitals, as well as providing a range of corporate oversight functions. The chairman provides the overall leadership and strategic direction of the 12 general directors, the headquarters, and the board of directors of the institution, and reports to the Minister of Health and Population for policy guidance and assistance.

Source: country report.

There are, however, two important pieces of evidence, which suggest that devolution to the hospital level in public systems is not always an unambiguous good. One is from the Philippines. In 1993, a devolution policy was implemented involving the transfer of 13,000 health facilities from national to local government along with over 46,000 staff. The Asian financial crisis followed not long after, in 1997. The ensuing situation illustrates that local government cannot necessarily be relied on to fund hospital care adequately, when the economic going gets tough (see Box 3.19).

In short, devolution is all very well, but it will not work without adequate funding. When funding cannot be maintained by central or local government, either a public insurance system or self-financing – or some combination of the two – must be envisaged. While there are real problems about self-financing, in terms of barriers for the poor in accessing care, it can provide the means to make decentralization work. In China, for example, it provides some 60% of total health-care expenditure, and probably more in rural areas. In Thailand, user fees can be retained at the hospitals and deployed according to rules and regulations laid down by the ministry of public health. Standard charges are fixed for all services, but the hospital can employ a sliding scale, depending on patients’ ability to pay. Such non-budgetary sources are responsible for about half the total outlay in district and provincial hospitals in Thailand. To make devolution work, there must either be adequate funding from central government, along with a commitment to decentralized management, or else substantial local funding from user charges, local government or insurance.
**BOX 3.18**

**Case study from Ban Phaew autonomous hospital, Thailand**

Ban Phaew Hospital is the only autonomous hospital in Thailand, set up through a Royal Decree based on the Public Organization Act 1999. “Autonomous hospital” embraces the concept of community accountability, management autonomy, transparency and staff performance assessments. Ban Phaew is a non-profit public hospital, with autonomy in management through its hospital board, with strong participation from local civic representatives. Normally, the Permanent Secretary to Public Health appoints hospital directors throughout the country. In Ban Phaew, however, the governing board appoints the director and sets its own pay scales, which are slightly higher than the scales of other hospitals under the Ministry of Public Health.

The chair of the governing board is appointed by the Cabinet; board members consist of representatives from the Ministry of Public Health, the Provincial Governor and the Provincial Chief Medical Officer, three representatives from the community proposed by the Council, and three knowledgeable appointees. The hospital director serves as board member and secretary of the board. The chair, the community representatives and the knowledgeable appointees serve a term of four years, renewable twice. Responsiveness and accountability for the hospital is exercised and overseen through representatives from the community in the governing board.

The board provides policy direction to the hospital, approves the annual plan and the budget, oversees and sets up the payroll and personnel management guidelines, and appoints the director. The hospital accounts are subject to scrutiny by an internal auditor and, externally, by the Auditor General, and reports are provided to the governing board annually. Hospital performance assessment by an external agency is scheduled not less than once in three years and for each assessment a report is produced.

Ban Phaew is fully funded by the endowment fund provided by the government, with an annual block grant for its operational expenditure. Capital funds are requested and provided on an ad hoc basis. According to community practice, Ban Phaew is allowed to retain revenue generated from its services.

An assessment by in 2001 found satisfactory results (53). Ban Phaew has improved efficiency in resource management and has operated at a lower unit cost than that which was allocated in its budget.

**BOX 3.19**

**Decentralization of hospitals in the Philippines**

After the passage of legislation in 1991, full implementation of the devolution policy began in 1993. The Department of Health transferred 46 080 health personnel, the budget and 13 000 health facilities (hospitals, rural health units and barangay health stations) to local governments. Among all these health facilities, it was the public hospitals that were affected most, because previously they were mainly funded and managed centrally by the Department of Health.

The effects of decentralization on the hospitals may be seen in various ways. First, the management and operations of the 48 hospitals that were not transferred were affected, since devolution led to a drastic reduction in the central budget. Managers of retained hospitals identified concerns about lack of resources and the need to extend capacity in order to cope with increasing patient numbers who seemed to be bypassing lower-tier hospitals and health facilities.

Second, the performance of the devolved provincial and district hospitals was greatly affected, with repercussions on the quality of care. Many public hospitals performed poorly, and this was attributed to the inability of the local government to maintain funding levels. The impact of this reduced spending is seen in emerging problems in supplies, drugs, repairs and equipment maintenance. Specifically, the availability of drugs in emergency departments and operating rooms was cited as the most problematic result of budget cuts. Reduced spending also affected hospital maintenance, equipment and quality standards. Care studies of district and provincial hospitals and visits to the hospitals indicate that these problems are not yet being handled satisfactorily by local governments.

Source: country report.
The second piece of evidence about the limitations of devolution is from the European Observatory study *Hospitals in a changing Europe* (3), which strongly suggests that decentralized hospital systems are more resistant to changes – even when these are greatly needed – than are more centralized ones. Overall, therefore, the evidence is not unambiguous. Rather, it suggests that the management of individual institutions calls for substantial devolution and local freedom of action, but that there also needs to be strategic direction from a higher level.

**Concluding remarks**

Hospitals are among the most humanitarian service organizations in the world. But they not only save lives, they also cause deaths; they also care, well or badly, for people who may not be dying but are in great need, vulnerable and frightened. Much is known about such organizations, particularly that their performance depends on the skills and motivation of those who work in them and that these qualities in turn depend on adequate management and leadership. Throughout the world, some of the ablest citizens of every nation work in hospitals, and the reason they do so is, in large measure, because they wish to care for people who are sick. In other words, there is much that is right about their basic motivation and abilities; there is a lot wrong, however, about the management of the institutions and systems in which they work.

Good management is about basic elements of running organizations in a competent and just way.

In many of the survey countries, the operating budgets of public hospitals have been underfunded over many years, particularly in respect of staff costs, equipment maintenance and expenditure on buildings. There are a number of reasons for this, including economic difficulties and the many other pressures on public budgets. Hospitals of any size and complexity are expensive and their costs tend to rise faster than GDP, both because they are personnel intensive and because medicine does not stand still, but unaffordability is by no means the only reason for hospital underfunding. In addition, hospital management and leadership have been – and in many cases still are – neglected and undervalued. At the national and regional levels, the approach taken to public hospitals often concentrates too much on controls, necessary as some controls undoubtedly are, and too little on building strength and confidence in the hospitals themselves.

Figure 3.2 illustrates what has to be done at the hospital level and what depends on support from other levels. The point to emphasize is that hospital performance depends both on what is done within the hospital and also on a whole range of external influences.

While the picture that emerges from the survey is in many cases one of neglect and discouragement, there are also many examples of good practice, which are illustrated in the report.

The principal task of medical care and hospitals is to relieve suffering and restore function, gather knowledge and disseminate information. The improvement of community and individual health status depends on factors largely beyond the direct reach of medicine and hospitals, though not beyond their influence. These determinants are dealt with in other approaches such as the management of the physical, biological and social control of the human environment, which is in the proper area of public health care.

**Access and equity at high risk**

WHO has for a long time urged governments to make equity in health care for all citizens a specific, major goal of health policy. Such a goal makes sense both on utilitarian grounds, in that sometimes, large health gains can be made at relatively low cost by doing basic things well for the whole population (such as immunization cam-
paigns and provision of clean water), and also on grounds of social justice. The main reason why the United States, for example, tends to show up relatively poorly in international health comparisons, despite massive total health-care expenditure, is because a substantial minority of the population – over 40 million out of more than 200 million – have no easy access to health care, in that they have no health insurance and are not eligible under the government’s Medicaid or Medicare programmes, and thus are dependent on charity.

Figure 3.2 Hospital performance and external influences in a publicly funded system

As mentioned in Chapter 1, the Fifty-second World Health Assembly, in May 1999, declared that “access to health care … has to be universal, equitable and affordable”. This section discusses the equity issues in a general way and then summarizes the evidence obtained regarding hospital care in the survey countries.

The equity issues

What is equitable in hospital care, or indeed in health care? Obviously it is not uniformity or equal expenditure per head, because some people are faced with onerous health problems, calling for extensive treatment, while others are lucky enough to be relatively healthy throughout their lives. Furthermore, the need for hospital care rises sharply with age, in the older age groups. Basically, the definition used here is that all citizens should receive the treatment appropriate to their specific needs, as far as national resources allow, and that barriers in the way of their doing so should be minimized. The underlying principles are those defined by Rawls (34) and more fully explored in the health-care context by Whitehead (55, 56).

There is the question, however, whether one must aim for equity of access or equity of outcome. Is it enough to remove barriers to access, so that nobody is prevented from seeking care on equal terms? Must one ensure that all groups actually use services equally, in relation to equal needs – bearing in mind that, typically, needs are greatest among poor people? Or is equality of outcome, in terms of life expectancy and freedom from disease, the benchmark?
To a degree, these questions are academic, in the sense that they make little practical difference. Probably no country in the world yet achieves equality of access, although some countries (for example in Scandinavia) do better than others in this regard. Equality of use, relative to need, is a tougher yardstick; equality of outcome is tougher still. For practical purposes, therefore, this report suggests that equality of access is the right target, while watching carefully the impact on utilization and health status, because access to care is a means rather than an end.

Barriers to access are multiple (see Table 3.2). The problem may be that the appropriate service is simply not on offer to some people. It may be a matter of distance and geography: what is available in the cities is not available in remote, rural areas. It may be a financial constraint: if a charge is imposed, which some people cannot meet. It may also be in a broad sense the effect of cultural and social factors: for example, gender, ethnic group or disability determines that some people are less favourably placed than others in gaining access to a relevant service.

### Table 3.2 Some common barriers to access to health care

<table>
<thead>
<tr>
<th>Type of barrier</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-availability of services</td>
<td>Specific drug or therapy not available via the public sector (or public payment) despite its proven efficacy, e.g. community-based mental health services not available despite closing of psychiatric hospitals</td>
</tr>
<tr>
<td>Geography</td>
<td>Services less available in remote rural areas. A variant is so-called “postcode rationing” where what is available (e.g. drugs) varies at the micro level according to local policy variations</td>
</tr>
<tr>
<td>Payment</td>
<td>Direct payment (or contribution) required at a level that leads poorer people not to take up that service</td>
</tr>
<tr>
<td>Bias or stigma</td>
<td>Expensive physical treatments (e.g. heart surgery, organ transplants) less available to some groups (e.g. people who are mentally handicapped or mentally ill)</td>
</tr>
<tr>
<td></td>
<td>Women less favourably treated than men, or black people less favourably treated than white</td>
</tr>
<tr>
<td>Culture</td>
<td>Range, style and cultural assumptions of service in line with dominant culture, not with that of minorities</td>
</tr>
</tbody>
</table>

### Survey evidence

Virtually all the survey countries report inequities in access to hospital care. The most common are urban/rural differences, with substantially worse access to specialist services in rural areas. Also common are financial barriers of one sort or another. Less easily identified, but undoubtedly also occurring, are social and cultural barriers. The worst situations are those where all, or several, of these inequities occur together, reinforcing one another.

Taking first the rural/urban issues, it is commonly the case that the distance to all services – not only hospitals – is greater in rural areas, small towns and villages than it is in cities and large towns. While access problems can be large and growing in many cities because of traffic, the time taken to reach hospitals is almost always greater in rural areas, and the situation is particularly bad for rural residents who lack their own transport. Moreover, relative to population, there are generally fewer hospital beds, doctors, nurses and other health professionals. This is partly for historical reasons, in that the major hospitals tend to have been founded in major cities, and partly because today the majority of trained health-care personnel are still attracted to working in urban rather than rural areas.
China has the largest rural population in the world, around 800 million, between 65% and 70% of its 1.2 billion total population. Since the 1960s, the government has constantly paid close attention to rural medical and health provision, including hospitals. The events summarized in Table 3.3 indicate that there are at least three major components necessary to maintain stability of services: personnel, institutions and finance. In China, a stable supply of trained personnel has been ensured by establishing a separate system of medical and related education. In order to practise western medicine in urban areas, doctors are university trained for either 5–6 years (senior grade) or for 3–4 years (intermediate grade), whereas for rural areas there is a third category, countryside doctors, who receive 3–12 months’ training, concentrating on the management of common diseases that will be encountered at village level. Further, many of the intermediate grade medical schools are located in rural areas, so that they can recruit locally and can concentrate on rural health problems in their training. No doubt these distinct arrangements for rural medical education are echoed in the training of nurses, pharmacists and others, though the case study gave little information on this subject.

