

Analyzing Changes in Health Financing Arrangements in High-Income Countries

A Comprehensive Framework Approach

Reinhard Busse, Jonas Schreyögg, and Christian Gericke

February 2007



Analyzing Changes in Health Financing Arrangements in High-Income Countries:

A Comprehensive Framework Approach

Reinhard Busse, Jonas Schreyögg, Christian Gericke

September 2006

Health, Nutrition and Population (HNP) Discussion Paper

This series is produced by the Health, Nutrition, and Population Family (HNP) of the World Bank's Human Development Network. The papers in this series aim to provide a vehicle for publishing preliminary and unpolished results on HNP topics to encourage discussion and debate. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. Citation and the use of material presented in this series should take into account this provisional character. For free copies of papers in this series please contact the individual author(s) whose name appears on the paper.

Enquiries about the series and submissions should be made directly to the Managing Editor, Nicole Klingen (nklingen@worldbank.org). Submissions should have been previously reviewed and cleared by the sponsoring department, which will bear the cost of publication. No additional reviews will be undertaken after submission. The sponsoring department and author(s) bear full responsibility for the quality of the technical contents and presentation of material in the series.

Since the material will be published as presented, authors should submit an electronic copy in a predefined format (available at www.worldbank.org/hnppublications on the Guide for Authors page). Drafts that do not meet minimum presentational standards may be returned to authors for more work before being accepted.

For information regarding this and other World Bank publications, please contact the HNP Advisory Services at healthpop@worldbank.org (email), 202-473-2256 (telephone), or 202-522-3234 (fax).

© 2007 The International Bank for Reconstruction and Development / The World Bank
1818 H Street, NW
Washington, DC 20433

All rights reserved.

Health, Nutrition and Population (HNP) Discussion Paper

Analyzing Changes in Health Financing Arrangements in High-Income Countries: A Comprehensive Framework Approach

Reinhard Busse^a Jonas Schreyögg^a Christian Gericke^a

^a Berlin University of Technology, Department of Health Care Management - WHO Collaborating Centre for Health Systems Research and Management, Berlin, Germany

The World Bank commissioned the paper for Health Financing Revisited out of the World Bank budget.

Abstract: This review is one in a series of analytic efforts designed to inform the policy debate related to health financing. The authors review evidence on health financing arrangements in high income countries as well as reforms over the last 30 years and to identify key policy lessons from this experience for low and middle income countries.

Methodology: The review is based on a conceptual framework of health financing “functions”. 25 high-income countries have been grouped for comparative evaluative purposes into three groups, based on the main mechanism of financing health care (social health insurance, taxes, private). Decisions on coverage and benefit entitlements as well as various functions of health care financing (i.e. collecting, pooling and purchasing) are described and analyzed.

Results: The pooling function is most essential in order to provide coverage to as many individuals as possible, thus reducing their financial risk being the principal aim of public health financing. Both SHI contributions and taxes are ways to collect resources, which are publicly administrated and flow into one or several public pools. Private health insurance, medical savings accounts and other forms of private resource collection can only be supplementary models for increasing universal coverage. The evolution of health financing schemes towards universal coverage was pretty similar in the included countries. Since it is difficult to attribute outcomes to certain financing mechanisms a best practice to design health financing arrangements – e.g. tax-based or SHI – cannot be defined.

Next to the precondition of economic growth, the most essential lessons are to initiate pilots for health insurance schemes on a voluntary and/or local basis, to foster the ability to administrate, to ensure political commitment to expand population coverage, to combine expansion of population coverage with risk-pooling and to ensure evaluation of products and services at each stage.

Keywords: social health insurance, health care benefits, resource collection, resource pooling

Disclaimer: The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

Correspondence Details: Professor Reinhard Busse, Berlin University of Technology, Department of Health Care Management - WHO Collaborating Centre for Health Systems Research and Management, EB 2, Strasse des 17. Juni 145, 10623 Berlin, Germany, Tel. +49 30 314-28420, Fax. +49 30 314-28433, mig@tu-berlin.de, <http://mig.tu-berlin.de>

Table of Contents

ACRONYMS AND ABBREVIATIONS	vii
ACKNOWLEDGEMENTS	ix
PREFACE	xi
PART I - COVERAGE DECISIONS AND BENEFIT ENTITLEMENTS	1
WHO IS “ENTITLED”?	1
<i>Social Health Insurance System Countries</i>	2
<i>Mainly Tax-Financed System Countries</i>	3
WHAT IS COVERED?	6
<i>Social Health Insurance System Countries</i>	6
<i>Mainly Tax-Financed Systems</i>	7
HOW MUCH OF HEALTH COSTS COME OUT OF POCKET?.....	8
SUMMARY	10
PART II - COLLECTION OF FUNDS	11
AMOUNTS COLLECTED	12
SOURCES OF FINANCING.....	12
FINANCING MECHANISMS	13
<i>Direct and Indirect taxes</i>	15
<i>Compulsory Social Health Insurance Contributions</i>	16
<i>Voluntary Insurance Premiums</i>	17
<i>Medical Savings Accounts</i>	18
<i>Out-of-pocket payments</i>	20
ORGANIZATIONS UNDERTAKING THE COLLECTION OF RESOURCES	21
SUMMARY	21
PART III - POOLING OF FUNDS	22
ALLOCATION OF RESOURCES FROM COLLECTING TO POOLING ORGANIZATIONS	22
ALLOCATION OF RESOURCES FROM POOLING TO PURCHASING ORGANIZATIONS	23
SUMMARY	26
PART IV - PURCHASING AND REMUNERATION OF PROVIDERS	27
MARKET STRUCTURE OF PURCHASING ORGANIZATIONS.....	27
THE ROLE OF THE PURCHASER	28
REMUNERATION OF PROVIDERS	30
SUMMARY	32
PART V - LESSONS LEARNED FOR COUNTRIES IN TRANSITION	33
MAIN REFORM TRENDS IN HIGH-INCOME COUNTRIES	33
LESSONS FOR LOW- AND MIDDLE-INCOME COUNTRIES	34
<i>Lesson 1. Facilitate steady economic growth</i>	35
<i>Lesson 2. Initiate pilots for voluntary health insurance</i>	35

<i>Lesson 3. Foster administrative ability.</i>	35
<i>Lesson 4. Ensure political commitment to expand population coverage.</i>	35
<i>Lesson 5. Combine expansion of population coverage with risk pooling.</i>	35
<i>Lesson 6. Ensure evaluation of products and services at each stage.</i>	36
REFERENCES	37

List of Boxes

Box 1. The Employee-Employer Split in Financing Health Care in SHI Countries	12
Box 2. The Transition from Social Health Insurance to Tax-Financing in Iceland and Spain	16
Box 3. Tax-Subsidization of Duplicate Private Health Insurance in Australia	18
Box 4. Health Financing with Medical Savings Accounts in Singapore.....	19
Box 5. Objective Allocation Criteria in New Zealand.....	22

List of Figures

Figure 1. Functions of Health Financing Systems	xii
Figure 2. The Three Dimensions of Coverage Decisions	1
Figure 3. Public Health Insurance Coverage in Countries without Universal Coverage, ..	4
Figure 4. The Collection Process by Financing Source, Financing Mechanism, and Collecting Organization.....	11
Figure 5. Revenues Derived from Taxes and from Social and Health Insurance.....	14
Figure 6. Countries with Changes of More than 5 Percent in Revenue from Tax Payments and from Social Health Insurance Contributions, 1975, 1992–2002, or Nearest Year (percentage of total health expenditure).....	15
Figure 7. Change in Out-of-pocket Payments, 1992 and 2002.....	21
Figure 8. Market Structures for Purchasing Organizations	27

List of Tables

Table 1. Country Groupings by Financing Mechanisms, 2002	xi
Table 2. Out-of-pocket Payments and Voluntary Health Insurance in Europe	9
Table 3. Risk Adjusters in Capitation Formulas for Resource Allocation in Social Health Insurance Systems	25
Table 4. Risk Adjusters in Capitation Formulas for Resource Allocation in Tax Financed Systems.....	25

Acronyms and Abbreviations

AWBZ	Exceptional Medical Expenses Act; long-term care insurance, Netherlands
DMP	Disease-management program
DRG	Diagnosis-related group
EHI	Government-managed health insurance, Japan
EMEA	European Medicines Evaluation Agency
FIA	Federal Insurance Authority, Germany
G-DRG	German-refined DRG
GP	General practitioner
MAP	Medical Aid Program, South Korea
MSA	Medical Savings Account
NHS	National Health Service
OECD	Organization for Economic Cooperation and Development
PCT	Primary Care Trust, United Kingdom
PFI	Private Finance Initiative, United Kingdom
RHA	Regional Health Authority, New Zealand
SHI	Social health insurance
TSI	Targeta Sanitaria Individual, Spain
VAT	Value added tax
VHI	Voluntary health insurance
WHO	World Health Organization
ZFW	Sickness Fund Act; statutory health insurance, Netherlands

Acknowledgements

The World Bank's Central Health Unit (HDNHE) commissioned this discussion paper to:

1. Summarize health financing reforms in high-income countries since 1975;
2. Identify and evaluate the key policy lessons from this experience for high-income countries; and
3. Extrapolate likely policy lessons for low- and middle-income countries.

We would like to thank the World Bank staff for supporting our work. In particular we are indebted to George Schieber, Mark Basset and two anonymous reviewers.

Preface

High-income countries are defined, for the purposes of this discussion paper, as having a per capita GDP of more than US\$16,000¹ in purchasing power parity.² The health financing arrangements and reforms of the 25 countries thus defined, grouped according to the main mechanism of financing health care (Table 1), are briefly described and analyzed. Where appropriate, the extent of private financing as a percentage of total health expenditure is also used for groupings.

Table 1. Country Groupings by Financing Mechanisms, 2002

<i>Mainly tax-financed systems</i>	<i>Systems financed mainly through social security contributions</i>	<i>Mixed systems, mainly private financing</i>
<i>High public share (> 70%):</i>		
Denmark Finland Iceland Ireland Italy New Zealand Norway Spain Sweden United Kingdom	Belgium France Germany Japan Luxembourg Netherlands	
<i>Relatively high private share (>30%):</i>		
Australia Canada Portugal	Austria Korea ^a Switzerland	Greece Singapore United States
10 + 3 = 13 countries	6 + 3 = 9 countries	3 countries

a. Strictly speaking, private expenditure still constitutes most of the total but Korea has been grouped here due to the predominance of social security mechanisms throughout the health care system.

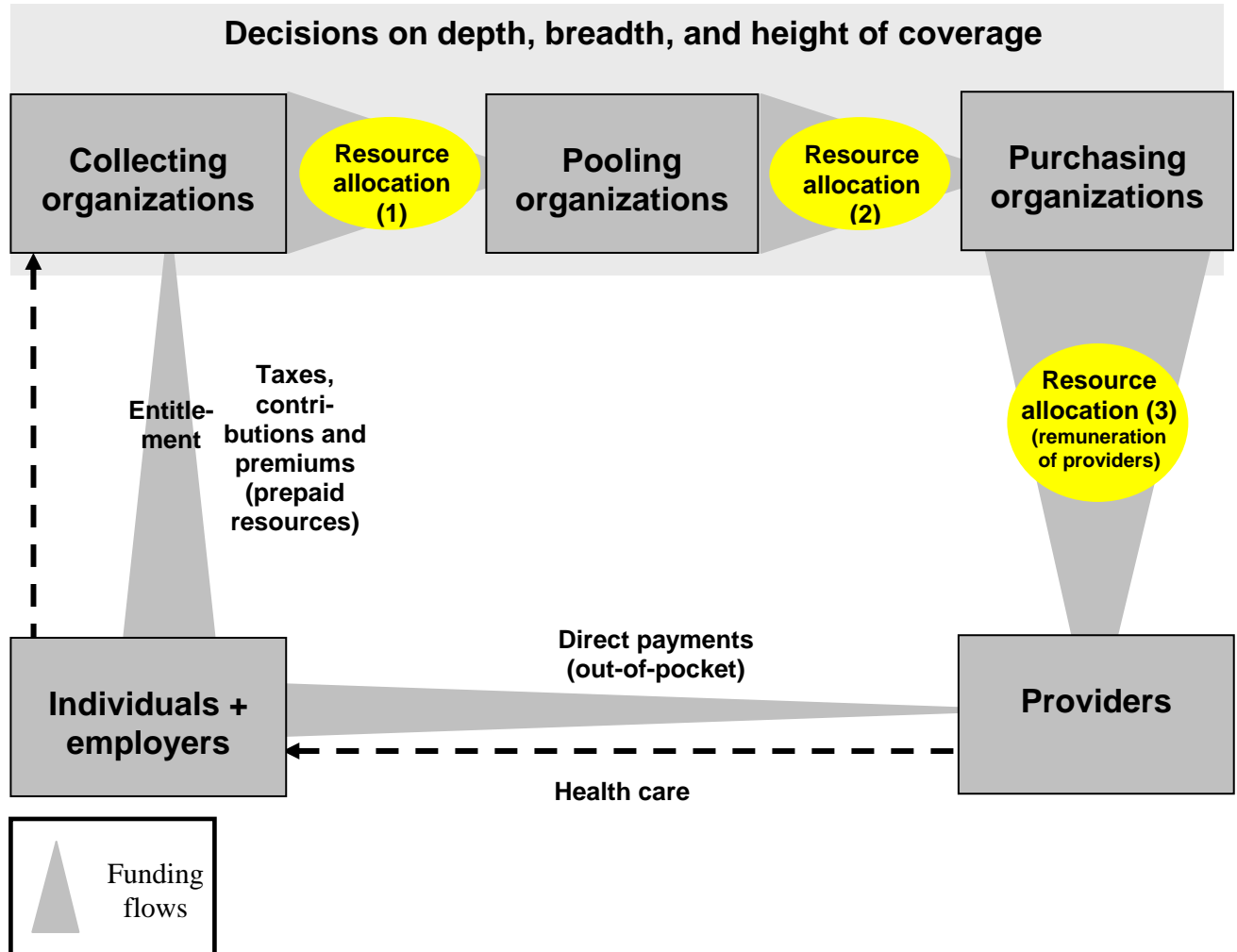
To structure and analyze the various issues important in the health financing process, the following conceptual framework is used. It integrates the functions depicted in Figure 1 and makes explicit the interactions of those functions in order to facilitate a comprehensive understanding of systems instead of focusing narrowly on individual reform instruments. The generic character of the framework, which attempts to integrate characteristics of health financing schemes in the selected high-income countries, can also be applied to low- and middle-income countries. It differentiates the health financing process into the functions of collecting revenue, pooling funds, and purchasing services.

¹ All dollars in this report are U.S. dollars.

² This definition encompasses all established market economies within the Organization for Economic Cooperation and Development (OECD, without Turkey, Mexico, and the Central and East European countries) plus Singapore. Of these 25 countries, 18 are in Europe (the European Economic Area, i.e., the 15 European Union (EU) countries plus Iceland, Norway, and Switzerland), 2 in North America, and 5 in the Asia-Pacific region (Japan, Korea, Singapore, Australia, New Zealand).

