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Israel

Health system review

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Health Systems in Transition

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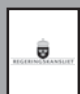

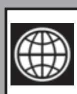

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Preface

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each profile is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a profile.

HiT profiles seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries;
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including the European Health for All database, national statistical offices, Eurostat, the

Organisation for Economic Co-operation and Development (OECD) Health Data, the International Monetary Fund (IMF), the World Bank, and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

A standardized profile has certain disadvantages because the financing and delivery of health care differs across countries. However, it also offers advantages, because it raises similar issues and questions. The HiT profiles can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals. Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to info@obs.euro.who.int.

HiT profiles and HiT summaries are available on the Observatory's web site at www.euro.who.int/observatory. A glossary of terms used in the profiles can be found at the following web site: www.euro.who.int/observatory/glossary/toppage.

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The Israel Health Systems in Transition (HiT) profile was written by Bruce Rosen (Director, Smokler Center for Health Policy Research, Myers-JDC-Brookdale (MJB) Institute) with the assistance of Hadar Samuel. It was edited by Sherry Merkur (Research Fellow, European Observatory on Health Systems and Policies, London hub). The research director of the European Observatory on Health Systems and Policies responsible for the Israel HiT was Elias Mossialos (European Observatory on Health Systems and Policies, London hub).

The basis for this edition was the previous Israel HiT, which was published in 2003, written by Bruce Rosen and edited by Sarah Thomson.

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The current series of HiT profiles has been prepared by the staff of the European Observatory on Health Systems and Policies. The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Norway, Slovenia, Spain and Sweden, the Veneto Region of Italy, the European Investment Bank, World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

The Observatory team working on the HiT profiles is led by Josep Figueras, Director, and Elias Mossialos, Co-Director, along with Heads of the Research Hubs Martin McKee, Reinhard Busse and Richard Saltman. Technical coordination for this HiT was led by the WHO Country Office in Israel in close collaboration with the European Observatory on Health Systems and Policies.

The production process was coordinated by Suszy Lessof and Jonathan North, with the support of Pat Hinsley (layout), Nicole Satterley (copy-editing) and Philipp Seibert in Berlin (processing standard tables and figures). Administrative support for preparing the Israel HiT was provided by Caroline White.

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List of abbreviations

ACSIS	Acute Coronary Syndromes in Israel Survey
ADL	Activities of daily living
ADR	Adverse drug reactions
ALS	Advanced Life Support
ATD	Admissions/transfers/discharge
BA	Bachelor of Arts
BI	Business intelligence
BLS	Basic Life Support
BCAM	Bureau for Complementary Alternative Medicine
CAM	Complementary and alternative medicine
CBS	Central Bureau of Statistics
CHE	Council for Higher Education
CLTCI	Community Long-term Care Insurance
CPR	Computerized patient records
CSO-MOH	Chief Scientist's Office (at the Ministry of Health)
CT	Computerized tomography (scanning)
DALY	Disability-adjusted life year
DEDM	Division for Emergency and Disaster Management
DMFT	Decayed, missing and filled teeth
DRG	Diagnosis-related group
ECG	Electrocardiogram
ED	Emergency Department
EMR	Electronic Medical Records
ENT	Ear, nose and throat
EUROHIS	European Health Interview Surveys
FSU	Former Soviet Union
GATT	General Agreement on Tariffs and Trade

GDP	Gross domestic product
GP	General practitioner
GSL	General sale list
HALE	Health-adjusted life expectancy
HIE	Health Information Exchange
HMO	Health maintenance organization
HTA	Health Technology Assessment
HIE	Health Information Exchange
IADL	Instrumental activities of daily living
ICDC	Israel Center for Disease Control
ICTAHC	Israeli Center for Technology Assessment in Health Care
ICU	Intensive care unit
IDF	Israel Defense Forces
IMA	Israel Medical Association
IMF	International Monetary Fund
INA	Israel Nurses Association
INHIS	Israel National Health Interview Survey
IP	Independent physician
IT	Information technology
KAPS	Knowledge, Attitudes and Practices Survey
LPN	Licensed practical nurses
MABAT	National health and nutrition survey(s)
MAH	Marketing authorization holder
MCH	Maternal and child health
MCO	Managed care organization
MD	Doctor of Medicine
MDA	National ambulance service
MECIDS	Middle East Consortium for Infectious Disease Surveillance
MJB	Myers-JDC-Brookdale (Institute)
MPH	Master of Public Health
MRI	Magnetic resonance imaging (scanning)
MSR	Israeli Center for Medical Simulation
NASIS	National Acute Stroke Israeli Survey
NCQA	National Committee for Quality Assurance
NHI	National health insurance
NIHP	National Institute for Health Policy and Health Services Research
NII	National Insurance Institute
NIS	New Israeli Shekel
OECD	Organisation for Economic Co-operation and Development
OTC	Over-the-counter
PACS	Picture archiving and communication systems

PCP	Primary care provider
PET	Positron emission tomography (scanning)
PMS	Practice Management Systems
PPP	Purchasing Power Parity
QALY	Quality-adjusted life year
R&D	Research and Development
RFI	Request for information
RFP	Request for proposal
RN	Registered nurse
VAT	Value-added tax
VHI	Voluntary health insurance
WHO	World Health Organization

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Abstract

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of policy initiatives in progress or under development. HiTs examine different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems; describe the institutional framework, process, content and implementation of health and health care policies; and highlight challenges and areas that require more in-depth analysis.

Israel has a national health insurance (NHI) system that provides a broad benefits package to the population. There is free choice among four competing, non-profit-making health plans that receive NHI funds from the Government according to a capitation formula. The system is financed primarily from public sources via payroll and general tax revenues. Health care accounts for approximately 8% of gross domestic product (GDP). Hospitals and public clinics each account for approximately 40% of national health expenditure, and dental care accounts for a further 10%. In recent years the share of public financing has declined to 64% of total health system financing, while the share of private financing, especially voluntary health insurance and co-payments, has increased to 36%.

In recent years the Ministry of Health has developed strong capabilities in the areas of technology assessment, the prioritization of new technologies, health plan regulation, quality monitoring for community-based care, as well as strategic planning, to set goals for population health and strategies for achieving them. Critical components of the Israeli health system include: a sophisticated public health effort, run by the Ministry of Health; high-level primary care services provided by the health plans; highly sophisticated hospital care; and a strong system of emergency care delivery.

Executive summary

Introduction

The State of Israel was established in 1948; it is a democratic state with a parliamentary, multi-party system. It is a small country at the eastern end of the Mediterranean Sea. At the end of 2007, it had an estimated population of 7.2 million, of whom 76% were Jewish and 17% were Muslim Arabs, with other minority groups including Christians (3%) and Druze (2%) (CBS, 2008a). Population density is among the highest in the Western world.

Israel is a relatively young society; 28% of the population are under 15 years old and only 10% are over 64 years. Its total fertility rate (2.88 per woman) is higher than most developed countries.

Immigration has played a critical role in the demographics of Israel. The period 1990–2000 saw the arrival of almost 1 million new immigrants, the vast majority of whom arrived from Former Soviet Union (FSU) countries.

Throughout the country's history, armed conflict with neighbouring Arab countries and large-scale immigration have resulted in heavy burdens on the Israeli economy, creating the need for loans and extensive foreign support. Despite these challenges, Israel is a developed, industrialized country with a substantial high-tech sector, a growing service sector and a small, technologically advanced agricultural sector. The 2005 GDP per capita income (with purchasing power parity (PPP)) was US$ PPP 26 054, similar to that of New Zealand, Spain and Italy.

In 2006, life expectancy at birth was 78.5 years for males and 82.2 for females (CBS, 2007). Life expectancy for Israeli males is among the highest for OECD countries and that for women is in the lower range. The infant mortality rate

in 2006 was 3.9 per 1000 live births (CBS, 2007); it has declined by 38% over the previous 10 years.