Table 3.3 Development of hospitals in China

<table>
<thead>
<tr>
<th>Years</th>
<th>Major events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953–1957</td>
<td>The number of national provincial and city hospitals (all situated in urban areas) increased from 2600 to 4179. Private hospitals built before 1949 were reconstructed to become public hospitals or clinics</td>
</tr>
<tr>
<td>1958–1963</td>
<td>County hospitals were built in rural areas</td>
</tr>
<tr>
<td>1964–1976</td>
<td>Commune hospitals (at a very basic level) were established in rural villages and townships and in some urban neighbourhoods. (Today, three-quarters of commune hospitals are in rural areas.) Many “barefoot doctors”, now called countryside doctors, were trained during the cultural revolution and form the bulk of the professional workforce in the commune hospitals. By 1976 there were 54,026 commune hospitals</td>
</tr>
<tr>
<td>1978–1990</td>
<td>Systematic improvement of national, provincial and city hospitals in human resources and technology</td>
</tr>
<tr>
<td>1991–2000</td>
<td>Construction of medical facilities in rural areas. Development of a three-tier organization for the delivery of health care. In rural areas: village commune, township commune and county hospitals. In cities: street clinics, street commune hospitals and district (or community) hospitals. This three-tier organization was designed to promote the efficient allocation of medical resources among facilities at different levels, so that patients could be referred with confidence for treatment at the appropriate level</td>
</tr>
<tr>
<td>2001–present</td>
<td>City hospitals reform. Establishment of new community networks of high-level services and facilities, such as community hospitals. Separation of accounting for and administration of income from the sale of medicines from income for treatment, to make financing fairer and more transparent</td>
</tr>
</tbody>
</table>

Source: country report.

The second requirement is stable institutions. Here, too, arrangements for hospitals and related institutions are distinct in rural areas. In urban areas there are district or community hospitals serving populations of 100,000 or more, supported by city, province and national hospitals, and in rural areas there are village commune hospitals supported locally by county hospitals, which can presumably refer patients to the provincial and national levels. In other words, the county and village commune hospitals are distinctively rural, serving rural populations with less sophisticated resources than the district or community hospitals that are the main providers of hospital services in the urban areas.
The third requirement is finance. In China’s urban areas, this has mainly been provided by compulsory employment-based health insurance, supplemented for certain groups by government. In the rural areas, in contrast, medical expenses are mostly borne directly by users. As the country case study reveals, “the [resulting pattern of] medical resources distribution is not very fair”. Between 1969 and 1976, there was a Rural Cooperative Medical Care Scheme financed by local communities, which covered 90% of China’s rural population; it broke down – it lacked sound financial management and risk-pooling – at the time of large-scale agricultural reforms in the early 1980s. Rural health care thereafter reverted largely to private finance, with farmers having to pay for themselves at the time of use, on a fee-for-service basis. Many simply could not afford to do this.

At present, the 65–70% of China’s population who live in rural areas share about 30% of the country’s medical resources and face substantially higher out-of-pocket costs than those who live in cities. The government recognizes the need for reform. Proposals are thought to be in hand to set up a basic nationwide health-care network for rural areas, to provide an effective system of financial security to farmers, and to increase the supply of medical resources in urban areas. In China, as in some other developing countries, there is an increase of “commercial medicine” as opposed to medicine based on ideals of charity and empathy (country report).

Ghana, like China, also has a predominantly rural population (62%), though the urban population is growing faster. Problems of access to hospital services are geographical and financial. The government’s policy to have a district hospital in every district and catchment area has not been wholly achieved, so there are a number of villages and towns without hospital facilities where people have to travel some distance to obtain care. A breakdown in the referral system means that the larger hospitals, mainly urban-based, are heavily involved with care for their local populations (as discussed earlier in this chapter), which affects access for those who live further away, even if they are referred. Some patients are deterred by the relatively high level of hospital fees, and policies have been developed to respond to this problem. There is a blanket exemption from charges for specific services for children under five years of age, pregnant women, and people over 70 years old. There are also exemption schemes for treatment of tuberculosis and other communicable diseases. In addition, there is a scheme for people outside these groups who are unable to pay for services received. Not surprisingly, the private hospitals do not take these access issues into consideration: they are concentrated in the urban areas and their charges are not affordable by those for whom the barriers are financial (country report).

The United Republic of Tanzania (rural population 68%) has less of a problem with inequity of access, although it has (as will be seen later) very substantial problems with the age and rundown state of its hospitals and the levels of staffing, equipment and funding. A major objective of national policy, ever since independence, has been to ensure that health services are available and accessible to all, in both urban and rural areas. In pursuit of this objective, the United Republic of Tanzania built an extensive network of dispensaries, hospitals, training institutions and other health-related infrastructure. By 1980 about 72% of the population lived within 5 km of a health facility. Consequently, there are no major access barriers caused by remoteness and geography. Remote rural areas without government district hospitals are, in most cases, served by a voluntary hospital or a designated hospital owned by a religious organization but funded by the government. A minority of districts do not have a district hospital, but as this is mainly where a new administrative district has been formed that was previously part of a larger one, remoteness ought not to be a major problem. For many years, all services were free of charge at the time of use. The introduction of cost sharing in public hospitals is claimed not to have caused major problems of financial access. A waiver and exemption policy enables poor patients and special risk groups (for example children, pregnant women, and patients with chronic diseases such as...
tuberculosis, cancer, HIV/AIDS and diabetes) to receive hospital care without pay-
ment (country report).

Other survey countries with high rural population percentages are Thailand (79%), Sri Lanka (77%) and Egypt (55%). In Thailand, there is clear evidence of geographical inequities in the distribution of health-care resources, most starkly between Bangkok and the North-East, which is the most disadvantaged of the country’s regions (see Table 3.4). Such differences in resources are bound to result in worse access to health care in the North-East. Since public funding in the 1990s was based on the previous year’s budget adjusted incrementally across the board, there is a great deal of inertia in the resource distribution pattern (country report).

Table 3.4 Geographical inequity in health-care resources in Thailand, ratio of resources to population, 1997

<table>
<thead>
<tr>
<th>Type of resource</th>
<th>National average</th>
<th>Bangkok metropolitan area</th>
<th>North-East region</th>
<th>Approximate ratio of excess of Bangkok metropolitan area over North-East region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital beds</td>
<td>1:457</td>
<td>1:205</td>
<td>1:813</td>
<td>4</td>
</tr>
<tr>
<td>Doctors</td>
<td>1:3 649</td>
<td>1:720</td>
<td>1:9 951</td>
<td>14</td>
</tr>
<tr>
<td>Dentists</td>
<td>1:17 711</td>
<td>1:3 389</td>
<td>1:45 662</td>
<td>13.5</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>1:10 178</td>
<td>1:1 965</td>
<td>1:30 636</td>
<td>15.5</td>
</tr>
<tr>
<td>Nurses (all)</td>
<td>1:701</td>
<td>1:314</td>
<td>1:1 212</td>
<td>4</td>
</tr>
<tr>
<td>Nurses (professional)</td>
<td>1:1 073</td>
<td>1:368</td>
<td>1:2 133</td>
<td>6</td>
</tr>
<tr>
<td>Computerized tomography scanners</td>
<td>1:222 794</td>
<td>1:70 787</td>
<td>1:452 174</td>
<td>6.5</td>
</tr>
</tbody>
</table>

* Includes private and public sectors.
Source: Ministry of Public Health via country report.

Sri Lanka, on the other hand, is relatively small and densely populated, and a good transport system has ensured that most rural people have ready access to health facilities in urban centres. Moreover, access to basic health services is also good, since there is a dense network of government facilities in all rural areas, which means that most people live within 3 km of a local health facility (country report).

Egypt also shows evidence of geographical inequities. There is a 5 to 1 differential in hospital beds relative to population between wealthier urban and poorer rural governorates, and a 6 to 1 differential in the distribution of physicians. Moreover, there is a 3 to 1 disparity in child mortality and a 5 to 1 disparity in maternal mortality. The ministry of public health does not ignore these differences, but seeks to allocate resources to counteract them, on the basis of population and of where new services are introduced. For example, it has increased the allocations to hospitals in Upper Egypt, which were neglected for a long time in the past. Per capita public spending is 67% higher in urban than in rural governorates, and total health spending per capita is 79% higher (country report).

Although no other survey countries have a rural population above 50%, South Africa (48%), the Syrian Arab Republic (46%), Morocco (45%), Kazakhstan (44%) and the Philippines (42%) all come close. South Africa is a particularly interesting case and is discussed later. The Syrian Arab Republic reports special efforts to help groups that might have no access to hospital services. For example, ambulatory clinics are sent into the desert, moving from one place to another, and offer medical services to those who cannot otherwise obtain them. No vulnerable groups are excluded: free medical services (subject to the Ministry’s capacity to make them available) are offered through public hospitals to all who live in the country (country report).
In Morocco, the hospitals are seen as the main underpinning of the health system. Hospital coverage is still insufficient and is too concentrated in the urban and developed regions. While the ministry of health is responsible for policy, delivery rests to an important extent with the parastatal and private sectors, whose services have developed with weak coordination, resulting in duplication and social inequities (country report).

The situation in Kazakhstan is complex and confused. Under the former Soviet Union, an extensive health-care system was state owned and centrally planned from Moscow. Services were to be accessible to everyone and free (though unauthorized direct payment for services was very widespread in many countries of the former Soviet Union). From the 1920s, the policy emphasis was on the control of communicable diseases and the development of a rural primary care infrastructure. Under the district system, all citizens were assigned to a feldsher post in a rural area or to a polyclinic if they lived in a town of any size. Between 1950 and 1970, however, the emphasis changed to a major expansion of hospitals and policlinics, reducing the resources available for primary care. In the 1980s the system began to deteriorate. Post-independence in 1991, there was a sharp drop in the health-care budget, making it difficult to maintain services. By 1994, real health-care expenditure was down to 37% of the pre-independence level: there were 830 rural hospitals in 1991, 684 in 1994, and only 228 in 1997. Over 1500 villages and small settlements do not now have resident health-care facilities. What is more, there is a shortage of physicians in rural areas and a lack of public and private transport. The intention is to develop family practice to fill the vacuum, with the help of international assistance, but this is bound to take time. Meanwhile, there is a worsening of sanitation and water supplies (about half the water supply in rural areas no longer functions) and a resurgence of communicable diseases such as tuberculosis. While the situation in the urban areas is grim, it is even more so in the countryside because of the disproportionate cutback and dislocation of rural services, and because the private sector is much less likely to fill the gaps than it is in the cities (26).

In other survey countries, the rural population percentage is lower (see Table 2.1) but rural populations are nevertheless a sizeable minority. If their access to health care is less good than that of people who live in towns, this is a substantial equity issue.

As far as financial barriers are concerned, the extreme position would be one where all health-care funding was up to the individual, either at the time of use or through private insurance. Poor people would not be able to pay, nor would those on middle incomes if they suffered from an illness or accident that called for substantial, expensive therapy. Indeed, some medical conditions would not be affordable even by the wealthy. At the other extreme, if all health services were financed from general taxation and were free at the time of use (which remains more or less the position in, for example, the United Kingdom), then one would expect few financial barriers to access, even for the poor. In practice, however, all 20 survey countries lie between these extremes. The main financial barriers to access occur either as a result of charges to patients at the time of use, or because insurance coverage is less available to, or less affordable by the poor. As far as charges are concerned, there is strong evidence from studies by Rand (37) that charges of any size are a deterrent that acts on the least well-off. Equally, it is clear that voluntary health insurance is not seen as a high priority by poor people and that, on ordinary commercial terms, rates will be weighted against those whose demands are likely to be high whether because of their poor health, their age, or a specific or pre-existing condition.

Taking, first, the South American countries in the survey, both Chile and Colombia show relatively high Gini coefficients of near 60 (see Figure 2.3), meaning that income is distributed unequally and poverty is a substantial social problem. Governments of both countries have actively pursued poverty alleviation in recent years. In Chile, between 1990 and 1998, the number of people living in poverty dropped from around 40% to 21.7%. Chile has also reformed its social security system, so that pen-
sion plan coverage has risen from 38% of the workforce in 1981 to 95% in 1994. (This latter figure may be misleading, however, as a large number of affiliates – 54% in the early 1990s – are not active contributors.) Coverage for health services is split between voluntary private insurance schemes (supervised by ISAPRES, for 28% of the population), public insurance (through FONASA, 61%), and various plans covering the army and police services and private individuals not covered by the other schemes (11%). The poor are covered under a welfare system (SNSS). The ministry of health has a statutory responsibility to provide free and equal access to health services. Thus, it would seem that the whole population is covered but uses different delivery systems, including hospitals. Those covered by public insurance (FONASA), and presumably the poor (under SNSS), must use the public delivery system; others can use a mixture of private and public. To quote the country report, “the difference in technology and quality between the different sectors’ institutions is significant”. However, the report also states that user satisfaction surveys show some dissatisfaction in both the public and the private sector, though for different reasons.