Before these functions can take place, decisions on coverage and benefit entitlements (depth, breadth and height) have to be made. These decisions are discussed first.

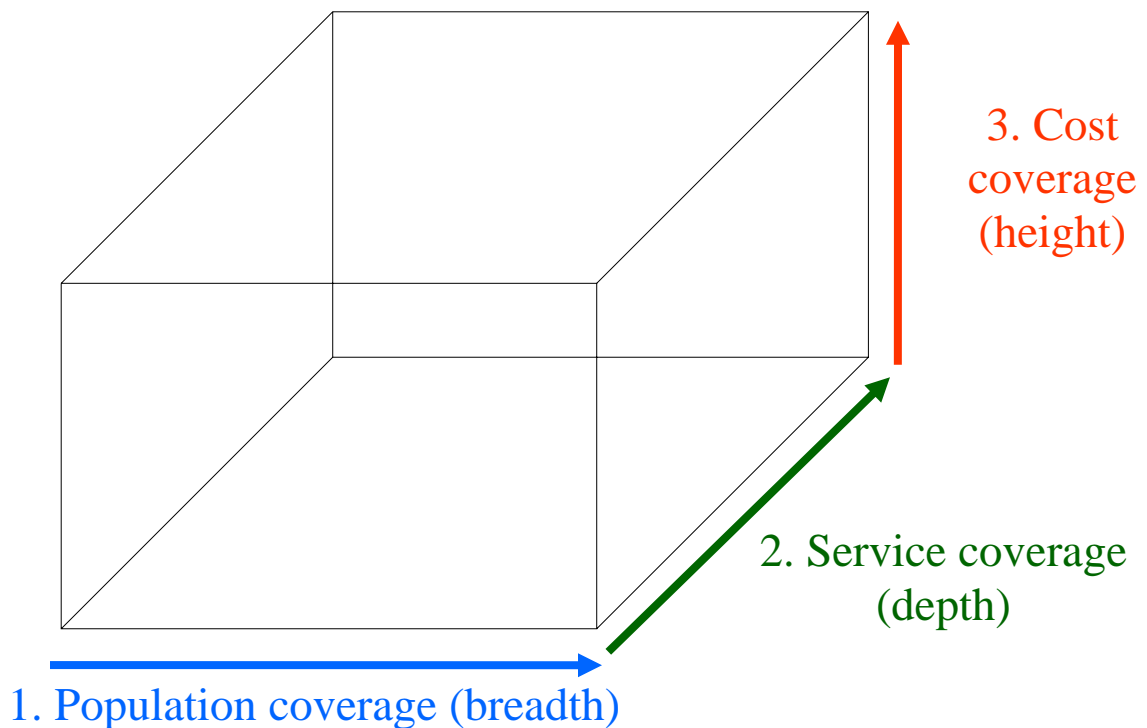
Figure 1. Functions of Health Financing Systems



Part I - Coverage Decisions and Benefit Entitlements

Coverage is a word with several meanings. Breadth, depth, and height of coverage (Figure 2) determine the needed amounts of prepaid financial resources vs. out-of-pocket payments. In this context, breadth is defined as the extent of the covered population and depth as the number and character of services covered; height specifies the extent to which costs of the defined services are either prepaid or financed through cost-sharing. The aspiration of filling the box in Figure 2 as completely as possible can be best described by the founding principles of the British National Health Service (NHS) in 1948: “universal, comprehensive, and free at the point of delivery.” Often these three dimensions are set before financing flows are determined. At the same time, the way the health care system is financed may also determine the coverage of the population because, for example, the payment of contributions may entitle a certain part of the population to certain benefits. Therefore, initial coverage decisions might be modified during the funding process. This section describes the coverage decisions and benefit entitlements in the high-income countries under review over the last 30 years.

Figure 2. The Three Dimensions of Coverage Decisions



WHO IS “ENTITLED”?

Improving people’s access to health care services has been a basic objective of health policy making in OECD countries for 30 years. With the exception of the United States, every country reviewed here achieved universal or near-universal coverage in the 1990s

(Docteur and Oxley 2003). The criteria for entitlement to coverage vary markedly between tax-financed countries, social health insurance (SHI) countries, and countries where a large part of health care is financed through private health insurance or medical savings accounts.

Social Health Insurance System Countries

SHI countries use different frameworks to define the group of persons insured. Among the European countries with SHI systems, France, the Netherlands (for long-term care insurance [AWBZ]), and Switzerland have, by law, universal coverage for their SHI system. Belgium also has universal coverage but as a two tier-system for the 88 percent in the “general regime” (with a comprehensive benefits package) and the 12 percent in the “regime for self-employed” (for whom the benefits package covers “major” risks only) (Nonneman and Van Doorslaer 1994).

Historically, the SHI systems are work-related insurance programs. Although population-wide coverage was not the original intention, coverage was gradually expanded to nonworking parts of the population in all SHI countries. The achievement of population-wide coverage is a recent phenomenon. Switzerland achieved universal coverage in 1996, Belgium in 1998, and France in 2000. A notable exception was the Netherlands, the pacesetter, which introduced its population-wide AWBZ long-term care insurance in 1968.

Austria and Luxembourg have de-facto universal coverage, although some individuals remain uninsured. In Germany, about 74 percent of the population has mandatory insurance and a small portion is legally excluded (6 percent)³—leaving a third group of high-income employed people with a choice between statutory and private health insurance. Of the approximately 18 percent eligible for voluntary SHI membership, about 14 percent choose to remain insured with the sickness funds and 4 percent choose private health insurance (Busse and Riesberg 2004). The percentage of voluntary members ranges between 2.3 percent and 37.9 percent among the 35 largest sickness funds (MedWell Gesundheits-AG 2002), due to their former concentration on certain professional groups and their marketing to recruit young, healthy—and wealthy—professionals. Thus, only around 0.2 percent of the population is not covered by either social or private health insurance. These uninsured are mainly self-employed with small businesses who, to hold down expenses, choose not to buy private health insurance while starting up their businesses. But even this group of people can rejoin the SHI system if they run into severe financial problems such as business bankruptcy.

³ Self-employed people are excluded from SHI unless they have previously been a member (except those who fall under mandatory SHI coverage like farmers), and active and retired permanent public employees such as teachers, university professors, and employees in ministries are excluded de facto because they are reimbursed by the government for most of their private health care bills (they receive private insurance to cover only the remainder). The SHI Reform Act 2000 widened the group of excluded persons by excluding privately insured persons over the age of 55 who would, through falling income (e.g., through reduced working hours), fall into the mandatory membership group. This was done to prevent those individuals from returning to SHI (Busse and Riesberg 2004).

In the Netherlands, strict, income-based legal separation allows insured persons no choice between the mandatory ZFW (statutory health insurance) system and private health insurance —higher-income people are ineligible for enrollment with the ZFW (den Exter et al. 2004). Because the income limit is lower than in Germany, the share of the population insured under ZFW (63 percent of the population in 2004) is smaller than in Germany. Since 1994, the (even lower) income limit for pensioners for inclusion in ZFW was increased considerably, and since 2000 a similar limit has applied to the self-employed who were previously excluded altogether (den Exter et al. 2004).

The Japanese SHI system achieved universal coverage with a 1961 amendment of the 1938 National Insurance Act. Membership in one of the 5,124 sickness funds (2002) is now compulsory for the entire population. Employees of bigger companies and their dependents are often insured in company-owned sickness funds. Employees of smaller companies are insured in one of the sickness funds for special occupations or in the government-managed scheme (EHI); all other citizens have mandatory insurance under the municipal insurance scheme called National Health Insurance (Henke and Schreyögg 2004).

The South Korean government introduced SHI in 1976 to relieve households of the excessive medical expense burden and to promote its people's health. Initially, all companies with more than 500 employees were required to offer their employees health insurance. Over the years, this obligation was gradually extended to ever-smaller companies, down to 5 employees in 1988. At the beginning of the 1980s, insurance coverage was also gradually expanded to government and (private) school employees and to the self-employed (defined to include employees in companies with fewer than 5 employees). Universal coverage was thus achieved in 1989, when the urban self-employed were incorporated into the scheme (OECD 2003).

At the end of the 1990s in South Korea, a convergence process started, leading to the formation of a single National Health Insurance Corporation in 2000, which absorbed all 139 of the former employee health insurance societies. A government-sponsored public assistance scheme, the Medical Aid Program (MAP), was established in 1977 parallel to the NHI. The program provides eligible poor individuals with free medical insurance coverage for the same benefits included in National Health Insurance. The MAP is part of the Korean welfare system and is therefore separate from the NHI. All individuals with incomes below the minimum standard of living and certain other specific population groups are eligible for MAP coverage. Recipients of medical aid are divided into two categories. Class 1 includes residents of nursing and welfare facilities and households where no one is able to work due to disability, old age (over 65), or pregnancy. Class 2 includes livelihood protection beneficiaries who are employable but self-supporting. Class 2 beneficiaries made up 55 percent of all MAP clients in 1999. Although there are no differences in the benefits between the NHI and the MAP, copayments on health services are waived only for Class 1 beneficiaries (OECD 2004).

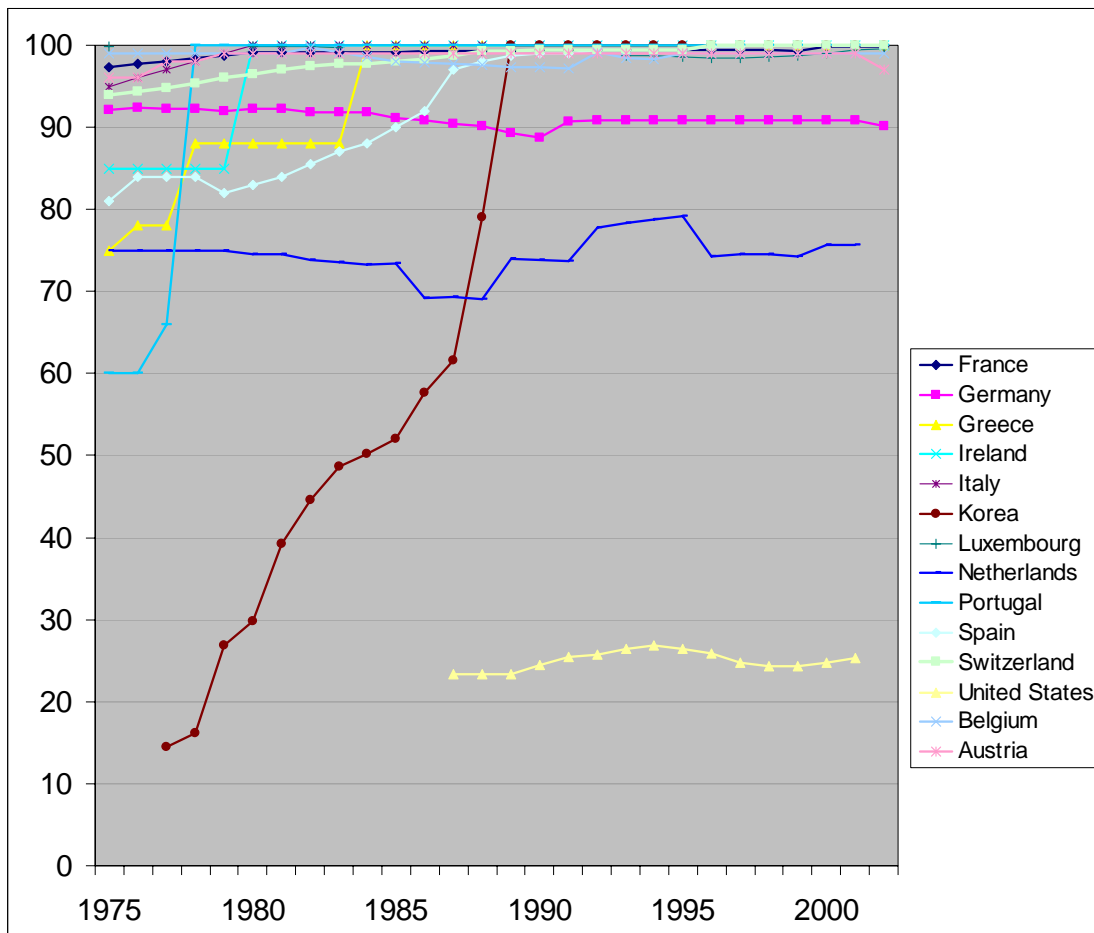
Mainly Tax-Financed System Countries

In contrast to most SHI countries, where the goal of universal coverage was enunciated

recently, universal coverage has been a central feature in countries with mainly tax-financed models. In New Zealand, the chief policy objective of providing “free care for all” dates to 1938. The United Kingdom followed with the creation of the NHS in 1948. Australia, with the establishment of the Medicare Program in 1984, reestablished a mandatory insurance scheme to obtain universal coverage (introduced as Medibank in 1975 but diluted through the subsequent addition of an opt-out option) (Hilless and Healy 2001).

In North European and Australasian tax-financed health care systems, entitlement to health care services is based on residence—independent of citizenship—as in the United Kingdom, Australia, New Zealand, and the Scandinavian countries. The population not covered in these countries is accordingly very small and basically limited to illegal immigrants. Compared to these countries, universal coverage is a more recent phenomenon in South European tax-financed countries, but by 2002 all countries with an NHS in Southern Europe had also achieved near-universal coverage (Figure 3).

Figure 3. Public Health Insurance Coverage in Countries without Universal Coverage, 1975 and 1975–2002



Note: Australia achieved universal coverage in 1975, up from 88 percent in 1974.
Source: OECD (2004).

In Italy, a National Health Service with the objective of universal coverage was introduced in 1978. Before 1978, 93 percent of the population was covered by public health insurance, but under markedly disparate conditions. The 1978 reform changed the principle of health care financing: solidarity within professional categories was discarded in favor of intergenerational solidarity, which backed the introduction of universal, free coverage for all Italian citizens. Non-Italian residents were not included under this legislation, but since 1998 legal immigrants have had the same rights as Italian citizens. Measures were also taken to provide some health care for illegal immigrants, who now have access to a limited range of services such as treatment for infectious diseases and health care schemes for babies and pregnant women (Donatini et al. 2001).

In Spain, according to the 1997 National Health Survey, 94.8 percent of the population was covered under the obligatory affiliation to the National Health System; civil servants and their dependents, 4.6 percent of the Spanish population, were insured by a nonprofit mutual fund. Any individual not covered by the national scheme usually belongs to an alternative, employment-linked insurance program; no one is excluded from the national scheme for inability to contribute. The small group not formally covered by either the National Health System or a mutual fund consists mainly of individuals who are not obliged to join the social security system and, simultaneously, do not qualify for access through the noncontributory scheme for the poor. This excluded group consists of employers and self-employed professionals (Rico et al. 2000).

Access to health services in Spain is gained with an electronic health card, the *Targeta Sanitaria Individual* (TSI). Since 2001, the TSI has been available to citizens as well as foreign residents, including “illegal” migrants. In Catalonia, a campaign has begun to reach marginalized groups by publicizing services covered by the TSI and facilitating access (VelascoGarrido and Busse 2005).

