Part Two deals with three specific approaches to making a difference for better health in the 21st century. Chapter 3 poses a major question confronting health policy-makers. Can they learn from the experiences of others, or in a systematic way from their own past, about what is likely to work – and what is likely to fail – in designing health reforms? Recent experiences suggest that the answer is yes. Chapter 3 draws selected experiences together in advocating a “new universalism” as a framework for guiding health system development to meet the challenges of the 21st century.

Chapters 4 and 5 deal with major conditions representing each element of the double burden of disease described in Chapter 2. Chapter 4 focuses on malaria, a major component of the unfinished agenda of diseases of the poor. To make a difference to malaria in the 21st century, the resources of industry, government, science, and ordinary people need to be engaged. WHO’s Roll Back Malaria project will combine leadership with knowledge, experience and resources to achieve major reductions in malaria morbidity and mortality in the early years of the next century.

Chapter 5 addresses tobacco, a risk factor accelerating the epidemic of noncommunicable diseases. Tobacco use will have become the biggest single cause of death by the time we enter the next century. Effective control strategies exist. Chapter 5 reviews those strategies and describes WHO’s Tobacco Free Initiative, which provides a source of legal, political and financial assistance for countries and organizations fighting to control the tobacco epidemic. As a central element of its work, the initiative will generate a knowledge base of national experiences and global data for all to use.

WHO itself is changing, to focus better on the challenges of the next century. Chapter 6 summarizes the challenges and identifies areas of focus where WHO’s limited resources can make the greatest difference.
In the early 1990s the world devoted about 9% of its total product to the health sector (1). This massive commitment of resources responds to the diversity of health challenges resulting from the demographic and epidemiological transition. Chapter 2 delineated the potential that health systems now have for markedly reducing the huge amount of excess disease that the poor and disadvantaged suffer. This burden is concentrated in a very limited number of conditions, and Chapter 2 indicated how health systems could – and should – address those conditions, for which effective tools already exist. In sharp contrast to the focus that health systems can bring to the particular problems of the poor they must also anticipate and respond to a bewildering variety of diseases and injuries. The tenth revision of the International Classification of Diseases runs to over two thousand pages (2). Although some of these conditions occur more frequently than others, health systems must have the financial means, organizational structures and procedures to respond flexibly and efficiently to this diversity.

The development of science-based, organized health systems is relatively recent, and very much in progress. Box 3.1 highlights some 20th century milestones in the development of health systems. Most countries have no single health system, but several distinct health financing and provision sub-systems, embracing different types of traditional or alternative practice, as well as public, private and not-for-profit hospitals and clinics, sometimes offering services for limited population sub-groups, such as civil servants.

Health systems in some countries perform well. Others perform poorly. An accumulation of applied research efforts and practical experience now suggests some reasons for these differences. Countries differ, of course, and lessons that are useful to one country may have little value to others. Furthermore, evidence about what has worked – and what has not – constitutes only one of several factors influencing the decisions that shape health systems. That said, for many government officials, as for many clinicians, evidence does matter. But clearly, for national purposes, only national officials can judge the relevance and political feasibility of using evidence generated from other countries and other times.

This chapter attempts, very briefly, to summarize evidence being accumulated concerning a few key questions on health system finance and development. A more detailed analysis and comparison of health system performance and policies will be the subject of The world health report 2000. In the meantime, WHO is being strengthened in several ways to ensure that the Organization’s support for health systems development is effective. A new Global Programme on Evidence for Health Policy has been established to improve and expand the knowledge base in key areas of epidemiology and disease burden measure-
ment, assessment of service quality and cost-effectiveness, and comparative analysis of financing, organizational, regulatory and legislative options. A regrouping of programmes in headquarters in the cluster on Health Systems and Community Health ensures that priority interventions, such as the Integrated Management of Childhood Illness (IMCI), and health systems strengthening work together in WHO’s technical support to countries.

Priorities such as Roll Back Malaria and the Tobacco Free Initiative are strongly oriented to health systems strengthening. And a time-limited Cabinet project, entitled Partnerships for Health Sector Development, has been created to change the way that WHO works on health sector-wide development with national and international development agencies, within and beyond the United Nations system.

Before turning to the evidence, it is worth listing the goals of health systems – as WHO sees them. Goals can be phrased in many ways, and each goal may have different relevance in different contexts. Yet the following core list of goals for health system development is likely to elicit broad agreement:

- improving health status;
- reducing health inequalities;
- enhancing responsiveness to legitimate expectations;
- increasing efficiency;
- protecting individuals, families and communities from financial loss;

Box 3.1  Reports that have changed health systems

The three reports described below, although directed to national policy-makers, have had a profound influence on health systems throughout the world. The Alma-Ata Declaration, however, provided the first international model of a health system that would assure universal access.

The background to the Flexner Report (USA, 1910) was growing concern at proliferating, low-standard medical training programmes in North America. Based on a detailed assessment of medical schools in each state of the USA and province of Canada, Flexner examined the physical facilities and equipment, curriculum, financial situation, faculty qualifications and admission requirements of the great majority of medical schools. Only a tiny minority of institutions were found to be teaching a scientifically based curriculum in facilities with a hospital connection, appropriate conditions and equipment, to men and women with an adequate educational background. His report was influential in the establishment of national admission standards requiring four years of post-secondary education, and the adoption of a four-year, science-based curriculum.