Organizational structure

Israel has an NHI system that provides for universal coverage. Every citizen or permanent resident of Israel is free to choose from among four competing, non-profit-making health plans. The health plans must provide their members with access to a benefits package that is specified within the NHI Law (Gross 2003). The system is financed primarily through taxation linked to income (through a combination of earmarked taxes and general revenue). The Government distributes the NHI funds among the health plans according to a capitation formula which takes into account the number of members within each plan and their age mix.

The Ministry of Health has overall responsibility for the health of the population and the effective functioning of the health care system. In recent years the Ministry has developed strong capabilities in the areas of health technology assessment (HTA), the prioritization of new technologies, health plan regulation, quality monitoring for community-based care, and strategic planning to set goals for population health, along with strategies for achieving them.

In addition to its regulatory, planning and policy-making roles, the Ministry of Health also owns and operates about half of the nation's acute care hospital beds. The largest health plan operates another third of the beds, and the remainder are operated by means of a mix of non-profit-making and profit-making organizations.

The Ministry of Finance has multiple points of significant influence over Israeli health care, which it uses to try to contain health care spending, improve the services and increase the efficiency of the system.

The largest health plan, Clalit, has a market share of 53%. It provides community-based services, primarily via salaried physicians working in clinics that it owns and operates. The next largest plan, Maccabi, has a market share of 24% and provides care primarily through a network of independent physicians (IPs).

Health care financing

Health care accounts for approximately 8% of GDP. Hospitals and public clinics each account for approximately 40% of national health expenditure, and dental care accounts for a further 10%.

There is universal coverage of the population via an NHI system, providing access to a broad benefits package including physician services, hospitalization, medication and so on. Long-term care services and psychiatric services are currently not included within the NHI but some public funds are available for partial coverage of these services through other mechanisms. The NHI system is financed primarily from public sources – a mixed system of payroll tax and general tax revenue. These public funds are distributed among the health plans according to a capitation formula that, as mentioned earlier, primarily reflects the number of members in each plan and their age mix. Cost sharing for pharmaceuticals, physician visits and certain diagnostic tests also plays a role in financing the NHI system.

Services outside the NHI system are financed via voluntary health insurance (VHI) and direct out-of-pocket payments for private sector services. There are two forms of VHI available in Israel: supplementary VHI, offered by the health plans; and commercial VHI, offered by commercial insurance companies. In recent years, the share of public financing has declined to 64% of total health system financing, while the share of private financing, especially VHI and co-payments, has increased to 36%.

Hospital revenue derives primarily from the sale of services, with approximately 80% coming from the sale of services to health plans. Currently, the reimbursement of public hospitals in Israel takes the form of fee-for-service payments, per diem fees and case payments, and is subject to a revenue cap.

Salaries constitute the primary component of compensation for most hospital and health plan physicians, and salaried physicians were recently granted a 25% wage increase by an arbitrator brought in to resolve an impasse in collective bargaining between the Israel Medical Association (IMA) and the country's major employers. Capitation payments are an important form of compensation for primary care physicians in some of the health plans, and fee-for-service payments play a significant role in the compensation of many community-based specialists.

Physical and human resources

In comparison with the OECD, Israel is parsimonious when it comes to many of the physical and workforce inputs to health care. For example, the Israeli supply of acute care beds per 1000 population is just over half of the OECD average (2.1 and 3.9, respectively).

While the supply of physicians is relatively abundant (3.5 per 1000 and 3.1 per 1000 population, in the OECD and Israel, respectively) at the time of writing, the number of physicians in Israel is growing much more slowly than in other countries, and a physician shortage is being projected. Until recently, the Israeli physician supply relied heavily on physicians trained in other countries – primarily immigrants from the FSU and eastern Europe. However, as the massive immigration of the early 1990s dramatically decreased the FSU's reservoir of potential Jewish immigrants departing for Israel, that source is now drying up. To address the projected shortage, Israel is in the process of expanding its four existing medical schools and is considering opening an additional medical school.

Israel has far fewer nurses per 1000 population than the OECD average (5.8 and 9.6, respectively) and is facing a considerable – and growing – nursing shortage (in part due to the drop-off in immigration from the FSU). Efforts to address this shortage include expanding academic frameworks for the training of nurses, encouraging more young people to enrol in nursing programmes, and developing programmes for professionals in other fields to retrain as nurses.

Israeli nurses are increasingly well trained. In 2006, Registered Nurses (RNs) constituted 74% of the total, up from 58% in 1995. RNs now account for almost 90% of new licences and approximately half of the RNs have received advanced specialist training.

Provision of care

Critical components of the Israeli health system include a sophisticated public health effort run by the Ministry of Health, high-level primary care services provided by the health plans throughout the country, and highly sophisticated hospital care. Israel also has a strong system of emergency care delivery that was developed to address its needs both in times of peace and in times of war or terrorism. Israelis have access to a secure, safe and stable supply of pharmaceuticals at reasonable prices, due in part to governmental regulation

and the roles of hospitals and health plans as the principal and bulk purchasers. Israel also has an extensive and successful pharmaceutical industry.

The system of health and welfare services for the elderly with disabilities in Israel has developed enormously since the mid-1980s, particularly with regard to home care and other community services. The passage of the Community Long-term Care Insurance Law in 1986 contributed greatly to the development of these services. In recent years, palliative care services are also becoming increasingly available.

Rehabilitation services are provided within the framework of the NHI, but mental health care, institutional long-term care and dental care are not. Other sources of public funding provide partial coverage for long-term care (particularly for the indigent) and support for a system of Ministry of Health community mental health clinics. Dental care is financed predominantly from private sources, although some publicly funded services are available for people with low incomes. Utilization of complementary and alternative health care is increasing, both within the publicly funded health care system and alongside it.

Health care reforms

The most significant reform in Israeli health care since 1990 took place in 1995, when the law on NHI came into effect. Other important changes include the introduction of a law on patients' rights, the development of a system for prioritizing new technologies, and the upgrading of the national emergency response system. Several reform efforts, such as the initiative to transfer responsibility for mental health care and well-baby care from the Government to the health plans, have not been successful at the time of writing. The effort to change the legal status of the government hospitals to independent non-profit-making trusts has also been unsuccessful, but the government hospitals have gradually become more independent in practice.

It should also be noted that, in addition to the government-initiated major structural reforms, the Israeli health system has benefited greatly from a large number of mid-level evolutionary changes. Many of these were initiated by the health plans, hospitals, universities and other nongovernmental actors. In contrast to the government-initiated reforms, which focused on financing issues and the issues surrounding who should provide the services, these evolutionary changes focused on how services would be delivered.

Summary

The Israeli health system provides a high standard of care to the population as a whole, which is particularly impressive in light of the relatively moderate level of overall resources allocated to health care. Factors accounting for this strong performance include universal health care coverage, a relatively young population, good access to high-level primary care services throughout the country, and the development of a national health care system that is predominantly publicly financed and government regulated, combined with the existence of competition among providers.

Important challenges remain. These include the lack of public insurance through the NHI system for dental care, long-term care and mental health care; a growing reliance on private financing sources; and disparities among population subgroups. In addition, the unique health needs of the economically disadvantaged, Ethiopian immigrants and Israel's Arab minority population pose a continuing challenge to the health care system.

1. Introduction

1.1 Geography and sociodemography

The State of Israel was established in 1948. Israel is a small country at the eastern end of the Mediterranean Sea, covering an area of 22 072 km^2 (CBS 2007). It is approximately 470 km in length and at its widest point 135 km in width. It lies in the Middle East, at the junction of three continents (Africa, Asia and Europe) and is bordered by Lebanon to the north, Syria and Jordan to the east, Egypt to the south-west and the Mediterranean Sea to the west.

In 2003 Israel accepted the Roadmap, which would lead to the establishment of a Palestinian State alongside Israel. The final status of Judea and Samaria – determining the borders between Israel and the Palestinian State, and those parts of Judea and Samaria which are to be correspondingly under Israeli and Palestinian jurisdiction – is yet to be resolved and at the time of writing is the subject of negotiations between the Government of Israel and the Palestinian Authority (Ministry of Foreign Affairs 2004).

