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**THE HEALTHCARE SYSTEM IN HUNGARY**

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**by**  
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## ABSTRACT/RÉSUMÉ

This paper examines within an international context, the healthcare system in Hungary. While the system resembles in many of its broad features those of other OECD countries, Hungarians have the lowest life expectancy in the OECD and its rate of increase over the last 20 years has been much slower than in the rest of the area. The Hungarian health system is relatively resource intensive and is characterised by high hospitalisation rates, an excess supply of specialists and perverse incentives both for doctors and hospital administrators. Budgetary rules prevent hospitals from properly amortising investments and limit their capacity to manage labour costs. Furthermore inadequate supervision of billing by the state administrator has led to a fraudulent inflation in both the number and the “seriousness” of treatments. Recent reforms have concentrated on containing costs but efforts to improve service delivery and health outcomes have been plagued by problems of institutional conflict. Although cost pressures on the healthcare system are likely to intensify in the future, the economy’s capacity to pay will improve and, as a result, the gap between the quality and quantity of Hungarian versus European healthcare will gradually close. The paper makes a series of concrete policy recommendations, principal of which is that reform should go ahead in an evolutionary manner, albeit with a determined shift in priorities. Emphasis needs to be placed upon measures that support health promotion, while concerted changes are needed at the financial, legal and organisational levels in order to ensure that decision-makers are held accountable and that the authorities are in a position to monitor them. Finally, more emphasis needs to be placed on increasing home-based care, occupational- and physio-therapy services and on making greater use of nursing-homes as opposed to chronic-care hospital beds.

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Le présent document examine, dans une perspective internationale, le système de santé de la Hongrie. Bien que ce système soit, à de nombreux égards, comparable à ceux des autres pays de l’OCDE, l’espérance de vie en Hongrie est la plus basse de la zone de l’OCDE et, lors des vingt dernières années, son taux d’amélioration a été nettement inférieur à celui des autres pays membres. Le système de santé hongrois est relativement gros consommateur de ressources et se caractérise par des taux élevés d’hospitalisation, une offre excédentaire de spécialistes et des incitations perverses aussi bien pour les médecins que pour les administrateurs d’établissements hospitaliers. Les règles budgétaires auxquelles sont soumis les hôpitaux ne leur permettent pas de prévoir et d’amortir correctement des investissements et limitent leur capacité à gérer leurs coûts salariaux, et en même temps, la surveillance insuffisante des procédures de facturation par l’administrateur public ont conduit à une inflation frauduleuse tant du nombre que de la « gravité » des traitements. Les réformes récentes ont principalement visé à contenir les coûts, mais les efforts entrepris pour améliorer la fourniture des services et l’état général de santé de la population ont été entravés par des conflits entre les institutions concernées. Toutefois les pressions sur les coûts persisteront, même si une amélioration de la faculté contributive de l’économie fait contre poids. En conséquence, l’écart entre le système de santé hongrois et les systèmes européens sur le double plan qualitatif et quantitatif devrait progressivement se réduire. Le document présente un certain nombre de recommandations concrètes d’action, la principale étant que la réforme devrait se poursuivre de manière progressive même si les priorités ont besoin d’être résolument modifiées. Il faudrait mettre l’accent sur les mesures visant à encourager une amélioration des comportements et de l’hygiène de vie, et des modifications concertées doivent être simultanément opérées sur les plans financier, juridique et administratif pour que la responsabilité de ceux qui prennent les décisions soit engagée et l’autorité de tutelle (Ministère de la santé) disposent des instruments nécessaires pour contrôler correctement ses choix. Il convient en outre de mettre davantage l’accent sur le développement des soins à domicile et les services de réadaptation professionnelle et médicale ainsi que sur une plus large utilisation des établissements médicalisés au lieu des hôpitaux pour la prise en charge de longue durée.

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## THE HEALTHCARE SYSTEM IN HUNGARY

Eva Orosz and Andrew Burns<sup>1</sup>

### Introduction

1. Developments in the Hungarian healthcare system over the past decade were deeply affected by the political, social and economic transformation of the country. Indeed, the social costs of the transition to a market economy were substantially larger than initially expected, resulting in a rapid rise in transfer payments. To help restore balance in public finances, a substantial programme of government spending restraint was initiated, which, in the healthcare sector, translated into efforts at expenditure control. Throughout the period, the policy debate has been intense and, despite a focus on cost-saving, the reforms actually undertaken have generally sought to promote a well-functioning healthcare system by improving efficiency, quality and equity. However, not all reforms have met their long-term goals either because of incomplete implementation or failure to undertake necessary complementary action. As a result, the healthcare system remains in serious need of reform.

2. The purpose of this paper is to shed some light on these issues. It first provides an overview of the institutional structure of the Hungarian healthcare system and compares internationally both its outcomes and resource-use. It then discusses a number of problems with the system, referring particularly to: containing costs, re-establishing a balance between healthcare sectors, correcting misaligned incentives and improving the extent to which participants are held responsible for their actions. The final section of the chapter builds on this analysis to offer some suggestions for reform.

### Overview of the system

#### *Organisational structure*

3. The Hungarian healthcare system is principally a comprehensive, compulsory, employment-based national health insurance scheme that provides near universal coverage both in terms of treatments<sup>2</sup> and in terms of population, with nearly all citizens receiving care whether or not they contribute. The current structures were introduced beginning in 1990 (Table 1). Prior to then, the healthcare system operated as an integral part of the government with no separate budget or accounting system. Within the new scheme, the purchasing and service-provision functions are separated with the National Health Insurance Fund Administration (HIFA) entering into performance-based contracts with hospitals, outpatient clinics and independent caregivers. Most of the HIFA's revenues derive from earmarked payroll and poll taxes levied on employees and employers. These are supplemented by direct subsidies from the central budget, which cover any deficit. Public health activities and the National Ambulance Service are financed from the state budget, while investments are funded by state and local governments who own most health facilities. A growing proportion of total spending is financed privately through co-payments (on pharmaceuticals, some dental procedures and prosthetics), by under-the-table payments made directly to caregivers (so-called "gratitude money") and *via* direct out-of-pocket payments

Table 1. Roles of the institutional actors in the healthcare system

Policy making	Administration/Supervision	Financial
<b>Office of the Prime Minister</b> (since July 1990)		
– Develops health policy	– Supervises the HIFA – Co-ordinates the activity of the Ministry of Health (among others)	
<b>Ministry of Health</b> (Welfare prior to July 1998)		
– Develops health promotion and health-care concepts, bills and decrees – Co-ordinates health policy with other sectoral policies (education, environmental protections etc.)	– Sets, with Ministry of Finance and the HIFA, health-insurance budget – Implements legislation – Supervises public health via National Public Health and Medical Officer's Services – Supervises medical education, training and research – Interest reconciliation	– Determines fees paid to care givers – Finances national institutions' investments (as owner) – Finances the NPHMOS and (since 1998) the National Ambulance Service and National Blood-Supply Service among others – Supports other public health and curative health services
<b>Ministry of Finance</b>		
– Develops concepts for healthcare financing – Determines overall funding level of the health-care system	– Sets, with the Ministry of Welfare and the HIFA, health-care budget – Covers the deficit of the HIF	– Subsidises investment expenditures – Monitors spending and revenues through the Treasury function
<b>Health Insurance Self Government</b> (until July 1998)		
– Consulted during policy making – Right of Veto over health-related government decrees until 1996	– Operated the Health Insurance Fund Administration	– Directed the management of HIF assets
<b>Health Insurance Fund Administration</b>		
– Prepared proposals for the HISG (until July 1998) – Prepares proposals for the government	– Responsible for assuring the provision of health services – Negotiates and executes contracts with health-care providers – Manages insurance registry – Overall financial management and supervision of expenditures	– Collects social security contributions from employers and employees for both pension and health insurance – Contracts and pays caregivers according to scales set by Ministry of Welfare and government decrees
<b>Local Government</b>		
– Makes investment decisions – Responsible for healthcare provision to their inhabitants	– Ultimately responsible for day to day operation of health-care institutions – Principal owner and operator of hospitals and outpatient clinics – Contracts with self-employed GPs and supplies and maintains doctor's offices and equipment	– Receives grants from HIFA to cover operating costs – Receives grants from central government to cover investments
<b>Professional organisations</b>		
– Input into policy making process	– Supervise ethical and professional conduct – Represent professional interests	– Advise expert bodies concerning financing including the revision of tariffs – Collect fees to cover own expenses

Source: OECD.

to private providers operating outside of the national health insurance system. The law also provides for voluntary mutual and private insurance funds to ensure supplementary coverage to the basic healthcare system. However, there is currently little medical activity that is not covered by the public system and, therefore, little for the voluntary funds to supplement.

4. Overall health policy is determined by the government with the Ministry of Health (formerly the Ministry of Welfare) in conjunction with the HIFA proposing and implementing reforms. The financial parameters of the system, including the health insurance premiums paid by employers and employees and the budget of the Health Insurance Fund (HIF), are decided and promulgated each year by parliament in its "Act on the Budget of the Social Insurance Funds". The Ministry of Finance formulates the initial draft of the budget in consultation with the HIFA, which until mid-1998 was a subordinate body of the now abolished Health Insurance Self-Government<sup>3</sup> (HISG). The Ministry of Health operates the National Public Health and Medical Officer Service (NPHMOS), a centralised public-health service created in 1991. It is a traditional epidemiology and hygiene service that is also responsible for the licensing and professional supervision of healthcare institutions (such as hospitals and general practitioners' practices); the operation of a number of local-level health promotion and prevention programmes; and the facilitation of contracting between the HIFA and local governments. Day-to-day administration of the healthcare system is split between the local governments, who are responsible for service provision, and the government's purchasing agent (the HIFA) and its network of 19 County Health Insurance Fund Offices.

### ***Healthcare delivery and resource allocation***

5. Since 1993, the HIFA has acted as a central purchasing agent for healthcare services from hospitals, outpatient clinics and general practitioners. Primary care is paid for by a flat per-patient fee (capitation) that is adjusted for the qualification of the physician and the demographic characteristics of the patient. Outpatient treatment is paid through a German-style *point system* and hospital-care is reimbursed according to Homogenous Diseases Groups (HDGs) inspired by the American Diagnosis Related Groups. The capitation and points system are capped while until 1998 so was the HDG system. The initial relative weight of each sub-budget in total healthcare expenditure was determined by the share of spending in 1992 and has changed little since. Although caregivers within the sub-systems can compete with one another for their share of the sub-budget, funds cannot be redistributed between them without a parliamentary amendment to the Health Insurance Budget Act and the total payments under the HDG and points systems cannot exceed the budgeted amount. The final major healthcare payment provided by the HIF is out-of-hospital pharmaceutical subsidies, which are paid at varying rates, depending on the drug prescribed. Several services (mother and child healthcare nurses) are given a global budget by the HIFA, while the Public Health Service, additional drug subsidies for the poor, and (beginning in 1998) the National Ambulance Services and the National Blood Transfusion service are financed directly from the central budget (see Box 1).

6. Local governments are legally responsible for providing primary healthcare, including family doctor services. Until early 2000, they ran the services directly or provided surgeries to private GPs, including office space, basic equipment and building maintenance. In many cases they also paid for utilities. Ninety-three per cent of the GPs and paediatricians worked on contract with a local government and the HIFA, while the remainder contract only with the HIFA. Under new regulations these practices have been privatised, with ownership of the business having been ceded to the practitioner at that time. A similar reform is being contemplated to privatise the equipment and office space occupied by these doctors. Capitation payments to family physicians represent 75 per cent of the revenues received by GPs from the HIFA, the rest coming in the form of a separate fixed maintenance allowance. In order to dissuade doctors from having excessively large practices, and therefore providing poor service, there is a threshold on capitation payments beyond which an adjustment factor is applied.<sup>4</sup>

**Box 1. The structure of healthcare delivery**

**PRIMARY HEALTHCARE<sup>1</sup>**

**Basic health services**

**(financed by health insurance)**

Family physician service  
 Pediatrician family physician practices  
 Night duty service  
 Network of mother and child health nurses  
 Dental healthcare  
 School healthcare  
 Home nursing (mainly private contracts with HIF)  
 Hospices  
 Physiotherapy  
 Occupational health services (since 1996 not covered by compulsory insurance)

**Public health services**

**(financed from state budget)**

Health education  
 Immunisation  
 Food health  
 Environmental health  
 Occupational health

**SECONDARY AND TERTIARY CARE (financed by health insurance)**

**Outpatient specialist services**

Outpatient clinics of the hospitals  
 Independent outpatient clinics  
 Dispensaries (pulmonary, psychiatric, dermatoveneral, oncology, alcohol and drugs)  
 “Mobile” gynaecology and pediatrics specialist care (for rural settlements)  
 Diagnostic centres (mainly private contracts with HIF)

**Inpatient care**

National institutes  
 Medical universities  
 County hospitals  
 Local hospitals

**National Ambulance Service** (since 1998 financed from the state budget)

**National Blood Transfusion Service** (since 1998 financed from the state budget)

**COMMUNITY/SOCIAL CARE (financed by local governments)**

Social welfare homes for the elderly  
 Social welfare homes for the mentally ill  
 Daycare centres for the elderly and the disabled  
 Home social care services

1. The broader meaning of Primary Healthcare as defined by the WHO. (Terminology for the WHO Conference on European Healthcare Reforms, WHO EURO, 1996).

7. The national network of hospitals has retained many of the hierarchical elements of the previous system.<sup>5</sup> Local (town) hospitals provide a basic range of services and more specialised work is conducted at county institutions and at the research and teaching hospitals (run by the Ministry of Health and Ministry of Education respectively). The majority of specialists and healthcare employees are salaried public servants and nearly all hospitals are owned and operated by local levels of government (county or municipality), while national institutes and medical universities are run by the central government. A



number of private institutions exist within the national system, although their activities are limited mainly to the provision of various specialised medical services such as Computerised Tomography (CT) scans, Magnetic Resonance Imaging (MRI) and kidney dialysis. In addition, many salaried medical professionals also own private outpatient clinics that operate outside of the national health insurance system. General practitioners (family doctors) are the only significant group of non-salaried healthcare workers.<sup>6</sup> Most pharmacies are privately-owned businesses while the market itself is tightly regulated and pharmaceuticals themselves heavily subsidised. Within the public healthcare system, gratitude money constitutes an important part of the remuneration of many medical professionals and introduces a significant (albeit illegal) co-payment component to publicly supplied healthcare.

8. The fees received from the HIFA for services performed in hospitals and outpatient clinics are used to pay the salaries of specialists, nurses and other healthcare workers, costs of maintenance including public utilities as well as other variable costs including pharmaceuticals administered in the hospital. The fees are not meant to cover capital costs including the depreciation of and investment in buildings and medical equipment. These costs, which are the responsibility of the institution's owners, are subsidised from the central budget and the distribution of these funds is determined jointly by the Ministries of Finance, Health and Internal Affairs.<sup>7</sup>

9. Outpatient care was initially remunerated according to a mixed system, consisting of two components: *i*) a basic budget (equal to about 60 per cent of their revenues prior to 1996 and 40 per cent afterwards); and *ii*) a relative-tariff fee-for-service system copied from the German "point-system". As of 1997, the first component has been replaced by a so-called "fixed-payment" (amounted to about 15 per cent of the revenues of out-patient institutions). The system sets "points" for each type of service, fixing their relative values. The monthly forint value of a point is then determined by dividing the national outpatient care budget by the total number of points earned during the month. Thus, as the aggregate number of points increases (or falls), the forint value of a point falls (rises), although for the economy as a whole, aggregate payments for outpatient care remain constant.

10. Acute care cases are classified according to HDGs and payment is determined by the weight assigned to that diagnosis.<sup>8</sup> The Hungarian system differs from the American because, in Hungary, HDG payments include doctors' remuneration and, until fully phased out in 1998, raw HDG points were adjusted by a hospital-specific factor, with the result that hospitals with higher unit costs in 1992 (the base year) received as much as four times more than efficient ones.<sup>9</sup> In addition, the national cap meant that the forint value of an adjusted HDG point fell as the total number of points billed rose. Since then, the HDG system has been modified several times. As of April 1998, the money value of a HDG unit was fully equalised across hospitals and they were given a fixed forint value, opening up the possibility that the cap for these procedures could be exceeded. Nevertheless, financing is not strictly activity based: hospitals continue to receive payments based on inputs consumed rather than services rendered.<sup>10</sup>

11. At the micro-level physicians are the key decision-makers. Their behaviour is influenced not only by their economic interests but also by medical traditions, values and ethics; expectations of the population; and wider social circumstances. Traditionally doctors are expected to do everything medically possible without regard to its effectiveness or costs. So far this has changed little at the level of the individual doctor and is abetted by gratitude money and the influence exerted by pharmaceutical and medical equipment companies on individual doctors.