The Dawson Report (UK, 1920) designed a system of district health services based on general practitioners and health centres, with referral for difficult cases through first and second level health centres to teaching hospitals. Dawson’s vision was to take the entire population of an area as the basis for planning: the system he proposed was a marked improvement over the haphazard mixture of personal medical care and institutional care for the sick, homeless, handicapped and poor which characterized Britain at the beginning of the 20th century. Although Dawson’s recommendations were not directly implemented on any scale, his thinking influenced the development of local health systems for the remainder of the century.

The Beveridge Report (UK, 1942) provided the rationale and blueprint for Britain’s post-war welfare state, weaving the separate fragments of public and charitable welfare programmes into a modern, universal system of social protection, based on a pooling of risk among the entire population. Beveridge outlined how the fragmentary and often archaic British system of charitable and public welfare benefits could be pulled together to allow the country to tackle “Want, Disease, Ignorance, Squalor and Idleness, the five giant evils on the road to reconstruction”. Although health was only one area of Beveridge’s concern, and the report made no detailed recommendations about how a national health service should be run, it nevertheless laid the foundations of the British National Health Service, which came into being in 1948. Both Beveridge’s ideas about compulsory social insurance and the subsequent (tax-funded) National Health Service have influenced other countries’ health and social welfare systems.

The Alma-Ata Declaration (1978) emerged from the International Conference on Primary Health Care. Motivated by gross inequality in health status within and between countries, and arguing that health is essential to social and economic development, the Declaration identifies primary health care as the key to the attainment by the year 2000, by all people, of a level of health that will permit them to lead a socially and economically productive life. The Declaration identifies the essential elements and intersectoral nature of primary health care. All WHO Member States became signatories. Alma-Ata gave global impetus to the insight and vision of the three previous reports.

Sources:
• enhancing fairness in the financing and delivery of health care.

This chapter also considers the following questions. How can the limits to government involvement and government finance be recognized, and how can choices be made that best achieve the right balance between systemic goals while recognizing budgetary and other limits? What incentives for providers of care will constrain cost escalation while motivating compassionate service of high quality? Independently of sources of finance, what are reasonable roles for private and public providers of care to play? How can research and development to underpin continued health improvement globally be sustained in a context where most health finance is national? Finally, and most important, what is the role of government in financing health services? Analytic and empirical work provides no specific answers to these questions but, rather, assembles the evidence on consequences resulting from the choices made in different countries at different times. The accumulated evidence may, in some cases, suggest that certain policies have worked well, while others have worked poorly.

Where, to anticipate the findings of the chapter, do the values of WHO lead when combined with the available evidence? They lead away from a form of universalism that has governments attempting to provide and finance everything for everybody. This “classical” universalism, although seldom advanced in extreme form, shaped the formation of many European health systems. It achieved important successes. But classical universalism fails to recognize both resource limits and the limits of government.

The findings also lead away from market-oriented approaches that ration health services according to the ability to pay. Not only do market-oriented approaches to finance lead to intolerable inequity with respect to a fundamental human right, but growing bodies of theory and evidence indicate them to be inefficient as well. Market mechanisms have enormous utility in many sectors and have underpinned rapid economic growth for over a century in Europe and elsewhere. But the very countries that have relied heavily on market mechanisms to achieve the high incomes they enjoy today are the same countries that rely most heavily on governments to finance their health services. Therein lies a lesson. Health is an important component of national welfare. Achieving high health outcomes requires a combination of universal entitlement and tight control over expenditure.

This report advocates a “new universalism” that recognizes governments’ limits but retains government responsibility for the leadership and finance of health systems. The new universalism welcomes diversity and, subject to appropriate guidelines, competition in the provision of services. At the same time it recognizes that if services are to be provided for all then not all services can be provided. The most cost-effective services in a given setting should be provided first. The new universalism recognizes private providers as an important source of care in many countries; welcomes private sector involvement in supplying service providers with drugs and equipment; and it encourages increased public and private investment in generating the new drugs, equipment and vaccines that will underpin long-term improvements in health.

Achieving Greater Efficiency

Efficiency concepts in health systems apply at several different levels. “Macroeconomic efficiency” (3) refers to the total costs of health care in relation to aggregate measures of health status. Countries spend very different amounts of national resources on health, allocate those resources in very different ways, and achieve very different health outcomes in terms of health status, access or satisfaction. Some of those outcome differences point to
differences in health system efficiency. China’s performance (relative to national income) in reducing infant mortality fell sharply between the late 1970s and 1992, when incomes were rising but the rural medical system was deteriorating. Figure 3.1 illustrates this trend with data drawn from Annex Table 5. Comparative work in Latin America suggests that a given level of health expenditure contributes positively to reductions in under-5 mortality if it is from public sources, negatively if from private (4).

Some governments have traditionally regarded health spending by the public sector as a pure consumption expenditure, and have wanted to minimize it. This is often the perspective of ministries of finance. Yet in many poor countries total health spending from all sources is very low – less than 2% of GDP in Cameroon, Indonesia, Nigeria, Sri Lanka and Sudan, for example – meaning that even the most inexpensive and effective health measures cannot be made available to the whole population. Even in Zambia, where over 3% of GDP is allocated to health, the public per capita spending (government and external assistance) is only about half of the $12 suggested by the World Bank as necessary to fund the cost of a basic package of preventive and curative interventions. The reality is that allocating an inadequate share of resources to health, from both public and private sources, perpetuates the cycle of poverty. Increased public financial support for cost-effective and equitable health services is overdue in many countries.