Israel's terrain consists of the Negev desert in the south, low coastal plains, central mountains and the Jordan Rift Valley. Natural resources include copper, phosphates and crude oil. Israel lies on the border of the global desert zone that limits the available supply of water, and makes it prone to natural environmental problems such as drought and air pollution from natural particles. Water, fuel and other natural resources are limited, which increases the consequences of environmental degradation. Israel's environmental health problems are those of an industrialized country, with very high rates of private motor vehicle usage and heavy industry located in densely populated areas.

As noted in the *Statistical abstract of Israel 2007* (CBS 2007):

> Israel's … southern and eastern areas are characterized by an arid climate, while the rest of the country has a Mediterranean climate. One of the main characteristics of this kind of climatic formation is the high variability in quantities of precipitation from year to year and between different areas. The summer is hot with hardly any rain, and the winter is cool and rainy.

At the end of 2007, Israel had an estimated population of 7.2 million, of whom 76% were Jewish, 17% were Muslim Arabs, and other minority groups included Christians (3.2%) and Druze (1.7%) (CBS 2008a). Population density is among the highest in the Western world, with 311 people per km^2. More than 60% of the population is concentrated in the narrow strip along the Mediterranean Sea and the population density in this area is several times higher than the national average.

Israel's three largest cities are Jerusalem (733 000 inhabitants), Tel Aviv (384 000) and Haifa (266 000). Israel recognizes Hebrew and Arabic as official languages, and English and Russian are the most commonly used foreign languages. The Jewish population is largely urban; less than 10% live in rural areas, principally in two types of cooperative communities: *moshavim* and *kibbutzim*. Most of the Arab population live in non-urban settings, primarily small- to medium-sized towns.

Israel is a relatively young society; 28% of the population are younger than 15 years and only 10% are older than 64 years. Israel's general population is still significantly younger than that of other Western countries. Its relatively high total fertility rate (2.88 per woman) has been accompanied by phenomenal growth in the absolute number of elderly people. Since 1955 the elderly population has increased eight-fold, while the general population has increased approximately four-fold. The proportion of elderly people in the population is expected to reach 12% by 2020 and 18% by 2050.

Immigration has played a critical role in the demographics of Israel. When the State was declared in 1948, its population was 873 000. In its early years the population increased as a result of large waves of Jewish immigration from eastern Europe and the Arab countries of the Middle East and North Africa in the 1950s. As a result, the population passed the 2 million mark within a decade of Israel's founding. In the 1970s, there was another major wave of immigration, this time from the Soviet Union. Immigration rates were lower in the 1980s and surged again in the 1990s.

The years 1990–2000 saw the arrival of almost 1 million new immigrants, including almost 400 000 in 1990–1991 alone. The vast majority of these new immigrants arrived from FSU countries. From 1990 to 1995 – years of

Table 1.1 Population and demographic indicators, various years[1]

	1970	1980	1990	1995	2000	2005	2007
Total population (thousands)	2 974	3 878	4 660	5 545	6 289	6 930	7180
Population, female (% of total)	49.63	50.05	50.25	50.47	50.66	50.60	50.57
Population (% of total) 0–14	32.92[1]	33.21[1]	31.29	29.55	28.59	28.34	28.35
Population 65 and above (% of total)	6.75[1]	8.63[1]	9.08	9.53	9.78	9.92	9.82
Population 80 and above (% of total)	NA	NA	1.8	2.16	2.15	2.5	2.6
Population growth (annual %)	3.3	2.4	3.1	2.7	2.6	1.8	1.8
Population density	154.8[2]	186.7[3]	220.4	247.4	278.7	305.2	315.6
Fertility rate, total	3.8	3.2	2.8	2.9	3.0	2.8	2.9
Age dependency ratio	65.75[4]	71.92[4]	67.71	58.44	62.27	61.89	61.76
Percent urban			90.0	89.64	90.57	91.70	91.77
Proportion of single-person households	12.4	14	15.4	15.9	17.2	16.9	17.9
Proportion with 12 years schooling[5]	NA	NA	53.5	60.5	65.9	70.0	71.9
Number of newly arrived immigrants (thousands)	37	20	199	76	60	21	18

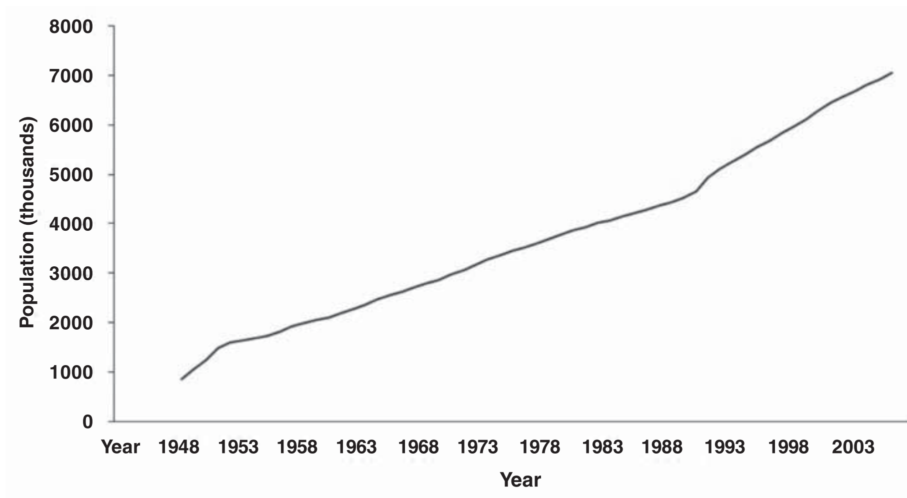
Averages	**1975–1979**	**1980–1984**	**1985–1989**	**1990–1994**	**1995–1999**	**2000–2004**
Birth rate, crude (per 1000 women)	NA	NA	22.8	21.5	21.4	20.8
Death rate, males, crude (per 1000)	7.5	7.2	7.0	6.6	6.4	5.9
Death rate, females, crude (per 1000)	6.3	6.3	6.2	6.0	6.0	5.6
Infant mortality rate (per 1000 live births)	21.9[6]	14.4	10.9	8.8	6.3	5.1
Male life expectancy at birth	71.2	72.7	73.8	75.1	76.2	78.3
Female life expectancy at birth	74.7	76.1	77.4	78.8	80.2	82.2
Male mortality rate per 1000 residents	7.5	7.2	7.0	6.6	6.4	5.9
Female mortality rate per 1000 residents	6.3	6.3	6.2	6.0	6.0	5.6

Source: CBS 2007, World Bank 2008

Note: [1]End of year, [2]1972, [3]1983, [4]End of year, [5]Relative to the population aged 15+, [6]1970–1974

[1] More recent data for most of these variables are available from the CBS website: www.cbs.gov.il

Fig 1.1 Average population growth (in thousands), 1948–2003 (selected years)



Source: CBS 2007.

particularly high immigration rates – the Israeli population grew at an annual average rate of 3.5% per year, while from 1995 to 2000 the average annual growth was 2.5% and from 2000 to 2005 it was 2.3%.

1.2 Economic context

Throughout its history, armed conflicts with neighbouring Arab countries and large-scale immigration have posed heavy burdens on the Israeli economy, thus creating the need for loans and extensive foreign support. Despite these challenges, Israel is a developed, industrialized country with a small, technologically advanced agricultural sector (less than 2% of the workforce), a growing service sector and a substantial high-tech sector. The 2005 GDP per capita income was US$ PPP 26 054, similar to those of New Zealand, Spain and Italy, but well below that of wealthier countries such as Switzerland (US$ 35 969) and the United States (US$ 41 827). Israel's economy grew rapidly in the mid-to-late 1990s and growth slowed in 2000 due to the worldwide recession, the global downturn in the high-tech sector and the upsurge in the Israeli–Palestinian conflict. In recent years, the Israeli economy has returned to high rates of growth.

A total of 55.6% of the population aged 15 years and over were part of the civilian labour force in 2006 and the unemployment rate was 8.4% (CBS 2007).