### *Healthcare expenditures*

12. The budget of the HIFA has been in deficit almost since its inception. Despite cost-containment measures (see below) that reduced its expenditures (including cash benefits) from 8.8 to 6.2 per cent of

GDP (between 1992 and 1998) and their real value by 22 per cent, falling revenues left the deficit virtually unchanged at 0.7 per cent of GDP (Table 2).<sup>11</sup> The principal causes of the drop in revenues were: falling employment, the emergence of mass unemployment, widespread tax evasion by firms and workers and non-payment of contributions<sup>12</sup> (a particular problem among a number of large state-run entities such as the railroad and even the police). While it is difficult to estimate the exact revenue shortfall from underpayment of contributions, the annual per capita total contribution of the self-employed is one-fifth that of salaried employees, suggesting widespread avoidance. The decrease of the contribution rate<sup>13</sup> and the 1997 withdrawal of pension insurance fund contributions made on behalf of pensioners and of central

**Table 2. Revenues and expenditures of the Health Insurance Fund**

	1992	1993	1994	1995	1996	1997	1998 budget	1999 <sup>1</sup>
	(Millions of forints)							
<b>Total contributions</b>	<b>221017</b>	<b>245207</b>	<b>287907</b>	<b>321983</b>	<b>369734</b>	<b>471812</b>	<b>540998</b>	<b>578010</b>
Employer health insurance contributions	173253	190778	233109	269168	308224	323812	370621	328268
Contributions on unemployment benefits		9995	6608	6018	5836	4642	4664	3423
Employee contributions	36098	44434	48190	44960	50551	62474	62662	74279
Accident contributions				1837	1593	1251	960	514
Employer contribution to sick pay					3530	7658	9499	10500
Health tax						71974	92592	161026
Employer health tax						71587		
Health tax paid by individuals						386		
Late payment fees	7787	10467	11196	9413	8141	8466	7722	9100
Central budget contributions	2600	5800	7000	10400	12000			
Revenues from collecting arrears				13322	15426	16867	15494	21500
Other related to ins. Activity	1279	2113	4557	3318	4430	3655	2590	4940
Central budget for state fin. service		2500	4462	2500	2500	2500	2500	3590
Repayment by hospital						1501	1499	
Income from assets transf. by the state	0	0		0	4	8200	1925	19600
Transfer between funds	10103	11298	54664	56726	66055			
Central budget to cover wage increase	1660	2371	5400	0				
Central Budget subsidy								26700
Other	2 500	500	4 500	4400	2600	13000	6800	5970
<b>TOTAL REVENUES</b>	<b>235775</b>	<b>280308</b>	<b>79716</b>	<b>422915</b>	<b>465473</b>	<b>499487</b>	<b>561462</b>	<b>649252</b>
<b>In-kind provisions</b>	<b>156203</b>	<b>186873</b>	<b>241525</b>	<b>275749</b>	<b>326102</b>	<b>389964</b>	<b>458449</b>	<b>503392</b>
Curative services	112123	131571	170464	190174	224832	265779	299092	337114
Pharmaceutical expenditures	39392	49535	61572	69965	85495	100876	135474	141000
Medical supplies subsidy	3570	4698	7269	10808	12118	16782	19618	20581
Travel reimbursement	1118	1069	1414	1767	2133	2561	2225	2506
Other (spa, mothers' milk)				3035	1524	1708	2041	2191
<b>Cash benefits</b>	<b>72895</b>	<b>88581</b>	<b>107970</b>	<b>118243</b>	<b>121959</b>	<b>141809</b>	<b>149657</b>	<b>169848</b>
Disability and accident compensation	36455	45034	57771	68147	79265	97982	99927	115684
Maternity and child allowance	6419	7203	8261	8904	8276	6013		5569
Sickpay	28912	35255	40833	39805	32977	36138	41225	46500
Grants related to illness	537	441	428	679	699	865	639	1100
Compensation payments	572	648	677	708	743	810	912	995
Contribution to joint expenditure	24995	28834	1007	1116			2800	1262
<b>Operational expenditures</b>			<b>10439</b>	<b>12553</b>	<b>15505</b>	<b>18157</b>	<b>21332</b>	<b>16847</b>
<b>Transfers between the funds</b>			<b>32931</b>	<b>37116</b>	<b>37198</b>			
<b>TOTAL EXPENDITURES</b>	<b>257510</b>	<b>306033</b>	<b>397835</b>	<b>445141</b>	<b>508959</b>	<b>555585</b>	<b>632194</b>	<b>691905</b>
<b>BALANCE</b>	<b>-21735</b>	<b>-25725</b>	<b>18119</b>	<b>22226</b>	<b>-43486</b>	<b>-56098</b>	<b>-70732</b>	<b>-42653</b>
	(per cent of GDP)							
Total revenues	8	7.9	8.7	7.5	6.8	5.8	5.5	5.5
Total expenditures	8.8	8.6	9.1	7.9	7.4	6.5	6.2	5.9
Balance	-0.7	-0.7	-0.4	-0.4	-0.6	-0.7	-0.7	-0.4

1. Preliminary data.

Source: HIFA.

budget contributions made on behalf of social assistance recipients placed further pressure on revenues.<sup>14</sup> The preliminary 1999 data show that the expenditures of the HIFA decreased further to the 5.9 per cent of the GDP and the share of the deficit also decreased to 0.4 per cent of the GDP.

13. Long-term spending trends and the actual level of expenditure in Hungary are difficult to establish because of institutional changes and the lack of reliable data concerning gratitude payments and private service provision.<sup>15</sup> The data concerning private expenditures on health services in Table 3 are provided by the Central Statistical Office and include estimates of gratitude payments. They indicate that in 1998 public healthcare expenditures amounted to 5.6 per cent of the GDP, considerably less than in 1991. The increase in private expenditures (from 0.8 to 1.2 per cent of the GDP) did not fully compensate for the decrease in public expenditures and overall spending declined somewhat as compared with 1991 to 6.8 per cent of GDP. The majority of spending (68.1 per cent) was financed by the compulsory health insurance premiums paid by employees and employers, while direct contributions from the central budget covered about 14.3 per cent of all spending, with the remaining 17.6 per cent coming from private sources (individual co-payments on pharmaceuticals, payment for private services and gratitude money).<sup>16</sup> Since 1991, the share in total spending represented by compulsory insurance premiums has been falling (down 7 per cent) as has that of the central budget (down 11 per cent), while the share financed by individuals increased by 62 per cent.

14. While total real expenditures on healthcare were virtually unchanged between 1991 and 1997, real public expenditures decreased by 6 per cent. They grew by some 12 per cent between 1991 and 1994 before falling by 14 per cent in 1995 (with the application of the Bokros package) and then a further 5 per cent in the following two years. In 1998 real public expenditures slightly increased but still remained below the 1991 level. Within the total health-insurance budget, the real value of funds allocated for healthcare services decreased by 14 per cent between 1994 and 1998.<sup>17</sup> However, due to the considerable increase in subsidies on pharmaceuticals and medical appliances, the spending by Health Insurance Fund almost reached the 1991 level. Pharmaceutical (and medical appliances) subsidies may have contributed to a crowding-out phenomenon as their share in health insurance expenditure rose from 22 to 33 per cent (between 1990 and 1998), remaining approximately constant at an internationally high 1.6 per cent of GDP.<sup>18</sup> Rising prices (principally driven by the entry of western-made drugs) and falling rates of subsidy failed to reduce the volume of drug consumption,<sup>19</sup> which, when measured by days of treatment, increased 12 per cent between 1993 and 1997, approximately “normal” European levels.<sup>20</sup>

15. The main features of the Hungarian drug reimbursement system came into force in February 1995. Depending upon the drug, medication is reimbursed at a zero, 50, 70 or 90 per cent rate. While drug companies are free to set their own wholesale prices, the price at which a specific chemical is reimbursed is fixed by the Ministry of Health following negotiations between the experts of the HIFA, the ministries of Health and Finance and manufacturers.<sup>21</sup> Individuals who suffer severe chronic disease are eligible for a 90 or 100 per cent subsidy, while certain classes of individuals on social assistance can get a health-card<sup>22</sup> that entitles them to free drugs, medical appliances, dental care and physiotherapy. For health-card holders, the health-insurance subsidy is paid by the NHIF, while the co-payment portion (normally paid by the patient) is financed by the central government.

16. Since 1990, government-owned wholesale and most retail pharmacies have been privatised. The number of retail pharmacies increased by almost 50 per cent and in 1997 there were 74 wholesalers against only one in 1990. Nevertheless, the market is not very competitive. Drug prices in retail pharmacies are regulated and uniform, with pharmacies having a monopoly on the provision of all drugs for human treatment, whether or not a prescription is required. Ownership of pharmacies is restricted to limited partnerships, where all active partners are pharmacists, at least one of whom must hold a “personal right to operate a pharmacy”, and where the active partners hold at least a 25 per cent share in the enterprise. Strict

rules also govern the location of pharmacies.<sup>23</sup> Despite all of these restrictions, some chains are beginning to develop, but small independent pharmacies remain the rule.

Table 3. **Healthcare expenditures in Hungary**

	1991	1992	1993	1994	1995	1996	1997	1998
	(per cent of GDP)							
Public Expenditures								
Recurrent expenditures	5.9	6.2	6.2	6.6	5.8	5.5	5.2	5.2
Investment	0.6	0.6	0.6	0.6	0.5	0.3	0.4	0.4
Total Public	6.5	6.8	6.8	7.3	6.3	5.9	5.6	5.6
<i>of which:</i>								
Health Insurance Fund	5.3	5.4	5.4	5.6	5.0	4.8	4.7	4.6
Health care services	3.9	3.8	3.7	3.9	3.4	3.3	3.2	3.0
Subsidies on pharmaceuticals and medical appliances	1.4	1.5	1.5	1.6	1.5	1.4	1.4	1.5
o/w pharmaceutical subsidies	1.3	1.3	1.4	1.4	1.3	1.2	1.2	1.3
Private Expenditures								
Co-payments on drugs	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Health services <sup>1</sup>	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.7
Total Private	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.2
Total Expenditures	7.3	7.8	7.8	8.3	7.5	7.2	6.9	6.8
	(index 1991 = 100)							
Public expenditures								
Recurrent expenditures	100.0	102.9	102.7	112.8	100.1	7.0	95.6	100.5
Investment	100.0	101.2	93.6	106.9	80.7	57.0	76.1	75.1
Total public	100.0	102.7	101.8	112.2	98.3	93.3	93.8	98.1
<i>of which:</i>								
Health Insurance Fund	100.0	98.8	97.8	106.4	96.1	93.8	94.8	99.0
Health care services	100.0	96.1	92.9	100.7	89.7	87.1	87.6	87.1
Subsidies on pharmaceuticals and medical appliances	100.0	103.7	107.9	115.9	107.2	105.9	107.7	126.3
o/w pharmaceutical subsidies	100.0	103.2	107.0	111.4	101.0	100.7	100.3	119.8
Private expenditures								
Co-payments on drugs	100.0	124.0	132.6	150.6	176.2	179.4	186.2	195.5
Health services <sup>1</sup>	100.0	109.4	112.4	122.6	139.7	167.9	171.3	156.8
Total Private	100.0	115.2	120.3	133.6	154.1	172.4	177.1	172.0
Total Expenditures	100.0	104.1	103.8	114.6	104.4	101.9	102.8	106.1

1. Estimations by the CSO, including co-payments on medical appliances and gratitude money.  
Source: HIFA, MoH and CSO.

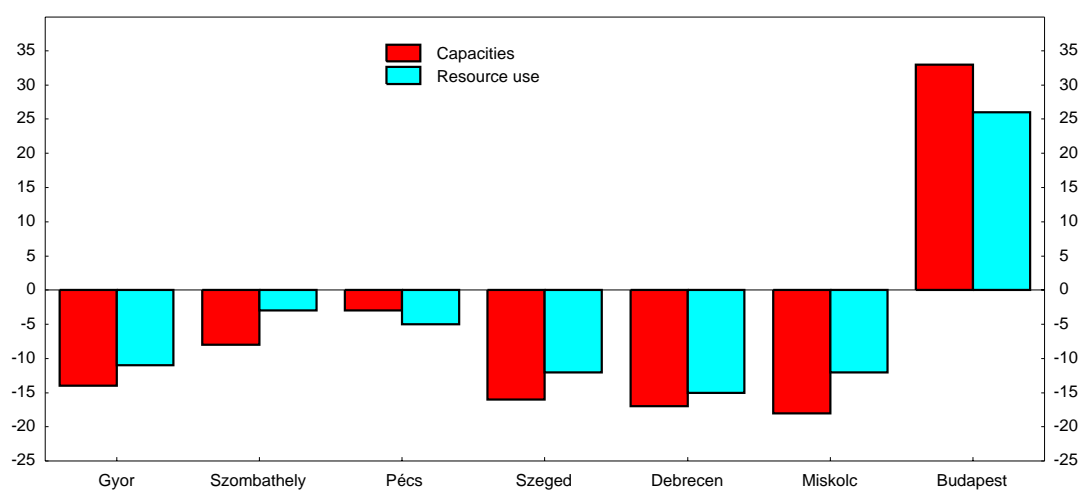
### *Inequalities*

17. The distribution of equipment, beds and medical personnel across regions is relatively uneven, although the consumption of medical services is more evenly distributed. Table 4 compares the distribution of health- resources and health-service utilisation across the nineteen Hungarian counties. There is

tendency for counties with the greatest need (worst health status) to have the lowest level of resources (health expenditures and supply of physicians), while Budapest and counties with the best health status enjoy the highest supply of healthcare resources. Both the health status and supply of resources are connected with socio-economic development and the allocation of health resources appear to exacerbate rather than mitigate these socio-economic inequalities. The concentration of resources in Budapest is striking, the supply of physicians and hospital beds being respectively 87 and 64 per cent higher than the national average. The concentration of financial resources is even more pronounced: per capita expenditures paid by the HIF to health services providers located in Budapest are twice the national average. Nevertheless, the resources that are concentrated in major centres<sup>24</sup> such as Budapest are used by individuals from other counties. As a result, the pattern of resource usage is more equally distributed — although inequalities remain large. The population of Budapest spends 20 per cent more than the national average on per-capita hospital-based care (31 per cent higher in the case of the elderly) and their per-capita drug subsidy is also the most important.

18. Inequalities of resource allocation are summarised in Figure 1. Each column compares (as a per cent deviation from the national average) the payments received by providers and the services consumed by patients<sup>25</sup> from a given region,<sup>26</sup> with the quantity of each that would be observed if all individuals in different demographic and socio-economic groups consumed the national average for their group.<sup>27</sup> It shows that the residents of the (central) region of Budapest-Pest county consumed 26 per cent more healthcare services than the region would receive on the basis of their characteristics and that the healthcare institutions in the region received 34 per cent more resources that they would receive than the national average in similar institutions. In contrast, the inhabitants of Szeged, Debrecen and Miskolc regions consumed between 10 and 15 per cent fewer healthcare resources than in case of a need-based allocation, while providers working in these regions received 15 per cent less resources. Thus while, consumption of healthcare resources located in Budapest by residents of other regions served to reduce inequalities, individuals living in the capital region nevertheless consumed much more than similar people living in less well endowed regions.

**Figure 1. REGIONAL INEQUALITIES IN RESOURCE USE AND CAPACITIES**  
Percentage difference from national average



Source: KALO (1997).

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Table 4. Indicators of health and socio-economic status and of health service levels by region  
1996  
National average = 100

	Health status		Socio-economic status				Regional capacities			Regional consumption					
	Standardised mortality	Infant mortality	Per capita GDP	Average monthly wage	Secondary school	Unemployment rate	Beds per 1000	Doctors per 1000	Payments	Use of family physician	Hospitalisation per 1000	Hospitalisation of 60+	Per capita hospital expenditures	Per capita hospital expenditures 60+	Per capita drug subsidy
BUDAPEST	91	92	180	124	146	48	164	187	204	79	108	118	120	131	126
GYOR	94	92	106	92	105	64	98	91	87	100	90	89	103	98	95
VAS	96	59	105	86	103	65	102	93	80	102	86	89	90	89	102
VESZPREM	97	98	79	91	88	90	107	80	79	101	103	113	106	116	95
HAJDU	97	81	83	84	86	150	86	98	104	101	90	82	79	72	91
BEKES	97	139	81	82	87	130	87	70	72	100	103	95	97	85	104
CSONGRAD	97	94	94	87	102	86	106	135	109	98	94	89	88	85	113
HEVES	99	94	71	90	94	122	96	80	84	123	99	93	98	89	92
ZALA	100	76	95	85	90	88	103	89	88	104	90	90	88	84	92
JASZ	101	117	79	80	73	137	80	71	65	103	102	100	94	88	86
FEJER	102	106	96	100	89	86	73	71	64	104	97	98	96	91	89
TOLNA	102	106	95	91	81	130	75	81	70	113	93	87	93	86	97
BARANYA	104	98	84	89	95	114	108	131	115	118	109	108	94	91	115
NOGRAD	105	83	62	76	95	155	83	65	74	113	105	92	104	90	88
PEST	106	129	76	92	86	66	53	59	29	93	97	100	100	105	78
KOMAROM	106	117	80	95	83	110	83	72	70	103	96	98	97	99	92
BORSOD	107	90	69	85	96	175	90	74	82	112	103	100	99	96	81
BACS	108	82	77	80	75	98	84	76	76	107	97	90	92	84	107
SOMOGLY	109	114	77	80	86	120	96	84	88	111	108	103	110	107	85
SZABOLCS	110	130	59	75	82	181	81	64	71	106	101	88	92	84	103
ORSZAGOS	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Correlation with mortality	1.00	0.34	-0.69	-0.53	-0.62	0.55	-0.60	-0.57	-0.53	0.50	0.28	-0.11	-0.11	-0.21	-0.42
Correlation with infant mortality	0.34	1.00	-0.27	-0.07	-0.34	0.25	-0.39	-0.33	-0.34	-0.09	0.41	0.20	0.19	0.11	-0.16

Source: OECD based on data from the CSO and HIFA.