In middle and upper income countries, health financing policy is frequently driven by the need to increase coordination, reduce fragmentation and exert better control over total health care costs. Countries in this group are often worried that their level of health spending will threaten economic growth and competitiveness by making their labour force, and therefore goods and services, more expensive. Argentina, France, Germany, Switzerland and the USA, for example, are all spending in excess of 9% of GDP on health, and in the USA the figure has risen to 14%. While spending much more than 9% of GDP may indicate macroeconomic inefficiency, countries spending less than 2% are almost certainly investing too little in the health of their present and future population. Within this broad range there is no single economically efficient or “correct” level of funding.

“Microeconomic efficiency” refers to the scope for achieving greater efficiency from existing patterns of resource use. Wastage and inefficiency occur in all health systems. Allocative inefficiency occurs when resources are devoted to the wrong activities. Spending large amounts of the health budget on hospital-based care for children with measles is clearly an allocative inefficiency: those children should have been immunized. Well-prioritized and universally accessible service packages, of the sort discussed in Chapter 2, can make major gains in the allocative efficiency of health systems of both rich and poor countries.

Technical inefficiency occurs when too many resources are used to achieve a given health intervention or outcome. An imbalance between the installed capacity of a health system (its buildings, equipment and staff) and the recurrent resources needed for its proper functioning gives rise to a set of technical inefficiencies – with overstaffing and underemployment in relation to utilization levels becoming common, particularly at peripheral health facilities. Cost-effectiveness analysis is the key tool for guiding improvements in microeconomic efficiency.

Service quality falls when the required inputs (physical and human) are lacking, and when proper procedures are
not used. Common symptoms in the public sector are a lack of essential drugs, inaccessible health facilities or absent staff, non-functioning vehicles and equipment, and dilapidated premises. Where these symptoms occur, health outcomes suffer. People’s perceptions of the fairness and responsiveness of government also suffer. Comparable difficulties abound in the private sector. In the large and inadequately regulated private sector of low and middle income countries, health workers are often unqualified and diagnostic and prescribing practices are poor or even hazardous. Private sector treatment of tuberculosis, for example, often involves profitable but useless intervention while failing to achieve the high cure rates that have been attained in public facilities.

**Setting Priorities**

Even the wealthiest countries may not be able to provide entire populations with every intervention that has medical value. Priorities have to be debated, agreed and implemented, if universal access to affordable and effective health care is to be achieved. In most countries today, priorities are set in ways which exclude large numbers of people from access to organized care. Ability to pay appears increasingly to be the mechanism rationing access to care (5). WHO can make a major difference in helping governments to do better than this. An open and vigorous debate about how to set priorities in health has begun. Choosing public priorities, in terms of what governments will do and will not do, is how economic reality becomes an integral part of health system development and reform.

Explicit priority setting in health has taken several steps forward since the mid-1980s. National or regional guidelines have been debated, published and – to differing degrees – implemented in the Netherlands, New Zealand, Norway, Sweden and in Oregon, USA (6). Approaches differ. In Sweden, an explicit value base was proposed, of three principles in descending order of importance: human dignity regardless of personal characteristics and social functions; need and solidarity; and cost-effectiveness. Several categories of political and clinical priority were defined. In Oregon and the Netherlands, the value bases for priority setting were also explicit. They all differed.

In developing countries, the debate on priorities has often been led by international agencies. From the early 1950s to the 1980s, global public health initiatives tended to focus on a single disease at a time, such as malaria or diarrhoeal disease, and sometimes on a single intervention, such as DDT spraying or oral rehydration therapy. More recently, international advice has favoured grouped interventions, to achieve better outcomes and improve service quality. The Expanded Programme on Immunization groups vaccines aimed at preventing diphtheria, tetanus, pertussis, poliomyelitis, tuberculosis and measles.

The World development report 1993 (7) pushed forward debate on priority setting by introducing the notion of cost-effective intervention packages, tailored according to the public finance reality of each country. Numerous countries have designed such priority packages (8). Bangladesh, Colombia, Mexico and Zambia have begun implementation.

The clear definition of priorities facilitates planning, training, monitoring and supervision of services in districts, provided the necessary investments are made in capacity building at this level. When packages of services for the most common conditions have been developed, health facilities can be reorganized to ensure shorter waiting times, more efficient patient flow, more standardized dispensing of drugs and better communication with users of the services. In these ways, focused intervention priorities allow limited resources to have the greatest possible impact on service quality and health outcomes.

Focused approaches can reduce much of the excess disease burden of the poor, as illustrated in Chapter 2. Cost-effectiveness summarizes in a single measure the key scientific
and technical evidence on health-improving actions. But without participatory processes to engage and sustain national and local debate on health priorities, the scientific information base will remain peripheral to actual implementation of resource allocation procedures in countries. Priority-setting, the way to obtain working agreement on allocative efficiency, is here to stay.

**RE-THINKING INCENTIVES TO PROVIDERS**

Two further influences on efficiency and service quality are the way in which service providers are paid, and the role of budget or fund-holding agencies with respect to service providers.