In Portugal, the National Health System covers 83.5 percent of the population. Another 10 percent is covered by substitutive private insurance schemes and 6.5 percent by mutual funds. Generally, the benefits under private insurance or mutual fund schemes exceed those provided by the NHS. However, because employer and employee contributions in both subsystems were often insufficient to cover the full cost of care, enrollees receiving treatment within the NHS did not declare their private coverage, thus shifting a significant proportion of costs onto the NHS. This flaw in the relationship between the NHS and the subsystems was addressed by legislation in late 1998. A scheme of systemic, controlled “opting-out” was devised, by which financial responsibility for personal care in the NHS could be transferred to public or private entities by means of a contribution to be established by contract with the Ministry of Health. Three agreements have been made between the Ministry of Health and subsystems. The government transfers annually to those insurers a capitated amount for each beneficiary, and the insurer pays the full price of NHS hospital services and ceases to benefit from NHS copayments for medicines. The benefits of the improved coordination between the NHS and the subsystems are unquestionable. However, there is striking evidence of a discrepancy between the ease of financial transfers from the

Ministry of Health to the subsystems and the difficulty NHS services have billing the subsystems' beneficiaries for services rendered (Bentes et al. 2004).

In the fragmented U.S. health system, individuals are insured through a variety of schemes: employer-sponsored insurance, individual (nongroup) insurance, Medicare, Medicaid, the State Children's Health Insurance Program, and coverage offered by the military and the Veterans Administration (Lambrey 2004). In 2002, an estimated 43.6 million people, 15.2 percent of the U.S. population, had no health coverage at all. Health insurance coverage in the United States is more dynamic than in less fragmented health systems because, for most people, it is closely linked to individual employers who negotiate and take out group insurance plans for their employees. This means that, of the above figure, around 20 million people were uninsured throughout the whole year, but up to 60 million were uninsured for part of the year (Lambrey 2004). Since 1985, the percentage of the population covered by public schemes has not changed significantly (Figure 3).

WHAT IS COVERED?

Social Health Insurance System Countries

A central characteristic of SHI systems is entitlement to a defined benefits package. (Gibis et al. 2004). This characteristic was recently reinforced in 2001 in the Netherlands when a court ruled that entitlements (in this case, in AWBZ) had to be guaranteed— independent of their costs. The contents of the benefits packages and the processes applied to define them vary between countries, however, ranging from a list of benefits prescribed by law via decree (as in the Netherlands) to negotiations between sickness funds and providers (as in Germany). Among the notable difference in the contents is the inclusion of benefits besides acute curative care, especially regarding health promotion measures and long-term care. For example, Germany introduced a separate social care insurance scheme to cover ambulatory long-term care in 1995, which was expanded to cover institutional care in 1996.

Historically, European SHI systems focused on insuring curative hospital and ambulatory care because these systems were originally installed to keep workers healthy and on the job (Kupsch et al. 2000). Today, SHI systems still offer fewer preventive services than the Anglo-Saxon and Scandinavian tax-financed systems (McKee 2004 et al.). The supply of preventive services in SHI could be enhanced in several ways with multiple sickness funds: (1) Collective health services could be kept separate from the SHI scheme but organized in parallel with it. This is how, for example, mammography is handled in the Netherlands. (2) Sickness funds could be given financial incentives to invest in the future of their insured by offering certain prevention programs. Some SHI-countries have chosen a more direct approach by regulating preventive services by law, as in Germany. Apart from enhancing public supply, increased use of preventive services can effectively be promoted by financial incentives for individuals. Instruments like bonus payments can also be offered by sickness funds to increase the use of preventive services, as in Germany, where certain copayments can be waived for individuals who use preventive services.

In almost every European SHI country, ambulatory health care is provided by physicians operating mainly on a fee-for-service basis (Gibis et al. 2004). Consequently, benefits packages had to be tied mainly to fee schedules. However, fee-for-service payments have evolved into elaborate remuneration schemes in some countries or have been limited to certain groups of doctors. In the Netherlands, general practitioners (GPs) receive a capitation-based payment, whereas specialists are still paid on a fee-for service-basis (de Exter et al. 2004).

Hospital care is usually organized in a decentralized way, and hospitals are highly autonomous. Benefits packages are mostly nonexistent for hospital care. Some SHI countries (e.g., Germany, Switzerland, and France) are implementing diagnosis-related group (DRG) payment systems. This could lead to benefits packages where all approved interventions are listed and grouped around the relevant diagnoses. In defining an inpatient benefits package, the government may become more heavily involved than it is in ambulatory care benefits (Gibis et al. 2004).

Pharmaceutical coverage differs widely among the European SHI countries. In some countries (e.g., Germany or Switzerland), licensure by the European Medicines Evaluation Agency (EMA) or the national equivalent allows reimbursement in the SHI system. Other countries (e.g., France and the Netherlands) have established lists of covered drugs. Dental coverage is often limited to emergency care or subject to high copayments. In the Netherlands and Switzerland, not even emergency dental care for adults is covered. Despite technical progress in this field), dental coverage has been reduced or restricted in almost all European SHI systems (Kaufhold and Schneider 2000).

Mainly Tax-Financed Systems

In most European tax-financed systems, benefits packages are not explicitly defined. For example in the United Kingdom, the secretary of state for health is legally required to provide services “to such extent as he considers necessary to meet all reasonable requirements” (1977 Act). The health authorities were responsible for making available GP, dental, ophthalmic, and pharmaceutical services until 2003, when responsibility was transferred to the Primary Care Trusts. Their duty is to make sure their area practitioners provide residents with “acceptable” services. What constitutes an acceptable service level, however, remains vague.

In Norway and Sweden, only a few services such as dental care and spectacles are explicitly excluded from provision by the National Health System. Sweden has also started to introduce a priorities system incorporating the notion of cost-effectiveness to govern health care decisions. This is, however, subordinate to the other priority principles of human rights, need, and solidarity. Along these principles, a priority-setting mechanism has been elaborated, and some hospitals have already begun to follow these guidelines. For example, they refuse to perform in vitro fertilization more than once and mammography more than once a year unless the patient pays for the services. The cost of most cosmetic surgery is also borne by the patient (Hjortsberg and Ghatnekar 2001).

Among South European tax-financed countries, Spain introduced an explicit benefits package. In 1995, a list of benefits guaranteed by the public health system was drawn up

under a Royal Decree maintaining the benefits already available within the system and making those services universal (Rico et al. 2000). A number of benefits were specifically excluded from the benefits package, including psychoanalysis, sex-change surgery, spa treatments, cosmetic surgery, and all but the most basic dental care. In practice however, the Royal Decree has not been implemented in some localities. Since the regionalization of the Spanish NHS in January 2002, the extent of regional variations in the benefits covered has become more obvious: some regions cover dental care, others cover drugs more generously, and so on.

In contrast to most European and the New Zealand tax-financed systems, the Australian Health System has an explicit, evidence-based benefits package, the Medicare Benefits Schedule. This schedule lists fees for medical services for which the Commonwealth government will pay benefits. Items covered by Medicare include consultation fees for doctors and specialists, radiology and pathology tests, eye tests by optometrists, and surgical and therapeutic procedures performed by doctors. Medicare does not cover dental treatment, ambulance services, home nursing, physiotherapy, occupational therapy, speech therapy, chiropractic and podiatry services, treatment by psychologists, visual and hearing aids and prostheses, medical services that are not clinically necessary, or cosmetic surgery (Hilless and Healy 2001).

In the United States, covered benefits vary widely between private health insurance plans—from the most basic services to luxury care—depending on the employer and the cost of the premium. Medicare is the main insurance program for the over-65 population (and a few other groups), covering about 41 million people. In contrast to Medicaid, the Medicare Coverage Database contains a detailed list of all benefits included nationally and state by state, and it is continuously reviewed and amended. For example, the Medicare law (effective since January 1, 2005) expanded coverage to diabetic screening services, and the benefits package had to be amended accordingly (e.g., by adding blood glucose testing at home) (Centers for Medicare and Medicaid Services 2005). The most important change in the Medicare benefits package was the inclusion of prescription drugs in the 2003 Medicare Modernization Act, beginning in January 2006. Reimbursement will follow a complex payment structure that covers an initial portion of drug costs, followed by a significant gap in coverage, and later picks up the costs of catastrophic drug coverage at a defined level.

HOW MUCH OF HEALTH COSTS COME OUT OF POCKET?

All countries reviewed require some form of cost sharing from individuals via copayments, coinsurance, and deductibles. Several countries exempt significant population groups from cost sharing for reasons related to clinical condition, income, age, or drug type. These measures create different incentives for patient behavior discussed below under Financing Mechanisms. However, the amount of out-of-pocket payments for health services in the high-income countries varies widely.

In contrast to many low- and medium-income countries, informal payments rarely present a problem in high-income countries, with the exception of Greece, where an

estimated 16 percent of health care expenditure is informal payments (Thomson et al. 2003). Thus, out-of-pocket payments are limited to direct payments for services not included in the benefits package and to cost-sharing requirements.

In Europe, cost sharing did not follow a consistent trend in 1980–2001 (Table 2), increasing in many countries, decreasing in others (e.g., Ireland and the Netherlands). Outside Europe, New Zealand saw a steep rise in out-of-pocket health care payments, from 10 percent in 1980 to 16 percent in 1999, corresponding to a 6.2 percent annual increase in real terms (French et al. 2001).

Table 2. Out-of-pocket Payments and Voluntary Health Insurance in Europe

	1980 (percent)	1999–2001 (percent)	Percentage point change (1980–2001)
Austria			
OOP	—	28	—
VHI	—	2	—
Belgium			
OOP	—	19	—
VHI	—	—	—
Denmark			
OOP	11.4	16.4	+5.0
VHI	0.8	1.6	+0.8
Finland			
OOP	17.8	20.2	+2.4
VHI	0.8	2.0	+1.2
France			
OOP	—	10.6	—
VHI	—	12.7	—
Germany			
OOP	8.1	11.0	+2.9
VHI	7.4	7.7	+0.3
Greece			
OOP	—	41.4 ^a	—
VHI	—	3.2	—
Ireland			
OOP	14.3	9.1	-5.2
VHI	3.5	6.4	+2.9
Italy			
OOP	—	22	—
VHI	—	0.9	—
Netherlands			
OOP	7	6.3	-0.7
VHI	24	14	-10.0
Spain			
OOP	21.3	22	+0.7
VHI	2.9	6	+3.1
Sweden			
OOP	—	16	—
VHI	—	—	—

OOP out-of-pocket; VHI voluntary health insurance.

Note: ^aIncludes an estimated 16 percent informal payments.

Source: Adapted from Thomson et al. (2003) based on national statistics.

SUMMARY

All high-income countries reviewed here have achieved near-universal coverage independent of the financing mechanism—with the notable exception of the United States. The difference in the speed of attaining universal coverage is linked to the financing mechanism. In North European and Australasian tax-financed systems, universal coverage was a political goal from their start in the 1930s and 1940s. In European SHI systems, universal coverage has developed gradually over the last 100 years, and even political discussion about universal coverage in these countries is fairly recent. South European tax-financed systems fall in the middle. Their rapid economic growth in the second half of the 20th century was paralleled by an expansion of tax-financed health coverage or a shift from a fragmented, mainly SHI system to a tax-financed system as in Spain. Japan likewise expanded coverage under its SHI system during a phase of rapid economic growth in the 1960s. The country with the fastest expansion of coverage was Korea, where coverage grew from 15 percent to 100 percent in just 10 years, again during a period of economic growth. This rapid expansion was facilitated by initially high copayments and a limited benefits package. Besides economic growth, political will is the other crucial factor for attaining universal coverage. All the successful countries enacted clear legislation—either at the outset or gradually to fill gaps in coverage—to achieve universal coverage. This process is best exemplified by recent Italian legislation that specifically addresses health care for illegal immigrants. The most striking example of lack of political will to achieve universal coverage is the United States, a high-income country with sustained economic growth but no improvement in the extent of coverage during the 30 years reviewed here. A large proportion of U.S. citizens still lack access to even the most basic health care.

Most tax-financed health systems do not have a defined benefits package whereas SHI systems, with their fee-for-service payment mechanisms for remunerating providers usually have detailed benefits packages. This means adding new services or technologies to the NHS benefits package during the commissioning process, which can vary between geographic areas—leading to what is called “postcode prescribing” in the United Kingdom—considered inequitable. In most SHI systems, on the other hand, an explicit mechanism is needed for revising the benefits package to include new technologies or exclude “ineffective” or “inefficient” technologies. These decisions are often difficult to make, because they face the threat of lawsuits by industry, and good quality evidence is sparse and costly to gather. Thus, to guide decision makers, many countries have set up capacity-building programs in these areas, evidence-base research programs, and new agencies for health technology assessment (Velasco Garrido and Busse 2005).

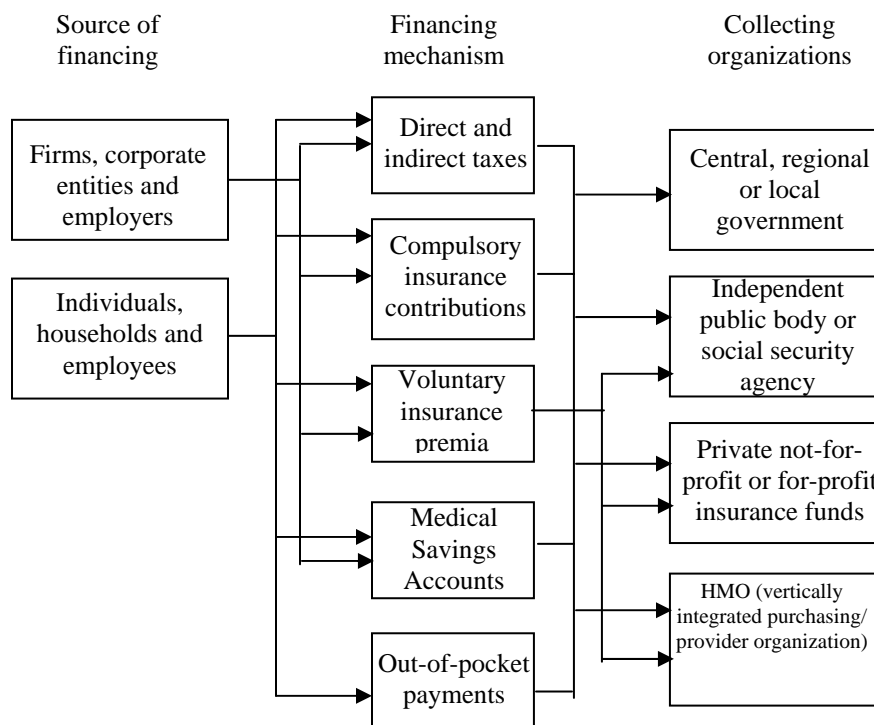
All high-income countries reviewed levy some form of user charges. With the exception of the United States, Greece, and Austria, user charges represent less than 22 percent of total health expenditure in all countries and often less than 10 percent. There is no clear trend in tax-financed or SHI systems toward increases or decreases in cost sharing. The gamut of cost-sharing mechanisms are employed, together with a variety of protection mechanisms. Within countries, political opportunism seems to guide decisions on the

extent and type of cost-sharing mechanism more often than rational arguments regarding technical efficiency (Thomson et al. 2003; Gericke et al. 2004).