## International comparison

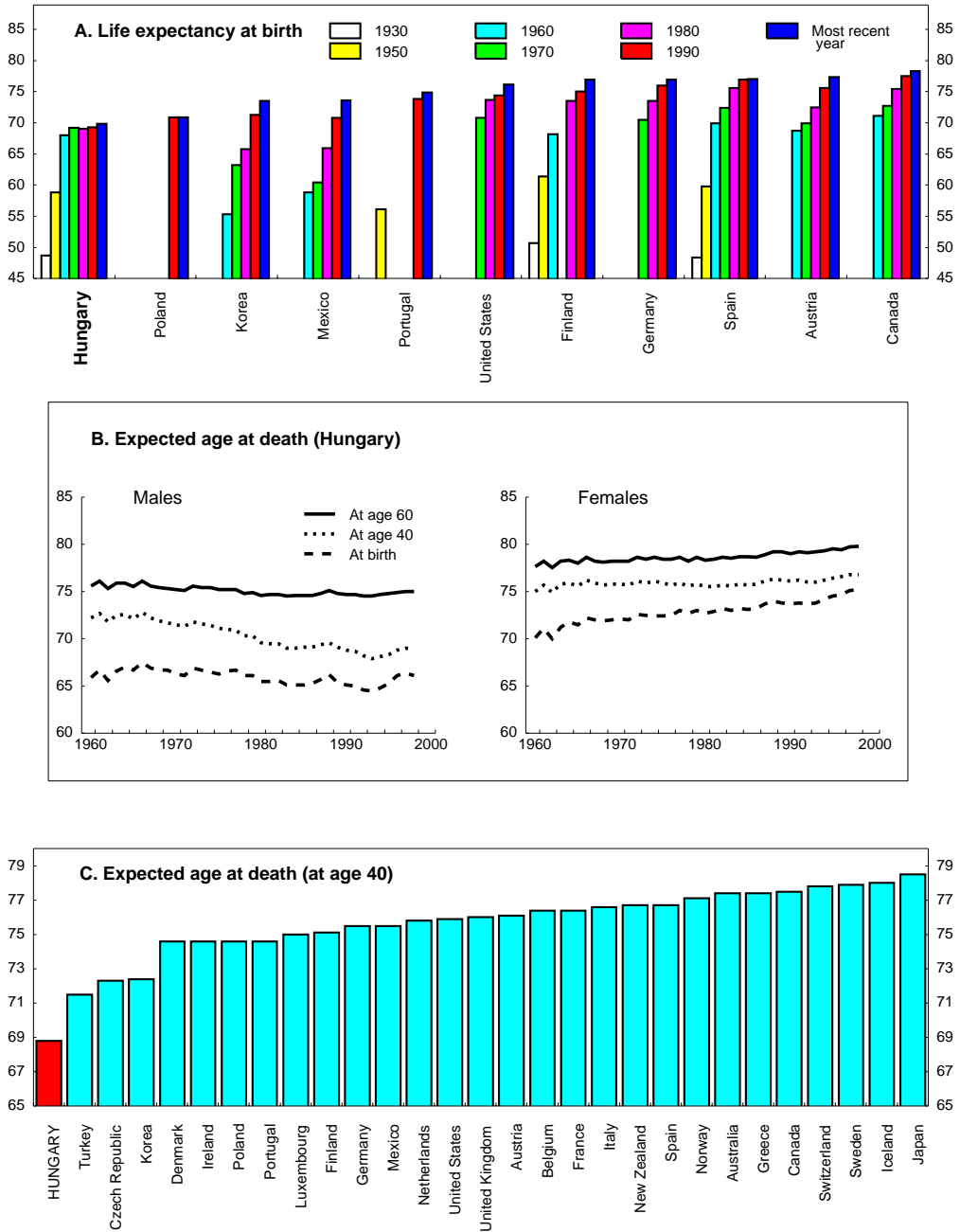
19. Between 1930 and 1960 life expectancy at birth rose by more than 20 years in many OECD countries, as it did in Hungary. Since then, progress has been less rapid, with life expectancy increasing by 8.7 years between 1960 and 1990 in the OECD area but only 1.3 years in Hungary; and male life expectancy has actually been falling<sup>28</sup> (Figure 2, Panel A). As a result, Hungary now has the lowest life expectancy in the area. Outcomes are poor for all age-sex groupings but especially for males between 40 and 60 years of age, whose total life expectancy of 68.8 years (Figure 2, Panel C) is seven years less than the OECD average of 75.9 years (Figure 2, Panel C) and is lower than it was in 1930. Female life expectancy is also the lowest among OECD countries, although it has been rising, and is much higher than for males, the gap between them having more than doubled from 4.4 to 9.1 years between 1960 and 1998. Although it is too soon to know if it represents a temporary improvement or a new positive long-term trend, since 1995 the life expectancy at birth of males has started to increase.<sup>29</sup>

20. As with many socio-economic phenomena, better health outcomes are associated with good economic performance — both at the societal level and at the individual level. Thus, in Hungary, a 30 year old male with 15 or more years of education can expect to live 11 years longer than one with less than 8 years of education (Hablicsek, 1995) and in 1995 residents of Budapest, where per capita income is 80 per cent higher than the national average, could expect to live 4.7 years longer than individuals from Szabolcs-Szatmár-Bereg in Eastern Hungary. Although low incomes certainly have contributed to the higher mortality rate, the recent transition process itself does not appear to have been an important cause.<sup>30</sup> The decline in male life expectancy began in the mid-1960s in Hungary, while across transition countries there seems to be little correlation between the severity of national adjustments and changes in life expectancy.<sup>31</sup>

21. Over-work, poor diet, alcohol and tobacco addiction, unfulfilling work, falls in relative income and growing income inequalities, as well as feelings of relative disadvantage compared with western Europe are considered to be the principal factors contributing to high prime-age male mortality both now and in the 1970s and 1980s. Alcoholism has been cited as an important source of Hungarian mortality<sup>32</sup> (Figure 3, Panel A) and Hungary has the third highest consumption rates in the OECD. The incidence of smoking is also high; 44 per cent of men and 27 per cent of women smoke (the fifth and eighth highest rates in the OECD). Spending on alcohol and tobacco products represent about twenty per cent of total food expenditures with the poorest 10 per cent of the population spending as much as 7.3 per cent of their income on these products. Although total caloric intake per capita is around the OECD average, the traditional Hungarian diet relies excessively on foods with a high fat and sugar content, both of which constitute serious health hazards<sup>33</sup> (Figure 3, Panel C). Deaths per capita from associated diseases exceed OECD averages by a wide margin, with Hungarians having the highest mortality rates in the area for cancers of the respiratory tract, heart diseases and cirrhosis of the liver (Table 5).

22. Hungary's measured *expenditures* on healthcare are, as a share of GDP, among the lowest in the OECD (Figure 4, Panel A). In absolute terms, its spending has been declining<sup>34</sup> (\$602 at PPP in 1997), is about half the level of Spain and Portugal (Table 6) and only 38 per cent of the OECD average. However, relative to countries with similar income levels, it is somewhat above average (Figure 4, Panel B). In terms of per capita public expenditures, relative position of Hungary has worsened both compared to the OECD average and to the less developed OECD countries (Table 7). In this context, the increase in pharmaceutical expenditures has been considered a major health policy problem. However, data show that the observed spending pattern is not that different from that observed in other lower income OECD countries and is converging to this norm (Table 8).

Figure 2. LIFE EXPECTANCY

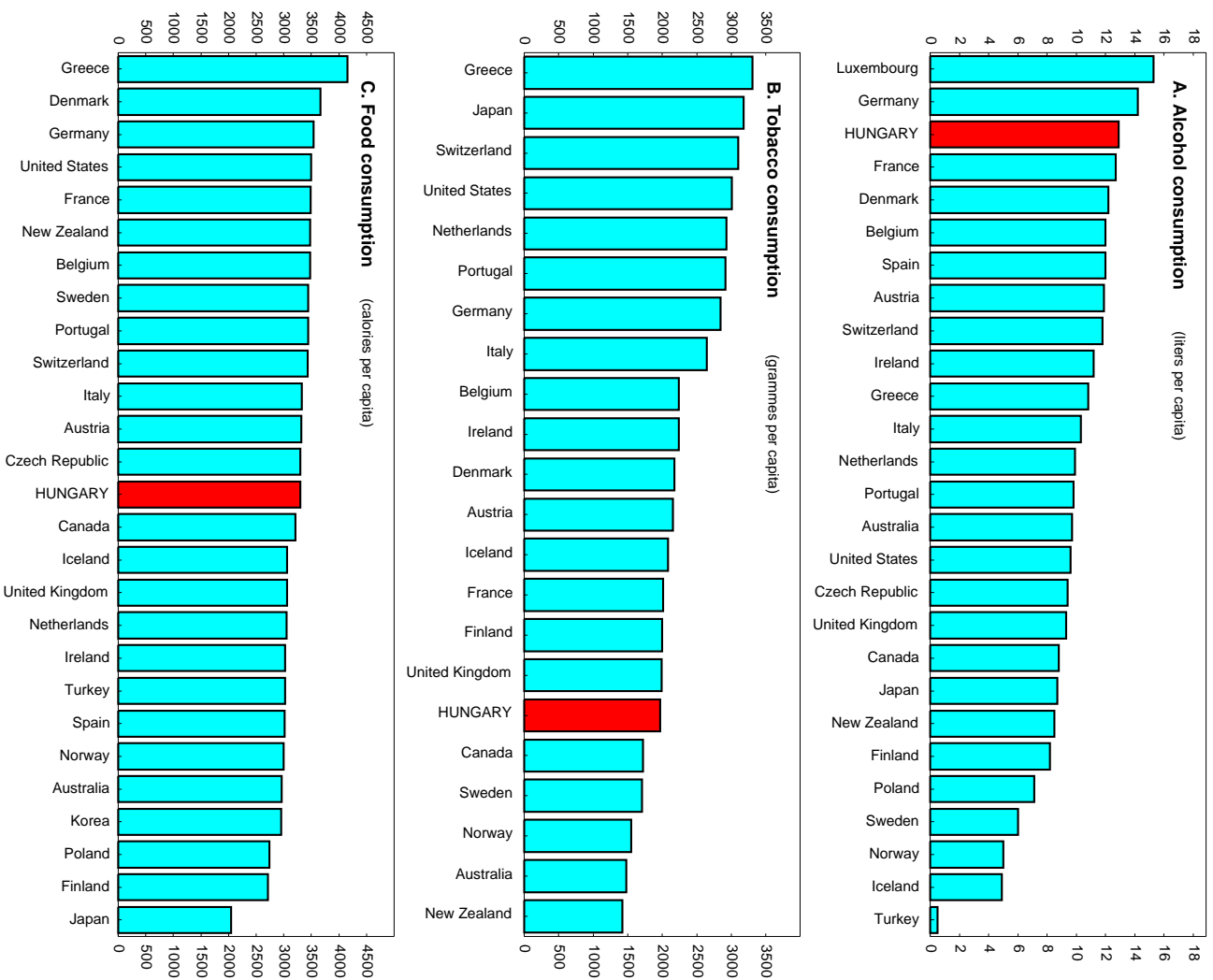


Source: OECD Health Data 98.

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**Figure 3. HEALTH RISK-FACTORS  
1996**



Source: OECD Health Data 98.

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Table 5. Male mortality from selected causes

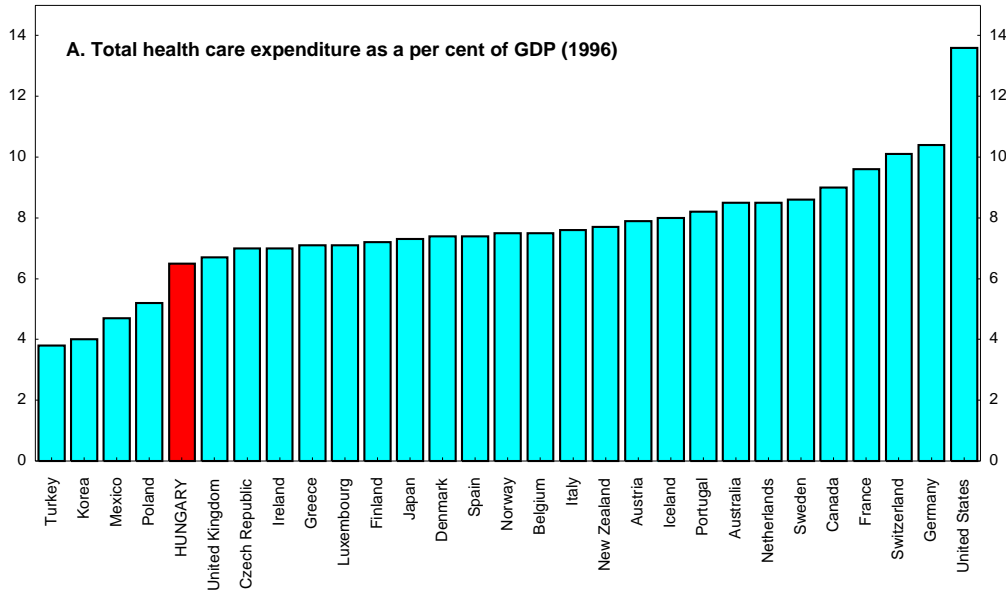
Deaths per 100 000

	Cancers of the respiratory tract				Heart disease				Liver cirrhosis			
	1975	1990	1995	Rank <sup>1</sup>	1975	1990	1995	Rank <sup>1</sup>	1975	1990	1995	Rank <sup>1</sup>
<b>Hungary</b>	<b>67</b>	<b>109</b>	<b>117</b>	<b>(1)</b>	<b>314</b>	<b>333</b>	<b>352</b>	<b>(1)</b>	<b>25</b>	<b>75</b>	<b>125</b>	<b>(1)</b>
Australia	49	53	52	(20)	281	202	180	(14)	12	9	8	(23)
Austria	75	65		(16)	303	221	212	(12)	49	40	38	(2)
Belgium	100			(2)	233	129		(21)	17	15		(12)
Canada		69	67	(14)		178	166	(16)		11	10	(20)
Czech Republic	103	99	94	(5)	332	367	310	(3)	23	32	13	(19)
Denmark	69	86	83	(9)	399	293	227	(9)	13	19	21	(9)
Finland	69	66	61	(17)	459	359	304	(4)	10	15	16	(11)
France	49	68		(13)	122	91		(25)	48	25		(12)
Germany	68	74	73	(10)	249	224	222	(10)		30	32	(6)
Greece	55	81	85	(8)	121	137	128	(22)	19	14	10	(21)
Iceland	21	37		(25)	297	233		(7)	1	1		(12)
Ireland	56	60	57	(18)	410	339		(2)	3	3	3	(28)
Italy	58	91		(6)		145		(20)	48	35		(12)
Japan	20	45	55	(19)	44	45		(27)	20	19		(12)
Korea		21	28	(26)		11	16	(28)		47	37	(3)
Luxembourg		86	86	(7)	203	151		(19)	34	31	23	(8)
Mexico		8	9	(28)		40	46	(26)		34	36	(4)
Netherlands	88	95		(4)	287	194	164	(17)	6	6	6	(26)
New Zealand	51	54	51	(21)		232	217	(11)	8	4	4	(27)
Norway	34	49		(22)	325	278		(5)	6	8	6	(25)
Poland					148	194	168	(15)			21	(10)
Portugal	18	38	41	(24)	134	115	103	(24)	51	37	35	(5)
Spain	34	66		(15)	130	106		(23)	32	29		(7)
Sweden	41	44		(23)	401	270	230	(8)	17	10	8	(24)
Switzerland	65	68		(12)	175	163		(18)	20	14		(17)
Turkey		14		(27)						2		(29)
United Kingdom	108	96		(3)	403	306	259	(6)	4	7	9	(22)
United States	61	75	72	(11)		208	191	(13)	20	14	13	(18)