The likely incentive effects of many ways in which hospitals, clinics or individual practitioners are paid have been well studied (9–11). Prospective payment methods (e.g. budgets, capitation) transfer financial risk for delivering services from budget or fund-holding institutions (e.g. village or community prepayment schemes or commercial health insurance funds) to providers. Retrospective payment methods (e.g. fee-for-service, case-based payment) reimburse providers for services rendered. It is clear from experiences in many countries at all income levels that pure fee-for-service methods (particularly those involving “third party” payment to providers) create incentives for overspending and inappropriate care. Without controls on utilization volume or quality of service, these systems are difficult to manage in the public interest and have created incentives for extravagant and wasteful care, through oversupply of medication, over-use of diagnostic services and excessive surgical intervention (12–14). Fee-for-service systems often create the wrong incentives for providers from a public policy perspective, and rapid but relatively unproductive growth in health expenditures (15). Better choices exist, ranging from sophisticated prepayment methods to fee-for-service supplemented by relatively simple administrative controls to limit cost escalation (e.g. review of prescribing patterns to ensure compliance with an essential drugs list). A major challenge for many countries is to ensure that poor quality and inefficient practice are not rewarded, whilst practice which is oriented to achieving health gain in populations is recognized in remuneration. Changing from fee-for-service to capitation in California, USA, for example, brought cost escalation there to a stop within a few years.

Prepayment means that fund-holding institutions are created: personal or family medical savings accounts, village or community schemes, private health insurance funds, health maintenance organizations, and of course public budgets for health. Many health funds have traditionally been passive financial intermediaries, failing to take full advantage of their financial power to promote changes in provider behaviour. In today’s environment, however, there is a widespread tendency to explore contracting arrangements between public purchasers and different types of providers. This extends, in many countries, to relations between different parts of the public sector, for example between central and local government health bodies. Competitive pressure has had a similar effect and has driven much of the “managed care” reform in the United States; it is worth noting that much of the introduction of competition was the result of efforts by state and local government to contain cost growth in services purchased for their own employees, for the elderly or for the poor.

In the health system reforms of New Zealand and the United Kingdom, and more recently in Kyrgyzstan and Zambia, the functional distinction between funding bodies and service providers has been formalized as a “purchaser–provider split”. For public hospitals, autonomy over financial and managerial decisions is being introduced or increased in many countries, with benchmarks agreed for performance monitoring. Many health insurers are
taking an active role in managing the provision of care to their beneficiaries. Budget allocations to district health managers in Ghana are now managed in much the same way as contracts, with prior agreement on performance indicators and the possibility of rewards or penalties in subsequent budget allocations. These experiences reflect the same trend: a more active use of the purchasing power of fund-holding agencies to control costs and improve the quality of services provided.

Payment incentives are not the only component of a more active purchasing role by insurers or public budget-holding bodies. Other elements in active purchasing include: primary care gatekeeping to improve the efficiency of the referral process; the maintenance of provider profiles so that the purchasing agent can more actively monitor individual provider behaviour; contracting with selected providers who meet defined quality and cost criteria; utilization review and quality assurance activities to reduce inappropriate care and improve quality; and the development of standard treatment protocols, such as in prescribing or adherence to national essential drugs lists (16).

Direct comparison between public and private providers of the same services, whether these are clinical or support services, opens the way for publicly managed competition between a wide array of possible providers. Competition for the delivery of health care to populations is an important means of empowering consumers vis-à-vis providers, so long as there is a well-informed and capable purchaser acting on behalf of consumers, using its financial power to induce changes in provider behaviour that improve the quality and efficiency of care for the population to which the purchaser is accountable.

Few ministries of health or public providers use mechanisms for assessing people’s preferences or satisfaction with the way health services are provided. Such unresponsiveness has been part of the environment in which private provision has flourished. Private providers have often ensured that their office locations and opening times are convenient for people. Greater accountability by the public sector requires much more concern with the way people are treated by health workers, both clinically and socially.

Clear policy guidance needs to be supported by an enabling set of institutions, which offer the appropriate incentives. But there must be discretion in the interpretation of general policy guidelines to meet local circumstances and an informed, consultative and accountable chain of command, from the peripheral clinic or health post to the minister’s office. Achieving such a system often requires far-reaching change from the health system models in many countries, where the public sector is typically subject to centralized control, while the private sector is virtually unsupervised.

**Renewing Progress Towards Universal Coverage**

A clear historical lesson emerges from health systems development in the 20th century: spontaneous, unmanaged growth in any country’s health system cannot be relied upon to ensure that the greatest health needs are met (17,18). Public intervention is necessary to achieve universal access. In any country, the greatest burden of ill-health and the biggest risk of avoidable morbidity or mortality are borne by the poor. While progress towards universal access to health care of an acceptable quality has been substantial in this century (as illustrated by global immunization coverage, see Figure 3.2), the distribution of services in most countries of the world remains highly skewed in favour of the better-off. While the equity arguments for universal public finance are widely accepted, what is less well known is that this approach achieves greater efficiency as well.
Figure 3.3 illustrates how different types of financing schemes and provider payment systems distribute the risk of health care costs differently. In the simplest payment schemes (bottom left segment), the patient pays the doctor’s full costs directly, out of pocket, when he or she is ill and needs care. This is a “first party” payment system: the entire burden of risk for the financial consequences of sickness is borne by the individual and possibly by his or her family. There is little or no spreading of risks among the population. This type of arrangement probably characterizes most primary health care transactions in poor countries today, especially for care provided by so-called “traditional” practitioners.