The historical background in Colombia is not dissimilar: as in most of South America, the main funding of health care has been underpinned by employment-related health insurance, with contributions from employers and employees, and a safety net for the poor that is funded and provided by government. Prior to 1991, there were three “systems” with different ways of organizing, financing and delivering health services. First, the social security system, which was employment-related: it provided all medical care for workers enrolled in it, with less comprehensive benefits for their dependants. Second, the private sector, for those who chose it, where people had free choice of provider and paid either at the time of use, by fee for service, or through voluntary health insurance. This would, on the whole, be the choice of the better-off, or of those excluded from the social security option. Finally, a public assistance system provided a safety net, based on the United Kingdom National Health Service. This would be used by the poor, the unemployed and anybody for whom (perhaps because of their condition), it was the simplest (or the only feasible) option. Although 47% of the population was classified as poor, the national health system provided only 27% of all the health services used in the country. In 1991 Colombia rewrote its constitution, establishing “the right to universal and equitable health services” and all three systems were combined into one in 1993: the General System of Health and Social Security (SGSSS). The system created intermediate organizations called Health Promotion Entities (EPS), which can be public or private, for-profit or cooperatives. People sign up with the EPS of their choice, which acts as a collector of taxes and contributions on behalf of the SGSSS and manages a health benefits plan, either through its own service providers or by contract with any other providers it wishes. Contribution rates are set by the government and apply to all above the poverty line. The poor and the unemployed are paid for by the government, initially at 50% of the standard rate, rising to 100% by 2003. Prior to these changes, public hospitals and a large number of non-profit private institutions were tax-funded by central government. A seven-year transition period was allowed before they were to become wholly dependent on EPS contracts, but they are finding difficulty adapting to the change (country report).

Florez, Tono & Nupia (38) have sought to study the impact of these health-care reforms on equity of enrolment, use of services and health status. They conclude that inequities of enrolment have generally lessened, particularly in rural areas where they have almost vanished. Use of services has also improved, both in absolute terms and in terms of equity, but much more slowly. In contrast, health status indicators show very little improvement, either in absolute levels or in equity. Perhaps, the authors conclude, it is simply too soon (after five years) for changes in health status to be measurable (see Box 3.20). An alternative hypothesis is that achieving equality of health status across a whole population is far more complex than is generally supposed.
Towards equity in health in Colombia, 1990–2000

In 1993, Law 100 completely reformed the organization, financing and delivery of health services in Colombia. Until then, the health system had three parallel and independent subsystems. The 1993 health system reform created a unique and universal system. Previous studies show important health inequalities among poor and non-poor or by socioeconomic status. There is no previous evidence, however, on how health inequalities have changed through time, in particular in relation to health system reform. The objective of a study by Florez et al. (58) was to estimate the magnitude and change, from 1990 to 2000, of socioeconomic inequalities in health status and use of health-care services, and to assess progress towards health equity brought about by the 1993 health reform.

Health inequities are those inequalities that are judged to be unfair – both unacceptable and avoidable. Florez et al. measured key health indicators related to health status as well as access and use of health services, stratified by sex and age. They focused on socioeconomic inequities, classifying people into socioeconomic groups through the generation of an economic assets index. To measure health inequities, they calculated simple range indicators (rate ratios – relative differences) as well as full gradient indicators for inter-group differentials (concentration indexes), using 1990, 1995 and 2000 demographic and health surveys.

Strong improvements were found in absolute and relative levels of health insurance coverage in rural and low socioeconomic groups, as shown in graph A, below. Inequities in enrolment decreased substantially, particularly in the rural areas, where they almost disappeared.

Use of health-care services by pregnant women (for prenatal care and medical assistance at delivery) also showed improvements in absolute levels and equities, but at a much lower pace. Graph B illustrates trends for prenatal care.

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**A. Trends in levels of health insurance coverage**

![Graph A: Trends in levels of health insurance coverage](image)

**B. Trends in use of prenatal care (4 or more visits)**

![Graph B: Trends in use of prenatal care](image)
In contrast, health status indicators (infant mortality, stunting rate, incidence of acute diarrhoea, incidence of acute respiratory infection) showed very little improvement in both absolute levels and inequities. In spite of the progress towards equity in health-care services, there are still important inequities in health status between rural and urban areas and between socioeconomic groups.

Health-care reform in Colombia has probably had a positive impact on both absolute levels and equities in access and use of health-care services, but not on health status inequities. There may not have been enough time since the health reform was implemented (1995) to observe significant changes in health status. It is important to continue to monitor health status and its determinants, both absolute levels and inequities by socioeconomic groups (income/wealth, education, geography, gender), in order to adjust public health policies to obtain greater equity in health.

Sources: ref. 58 and country report.

Of the Western Pacific countries, the Philippines gives some information on poverty and access. Reducing inequities in access has long been a public health policy goal, included in the mission of the department of health, which is “to ensure accessibility and quality of health care to improve the quality of life of the Filipinos, especially the poor”. Access to hospital services remains, however, an ongoing concern. Part of the problem, as has been seen elsewhere, is geographical. Most hospitals, both public and private, are located in regions that have a low incidence of poverty. Analysis shows that the number of hospitals is significantly inversely related to the incidence of poverty, which implies that poor people are less likely to have easy geographical access to hospital services. If one excludes the private hospitals, the inverse correlation holds true, as it also does for publicly employed doctors and nurses (see Table 3.5). The incidence of poverty has fallen from 44.2% in 1985 to 31.8% in 1997, but the Gini coefficient has risen, meaning greater disparities in wealth: the share of total personal income by the richest 20% of the population has meanwhile risen from 47.9% to 55.5%, and the share by the poorest 40% has fallen from 17.5% to 12.2%. Financing of health-care services is mainly shouldered by individuals and their families in the Philippines, without a formal waiver for people living in poverty, and the average hospital bill is three times the average monthly income. Private hospitals are required to set aside at least 10% of their bed capacity for charity patients, and must not turn away patients who are unable to deposit money upon admission. It seems likely that these regulations are quite widely evaded. Certainly the charges levied by private hospitals are much higher than those made by public hospitals, whether people are insured, uninsured (eligible for Medicare) or charity patients (see Table 3.6). All in all, there seems no doubt that inability to pay presents a serious barrier to hospital access in the Philippines (country report).

In South-East Asia, finance-related barriers to access appear substantially greater in Thailand than in Sri Lanka, even though GNP per head is substantially higher in Thailand and the proportion of population below the poverty line is much smaller (see Table 2.2). In Sri Lanka, health facilities are well dispersed geographically, as described earlier in this chapter. The public sector provides more than 95% of inpatient services and 50% of outpatient services, largely free to the patient. While there are pockets of poor access (for example in remote areas and urban slums), these are few, except in parts of the Northern and Eastern Provinces disrupted by civil war. In Thailand, it has already been shown that geographical inequity is a substantial problem that is income-related, since the poorer regions have less by way of hospital resources. Geographical maldistribution aside, there is limited understanding of how the financial barriers to hospital access actually work in Thailand. Even public hospitals charge for services, under ministerial rules, which set standard fees but also authorize hospitals to apply a sliding scale according to patients’ ability to pay. In all, charges and other non-budget sources raise around 50% of total hospital revenue, so they are not marginal.
The low-income scheme aims to provide free care for members of low-income households, defined as having a household monthly income of less than 2800 Baht. But the scheme has poor specificity (60). In this study of 2093 poor households, only 17% were covered by a low-income card. Moreover, among 1003 low-income cardholders, only 35% were poor: the other 65% were not. A survey by the National Statistical Office in 1998 showed a clear gradient by income deciles in health expenditure as a percentage of household income. The poorest tenth of households spent 5.13% of their income on health, the wealthiest, 1.01% (see Table 3.7) Within each household total, the biggest difference lay in the proportion spent on self-medication, which was almost twice as high in the poorest households as in the richest.

Table 3.5 Distribution of public hospitals, doctors, nurses and poverty incidence in the Philippines, 1997

<table>
<thead>
<tr>
<th>Region</th>
<th>Public hospitals</th>
<th>Public doctors</th>
<th>Public nurses</th>
<th>Poverty incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Rank⁴</td>
<td>Total</td>
<td>Rank⁴</td>
</tr>
<tr>
<td>National Capital Region</td>
<td>43</td>
<td>7</td>
<td>478</td>
<td>2</td>
</tr>
<tr>
<td>Cordillero Administrative Region</td>
<td>32</td>
<td>11</td>
<td>76</td>
<td>12</td>
</tr>
<tr>
<td>Ilocos</td>
<td>36</td>
<td>9</td>
<td>100</td>
<td>9</td>
</tr>
<tr>
<td>Cagayan Valley</td>
<td>38</td>
<td>8</td>
<td>147</td>
<td>5</td>
</tr>
<tr>
<td>Central Luzon</td>
<td>47</td>
<td>5</td>
<td>116</td>
<td>7</td>
</tr>
<tr>
<td>Southern Luzon</td>
<td>97</td>
<td>1</td>
<td>500</td>
<td>1</td>
</tr>
<tr>
<td>Bicol</td>
<td>47</td>
<td>6</td>
<td>133</td>
<td>6</td>
</tr>
<tr>
<td>Western Visayas</td>
<td>56</td>
<td>2</td>
<td>213</td>
<td>4</td>
</tr>
<tr>
<td>Central Visayas</td>
<td>51</td>
<td>3</td>
<td>249</td>
<td>3</td>
</tr>
<tr>
<td>Eastern Visayas</td>
<td>48</td>
<td>4</td>
<td>107</td>
<td>8</td>
</tr>
<tr>
<td>Western Mindanao</td>
<td>28</td>
<td>12</td>
<td>79</td>
<td>10</td>
</tr>
<tr>
<td>Northern Mindanao</td>
<td>23</td>
<td>13</td>
<td>76</td>
<td>12</td>
</tr>
<tr>
<td>Southern Mindanao</td>
<td>33</td>
<td>10</td>
<td>67</td>
<td>13</td>
</tr>
<tr>
<td>Central Mindanao</td>
<td>18</td>
<td>14</td>
<td>76</td>
<td>12</td>
</tr>
<tr>
<td>ARMM⁴</td>
<td>15</td>
<td>15</td>
<td>89</td>
<td>10</td>
</tr>
</tbody>
</table>

⁴ 1 = most.
⁵ 1 = poorest
⁶ Autonomous Region of Muslim Mindanao.

Table 3.6 Hospital charges for a standard package of services in the Philippines

<table>
<thead>
<tr>
<th></th>
<th>Private hospital (pesos)</th>
<th>Public hospital (pesos)</th>
<th>Difference (pesos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted price charged to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charity patient</td>
<td>4 590</td>
<td>838</td>
<td>3 752</td>
</tr>
<tr>
<td>Uninsured patient</td>
<td>6 663</td>
<td>1 539</td>
<td>5 124</td>
</tr>
<tr>
<td>Insured patient</td>
<td>8 359</td>
<td>2 777</td>
<td>5 582</td>
</tr>
<tr>
<td>Cost per patient:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marginal cost</td>
<td>2 909</td>
<td>2 611</td>
<td></td>
</tr>
<tr>
<td>Average fixed cost</td>
<td>1 398</td>
<td>3 270</td>
<td></td>
</tr>
<tr>
<td>Marginal + average fixed</td>
<td>4 307</td>
<td>5 881</td>
<td></td>
</tr>
</tbody>
</table>

Source: ref. 59.
In April 2001, the Government of Thailand introduced universal health-care coverage aiming to ease the financial burden on households caused by bills for medical care. The plan is to be funded by general tax revenues, through a contract model to competing public and private providers, using capitation for ambulatory care and global budget for inpatient care (country report).

In the Eastern Mediterranean Region, there appear to be some of the same problems of non-specificity in attempts to overcome financial barriers to access to health and hospital care. In Egypt, for example, poorer individuals spend relatively more of their income on health care out of pocket than do wealthier individuals. Poorly targeted pharmaceutical subsidies benefit the population at large, not the poor. Of all public spending for health, 16% goes to people in the lowest income quintile, whereas 24% goes to those in the highest. Lebanon, which in 1998 spent no less than 11.6% of its GDP on health care, 82% of it from private sources (mainly out of pocket), has a hospital system that is overwhelmingly (90%) private. The ministry seeks to secure access for the poor and allocates a proportion of its budget to each private hospital in return for an allocation of beds. If these beds are full, a ministry-sponsored patient, however sick and poor, may be denied access. There is a 15% co-payment which, although affordable by most people, becomes another barrier to hospital care for the very poor. Attempts by the ministry to cover the 15% co-payment for the very poor are frequently misused. The answer to this dilemma may lie in the issue by the ministry of an insurance card for poor people, so that there is no doubt about their entitlement or their reduced level of co-payment (country report).