Part II - Collection of Funds

Pooled prepaid funds include resources that can be organized on behalf of groups of people or the entire population. In this context, four dimensions have to be considered when planning the collection of funds. First, the amount of resources needed to meet the defined coverage has to be quantified. Second, possible sources of funds have to be identified.⁴ Third, methods of collection (taxes or contributions) have to be chosen in culturally compatible ways (flows between individuals and collectors (Figure 4). Finally, organizations have to be designated to collect and administer the funds; these organizations can but need not be the same as those pooling the funds.

Figure 4. The Collection Process by Financing Source, Financing Mechanism, and Collecting Organization



Sources: adapted from Kutzin (2001) and Mossialos and Dixon (2002).

Figure 4 visualizes the collection process according to different sources of financing, financing mechanisms, and collecting organizations. The figure and the following

⁴ Apart from employers, the population's income is the main source of funds.

subsections demonstrate that the usual assumption that there are predefined sets for the latter three issues, e.g. “employees and employers—wage-related contributions—sickness funds,” is wrong. First, most countries use a mix of sources, mechanisms, and collection agents. Second, financing through a particular source does not imply a particular mechanism, nor a particular mechanism a particular collector (e.g., social security contributions can be collected by sickness funds as well as tax offices).

AMOUNTS COLLECTED

The amount of resources collected is usually not available in international databases. Health expenditure is most often used instead, although the amount of resources collected is in many cases higher. Although it is often suggested that NHS-countries are more successful in cost containment and therefore collect less resources, Iceland, Norway, Portugal, and Greece are among the countries with the highest increase in health expenditure as a percentage of GDP. Strong economic growth definitely contributed to low or even decreasing shares of health expenditure as a percentage of GDP in Korea, Singapore and Ireland. Nonetheless, countries such as the United States and Norway with similarly robust growth have experienced large increases. Thus, health expenditure and the amount of collected resources in each country depend more heavily on each country’s preferences than on any other factor.

SOURCES OF FINANCING

High-income countries rely mainly on individuals, companies, or corporate entities as sources of health care financing and very little on nongovernmental organizations or charities. Determining the exact amount companies or corporate entities contribute to financing is difficult, especially regarding tax payments for general revenue. However, in countries that finance their health expenditure mainly by social health insurance, the ratio of contributions between employers and employees gives some information on the employers’ contribution. In certain social health insurance countries, there is a slight tendency to shift part of the contribution from employers to employees (e.g., the Netherlands and Germany). Enlargement of the contribution assessment base is another option for generating more revenue respective contributions; this has been done in France and Japan and is being discussed in Germany (Box 1).

Box 1. The Employee-Employer Split in Financing Health Care in SHI Countries

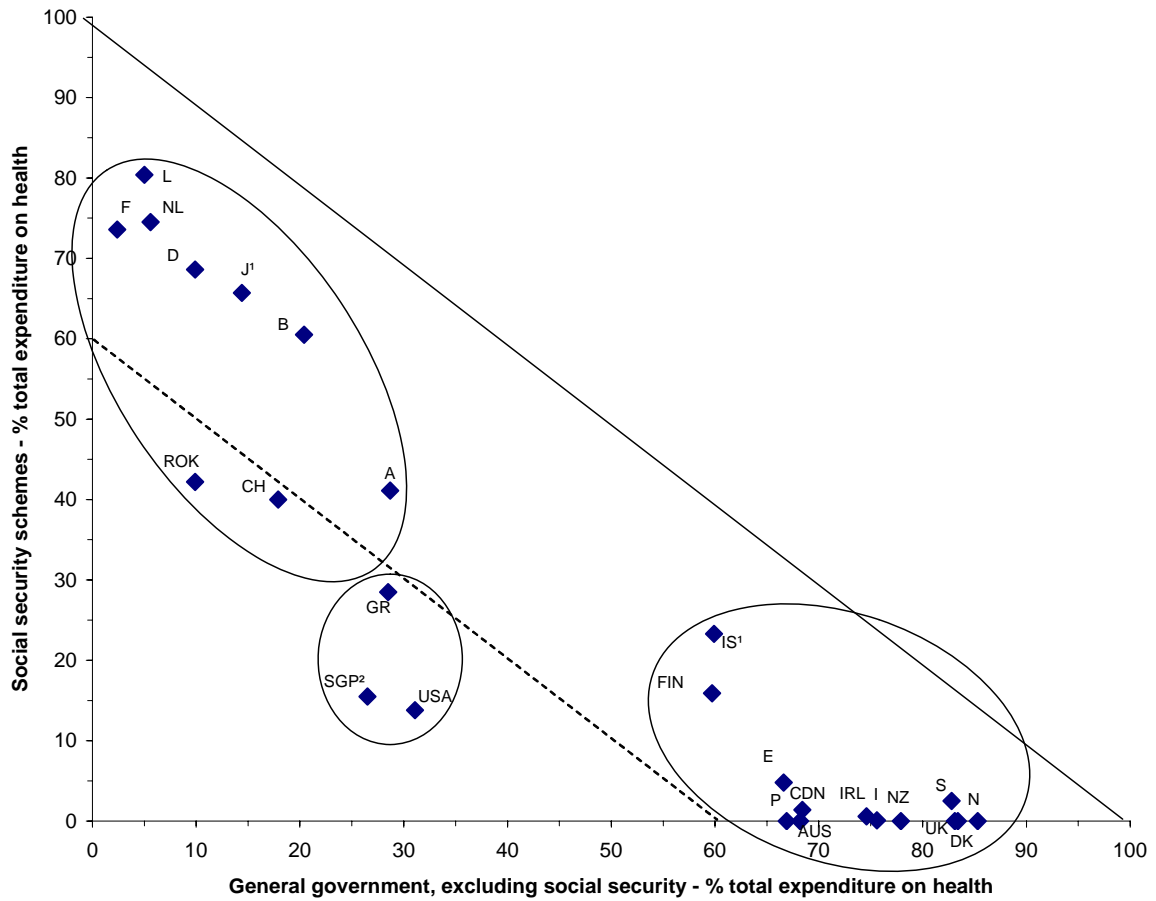
An almost equal 50:50 distribution between employees and employers exists in Belgium, Korea, Luxembourg, and Japan (only government-managed scheme). Germany traditionally followed the 50:50 split, but since 2005 employees have had to pay a special contribution of 0.9 percentage points, changing the financing ratio to about 54 percent for employees and 46 percent for employers. In Austria, the split varies between employment groups: 50:50 for white collar workers and 53:47 for blue-collar workers. In the Netherlands, employers cover most of the expenditure under the Sickness Fund Act (ZFW) but none under the Exceptional Medical Expenses Act (AWBZ)—together, this amounts to 32:68. Thus, employees' share of the contribution has increased slightly since 1990, from 64 percent to 68 percent in 2004. In France, the split—20:80 in the early 1970s—was adjusted to around 30:70 by the late 1980s to early 1990s. With the virtual abolition of the employees' contribution in 1999 in favor of a health tax with a different contribution assessment base it is now nominally 6:94, but SHI contributions now constitute less—about 55 percent—of total health expenditure (Busse et al. 2004). For the entire period under review, no systematic change in the financing ratio can be identified.

FINANCING MECHANISMS

Apart from the United States, all countries reviewed derive the main part of their health care resources either from social security contributions in the framework of social health insurance (or similarly termed arrangements) or from direct and indirect tax payments in the framework of national health services. Of the 25 countries examined, 9 finance their health care system mainly from social health insurance contributions, and 13 countries derive their health care expenditure mainly from tax payments. As shown in Figure 5, Singapore⁵ and the United States do not fit into either of these two classifications, because they finance more than half of their health expenditure through other mechanisms such as voluntary insurance premiums and out-of-pocket payments. Greece, although private expenditure there is slightly less than 50 percent, also belongs in this category because neither of the two main public financing mechanisms predominates.

⁵ As explained below, Medical Savings Accounts can have the character of compulsory contributions and are therefore subsumed under social security.

Figure 5. Revenues Derived from Taxes and from Social and Health Insurance Contributions, 2002 (percentage of total health expenditure)

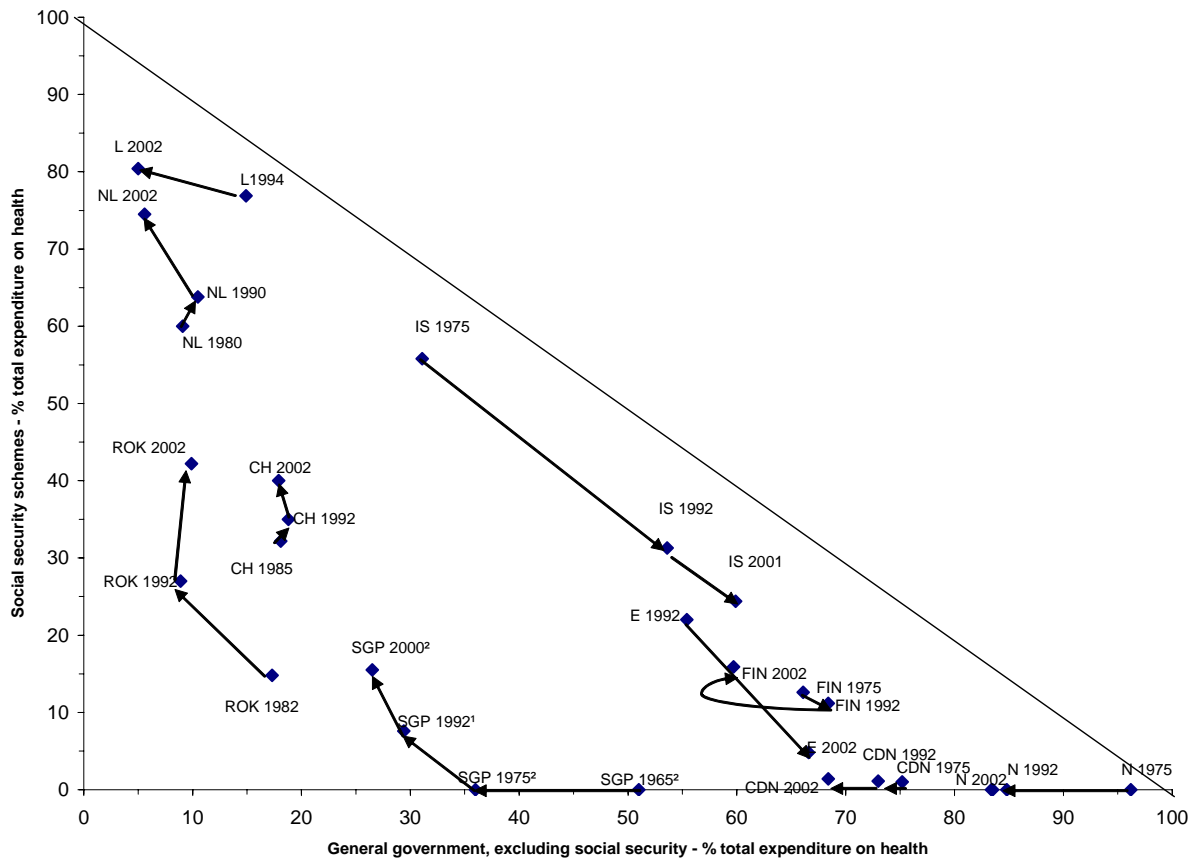


Sources: OECD Health Data 2004 and national data.

The relative importance of the various financing mechanisms has changed somewhat in most countries since 1975. However, in only 9 of 23 countries⁶ did the relative importance of one of the two main public financing mechanisms change by more than 5 percentage points (Figure 6).

⁶ A breakdown of public financing is not consistently possible for Belgium and Greece.

Figure 6. Countries with Changes of More than 5 Percent in Revenue from Tax Payments and from Social Health Insurance Contributions, 1975, 1992–2002, or Nearest Year (percentage of total health expenditure)



Sources: OECD Health Data 2004 and national data; estimated data for Singapore based on Prescott and Nichols (1998) and Schreyögg (2003).

Direct and Indirect taxes

Of the 25 countries reviewed, 13 countries derive their health care finance mainly from tax payments (direct taxes such as personal and corporate income tax and indirect taxes such as the value added tax, VAT). Some of these countries, especially Iceland, Finland and Sweden also rely on social health insurance contributions, but these are minor compared to tax payments (Figure 4).

Iceland and Spain have moved away from social health insurance and managed the transition to tax payments as the main financing mechanism (Box 2). In both countries, the major reason for this change is the perceived greater progressivity of the tax payment mechanism. Social health insurance contributions, if designed appropriately, however, might have achieved a similar level of progressivity as seen in Spain's change from a regressive system in 1980 to one neither pro- nor regressive in 1990.

Box 2. The Transition from Social Health Insurance to Tax-Financing in Iceland and Spain

In Iceland, more than 60 percent of health expenditure was financed by flat-rate insurance contributions to sickness funds until 1972. Because these contributions were perceived as too regressive and health expenditure was rapidly rising, it was decided to shift to tax payments. In the transition period from 1972 to 1989, sickness funds still operated but were completely funded from tax payments, 80 percent from the state and 20 percent from local governments (Halldorsson and Bankauskaite 2003).

Spain also relied mainly on social health insurance contributions. In the mid-1970s, social health insurance contributions financed about two thirds of total health care expenditure and tax payments a third. In 1986, with the introduction of a National Health Service, a major shift toward tax funding was initiated. By 1989, the previous pattern was reversed: tax payments constituted 70 percent and social health insurance contributions dropped to about 30 percent of the total. Throughout the 1990s, the role of social health insurance contributions steadily decreased (Rico, Sabes, and Wisbaum 2000).

In contrast to Iceland and Spain, the drop in tax financing led to an increase in the percentage of social security contributions in Finland. The share of tax payments decreased from 66.1 percent of total health expenditure in 1975 to 59.7 percent in 2002, while social security contributions increased from 12.6 percent in 1975 to 15.9 percent in 2002 (Järvelin, Rico, and Cetani 2002). Canada and Norway experienced even more dramatic slashes in the share of taxes as a percentage of health expenditure—in favor of more private financing mechanisms (Figure 5). However, this development did not necessarily reflect a decrease in available taxes (as in Finland) but a massive cut in health spending from general revenue, revealing the vulnerability of tax payments to changes in political priorities.

Instead of deriving tax payments as direct or indirect taxes for general revenue, some observers therefore suggest earmarking taxes for health expenditure. Such taxes do not exist in countries that are mainly tax-financed (although in the case of Sweden, it could be argued that provincial taxes are de facto earmarked because most go into health care). Instead, earmarked taxes have been introduced as a source of complementary financing in countries with mainly social security financing: In France, 3.3 percent of the total health revenue is raised as earmarked taxes on car usage and tobacco and alcohol consumption. In addition, the pharmaceutical industry is required to pay an earmarked tax on advertising, which generates 0.8 percent of total health revenue (Sandier et al. 2004).