Family, kinship-based and other forms of voluntary risk sharing (moving clockwise from the lower left) mean that risks are being shared among larger groups. Some insurance funds may pay providers directly, usually reimbursing them according to an agreed schedule of charges. The element of pre-payment is an indicator of the locus of risk shifting from the individual to the group or fund. Towards the apex of the figure are systems which pool risks among large populations – to the left of the apex are systems in which private insurers manage funds on behalf of large groups of people and reimburse providers accordingly, and to the right are general tax-funded national health systems and payroll tax-funded social health insurance systems. Most health services are paid for from one of these large funds which are “third party” payers. A wide range of options for the payment of providers exists within this spectrum of organizational arrangements. Combinations of payment methods are increasingly common. Financial risk rests with the third party (the health fund or budget-holder), though a variety of mechanisms may ensure that the patient also contributes or that some of the risk is transferred to providers, either individually or in groups.

Movement down the right segment increasingly involves the provider of care as a “second party” in sharing the risks of health care costs. When providers (hospitals or individual practitioners) manage the health needs of a population from a given budget, their own remuneration may fluctuate according to the type and level of care they provide. In this way providers become stakeholders in the active management of the health risks and needs of a population.
HEALTH CARE COVERAGE

The two decades since the Alma-Ata Declaration have not seen the realization of the wished-for rapid and sustained progress towards universally accessible basic health care. The global picture is very uneven, with many countries dismantling their social protection mechanisms in health rather than expanding them. Major shifts in the 1990s in formerly socialist countries towards market economies have often been accompanied by a widespread movement of the health workforce into private practice, particularly in urban areas. In the decades up to the 1980s, many socialist countries had established universally accessible health care systems. Although these may have been inefficient, bureaucratic and unresponsive to patients’ needs, basic care and, in many cases, secondary and tertiary care as well, was effectively prepaid and available to almost the entire population for little or no payment at the time of need. Most people in these countries have found that they have now to pay more – officially or unofficially – for their health care, and access to care is increasingly reflecting the ability to pay. In just a decade, China dismantled its Rural Cooperative Medical System, built up from the 1950s to provide health insurance protection for the great majority, and in the 1980s made some four-fifths of the total population uninsured, in other words fully responsible for their own health care costs. Figure 3.4 summarizes this fall in coverage, and the dramatic decrease in protection of the rural population. In sub-Saharan Africa, user fees for health care have been instituted or increased in the great majority of countries (19). Frequently, these policies missed opportunities to use fee revenues to improve the quality and availability of services. Attendance rates, particularly at public primary health facilities, are often already very low, indicating that most people now prefer to use traditional or private sector providers of primary care.

The industrialized countries have largely preserved their systems of near-universally accessible and prepaid health care, sometimes (as in Canada, New Zealand and the United Kingdom) implementing major organizational reform programmes. However, the fraction of the population under age 65 without private or public insurance protection in the United States has continued to grow, from nearly 15% in 1987 to nearly 18% in 1996 (20). And other countries have begun to shift payment responsibilities for long term care directly onto patients and their families. Inequality in health outcomes between the poorest and best-off groups have widened in many industrialized countries. Yet some countries have made real progress towards universal coverage. The Republic of Korea implemented uni-
universal health insurance in 1989, during a long period of rapid economic growth. In 1993, Egypt extended health insurance protection to cover schoolchildren, increasing coverage from 4.9 million to over 20 million people. Many countries have nascent social insurance schemes.

**Policy choices**

Some, but by no means all, health policy choices involve trade-offs among the goals set out at the beginning of this chapter. As China’s and Sri Lanka’s experience in the 1950s and 1960s has shown, in situations of great poverty it is possible to make dramatic improvements in equitable access to care and simultaneously to bring about major improvements in health outcomes, while still keeping total public spending on health at modest levels.

Box 3.2  Macroeconomic and health benefits of universal mandatory health insurance: the Canadian experience

In the mid-1960s most of Canada’s population had private health insurance protection provided through employers, although a substantial minority remained uninsured. This situation resembles that in the USA today. National Health Insurance (NHI) was phased in to each of Canada’s provinces at different times between 1962 and 1971, thus creating a large-scale natural experiment. Recent analytical work comparing Canadian provinces with NHI to those with private insurance has allowed both the health and economic effects of the change to be identified and measured.

A substantial change in health care use occurred rapidly after the introduction of NHI, but little evidence was found of increased total consumption of health care: what happened was a redistribution of health resources towards more preventive care and better access for the poor. Implementation of NHI clearly improved infant health outcomes: infant mortality declined by 4% and the incidence of low birth weight declined by 1.3% for the total population (and by 8.9% for single parents).

NHI was financed for the most part by increased payroll taxes, which would be thought likely by many economists to reduce both employment levels and wages. However, Canadian provinces implementing NHI experienced an increase of over 2% in employment and of 3–4% in wages, with no change in the average number of hours worked. The authors of the study suggest that workforce productivity improved with NHI either because of greater job mobility or better health (and lower absenteeism), or both.