In the European Region, in both Kazakhstan and Poland there has undoubtedly been a loss of equity since the collapse of communism. Equity, in terms of universal access to, and use of, health services across the population, was a key feature of the health-care model in the former Soviet Union. Inequities increased in the 1990s, and the position of the poor has worsened, associated with economic crises and sharp reductions in public spending on health. As the government health budget shrunk, people have increasingly had to pay for health services and drugs, which has disadvantaged those on low incomes. In Kazakhstan, as already described, the most obviously emerging inequity is between cities and the countryside, with the country population being the losers. In Poland, universal access has been maintained but informal out-of-pocket payments have risen sharply, creating a widening gulf between free public care and the services available to those able and willing to pay. Out-of-pocket payments amounted in total to perhaps one third of the nation’s total health-care expenditure by

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**Table 3.7 Health spending in different income groups in Thailand**

<table>
<thead>
<tr>
<th>Income Deciles</th>
<th>Mean Income per Month</th>
<th>Health Expenditure Baht per Month</th>
<th>% of Health Expenditure per Income</th>
<th>Ambulatory Care %</th>
<th>Inpatient Care %</th>
<th>Self Medication %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 204</td>
<td>113</td>
<td>5.13</td>
<td>60</td>
<td>9</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>3 493</td>
<td>111</td>
<td>3.18</td>
<td>61</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>4 534</td>
<td>117</td>
<td>2.58</td>
<td>61</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>5 627</td>
<td>146</td>
<td>2.59</td>
<td>61</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>6 940</td>
<td>183</td>
<td>2.64</td>
<td>65</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>8 527</td>
<td>205</td>
<td>2.40</td>
<td>67</td>
<td>8</td>
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Source: ref. 61.
France has one of the most sophisticated, expensive and successful health systems in the world, ranked first by WHO in The World Health Report 2000 (20). It is a very interesting mixture of public and private provision, with great emphasis placed on freedom of choice by both the patient and the physician. Outside hospitals, medical care is provided by independent, self-employed medical practitioners reimbursed by statutory health insurance that, since 1 January 2000, covers everyone legitimately resident in France. Reimbursement is at set rates, which intentionally leave a proportion (the so-called ticket modérateur) to be paid by the user, though this can be covered by voluntary health insurance. The actual rates charged may be higher than the set rates, again leaving the difference as the user’s responsibility. Payment for hospital services is similar, except that the proportion reimbursed is higher for inpatient care and may be 100%, depending on the medical condition and the cost of care. Hospital ownership is a mixture of public, non-profit and for-profit systems. The public hospital service includes not only publicly owned institutions (64.8% of total beds for inpatient care in 1998), but also private institutions participating by agreement in the public service (13.4% of beds). The balance of beds (21.8%) is in private hospitals not participating in the public system. Proportionally, these private beds are much more important in surgery (46% of the total) and obstetrics (34%) than in, for example, general medicine (12%). Patients (advised by their doctors) have free choice of hospital, though of course the ultimate cost they have to bear may vary, depending on the level of charges and their supplementary insurance. Since 1996, the whole hospital system (public and private) has increasingly been actively shaped by the government’s regional hospital agencies through the regional strategic health plan, which can close or open beds, regroup services or introduce new ones. Equity is a serious aim at the level of the individual institution (which seeks to overcome barriers to access such as language and finance), the regional hospital agency (which can tackle equity problems through its plans and allocation policies) and nationally. As a result of universal statutory health insurance and free choice of provider, there is no reason in principle why anyone in France should be denied access to care, or put up with a poor standard of service. (The same could be said, incidentally, of Japan and New Zealand, the other two most sophisticated and best-funded health systems included in the study.) Despite the emphasis on access and equity, however, not all groups make the same use of services and their health status is not equal: evidence from France is that the poorer people are, the less their use of medical specialties and the worse (on average) their health (37, country reports).

Turning finally (in the context of financial barriers) to the African Region, for Ghana and the United Republic of Tanzania there is little to add to what was said above about geographical barriers. The public hospital services in both countries are badly run down as a result of a long period of economic difficulty and under-investment. In an effort to supplement government funding, substantial user charges have been introduced, but with waivers for the poor. Probably these arrangements work less inequitably in the United Republic of Tanzania, which has a long tradition of communal solidarity, than in Ghana, though in recent years the private sector is a growing presence in the United Republic of Tanzania also. It is almost certainly the case that access to hospital services in both countries is radically affected by income and the capacity to pay.

Historically, South Africa illustrates vividly how access and equity barriers of diverse kinds reinforce one another. The South African Government and the provincial governments are determined to change this position, but it is not easy. Of South Africa’s 39.9 million people, 77% are black. Until the country gained democratic government in 1994, a policy of apartheid prevailed, an overwhelming example of bias or stigma as a barrier that causes unequal treatment in almost every respect (see Table 3.2). In hospital terms, two hospital systems were created: one for the rich whites and the other...
for the poor blacks. Blacks had much lower incomes, less education and worse living conditions, whether they lived in rural areas or in black townships. Since 1994, every effort is being made to change this, but change is slow. The hospital sector is a mixture of public and private. The public sector has roughly 60% of the hospitals, covers about 80% of the population and accounts for 44% of total expenditure. The private sector has 40% of the hospitals, provides care for 18% of the population (largely white) covered by voluntary health insurance and a further 10% who use the private sector on an out-of-pocket payment basis while also depending on the public sector hospitals, and consumes 56% of total expenditure. In other words, in the hospital sector there remain great contrasts between the services available to the minority and to the majority. The aim is to redistribute health-care resources once reserved for whites to the entire population. A key element in this policy is the development of an integrated district health system with the emphasis on a primary health-care approach and equitable access for all who need health care. Within the district, the district hospital, the clinics and other health-care providers should operate together as a network, with the hospital in a pivotal position. Unfortunately, the continuing divide in authority between government at different levels (national, provincial and local) has often stood in the way of building the district health system. Financial constraints have also operated in a period of considerable economic difficulty. Finally, large-scale switches in the allocation of health-care resources are never easy in a democratic society, especially if they involve many people accepting a fall in standards (country report).

The final type of barriers contained in the survey reports are those caused by cultural differences, but there is little specific evidence to draw on. In an increasingly global world, with complex patterns of migration, barriers related to culture occur almost everywhere, though less commonly in relatively homogeneous societies such as Japan. The clearest example of these differences being taken into consideration is in New Zealand, where the Maori population comprises 14.5% of the country’s total population of roughly 3.8 million; Pacific Islanders (5.6%) and Asian people (3.4%) are smaller minorities. Maori people lived in New Zealand for many centuries before the arrival of the whites. They have a very distinctive culture that strongly shapes their views about health and disease, life and death, and identity. They also have lower incomes, worse health and shorter life expectancy than New Zealanders of European descent (known as Pakeha in Maori). In the past four decades there have been concerted attempts, with substantial success, to improve Maori health status and also to foster a growing respect for Maori identity and culture. This has led to a willingness to accept the creation of Maori-led health organizations, particularly in the field of primary, community-based services. It is also changing the national sense of identity so that today many non-Maori New Zealanders feel real pride in the country’s Maori heritage and want to share in it.

Concluding remarks

Barriers to access and equity of health care are diverse and widespread in the survey countries, and they are interrelated to one another. The survey yields many examples. In principle, barriers to access can and should be removed, but achieving equity of use is more difficult, and equality of health status is more difficult again. From the country reports there are several shining examples of what can be done, particularly the way in which countries such as Sri Lanka and the United Republic of Tanzania, with severely limited finance, have created networks of locally accessible clinics and hospitals with essentially free access for all. Another example is the reform of Colombia’s three parallel and independent systems of health-care financing and provision into a single universal system to achieve greater equity. A systematic study of the impact of this reform shows real improvements in equity of insurance coverage and in the use of services, though improvements in health status at this stage remain unproven. Examples
from New Zealand are the improvements made in Maori health and the recognition of Maori identity and Maori values.

**The search for safety and quality**

“Quality of care” is a term that is frequently used in professional health-care circles, though it lacks a precise definition that is acceptable to all the stakeholders in the health-care industry: “Though a common understanding of what quality in health care is may exist, it is clear from the literature that there is no obvious consensus for defining or measuring this concept” (62). Whatever uncertainty there is in defining the quality of health services, safety is always assumed to be a prerequisite; also, transparency of information on different aspects of services is usually taken to be an indicator of quality of the same services.

In practice, quality tends to be defined by various stakeholders according to their roles, goals and objectives in health care. Thus, a patient might define it as an increase in his or her well-being after undergoing clinical procedures. Other factors may include the financial cost of the treatment to be borne by the patient, waiting times, quality of the premises and equipment, and the courtesy and communication offered by staff in the health-care setting. A clinician is likely to define health-care quality in terms of clinical processes and clinical outcomes. Finally, a health administrator may define quality in terms of the optimal use of resources to produce a good (or acceptable) outcome. A combined definition of quality of health care based on these three stakeholder definitions or expectations is only possible with some trade-offs. For example, in a typical hospital accident and emergency department, doctors tend to prioritize cases depending on a clinical assessment of which patient needs their services most urgently. This decision may leave a patient who has been assessed as needing less urgent attention with the sense that he is not receiving good quality treatment. Similarly, in cash-strapped systems, administrators often impose restrictions on clinicians’ decisions, for example on drug prescriptions. The clinicians, while accepting these rules, may nevertheless feel that they are not providing the best quality treatment to the patient. In almost all systems, tensions between patient and clinician, clinician and administrator, and administrator and patient circumscribe the quality of care or at least the perception of that quality. What defines the quality of care in a particular setting will be determined by the relative bargaining powers of the stakeholders. In market systems, the patients’ perspective usually has substantial influence on quality matters. In non-market systems, it is usually the funding agency that ultimately determines affordable quality. In physician-dominated systems, clinical factors come to the fore.

The earliest documented quality standards are those developed by Florence Nightingale who, among other things, identified a positive correlation between the provision of adequate nursing care and lower mortality rates among the soldiers fighting in the Crimean war in the mid-1800s. She also showed that a key determinant of regimental mortality was distance from hospital: the least fortunate regiments were those with good access to hospital beds, because death depended less on casualties in battle than on hospital-acquired infections. Ever since Florence Nightingale’s time, there has been interest in the subject, though the interest has fluctuated over the years and has greatly increased recently.

**Some quality concepts**

Standards for clinical procedures such as critical clinical paths – “decision trees” showing what sort of decisions are to be taken at each stage of a procedure – are, of course, related to the search for quality. They are most often the result of intense consulting and consensus processes within the medical profession. In all stages of quality assessments, standards are a critical ingredient. Definitions of quality processes may be clarified as follows:
• **Licensure**: a legal right that is granted by a government agency in compliance with a statute governing an occupation or the operation of an activity. Most often this is a quantitative exercise about numbers of staff, their qualifications and the type of facilities available to them.

• **Auditing**: the systematic inspection of records or accounts by an external party to verify their accuracy and completeness and to examine the standards revealed by them. An audit provides a periodic in-depth review of key aspects of the organization's operations, focusing for example on some specific treatments or the outcomes of a clinic. An audit provides timely information about specific topics and cost-effectiveness of operations to management, taking account of both quality and resource management issues.

• **Certification**: the procedure and action by which a duly authorized body – ISO, professional body, etc. – evaluates and recognizes an individual, institution or programme as meeting predetermined requirements, such as standards. Certification differs from accreditation (see below) in that certification can be applied to individuals (for example a medical specialist), whereas accreditation is applied only to institutions or programmes. Often health services are dependent on commercial companies to help them collect needed information in order to respond to, for example, ISO protocols. Certification as a term is also used for certifying medical professions (which is done by their peers).

• **Accreditation**: a similar process to certification, applied to the entity of an institution or a programme. It involves self-survey, external survey and accreditation decision.

• **Benchmarking**: the comparison of results of organizations' evaluations with those of other interventions, programmes or organizations, and examining processes against those of others recognized as excellent as a means of making improvements.

• **Evidence-based practice**: the conscientious, explicit and judicious use of current best evidence – based on systematic review of all available evidence – in making and carrying out decisions about the care of individual patients. Types of accepted evidence of good practice are: randomized controlled trials, other robust experiments or observational studies, and more limited evidence where advice relies on expert opinion and has the endorsement of respected authorities.

As can be seen from the experience of Colombia (see Box 3.21), quality processes are very often combined efforts that include many of the aspects defined above.