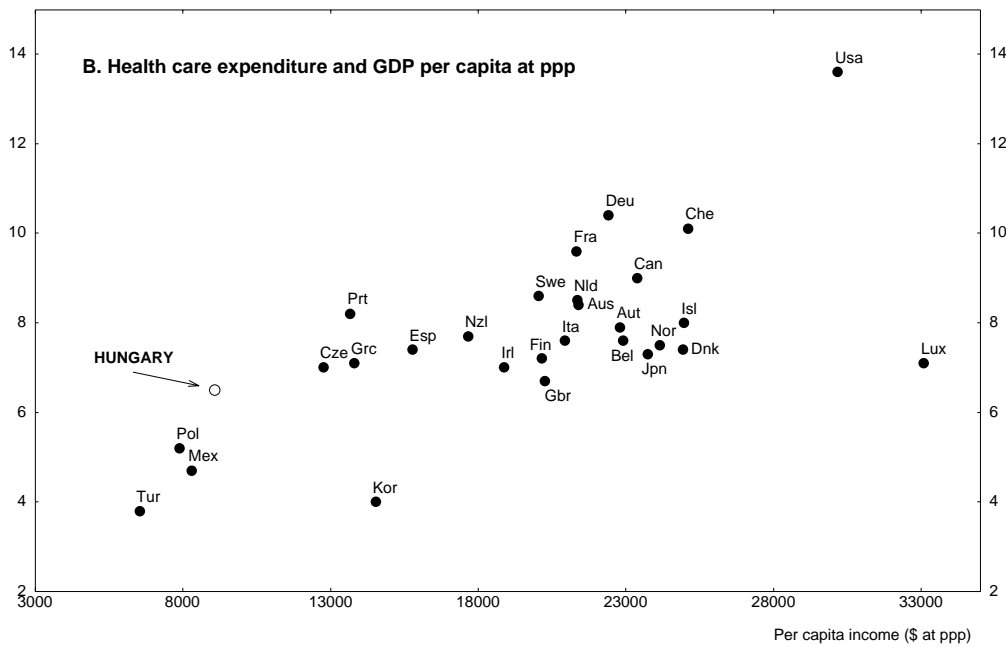
1. Rank of the latest available year's data.

Source: OECD Health Data 98.

**Figure 4. HEALTH CARE EXPENDITURE**  
1996



Expenditure (% of GDP)



Source: OECD Health Data 98.

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Table 6. **Per capita healthcare expenditure at purchasing-power parities**

Country	Latest year
<b>Hungary</b>	<b>602</b>
Turkey	232
Poland	371
Mexico	391
Korea	587
Czech Republic	904
Greece	974
Portugal	1 125
Spain	1 168
Ireland	1 324
United Kingdom	1 347
New Zealand	1 352
Finland	1 447
Italy	1 589
Sweden	1 728
Japan	1 741
Belgium	1 747
Austria	1 793
Australia	1 805
Norway	1 814
Netherlands	1 825
Denmark	1 848
Iceland	2 005
France	2 051
Canada	2 095
Germany	2 339
Luxembourg	2 340
Switzerland	2 547
United States	4 090
Average	1 558

Source: OECD Health Data 98.

Table 7. **Health expenditures in Hungary compared to selected countries**

	Public expenditures at exchange rate (%)		Public expenditures at PPP (%)	
	1992	1996	1992	1996
OECD average = 100	21	20	51	49
Austria = 100	19	16	50	44
Spain = 100	30	30	72	63
Portugal = 100	59	51	108	87

Source: OECD Health Data 98.

Table 8. **Pharmaceutical and health expenditures in selected countries**  
1996

	Hungary <sup>1</sup>	Czech Republic	Greece	Portugal	Spain	Austria	UK	Germany	USA
	(Per cent of GDP)								
Pharmaceutical expenditures	1.8	1.9	1.8	2.2	1.5	1.1	1.1	1.3	1.2
Public expenditures on pharmaceuticals	1.3	1.5	0.3	1.4	1.1	0.7	0.7	1.0	0.2
	(Per cent)								
Share of:									
Total expenditures on pharmaceuticals in total health expenditure	26.2	25.9	26.6	26.4	20.0	14.1	16.6	12.7	8.8
Public expenditures on pharmaceuticals in public expenditures on health	22.7	23.3	5.7	27.7	18.9	11.6	12.4	11.8	2.7
Public expenditures in total expenditures on pharmaceuticals	70.4	83.2	16.6	63.0	74.4	58.9	63.1	72.6	14.5

1. 1997.

Source: OECD Health Data 98 and HIFA.

23. In Hungary the supply of healthcare workers appears to be distorted as compared with other OECD countries. While Hungary has among the lowest healthcare worker and nurse-to-patient ratios, the ratio for specialists is the highest and that for doctors the fourth highest in the OECD, suggesting a serious bias towards high-skill (and relatively high-cost) healthcare workers (Table 9). This distorted pattern of specialisation has grown worse in recent years. The number of physicians increased by 27 per cent between 1990 and 1996 and that of specialists by 12 per cent despite internationally high doctor patient ratios even in 1990<sup>35</sup> (Table 10). Despite the general over-supply, there are specialities in serious short supply: mainly those that do not receive gratitude money (*e.g.* pathologists).

24. While employment in the whole economy fell by 20 per cent between 1991 and 1997, it declined by only 2 per cent in the healthcare sector, partly because of these workers' special status under the public and civil servants acts<sup>36</sup> (OECD, 1997). The increase in physician densities reflects in part a featherbedding of hospital staffs with older physicians who continue to draw a salary in order to supplement their pension incomes. The situation has been further exacerbated by a 40 per cent increase in the number of first-year medical students since 1990 (CSO, 1996). The current 850 medical graduates each year exceeds by 41 per cent the number required to bring physician densities down to the average levels observed in European countries.<sup>37</sup> As a result, many doctors in the Hungarian system are underemployed, performing tasks that in other countries would be performed by less-skilled staff.

25. Throughout this period, health-sector earnings were falling in real terms, so that relative to national averages Hungarian healthcare-sector workers are the lowest paid in the OECD (Figure 5). Low wages in the sector were initially an inheritance from the previous regime. However, during the 1990s the tendency intensified following repeated austerity packages (aggravated by the failure to adjust employment levels). Nurses' relative salaries fell by some 20 per cent of the average wage (Table 11) while physicians' earnings fell from being 50 per cent higher than the average wage in 1996 to being 36 per cent more in 1996. In that year, their gross wage amounted to 70 000 forints, which compared very unfavourably with those of private-sector workers possessing an advanced degree (between 110 000 and 150 000 forints) and probably even less well with that of owners of small and medium-sized businesses operating in the underground economy.

26. In contrast to doctors, nurses are in short supply, with significant regional variation. Shortages are felt most keenly among health institutions located in the capital or in towns where there are other industrial or service units attracting employees with significantly higher wages. Other paramedical professions such as physiotherapists and dieticians are also in under-supply. Increasing enrolments in these professions might go part of the way to resolving the problem, but the principal source of the shortage remains low pay. While adequate training capacity is available,<sup>38</sup> resources are limited, especially at the highest level of education and training.

27. Compared with European countries, Hungary has relatively few hospitals but they have the highest beds per capita ratio in the OECD (Table 12). Reflecting the preponderance of specialists and physicians among healthcare workers, there is a particularly large number of acute-care beds and very few nursing-home chronic-care beds (Table 13). Partly because of these features, the vast majority (68 per cent) of doctor-patient encounters occur in hospital outpatient centres under the care of specialists and Hungarian make the second highest (14.6) number of medical visits per capita in the OECD.<sup>39</sup>

28. Even assuming that Hungary's high hospitalisation rate (22.8 discharges per 100 population) represented the relative unhealthiness of the population, there appear to be more hospital beds than necessary (even following the cut backs of the 1990s). Denmark, France and Finland are able to deliver similar levels of service with only two-thirds the number of beds per capita by keeping patients in hospital for a shorter period of time (Table 14). Indeed, looking at the most efficient Hungarian counties (the line Hungary — best practice) demonstrates that even in Hungary it is possible to provide similar service levels with as many as 30 per cent fewer beds.

Table 9. **Health-sector employment in the OECD**  
Per 1 000 population (rank)

	All health-care workers		Physicians		Specialists		General Practitioners		Nurses	
<b>Hungary</b>	<b>16.0</b>	<b>(21)</b>	<b>3.5</b>	<b>(4)</b>	<b>2.7</b>	<b>(1)</b>	<b>0.7</b>	<b>(13)</b>	<b>4.9</b>	<b>(19)</b>
Australia	32.3	(7)	2.5	(19)	0.9	(15)	1.3	(4)	9.6	(6)
Austria	..	..	2.8	(14)	1.5	(10)	1.3	(4)	8.7	(9)
Belgium	21.1	(13)	3.4	(5)	1.6	(8)	1.5	(2)	6.5	(15)
Canada	25.0	(10)	2.1	(22)	0.9	(15)	0.9	(9)	8.9	(8)
Czech Republic	21.9	(12)	2.9	(11)	2.2	(2)	0.7	(13)	8.1	(10)
Denmark	18.9	(16)	2.9	(11)	0.1	(24)	0.6	(16)	7.0	(14)
Finland	40.2	(3)	2.8	(14)	1.6	(8)	1.2	(7)	..	..
France	26.3	(9)	2.9	(11)	1.5	(10)	1.5	(2)	5.9	(16)
Germany	28.5	(8)	3.4	(5)	2.1	(4)	1.1	(8)	9.0	(7)
Greece	12.2	(23)	3.9	(4)	2.1	(4)	1.3	(4)	3.6	(22)
Iceland	33.6	(5)	3.0	(9)	..	..	0.6	(16)	7.3	(13)
Ireland	18.1	(17)	2.1	(22)	0.3	(23)	0.5	(23)	14.8	(2)
Italy	18.0	(19)	5.5	(1)	0.5	(21)	..	..	5.5	(18)
Japan	20.4	(14)	1.8	(25)	..	..	..	..	7.4	(12)
Korea	5.7	(26)	1.1	(28)	0.7	(18)	0.6	(16)	2.6	(24)
Luxembourg	18.1	(17)	2.2	(21)	1.4	(12)	0.8	(10)	..	..
Mexico	6.2	(25)	1.5	(27)	0.7	(18)	0.5	(23)	1.0	(25)
Netherlands	23.8	(11)	2.6	(17)	0.9	(15)	0.4	(25)	..	..
New Zealand	17.2	(20)	2.1	(22)	0.6	(20)	0.8	(10)	10.2	(4)
Norway	71.4	(1)	2.8	(14)	1.8	(7)	0.8	(10)	14.9	(1)
Poland	..	..	2.4	(20)	..	..	1.8	(1)	5.6	(17)
Portugal	12.3	(22)	3.0	(9)	2.1	(4)	0.6	(16)	3.5	(23)
Spain	11.9	(24)	4.2	(2)	..	..	..	..	4.5	(20)
Sweden	39.0	(4)	3.1	(8)	2.2	(2)	0.6	(16)	10.2	(4)
Switzerland	51.0	(2)	3.2	(7)	1.1	(14)	0.6	(16)	13.8	(3)
Turkey	3.2	(27)	1.1	(28)	0.5	(21)	0.7	(13)	1.0	(25)
United Kingdom	20.3	(15)	1.6	(26)	..	..	0.6	(16)	4.5	(20)
United States	32.6	(6)	2.6	(17)	1.2	(13)	0.2	(26)	8.1	(10)
Average	23.9	..	2.7	..	1.3	..	0.8	..	7.7	..

Source: OECD Health Data 98, CSO.

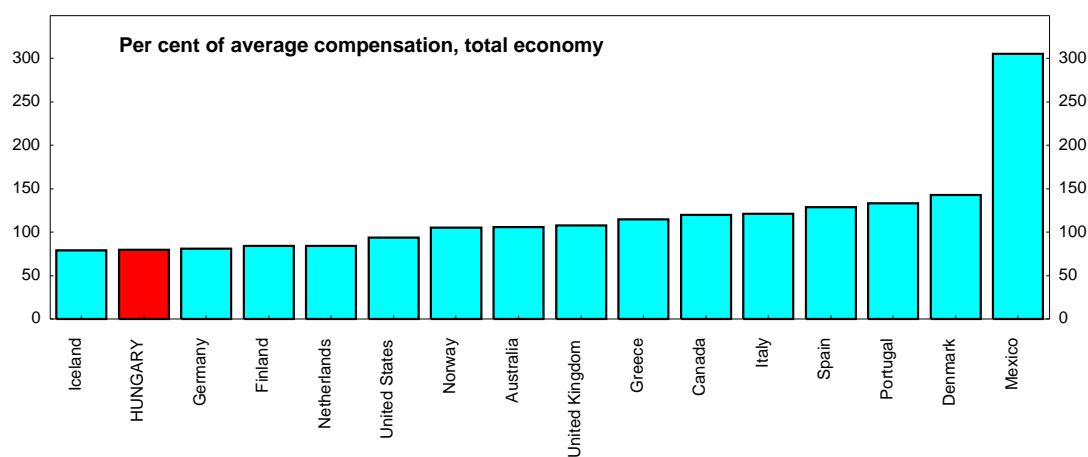
Table 10. Trends in health-sector employment in Hungary

	1960	1970	1980	1990	1993	1995	1997	1998
Employees per 1000 population								
Total health employment	5.5	8.4	12.5	15.9	16.0	16.0	15.7	15.0
Practising physicians	1.5	2.0	2.9	3.7	4.0	4.2	3.5	3.6
General practitioners		0.4	0.5	0.6	0.6	0.6	0.7	0.7
Practising specialists	1.0	1.4	1.8	2.4	2.6	2.7		
Certified/registered nurses	1.7	2.7	3.7	4.5	4.9	4.9		4.7
Per cent of all employees								
Total hospital employment								
- per cent of health employment		30.3	26.5	23.8	24.0	23.9		
Practising physicians								
- per cent of health employment	28	24	23	20	21	21	22	24
Physicians working in hospitals								
- per cent of practising physicians						47.5		39.4

Source: OECD Health Data 98, HIFA.



Figure 5. HEALTH SECTOR COMPENSATION IN THE OECD  
1996



Source: OECD Health Data 98.

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Table 11. Hospital and bed densities

	Population	Population per hospital (x 1000)	Rank	Population per bed	Rank	Beds per hospital	Rank
<b>Hungary</b>	<b>10.2</b>	<b>65.8</b>	<b>3</b>	<b>122.5</b>	<b>12</b>	<b>537.1</b>	<b>1</b>
Austria	8.0	24.1	11	106.9	14	225.5	8
Belgium	10.1	30.4	9	134.9	10	225.5	8
Denmark	5.3	55.2	4	202.5	4	272.6	5
Finland	6.1	15.9	14	133.3	11	119.1	15
France	58.2	15.3	15	111.6	13	136.9	13
Greece	10.5	27.3	10	195.9	6	139.6	12
Germany	81.6	22.3	12	103.2	15	216.2	10
Ireland	3.6	17.3	13	136.5	9	126.8	14
Italy	57.2	33.4	8	142.2	8	234.7	7
Netherlands	15.4	54.8	5	177.9	7	308.0	4
Portugal	9.9	176.8	1	370.7	1	476.9	2
Spain	39.1	49.7	6	210.2	3	236.4	6
Sweden	8.8	77.9	2	216.5	2	359.8	3
United Kingdom	58.6	37.3	7	199.6	5	187.1	11

Source: OECD Health Data 98.

Table 12. **Monthly average health-sector earnings**

	1992	1993	1994	1995	1996	1998
	Per cent of average gross earnings					
Compensation per health employee	0.91	0.83	0.88	0.83	0.80	0.82
Physicians mean income			1.53	1.38	1.36	1.28 <sup>1</sup>
Nurses salaries			0.92	0.77	0.76	0.71 <sup>1</sup>

1. In the hospitals.

Source: Central Statistical Office.