Compulsory Social Health Insurance Contributions

Eight of the nine countries that rely chiefly on compulsory social insurance contributions have long-standing experience with social health insurance. Korea is a special case because it moved from a predominantly privately financed system with taxes as the second most important financing mechanism in the 1970s to a system based to a considerable degree on compulsory social health insurance contributions (Figure 5). As in many other countries, social health insurance in Korea started with the introduction of a small scheme for industrial workers in 1977 that was gradually extended to other

population groups. In 2002, 42.2 percent of the total health expenditure was financed by compulsory insurance contributions.

The main part of the health care resources collected in countries with social health insurance, apart from Switzerland, is raised through wage-related contributions, shared between employers and employees. Nonetheless, arrangements vary between countries and some changes have taken place over the last three decades.

The contribution rate is uniform for all insured regardless of the sickness fund and membership status in Belgium, France, Korea, Luxembourg, and the Netherlands. In Austria, rates varied between 6.9 percent and 9.1 percent according to employment status in 2003 (but within each employment status not between funds). In 2004 a reform equalized contribution rates between different employment groups. In Japan, rates vary by employment status and, in the municipal health insurance scheme, also between sickness funds in each municipality. In Germany, on the other hand, the contribution rates vary among funds but not by employment status. Germany is also the only country that (since 1996) uses variability of contribution rates between sickness funds as a parameter for competition between sickness funds. However in Switzerland differing per-capita premiums are used in a similar way.⁷

There are revenue components in addition to the wage-based contribution in Belgium, France, Korea, and the Netherlands. In Belgium and the Netherlands, a non-income-related per-capita premium on top of the contributions was introduced in the 1990s. These vary between sickness funds in the Netherlands but remain mostly uniform in Belgium. Like the contribution rate in Germany, this mechanism allows for use of varying contributions between sickness funds as a parameter for competition among them. In contrast, the main motivation for introducing non-wage-related components in France and Korea was to enlarge the financial base for sickness funds and thus increase overall revenue. In addition, contributions became less vulnerable to wage and employment fluctuations (Sandier et al. 2004). Since 1998, France has replaced the solely wage-related contributions of employees with a “General Social Contribution” of 5.25 percent, based on wages as well as non-wage-related income such as capital gains and interest on investments; 3.25 percent is charged on benefits and allowances.

Voluntary Insurance Premiums

Voluntary health insurance (VHI) can be classified into various, partly overlapping forms, depending on the definition used. *Substitutive health insurance* is an alternative to statutory schemes. *Supplementary health insurance* covers services not included in statutory schemes’ benefits package and provides superior amenities. *Duplicate health insurance* provides people already covered by a public health system with private alternative coverage for the same sets of services, often furnished by different providers.

⁷ Since the introduction of compulsory health insurance in 1996, Switzerland has had a system of both income- and risk-unrelated per-capita health insurance premiums. These vary between insurers but are community-rated for all insured by a particular insurer in a certain region (usually at subcantonal level) (Minder et al. 2000).

Finally, *complementary health insurance* covers copayments or deductibles applicable to public health systems (OECD 2004a).

All the countries reviewed have small markets for supplementary health insurance. Canada, however, is a special case because 65 percent of its population is covered by this kind of voluntary health insurance. Voluntary health insurance in Canada is allowed to cover only benefits not covered under the public system. Those benefits include mainly drugs but also certain dental services, long-term care, rehabilitative care, and home care. Switzerland is by far the largest market for supplementary voluntary health insurance (OECD 2004a).

Duplicate voluntary health insurance typically is available in tax-financed countries with National Health Services where the amounts or quality of publicly provided health services are perceived to be insufficient or inappropriate. The main drivers are waiting lists and choice of providers. In Australia (> 40 percent), Ireland (> 40 percent), and New Zealand (35 percent), large parts of the population are covered by duplicate voluntary health insurance (OECD 2004a). The share of voluntary health insurance increased in New Zealand over the last decade but decreased in Australia, perhaps due in part to improved public services. The Australian government has repeatedly tried to reverse this trend (Box 3).

Box 3. Tax-Subsidization of Duplicate Private Health Insurance in Australia

Since 1997, Australians have received a tax-subsidized rebate of 30 percent on health insurance premiums, and out-of-pocket payments have been increased for persons using medical services in private hospitals. Life time coverage was introduced in 2000, and private health insurers have been allowed to set different premiums for persons over 30 years of age at entry to give the young financial incentives for joining early. These measures attempt to bring more people into private health insurance to relieve pressures on the public system to increase spending (Busse and Schlette 2003; Colombo and Tapay 2003). Although population coverage of voluntary health insurance (VHI) increased from 31 percent in 1996 to 45.3 percent in 2001, but whether the strategy has succeeded is questionable. Health expenditure, one indicator, rose faster in the second half of the 1990s than before (from 8.5 to 9.0 as percentage of GDP between 1995 and 2000).

Many of the countries reviewed have markets for complimentary voluntary health insurance, but France and the United States (Medicare only) are the most relevant cases. In France voluntary health insurance is purchased to cover coinsurance at rates ranging from 20 percent for inpatient treatment and 30 percent for physician fees to 65 percent for certain drugs (OECD 2004a). The main motivation is therefore to limit the financial risk potentially high service utilization. Most large per-capita spending on private health insurance is spent on this kind of insurance, which has increased over the last decade.

Medical Savings Accounts

A different financing mechanism that evolved during the 1980s is the Medical Savings Account (MSA), first developed in Singapore (Box 4).

Box 4. Health Financing with Medical Savings Accounts in Singapore

A system of Medical Savings Accounts, called Medisave, was introduced in Singapore in 1984. In this system, all gainfully employed citizens in Singapore are obliged to pay between 6 and 8 percent of their income—according to age—into an individual account managed by the state. The government invests these savings in the capital market and pays interest at the current market rate (Asher 1995). In case of illness, individuals can use these savings to pay for their treatment and that of their dependents. However, the savings account may be used to pay only for hospital costs and outpatient costs for certain services approved by the state in a services catalogue, and contributions to a high-risk health insurance scheme (called Medishield, intended to finance expensive hospital treatments and outpatient treatment of chronic diseases). Citizens receive regular statements showing the current status of their savings account. As soon as a Medisave Account shows a balance of €30,000, all amounts paid in over and above this amount are automatically transferred to the building savings account of the respective individual (every employed citizen of Singapore is obliged to maintain a building savings account in order to save money either to purchase real estate or to invest in the education of their children). In addition, a fund (called Medifund) is used to support low-income individuals who do not have a Medical Savings Account or sufficient personal savings. Medifund is financed by the state from general taxes.

This Medical Savings Accounts system has not yet been fully implemented, because the generation retiring before 1984 was not able to accumulate capital stocks and is therefore financed by family members or by state assistance. Full implementation will not be achieved until 2030. Apart from medical savings accounts, the low share of health expenditure as a percentage of GDP (3.7 percent in 2002) may also be attributable to the young population and an incentive scheme of hospital classes. However, some studies indicate that the Medical Savings Accounts system has made a considerable contribution to this low share (Prescott/Nichols 1998; Schreyögg 2004a).

In the United States, in contrast to Singapore, the savings account approach is focused instead on cost containment and expansion of insurance coverage to the 15 percent uninsured and thus serves primarily to finance a high deductible in order to reduce premiums. Medical Savings Accounts were tested in 1996–2003 in a pilot project for a small sample of insured persons (750,000 accounts) in the private health insurance market. Depending on the insurance contract, either the employer or the employee, but not both, was allowed to make tax exempt payments into Medical Savings Accounts within a given year. The payment of interest on capital stocks accumulated in accounts was a matter for the individual insurance companies to decide (Public Law 104-191, Aug. 21, 1996). Although 4 out of 10 participants in this pilot project had previously not been insured at all (United States General Accounting Office 1998), the total participation was low, an estimated 150,000 accounts, which might be due to restrictive legal conditions under the project (Bunce 2001). So far there is still not enough empirical research in the United States to for rigorous evaluation of the experimental period.

Although the pilot project was not extended beyond 2003, the Bush administration introduced a new MSA-scheme effective Jan. 1, 2004, for Medicare beneficiaries. Under this scheme, an unlimited number of people who are eligible for Medicare are allowed to choose a policy with a minimum deductible of \$1,000 for singles and \$2,000 for families

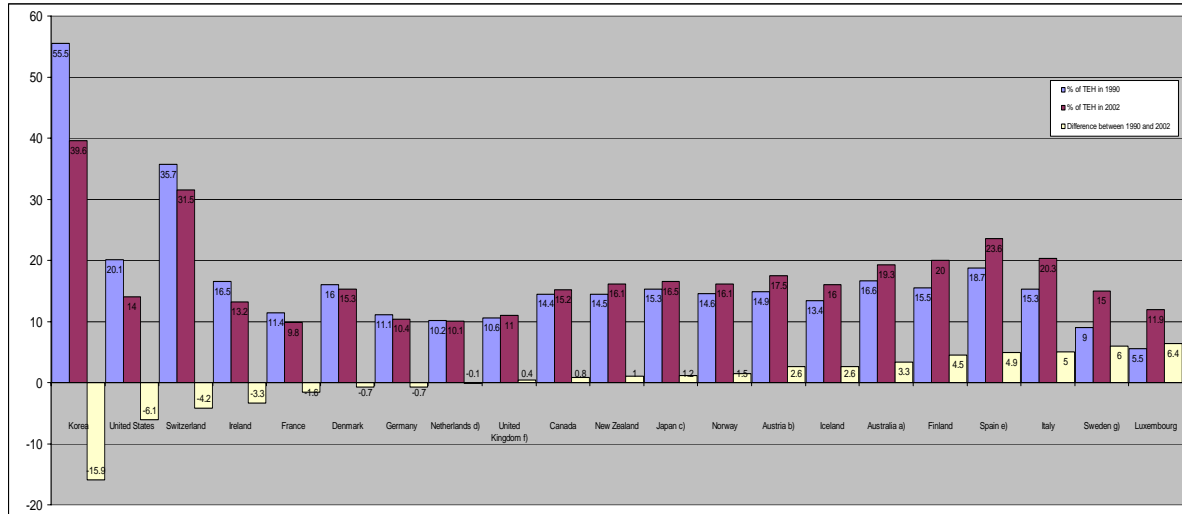
in combination with Medical Savings Accounts. Employers of all sizes can offer these programs to their employees, but they must be approved by Medicare. They are funded by pretax payroll contributions or employer contributions. The underlying idea is to enable Medicare beneficiaries to pay for “qualified expenses” (e.g., prescription drugs and doctors’ fees) that are not or not sufficiently covered by health insurance under Medicare (Schreyögg 2004).

Out-of-pocket payments

Introducing out-of-pocket payments can have a mere financial effect—cost shifting to relieve public financing schemes from cost-containment pressure—or an additional behavioral effect—preventing moral hazard (the use of unnecessary services). Studies in the United States and Europe present considerable evidence that well-designed out-of-pocket payments—but especially copayments, coinsurance, and deductibles—can have the targeted effects (Zweifel and Manning 2001). Crucial points for the success of those instruments are the amounts raised and the equity consideration given to socially deprived population groups. However, apart from out-of-pocket payments, there are other ways to direct health resources into the most effective utilization.

Regarding the change in out-of-pocket payments between 1990 and 2002 (Figure 7), it is striking that the five countries with the highest increase in the share of out-of-pocket payments are all European countries. With the exception of Luxembourg (which had very low out-of-pocket spending in 1990), these are countries with predominantly tax-financing mechanisms. Three of them (Spain, Italy, Finland) are now among the top five (behind Korea and Switzerland) in the category out-of-pocket payments as a percentage of total health expenditure. In contrast to this, countries with a relatively low share of public expenditure (Korea, United States, and Switzerland) largely reduced their share of out-of-pocket payments. This might be interpreted as a trend toward conversion of countries with high and low shares of out-of-pocket payments as a percentage of total health expenditure in high-income countries.

Figure 7. Change in Out-of-pocket Payments, 1992 and 2002



Source: OECD Health Data (2004).

ORGANIZATIONS UNDERTAKING THE COLLECTION OF RESOURCES

A great variety of organizations in the SHI countries undertake the collection of resources for health care. Sickness funds are the actual collectors of contributions, for instance, in Austria, Germany, Switzerland, Korea, and Japan. Associations of funds (Luxembourg) or special agencies under government control (Belgium) or the tax authorities directly (the Netherlands) are other collectors (Busse et al. 2004).

Changes of collecting organizations in the last few years increasingly have played a role in tax-financed systems. In Italy and Spain, regional or local governments have received more autonomy for resource collection (though less than in Sweden). While in many NHS-systems national or regional governments collect resources, Spain and Italy, for example, now allow regional governments to collect resources on their own in addition to the allocated resources from national resource collection. In Italy, 6 out of 21 regions added funds from their own taxes to make up for (parts of) the deficit in 2002 (Jommi and Fattore 2003).

SUMMARY

It is striking that the amount of collected resources in each country depends more heavily on each country's preferences than on any other factor. Regarding the sources of financing, there is a slight tendency in social health insurance countries to shift part of the contribution from employers to employees (e.g., the Netherlands and Germany). Enlargement of the contribution assessment base is another option for generating more revenue respective contributions (e.g. practiced in France and Japan and is being discussed in Germany). Tax payments are obviously perceived by some countries as more progressively as they changed their financing mechanism for this reason from social health insurance contributions to tax payments (e.g. Spain). In contrast to this other

SHI-countries even increased their share mainly due to the inclusion of more population groups (e.g. Korea). Regarding out-of-pocket payments it can be observed that several tax-financed countries (e.g. Italy and Spain) increased their out-of-pocket share while countries with traditionally high out-of-pocket shares (e.g. US and Switzerland) reduced it. Altogether it trend can be observed that most countries move away from mixed financing mechanisms and move towards clear tax-based or contribution-based schemes.

Part III - Pooling of Funds

Pooling of funds describes the accumulation of prepaid health care resources to cover financial risks that exceed an individual's or an intermediary's ability to pay. For the pooling of resources, financial flows from collectors are allocated according to different allocation mechanisms (allocation mechanisms (1) in Figure 1) to one or several pooling organizations. The decision about the number and size of pooling organizations determines incentives for financing organizations as well as for individuals. Finally, the administration and the ownership of pooling organizations have important implications for efficiency. After the pooling procedure, these organizations allocate the resources to the purchasing organizations according to different allocation mechanisms (allocation mechanisms (2) in Figure 1).

ALLOCATION OF RESOURCES FROM COLLECTING TO POOLING ORGANIZATIONS

In most high-income countries, collecting and pooling take place on the central or national level. In tax-financed systems, this often seems to be done by the same institution, referred to as the "central government." However, this general term often veils two different bodies: the ministry of finance or the treasury as the collecting organization and the ministry of health as the pooling organization (e.g., England, Ireland, Italy, and New Zealand).

The political agenda rather than objectively defined criteria usually determines the way resources are allocated between these two bodies. New Zealand, which has defined objective allocation criteria, is an exception to this rule of thumb (Box 5). Another possible approach to overcome vulnerability to political priority setting would be the introduction of earmarked taxes, pooled and collected by an independent entity.

Box 5. Objective Allocation Criteria in New Zealand

New Zealand has recently implemented an allocation formula, called the "sustainable funding path formula," which takes into account the most important pressures on health expenditures:

- Projected population changes (in size and age structure with yearly automatic adjustment)
- predicted price increases (estimated each year)
- the net effect of technological changes and efficiency gains (estimated each year).