Table 1.2 Macroeconomic indicators, 2006

GDP (current US$ millions)	161 822
GDP, PPP (international $)	185 883
GDP per capita (US$ atlas method)	21 900
GDP per capita, PPP (international $)	25 930
GDP average annual growth rate (1997–2006)	3.22%
Gini coefficient	39.2
Budget deficit (% of GDP)	1.8
Labour force (million)	2.8
Unemployment, total (%)	8.4
Official exchange rate (US$)	4.2
Real interest rate (%)	5.0
Poverty rate (persons)[1] (%)	24.4

Source: CBS 2007.
Note: [1]The poverty rate is the proportion of people whose household income is less than 50% of the median disposable household income, adjusted for household size.

Income inequality in Israel is among the highest in developed countries, although it is still lower than in the United States.

Israel's national currency is the shekel (abbreviated to NIS: New Israeli Shekel). As of 11 August 2008 the official exchange rate was US$ 1 = NIS 3.6 and €1 = NIS 6.9.

Table 1.3 Macroeconomic indicators, 1996–2000

	1996	1997	1998	1999	2000
GDP (NIS million), 1995 prices	282 493	291 714	299 650	307 392	326 517
GDP per capita (NIS), 1995 prices	49 690	50 046	50 187	50 184	51 939
Annual inflation rate (%)	11.3	9.0	5.4	5.2	1.1
Unemployment rate (%)	6.7	7.7	8.6	8.9	8.8

Source: CBS 2007.

Table 1.4 Macroeconomic indicators, 2001–2006

	2001	2002	2003	2004	2005	2006
GDP (NIS million), 2005 prices	523 380	520 022	531 730	559 355	588 989	619 657
GDP (€ million), 2005 prices	94 036	93 432	95 536	100 499	105 824	111 334
GDP per capita (NIS), 2005 prices	81 283	79 151	79 485	82 149	84 987	87 849
GDP per capita (€ million), 2005 prices	14 604	14 221	14 281	14 760	15 270	15 784
Annual inflation rate (%)	1.1	5.6	0.7	–0.4	1.3	2.2
Unemployment rate (%)	9.4	10.3	10.7	10.4	9	8.4

Source: CBS 2007.
Note: The average exchange rate for 2005 used is NIS 1 = €0.17976.

1.3 Political context

Israel is a democratic state with a parliamentary, multi-party system. All citizens aged 18 years and over have the right to vote. The Head of State is the President, who has largely ceremonial duties. The State's legislative branch is the *Knesset* (Parliament), which has 120 members. Elections are held every four years by a system of proportional representation. A Prime Minister heads the executive branch. In 1992 Israel adopted a system of direct election of the Prime Minister, but this was ended in 2001. At the time of writing, and prior to 1992, the Prime Minister is the head of the party (usually the largest party) chosen by the President to form a government.

There are many political parties, so all governments have been formed from coalitions. At no time in Knesset history has any one political party held an absolute majority. The cabinet (referred to in Israel as "The Government") is assembled by the Prime Minister, but it must receive a collective vote of confidence from the Knesset. As a result, the cabinet usually comprises political leaders from a number of different parties. The judicial branch, headed by the Supreme Court, has the authority to supervise the legal system throughout the various localities.

The main political parties, along with their share of the seats in the current (2008) Knesset, are: Kadima (24%), Labor (16%) and Likud (10%). Various ultra-religious parties account for another 15%; right-wing parties for 17%;

various non-Zionist/Arab parties for 8%; pensioners parties for 6%; and left-wing parties for 4%. Thus, the current Knesset is very fragmented, and this had made governance difficult at times.

Local governments are elected every five years and operate as independent authorities providing local services such as water, sanitation, education and social welfare services. There has been a continuing process of transfer of responsibilities and decentralization to these local authorities, which nonetheless remain dependent on central Government for much of their financing.

Israel is an active member in several major international organizations, including the United Nations and the World Health Organization (WHO) (European Region). It recently became a trial member of the OECD. It is a signatory to many significant international agreements, including the General Agreement on Tariffs and Trade (GATT), the Framework Convention on Tobacco Control and the Convention on the Rights of the Child.

1.4 Health status

Health indicators[1]

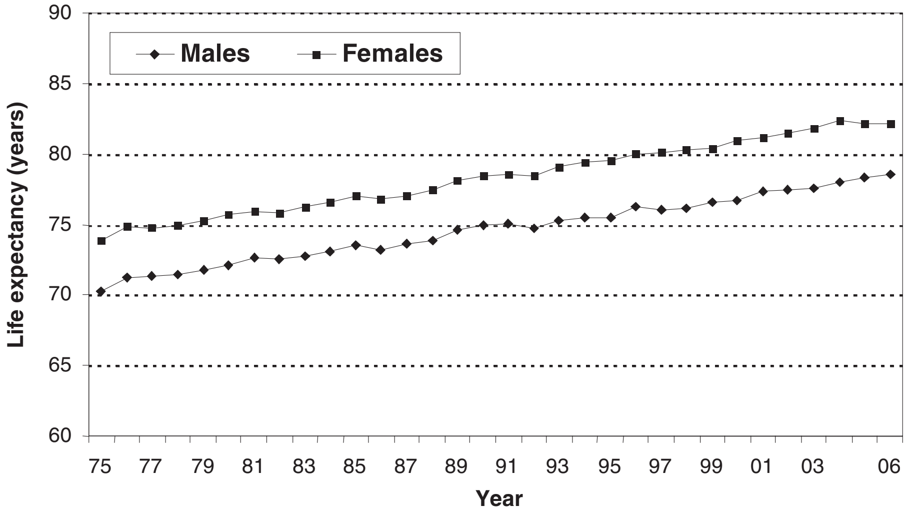
In 2006 life expectancy at birth was 78.5 for males and 82.2 for females (CBS 2007) (Fig. 1.2). Life expectancy for Israeli males is among the highest for OECD countries and that for women is in the lower range. From 1986 to 2006, life expectancy has increased by 5.3 years for males and by 5.4 years for females. The most recent data on health-adjusted life expectancy (HALE) at birth are for 2003, with 70.0 for males and 72.0 for females (WHO 2008).

In 2006 the infant mortality rate was 3.9 per 1000 live births (CBS 2007) (Fig. 1.3); it has declined by 38% since 1996. The infant mortality rate for the Arab population has shown an even more rapid decline than that of the Jewish population, but still remains approximately double that of the latter, reflecting the influence of high rates of consanguineous marriages and various socioeconomic factors. The main causes of infant mortality are prematurity in the Jewish-Israeli population and congenital anomalies in the Arab-Israeli population (Ministry of Health 2006b). The rate of under-5 mortality in 2005 was 5.5 per 1000 live births (Ministry of Health 2005).

The crude mortality rate in 2006 was 5.5 per 1000 population, down from 6.1 per 1000 population in 1999. The leading causes of death were malignant

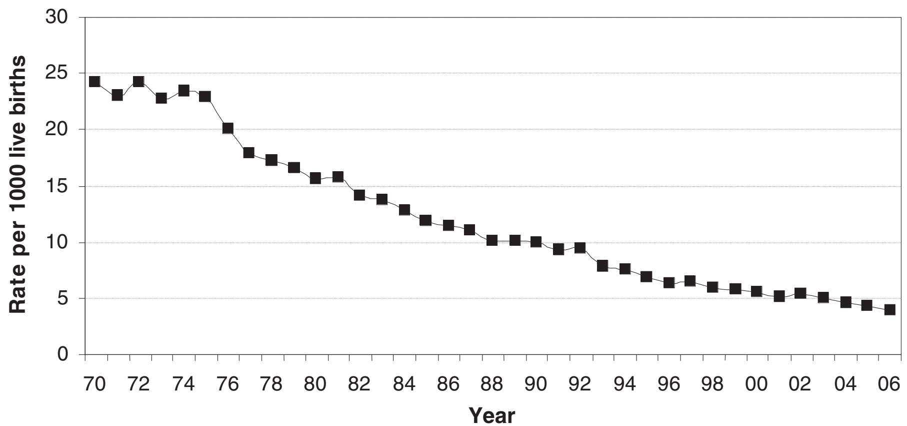
[1] This section is based on data collated by the Israel Center for Disease Control (ICDC) and was prepared by Annekeh Ifrah.