Table 13. **Hospital beds per capita**

Beds per 1 000 (Rank)

	In patient care		Acute care		Nursing homes	
<b>Hungary<sup>1</sup></b>	<b>9.3</b>	<b>(8)</b>	<b>6.4</b>	<b>(6)</b>	<b>1.0</b>	<b>(15)</b>
Australia	8.7	(12)	4.3	(11)	4.1	(5)
Austria	9.2	(9)	6.5	(5)	1.9	(12)
Belgium	7.2	(14)	5.3	(7)	1.1	(14)
Canada	5.1	(19)	3.6	(18)	8.1	(2)
Czech Republic	9.0	(11)	6.9	(2)	0.6	(18)
Denmark	4.9	(21)	3.9	(13)		
Finland	9.2	(9)	3.7	(16)		
France	8.7	(12)	4.5	(10)	1.4	(13)
Germany	9.6	(7)	6.7	(3)	3.7	(6)
Greece	5.0	(20)	3.9	(13)		
Iceland	14.8	(4)	3.7	(16)	4.3	(4)
Ireland	3.7	(27)	3.4	(19)	5.2	(3)
Italy	6.0	(16)	5.1	(9)		
Japan	16.2	(2)			0.8	(16)
Korea	4.6	(22)	4.0	(12)		
Luxembourg	10.7	(6)	6.7	(3)	2.6	(9)
Mexico	1.1	(29)				
Netherlands	11.2	(5)	3.8	(15)	3.5	(7)
New Zealand	6.8	(15)	7.1	(1)		
Norway	15.0	(3)	3.3	(21)	10.0	(1)
Poland	5.5	(18)				
Portugal	4.1	(24)	3.4	(19)		
Spain	4.0	(25)	3.2	(23)	0.8	(16)
Sweden	5.6	(17)	2.8	(24)	0.5	(19)
Switzerland	20.6	(1)	5.2	(8)	2.0	(10)
Turkey	2.5	(28)	1.9	(26)		
United Kingdom	4.5	(23)	2.0	(25)	3.3	(8)
United States	4.0	(25)	3.3	(21)	2.0	(10)
OECD average	7.8		4.4		2.7	

1. Data for Hungary concern 1998.

Source: OECD Health Data 98.

Table 14. Indicators of acute hospital care

	Discharge per 100 population		Hospital beds per 1 000	Average length of stay
	1980	1995	1995	1995
Hungary <sup>1</sup>	16.8	22.8	6.5	8.2
Hungary – best practice <sup>1</sup>		18.4	4.4	7.4
Austria		23.1	6.6	7.6
France	17.5	20.3	4.6	5.9
Finland		20	4	5.5
Czech Republic	18.9	19.9	7.2	10.2
Denmark	17.6	19.2	4	6.1
Belgium		18	5.3	7.8
Germany	16.3	18	6.9	12.1

1. 1990s data for Hungary concern 1997.  
Source: OECD Health Data 1998, CSO.

29. The stock of hi-technology medical equipment is lower than in most OECD countries (Tables 15) but has increased rapidly thanks to the investments of private for-profit clinics that took advantage of the liberal economic environment, and generous treatment of the “variable costs” granted by the HIF for treatments that use them. A number of clinics (mostly private) are now operating and the gap between supply of modern diagnostic and therapeutic tools in Europe and Hungary is closing.<sup>40</sup> Nevertheless, the level of private investments is small compared with the total of public investments. Dialysis stations deliver services of a European standard to anyone in need and kidney transplantation has become a routine procedure. The rate of open heart surgery is similar to the European average; however, catheter therapy (that could replace surgery) is underdeveloped. The reliance on private capital to finance the most expensive medical technology could have freed up public investment funds for maintaining the stock of conventional equipment and the provision of modern equipment to regions unattractive to private firms. However, this has not happened to a significant degree and MRI and other high technology equipment are unevenly distributed, with Budapest arguably oversupplied. Meanwhile, investment in conventional machines has been inadequate (Table 16).<sup>41</sup>

### Policy priorities

30. The poor state of Hungarian health outcomes makes improvements in healthcare a national priority. Poor life expectancies cry out for government action, although it is clear that the healthcare system *per se* is not the most appropriate way to improve these outcomes, as general economic prospects, income inequalities and an unhealthy lifestyle probably play a determining role.<sup>42</sup> Since 1988, many reforms have been introduced (see Box 2), which have significantly changed the nature of the sector (Orosz, Ellena and Jakab, 1998). They include: the adoption of a social insurance model; the introduction of mixed ownership and, to a limited extent, competition in service provision; the separation of the payment and supervision functions; the introduction of performance-related remuneration; the reinforcement of primary care; the reorganisation of professional supervision; and an increase in the autonomy of institutional management.<sup>43</sup> This section reviews areas in need of further attention.

Table 15. **Hi-tech medical equipment**  
1996

	Machines per million persons (Rank)							
	MRI		Scanners		Lithotriptors		Radiation	
<b>Hungary</b>	<b>1.4</b>	<b>(22)</b>	<b>5.1</b>	<b>(25)</b>	<b>0.7</b>	<b>(17)</b>	<b>3.3</b>	<b>(13)</b>
Australia	2.9	(14)	18.4	(4)	1.0	(13)	3.8	(9)
Austria	8.4	(3)	24.8	(3)	1.6	(9)	3.7	(12)
Belgium	3.3	(12)	16.7	(8)	1.6	(9)		
Canada	1.7	(21)	8.1	(21)	0.4	(19)	5.3	(6)
Czech Republic	1.3	(23)	8.3	(20)	3.0	(5)	6.4	(5)
Denmark	2.5	(18)	5.8	(24)				
Finland	2.4	(19)	9.0	(17)	0.2	(21)	4.9	(7)
France	2.4	(19)	9.4	(15)	0.8	(14)	7.6	(3)
Germany	5.7	(7)	16.4	(9)	1.7	(8)	4.7	(8)
Greece	1.2	(24)	6.1	(23)	3.3	(4)	6.5	(4)
Iceland	7.4	(4)	14.8	(11)	3.7	(2)	14.8	(1)
Ireland	0.3	(26)	4.3	(26)	0.8	(14)		
Italy	3.5	(10)	17.5	(6)	4.6	(1)		
Japan	18.8	(1)	69.7	(1)	2.5	(6)		
Korea	5.1	(8)	17.4	(7)	3.4	(3)	3.8	(9)
Luxembourg	2.6	(17)	15.7	(10)				
Mexico	0.2	(28)	2.1	(27)	0.2	(21)		
Netherlands	3.9	(9)	9.0	(17)	0.8	(14)		
New Zealand	2.7	(16)	9.2	(16)	0.5	(18)	8.2	(2)
Norway	0.7	(25)	11.6	(14)				
Poland	0.1	(29)	0.3	(29)	0.1	(23)	0.1	(17)
Portugal	2.8	(15)	12.0	(13)	1.2	(12)	0.5	(16)
Spain	3.2	(13)	9.0	(17)	1.8	(7)	3.3	(13)
Sweden	6.8	(6)	13.7	(12)	0.3	(20)	0.8	(15)
Switzerland	7.4	(4)	17.7	(5)				
Turkey	0.3	(26)	1.6	(28)				
United Kingdom	3.4	(11)	6.3	(22)				
United States	16.0	(2)	26.9	(2)	1.5	(11)	3.8	(9)
OECD average	4.1		13.3		1.6		4.8	

Source: OECD Health Data 98.

Table 16. **Stock and age of conventional medical equipment**  
(Whose unit price exceeds 50 thousand forints)  
1996

Equipment	Units	Average age (years)
X-Ray	5 621	12.5
Ophthalmological equipment	1 421	10.6
Surgical-beds	2 122	11.7
Steriliser equipment	4 106	13.4
Laboratory equipment	16 976	10.9
Anestheological equipment	3 374	12.6
Surgical equipment	903	9.3
Ultrasound equipment	909	7.7
Electrocardiographs	4 802	8.5
Monitoring-systems	3 953	9.2
Total	127 855	9.7

Source: National Institute for Medical Technology.

### Box 2. A chronology of reform measures in healthcare

- 1987:** Experiment on HDG launched in 26 hospitals, National Health Promotion Program announced and Reform Secretariat set up
- 1989:** Private practice authorised
- 1990:** Switch from tax-based funding to compulsory insurance  
National Renewal Program includes section on healthcare reform  
Ownership of health facilities transferred to local governments  
Ministry of Social Affairs and Health renamed Ministry of Welfare  
New system of consensus management in hospitals introduced
- 1991:** Establishment of National Public Health Service (responsibility for local hygiene stations transferred from local governments)  
Ministry of Welfare issues “Action Program” in June to supplement Government’s National Renewal Program
- 1992:** Social insurance fund separated into a Pension Fund and a Health Insurance Fund  
Parliament creates a category of subgroup of “Public Employees”, comprising personnel involved in service provision such as health and education, as distinct from “Civil Servants” comprising personnel in administrative positions, including staff of the Ministry of Welfare  
Parliament eliminates universal entitlement to healthcare and defines conditions for eligibility  
Family Physician Service is created and capitation-based payment introduced
- 1993:** Voluntary “Mutual” Health Insurance (supplementary insurance operated by private non-profit institutions) authorised  
First election of members of Self-Governments of Social Insurance with employer and employee representation  
Outpatient care remuneration based partly on a fee-for-service scheme, and hospital care remuneration on HDG-type scheme
- 1994:** The Act on the Hungarian Medical Chamber  
New National Health Promotion Strategy is adopted by the government
- 1995:** Hospital capacity reduction programme initiated
- 1996:** Act on norms of hospital capacity (capacity reduction)  
Government decree on minimum standard of healthcare facilities
- 1997:** Act on Health  
Act on Services of Compulsory Health Insurance
- 1998:** Abolition of the Health Insurance Self-government  
Creation of the Ministry of Health
- 1999:** Pilot project on managed care launched
- 2000:** Privatisation of the practices of general practitioners

*Cost containment*

31. Cost containment is distinct from cost-cutting or efficiency improvement and refers to governments' efforts to restrict healthcare spending to predefined limits (WHO, 1997). It has been the key stimulus for the Hungarian healthcare reforms of the 1980s and 1990s as well as in many other OECD countries (OECD, 1994 and 1995). Technological improvements, rising living standards and the low marginal cost for individuals of additional healthcare services tend to expand demand. In both private and public comprehensive insurance schemes, the absence of a price mechanism means that cost-containment must come from the supply side. In public systems government-defined spending limits represent the political expression of the aggregate demand for healthcare services.<sup>44</sup>

32. In Hungary, prior to the transition, cost containment was achieved automatically within the context of the annual negotiations for resources in the plan. Initially it was not an issue in the transition as policy makers saw the move towards a social insurance system as a means to increase the resources going towards healthcare. Only more recently has controlling expenditures been recognised as an important issue. The introduction of explicit and tightly controlled caps on outpatient and inpatient care plus the capitation-based payment system for GPs were very effective instruments of cost containment and the principal mechanisms by which costs were brought under control after 1994.

33. Initially, spending on speciality services such as MRI and dialysis systems were remunerated on a fee for service basis and the total number of services determined in the contracts made between HIFA and the providers. Because these expenditures are not capped, such spending has grown very quickly and its share in the HIFA's healthcare expenditures increased from 5 to 6.6 per cent between 1993 and 1997. Most recently, total spending on such services, while still separate from other out-patient care expenditures, are also capped. Pharmaceutical subsidies are also not capped and their share in HIFA spending rose from 22 to 30 per cent between 1990 and 1997 or from 1.0 to 1.4 per cent of GDP. These increases would have been even larger if different pricing strategies and continuous changes to the subsidy system had not been applied, including a tripling of pharmaceutical co-payments from 0.2 to 0.6 per cent of GDP. These now represent about 30 per cent of total prescription expenditures (Table 17). Medications delivered by hospitals (worth 18.4 billion forints in 1997) are not included in the pharmaceutical subsidy but are paid for indirectly through the HDG and points systems.

34. Cost pressures on the healthcare system are likely to intensify in the future, although the economy's capacity to pay will also be improving. Several decades of neglect during the former political regime and the necessity of increasing healthcare workers' salaries, upgrading existing technological infrastructure and demographic pressures will all place upward pressure on costs. Figure 6 attempts to shed some light on these pressures. Panel A illustrates the evolution of expected demand by age group assuming a 1.25 income elasticity of demand. It reflects demographic changes in the population, increasing demand from all groups which is offset (as a per cent of GDP) by productivity growth and higher levels of employment. While this graph clearly indicates that upward pressure from the demand side is unlikely to reverse itself in the future, Panel B shows that under a wide range of assumptions, the current quality gap between Hungarian and European healthcare systems is likely to be closed within the next 25 years. It shows the evolution of healthcare supply, assuming expenditures of 6.5 per cent of GDP, under four scenarios, based on assumptions of higher or lower long-term levels of employment and productivity growth. In all cases, Hungary catches up to current European levels of consumption within the next 25 years — suggesting that while the need to restrain demand through cost containment will continue unabated, under a wide range of assumptions, the economy's capacity to pay will expand sufficiently rapidly so as to close relatively quickly the current European quality and quantity gap.

Table 17. Retail pharmaceutical spending and subsidies

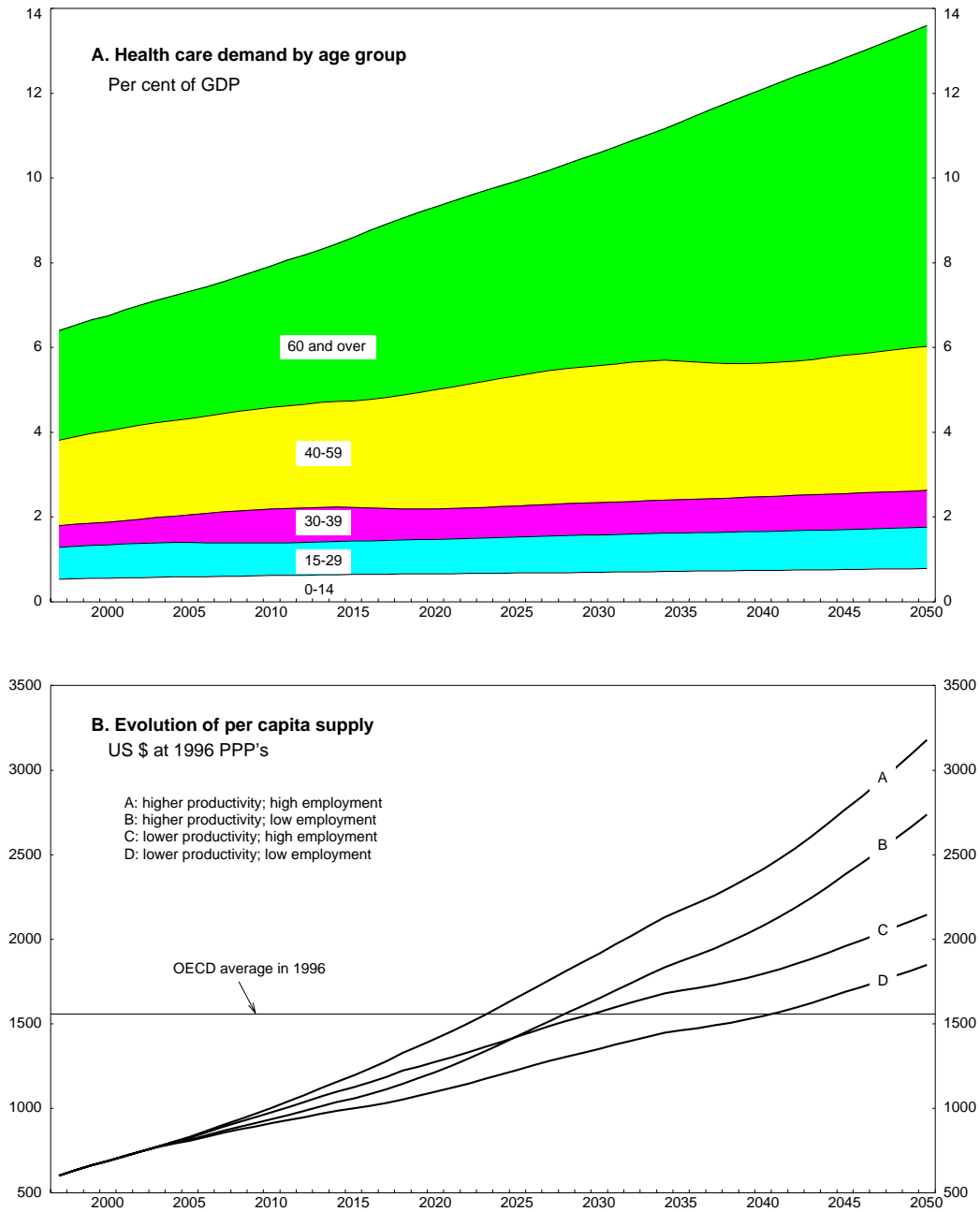
Year	Sales	Budget for pharmaceutical spending	Pharmaceutical Spending	Balance billion HUF	Balance Per cent	Co-payment	Government expenses <sup>1</sup>	Total patient co-payment	Reimbursement level by the HIF %	General reimbursement level % <sup>2</sup>
1993	66.2	35.5	51.13	-15.63	-44.0		15.1	15.1	77.2	77.2
1994	83.9	50.7	60.9	-10.2	-20.1	2.5	20.5	23.0	72.6	75.6
1995	108.7	67.7	72.8	-5.1	-7.5	5.5	30.4	35.9	67.0	72.0
1996	130.5	72.0	86.2	-14.2	-19.7	6.8	37.5	44.3	66.1	71.3
1997	156.4	86.7	101.7	-15.0	-17.3	8.8	46.1	54.9	65.0	70.7
1998	199.9	108.8	135.5	-26.7	-24.5	54.4	10.0	64.4	67.8	72.8
1999		122.9	141.0	-18.1	-14.7					

1. Government pays the co-payments of low income of health-card holders.

2. HIFA + government.

Source: HIFA.