The amount of resources dedicated to health is thus calculated based on the increase of those factors from the previous year (French et al. 2001).

Although in tax-financed systems collecting and pooling is usually centralized, there is a trend toward decentralization of both functions. Regional governments in Sweden, Spain, and Italy have received more autonomy not only regarding the collection of resources but also in terms of pooling. In Sweden, collection and pooling responsibilities have been strongly decentralized since the 1970s. County councils rely mainly on income taxes, which they collect themselves. But, in addition, counties receive subsidies from the central government based on an allocation formula (Hjortsberg et al. 2001).

In contrast to tax-financed systems, social health insurance systems are increasingly moving away from decentralized pooling organizations. Many countries (e.g., Germany, the Netherlands, Belgium, and Switzerland) have centralized their pooling organizations. These are mostly independent, federal-level organizations such as the Federal Insurance Authority in Germany and the Health Care Insurance Board in the Netherlands. Switzerland is a special case in this respect because resources are pooled only within each “premium region” (usually at subcanton level). In other words, the high per-capita expenditure in Geneva is not shared with the inhabitants of Appenzell, where per-capita expenditure is low.

The major reason for this centralization process was excessive fragmentation into small pools (sickness funds), exposing them to high financial risks through the actuarial “law of large numbers.” Reinsurance or tax subsidies were therefore needed to dilute risk. Because the pooling process is now centralized and sickness funds are responsible for only a fraction of health expenditure, they act merely as purchasing organizations (and in a few countries as collectors). The number of sickness funds has decreased sharply in Belgium, Germany, the Netherlands, Switzerland, and Korea. Except in Korea, this consolidation has been partially due to the introduction of competition between sickness funds in their function as purchasing organizations.

Transfer of resources between collecting and pooling organizations is difficult only in SHI-countries where sickness funds can collect different levels of contributions (Germany and Switzerland). In those countries, the pooled resources have to be separated from the resources that stay with the respective sickness fund (e.g., for services not taken into account in the pooling or from contribution rates higher than assumed in the pooling calculations).

In addition to transfers from contribution-collecting organizations, in some social health insurance countries pooling organizations receive financial resources from tax authorities. Tax subsidies to pooling organizations are substantial in Belgium, Luxembourg, and the Netherlands while they are small but rising in Germany. The high Belgian tax component is the result of a policy change in 1981 when social security contributions were lowered by 6.17 percentage points and VAT was increased in an attempt to become internationally more competitive (Busse et al. 2004).

ALLOCATION OF RESOURCES FROM POOLING TO PURCHASING ORGANIZATIONS

Pooling and purchasing functions are carried out by organizationally separate bodies in most countries. While the pooling function is rather centralized, purchasing bodies

usually act on the regional or local level. Common purchasing bodies are regional and local governments as well as sickness funds.

The allocation of financial resources from pooling to purchasing organizations can be based on either prospective or retrospective allocation mechanisms. Under retrospective allocation, pooling organizations allocate all expenditure incurred by purchasing organizations while prospective allocation determines a budget for future health expenditure. In Belgium, Luxembourg, and the Netherlands, retrospective allocation according to actual expenditure was customary before reforms in the mid-1990s. These countries introduced prospective allocation mechanisms, except Luxembourg, which still uses the retrospective approach to reimburse patients for services such as physicians' fees. In Korea, resources are allocated retrospectively on the basis of an annually negotiated, fixed schedule of fees, paid to providers (OECD 2003). In France and Japan, the central government covers deficits of individual sickness funds, another possibility for retrospective allocation (Henke and Schreyögg 2004). Japan has set up a unique retrospective allocation mechanism for health expenditure of the elderly.

As an allocation method, most countries have moved toward the application of independent criteria governing health care needs (frequently referred to as "capitation") and away from historical precedent or political negotiations. *Capitation* can be defined as a price paid by pooling organizations for providing each individual covered by purchasing organizations with the necessary health services. Because individuals' health expenditures vary considerably with personal characteristics such as age, gender, and morbidity, increasing effort is being dedicated to the risk-adjustment process, which seeks an unbiased estimate of each individual's expected expenditure in light of these characteristics. As the predictive value of the applied capitation rises, equity between a country's different regions increases, and the pooling responsibility of each region decreases (Rice and Smith 2002).

Table 3. Risk Adjusters in Capitation Formulas for Resource Allocation in Social Health Insurance Systems

<i>Country</i>	<i>Year of implementation</i>	<i>Risk-adjusters</i>
Austria	None	
Belgium	1995	-Age, sex, social insurance status, employment status, mortality, urbanization, income
	2006	-Age, sex, social insurance status, employment status, mortality urbanization, income, diagnostic and pharmaceutical cost groups
France	None	
Germany	1994/1995	-Age, sex, disability pension status
	2002	-Age, sex, disability pension status, participation in disease management program
Japan	None	
Korea	None	
Luxembourg	None	
Netherlands	1993	-Age, sex
	1996	-Age, sex, region, disability status
	1999	-Age, sex, social security/ employment status, region of residence
	2002	-Age, sex, social security/ employment status, region of residence, diagnostic and pharmaceutical cost groups
Switzerland (within canton)	1994	-Age, sex

Sources: Adapted from Busse et al. (2004) and updated with data from Risk Adjustment Network (RAN).

Table 4. Risk Adjusters in Capitation Formulas for Resource Allocation in Tax Financed Systems

<i>Country</i>	<i>Risk-adjusters</i>
Australia	Age, gender, ethnic group, homelessness, mortality, education level, rurality
Canada	Age, gender, socioeconomic status, ethnicity, remoteness
Denmark	Age, number of children in single parent families, number of rented flats, unemployment, education, immigrants, social status, single elderly people
England	Age, mortality, morbidity, unemployment, elderly people living alone, ethnic origin, socioeconomic status
Finland	Age, disability, morbidity, archipelago, remoteness
Iceland	None
Ireland	not applicable
Italy	Age, gender, mortality, morbidity, utilization
New Zealand	Age, gender, welfare status, ethnicity, rurality
Norway	Age, gender, mortality, elderly living alone, marital status
Portugal	Mainly based on historical precedent; Age, relative burden of illness (diabetes, hypertension, tuberculosis, AIDS)
Spain	Percentage of population >65, "insularity" (region = islands)
Sweden	Age, gender, marital status, employment status, occupation, housing tenure, high utilizer

Sources: Rice and Smith (2002); Mapelli (1999); Järvelin et al. (2002); Vallgård et al. (2001).

The predictive value of risk adjusters for setting capitations varies widely among the countries reviewed here (Tables 3 and 4). Capitations range from less-sophisticated schemes, as in Switzerland, with only age and gender as risk adjusters, to complex, advanced capitations, as in Sweden and the Netherlands, with a high predictive value. Sweden, for instance, applies an advanced matrix approach, using age, gender, marital status, employment status, occupation, housing tenure as well as previous high utilization as risk adjusters on an individual level. The Netherlands might be even one step ahead since the introduction, in 2002, of capitation with age, gender, social security/employment status, region of residence, and diagnostic and pharmaceutical cost groups as risk adjusters.

Germany is a good example of the typical evolution of capitations and their purpose. From 1989 to 1994-5, Germany had a mixed system of pooling expenditure only for pensioners as a group, while for all other insured each sickness fund had to create its own pool of financial resources. Before the introduction of competition between funds in 1996, an age-, gender-, and disability-based risk-adjustment mechanism was introduced (Busse 2001). Since then, sickness funds have had to cover all expenditure of allocated resources from the central pool or increase their contribution rate to prevent any losses. Therefore, sickness funds have theoretically been reduced to their purchasing function, although they still bear some financial risk. This risk was further reduced by the extension of capitation to participants in disease-management programs. Switzerland, the Netherlands, and other countries took similar approaches.

SUMMARY

Nearly every high-income country applies some kind of capitation approach to allocate resources from pooling to purchasing organizations. Even systems such as the one in Korea, with only one central sickness fund that handles both pooling and purchasing need some mechanism for allocating resources among the regions. In other words, whatever health financing arrangement is chosen, a capitation approach is always necessary if the intent is equitable redistribution of pooled resources among the population. If promoting competition between sickness funds is also intended, capitation provides the regulatory function of giving each sickness fund a fair chance. The higher the predictive value of each capitation, the fairer is competition and the more equitable the allocation.

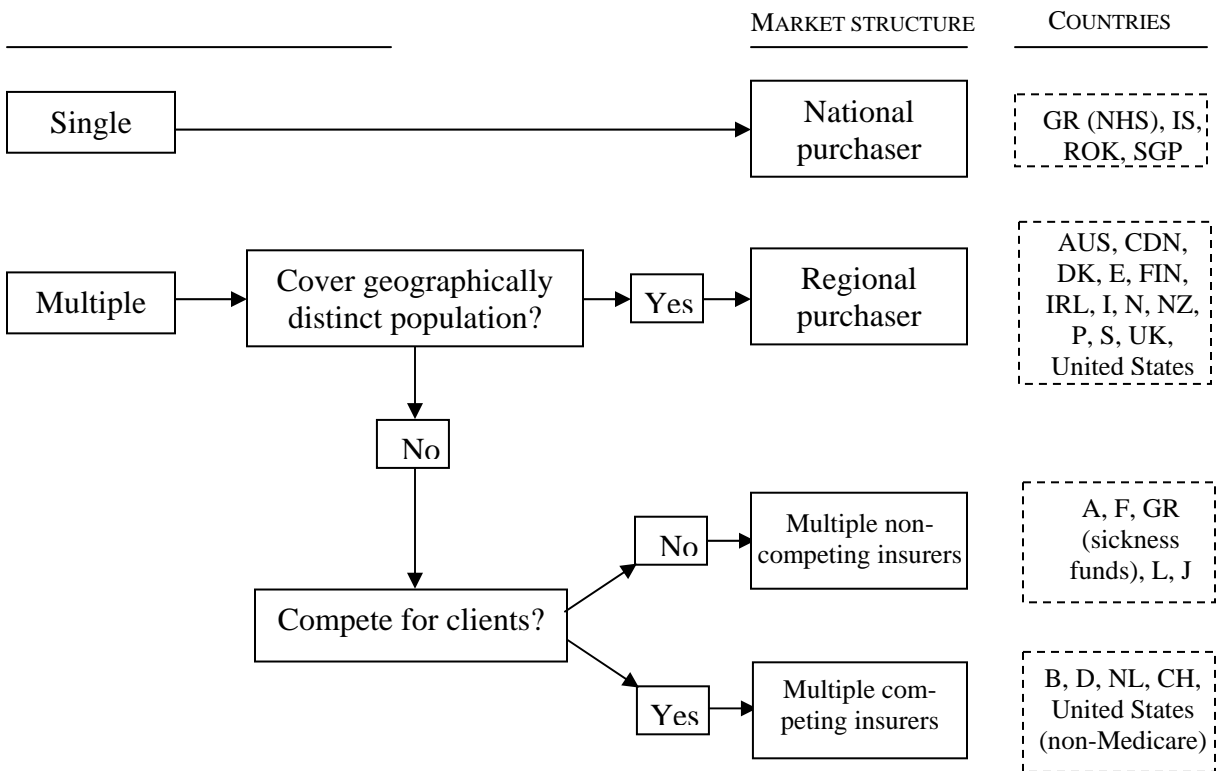
Part IV - Purchasing and Remuneration of Providers

Purchasing means the transfer of pooled resources to service providers; *remuneration* of providers refers to the mechanism used to allocate resources to providers. Purchasing organizations must have the necessary funds but are not necessarily identical with the pooling organizations. Each method for remunerating providers creates different behavioral incentives for service providers. Two main objectives have to be clarified before designing payment systems. First, the market structure has to be taken into account as a framework for activities of purchasing organizations. A single purchaser can cover a whole nation or multiple purchasers can either be assigned to fixed areas or compete with each other in the same areas. Second, it is important to be clear about the role assigned to the purchasers: a passive role as a financial intermediary or an active role with full financial power to achieve a defined level of quality and efficiency.

MARKET STRUCTURE OF PURCHASING ORGANIZATIONS

The number of purchasing organizations, their size, and their market structure vary widely between the countries reviewed here (Figure 8).

Figure 8. Market Structures for Purchasing Organizations



Source: Adapted from Kutzin (2001)

“Decentralization” of health financing systems usually implies delegation of purchasing responsibilities from central to regional or local organizations. The decentralization wave has reached almost every country in the last three decades, although a few countries still have centralized single purchaser systems. The exceptions are Greece (for NHS), Iceland, Korea, and Singapore (the tax-financed part)—all small in size and population, making decentralized, regional multipurchasing less necessary.

In the 1990s, Germany and the Netherlands (with previously noncompeting multiple purchaser systems) introduced competition between sickness funds—in this respect joining Belgium and Switzerland. Before the introduction of competition, members of each sickness fund were defined mainly by occupation or geographical area; now individuals can choose between funds. The main motivation was less to reduce administrative costs, as is often assumed, than to increase allocative efficiency: a decrease in expenditure per insured, an increase in quality of the purchased services, or both. Competition has been accompanied by a large reduction of the number of sickness funds in these countries ranging from 21 percent in Belgium to 70.6 percent in Germany between 1990 and 2002. As mentioned, this reduction is due to increased pooling responsibilities as well as to pressure toward efficient purchasing.

THE ROLE OF THE PURCHASER

During the 1970s and 1980s, the role of the purchaser was still limited to that of a financial intermediary providing or reimbursing the necessary services on behalf of the population. However, due to increasing cost pressure during the late 1980s, several countries tried to integrate market mechanisms into their systems improve service quality and efficiency. During the 1990s, purchasing organizations in both SHI and tax-financed countries, gained more and more management and planning autonomy. Active purchasing can encompass contracting as well as care management by purchasing organizations (not necessarily “managed care” in a narrow sense), for example, purchasing disease-management programs. Although managed care is a rather recent development, many countries with multiple purchaser systems experimented with contracting during the 1990s.

A geographically distinct multiple payer systems (mainly tax-financed), where regional purchasing organizations play an active role, is frequently referred to as an “internal market.” In 1991, the U.K. NHS embarked on a large-scale experiment to create an internal, quasi-market within the health system by separating the purchaser and provider functions and by encouraging competition among providers. Providers became quasi-independent entities managing their own budgets and financing them from contracts with purchasers (Le Grand 1999). There were two types of purchasers, district health authorities and general practitioner fundholding schemes. In the latter, large GP practices were given a budget to purchase a limited range of secondary care on behalf of their patients, reflecting the idea that GPs are a better agent for the patient than health authorities because they know more than health authorities about the quality of secondary providers and patients’ preferences.