Fig. 1.2 Life expectancy at birth in Israel, by sex, 1975–2006



Source: CBS 2007.

Fig. 1.3 Trends in infant mortality in Israel, 1970–2006



Source: CBS 2007.

neoplasms, heart disease, cerebrovascular diseases, diabetes and accidents, accounting for close to two-thirds of all deaths in 2004 (CBS 2004). Mortality from stroke and coronary heart disease has been declining steadily since the mid-1970s. The decline is attributed to improved treatment (medication and surgical intervention) and to greater awareness and prevention. The decline was generally more marked in the Jewish-Israeli than in the Arab-Israeli population. Notwithstanding this decline, heart disease remains a major health problem in Israel, among both men and women.

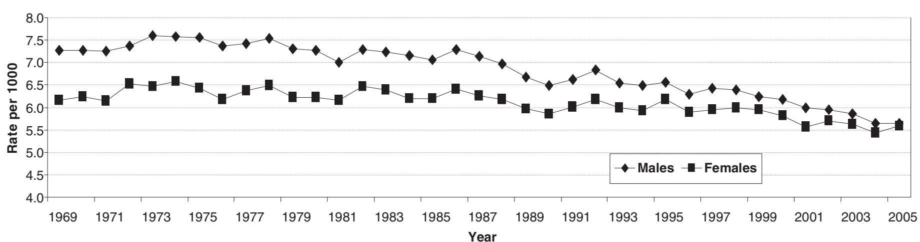
Interestingly, while the crude death rates for both men and women (over age 20) have declined in recent decades, the decline has been greater for men, so that now the crude death rates for the two genders are very similar (Fig. 1.4). With regard to the crude death rate for the under-65 population (Fig. 1.5) the male rate remains higher than the female rate, although here, too, the gap has narrowed over time.

Among women, breast cancer is the leading cancer, accounting for approximately 30% of all cancer morbidity and 20% of cancer mortality. Among men, the leading cancers are prostate cancer (in Jewish men) and lung cancer (in Arab men). The cancer with the highest mortality rate is lung cancer (for both Jewish and Arab men) (Ministry of Health 2008c).

Data on the incidence of cancer are drawn from the National Cancer Registry, while other morbidity data are generally self-reported, based on large population surveys (such as the National Health Survey (CBS 2006), and the Israel National Health Interview Survey (INHIS) (ICDC 2006)). In addition, national registries for coronary heart disease and stroke have been established, including the Acute Coronary Syndromes in Israel Survey (ACSIS) in 2000, 2002, 2004, 2006 (ACSIS 2006) and the National Acute Stroke Israeli Survey (NASIS) in 2004 and 2007 (NASIS 2007).

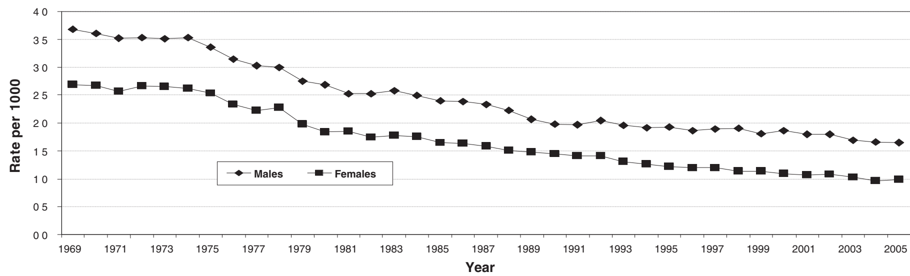
Among the Arab-Israeli population, the leading causes of morbidity and mortality are heart disease, cancer, stroke and diabetes. Risk factors for

Fig. 1.4 Mortality rate for adults (aged 20+), by gender (per 1000 adults), 1969–2005



Source: Compiled by ICDC, Ministry of Health, in response to a special request by the author.

Fig. 1.5 Under-65 mortality rate, by gender (per 1000 adults, aged 20–65), 1969–2005



Source: Compiled by ICDC, Ministry of Health, in response to a special request by the author.

cardiovascular disease, such as obesity, diabetes and physical inactivity, are particularly prevalent among Arab women aged over 45 years. Lung cancer, which is the leading cancer among Arab men, carries a 50% higher mortality rate among Arab men than among Jewish men; this has been linked to the higher rates of smoking among Arab men (approximately 40%) compared to Jewish men (approximately 27%) (ICDC 2008b).

With regard to lifestyle factors, alcohol consumption is appreciably lower in Israel than in European countries, while rates of cigarette smoking are similar in men and slightly lower in women (WHO Regional Office for Europe 2007). Rates of smoking have shown a decline since the mid-1990s; in the year 2006 approximately 23% of the population aged 18 years and above reported that they were smokers (as compared with approximately 27% in 2000). The prevalence of cigarette smoking has also declined somewhat in teenagers; however, in 18-year-old army inductees, both men and women, there has been no decline in smoking rates since the mid-1990s (ICDC 2008a).

2. Organizational structure[2]

2.1 Overview of the health care system

Israel has an NHI system that provides for universal coverage. Every citizen or permanent resident of Israel is free to choose from among four competing, non-profit-making health plans.[3] The health plans must provide their members with access to a benefits package that is specified in the NHI Law. The system is financed primarily via progressive taxation, and the Government distributes the NHI funds among the health plans according to a capitation formula that takes into account the number of members in each plan and their age mix.

In addition to its planning and policy-making roles, the Ministry of Health also owns and operates about half of the nation's acute care hospital beds. The largest health plan operates another third of the beds, and the remainder are operated through a mix of non-profit-making and profit-making organizations.

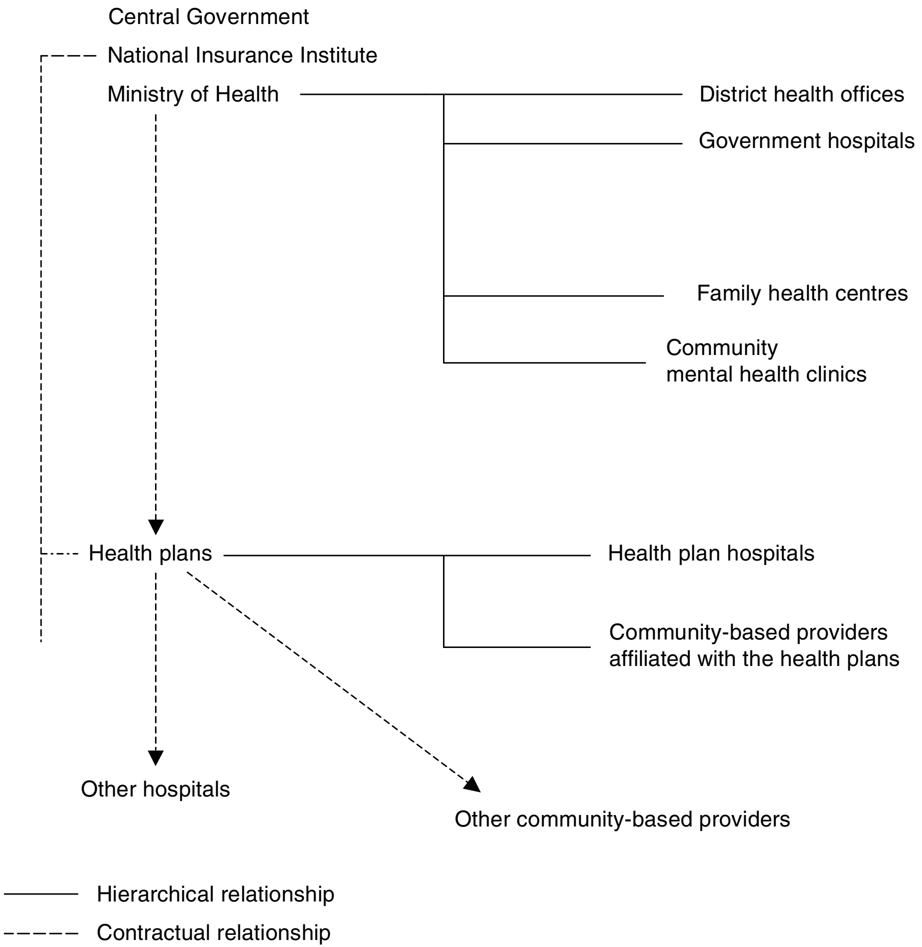
2.2 Historical background

Health care services in Israel have been developed over the past century by voluntary health plans originally called "sick funds", as well as non-profit-making institutions, the Government and the British Mandatory regime that existed prior to the establishment of the State of Israel in 1948. Workers'

[2] This section was prepared in consultation with Ted Tulchinsky.