**Figure 6. PROJECTED HEALTH CARE DEMAND AND SUPPLY**



Source: OECD; for assumptions see footnote in main text.

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*Microeconomic inefficiencies*

35. While the use of spending caps enabled costs to be more or less contained, a number of factors severely reduce the efficiency with which the limited resources available to healthcare are employed. A confused policy and administrative structure; excess capacities in acute hospital care; an oversupply of specialists; weak preventive and primary care; lack of co-ordination within the healthcare system and between health and social care; inefficient and uncoordinated investments; weak supervision and policing of the payment system; fraudulent behaviour on the part of service providers and a number of awkward incentives constitute some of the most serious problems with the system.

*Policy and administrative problems*

36. The process of policy formation and review is underdeveloped and plagued by intra-organisational conflict and this is reflected in the wide discrepancy between announced health reforms and their implementation. Disenchantment with the healthcare system is widespread, and although healthcare is a perennial election issue, political and public interest in a policy debate is limited.<sup>45</sup> The politics of reform are considerably complicated by the immediacy of its perceived costs compared with the medium to long-term nature of its payoffs. Needs are not assessed at regular intervals and there is no mechanism for prioritising the distribution of financial resources. Results of implemented reform measures are not systematically evaluated and, as a result, programs are not adjusted and improved. Here, a significant part of the problem stems from the fragmentation of healthcare statistics; as noted, there is no integrated source of data and therefore no means of monitoring and comparing healthcare expenditures and provision across different systems<sup>46</sup> or regularly assessing the health of the population

37. Many of the problems reflect a general tension between the desire to reduce the role of the central government, which, since the beginning of the transition, has been perceived as having starved the system (and the people) of funding levels consistent with good quality medical care, and the need to control supply and alleviate some of the worst distortions inherited from the previous system. The creation of the HIFA in 1994 separated the payment and provision functions of the healthcare system and at the same time the health insurance self-government (HISG) was assigned the task of ensuring that insurance premia were not used by the government to fund non-health related activities. Unfortunately, the delineation of responsibilities and authority between the government and the HISG was never well defined and conflicts emerged almost immediately between the HISG, the HIFA and the Ministries of Finance and Welfare over both health policy and the financing of the system. Inevitably, the lack of clear responsibility led to policy paralysis. The confusion and lack of direction extended to the administration of the system because the HIFA was simultaneously: a subordinate body of the HISG; an institution answerable to the Ministry of Welfare on health policy and quality questions; and required to execute the budget issued by the Ministry of Finance. These problems were further complicated by pressures from various interest groups — not least that of doctors.

38. Although the Ministries of Welfare and Finance shared many common concerns, their underlying preoccupations were, naturally, quite different. The Ministry of Finance focused on keeping costs at sustainable levels, while the Ministry of Welfare's principal goal was to improve the quality of care. Meanwhile, the HISG tended to behave as if it were a representative of sectoral interests rather than a body responsible for the provision of cost-effective quality healthcare. In successive budget proposals, it asked for increases in its expenditures in excess of its own receipts and the economic capacity of the economy. In part, the conflict between the HIFA and the Ministry of Health (Welfare) derived from the separation of management and financial responsibility. Thus, the Ministry of Health set prices and supply but did not

pay bills, while the HIFA paid bills but has only limited authority to offset costs. Thus, it was and still is not able to refuse to contract with public providers, cannot dictate supply limits and cannot enter into performance contracts in an effort to improve the quality of services delivered. Further, as administrator of the healthcare system, the HIFA's execution of government decisions was unsatisfactory. It failed to develop a real purchasing role with contractual relations that clearly defined the responsibilities of providers and which controlled for the quality of services performed. There was little concrete progress to improve collection methods or control those healthcare costs under its control.<sup>47</sup> Expenditures were consistently over budget among the open-ended medical services — drug-subsidies, sick pay and disability pensions<sup>48</sup> — so that the HIFA was unable to balance its budget, despite the expenditure reducing effect of the spending caps.

39. So far, the government has not put forward a long-term strategy for the funding of the HIF. In the autumn of 1998, it transferred the premium collection role of the HIF to the tax office in an effort to improve collection efficiency and allow the HIFA's staff to concentrate on their main responsibilities (half of the HIFA's staff and much of the top management's intellectual energy has been concerned with revenue collection). Proposals for extending the use of co-payments, encouraging voluntary insurance and even the possibility of abolishing the HIF's monopoly position in favour of a multi-pillar financing system were put forward by the MoF early 1998 and again in early 1999 by a reform committee of the present government. For the moment, however, these proposals have not been accepted.

40. Because of these operational and organisational difficulties, the process of policy reform has been relatively confrontational with many of the recent reforms having been imposed on the healthcare system by the Ministry of Finance — principally as cost-containment measures. Organisational problems exist at the sub-national level as well (Orosz, 1997). As part of the overall political transformation, the system of public administration was greatly decentralised during the 1990s and the co-ordinating function of the county governments was eliminated. Local governments were given responsibility for the development of their own healthcare infrastructure and hospitals (among other state-owned assets) were transferred to them (both municipal and county). As a result, significant duplication and excess capacities have become more prevalent, while available financial resources to operate existing physical capacities have declined. Financially, hospitals were exposed to an imbalance between the large catchment areas they were meant to serve and the often very small communities to which they belonged. A number of hospitals were unable to meet demands without generating large deficits. Part of the responsibility for these deficits lies with the local governments who, as owners, failed to exercise effective control over their hospitals and were unable to finance the deficits themselves but simultaneously refused to give up ownership and control. As a result, the central government has been placed in the position of bailing out the hospitals or letting them go bankrupt. Understandably, the former option was taken, but this has generated a serious moral hazard problem.

### *Service delivery*

41. As a consequence of excess capacities in terms of specialists and hospital beds, patients are treated at a higher (and more expensive) level of the healthcare system than required and services such as targeted screening, health education, and rehabilitation are underdeveloped, while institutions (nursing homes, home care) primarily caring for the elderly are almost entirely missing.

42. Successive governments have acknowledged the need to improve public health and reduce the role of hospital-based care in Hungary. Nevertheless, little concrete action has been taken and prevention has played a decreasing role in overall healthcare spending. Public-health employees enjoy little prestige either professionally or within society at large: the National Health and Medical Officer Service is underfunded; government anti-tobacco and public-health campaigns are underdeveloped; tobacco taxes are

relatively low<sup>49</sup> and little emphasis has been placed on preventive healthcare.<sup>50</sup> In addition, the gate-keeping function, the mechanism by which access to expensive care is limited to patients most in need, is weak. Patients can and do visit hospital-based specialists directly when in many cases cheaper and even better care might be available at lower levels within the system. There is no effective system to control excessive use of high-cost techniques, such as those employed by the many healthcare systems (including private ones), *i.e.* requiring referrals or prior authorisation for certain treatments, restricting the treatments covered or dictating which doctors may be seen.

43. The creation of the Family Physician Service sought to enhance the role of general practitioners as gate-keepers. But while the initial reform envisaged expanding preventive medicine, programmes of education, and quality assurance, the actual reform was limited to the “functional privatisation” of the GPs practice and the introduction of the capitation system. In the event, doctors’ practices have not changed much. GPs continue to offer mainly prescription and referral services and exercise only a weak gate-keeping function. Inertia doubtless explains part of their failure to play a more active role, but neither do they have any economic incentive to alter or expand the range of services they provide.<sup>51</sup>

44. Recent reforms have reinforced the role of the GP as gatekeepers. Decrees issued in December 1997 place some limitations on the specialised services that an individual can access without referral but a wide range of services remains generally available.<sup>52</sup> Access to hospital care can be gained following referral by a specialist or family physician, while only specialists can order MRI, CT and Digital Subtraction Angiography (DSA) scans and only those working in hospitals can prescribe positron emission tomography (PET) examinations. Since January 1998 co-payments are required if patients normally requiring referral consult directly a specialist or if they deal with a specialist other than the one to which they were referred. In such cases, service providers bill patients directly and the latter must pay with a postal-order. The government decree defines some basic fees but allows the providers (outpatient clinics, hospitals) to reduce or even waive fees. If the patient does not pay the bill, the institution is responsible for collecting the money. There is no information as to how these provisions work in practice.

45. Three major reforms introduced in a 1990s were aimed at addressing the problems of the hospital sector: the introduction of HDG based financing; a centrally planned bed reduction programme; and a regional restructuring programme.<sup>53</sup> Reacting to the over-supply and duplication of services, the government (beginning in 1994) attempted to dictate the number of beds required in each hospital. After meeting with widespread opposition, this programme was replaced by a somewhat more flexible approach in 1996, by which the government stipulated for each county maximum outpatient capacities and the maximum number of inpatient beds by speciality. The decision regarding which beds or hospitals to close was left to “consensus committees” in each county. This process led to the elimination of 6 300 acute-care beds (9 per cent of the acute hospital capacity) and about 3000 chronic care beds, but, because few facilities were closed<sup>54</sup> and there was no concomitant reduction in personnel, there were only limited financial savings (Table 18).<sup>55</sup> Hospital cases actually rose by 9 per cent between 1993 and 1997 and, in acute care, the number of HDG points charged to the HIFA rose 17.4 per cent, reflecting a 30 per cent increase in the hospitalisation of individuals over 60 years of age.

46. Overall, the system remains hospital centric and, despite the reforms, the rate of hospitalisation has increased and the share of primary care in healthcare resources has decreased. As the medical techniques employed for a given illness, the intensity of services, and the quantity of their utilisation are heavily influenced by the number, structure and qualification of doctors — this orientation has substantial implications. The concentration and compartmentalisation of resources in the hospital sector has contributed importantly to the underdevelopment and underfunding of primary-care services, nursing homes, home care and preventive medicine. Meanwhile, any market-driven trend towards these kinds of care is effectively stopped by the lack of flexibility in the distribution of the healthcare budget. In aggregate, the medical profession cannot reallocate financial resources between the primary, chronic,

outpatient and inpatient systems because the sub-budgets for each of these systems is fixed in the national budget. Worse, the funding proportions are based on historical spending patterns rather than medium to long-term analysis of healthcare needs.

Table 18. **Hospitals' size and revenues by type**

	Institutions	Beds	Beds per institutions	Per cent of Total		
				Beds	HDG points	HIF payments
National institutes	12	5 422	452	6.5	5.4	7.3
Medical universities	6	8 041	1 340	9.7	13.2	13.3
Hospitals of Budapest <sup>1</sup>	22	13 936	633	16.7	15.6	16.0
Regional hospitals	21	25 400	1 210	30.5	32.7	30.5
City (local) hospitals	64	24 098	377	28.9	28.8	27.1
Specialised hospitals	16	3 471	217	4.2	2.3	2.9
Sanatoria	6	1 338	223	1.6	0.2	1.0
Children's hospitals	8	1 549	194	1.9	1.8	2.0
Total	155	83 255	537	100.0	100.0	100.0

1. Excluding universities and national institutes.

Source: OECD calculations based on Ministry of Health data.

47. In part because of the sharing of responsibility for healthcare administration between the HISG, the HIFA and the Ministry of Welfare, the supervision and administration of the system has been neglected with the result that widespread fraud has become endemic. The pre-existing bias towards hospital-based treatment by specialists has been exacerbated both by financial incentives and by a human resources policy that would appear to have substituted low wages for restructuring, with the unfortunate effect of magnifying the tendency towards, and the associated distortions arising from, the gratitude system.

48. In sum, the reduction of hospital capacities concentrated on only one element of structural reform: excess capacities of hospitals (number of hospital beds) and failed to recognise that the funding incentives faced by hospitals would lead them to subvert the goals of the reform. The common interest of the hospitals (as a sector) differs from that of individual institutions. Lower hospitalisation would have resulted in lower costs and higher unit prices for hospital care, — to the benefit of the sector as a whole — but because hospitals' revenues are tied to the number of patients' symptoms treated, hospitals had a clear incentive to "increase" their activities even if the number of beds declined.

### *Inappropriate incentives and ineffective supervision*

49. The excessive tendency for hospitals to treat patients on an inpatient basis appears to reflect economic rather than medical motivations. The fee paid for the treatment of a given problem on an inpatient basis is higher than on an outpatient basis, correctly reflecting the lower costs of the latter. Normally if the marginal return incorporated into the fees were the same, hospitals would be indifferent between the two treatment methods. In reality, however, hospitals prefer the former because of their high fixed costs, which the inpatient fees cover better. These higher costs in turn derive principally from excessive staffing levels. The problem lies not with the financing method but rather the hospital cost

structures. By increasing the variable portion of its costs and reducing its fixed costs, outpatient care would become a more attractive option for the hospitals. Here, the regulations of the Act on Public Employees, which governs hospitals' relations with its salaried staff pose a serious problem.

50. The problem is further complicated because the capitation, HDG and points-based payments of the HIF do not cover depreciation costs. Funding for this — and other capital costs — are the responsibility of hospital owners (local governments) and are subsidised on an *ad hoc* basis from the central budget. As a result, health institutions have no financial incentive to use their equipment rationally. Medical decisions are made on the basis of availability alone, while with respect to investment they are subject to political and budgetary pressures that are greatly removed from medical and economic considerations. Examples of substantially over-used equipment often coexist with dramatic under-use within the same institution. Investment decisions follow neither a logic consistent with public policy (equal access to service provision) nor one that guarantees a rational allocation of resources across competing needs. While economically irrelevant for an individual hospital, superfluous and under-used investment capacities draw resources away from other areas where they could help to contribute to improving service provision and cost-effectiveness.<sup>56</sup>

51. The legal status of hospitals as “budgetary institutions” has two important implications in this regard. Perhaps most importantly, this status means that hospital staff — and in particular specialists — are civil servants and are, therefore, subject to relatively stringent job protection legislation making it very difficult to adjust staffing levels (see OECD, 1997). In addition, this status means that hospitals are obliged to use an inappropriate accounting system incapable of performing cost analysis. While most hospitals operate parallel systems and calculate the depreciation of their assets, no reserves are built up to finance future capital purchases. The budgetary status also restricts the autonomy and responsibility of hospital managers. Decisions on investments and capacity reductions are made by the local assembly and the hospitals are not allowed to borrow.

52. Within the hospital sector, the budgetary cost of the oversupply of doctors and the apparent featherbedding of hospital staff with above pension-age doctors has been offset somewhat by the fall in doctors' salaries, itself an indirect result of the strict capping of HDG and points-based payments. However, the budgetary and health cost of the under-supply of nurses and other healthcare workers should not be under-estimated. The relative under-supply of physiotherapists, chronic-care facilities (such as nursing homes) and home-care nursing programmes reflects the oversupply of specialists and their institutional attachment to hospitals and inpatient treatment. At the same time, it leads to the perverse situation where doctors are performing duties normally fulfilled by nurses. Not only would greater use of nurses and other healthcare professionals reduce costs in many respects, it might well improve outcomes — especially for the quality of life of long-term care patients. As the low salaries are accompanied with an excess supply of specialists and a shortage of other lower-paid healthcare professionals, the obvious solution would be to reduce the supply of the former and use the savings to raise the wages of the latter and hire more nurses. While such a “solution” appears simple, its implementation would be difficult and could only be achieved over a period of several years.

53. The low earnings of salaried health personnel need to be distinguished from their incomes which, in the case of some specialists, can be very high because of gratitude money. These illegal payments are a serious problem for the rational reform of the healthcare system. For some groups of influential doctors they represent a substantial undeclared — and, therefore, untaxed — portion of total income which makes them resistant to some kinds of reform. In addition, gratitude payments are said to influence treatment choice as patients tend to make larger payments for riskier interventions such as surgery. More importantly, they are increasingly transforming the healthcare system into one, where the quality of care and waiting periods experienced may depend upon a patient's ability to provide gratitude money. In

addition, indirect payments from medical equipment suppliers and pharmaceutical companies may also be playing a distortionary role.