Although in terms of efficiency, equity, choice, and responsiveness, the original internal market may not have delivered as much as its proponents had hoped, it did not do too badly—especially when aspects of its performance are compared with what has happened since it was officially abolished in 1997 (Dixon et al 2003). GP fundholding seems to have been particularly effective: recent research suggests that it reduced both waiting times and referral rates (Dixon et al 2003). Some new problems have become evident such as high transaction costs, inequities brought about by the splitting of purchasing between health authorities and GP fundholders (Dixon et al 2003), and most worrisome, a serious deterioration in some clinical outcomes (Propper et al 2002). However, most policy analysts agree that in some immeasurable ways the NHS had changed fundamentally through the internal market reforms, notably by introducing a considerable change in culture within the NHS in relations between the different players, especially in terms of extra attention being paid to the concerns of GPs of all types, their standing in the system, an overall increase in cost-consciousness, and more clarity about what services should be provided for whom, to what standard, and at what price (Le Grand 1999). Although the newly elected Labour Government formally abolished the Thatcher internal market in 1997, it has since developed its own version of an internal market maintaining the purchaser-provider split. At first it kept to the commissioning process in the health authorities. In 2003, it replaced the district health authorities with primary care trusts (PCTs) in which GPs and other health professionals again hold executive functions. This has been accompanied by a move to give more autonomy to selected “foundation hospitals,” and a highly controversial scheme to attract private investment for NHS hospitals (Pollock 2004)—the “Private Finance Initiative” (PFI)—thus taking the market-orientation of the NHS much farther than the conservative predecessor government.

Other tax-financed countries have also introduced partial purchaser-provider splits, but most of them on a smaller scale. For example, Sweden introduced internal markets in its NHS in Stockholm County in 1992. Similar to the U.K. experience, modest increases in productivity, efficiency, and responsiveness have been reported (Quaye 1997). In New Zealand, internal markets were introduced in 1993 to improve allocative and technical efficiency and to contain overall health expenditure. Therefore, formerly separate funding streams for GP services and for hospitals and other services were merged, and four regional health authorities (RHAs) were established (French et al. 2001). In 1996, a new government decided that the reforms had failed and decided to merge the four RHAs into a single purchasing organization. The three reasons for this were a steep rise in transaction costs after the 1993 reforms, problems with equity of access to care and, most important, three of the four RHAs and many of the public hospital providers were running substantial deficits that the government had to meet (Gauld 1999).

Similar to internal markets in tax-financed countries, selective contracting has developed in some SHI-countries. In Belgium, France, and Luxembourg, specific benefits are defined by the government, leaving volume and prices to the purchasing organizations. However, the volume of these benefits is small. Germany, the Netherlands, and Switzerland moved one step farther. Governments understood that competition between sickness funds cannot work, if the single funds have no management instruments to differentiate them from each other in competition. Therefore, sickness funds in all three

countries have received increasing autonomy over the last years not only with regard to selective contracting but also with regard to marketing activities, bonus payments for patients and providers, and other incentives.

In the Netherlands, selective contracting has been encouraged since 1992. According to an Anti-Cartel Act, collective contracting in health care has been illegal since 2002 (den Exter et al. 2004). Although hospitals were exempted from this regulation, the Anti-Cartel Authority announced that it would sue sickness funds that did not contract selectively with ambulatory providers. However, sickness funds still contract with providers collectively, mainly due to high transaction costs caused by contract negotiations with each provider. In the Netherlands as well as Germany and Switzerland, sickness funds are also allowed to contract selectively with provider networks and to negotiate freely service prices. The number of selective contracts with provider networks is low but growing in all three countries. Since 2004, German sickness funds have been required to devote 1 percent of their total expenditure to such contracts with provider networks under the “integrated care” scheme. This is expected to integrate traditionally separated service sectors more closely, thus preventing duplication of use and improving outcomes. On the other hand, selective contracting in Germany serves to break up ambulatory care cartels, where the physicians’ associations negotiate on behalf of all SHI-physicians in each region.

Just recently sickness funds have also received more autonomy in all three countries to excel in care management activities. In Switzerland, the two biggest funds are offering disease management programs (DMPs), but the share of participants is low, 5 percent out of all estimated potential participants (Weber et al. 2004). To avoid low participation rates in Germany, the German government took an innovative approach to increase the attractiveness of disease management programs. Sickness funds are not only allowed to offer DMP. If the insured enroll in certain, governmentally approved DMP, since 2002 they have been treated as a separate category in the risk structure compensation scheme. Thus, sickness funds with a high share of DMP participants receive a higher budget from the pooling organization (Federal Insurance Authority). This was expected to provide a stimulus for the sickness funds to try to attract and care more about the chronically ill as insured patients (instead of looking at them as “bad risks”). Critics pointed out that the act would provide an incentive for the sickness funds to enroll as many chronically ill insured as possible but not necessarily to improve their care, because as the individual sickness funds are compensated for the average expenditure of all DMP participants across sickness funds (by age and gender) (Busse 2004).

REMUNERATION OF PROVIDERS

The shift toward purchaser-provider splits in tax-financed health systems and more active purchasing by sickness funds in SHI systems has been accompanied by changes in physician and hospital remuneration mechanisms in many countries. The new transparency of service provision created by the active contracting process and heightened cost-consciousness on the part of decision makers, purchasers, and providers

alike might have been the main triggers for changes in remuneration mechanisms other than a pure desire to control costs.

Historically, provider remuneration has been mainly time- and population-based in tax-financed countries. In SHI and mixed systems (e.g., France, Germany, Japan, and the United States), service-based remuneration methods were and are still commonplace.

During the 1980s, global budgets were still the main mechanism for financing public hospital care in most tax-financed, high-income countries alongside fee-for-service payments for private hospitals or private patients in public hospitals. Hospitals received a prospective annual fixed budget to cover all their services, which most of the time reflected historical spending rather than the actual service intensity or morbidity of patients cared for. Fee-for-service is also still the principal means of paying for hospital services in Japan, and in some Swiss cantons hospitals are paid according to individual services provided (Docteur and Huxley 2003).

In 1983, the U.S. Medicare program became the first major public payer to introduce a payment per patient episode—the diagnosis-related group (DRG) system. With this type of remuneration mechanism, financing is based on a prospectively specified payment-per-discharge unit, standardized for variation in types of cases or case-mix. Different pathologies are grouped into homogenous cost groups—based on either medical conditions or surgical interventions—and average treatment costs are estimated for each group. A patient discharged from a hospital is assigned to a specific group, and the hospital receives a lump sum corresponding to the average cost of a patient in that DRG group.

Since then, most tax- or SHI-financed high-income countries have introduced some form of per-case payment system in their hospital financing systems—most partially and in some combination with global budgets. Tax-financed countries that have developed their own DRG payments or adapted existing systems from other countries and implemented them include Sweden (1985), Finland (1987), Portugal (1989), Canada (1990), Australia (1993), the United Kingdom (1992), Ireland (1993), Italy (1995), Denmark (1999), and Norway (1999). The first SHI country to introduce DRG payments was Belgium, in 1995, followed by Germany (case fees and procedure fees in 1995, G-DRG system in 2003), France (1997), Austria (1997), Switzerland (1997), the Catalunya region in Spain (1998), and the Netherlands (2003). In Japan (2003), a system called “diagnosis procedure combination” was introduced. Hospitals receive a defined number of fixed-value points for each service. Korea has developed its own DRG system but has not implemented it (Fischer 2003).

The problems connected with using per-case payment that have emerged over the years include: their administrative and operational complexity, a dependency on the availability of consistent and comprehensive activity and cost data, and the need to put incentives in place to ensure that costs are limited by service type within remuneration boundaries (Langenbrunner and Wiley 2002). On the plus side, prospective pricing systems appear to have encouraged cost efficiency in the hospital sector. Evidence from the United States indicates that the average length of hospital stays has fallen compared with other

remuneration methods, although this may also have been accompanied by lower intensity of care in certain cases (Chalkley and Malcolmson 2000). In Sweden, a comparison of counties that used prospective remuneration systems with those that did not suggested cost differentials on the order of 10 percent in favor of the prospective remuneration (Gerdtham et al. 1999 and 1999a).

However, the use of these remuneration methods may conflict with overall expenditure control, particularly where there is excess supply or productivity reserves. For example, the introduction of DRGs in Stockholm County led to a sharp rise in activity and spending, and central expenditure control had to be reimposed through penalties for exceeding volume limits (Docteur and Huxley 2003).

SUMMARY

The introduction of purchaser-provider splits in tax-financed systems and the more active purchasing role of sickness funds in SHI systems have spread to most countries reviewed here. The evidence on the effectiveness of purchaser-provider splits is controversial, with some gains in technical efficiency that may be outweighed by a deterioration in the quality of care and high transaction costs. Although sickness funds are supposed to take a more active purchasing role, they often lack the necessary instruments to do this. As the quality of care was formerly left completely at the discretion of providers and their associations, such as Chambers of Physicians, an active purchasing role with quality prescribed and monitored by purchasers might improve the quality of care in SHI systems and therefore increase technical efficiency. In contrast, NHS systems have a variety of other means of setting and monitoring clinical quality through their hierarchical structure and direct control of providers. This might be one explanation for the observation that care for the chronically ill is often more coordinated and of better quality in NHS systems than in SHI systems (Gericke and Busse 2004).

Hospital remuneration has moved away from global budgets in tax-funded countries and from per diem payments in SHI systems toward case payment methods, which have all been modeled on the U.S. Medicare DRG system, but which now come in a variety of forms with distinct characteristics and incentives for efficiency. The evidence on the benefits of this move is again not clear-cut. Gains in technical efficiency, mainly cost savings on the order of 10 percent, must be weighed against a reduced intensity and in some instances quality of care. In ambulatory care, the traditional payment mechanisms—fee-for-service in SHI systems and salaries in tax-funded systems—have been largely replaced by combination systems, which try to outweigh the positive and negative incentives of each individual payment mechanism in order to achieve provider behavior aligned with the purchaser's objectives. Examples are the mixed capitation payment to physicians' associations and point-based fee-for-service payment to individual German physicians or the capitation payment to British GPs, supplemented by fee-for-service payments for services that are underprovided (e.g., childhood immunizations or cancer screening activities). The same development can be seen in the remuneration of hospital doctors, who now more often receive performance-related payments on top of their salaries.

Part V - Lessons Learned for Countries in Transition

Learning *about* other countries' health care systems is always interesting. Learning *from* them is much more difficult, especially *for* one's own country. We believe, however, that the experiences of the high-income countries reviewed over the last three decades can be helpful for decision makers in low- and especially middle-income countries.

MAIN REFORM TRENDS IN HIGH-INCOME COUNTRIES

Since the late 1970s, much of the political and scientific attention in high-income countries has focused on “financial” aspects, driven by the concern for cost containment and, though often to a lesser degree, increased efficiency. At the same time, these countries' systems were also quite substantially—though publicly often less visibly—reformed in pursuit of other, nonfinancial and solidarity-related objectives such as widening coverage and comprehensiveness to increase both access and equity.

Most notably, Australia (in 1975), Portugal (in 1978), Ireland (in 1980), Greece (in 1984), Spain (in the late 1980s) and, most rapidly of them all, Korea (in 1989) introduced mandatory 100 percent population coverage. Belgium (1998) and France (2000) followed by extending their SHI systems to the population groups that were still uninsured due to the prevailing principle of actual or past professional status as the basis for sickness fund enrolment.

The most important expansions of coverage occurred with regard to long-term care, for example, in Austria (1993), Germany (1996), Luxembourg (1998), and Japan (2000). Regarding dental care and pharmaceuticals, developments vary: some countries attempted to restrict coverage in these areas, while other included them (most notably the United States in the case of pharmaceuticals).

The organization of pooling and purchasing arrangements has seen changes in many high-income countries. Somewhat oversimplified, pooling has—at least in SHI countries—become more centralized, while purchasing—in most tax-financed systems—has become more decentralized. SHI systems pursued this road to improve equity among their often small and fragmented sickness funds, further burdened by differing risk structures. In some countries, such centralization was combined with both more state intervention (into the pooling mechanism and the allocation formula) and free choice for the insured among sickness funds. In tax-financed countries, decentralization of the purchasing function is thought to increase accountability to the public as well as efficiency of care provision (and, in some countries, choice of provider). Whether this decentralization of purchasing—and concurrently of provision (outside the scope of this paper)—will be followed by similar trends on the collection and pooling side is subject to (partially heated) debate—most notably in Italy.

Besides spending controls through budgets or spending caps, cost-containment efforts have included increased reliance on out-of-pocket payments by patients at the point of

service—though not in all countries. Although such payments can be quite regressive as a financing mechanism and are not considered clinically appropriate tools for demand moderation, they can increase allocative efficiency, if well designed. For example, in Germany a recently introduced copayment scheme with income limits led to significantly less physician contact without shutting out low-income groups or individuals in poor health. Many policy makers are aware of the problems connected with this instrument as they continue to grow in importance. In the Netherlands, for example, dental care for adults was excluded, then partly reintroduced out of concern for uncovered population groups—but then again excluded. In Japan, the last big increase in coinsurance rates, in April 2003, from 20 to 30 percent in the Employees' Health Insurance, was sold politically as increasing equity because that was already the rate in the National Health Insurance. At the same time, policy makers added a clause in the law that cost-sharing would never get higher than this.

LESSONS FOR LOW- AND MIDDLE-INCOME COUNTRIES

Possibly surprising for people involved in financing health care in low- and middle-income countries, the main lesson from high-income countries regards population coverage for health care: do not implement financing reforms that do not support the (ultimate) goal of universal coverage (see Lesson 4, below). Transition countries have a choice of two main options to reach universal coverage. They can either decide on tax financing via general revenue or on social health insurance via contributions. Both are ways of collecting resources that are publicly administered and flow into one or several public pools. Which way is finally chosen is of secondary importance. The pooling function is most essential to provide coverage to as many individuals as possible, thus reducing their financial risk—the principal goal of public health financing. Private health insurance, Medical Savings Accounts, and other forms of private resource collection can only be supplementary models for increasing universal coverage. Because attributing outcomes to certain financing mechanisms is difficult, a best practice cannot be defined for designing health financing arrangements (e.g., tax-based or SHI). Financing arrangements will always depend heavily on each country's economic, political, cultural, and other circumstances.

Nonetheless, the evolution of health financing schemes toward universal coverage has been similar in the countries reviewed. Most of them started with voluntary health insurance that was gradually extended to compulsory social insurance for certain groups and finally reached universal coverage either as nationwide social health insurance schemes or as tax-financed national health services. Apart from Spain and Iceland, mentioned above, there are numerous other examples [e.g., Italy (1974) and Portugal (1979)] of countries that started with social health insurance and, in the final stage on the path to universal coverage, transformed their social health insurance into a national health service.

In summary, the following five lessons for low- and middle-income countries can be drawn from the high-income countries' experience.

Lesson 1. Facilitate steady economic growth.

The first and most important factor to speed up the transition to universal coverage is *the level of income* or GDP per capita. An increasing GDP per capita enables individuals and employers to spend certain amounts on prepaid contributions or taxes. Changing preferences go hand in hand with increased income, for example, demand for more benefits, and are likely to put pressure on the enhancement of benefit entitlements. Steady economic growth and its multiplier effects are therefore likely to facilitate universal coverage.

Lesson 2. Initiate pilots for voluntary health insurance.