The first important milestone in developing quality procedures was the establishment in the United States, in 1952, of the Joint Commission on the Accreditation of Hospitals (JCAH), which later became the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO). Until the 1970s, quality debates and discussions concentrated on structural issues in health care, both the clinical setting and human resources and skills. The first major multidimensional approach to health-care quality was the publication by Avedis Donabedian in 1966 of the structure, process and outcome model of health-care quality (63). An increased, variable but important impetus for health-care quality assurance systems came about in the 1970s as a result of increasing medical malpractice litigation in the United States. The initial schemes were thus influenced to a great extent by practising physicians and were often aimed defensively at reducing potential liability. These practices resulted in over-prescribing and consequently a huge increase in the cost of medical care, which, in turn, sometimes led to systems aimed at reducing costs of care while maintaining quality. For example, the Professional Standards Review Organizations (PSROs) and Health Systems Agencies (HSAs) were established in the United States with the stated aims of controlling costs while preserving quality. In the late 1980s and 1990s, concepts of total quality management in health care were introduced in the United States.
Health-care quality assurance in Colombia

Several health reform initiatives were taken in the late 1990s in Colombia, one of which was the Quality Assurance Project to improve the quality of health care. The Centro de Gestion Hospitalaria, together with others, developed a harmoniously integrated set of instruments for this project – essential requirements (licensing), accreditation of providers and of the health promotion entities, auditing, consumer information, and other quality-oriented incentives – each one of which has a role within the system.

The graph below illustrates how the instruments act together in a continuum to improve the quality of health care. Several other activities were carried out parallel to this process, among them consumer information, empowerment strategy, benchmarking to learn from good practice, improvement of policy and reform to support quality processes.

Health-care quality concepts and practice in Europe and in other OECD countries have generally followed those in the United States. Among the case studies, New Zealand has the earliest record of establishing formal quality assessment procedures in health care. Here, the first formal quality assurance programmes were started as part of an accreditation scheme in 1987. Since then there has been a gradual increase in the coverage of quality assurance programmes in hospitals and long-term care homes for the elderly. Since 2000, other health-care providers, such as primary care organizations, have increasingly been included in quality programmes. Among the other case study countries, quality assurance programmes were introduced in the Philippines in the 1990s, Japan in 1991, Chile in 1992, Egypt, the Republic of Korea, and South Africa in 1995, France in 1996, Poland in 1997, Thailand in 1999 and Colombia in 2001 (country reports).

Most of the concepts in health-care quality have their roots in industrial management theories. In particular, theories such as total quality management and re-engineering were first used in manufacturing industries. The concept of total quality management (TQM) originated in Japan after the Second World War. The philosophy was initiated to improve the quality of products and thereby maximize sales and profits of Japanese industries, and the primary focus was customer satisfaction. The methods adopted included worker participation in decision-making and a commitment by managements to maintaining quality of output. Manufacturing is essentially carried out in closed-end organizations and hence quality management systems reflect the structure of such organizations. Because of this link to the manufacturing sector,
health-care quality assessment systems have almost exclusively been adopted by hospitals. (The one exception among the case studies is in New Zealand, where, recently, primary care organizations have been included in quality assessment programmes.) This works well where there is a certain degree of integration between acute medical services (hospitals) and other types of health-care organizations such as the managed care systems of the United States. In more diverse systems, while quality of hospital care has received attention, other care providers such as primary care or long-term care institutions have not been similarly exposed to quality concepts. Almost all the case study countries have reported in terms of the number of hospitals with quality assessment programmes (or with accreditation system affiliation).

Utility of quality assessment and improvement programmes

Formal quality assessment procedures are a recent development in most countries. Their introduction and uptake among health-care organizations has been slow in almost all countries. Participation is voluntary in varying degrees with the exception, for example, of France where all hospitals are required to participate in the accreditation programme by 2006. This suggests that quality assessment in health care is still in an experimental stage. There is not sufficient historical evidence to prove beyond doubt the usefulness of quality assessment procedures in health care. There is anecdotal evidence, however, to suggest that such procedures can result in either an improvement in the quality of health-care services or a reduction in cost, or both.

Among the countries in the study, very few have identified quantifiable results arising from quality assessment procedures. For example, the following points were made in country reports:

- lack of quality improvement activities in clinical departments: this suggests, perhaps, that the systems do not have the wholehearted support of the clinical staff or that they do not have the power to change clinicians’ behaviour;
- lack of regulation and implementation of non-smoking policies in hospitals: this suggests that the systems do not have the support of patients and the public in this respect or that they do not have the power to change patients’ behaviour;
- shortcomings in the maintenance of medical records;
- poor management and administration systems: this broad observation suggests that some fundamental reorganization or upgrading may be required;
- poor maintenance of facilities and technology, including life-support machines: again, this is an observation which, if rectified, can result in quality improvements;
- non-involvement of doctors in management strategies: if corrected, this could lead to quality improvements;
- poor infection control measures in hospital wards: if acted upon, this can clearly result in quality improvements;
- poor patient care standards: too general a comment to be of specific utility in quality improvement;
- no procedures for protecting medical staff from risks: this shortcoming has been tackled by providing personnel for the safety of clinical staff in hospitals;
- timeliness of treatment, long waiting times and short consultation times in hospital outpatient departments.

Positive spin-offs have resulted from quality assessment procedures in some countries in the study. In Thailand, training needs for hospital staff have been identified and clinical practice guidelines have been introduced. Clinical practice guidelines and improved levels of consumer information have been achieved in Colombia, Japan and South Africa. An increased awareness of quality issues has been identified among decision-makers in Chile, Japan, Lebanon, the Republic of Korea, and South Africa.
and university-based courses and curricula on quality assurance have been developed in Colombia, Egypt, the Philippines, South Africa and Thailand.

More evidence of overall cost–benefit is probably needed to convince hospitals and other health-care organizations to adopt quality assessment procedures, bearing in mind their cost. Some of the observations above are about fundamental structural changes, perhaps requiring commitment of substantial additional resources. These may or may not be politically viable in health-care systems, which are already operating on tight budgets and competing for resources with other social sectors such as education. Therefore, convincing arguments are needed to promote the adoption of quality assessment standards in health-care organizations. It must be shown that they will, without substantial additional resources, result in an improvement of health outcomes or save money that can be used elsewhere in the system. These benefits will then have to be compared with the cost of establishing and maintaining quality assessment systems to determine their net worth to organizations.

Among all the case studies, only New Zealand and Thailand have investigated the financial aspects of quality assessment systems. In New Zealand, this was in order to quantify the funding required for the accreditation agency that would oversee quality systems in hospitals. The cost estimates do not, however, include time spent by hospital staff on quality procedures or the time spent by volunteers. In Thailand, estimates are available for quality assessment procedures in individual departments and hospitals (assessments using mainly the ISO system). Of the 1300 or so hospitals in Thailand, some 160 had been certified by March 2001. The cost of an ISO certification was estimated as US$ 25 000 for a single department and some 15–20 times that amount (say, US$ 450 000) for a whole hospital (country report). This is an enormous sum in the context of Thailand’s health expenditure, and would be totally unaffordable in a country such as the United Republic of Tanzania.

In contrast, in South Africa a quality improvement programme costing around US$ 5 000 per hospital was introduced (see Box 3.22). This was in order to prepare hospitals for accreditation by, for example, initiating an audit system. Similar experiences were reported in Colombia (see Box 3.21).

The financial question should be studied in detail, as the cost is probably what deters countries from initiating and maintaining quality assessment standards. One telling illustration will demonstrate this. In a study conducted by Coopers & Lybrand for Addenbrooke’s Hospital in the United Kingdom (66), it was estimated that it costs approximately US$ 1000 to carry out one clinical audit. (According to a rough estimate, the total cost of clinical audits divided by the number of audits carried out at Addenbrooke’s Hospital in 1997–1998 amounted to US$ 972. This is a crude method not allowing for differences in size, method of data collection and complexity of analysis.) A fully-fledged quality assessment system involves much more than a single clinical audit, so, even on this measure, it is apparent that poor countries need to think carefully about financing quality assessment systems. Quality assessment procedures will necessarily consume human and other resources, both in the installation and maintenance phases, and it is a fact that all health-care systems are operating on tight budgets with very little leeway available in human, material and financial resources. While the need for allocating resources is a visible element in the debate, there are no systematic studies on the overall benefits of quality assessment procedures in health systems: there are only piecemeal studies analysing the benefits available in particular departments within health-care systems. Most of the case studies originate from the United States, which has the longest history of established quality assessment systems (see Box 3.23).

It is essential to identify the additional costs of the quality initiatives so that an assessment can be made of the net cost or savings of quality initiatives. Three financial stages have been postulated in the quality improvement process. In the first stage, with little additional cost quality improves substantially (say, for US$ 10 spent, US$ 100...
are saved). The second stage is where the additional costs are more or less equal to the quality improvements (for US$ 10 spent, US$ 10 are saved). The third stage is where the cost of quality improvements is far higher than the quality improvements achieved (for US$ 100 spent, US$ 10 are saved). This schema may be useful in deciding at what level quality standards should be set, bearing in mind the financial situation and the market realities in any specific health-care organization or system.

**BOX 3.22**

**Quality assurance and accreditation of health-care systems in South Africa**

The Council for Health Service Accreditation of South Africa, a not-for-profit company, aims to enable all South Africans to receive equitable health care of good quality. To work towards achieving this vision, in addition to providing conventional accreditation programmes (self-survey, external survey and accreditation decision), the Council has developed an integrated quality improvement and accreditation approach to assist disadvantaged facilities that have a long way to go towards meeting accreditation standards and requirements. This approach is called the Facilitated Accreditation Programme.

The programme includes a capacity-building element to empower staff to understand the standards and the fundamental principles on which they are based. Facilitators assist the health-care facilities to validate baseline data; they visit the facility every six weeks to assist with planning the implementation of the standards through a facility-wide representative multidisciplinary team that is linked to quality improvement teams in all departments and services. The facilitation process includes training in continuous quality improvement, clinical audit, health and safety, and infection control.

To recognize achievements as hospitals move towards accreditation, a system of graded recognition has been introduced using accreditation standards and indicators. The indicators are developed from the compliance rates of standards that define leadership, operational process requirements and evaluative methods used to measure facility performance and outcomes.

There are three consecutive awards for pre-accreditation certification: progress, entry and intermediate. Facilities that substantially meet the accreditation requirements are awarded full accreditation for a period of two to three years. This programme is assisting hospitals to work towards meeting accreditation standards. Hospital compliance rates have improved markedly as a result of the process.

Sources: refs. 64, 65.

**BOX 3.23**

**Examples of quality improvements leading to cost savings**

- The Mayo clinic in Rochester, MN, USA, reported a team project which saved US$ 473 000 a year by reducing practice variations in peripheral bypass surgery.
- In another study, patient length of stay was reduced by 44% for patients undergoing carotid endarterectomy.
- Reductions in post surgical complications and shorter lengths of stay were reported by a team that developed and applied guidelines to identify at-risk patients and reduced risk factors in preoperative, intraoperative and postoperative phases.

Source: ref. 67.

Another determining factor in any decision to introduce quality assessment procedures is the benefit in terms of improvement in health outcomes. This is critical in many poor countries, sometimes requiring even more serious consideration than cost. The prevalence of HIV/AIDS in many sub-Saharan countries is a worrying example. In these countries, serious action needs to be taken on an urgent basis, both in terms of prevention (as in Uganda) and in terms of treatment, to lessen the
catastrophic consequences of the disease. In these countries, if there are systems that would identify waste and misspending of resources, any money thereby released can be spent to good effect in other ways (see Box 3.24), which could lead to an improvement in the quality and effectiveness of services provided without a corresponding increase in costs.

**BOX 3.24**

**Waste causes suffering**

“In Africa, the Zambian government has US$ 8 per person per year to spend on public health services, and 20% of the population are HIV-positive. Their 1994 health reforms included quality improvement, and a programme for quality training was given to at least one person working in every health centre. Of the 27 I visited, eight had active quality teams. They cannot afford to overprescribe or mis-prescribe drugs. If they do, they will run out of drugs and patients will die as a result. One quality project team was able to collect data about antibiotic prescriptions, compare criteria with patient records and measure the unnecessary prescriptions. The team devised protocols, trained personnel and was able to save money and avoided running out of drugs towards the end of the three-month re-stocking period” (67).

Another way of looking at the financial question would be to analyse how much poor quality costs in health services. The following is a list of examples from country reports, in which poor quality results in wastage of resources:

- failure to attend appointments results in wasted time of clinicians and other staff;
- missing patient records leads to wasted personnel time in locating them or in obtaining fresh histories from patients;
- non-availability of patient records can cause errors and mistreatments;
- tests ordered unnecessarily or late, either through defensive clinical practice (United States) or because of poor clinical skills (Egypt).