[3] Health plans are insurers that also provide services. In the United States they are sometimes referred to as HMOs (health maintenance organizations) or MCOs (managed care organizations). In some European countries they are referred to as "sick funds".

Fig. 2.1 Overview chart of health system



Source: Authors' own compilation.

associations established the first "health plan" in 1911 to provide care to workers and their families and to employ immigrant doctors. This laid the groundwork that is the basis of the health plan system, which is still a major component of the Israeli health care system. All four of Israel's health plans were formally established in the period between 1920 and the early 1940s; some of them emerged from mergers of health plans established even earlier.

Another important actor in the early years of the Israeli health care system was the Hadassah Medical Organization. Hadassah began its medical activities

in Israel in 1913 by establishing the *Tipat Halav* system (well-baby clinics, literally “drop of milk” centres), another key feature of Israel’s health care system at the time of writing. In 1918, Hadassah began establishing hospitals in urban centres such as Jerusalem, Safed and Tiberias.

Government hospitals, which provide more than half of all acute beds in the country at the time of writing, along with most psychiatric facilities, consist primarily of hospitals established by the State of Israel in British Mandate hospitals and some are located in buildings abandoned by British Army camps, left over from the War of Independence in 1947–1948.

The nature and the achievement of the health care system in Israel stem, to a large extent, from its foundation in organized social arrangements, as well as a general consensus that society as a whole is responsible for the health of its citizens. This guiding principle has been reflected in the structure of health services in Israel, combining state activities with those of the voluntary health plans (non-profit-making, mutual organizations).

Until the introduction of NHI in 1995, the health plans both insured their members and provided them with most health services. By the late 1980s approximately 95% of the population were insured in one of the four competing health plans, which provided their members with most curative health services either directly or through contracts with other agencies. Public health and individual preventive services were provided by the Government, Hadassah and some of the larger municipalities.

In 2008, four non-profit-making health plans were operating in Israel: Clalit, Maccabi, Meuhedet and Leumit. Established in 1911, Clalit has been the dominant fund both in size and in influence, insuring more than 80% of the population until the beginning of the1980s. It was affiliated with the Histadrut (General Federation of Labour in Israel), which was established in 1920.

In recent decades the transfer, mainly of younger members, from Clalit to the smaller funds, along with the tendency of new immigrants to join the smaller funds, has reduced Clalit’s relative position. Until recently, Clalit was the only fund that operated its own network of hospitals and, under state arrangements, provided inpatient care to members of the other funds as well.

Two of the four health plans had ties with political parties. As part of the Histadrut, Clalit was tied to the Labor Party, while the Leumit health plan was tied to the revisionist parties. These ties greatly politicized the health care system and they remained in place until the 1995 advent of the NHI Law.

The State is responsible for supervising, licensing and overall planning of health services. It also subsidizes some of the voluntary health plans and other bodies, as well as directly providing some services not offered by the

health plans, such as control of communicable diseases, mother and child care, psychiatric services and long-term hospitalization.

As a result of the network of general hospitals developed by the State, the Ministry of Health is in effect the owner of approximately half of the acute care hospital beds in the country. These hospitals, together with hospitals built by Clalit and voluntary and religion-based hospitals, provide services to the members of all the health plans on the basis of reimbursement rules established by the State.

Since the late 1970s the Israeli health care system, like those of other countries, has had to confront population ageing, resulting in a steadily increasing demand for geriatric services and care of chronically ill people, along with the need for the latest technology for diagnosis and treatment. The Israeli public have expected and demanded the provision of modern and progressive services to meet their needs, requiring investment in sophisticated equipment as well as research and professional expertise, in order to remain current in terms of leading international standards. The result has been a continuing rise in health expenditure,[4] and an ever-widening gap between the resources available and the actual expenditures of the health care system.

The 1980s saw substantial labour unrest throughout the Israeli health care system, accompanied by increasing consumer dissatisfaction, with lengthening queues for elective surgery, the growth of “black-market” medicine, cream-skimming by some of the health plans and a lack of responsiveness of the public system to rising consumer expectations.

In June 1988, against this background, the Cabinet of the State of Israel decided to establish a State Commission of Inquiry into the functioning and efficiency of the health care system, chaired by Supreme Court Justice Shoshana Netanyahu and thus referred to as the Netanyahu Commission. Although numerous public committees had been set up to examine the problems in the nation’s health care system since 1948, the establishment of this high-level commission reflected the public’s sense that the health care system was in a state of crisis and that drastic action was needed.

The recommendations of the Netanyahu Commission constituted a major watershed in the history of Israeli health policy. The Commission emphasized the following problems in the country’s health care system:

- inadequacies in the services provided to the public
- the Ministry of Health’s dual role as service provider and regulator

[4] However, as noted in Chapter 3, the share of health expenditure as a proportion of GDP has remained relatively stable at approximately 8%, since GDP has also grown rapidly. Real per capita spending in 2006 was close to that of 2002.

- vague financing and budgeting procedures
- suboptimal organization of the system and lack of managerial tools
- low levels of employee satisfaction and motivation.

The majority report of the Commission[5] presented the following recommendations (see Chapter 7 *Health care reforms* for a full overview):

- legislation to introduce NHI;
- reorganization of the Ministry of Health;
- regionalization, decentralization and enhanced competition;
- a centralized financing system and capitation payments;
- introduction of private medical practice in public hospitals;
- financial incentives for increased productivity, along with enforcement of the principle of equal pay for equal work.

The majority report recommendations were adopted by the Minister of Health, who established implementation task forces to deal with the reconstitution of government hospitals as stand-alone profit-making entities, the reorganization of the Ministry of Health, preparation of the NHI Law and the health care system economics, including the design of capitation arrangements.

In the years immediately following the submission of the Commission's recommendations (1990–1993), reform efforts focused on an attempt to transform the government hospitals into stand-alone hospital trusts. This effort, discussed in greater detail in Chapter 7 *Health care reforms*, failed due to opposition from health care workers' unions and the Histadrut. The focus then turned to the development of the NHI Law, which proved to be more successful; the Law was passed in 1994 and came into effect in January 1995.

The NHI Law ensures that all Israelis are covered by health insurance and spells out the list of benefits to which they are entitled. Coverage is provided via competing non-profit-making health plans, and there is full freedom of choice among plans. The system is financed primarily via progressive taxation and the Government distributes these funds among the plans based on the size and age mix of their members. Further information on the problems that led to the adoption of NHI, its main components, and its implementation are discussed extensively in Chapter 3 *Health care financing and expenditure* and Chapter 7 *Health care reforms*.

Since the introduction of NHI in 1995, there have not been any major, top-down, structural reforms in Israeli health care. Plans were developed to

[5] The minority report, written and endorsed by one of the five Commission members, called for greater targeting of the reforms towards the main areas of health care system dysfunction and for less radical, more evolutionary, change.

transfer several key services (mental health services, preventive maternal and child health (MCH) services, and institutional long-term care services) from the Government to the health plans, but these have not been implemented.