These results, though based on one country only, provide important empirical insights into contradictory predictions from economic theory. Standard theories of labour market behaviour predict that publicly financed health insurance, by increasing taxation, will drive down total employment and wage levels. On the other hand, theoretical analyses of markets for health services and for health insurance conclude that free markets in these areas may lead to great inefficiency. The data from Canada provide clear evidence suggesting that NHI can create a “win-win” situation, where both health and the economic conditions of the labour force improve. For many low and middle income countries considering alternative policy directions, this provides evidence that efficiency considerations join equity ones in favouring mandatory universal coverage.

Canada’s shift to national health insurance simultaneously achieved both better health and economic gains (see Box 3.2). Ensuring that poor people benefit from the promotive, preventive and curative interventions that are already available not only improves their access to health care, it substantially contributes to reducing the total burden of illness facing a region or a country. Opportunities now exist to make huge inroads into avoidable health problems, whilst cementing solidarity between different social strata.

To achieve this potential, the poorest and sickest people have to be reached by health promotion and prevention programmes, and they have to be able to get to clinics or health posts (private, public or nongovernment) where the right kind of treatment is available for common local, treatable conditions. And there must be no significant price barrier at the time poor people need services. Universal coverage means that, irrespective of the source of funds, the health care system functions like a national health insurance system, prepaid either through tax revenues or through employment-based social insurance, to ensure the largest possible pool of risks. There has to be a shift in the mentality of the system from funding the “needs” of the service delivery infrastructure to purchasing services according to the health care needs of the population. Instead of a series of independent and uncoordinated insurance and health financing schemes, each with its own beneficiaries, benefits and sometimes with its own set of health facilities and professionals, a national health insurance system means a merging of risk protection responsibilities into the largest possible pool, or coordination of the benefit packages financed from different funding sources, with the ultimate aim of funding a comprehensive set of covered services from the resources of a single fund. A single fund for the pooling of risks allows for many options in the way incentives are set for individual providers of care, including the option of shifting risk to providers.

Figure 3.5 shows how risk pooling in health, and the share of public spending in total, increase as countries move away from out-of-pocket payment methods. Various institutional alternatives exist for achieving universal coverage. Recent comparative research, measuring equity in both the financing burden and the use of services by different income groups in countries, shows that the least organized and most inequitable way of paying for health care is on an out-of-pocket basis; people pay for their medical care when they need and use it. The financing burden falls disproportionately on the poorest (who face higher health care costs than the better-off), and the financial barrier means that use of services is lower among the lower income groups, in spite of their need being typically higher (21).

The market response to a user-fee based system is through the development of private insurance. Insurers see a profitable opportunity. People prepay through insurance premiums, so that they do not have to live with unpredictably large health care bills. This method of financing entails some pooling of risks among the insured, but creates access inequities between the insured, who will get preferential access to better care, and the non-insured. Experience with commercial health insurance markets shows that they are both unstable and difficult to regulate, with each insurer constantly adjusting the risk profile of the beneficiary group in order to ensure that revenues are greater than expenditures.

In countries with a substantial percentage of the population employed in the formal sector of the economy, a larger pooling of risks is possible through social insurance schemes,
where mainly employed people and their immediate families are compulsorily enrolled in health insurance, and where premium payments are related to each member’s income, rather than their actuarial risk of illness. In Costa Rica, Germany and Japan, and in other countries where formal employment levels are high, this method of risk pooling forms the basis of the national health insurance system. In both its financing and in the access to health care that it allows, this type of system is more equitable than the two systems described above. But this conclusion does not necessarily hold true in countries where only a small percentage of the population works in the formal sector.

Most equitable of all in terms of the way the health financing burden is shared, and in allowing equal access to care for people with comparable need, are risk pooling systems based on tax revenue financing, such as in Canada, Cuba, Denmark, New Zealand, Norway, Spain, Sweden and the United Kingdom. The risk pool is the entire resident population, and the insurance function against the costs of health care is implemented by government, funded by taxes which, in a progressive system, take a larger share of income from the rich than from the poor.

Figure 3.6 shows, in simplified way, the policy options open to countries in moving towards a higher level of prepayment for health. The vertical axis represents a strategy based on the growth of private voluntary insurance schemes, in which government takes only a supportive financing role. Switzerland and the United States are illustrated as examples of this approach. The horizontal axis represents strategies in which government takes responsibility for the development of a national prepaid system based on social insurance and public finance. France and Sweden figure as examples. The shaded area close to the origin reflects existing levels of out-of-pocket payment, and the large dot close to the horizontal axis represents a low income country. What does each strategy entail for a developing country? Moving vertically is the market-oriented route, which may be preferred by better-off members of the population, but will exacerbate inequities in access. Its regulation, and overall expenditure control, will be problematic. And where formal employment levels are low as a percentage of total – as in most low and middle income countries – the level of coverage through prepayment will remain low. Only in upper middle income countries, or in situations of exceptionally high and sustained growth (over many decades in Germany and Japan, though dramatically shorter periods in the Republic of Korea and Taiwan, China), when the employment structure shifts from rural self-employment to urban formal employment, have voluntary insurance schemes grown widely enough to become the basis for a national prepaid system. The alternative strategy, along the horizontal axis, is to build prepayment systems through a combination of social insurance and public finance. Almost all countries already have elements of both, but these are seldom linked as part of an explicit health policy. Developing a national strategy for prepayment requires re-thinking public finance for health into an integrated framework of finance for universal coverage. In this, employment-based, municipal or community-based health insurance schemes would be linked with public subsidies, and guidelines given for the development of population-based coverage to ensure both equity and allocative efficiency.
NEW UNIVERSALISM

To maximize the efficiency and equity gains, and create “win-win” situations in poorer countries with large burdens of illness, practical steps towards universal coverage need to be taken. There is no single blueprint available for replication by all countries. But a number of key design features for progress to a new universalism in health are now apparent.