Apart from financial considerations, there are other issues that need to be considered in deciding where, when and to what extent quality assessment initiatives should be introduced. In a pilot project of six hospitals in Norway, the results were predominantly negative (68). Almost all the hospitals felt that there was very little evidence of any practical results from the quality initiatives in terms of improved quality in general, and patient outcomes in particular. Below are some of the weaknesses identified by the hospital staff:

- quality initiatives did not result in measurable improvements in quality;
- there was lack of coordination between departments;
- quality improvement initiatives identified elsewhere were not included, such as initiatives identified in the “patients first” approach;
- wrong approach from the top management of the hospital: a lack of consultation with staff members involved;
- resistance from physicians;
- frequent changes in top management affected the process;
- financial problems at the hospital also adversely affected the process;
- negative publicity about poor patient care as a result of the quality initiatives;
- failure to complete many projects;
- evaluation was not made an integral part of the quality initiatives;
- too few resources were devoted to the programme;
- specialist language was used, which was not clear to all participants;
- too much (or sole) emphasis on documentation;
- results of quality projects were not publicized.
Accreditation systems

Quality assessment in health care has been formalized through accreditation programmes in many countries. In most of them, there are now national programmes of accreditation for health-care organizations. The oldest among them is the Joint Commission for Accreditation of Healthcare Organizations (JCAHO) in the United States, referred to above. In the beginning, its emphasis was mainly on structural elements, with the philosophy that if health-care organizations have good-quality facilities, skilful personnel, and good organization, cooperation and coordination, then the quality of patient care will follow more or less automatically. In other words, if the conditions in which clinicians perform their work are good, the quality of their work will be good: clinicians do not need any external quality control. This assumption in the early years of accreditation accorded with systems dominated by clinicians.

It was only in the 1970s and 1980s that this view was challenged, and accreditation systems began to pay attention to broader processes and systems within health-care organizations. Concepts such as clinical audit were slowly being introduced into accreditation systems. These developments have continued to face opposition from many clinicians, and their adoption has been slow. For example, when the Republic of Korea introduced a separation between drug prescription (by doctors) and dispensing (by pharmacists) in order to exercise some independent control on drug usage, the doctors announced a series of strikes between 1999 and 2000. Clinicians have often contended that peer review is sufficient to ensure the quality of clinical work. Proponents of current thinking on quality assert, however, that shortcomings in clinical practice “are not the fault of the person to whom they occur. Their theory suggests the examination of systemic or structural causes of poor quality” (69).

The newer accreditation systems are based on industrial concepts such as continuous quality improvement and re-engineering. They have opted for a more inclusive approach to quality assessment. The primary focus has shifted away from structures and processes to outcomes and patients. This involves participation by employees at all stages of the assessment process and a systemic approach to quality. These newer approaches have been slow to become established for several reasons, the most important being the reluctance of clinicians to be involved in systemic quality assessment concepts and procedures, mentioned above. The second reason is the changing nature of clinical care itself: with new methods and clinical procedures being introduced at a very fast pace, it has been difficult for accreditation systems to prepare and maintain up-to-date clinical standards and guidelines. Thirdly, the high costs of these new assessment procedures have also been a factor in their slow uptake.

Among the case studies, several countries have accreditation systems and have developed their own national systems, as described below.

There are two accreditation systems in parallel use in New Zealand: the national system which has evolved from the Australian initiative and which, since 1995, has adopted the continuous quality improvement model of assessment (Health Accreditation Programme for New Zealand), and a new system based on the ISO 9000 standards (Quality Health New Zealand). Both systems operate in addition to ministry of health licensing audits. Current accreditation philosophy is based on the concepts of a continuum of care, service coordination and a population health approach: 90% of public hospitals and health service organizations are members of an accreditation scheme, as are 40% of aged care homes and private surgical hospitals and 10% of other health-care organizations. The current problems that have been identified with accreditation are the lack of a strategy to minimize duplication and the lack of incentives for pursuing high-quality service.

The Republic of Korea has a national accreditation system for its hospitals. At present, 257 of the 277 general hospitals (hospitals with more than 100 beds) are in the accreditation programme run by the Korean Hospital Association. The system includes
assessing clinical performance with standards established for such outcome indicators as readmission rates, unplanned returns to the operating room, operation cancellations, Caesarean section rates, neonatal complication rates, etc. Accreditation also reviews hospital utilization rates, blood and drug usage, infection control measures, mortality cases reviews and medical records audits.

The accreditation system in France is quite recent. The responsible organization, Agence Nationale de l’Accréditation et de l’Evaluation en Santé (ANAES), was set up in 1996. Hospital quality improvement programmes commenced in 1991. The accreditation system follows the concept of benchmarking applied to health-care institutions, rather than standards established for various activities in them. The accreditation reviews result in a report rather than a grade or a certificate. The system follows the principle of continuous quality improvement. Evaluation includes structures, processes and outcomes, and standards are defined by each participating organization. By 2000, there were 264 hospitals participating in the accreditation system. All hospitals are required to participate by the year 2006.

In Japan, formal quality assurance programmes and a national accreditation system began in 1997. Limited quality assessment of hospitals began in 1990, when the Japan Hospital Quality Assurance Society began accrediting private hospitals in the Tokyo metropolitan area. National level accreditation began with the establishment of the Japan Council for Quality in Health Care. To date, 600 out of the 9300 hospitals participate in the accreditation scheme. Further, some hospitals have received certification according to the ISO 9000 accreditation system. As yet there is not sufficient history or experience to analyse the efficiency of the system.

In South Africa, quality assurance has been identified as a priority by the government and is included in the health sector strategic framework. The national policy on health-care quality is being discussed, and an initial framework has emerged which includes such concepts as clinical audits and patient surveys. There is a national accreditation agency: the Council for Health Service Accreditation of South Africa. Because of the low resource allocation to health care and hospitals, it is felt that many hospitals will not be able to meet the requirements for full accreditation. Therefore, they receive partial accreditation – entry level or intermediate level. At present, 86 public hospitals in three out of the nine provinces are participating in accreditation, with 16 having full accreditation. In addition, 37 hospitals in the private sector also participate in the accreditation scheme. The system, though oriented to structure and process, includes some clinical assessment standards and aims at achieving full accreditation of all hospitals. Meanwhile, gradual improvement without blaming and shaming is the strategy. The involvement and motivation of chief executive officers was found to be of great significance in South Africa (see Box 3.25), as in many other countries.

In Lebanon, the health-care system is dominated by private hospitals. They have to be classified according to their quality, and 26 hospitals have received the highest grading. This system is considered to be of limited use, and some large private hospitals are opting for international accreditation standards. Six hospitals are seeking ISO 9000 accreditation. One university hospital currently participates in the JCAHO system.

In Poland, there is an accreditation centre that accredits hospitals on a voluntary basis. Of 122 hospitals that have participated in the accreditation system, 38 received full accreditation and a further 19 received conditional accreditation. Some sickness funds insist on accreditation at the time of contracting with hospitals. Accreditation is based on pre-determined standards of quality assurance. The system is of recent origin and will take some time to evolve and develop.

In Thailand, accreditation began in the early 1990s. In 1995, the Health Systems Research Institute, an independent organization, began a quality assurance and accreditation programme. This system evolved to become, in 1999, Health Accreditation Thailand. It is based on the philosophy of continuous quality improvement and uses outcomes as well as processes. This organization plans to include primary care
providers and pharmacies within its scope in the coming years. Though participation is voluntary, the ministry of health intends that all provincial hospitals will be covered by 2003. The social insurance fund for workers has made it mandatory that contracted providers should have accreditation by Health Accreditation Thailand; 51 hospitals (22.4% of the total) so far participate in the scheme. There are also accreditation systems which follow the ISO 9002 model. By March 2001, 127 hospitals had ISO 9002 accreditation and a further 11 had ISO 14001 accreditation.

**BOX 3.25**

**Management support for hospitals in South Africa**

Management support is an essential ingredient in any system-wide programme of quality improvement, and the Facilitated Accreditation Programme is no exception. In an effort to ensure management support, a number of provinces in South Africa are considering developing performance agreements with chief executive officers of hospitals that include the following responsibilities:

− overseeing and facilitating the accreditation process in the institutions under their responsibility;
− organizing, appointing and overseeing a multidisciplinary institution-wide accreditation steering committee;
− delegating appropriate responsibility and accountability for various parts of the accreditation programme;
− facilitating and overseeing the collection of institutional baseline data and using the resulting reports to develop detailed work planning in each section of the institution;
− participating in visits of Facilitated Accreditation Programme staff and consultants; ensuring appropriate follow-up of recommendations before the subsequent visit;
− overseeing and ensuring proper financial planning, management, reporting and accountability of the institutions under their jurisdiction;
− working towards meeting the accreditation standards within an agreed period by the institutions under their authority.

This process is being developed in consultation with a number of heads of provincial services in an effort to achieve uniformity.

Source: country report.

In all the other countries of the study, quality of health care has begun to be recognized as an important issue. All these countries are examining ways to implement quality assessment and improvement programmes in their health-care establishments.

The International Society for Quality in Health Care (ISQua), has initiated the ALPHA programme that is accrediting national accreditation schemes through international peer review processes. So far, schemes in the following countries have been or are in the process of being internationally accredited: Australia, Canada, New Zealand, South Africa and the United Kingdom.

**Concluding remarks**

Independent of country, it seems that the initiative for quality schemes such as accreditation, ISO, etc. generally comes from the funding organization. In some systems, this might be the ministry of health; in others, it is the insurance industry. Many countries apply quality systems that fit their specific contexts of economy or culture, but there are also countries (sometimes poor ones) implementing hospital accreditation systems they probably cannot afford. This remark is made on the basis that some quality systems are mainly dependent on computerized information and, before embarking on accreditation, a poor country has to find the funds to invest in a computerized healthcare information system. In such cases, the question is: were alternative investments (such as primary care services) considered and assessed before investing in computers?
Instead, developing countries are recommended to find or develop accreditation systems that do not depend on expensive investment.

Quality systems are in place or are being considered in the majority of the developing countries in the study. A plea is made for quality assessment systems not to be imported and copied as blueprints from countries with very different health-care arrangements. Rather, quality assessment systems should be reflective of the relevant country’s health service organization, available finances, culture and social context, and the timing of their introduction should be chosen with care. The key question is not theoretical but practical: will they deliver substantial benefits in this particular country at this time?

A solution for developing countries may be an expanded licensing, using some of the components of accreditation adapted to the country’s specific context. Ideally, this should be matched by appropriate education initiatives (such as the teleconferencing and CD-ROM project for hospitals in Colombia).

Concerned staff should be put into a “learning mode”. One should aim at a vision that quality is not only for the wealthy countries, but can also be achieved elsewhere. Accreditation and other quality processes are not an end in themselves but, rather, a never ending search for improvement.
CHAPTER 4

Conclusions
Given the huge differences between countries – differences not only in the scale of resources available but also in politics and culture – it is perhaps surprising that the findings suggest considerable commonality in the state of public hospital systems. Ten findings of the study are summarized below.

1. Public hospitals and hospital systems are in a poor state
In some countries, this is perhaps an inevitable by-product of economic decline and political upheaval. Countries such as Ghana and the United Republic of Tanzania have at one time had extensive, well-equipped public hospital systems that have fallen into decay through lack of the funding necessary to maintain them. There can be few experiences more demoralizing than to see the hospital where you work degenerate year by year and to know there is little prospect of the situation changing. In the countries of central and eastern Europe, there has similarly been a sharp downturn in public funding for hospitals, following the collapse of communism. In many of these countries, the situation is now improving, but only after about a decade of intense difficulty for the public hospitals, their patients and all who work in them.

The problems of public hospitals, however, (and, to a degree, those of private hospitals also) are by no means confined to countries that have faced periods of sharp economic decline. Even in much more fortunate and prosperous countries, the public hospitals have suffered over a long period from underinvestment and underfunding relative to demographic change, technological advance and rises in expectations. In no country in the survey are the public hospitals in a well-resourced, vibrant and confident state. Apart from chronic underfunding for the jobs that they are asked to do, they have suffered from over-simplistic policies and poor management of staff.

2. Governments must understand and own the problems
While there are wide variations among countries in the ways in which hospitals are owned and funded, and in the levels of government involved, there is no escaping the need for national governments to understand the nature of the crisis in their hospitals and to see that the crisis is dealt with. Only national governments are in a position to ensure that what is being asked of the publicly funded hospitals is deliverable. This is in line with the concept of governments as stewards of health resources (20). In part, it is, of course, about adequacy of funding. More fundamentally, it is about achieving a balance between the resources (human, material and financial) that can be made available, and expectations (political and public) of the quantity and quality of care that the hospitals are to provide. Too often, the hospitals are put in an impossible position where there is no way in which they can meet the demands placed on them. Nothing could be a more certain recipe for public dissatisfaction and staff frustration.