As a result, some observers have suggested that the NHI reform was followed by a period of policy stagnation and even regression. They argue that the equity-related advances introduced by NHI have been eroded by the introduction of co-payments for pharmaceuticals and physician visits, as well as by the growth of supplemental insurance programmes. They note that since the mid-1990s there has been an increase in the extent to which national health care expenditures are being financed privately – from 26% in 1995 to 33% in 2006 – and the concomitant decline in the role of government financing.

Others note that since the mid-1990s the health system has also gone through some very positive evolutionary changes in terms of organization and service delivery, with both governmental and nongovernmental actors playing a role in their initiation. For example, the Ministry of Health has created several significant new planning and regulatory units staffed by highly trained professionals, including units for health economics, supervision of health plans and regulation of the adoption of new technologies. Moreover, even though the Ministry continues to own the government hospitals, the latter are far more autonomous than they were in the past. In parallel, the health plans have invested heavily in information systems and quality improvement efforts, as discussed elsewhere in this report.

We conclude this historical review with a brief mention of the health system's response to a major and unique challenge – Hezbollah's massive and continued rocket attack on the entire northern part of the country during Israel's Second Lebanon War (2006). The wartime circumstances made it extremely dangerous for patients and clinicians to move about freely. Nonetheless, vital health care services continued to operate quite effectively, thanks to the commitment of individual practitioners, and the systems that had been put into place to ensure communication and coordination between the Government, the hospitals and the health plans. At the same time, the war uncovered various deficiencies in the health system's emergency preparedness; efforts to address these deficiencies are discussed in the Chapter 7 *Health care reforms*.

2.3 Organizational overview

This section begins with an introduction to the overall framework of the Israeli Government in terms of health care in the country, and continues with

a description of the organization of the Ministry of Health and the health care system.

The Knesset

Israel is a parliamentary democracy, thus it is the Knesset that ultimately determines laws and budgets. Since the mid-1990s the Knesset has been very active in health-related legislation, passing such laws as the NHI Law of 1995 and the Patients' Rights Law of 1996. The key Knesset committees relating to health are the Finance Committee, which prepares the annual budget for votes in the plenum, and the Labour, Social Affairs and Health Committee, which is formally charged with the leading role on health issues.

It is important to note that since the mid-1990s much use has been made of the annual Budget Arrangements Bill, which accompanies the national budget, to move health and other social policy matters quickly through the Knesset in late December, as part of the annual budgeting process. This Bill is handled by the Finance Committee, rather than by the Labour, Social Affairs and Health Committee, and its use for substantive issues has come under increasing criticism on the part of Israel's social lobby.[6]

The Government

Executive power is in the hands of the Government. After each round of parliamentary elections, the President (whose role is primarily ceremonial) asks the leader of the largest party to try to assemble a government (cabinet), which must secure and maintain majority support in the Knesset. This is done through the distribution of cabinet portfolios among the various coalition parties. Until the 1990s the health portfolio was given to one of the smaller, less powerful parties, with the major parties preferring the more visible and powerful portfolios, such as Foreign Affairs, Finance, Defence and Education. The period from 1990 to 1994 was unique, as the Ministry of Health was held by major players: first by one of the rising stars of the Likud Party and then by a rising star of the Labor Party. This was a reflection of the growing salience of health care issues in Israel. Between 1995 and 2007 there were 11 ministers of health, some from the smaller parties and some second-tier figures from the dominant parties.

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[6] The social lobby is a loose network of Knesset members and nongovernmental organizations, which seeks to advance legislation to promote equality and the well-being of low-income groups.

The Government plays a role in health care at several critical junctures. First, while the Knesset ultimately must vote on the annual budget, it is the Government that prepares and submits the budget. The Ministry of Finance and its powerful Budget Division play a critical role in drafting the budget. However, the Government ultimately determines what is proposed in the budget sent to the Knesset, and the political balance of power, as well as the policy priorities of the Government as a whole, invariably affect allocations to health care.

Similarly, the Government plays an important role in the legislative process. While the Knesset will entertain private members' bills, in practice most legislation – and almost all major legislation – is submitted by the Government. While the relevant ministry prepares the bill concerned, the Government's Ministerial Committee on Legislation plays an important role. For example, in the case of the NHI Law, this was the place where a crucial compromise was reached, whereby the Minister of Finance agreed to support the bill on the condition that the Minister of Health would agree to various measures that would serve to control NHI expenditures.

The Ministry of Health

As in other countries, the Ministry of Health has overall responsibility for the health of the population and the effective functioning of the health care system. The Ministry is headed by the Minister of Health, who is a member of the Government (cabinet) and appoints a physician as Director-General, the Ministry's senior health care professional.

Key functions of the Ministry of Health include:

- planning and determining health priorities;
- drafting health care laws to be put before the Knesset and enacting regulations subsequent to primary legislation;
- providing adequate resources for the NHI system and for other components of the health care system; promoting the effective use of resources within the health care system, including proposing the Ministry's annual budget for the Ministry of Finance and the Government;
- monitoring and promoting population health (see Section 6.1 *Public health*);
- overseeing the operation of the Government's 11 acute care hospitals, 8 psychiatric hospitals and 5 chronic disease hospitals;

- monitoring and regulating the activities of nongovernmental actors in the health care system, including hospitals, health plans,[7] various stand-alone diagnostic facilities and so on;
- regulating the health care professions;[8]
- preparing the health care system for various emergency situations, including terror attacks or military attacks with both conventional and non-conventional weapons.

In addition to all the usual planning, public health, regulatory and stewardship functions, Israel's Ministry of Health also plays a major role in the direct provision of care. It owns and operates almost half of the nation's acute hospital beds, approximately two-thirds of the psychiatric hospital beds and less than than 10% of the chronic disease beds. In addition, it operates the majority of the nation's mother and child preventive health centres. This multiplicity of Ministry roles has long been recognized[9] as one of the problems of the Israeli health care system, and it is an issue that is discussed further in the Section 6.1 *Public health*.

The Ministry of Health receives important input from various advisory bodies. These include the National Health Council, a statutory body established to advise the Minister of Health on implementation of the NHI Law, and a series of standing national councils on, for example, community medicine, oncology, cardiovascular disease and women's health – appointed to advise the Director-General on both long-term goals and pressing issues requiring immediate policy response.

Other key government bodies involved in health

- **The Ministry of Finance**: As noted earlier, this is the agency of the executive branch that prepares the budget for approval by the cabinet and Knesset, and monitors its implementation. Historically, its budget division has also been a catalyst for major structural reforms in Israeli health care. In addition, the Ministry's wages and collective bargaining division is the lead government actor in negotiations with the health care labour unions. Its finance and

[7] The Ministry of Health is involved in primary care in part through its regulation of the health plans and in part through a small unit involved in developing policy and strategic initiatives in primary care. However, primary care has not traditionally been a major focus of Ministry attention.

[8] Part of this function is then delegated to the Scientific Council of the IMA, which works closely with the Ministry on issues surrounding physician licensing and other key matters.

[9] This problem was discussed thoroughly by the Netanyahu Commission, as well as by various other commissions prior to the setup of the Netanyahu Commission. Most senior managers within the Government and the health plans concur with this assessment.

capital markets division plays an important role in regulating the commercial insurance sector. Thus, the Ministry of Finance has multiple, powerful points of influence over Israeli health care. As in other countries, the Ministry of Finance is the key governmental actor that consistently seeks to limit public spending on health care, to constrain the construction of new health care facilities, to limit the number of employed physicians, and so on.

- **The National Insurance Institute (NII)**: The NII collects the health tax that plays a major role in the financing of the NHI system. See Chapter 3 *Health care financing and expenditure* for further details.
- **The Israel Defense Force**: This operates a medical corps that directly provides basic and emergency care for military personnel and purchases tertiary services from the civilian sector.