The development of financing schemes seems to roughly follow a standardized path. At the beginning *voluntary health insurance*, often in the form of community-financed schemes, plays a vital role as pilot project to gain people's confidence in prepaid schemes. At the same time, in Germany and Japan, voluntary health insurance served as learning model for developing skills in administering funds and provided skilled staff for the later introduction of compulsory schemes (Bärninghausen and Sauerborn 2002).

Lesson 3. Foster administrative ability.

Evidence exists that *administrative ability* is an essential success factor for the survival of health financing schemes. In Korea, the availability of well-trained, middle-management administrators was instrumental in expanding the SHI (Carrin and James 2004).

Lesson 4. Ensure political commitment to expand population coverage.

Voluntary health insurance was usually followed by the compulsory introduction of social health insurance for certain groups. Judging by experience in Germany and Japan, economic prosperity does not seem to be a prerequisite for this essential step because both countries were still "poor" when it was introduced. However, for the further development of financing schemes toward full coverage, economic development does seem to be a prerequisite.

It is also striking that—after the introduction of social health insurance—most of the countries reviewed gradually integrated more and more groups. In Korea, as mentioned, expansion of social health insurance was orientated mainly at the development of companies. Although at the beginning only the employees of large companies were trusted to be wealthy enough for social health insurance, employees of medium and small companies were gradually integrated as economic prosperity moved down, and the middle class grew (OECD 2003). A *gradual expansion* over years is also essential with respect to administrative skills because it takes time to train enough personnel to administer data on the whole population. This also underlines the relevance of an economy's *formal sector*—as an achievement of economic growth—for the systematic expansion of social health insurance. However, a clear political commitment to expand population coverage is necessary because it does not happen by itself (as demonstrated in the case of Germany).

Lesson 5. Combine expansion of population coverage with risk pooling.

As population coverage expands, reliance on fragmented and small risk pools (e.g., community schemes in each village) will be insufficient. First, such small insurers will

face too high a risk of insolvency, due to both income and expenditure instability. Second, because health risks will be distributed unevenly, contribution rates or premiums will be inequitable. Although the first factor can be countered by increasing the size of each insurer (to more than a few thousand) or by introducing reinsurance (Dror 2002), the second factor will necessitate the introduction of a more encompassing risk-pooling mechanism, optimally including the total population. Initially, such mechanisms can be fairly simple and administratively easy to handle.

Lesson 6. Ensure evaluation of products and services at each stage.

No matter how small the (initial) budget for health care, a system should be developed for evaluating the effects of the products and services financed. Only technologies that have proven their effectiveness and which are cost-effective under each country's particular circumstances should be included in the benefits package. Looking at high-income countries such as Australia or the United Kingdom, it becomes clear that a generally acceptable limit for cost-effectiveness is roughly two times the GDP per capita for every quality-adjusted life year gained (i.e., in the United Kingdom, £30,000). In this way, the package will have to be developed and expanded gradually in line with economic development.

The proliferation of health technology assessment agencies in high-income countries can also be beneficial for middle- and low-income countries, which in reaching approval decisions could draw on the evidence produced by these agencies. If transferability should prove limited in certain countries due to different epidemiology, ethnic sensitivity to products or services, differing provider structures, or vastly different cost structures, bridging studies have to be conducted. However, because these studies are often as costly as other clinical trials, whether the game is worth the candle has to be weighed thoroughly. An alternative so far rarely discussed but probably worthwhile could be cooperation among countries with similar ethnic and institutional characteristics to make bridging studies affordable. Possibly, the World Bank, the World Health Organization, or other international organizations should take the lead in exploring or pursuing such a possibility. In fact, some initial evaluation-related steps have already been taken (cf. Tan-Torres et al. 2003).

REFERENCES

- Asher, M.G. (2002) *Pension Reform in an Affluent and Rapidly Ageing Society: The Singapore Case*. Paper prepared for the international Symposium on Pension Reforms in Asian countries, Asian Public Policy Programme, Hitotsubashi University, Tokyo, 1.2.2002.
- Bärnighausen, T. and Sauerborn, R. (2002) One hundred and eighteen years of the German health insurance system: are there any lessons for middle- and low-income countries? *Social Science and Medicine* 54: 1559-1587.
- Bentes, M., Matias Dias, C., Sakellarides, C., Bankauskaite, V. (2004) *Health Care Systems in Transition—Portugal*. Brussels: European Observatory on Health Systems and Policies.
- Bunce, V. C. (2001) *Medical Savings Accounts—Progress and Problems under HIPAA*. Cato Institute, Policy Analysis No. 411, Washington.
- Busse, R. (2001) Risk Adjustment Compensation in Germany's Statutory Health Insurance. *European Journal of Public Health* 11(2): 174-177.
- Busse, R. (2004) Disease Management Programs in Germany's Statutory Health Insurance System—A Gordian Solution to the Adverse Selection of Chronically Ill in Competitive Markets? *Health Affairs* 23(3): 56-67.
- Busse, R., Saltman, R.B. and Dubois, H. (2004) Organization and financing of social health insurance systems—current status and recent policy developments. In: Saltman, R.B., Busse, R., Figueras, J. (eds.) *Social health insurance systems in western Europe*. Buckingham: Open University Press, pp. 33-80.
- Busse, R. and Schlette, S. (eds.) (2003) *Health Policy Developments, International Trends and Analyses, Issue 1/2003*. Gütersloh: Bertelsmann Foundation Publishers.
- Carrin, G. and James, C. (2004) *Reaching universal coverage via social health insurance: key design features in the transition period*. Health Financing Policy Issue Paper Series, Geneva: World Health Organization.
- Centers for Medicare and Medicaid Services (2005) <http://www.cms.hhs.gov/mcd/reports.asp>. Accessed 4 April 2005.
- Chalkley, M. and Malcolmson, J. (2000) Government purchasing of health services. In: Culyer, A. and Newhouse, J. (eds.) *Handbook of Health Economics*. Elsevier.
- Colombo, F. and Tapay, N. (2003) *Private Health Insurance in Australia—a case study*. OECD Health Working Papers No. 8, Paris: Organisation for Economic Cooperation and Development (OECD).
- den Exter, A., Herman, H., Dosljiak, M., Busse, R. (2004) *Health Care Systems in Transition—The Netherlands*. Copenhagen: European Observatory on Health Systems and Policies.
- Dixon, J., Le Grand, J., Smith, P. (2003) *Shaping the new NHS—Can market forces be used for good?* London, King's Fund.
- Docteur, E. and Oxley, H. (2003) *Health-Care Systems—Lessons from the Reform Experience*, OECD Health Working Papers No.9, Paris: Organisation for Economic Cooperation and Development (OECD).
- Donatini, A., Rico, A., D'Ambrosio, M.G., Lo Scalzo, A., Orzella, L., Cicchetti, A., Profili, S. and Cetani, T. (2001) *Health Care Systems in Transition—Italy*. Copenhagen: European Observatory on Health Care Systems.

- Dror, D.M. (2002) Health insurance and re-insurance at the community level. In: Dror, D. M. and Preker, A.S. (eds.) *Social Re Insurance—A New Approach to Sustainable Community Health Financing*. Washington DC: The World Bank & Geneva: International Labour Office, pp. 103-123.
- Fischer, W. (2003) *Nutzung von DRGs und verwandten Patientenklassifikationssystemen*. <http://www.fischer-zim.ch/notizen/DRG-Nutzung-2001--0304.htm>. Accessed 5 April 2005.
- French, S., Old, A. and Healy, J. (2001) *Health Care Systems in Transition—New Zealand*. Copenhagen: European Observatory on Health Care Systems.
- Gauld, R. (1999) Beyond New Zealand's dual health reforms. *Social Policy & Administration* 33(5): 567-85.
- Gerdtham, U.G., Löthgren, M., Tambour, M., Rehnberg, C. (1999) Internal markets and health-care efficiency: a multiple-output stochastic frontier analysis. *Health Economics* 8: 151-164.
- Gerdtham, U., Rehnberg, C., Tambour, M. (1999a) The impact of internal markets on health-care efficiency: evidence from health-care reforms in Sweden. *Applied Economics* 31: 935-945
- Gericke, C.A., Wismar, M., Busse, R (2004). *Cost-sharing in the German health care system*. Discussion paper 2004/4, Technische Universität Berlin, Faculty of Economics and Management, <http://www.wz.tu-berlin.de/diskussionspapiere/2004/dp04-2004.pdf>
- Gibis, B., Koch-Wulkan, P.W., Bultman, J. (2004) Shifting criteria for benefit decisions in social health insurance systems. In: Saltman, R.B., Busse, R., Figueras, J. (eds.) *Social health insurance systems in western Europe*. Buckingham: Open University Press, pp. 189-206
- Halldorsson, M. and Bankauskaite, V. (2003) *Health Care Systems in Transition—Iceland*. Copenhagen: European Observatory on Health Care Systems.
- Henke, K.-D. and Schreyögg, J. (2004) *Toward sustainable health care systems—strategies in health insurance schemes in France, Germany, Japan and the Netherlands*. Geneva: International Social Security Association.
- Hilless, M., and Healy, J. (2001) *Health Care Systems in Transition - Australia*. Copenhagen, European Observatory on Health Care Systems.
- Hjortsberg, C., Ghatnekar, O., Rico, A., Wisbaum, W. and Cetani, T. (2001) *Health Care Systems in Transition—Sweden*. Copenhagen: European Observatory on Health Care Systems
- Järvelin, J., Rico, A. and Cetani, T. (2002) *Health Care Systems in Transition—Finland*. Copenhagen: European Observatory on Health Care Systems
- Jommi, C. and Fattore, G. (2003) Regionalisation and drugs cost-sharing in the Italian NHS. *EuroObserver* 5(3): 1-4
- Kaufhold, R. and Schneider, M. (2000) *Preisvergleich zahnärztlicher Leistungen im europäischen Kontext*. Köln: IDZ.
- Kupsch, S., Kern, A., Klas, C., Kressin, B., Vienonen, M. and Beske, F. (2000) *Health Service Provision on a Microcosmic level—An International Comparison*. Results of a WHO/IGSF Survey in 15 European Countries. Kiel: Institute for Health Systems Research.

- Kutzin, J. (2001) A descriptive framework for country-level analysis of financing arrangements. *Health Policy* 56: 171-204
- Lambrey, J.M. (2004) Numbers matter: A guide to cost and coverage estimates in health reform debates. *Journal of Law, Medicine and Ethics* 32: 446-453.
- Langenbrunner, J.C., Wiley, M.M. (2002) Hospital payment mechanisms: theory and practice in transition countries. In: McKee, M., Healy, J. (eds.) *Hospitals in a changing Europe*. Buckingham, Open University Press, pp. 150-176
- Le Grand, J. (1999) Competition, cooperation, or control? Tales from the British National Health Service. *Health Affairs* 18(3): 27-40.
- McKee, M., Delnoij, M.J., Brand, H. (2004) Prevention and Public Health in Social Health Insurance Systems. In: Saltman, R.B., Busse, R., Figueras, J. (eds.) *Social health insurance systems in western Europe*. Buckingham: Open University Press, pp. 267-280.
- Minder, A., Schoenholzer, H. and Amiet, M. (2000) *Health Care Systems in Transition—Switzerland*. Copenhagen: European Observatory on Health Care Systems.
- National Health Insurance Corporation—The Republic of Korea (2001) *National Health Insurance Program in Korea 2001*. Seoul: National Health Insurance Corporation. <http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN009456.pdf> (accessed 16/03/2005).
- Newhouse, J. (1992) Medical care costs: how much welfare loss? *Journal of Economic Perspectives* 6: 3-21.
- Nonneman, W. and Van Doorslaer, E. (1994) The role of the sickness funds in the Belgian health care market. *Social Science and Medicine* 39(19): 1483-1495.
- Organisation for Economic Cooperation and Development (OECD) (2003) *OECD Reviews of Health Care Systems: Korea*. Paris: OECD.
- Organisation for Economic Cooperation and Development (OECD) (2004) *OECD Health Data, 3rd edition*. Paris: OECD.
- Organisation for Economic Cooperation and Development (OECD) (2004a) *Private Health Insurance in OECD Countries*. Paris: Organisation for Economic Cooperation and Development (OECD).
- Pollock, A. (2004) *NHS plc: the privatisation of our health care*. London, New York: Verso.
- Prescott, N. and Nichols, L.M., (1998) International Comparison of Medical Savings Accounts. In: World Bank Discussion Paper No. 392: *Choices in Financing Health Care and Old Age Security*. Washington: World Bank, pp. 19-32.
- Propper, C., Burgess, S., Abraham, D. (2002) *Competition and Quality: Evidence from the NHS internal market 1991–1999*. Bristol: CMPO, University of Bristol.
- Quaye, R. (1997) Struggle for control: general practitioners in the Swedish health care system. *Eur J Public Health* 7: 248-53
- Rice, N. and Smith, P. (2002) Strategic resource allocation and funding decisions. In: Mossialos, E., Dixon, A., Figueras, J. and Kutzin, J. (eds.) *Funding Health Care: Options for Europe*. Buckingham: Open University Press, pp. 250-271.
- Rico, A., Sabes, R. and Wisbaum, W. (2000) *Health Care Systems in Transition—Spain*. Copenhagen: European Observatory on Health Care Systems.

- Sandier, S., Paris, V., Polton, D., Thomson, S., Mossialos, E. (2004) *Health Care Systems in Transition—France*. Copenhagen: European Observatory on Health Care Systems.
- Schreyögg, J. (2004) Demographic Development and Moral Hazard: Health Insurance with Medical Savings Accounts. *The Geneva Papers on Risk and Insurance* 29: 689-704.
- Schreyögg, J. and Lim, M.K. (2004a): Health Care Reforms in Singapore—Twenty Years of Medical Savings Accounts. *Dice-Report—Journal for Institutional Comparisons* 2(3): 55-60.
- Tan-Torres, E., Baltussen, R., Adam, T. et al. (2003) *Making choices in Health—WHO guide to cost-effectiveness analysis*. Geneva: World Health Organization.
- Thomson, S., Mossialos, E., Jemai, N. (2003) *Cost sharing for health services in the European Union*. Report prepared for the European Commission, Directorate General for Employment and Social Affairs. Copenhagen and London, European Observatory on Health Care Systems and London School of Economics and Political Science.
- United States General Accounting Office (1998) *Comprehensive Study of the Medical Savings Account Demonstration*. GAO/HEHS-98-57, Washington.
- Velasco Garrido, M. and Busse, R. (2005) *Health Technology Assessment—An Introduction on Objectives, Role of Evidence, and Structure in Europe*. Policy Brief. Copenhagen/Brussels: European Observatory on Health Systems and Policies (in print).
- Vallgarda, S., Krasnik, A., Vrangbaek, K. et al. (2001) *Health Care Systems in Transition—Denmark*. Copenhagen, European Observatory on Health Care Systems.
- Weber, A., Götschi, AS, Kühne, R., Meier, D. (2004) Patientenrekrutierung für Disease Management. *Schweizerische Ärztezeitung* 85(48): 2581-2584.
- Zweifel, P. and Manning, W.G. (2004) Moral Hazard and Consumer Incentives in Health Care. In: Culyer A.J and Newhouse J.P. (eds.) *Handbook of Health Economics*. Volume 1A. North Holland: Elsevier, pp. 409-460.