Because the problems caused by chronic underfunding and poor management are deep-seated, governments must at all costs resist quick fixes, such as organizational changes that absorb large amounts of energy and credibility while achieving little. Instead they must take a long-term view. Governments also need to recognize what they themselves are good at and bad at. They need to be clear about what they expect from the hospitals, and they must resource them in line with these expectations. They must call them to account for their performance; but they must give them enough professional and managerial freedom of operational action that they are truly accountable for satisfying their stakeholders and responsible for their own performance.

3. Individual hospitals have to be seen as part of much broader systems
In many large public health-care systems, the traditional view that each hospital should have a distinct role is absolutely correct. It is true at the local level, where the hospital needs to understand and support what goes on outside its walls, in terms of the health
of its catchment population and the activities of health and social care practitioners working in the community, and play a role in education, training and research. It also applies within the hierarchy of hospital referral, which can be broadly characterized as secondary and tertiary. Particularly in poorer counties, where medical resources and public funds are under intense pressure, it is untenable for national referral hospitals to be seeking to provide primary and tertiary services at the same time, from the same departments, with the same resources.

4. In national policies and plans, private hospitals must be included alongside public hospitals

As the section on the public–private mix makes clear, virtually no country – and certainly none of the 20 in the survey – has a wholly public or wholly private hospital system. Even where the private sector is relatively small, it is everywhere set to grow, partly because many governments see advantage in diversifying the range of provision, but more fundamentally because people who are not poor want, and are often prepared to pay for, more than public systems provide.

Because of the interdependency between public and private systems, the only sensible policy approach is to view them as complementary, and to plan what the public hospitals are to do in the context of both. In no country is this actually done. The tendency is either to ignore the private sector, or to view the two sectors as separate and independent.

5. Funding and reimbursement systems must avoid perverse incentives and encourage good performance

Among the countries that were studied, the most common hospital funding and reimbursement systems are either budgets based on the previous year (public hospitals) or fees for services (particularly private hospitals and private practitioners). Both are unsatisfactory, though in different ways. Budgets based essentially on the past provide no incentive. Fees for services give plenty of incentive, including perverse incentives to over-supply. The appropriate direction of movement may be towards service level agreements that define not only levels of funding but also the range, quantity and quality of services.

6. Hospitals have to become better managers of their staff

From the survey and from personal knowledge, public hospitals are not in the forefront of good practice in terms of human resources management. Comprehensive, systematic appraisal systems are the exception rather than the norm. In some instances, not even job descriptions and skill specifications are in place. Moreover, public hospitals have all the characteristics that tend to go with ossified, difficult-to-manage organizations. Typically, staff are underpaid relative to what they could earn elsewhere (for example, in private hospitals) and feel undervalued.

This has to change, otherwise public hospitals will not be able to recruit or retain the staff on whom their performance depends, nor will the staff feel that they have given of their best. The sheer size of many public hospitals, and public service constraints, may make the flexible, imaginative management of staff difficult. But it has to be done, and improving the current situation ought not to be too difficult a task, simply by following good practice that has been shown to work elsewhere.

7. Hospitals have to become more responsive to individual patients and to the broader public, as expectations change

Of course, there are still enormous cultural variations between countries, and consequently there is no single standard of acceptable behaviour. Increasingly, however,
the American consumerist model is influential across boundaries and cannot be ignored. Most people in most countries are no longer prepared to undergo, without complaint, the traditional experience of public hospitals – long waits, lack of privacy, few smiles or civilities, and few explanations. This is going to have to change: not only because patients will not in the long term tolerate such behaviour, but because every human service organization that aspires to excellence must listen to its users.

Issues of responsiveness are broader than the individual hospital. Are the hospitals in the right places, for example, as cities expand? How are they sustained in remote areas? Is there enough choice of provider, for example to reflect cultural differences and preferences?

8. Hospital practice must be safe, reflective and flexible, but accreditation is not necessarily the only or best way to achieve this

Hospitals are by their nature dangerous places. Hospital-acquired infections are all too common, and so is avoidable injury, partly because safe treatment always depends on human judgement and skills, and mistakes will occur, particularly when people are tired or undertrained. Unfortunately, too, factors unfavourable to good practice can accumulate, making some organizations more dangerous than others, and more dangerous than they need to be. The dangers can never be eliminated entirely, but they can be reduced. Various forms of internal and external audit are an essential response: medical and nursing audit, other monoprofessional audits, financial audit, and so on. What is more crucial, and far less common, is clinical audit that crosses professional and institutional boundaries, facing the question: “How, overall, could the care of this patient have been improved?”

Accreditation is one very common response among the survey countries to this need to ensure institutional safety. Nearly all the countries included in the study have adopted some form of accreditation system, usually on a voluntary basis. The system is based on a variety of pressures to comply, which are predominantly financial.

While not discouraging accreditation systems, two caveats must be voiced. First, these systems are generally expensive. Indeed, for any hospital system at the low end of the wealth spectrum, they are outrageously expensive in relation to the available revenue. Second, to date there is no convincing evidence that accreditation ensures high-quality performance. There needs to be more research, perhaps leading to a modification of current accreditation methodologies, before one can be confident that a national accreditation system is the right way to ensure system safety.

In addition, every country has to find a way to handle the introduction, support and control of new developments. This is not only – nor necessarily primarily – about cost control, and it concerns private sector provision as well as public: it is about bringing appropriate technology into service quickly and economically and sustaining it.

9. Computing technology has advanced data capture and processing, but there is still much to be done to translate data into information

Decisions will seldom be better than the information on which they are based. In general, computing has produced enormous advances – nowhere more than in public hospitals – in support systems such as payroll or supplies procurement and in clinical systems. Nevertheless, there is a long way to go in most countries before the potential of computers is effectively harnessed towards answering important questions, for example:

- How does the service that we are providing measure up to what is needed?
- Can we do what we do differently and achieve better results for patients?
• How might the skill mix of staff be changed to relieve skill shortages within likely financial and other constraints?
• Is a health promotion activity, introduced on a randomized basis to improve the health of, for example, mothers and babies, having a material impact?

Subject to confidentiality safeguards, the integrated individual medical record has a valuable contribution to make.

10. Management deserves much more attention than it has received

Typically, politicians and civil servants understand policy-making, but do not understand how to run organizations. Management is also not highly regarded by doctors and other health-care professionals, or by the general public. The result is a dangerous vacuum in hospital management which needs to be filled, both by initial training schemes and by continuing personal and organizational development for hospital directors and managers.

Recommendations

1. That the above 10 findings be drawn to the attention of national governments.
2. That the study be extended to additional countries in due course, with whatever modifications are judged appropriate.
3. That the exercise be repeated in the initial 20 countries in, say, five years’ time, to assess what progress has been made.

References


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Appendices
APPENDIX A

Case study questionnaire

Guidelines for completing the questionnaire

The document is neutral in the sense that it is not based on one or more health-care systems and, more importantly, does not seek to receive responses in order to reinforce any pre-set ideas on health-care organization.

The questions are not exhaustive or exclusive in any sense. They refer only to widely available concepts or patterns in health-care organization. Respondents are encouraged to add to the list of questions as appropriate to their own circumstances. They should not be intimidated by the questionnaire. It is quite likely that some questions may not be applicable to their circumstances; if this is the case, such questions should be ignored.

Most questions ask for factual answers. However, they are framed in a way that could elicit a simple yes or no answer. Please note that this is not the answer we expect. Wherever appropriate, provide details. For example, if the answer to the question “Are there are incentive systems to reward good performance?” is affirmative, you should include the characteristics of the actual incentive systems in place. If the answer is negative, you should provide, where applicable, justification as to why an incentive system is not necessary or is not feasible or appropriate in your circumstances.

Where more than one answer is appropriate, please include the principal systems and subsystems that exist, providing details where appropriate. For example, if some employees are entitled to performance incentives while others are not, your answer should include the factors that determine which employees are entitled to participate in incentive schemes, for example clinical staff above or below a certain grade.

Please ensure that your responses are not too clinical in nature. The main purpose of the study is to determine the role of hospitals in the health-care system. The questionnaire has been drafted to determine if hospitals have a formally defined role in the health-care system, and if the hospital organization and management processes are capable of fulfilling their appointed role. Clinical details may, however, be included as examples where appropriate.

Remember that the case study is for the hospital system as a whole in the country concerned. Obtain the information at the highest level at which it can be gathered reliably (e.g. nationally for a homogeneous national system, or at the corporate headquarters level for a private system). Most national or provincial responses will need to be validated at the institutional level; for this purpose, the same questionnaire should be used.

A Roles

1. How are hospitals classified in your country/state? (Provide numbers of institutions and beds for each category, if available: see Table 1 attached.) For example:
   - District (first referral)
   - Specialty or Regional (second referral)
   - Teaching/University
   - and/or by ownership:
     - central government
     - regional government
     - private non-profit (church, etc.)
     - private for profit

2. Is there a defined geographical area or population served by each hospital? For example:
by national policy mandate?
– pragmatically by patient behaviour?

3. What is the relationship between clinics, hospitals and other health-care facilities in the same district? For example:
– is there coordination of provision?
– are they organizationally related or separate?
– what are the referral arrangements among them?
– do hospitals directly provide any primary care services themselves, either on site or by way of outreach?
– what support services are provided by the hospitals to the clinics, etc., and how are these paid for?
– what teaching and/or research links are there?

4. Is there a strategic national policy framework relating to the needs of the populations, for hospitals with clearly defined roles, functions and procedures? If so, attach the appropriate document.

5. What evidence is there of the balance between the capacity of the hospital system to deliver services and the needs of the population? For example:
– is there any measured estimate of unmet need?
– what are currently the main unmet needs?

6. Are there national policies on the following? If so, attach examples.
– provision of emergent hospital technologies?
– preference for high-coverage or low-cost technologies?

7. What is the principal legislation governing the roles of hospitals?

8. Are there any large differences between what the legislation requires and what actually happens? If so, what is the nature of these differences?

B Patient admissions and discharges

1. Can patients turn directly to hospitals, bypassing the GP or clinic level:
– as outpatients?
– as inpatients?

2. Is a “gatekeeper” system of some kind in operation? For example:
– a bank of GPs who refer patients to the hospitals?
– referral by local clinics?
– any other referral system?

3. Are patients referred from one hospital to another? For example, from District to Specialty or Regional?

4. Do hospitals control ambulances or other vehicles to transport patients to and from hospitals:
– from accidents?
– for emergencies?
– for non-emergencies?

5. Are there any significant access problems? If yes, what are they? (as a result, for example, of remoteness, financial charges, excluded groups or conditions, combat zones, etc.)

6. Are there any links between the hospitals and social service departments? (Social service departments are agencies providing services that are non-medical but closely related, such as supporting services for people who are elderly or physically or mentally handicapped.) If yes:
– how commonly do these services refer patients to hospitals?
– how commonly are patients referred back to them on discharge?

C Organization
1. Who is responsible for overall policy and management at the hospital level?
2. Is there a charter, constitution or other governing document?
3. Is there a written or unwritten mission statement (including goals)? Are there established ways of reviewing these goals and assessing their performance?
4. What strategic planning and development processes are in place for the system as a whole, or a major part of it, or individual hospitals? How effective are these processes?
5. Are there covenants (restrictive or otherwise) that qualify some or all mission statements?
6. Is there a guarantor who guarantees continuation of the hospitals in the short term, medium term and long term?
7. Does anybody share in the financial surpluses of any hospital? For example, through dividends or management bonuses?
8. What is the role of the national, provincial or local government in the overall management of the hospitals?
9. What involvement does the local community typically have in the governance of its local hospital?

D Services
1. At the District (first referral) level of hospital, what services are typically provided? On what functional basis is the hospital organized for day-to-day functioning?
2. How does this differ for more complex hospitals at the Specialty, Regional or University levels?
3. Do the hospital departments act as independent business units?
4. How is interaction between departments governed?
5. How are cases of complex interventions coordinated when a patient needs concurrently the skills of several different clinical services or departments? Are there formal coordinating mechanisms or are the arrangements on an ad hoc basis?
6. How are clinical support units (e.g. blood banks) linked to general departments?
7. How is the performance of each department assessed?
8. Are there incentive systems to reward good performance? If so, what form do the incentives take?

E Human resources management
(a) General
1. Does the hospital typically have an organizational chart? If so, attach examples.
2. Does the organizational chart state clearly the various positions in the hospital?
3. Does the organizational chart detail the reporting scheme from the most junior position, leading to the top management in the hospital?