- **Membership is defined to include the entire population, i.e. it is compulsory.**
  Whether this is by citizenship or residence, the purpose is to ensure that the population covered is defined inclusively.

- **Universal coverage means coverage for all, not coverage of everything.**
  The prepayment system, financed by government, corporations and better-off individuals, will reflect a country’s overall level of economic development. It will be a limited fund, not able to pay for all of those services that the population – and the health workforce – would like to see provided at no charge. Lower priority services, which will vary from one country to another, will only be available for payment. A benefit package has to be clearly defined in the light of the resources available and the cost of top priority health interventions, an assessment of the services and inputs for which individuals are able and willing to pay out of their own pockets, and the political feasibility of various choices.

- **Provider payment is not made by the patient at the time he or she uses the health service.**
  Health care always has to be paid for. But the way it is paid for makes a major difference to who gets care and to overall levels of health. Out-of-pocket payments penalize the cash poor: those who work outside the cash economy, or who have only seasonal or occasional cash income, or who are unemployed. Heavy reliance on out-of-pocket payment sets the wrong incentives for both users and providers, and results in an inequitable financing burden and barriers to access for the poorest. Prepayment allows a wide range of incentive-setting methods for the efficient purchasing of services.

- **Services may be offered by providers of all types.**
  Provided that health practices and health facilities meet certain quality standards and that they are subject to similar levels of managerial flexibility, their ownership status should not matter. A stronger purchaser setting standard rates of remuneration and enforcing a common set of quality and utilization regulations will enable the most efficient provider of services to flourish. Such arrangements will allow the very large numbers of private providers, who are essentially the first points of contact with the health system in many low-income countries, to be brought within a structured but pluralistic health care system, benefiting from its resources and subject to sanction and regulation by professional and public bodies.

Advice on health policy and financing from major global and regional development agencies is increasingly convergent and supportive of these messages (Box 3.3).

PROVIDING FOR THE FUTURE: THE ROLE OF RESEARCH AND DEVELOPMENT

Most discussions of health systems and health finance focus on delivering services. This is in some respects appropriate since only about 3% of health expenditures globally address the building of future capacity through research and development (R&D). Yet Chap-
ter 1 pointed to the generation and utilization of new knowledge as the dominant force underlying the 20th century revolution in health. Health systems therefore have a responsibility to provide for the generation of new knowledge.

Health R&D entails consequences for costs of health systems as well as for outcomes. A recent review (22) identified three established directions in R&D — a revolution in biotechnology, enhanced efficiency in new pharmaceuticals development, and improved knowledge of how individuals can control their own health — that could stabilize expenditures on ageing populations. Even today’s technologies, which often increase expenditure, may result in less than anticipated cost increases as populations become more elderly. This results from a steady decline in disability rates among the aged and reduced health care costs in the final years of life among the very old relative to the old. In the United States, for example, health care expenditures in the final two years before a death at age 67 exceed those before a death at age 90 by a factor of 3. These trends combine with probable cost-saving (and health-enhancing) products in today’s R&D pipeline to counter demographic pressures on health expenditures. Important among these products will be improved means for health promotion and delivery of preventive care (23).

A recent WHO report (24) points to critical gaps in knowledge and needs for products, as well as to the growing productivity or capacity of the research and development enterprise itself. It presents, in short, an agenda for action that is partially at the national level

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**Box 3.3 Public finance of health systems: converging views from development agencies**

Increasing agreement now replaces an early diversity of views from influential development agencies on health finance — both in terms of what should be done by governments and what should be avoided.

The importance of public finance for universal coverage was emphasized in the World Bank’s World Development Report 1993 – Investing in health, with its focus on “essential services” packages. Package content would reflect each country’s own preferences, but the World Bank observed that virtually all high income countries had achieved efficiency as well as equity objectives by including most services in their packages. The Inter-American Development Bank (IADB), in its 1996 report Economic and social progress in Latin America, likewise advocates government financing of clinical services for reasons of efficiency as well as equity. The World Bank’s 1997 Sector Strategy paper for health, nutrition and population puts the matter this way:

“The experience of most … countries suggests that governments must play a major role in health financing through regulations, mandates, and direct subsides. Although considerable private resources may be available, these resources are often wasted on ineffective care without effective government policies.”

These agencies convey reservations, on the other hand, about the viability of private health insurance and the utility of user fees for achieving efficient and equitable health care. Contrasting the insurance experience in Chile (encouragement of private insurers) with that of Colombia (obligatory and universal membership), the IADB comments on “opportunistic behaviour” of private insurers, resulting in the public sector becoming increasingly responsible for the high-risk, high-cost segment of the population. The Asian Development Bank urges the gradual expansion of social health insurance and a cautious approach to cost recovery. The World Bank’s 1997 paper states:

“Because of the cost and the pronounced market failure that occurs in private health insurance, this is not a viable option for risk pooling at the national level in low and middle income countries.” On user fees, the same paper asserts that to avoid the equity and efficiency problems associated with extensive reliance on user fees, governments must ensure that a large share of health finance derives from prepaid revenue sources.