54. Over-reporting of the seriousness of diagnoses and superfluous service provision have greatly inflated the apparent quantity of services provided while at the same time some individuals are denied access. The failure of the HIFA to adequately police the payment system manifested itself in a massive inflation in HDG units and points claimed by hospitals and outpatient clinics. Thus although the population is declining, since 1994 the number of outpatient activities (which serves as basis for financing) has risen 78 per cent and that of inpatient cases by 10 per cent (Table 19). While these increases clearly do not reflect a deterioration of the population's health, virtually no effort was extended by the HIFA to verify or refuse payment of dubious claims. Although prior to 1998 they had no financial impact — because of the caps — to the extent that the additional charges actually represent additional treatments, they likely do contribute to an increase in overall costs. In this regard, the trend towards higher HDG billing continued in 1998 when the cap was lifted (by August 1998, HDG unit claims had increased by 10 per cent and the supplementary reserve for the whole year was already exhausted).

Table 19. **Inpatient and outpatient activities**

	1993	1994	1995	1996	1997	1998
<b>Outpatient</b>						
Cases per 100 inhabitants		539	583	655	745	594
Billed acts per 100 inhabitants		1 759	2 118	2 551	2 943	3 129
Payments per case (real value, 1994=100)		100	84	77	72	86
Payments per act (real value, 1994=100)		100	76	65	56	54
<b>Inpatient</b>						
Cases per 100 inhabitants	22.2	22.7	23.4	24.2	24.5	24.9
Cases per bed	22.7	23.6	25.8	26.5	29.5	30.2
Payments per case (real value, 1994=100)	92	100	89	85	84	86

Source: HIFA.

55. Administration of the pharmaceutical system has also failed to sufficiently emphasise cost consciousness. In Hungary, as in most OECD countries, the system seeks to make available high quality pharmaceutical products while maintaining the overall affordability of the system. Affordability is supposed to be ensured by basing reimbursement levels on the price of the lowest-cost equivalent.<sup>57</sup> In practice, the influence of generic drugs on the level of subsidy is limited by the requirement that the low-cost drug has been continuously available for eight to twelve months previously and that its share in the market of drugs containing identical agents has reached 5 per cent. Competition has served to reduce the price differences between generics and brand name drugs but pharmacists are not obliged to substitute generics, although they may do so unless explicitly prohibited by the prescribing physician.

56. Further, it appears that health-cards, which entitle individuals on social insurance to free drugs, are being abused. The cards are distributed by local governments and guarantee payment of the co-payment of drug purchases by the central government. The fact that the distributors of the cards and the regulators of their use, local governments, have no financial incentive to minimise associated costs, may explain why they represent 16 per cent of all pharmaceutical co-payments.<sup>58</sup> Although such evidence

supports the disproportionate consumption of drugs by cardholders,<sup>59</sup> no study has attempted to compare the actual needs of this population group with their drug consumption although the HIFA does have a county-based monitoring system that is supposed to control for health-card abuse. More general controls on the prescription system have yet to be put in place, although implementation efforts have been underway for several years (see below).

### **Scope for further action**

57. The necessity of pursuing the reform effort in the healthcare system is apparent. Successive governments have introduced a range of measures, which, by and large, have contributed to improving the allocation of resources within the system. Nevertheless, as indicated in the previous section, there remain a large number of distortions and inefficiencies that need to be addressed. Although problems exist at all levels within the system, reform should proceed in an evolutionary manner, however with a determined shift in priorities. The government should give priorities, on the one hand, to measures which aims to health promotion and, on the other hand, economic, legal and organisational measures that improve the allocation of resources and which emphasise outcome-oriented changes to the service-delivery system.

58. Perhaps the most critical key to improving the health state of Hungarians will be efforts to influence their own behaviour and to increase the extent to which they take responsibility for their own health by choosing healthier life styles. While the government cannot dictate people's attitude towards their own health, it can attempt to modify behaviour by using economic incentives — such as dissuasive taxes on products and activities known to contribute to poorer health — and also through concerted programmes of health promotion. Here television advertising, educational programmes aimed at the whole family but directed explicitly towards children and programmes of sensitisation delivered by general practitioners and public health professionals can have an important effect. The presently fragmented health promotion activities and agencies should be integrated and local governments, employers and primary and secondary schools should become more involved in health promotion. Furthermore, a more flexible and holistic approach to healthcare is required, necessarily implying less emphasis on hospital-based care, and a much greater use of primary and outpatient care, nursing homes, occupational and medical rehabilitation and other services for the chronically ill and not at least incorporation of the holistic approach into the medical education.

59. Generally speaking, the efficiency of the healthcare system (possible health-gain for the given health-expenditures) could be improved by: moving towards a needs-based allocation of financial resources between territorial units; a better allocation of resources between prevention, primary and secondary care and between different health-problems/diseases (choosing the more cost-effective treatment patterns of care and by reducing the costs of interventions made). However, there is no one magic tool: concerted changes are needed in financial, legal and organisational settings in order to place allocation-decisions at the right level (with those actors that have the best information), to provide them with the proper combination of incentives and to give system managers (Ministry of Health, local governments hospital managers and individual doctors) the tools to properly monitor choices made so that decision makers can be held accountable.

60. Obviously a great deal needs to be accomplished before such a system can be expected to be operational in Hungary. Indeed, the recent history of healthcare in Hungary is wrought with conflicts between different agencies and care-giver interest groups. A major challenge will be to introduce reforms in a way that reduces these tensions and increases co-operation between agencies. While it is difficult to indicate precisely how to do so, it is clear that a programme of consultation and integration of stakeholders in the reform process is a necessary starting point.

61. Notwithstanding the need to promote better co-operation, the abolition of the Health Insurance Self Government was a positive step and should be followed up by a decision to subordinate the National Health Insurance Fund Administration (HIFA) to the Ministry of Health. While the HIFA has been justifiably criticised in the past for its failure to aggressively pursue cost containment and implement the policies of the government, at least some of the responsibility for these failures lay with its confused governance structure. There is no reason to expect that in the future it will not efficiently perform its function as purchaser of services and administrator of the health financing system, although, to do so, its relationship with the Ministry of Health needs to be clearly defined and an unambiguous set of goals, with appropriate incentives imposed. Here, increased use of performance-based and goal-oriented pay for managers and more use of specific-task employment contracts could help realign the private objectives of its employees with those of society at large. As yet, however, this relationship and these responsibilities have not been defined.

62. As discussed in OECD (1999 and 1997), the system's reliance on a payroll tax (under the guise of a compulsory insurance premium) for its financing unnecessarily raises labour costs, contributes to non-employment and the underground economy and raises the spectre of large portions of the population being uncovered. The recent government decision to reduce employer contributions, while broadening the base upon which the tax is calculated and raising the obligatory payment should reduce some of the disincentive effects. However, the increasing reliance on the flat-rate health tax makes the system even more digressive to the detriment of low-skill workers. A less distortionary response would explicitly acknowledge that some 50 per cent of the working-age population does not work and would, therefore, widen the tax base to include all forms of personal income. Such a regime would have the additional advantage of allowing for lower tax rates, while the link in the minds of tax payers between the costs of healthcare and their contributions could be preserved by maintaining the earmarked nature of the tax and using a separate line on the tax form. The decision to transfer collection responsibilities from the HIFA to the Tax Authority is welcome in this regard. It will allow the HIFA to concentrate upon its much neglected supervisory and administrative roles, while the consolidation of these tax collection functions should help reduce evasion.

63. There does not appear to be any need to introduce a more complicated payment system than already exists. International experience suggests that for a country such as Hungary the advantages of a single purchaser outweigh its disadvantages. A single purchaser can use its monopsonistic power to monitor closely service provision and, based on comparisons, pressure caregivers into following best and low-cost practices. While some countries do operate healthcare systems relying principally on multiple insurance funds (private or public), these systems tend to compete for good risks and generate a great deal of additional administrative costs without substantial additional savings from the competition between purchasers. There is, however, considerable scope for increasing the capacity of the HIFA to influence the quality of care that it purchases. Here, the ability to enter into selective (the right to refuse to contract with some suppliers) and performance contracts could introduce a significant element of competition among service providers. Finally, as the Hungarian scheme already allows for supplementary insurance, cost savings within the public system and increased competition could be introduced by expanding the currently very narrow range of services not covered by the universal regime. In this regard and as has been done in other OECD countries, there may be scope for improving the effectiveness of spending by favouring procedures and medical services that have been proven to have an above-average payoff in terms of improved health status and quality of life.

64. By the same token, despite the micro-level distortions that it has generated, the overall budgetary cap and basic payment schemes should not be abandoned. Alternative remuneration systems, such as global budgets for the individual hospitals, provide even fewer incentives to improve efficiency and quality. Rather, the government should allow for substitutability between payment systems by providing an equivalence scale between, HDG performance units, outpatient points and chronic-care points and then



capping the total budget for specialist care. Hospitals would then be free to choose (from any of the systems) the treatment that was most economically and medically effective. Further, they would have a private incentive to close down excess and high cost treatment systems. The possibility that the hospitals in certain regions attract a disproportionate share of resources could be avoided, if the envelope, from which the combined services were funded was first divided on a regional basis using a demographically-weighted capitation scheme. To the extent current imbalances are judged to be inappropriate, special investment funds could be used to speed the rate at which have-not regions are able to catch up to Budapest. Special provisions could be made for the National Institutes and for those patients who seek treatment outside of their region (as they are *e.g.* in the United Kingdom), while the system would still be centrally managed by the HIFA. Such a system of regional purchasers would have the additional advantage of increasing the proximity of the purchaser and provider, thereby raising the former's ability to evaluate and influence the activities of the latter. Ideally these regions would be small and geographically contiguous.

65. Resources for new developments and those for replacement of existing stock of capital should be treated differently. Decisions on the former should be controlled by the Ministry of Welfare while hospital managers should be made responsible for the management of the existing stock of capital. The various payments systems should be revised to include depreciation costs, but this reform must be coupled with the requirement that hospitals place these additional payments into capital funds, from which they would make future equipment purchases. Including the depreciation costs would realign incentives between treatment choices with different capital intensities, while the creation of a capital purchase fund would transfer responsibility for deciding on what equipment a hospital requires to those best able to judge, the hospital's doctors and administrators. Over time, it should ensure that hospitals rationalise the distribution of their capital equipment.<sup>60</sup>

66. In this regard, a number of OECD countries have improved both the quality and efficiency of healthcare delivery by providing hospital administrators greater freedom to manage their institutions. In the case of Hungary, such a change could be accomplished by changing the legal status of hospitals to that of public-utility companies. This would increase the autonomy of hospital managers and reduce the current tendency for political interference in investment decisions. It would also give possibility for the local governments and hospital managers to develop more efficient organisational settings and ownership forms best suitable to local conditions (*e.g.* hospital mergers with joint ownership of the previous owners, developing joint ownership of a given hospital by the local governments in its catchment area, contracting out of hospital management through competition for fixed-time contracts, etc.). In addition, it would allow them to adopt a more accurate and meaningful accounting system, promoting the more efficient use of resources. This change in legal status of the hospitals would imply that hospital employees would no longer be civil servants and, therefore, provide more flexibility to administrators in managing their labour force. Here the need to increase the wages of hospital workers can be used to smooth the reform process. Except for a small sub-set of managers/specialists, funding for specialists working independently of the hospital system should be increased more rapidly than funding for those who remain hospital employees. The salary portion of current HDG points could be made explicit and would be paid to the hospital or the physicians directly depending on whether or not the practitioner was a salaried employee. Currently, the gatekeeper function of the GPs is under-developed. In this regard, the recently-improved requirement that referrals be required prior to visits to specialists in some instances represents a step in the right direction. However, the list of exempted specialities needs to be reduced and the penalties for non-compliance need to be stiffened.

67. At the same time, in order to hasten the re-establishment of an equilibrium in the supply and demand for healthcare professionals, admissions to medical schools should be dramatically reduced in line with the 1995 calculations of the Ministry of Welfare (1995). In addition, doctors working as salaried civil servants should be required to retire from those posts when they reach the legal retirement age,<sup>61</sup> although they should be allowed to continue to work in private practice for as long as they are competent to do so.

68. The introduction of depreciation payments and the integration of the three separate funding baskets must be accompanied by a much stricter system of accountability — legal, professional and medical. If the reform is to successfully eliminate distortions by decentralising decision-making responsibility, then it must be possible to hold those making the decisions accountable for them. In this regard, the government's decision to crack down on the currently widespread practice of fraudulently over-billing for services provided should be reinforced. But more needs to be done. In practical terms, a system of monitoring needs to be established along with systematic and random audits. The Ministry of Health should set norms for the incidence of HDG and outpatient procedures — using internationally available data — and hospitals or clinics that exceed these should be subject to audit and be required to prove that the anomaly was medically justified or face legal penalties. The HIFA, as the administrator of the system, should have the right to decide on the foundation of these claims subject to appeal to the courts.

69. Over the longer term the government should consider eliminating the points-based system which is procedure-based and includes a natural bias towards over treatment (supplier induced demand). An “Ambulatory Visit Group” (AVG) system similar in conception to the HDG would be preferable but may take some time to develop. Alternatively it might be possible to move towards a more integrated healthcare system that would provide for a more active role for the general practitioner as gatekeeper. The American HMO scheme and British GP-fundholder systems might constitute approaches that could be adapted to the Hungarian system, perhaps after some initial small-scale or regional experiments. In general, efforts should be made to increase the flexibility of the system — which to date retains a number of excessively bureaucratic and command and control elements.

70. The conditions and rules governing the ownership, location and operation of pharmacies should be relaxed as they serve no apparent economic or medical purpose but constrain competition and could promote corruption as entrepreneurs compete for the right to operate a pharmacy at a lucrative location. The pricing system of pharmaceuticals is excessively rigid and should be relaxed, but not until competition within the distribution system is introduced. Stricter controls on the use of the 100 per cent Health Card need to be instituted and the computer system of the HIFA should be used to identify those who are apparently over using their cards and the doctors (if any) that are over prescribing to these people. Efforts are needed to develop guidelines for the cost-effective use of drugs and to rationalise physician prescription habits and patient demands. Consideration should be given to scrutinising more closely the basis upon which, in practice, fixed pharmaceutical subsidies are decided — with an eye to favouring the use of low-cost drugs. Finally, if cost savings are a large priority, the government might consider reducing the rates of subsidy provided on drugs or even eliminating drug subsidies for young and middle-aged adults. Currently subsidy rates are higher than the European average.

## Conclusions

71. Since 1989, a number of important changes have been implemented in the Hungarian healthcare system particularly as concerns its macro structure. Its present framework is broadly in line with that of other OECD countries, with the publicly funded system covering the vast majority of the population and between 70 and 80 per cent of expenditure. However, despite the many positive changes introduced since the beginning of the transition, the Hungarian healthcare system remains in serious need of reform. Hungarians have the lowest life expectancy in the OECD and, in contrast with almost all other countries, it has been falling over the past twenty years. While this poor outcome owes much to social and economic phenomena, the effectiveness of the nearly universal national health insurance system is greatly reduced by systemic inefficiency, perverse incentive structures and perennial over-spending in pharmaceutical expenditures. An overwhelming excess supply of specialists, the vast majority of whom are salaried public servants working in hospitals, has combined with weak supervision on the part of the National Health Insurance Fund Administration (HIFA) to yield an excessively hospital-centric and specialist-based pattern

of treatment. While there is an excess supply of doctors, there are too few nurses and the wages of both groups are exceptionally low, the supply-side effects of which are mitigated in the case of doctors and particularly specialists by wide-spread — but illegal — “gratitude payments”. Those general practitioners that do exist do not act as effective gatekeepers and provide only limited healthcare services because the number of their patients determines their pay — not the ailments treated. Problems also plague the two payment systems for inpatient (DRG) and outpatient hospital (points) care. Neither includes capital costs in their fee structures leading to serious misallocations of equipment and irrational investment decisions by locally-owned hospitals. At the same time, inadequate supervision of billing has led to a fraudulent inflation in both the number and the “seriousness” of treatments charged to the HIFA.

72. The budgetary impact of these exaggerated claims have been contained by a capping of the overall budget of the DRG and points systems, with the result that as claims have risen the amount of money paid per claim has fallen proportionately. While this mechanism (which for the DRG system was abandoned in 1998) has kept costs under control, it has placed significant strain on hospitals. Their ability to respond to these forces would be improved if their status were changed to “public corporations”. Such a change would reduce direct political influence on their decision making, allow them to adopt more appropriate accounting techniques and would give them more flexibility as concerns their staff. Here an explicit decision to increase the relative earnings of non-salaried specialists would be helpful and could be integrated with a revision to the payments systems that incorporated depreciation costs into both HDG and points payments. These changes, which could be accompanied by a requirement that hospitals create specific capital funds, from which they would make future equipment purchases, would enable hospitals (and provide them with economic incentives) to reallocate both labour and capital resources towards the most efficient and highest quality treatments. In order to redress the aggregate oversupply of doctors, admissions to medical schools should be cut and salaried doctors should be required to retire at the legal retirement age — although they should be free to continue in private practice.