4. Are written job descriptions, person specifications and skills requirements available for all positions within the hospitals?

5. Does the documentation in 4 above, in the form of manuals or other documents, account for all activities in the hospitals?

6. Are these job descriptions and other such documents accurate and clear?

7. How does a new staff member in the hospital learn about his or her job description?

8. If job descriptions are not available, how do the employees know what is expected of them?

9. Are there clearly defined academic, professional and skills requirements for each position in the organizational chart?

10. How are relations between the clinical, ancillary and administrative departments governed?

11. Is there a mechanism to resolve disputes between these departments?

12. Is there a staff union or other such organization to represent employees’ interests to the hospital’s management?

13. Is there an established mechanism to resolve disputes between staff and management?

14. Are there procedures to determine under what circumstances services will be outsourced?

15. Who decides on the training needs for staff in the hospitals?

16. What types of training are available in-house in the hospitals?

17. If training is outsourced, who decides on where such training services are obtained?

18. Is there a system of continuing education programme for staff of the hospitals?

19. Is there a system of allocating resources for training needs of staff in the hospitals?

20. Are there staff motivation programmes? If yes, describe the types of programmes.

(b) Medical and nursing

21. Who is responsible for assessing the level of medical and nursing staffing requirements in the hospitals?

22. Are criteria established for the qualifications required for medical and nursing staff at various levels in the hierarchy?

23. How are medical and nursing staff recruited? For example, through advertising, assignments by government agencies, recruitment fairs in medical and nursing colleges, etc.

24. Who appoints medical staff for hospitals? Are there regulations governing the appointment process?

25. What checks are carried out prior to appointment? For example, to confirm that applicants hold the qualifications that they claim.
26. What are the different types of contractual relationships with medical staff? For example, salaried employee, independent consultant paid on a fee-for-service basis, or independent consultant who admits his patients and uses the hospital infrastructure for patient treatment.

27. Is there an established career structure for medical and nursing staff?

28. Are there established procedures for medical and nursing staff assessments such as annual appraisals and/or periodic licensure? If yes, who makes the assessments?

29. Are there incentives for exceptional performance? If so, what form do these take?

30. How are issues dealt with that are linked to cultural and religious beliefs? For example, providing and staffing birth control and abortion services.

31. Are there established links with professional organizations that register medical and nursing staff?

(c) Other professional staff

32. What other services are provided at the hospitals? For example, dentistry, physiotherapy, podiatry, or counselling.

33. How are the needs for the relevant staff assessed?

34. Are there established guidelines for decisions on recruiting versus outsourcing these services?

35. Are there established criteria for utilizing services of these other professionals?

36. Is there an established career structure for these professionals?

37. Are there established procedures for assessment for these other staff, such as annual appraisals and/or periodic licensure?

38. Are there incentive schemes to reward exceptional performance for these staff?

39. Are there established links with professional organizations connected with these other professions? Do these organizations hold registration details of those who are qualified to practise?

(d) Administrative and managerial

40. Are there clearly defined administrative and managerial positions within the hospitals? Are the holders normally medically qualified or not?

41. Are there established criteria for recruitment of administrative and managerial personnel at various levels?

42. Are there standard and recognized qualifications for administrative or managerial positions? At what level are these qualifications? For example, diploma, undergraduate or postgraduate.

43. Are there established procedures for performance assessment of administrative and managerial staff?

44. Are there established procedures for rewarding exceptional performance by administrative and managerial staff? If yes, provide details.

F Materials, equipment and supplies, and service contracts

1. Is there an established system for requisitioning purchases for the hospitals?
2. Is there a tendering process for purchases of large volume or high value?
3. Are there special tendering procedures for infrastructure projects? If yes, describe.
4. Is there an approved list of suppliers for goods and services?
5. Is there a policy on ordering and inventory levels for goods and services?
6. Is there a system of maintaining a critical inventory so as to avoid being out of stock?
7. Are there established technology assessment procedures for new and existing equipment and services?
8. Are there procedures for adequate and continuous maintenance of all hospital equipment and structures? For example, generators.
9. Is there a system to cope with the failure of critical equipment such as life-support machines?
10. Are there established material handling procedures with stated objectives? For example, minimum waste.
11. Are there special procedures for obtaining perishable goods? For example, blood products.
12. Are there established procedures to analyse the consumption of all large volume and high value goods and services in relation to the level of activity?
13. Are there established quality guidelines for procurement of goods and services?
14. Are there established procedures to deal with the disposal of hospital waste with due regard for environmental concerns?
15. Are there established procedures to safeguard target groups (patients, relatives and staff) from environmental risks emanating from hospital equipment and activities? For example, radiation, body fluids, sharps.
16. Are there established fire and safety procedures in respect of all hospital activities, equipment and property?

G Finances

(a) General

1. Who is responsible for setting income, expenditure and cost targets for hospitals?
2. Is there an annual budgetary process for hospitals?
3. Who is responsible for preparing annual budgets? Who approves them?
4. Are there established procedures for consultation with operational departments within hospitals while drafting the budget? Is the budgetary process linked to departmental goals and objectives?
5. Is there a monthly review of actual revenues, expenditure and costs compared with budget? Does the review process include analysis of variations from budget and determination of appropriate remedial action where necessary?
6. Are financial targets and allocations related to priorities set by national or local authorities?
7. What incentives are there to do better than budget? For example, can any net surplus be retained by the hospitals?
8. What sanctions are there against poor financial performance?
9. How is capital expenditure budgeted and financed?
10. Can the hospitals borrow? If so, from whom?

(b) Revenues

11. What are the sources of revenue for the hospitals? If there are multiple sources, specify the approximate percentage that each represents for the hospital system as a whole, based on the financial statements for the last full year. For example:
   - central (Federal) government
   - regional/provincial government
   - public insurance funds
   - private insurance funds
   - grants and donations from charitable trusts and organizations
   - patient co-payments
   - revenue from ancillary activities
   - capitation
   - other (specify).

12. What are the methods of receiving revenues? For example:
   - block grants from governments
   - revenue based on the hospital’s global budget
   - revenue based on specific services and volumes provided
   - revenue based on fees for services, paid directly by patients
   - statutory patient co-payments for medical treatment, pharmaceuticals, nursing care
   - revenue for providing ancillary services
   - donations and bequests

13. Are there established procedures for reviewing the basis of revenue calculations from public sources?

14. Is there a method for resolving structural problems between a revenue providing authority and the hospitals? For example, is it a normal occurrence that governments run out of funds towards the end of their budget year and therefore cannot meet hospitals’ demands even for routine operational expenditure?

15. Is there an arbitration system to deal with any disagreements between hospitals and the revenue-providing authority for revenue assessments?

16. Do service contracts underwritten by insurance companies clearly specify the services that are covered?

17. Are there established procedures for periodically updating agreements with insurance funds? For example, in respect of new services provided, or charges for new and existing services.

18. Are there established procedures to ensure that invoices are raised for all services provided by hospitals, where applicable?

19. Are fees for different services provided established in advance and made known promptly to users?

20. Are there established credit control procedures in hospitals?

21. Are there established procedures to provide services free of charge to those who cannot afford to pay?

22. Are there established procedures to realize revenue for service provision to groups such as tourists or illegal immigrants?
(c) Costs

23. Are there established procedures for monitoring costs in relation to:
   – staffing levels?
   – hospital activity?
   – revenue generated?

24. Are there established procedures for conducting utilization reviews for all hospital activity?

25. Are there established procedures to ensure that all costs are:
   – properly incurred in provision of services to patients and other legitimate purposes?
   – properly authorized as laid down in the hospital procedures?
   – for goods and services actually received?

H Information management

1. Are there established procedures for identifying the information needs of the hospitals in relation to:
   – patients?
   – catchment population, epidemiology and needs?
   – medical, nursing and other members of the multidisciplinary team?
   – revenue-providing authorities?
   – regulatory authorities?

2. Are there established procedures to define data/information to be collected? Do these procedures try to use standard definitions applicable to the relevant setting?

3. Are there established procedures to plan, design and continuously update the information management system (including software, hardware and personnel) in keeping with information needs?

4. Are there standard procedures detailing how, when and where data/information are gathered and recorded? For example, is this the responsibility of a central statistical department or is it decentralized?

5. Are there established guidelines in converting data collected for management information purposes?

6. Are there established procedures to determine how, when, where and to whom information is reported/transmitted?

7. Are aggregated data (such as performance and service indicators) made available to the public?

8. Are there established procedures to determine to what extent information provided is used in management decision-making and assessment processes?

9. Are standard procedures established to develop, gather, review and maintain medical records?

10. Are there established procedures to ensure confidentiality of data and information available in the hospital system?

11. Is there a system of aggregating data from medical records for clinical decision-making purposes?

12. Is telemedicine playing any significant role? If so, in what ways?
I Quality assessment and accreditation

1. Are hospitals required to develop and implement quality assurance programmes? If so, who requires them to do so?

2. Do hospitals typically have quality assurance programmes (either established or being developed)?

3. Do the quality assurance programmes define targets and are these achievable?

4. Do the quality assurance programmes identify the departments and persons responsible for achieving the defined targets?

5. Do the quality assurance programmes assist health-care professionals to assess and improve their performance?

6. Are there established procedures within quality assurance programmes to identify the training needs of health-care and other professionals?

7. Do the quality assurance programmes assist hospitals to meet their social obligations to:
   - provide health-care services that are appropriate to the needs of the target population?
   - protect the population from care that is inappropriate, suboptimal or harmful (iatrogenic)?
   - reduce risks to patients and staff associated with the provision of health-care services?
   - act equitably by meeting the needs of different individuals and groups in an even-handed way?
   - provide health-care services that attempt to satisfy patients’ perceived needs?
   - make the best use of resources?
   - provide education and training for health-care professionals?
   - assure the public that money is being spent in the best way?

8. Are there established procedures to identify shortcomings in existing health service provision?

9. Do the authorities have procedures for a multidimensional analysis for all identified shortcomings and a method of recommending appropriate improvements?

10. Are there established methods to communicate new procedures (clinical and other) to relevant departments?

11. Are there established procedures to assess new therapies before they are introduced in order to ensure patient safety and value for money and to promote equity?

12. Are there systems of external review for existing systems and procedures?

13. Are there established systems to refer the recommendations from external review to an expert technology assessment team?

14. Are there established procedures to assess continually the financial implications of quality assurance programmes?

15. Are there established procedures to consult with the appropriate population groups, or their representatives, before introducing quality assurance programmes?

16. Are consistent approaches adopted, through the use of clinical guidelines and/or critical clinical pathways, to diagnose and manage individual patients suffering from common and/or serious diseases? If so, which diseases?
17. Is there a hospital accreditation system? If so, is it compulsory or voluntary?
18. What proportion of hospitals is accredited or in the programme?
19. What (if any) are the problems identified by accreditation surveyors that suggest common shortcomings in the hospital system?
20. Is there a recognized system of assessing patient satisfaction? If so, what are the findings?
21. Are research proposals subjected to scrutiny on ethical grounds?

J Equity

1. Are hospital resource allocation policies regularly reviewed in order to improve equity and effectiveness of funding in relation to population and health needs?
2. Are there procedures to provide access to groups who would otherwise be prevented from using hospital services because of financial reasons, language barriers, etc?
3. Is there an information system to gather epidemiological statistics for different groups of population such as poor people, ethnic and religious minorities, etc.? If so, what do these statistics show about their needs?
4. Is there a system of ensuring adequate funding in hospitals and other healthcare settings for diseases particular to vulnerable population groups such as poor people, ethnic and religious minorities, etc?
APPENDIX B

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Principal investigators

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Hospitals are central to health systems development. Hospital sector reforms, and changes in hospital policies and practices, have enormous impact on health care and health systems at large, and being embedded in a broad complex environment, hospitals have to constantly adapt to changing circumstances within and beyond health systems. Factors influencing hospital development are going to continue to change, and policy makers, managers and other health care professionals should focus their special attention on hospitals rethinking their future roles, functions, organization and configuration to be ready to anticipate and respond to those changes.

This document is the report of the global study undertaken by WHO and the International Hospital Federation, involving 20 countries of all six WHO Regions, to analyze the performance of hospitals under changing socioeconomic conditions. This analytical report looking at hospitals within the context of the broad health system, examines the current characteristics and activities of hospitals, their relationships with other parts of the health system, and various broad and specific factors that influence and shape the changing roles and functions of hospitals, and defines the key determinants of hospital performance as well as challenges and opportunities for their future development.

This report provides a significant contribution to the WHO work on health systems development and service delivery, and assists health authorities in WHO Member States in informed planning and implementation of adequate and contextualized reorganization and reform of hospital services.