A forum of African governments, nongovernmental organizations, bilateral and multilateral agencies recently agreed on a 15-point set of principles on cost-sharing in education and health in sub-Saharan Africa, of which the first begins: “cost-sharing in the form of user charges should be considered only after a thorough examination of other options for financing … other forms of government revenue are more effective, efficient and equitable.” It is important to note that these agencies’ arguments for public finance rely principally on failures of private markets to deal well with problems of incomplete information, information imbalances and risk. Arguments for public finance based on “externalities” (e.g. cure of an individual tuberculosis patient reduces transmission to others) or “public goods” (e.g. a radio spot warning against smoking that can be received by all) provide a much more limited rationale for public involvement in health finance.

Sources:
Global challenges demand, in some sense, a global response. All nations share the fruits of research and development. Even though each country may invest a relatively modest sum towards collective goals, the aggregate effort potentially benefits all substantially. Collective action is the economically rational approach to public goods such as research and development; here, responsibility for catalysing collective action lies principally in the hands of the global community. Far from overshadowing action at the national level, global efforts help both to make national research and development efforts more productive and to lead to a global result that exceeds the sum of national ones. Thus, among the many competing demands on the funds allocated to international assistance for health, those contributing to generation of the new knowledge, products and interventions that can be shared by all have special merit.

The World Bank, in two of its recent World development reports (25, 26), has also emphasized the importance of new knowledge for development, and that countries and the international system should collaborate in its generation.

One important step towards linking national health systems (and their research arms) into an international network has been the creation of the Global Forum for Health Research (Box 3.4). The Forum’s purposes included informed advocacy for reallocation of resources towards research and development, and improving the focus and efficiency of resources now being spent. The participation of national health systems in the generation of new knowledge provides dual benefits: it quickens the overall pace of advance, and it shortens the time it takes for results to be translated into practice. Hence the importance, in planning the financing and organization of health systems, of ensuring an adequate research and development base.

**Box 3.4 Investing in health research and development for the poor: the Global Forum for Health Research**

*Of the US$ 50–60 billion spent worldwide each year on health research by the private and public sectors combined, only 10% is devoted to the health problems of 90% of the world’s population. The 1996 WHO report, *Investing in health research and development* (24), recommended the creation of a Global Forum for Health Research to help to correct this so-called 10/90 gap. The Global Forum, established in 1997, aims at helping to bring together a wide range of partners, in the belief that adequate solutions to the present challenge of under-investment in health research and development for the poor will require multiple participation.*

*The Global Forum is an international nongovernmental foundation hosted by WHO in Geneva. Much of its work is designed to foster greater efficiency in the use of existing research and development resources by providing analyses that help researchers, product developers and funders to focus on the highest priorities. It actively supports the following initiatives.*

- **The Alliance for Health Policy and Systems Research** was created in response to concern that research in this area had been neglected in middle and low income countries.
- **The Global Tuberculosis Research Initiative** is being established to provide a coordinated response to the increasing global incidence of the disease, low uptake of the DOTS treatment strategy, increasing resistance to existing remedies, and the spread of tuberculosis related to the HIV/AIDS pandemic.
- **An Initiative for the Control of Cardiovascular Diseases (CVD)** in developing countries is being established as an outcome of recent studies, such as the World Bank-funded study by the US Institute of Medicine. This study predicts that in middle and low income countries there will be a rapid rise in the global CVD burden from 10% in 1990 to 15% in 2020. There is an urgent need to develop strategies and cost-effective interventions for dealing with this problem.
- **The Initiative on Health and Societies** plans to identify and study the key determinants of health outside the health sector, such as poverty, education, water and sanitation, and culture.
- **The Initiative on Prevention of Violence and Injuries** will contribute to a coordinated global response to the increasing problem of violence and injuries, which has hitherto been approached in a piecemeal way.
- **The Initiative on Domestic Violence against Women (including Child Abuse)** is being planned by a number of partners in response to the lack of studies on this increasing global problem. Domestic violence against women is widespread but the global disease burden is unknown.
- **The Public/Private Partnership against Malaria** aims to develop new antimalarial drugs in collaboration with the private sector.
To enable the whole population of even the richest country to have access to effective care of good quality, many choices have to be made. These choices concern health interventions, as well as the way these interventions are delivered through health systems. In both cases, choices should take account of research into effectiveness in order to ensure the development of an optimal strategy. An open and informed debate about priorities in health is also a necessary part of this strategy. Informing this debate is a critical task for research, and it is one being addressed by WHO’s new Global Programme on Evidence. Unless these choices are made by responsible authorities, nationally and locally, and their implementation is monitored, service provision always tends to favour the better-off groups, both in terms of where services are available and what services are offered. The objectives enumerated at the beginning of this chapter are more likely to be achieved when appropriate political and financial mechanisms complement performance data in making authorities accountable to the populations they are meant to serve. To select key interventions and to orient health services towards entire populations combines universalism with economic realism. This “new universalism” is an attainable goal for the early years of the next century.
REFERENCES