73. Efforts to address these problems have been hindered by endemic conflict between the Ministry of Health (previously Welfare), the self-government of the health insurance fund, the HIFA and the Ministry of Finance who have (had) overlapping responsibilities in the financing, policy preparation and administration of healthcare. A major challenge will be to introduce reforms in a way that reduces these tensions and increases co-operation between agencies. The recent abolition of the self-insurance government should serve to reduce some of this conflict, but any successful reform will require much more co-operation than has been the case in the past. There does not appear to be any need to introduce a more complicated payment system than already exists. International experience suggests strongly that the advantages of a single purchaser outweigh its disadvantages. As the Hungarian system already allows for supplementary insurance, resources available to the system could be augmented and increased competition introduced by expanding the currently very narrow range of services not covered by the universal system and widening the scope for co-payments. Similarly, despite the micro-level distortions that it has generated, the overall budgetary cap and basic payment schemes should not be abandoned; alternative remuneration systems provide even fewer incentives to improve efficiency and quality. Rather, the government should concentrate on allowing hospitals more flexibility in choosing between in-patient and out-patient care and introduce private incentives for the closing down of excess capacities and investment in areas under supplied. This could be achieved by introducing an equivalence scale between HDG performance units, out-patient points and chronic-care points and by capping the total budget. Regional equity concerns can be addressed by initially subdividing the national budget following a demographically adjusted per-capita formula and making special provisions for National Institutes and patients that seek treatment outside of their region. These reforms need to be accompanied by much more accountability, requiring systematic and random audits and significant financial and legal penalties imposed on institutions and individuals found to be making medically unjustifiable charges.

74. The pharmaceutical sector, as one of the uncapped areas of expenditure, is constantly in deficit. Here restrictions on the operations of pharmacies should be relaxed so that market forces can help to reduce distribution costs. While the principles by which the level of subsidy of different drugs is determined are sound, actual practice needs to be re-examined and subsidy levels more closely aligned with the most cost-effective alternative therapies and efforts extended to examine the surrounding physicians' prescribing patterns. Once this is achieved it would be desirable to lift existing controls on the retail price of different brands of drugs. Additional cost savings could be achieved by auditing the use of health cards, further reducing the rates of subsidy or even eliminating drug subsidies for young and middle-aged adults (except for those suffering from chronic diseases).

75. Cost pressures on the healthcare system are likely to intensify in the future, although the economy's capacity to pay will also be improving. Several decades of neglect during the former political regime and the necessity of increasing healthcare workers' salaries, upgrading existing technological infrastructure and demographic pressures will all place upward pressure on costs. While cost containment policies must be retained, improvements in the economy's capacity to pay should permit the quality and quantity of services provided to rise relatively quickly and to current European levels.

76. A key challenge in any reform will be to help citizens to take greater responsibility for their own health by choosing healthier lifestyles and being more proactive concerning care. The transformation in attitudes can only occur slowly, but can be helped along by making full use of popular media, economic incentives (such as dissuasive taxes on "bads") and through better co-ordination and funding of promotion programmes. The government should also consider developing an integrated disease-based payment system along the lines of the HDG that would cover both in- and out-patient care. Alternatively it might be desirable to experiment with more integrated healthcare systems such as the American HMO and British GP-fundholder systems. Finally, a wide range of quality of life healthcare services are underdeveloped in Hungary. More emphasis needs to be placed on increasing home-based care, occupational- and physio-therapy services and on making greater use of nursing-homes as opposed to chronic care hospital beds.

## NOTES

1. An earlier version of this paper served as input into the *1999 OECD Economic Survey of Hungary* which was published in February 1999 under the authority of the Economic and Development Review Committee. The authors would like to acknowledge the assistance of the Hungarian authorities and numerous medical workers in the preparation of this paper. It has benefited from comments from Bill Dorotinsky, Peter Mihály, Howard Oxley, Jean-Pierre Poullier, Robert Fay and Jean-Claude Chouraqui. We would also like to thank Raoul Doquin-St. Preux who contributed invaluable technical assistance with tables and graphs, while Diane Scott, Nadine Hofman, Mee-Lan Frank and Sylvie Ricordeau provided expert word processing. Remaining errors are our own responsibility.
2. Occupational healthcare and some part of dental care for those aged 18-60 were excluded from compulsory insurance in 1995.
3. The HISG, which was abolished in July 1998, had been an independent partially-elected body to which parliament had delegated responsibility for managing the Health Insurance Fund. In 1994, it actually submitted a separate budget to the parliament which had to choose between this proposal and that of the Ministry of Finance.
4. The adjustment is imposed if a doctor's practice earns more than 2 400 points. Patients of different ages have different points associated with them, such that a child 0-4 years old represents 4.5 points, one 5-14 years old earns 2.5, individuals 15-34 years old generate 1.0 point, 35-60 year olds are worth 1.5 points and individuals over 60 years of age 2.5.
5. The 64 local hospitals provide general internal medicine, general surgery, obstetrical and gynaecological services as well as, to a more limited extent, neurological, psychiatric, urological, ophthalmological and ear-nose-and-throat services. On average, they have 377 beds. County hospitals (on average 1 210 beds) provide a wider range of diagnostic and therapeutic services (besides the traditional specialities, cardiology, haematology and immunology, metabolism and endocrinology, gastroenterology, nephrology, dialysis, and perinatal intensive care, etc.). Some local hospitals with large catchment areas provided a similar range of services. University hospitals and national institutes and clinics represent national centres of excellence for the various specialities as well as serving as supra-regional hospitals for some forms of illness.
6. In 1998, out of 6 890 GPs, 5 675 were self-employed.
7. About 100 local governments own a hospital, but not every hospital receives capital funds each year. Support from the state budget is given only for larger investments, following application. Every two years a law is passed for targeted or "earmarked" investment projects of local governments including healthcare.
8. The main diagnosis and intervention, plus their combination with other acts of the same nature determine classification within the main HDG categories. The length of stay is also taken account in determining the payment.
9. In 1993, the value of a HDG unit ranged from 14 000 to 60 000 forints and in exceptional cases went as high as 100 000 forints.
10. Since 1997, institutions providing specialist care (out-patient clinics and hospitals) receive from the HIFA a so-called monthly "fixed-payment" (which is institution-specific and as an average about 15 per cent of the revenues of the healthcare institutions); which reduces the extent to which amount of resources distributed according to performance. The introduction of the fixed-payment was intended to ensure that the yearly sectoral agreements on wage-increases could be implemented in every institution.

11. These figures include non-healthcare expenditures of the HIFA, such as sick leave, maternity payments and disability benefits.
12. Accumulated arrears represented 19 per cent of annual revenues in 1996.
13. In 1993 employers paid 19.5 per cent and employees paid 4 per cent of gross wages as a health insurance contribution. The Employers' contributions have been gradually decreased: in 1998 they were 15 per cent plus 2 100 forints per month in per capita payments. In 1999 the contribution rate further decreased: employers paid 11 per cent plus 3 600 forints per month in per capita payments and employees paid 3 per cent.
14. These payments were never adequate to cover the likely health costs of these individuals, even assuming that they generated only average costs.
15. Private insurance expenditures (not included in Table 6) are estimated to equal 650 million forints (500 to voluntary mutual funds and 150 million to private insurers).
16. The estimate of private payments including gratitude money may be somewhat low.
17. Primary care decreased by 25 per cent between 1994 and 1997, while over the same period outpatient and inpatient spending fell by 10 per cent.
18. Together with the state budget expenditures on health (which is not shown separately in the table).
19. In the last seven years the number of marketed drugs increased from 860 to 4 715. The share of imported products in the pharmaceuticals turnover (at consumer's price) increased from 26 to 57 per cent between 1990 and 1997. However, imported goods represent only 33 per cent share of consumption calculated on the basis of daily therapeutic dose, while domestic products had a 43 per cent share in terms of turnover and 67 per cent share in terms of consumption.
20. Measured by the number of prescriptions filled or the number of boxes of pharmaceuticals supplied, drug consumption appears high. However, these figures may reflect a tendency to include fewer drugs per package in Hungary and regulations requiring doctors to provide a separate prescription for each medication prescribed.
21. In line with the 89/105 ECC Directive concerning to the transparency requirements of drug reimbursement policies, the principles of the Hungarian drug reimbursement were published in the Welfare Gazette in 1996.
22. A "health-card" is distributed by the local governments under the social assistance system and it should be distinguished from the "insurance card" given to all insured individuals.
23. Public pharmacies must serve at least 5 000 inhabitants and may not be closer than 250 metres from another pharmacy (in cities) and 300 metres in towns.
24. The case of Pest county is special as Budapest provides hospital care for the majority of population living there. Baranya, Csongrád and Hajdu counties have medical universities which provide regional level of care for other counties.
25. Needs were estimated using the SANA-formula, currently used by the British healthcare system.
26. The regional division is identical to the division used for the planned Regional Healthcare Councils in 1994. On the figure the individual regions are marked by the region centres.
27. Expenditures consumed by the population are calculated as the sums paid by HIFA for the services used by the permanent residents of the region (whether or not those services were used in the given region or outside the region).
28. The increase reflected improvements in female life-expectancy only, the life-expectancy of males fell by 1.5 years.
29. In 1998, male life expectancy at birth was 66.1, while female life expectancy was 75.2 years. At age of 40 it was 28.9 and 36.8 respectively.

30. Across countries, life expectancy increases with income up to a certain threshold, after which more equal distributions of income are associated with higher life expectancies. In Central and Eastern Europe infant death rates are well correlated with income levels, but adult death rates are more closely related to the distribution of income (Preker and Feachem, 1995; and Bobak and Marmot, 1996, p. 423).
31. Despite the evident attractiveness of the hypothesis, there is no evidence that declining life expectancies are associated with the economic transition or even the extent of economic disruption undergone. Preker *et al.*, 1996) show that, although “average life expectancy at birth for males declined markedly between 1989 and 1993 in Hungary, Bulgaria, Russia and Ukraine” and that of women stagnated, declines were “not universal during the early transition — contrary to what is frequently assumed — and the magnitude of changes is apparently not associated with the extent of overall socio-economic decline. Albania, Romania and Slovenia saw little change in male life expectancy, while Czech Republic, Poland and Slovakia have seen a modest improvement. All of these countries — with the exception of Czech Republic — have suffered greater declines in real income during the transition than has Hungary”.
32. Saltzman and Figueras (1997), p.20.
33. Average consumption of fat exceeds the recommended maximum by more than 30 per cent and that of sugars by more than 60 per cent.
34. Regression analysis indicates that spending of 5.7 per cent of GDP would be “normal” given Hungary’s present income level.
35. Since 1980, the increase is even more stark, with a 28 per cent increase in health-sector employment, comprised of a 44 per cent increase in physicians, a 50 per cent increase in specialists and a 30 per cent increase in nurses.
36. See Chapter IV of the 1997 *OECD Economic Survey of Hungary*.
37. Ministry of Welfare (1995) in its so-called “Yellow book” indicates that if retirement at age 60 were strictly enforced and graduates held to 600 a year it would be possible to bring the physician per 1 000 ratio down to the European average of 2.6 by the year 2015.
38. Since 1994, the educational programme of nurses has been reoriented and the level of training upgraded to reflect the new needs of the health sector and European standards. The Ministry of Welfare is responsible for the training of practical nurses and nurse’s aides and the Ministry of Education is for registered nurses. The principal priorities of the Ministry of Welfare have been to standardise the legal and professional criteria for nurses and simultaneously to increase the educational level of existing staff and expand the training capacity. As much of a professional nurse’s training occurs outside of the classroom and differs according to specialisation, enrolments tend to be continuous and to follow medical requirements. As a result, the teaching hospitals (and the local governments that own them) bear a significant responsibility in determining supply.
39. See Table 38 (OECD, 1999).
40. In 1990, Hungary had 0.1 MRI per 1 000 people, one-eighth of the OECD average as compared with 1.5 per 1 000 in 1996 or one-third the OECD average and 50 per cent of the average excluding the United States.
41. In 1998, the Ministry of Health launched a national campaign to upgrade the stock of x-ray machines, spending 18 billion forints by the end of 2000.
42. The statistics on healthcare outcomes probably underestimate the important positive role that healthcare plays in improving the quality of life of ill people, by limiting the deterioration of their health and by minimising the limitations placed on their everyday activities both at work and at home.
43. In 1997, two major acts were passed. The “Health Act” consolidated the changes introduced since the mid-1980s, and defined the rights of patients; required conditions of service providers; and the responsibilities of all major actors of the healthcare system. The 1997 Act on “Provisions of Compulsory Health Insurance” and decrees issued in December 1997 regulate access and co-payments and attempt to reinforce the role of the GP as gatekeeper.

44. In private healthcare systems, the insurer's rules are often the only objective constraint on demand. The free-rider problem means that an insured individual has no private motivation to restrain his insured spending. At the societal level, the cost of insurance serves as an economic limitation, but one which in public systems is channelled through the political framework and emerges as various forms of supply restraint.
45. It was not until 1994 that the government produced a general report on the health of the population and when it organised a debate in parliament neither it, nor a 1997 WHO report "Investment for Health in Hungary" raised much political or public interest. Local governments, generally speaking, are not concerned about the health status of the population, only problems relating to institutions.
46. There are no comprehensive and systematic statistics available as to what percentage of GDP is devoted to healthcare (the data provided here are OECD calculations). The Health Insurance Institute only registers data concerning its own expenditures. The reports by the institutions, containing data on the amount of funds received from the local governments, are collected by the Information Service of the Tax Office. These data are not processed. The regulations concerning what the reports should contain and how the data should be classified change almost every year, which makes it difficult to compare one year to the other.
47. In fact, very little is known about the unit costs of healthcare in Hungary.
48. An exception was spending on sick pay which was affected by the requirement, introduced in 1996, that employers pay one-third of the benefit paid out by the HIFA.
49. The excise duty on tobacco actually fell during the 1990s, from 50.9 per cent in 1990 to 40.8 in 1998 — well below the rate required by EU directives (57 per cent of the retail selling price for cigarettes of the price category most in demand).
50. Although part of its electoral programme, the previous government failed to pass its bill on the "protection of non-smokers".
51. Initially, physicians competed in an effort to attract and register as many patients as possible, but now the system has settled down to a stable equilibrium.
52. No referral is required for: dermatology, oto-rhino-laryngology, gynaecology, surgery-traumatology, ophthalmology, oncology, urology, psychiatry, and dispensaries (psychiatric dispensaries, dispensaries for pulmonary diseases, dermato-venereological, oncological and dispensaries for alcoholics and drug-addicts).
53. In early 1997 a new approach was taken to restructure the health service delivery: a pilot project was initiated in the framework of health projects financed from a World Bank loan. The Modernisation Program intended to introduce two major functions at the regional level: strategic planning and co-ordination of service restructuring. A pilot project for reform of finance was proposed to add to the Modernisation Project. According to the original proposal the region implementing the project was to be given a regional sub-budget, separated within the national Health Insurance Fund budget, in order to ensure that savings generated by modernisation will be kept in the region.
54. According to the Ministry of Welfare, the HIFA stopped financing 8 institutions, 8 premises, 74 wards and 23 units.
55. Overall since 1990 the number of beds has decreased by 18 per cent although the resources available to each patient (bed) increased.
56. For example, Hungary has 53 CT scanners, but only 350 000 CT exams were performed in 1996 — a number that could probably have been performed by half as many machines.
57. In principle the price at which drugs are subsidised is determined by comparing new drugs prices with those of similar therapeutic agents already available in Hungary as well as with the ones of the least expensive European drugs. Further savings should derive from the rule that bio-equivalent drugs are subsidised a fixed amount, based on the price of the least expensive alternative product included in the group (health-card prescriptions account for about 10 per cent of the total prescription subsidies).
58. In 1997, total co-payments were 54.9 billion HUF, out of which 8.8 billion (16 per cent) were paid by the state-budget on health-cards.



59. Cardholders are estimated to spend 7.5 times as much on a per capita basis than the rest of the population.
60. Under this scheme, a hospital with more x-ray machines than it requires, need not replace all of them and could use some of the depreciation money to purchase ultrasound machines or some other equipment that is in short supply.
61. Exceptions might be necessary to apply for specialities in short supply (*e.g.* pathologists, anaesthetist, etc.).

## GLOSSARY OF ACRONYMS

CSO	Central Statistical Office
CT	Computerised Tomography
DSA	Digital Subtraction Angiography
HDG	Homogeneous Diseases Group
HIF	Health Insurance Fund
HIFA	National Health Insurance Fund Administration
HISG	Health Insurance Self-Government
MRI	Magnetic Resonance Imaging
NPHMOS	National Public Health and Medical Officer Service
PET	Positron Emission Tomography

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