Key nongovernmental actors

- **Health plans**: Health plans are voluntary, non-profit-making organizations, obliged to ensure that their members have access to a benefits package, as specified in the NHI Law. In return, the health plans receive an annual capitation fee per member from the Government. At the time of writing there are four health plans and their market shares at the end of 2007 were as follows: Clalit, 53%; Maccabi, 24%; Meuhedet, 13%; Leumit, 10%. The health plans are governed by boards of directors. In some plans the members are chosen by parent organizations (labour federations), while in other cases they are indirectly elected by the members of the plan.
- **Hospitals**: While the Government owns approximately half of the acute beds, Clalit owns one-third of the acute beds and the remaining beds are owned by various non-profit-making and profit-making entities.
- **Magen David Adom ("Red Star of David")**: Israel's equivalent of the Red Cross operates ambulances and other emergency services.
- **Pharmaceutical companies**: The major international pharmaceutical companies are active in Israel, both in terms of marketing their products and trying to influence public policy through their industry association, Pharma.
- **Health care unions**: Most notable in this regard are the IMA and the Israel Nurses Association (INA). For further details see Subsection *Payment of professionals* within Section 3.7 *Payment mechanisms*, as well as Section 7.9 *Reforming the status and pay levels of physicians*.
- **Universities**: Israel has seven research universities and numerous colleges, and they play a pivotal role in training health care professionals.

- **Research centres**: Research centres such as the MJB Institute and the Gertner Center, along with various university-based research units, play a pivotal role in the monitoring and evaluation of health care services. The National Institute for Health Policy and Health Services Research (NIHP) plays an important coordinating role.
- **Advocacy groups and patient organizations**: Many of these are organized around specific diseases, health risks (such as accidents) or health care services.

It is worth noting that the category "employers" does not appear on this list. Employers used to play an important role in health care financing, but they no longer do so. See Chapter 3 *Health care financing and expenditure* for further details.

Political parties

In theory citizens can influence Israeli health policy through several major channels. The first is the political parties' primary elections and the Knesset elections themselves (for other methods of citizen participation see Subsection *Patient participation/involvement*, within Section 2.5 *Patient empowerment*). However, throughout the history of the State, domestic issues in general and health care in particular have not figured prominently in election campaigns. One important exception was the 1992 general election campaign in which the introduction of NHI and, to an even greater extent, reduction of corruption in the Histadrut (the national labour federation) and its separation from Clalit constituted central campaign issues for both parties.

It should be noted that the political parties had a substantial impact on health policy even during periods when health policy was not a central campaign issue.[10] For many years the Labor Party resisted efforts to eliminate the health plan system in favour of a unitary, government-run NHI system. They also successfully fought for government subsidies of the Histadrut-affiliated health plan. Conversely, for decades the revisionist parties, predecessors of the current Likud, used their political power to block any NHI legislation that would preserve the dominance of the Histadrut-affiliated health plan. The religious parties used their pivotal role in the political balance of power both to influence NHI legislation and to influence legislation on sensitive issues such as abortion and autopsies.

[10] Since they are voluntary associations of citizens, political parties' actions can be considered a form of citizen participation.

In recent years, most of the political parties have not sought to advance particular health care policies. An interesting exception was the Pensioners Party – a new party that surprised most political pundits by capturing 8 of the 120 seats in the Knesset in the 2006 elections. That party has pushed, successfully, for various discounts in co-payments for the elderly. It is also pushing to transfer responsibility for long-term care from the Government to the health plans, as yet unsuccessfully at the time of writing.

2.4 Decentralization and centralization

Israel has a unitary, as opposed to a federal, system of government. While the Government has administrative divisions at the regional level, these do not have independent authority in the same way as United States states or German *Länder*.

Although the Ministry of Health's Public Health Division operates through regional and district offices, which have some leeway in responding to local conditions, the ultimate source of authority is the national office. The regional and district offices serve primarily to implement the policies and strategies developed at the national level, both in the public health field and in terms of the regulation of long-term and psychiatric care.

The same is true of the health plans; all have regional administrations, but authority rests with their national headquarters. In recent years the health plans have been undergoing a process of decentralizing authority and responsibility to the regions and branches. This is particularly true of Clalit, which is in the process of an ambitious programme of decentralization down to the clinic level.

The recommendation of the Netanyahu Commission for regionalization of health services in Israel has not been adopted at the time of writing. The Ministry of Health and its institutions have one set of regional structures and the health plans each have their own. There is little coordination between these bodies at regional level.

The NHI Law called for the role of government to be reduced in terms of service provision in three key areas of activity: personal preventive care, long-term care and mental health care. The Law stated that within a 3-year transition period, these responsibilities would be transferred to the health plans. As discussed in greater detail in Section 6.1 *Public health*, the original decision to transfer responsibility for personal preventive care was reversed by the Knesset in 1998 and, while the decision to transfer responsibility in the

other two areas remains on the cards, it has not yet actually been made at the time of writing.

A major effort was undertaken in the early 1990s to transform the government hospitals into independent, non-profit-making trusts. This was a top priority of the Minister of Health at the time. However, the effort failed, primarily due to the opposition of the health care unions (see Section 6.1 *Public health*). Instead, the government hospitals have been gradually given far more autonomy than they had in the past.

Most analysts interpret the NHI Law as increasing government control of the health care system. Previously, the health plans were largely unregulated. At the time of writing, however, the Government has substantial regulatory powers regarding the benefits to be provided and to what extent to finance health plan activity. Nevertheless, the health plans remain separate legal entities with considerable latitude for strategic and managerial discretion. The change is less radical than that which was envisaged by competing approaches to NHI, such as abolition of the health plans and institution of a unitary health insurance system run by the Government. It is evident that health plans have significantly less independence than they had prior to 1995.

The change in law appears to have enhanced the public's right to a defined benefits package and has increased equity in the health care system. What is less clear is the magnitude of the costs of the change in terms of reduced innovation, responsiveness and diversity.

In summary, since the mid-1990s the Israeli health care system has undergone:

- some *deconcentration* of central government authority to lower administrative levels of central Government, particularly in the case of the government hospitals;
- no significant *devolution* of authority to regional or local governments;
- no significant *delegation* of responsibilities to quasi-public organizations (on the contrary: NHI constitutes a process of transfer of authority from the health plans to the Government);
- various attempts at *privatization*, in the sense of transferring responsibilities for service provision from the Government to the voluntary sector, none of which has been successfully implemented to date.

Questions remain as to the desirable extent of deconcentration, devolution, delegation and privatization in Israeli health care. Thus, there continue to be vigorous debates as to the desirability of the changes that took place in the 1990s. Similarly, there is no clear consensus as to how Israeli health care should evolve with regard to these issues in the decade ahead.

2.5 Patient empowerment

Patient information

In choosing among health plans, Israelis can make use of findings from consumer surveys about patient satisfaction and the availability and accessibility of health plan services. The most prominent of these surveys is conducted bi-annually by the MJB Institute (Gross 2004). Its findings[11] – including comparisons among health plans – are reported widely in the mass media. Additional surveys are carried out and publicized by specific health plans and by the IMA. All these surveys contain only limited information on the clinical dimensions of quality of care. As noted in Chapter 4 *Regulation and planning*, Israel has a very extensive system for monitoring the clinical quality of care in the health plans, but to date the findings have not been broken down according to health plans.

Another important type of information available to consumers relates to the content of the supplemental insurance packages offered by the health plans. The MJB Institute has published a detailed and thorough comparison of these packages (Brammli-Greenberg, Gross & Matzliach 2007) and, periodically, updated comparisons have been published by various health care reporters. These comparisons can influence consumer choices regarding two distinct but related decisions: which health plan to join and whether to purchase supplemental insurance from their plan.

Some comparisons have also been published comparing certain aspects of the commercial insurance packages offered by the insurance companies. For example, the web site of the Commissioner of Insurance includes a detailed comparison of rates and coverage in the area of surgical operations.

In addition to comparative data, consumers also have access to various publications that can guide them through the process by highlighting the considerations they should take into account in their purchasing decisions, and such guides have been prepared and disseminated for long-term care insurance (Brammli-Greenberg & Gross 2007).

All of the health plans operate both telephone-based call centres and extensive web sites to help guide their members through the health system. The call centres provide services such as scheduling appointments, providing information about what services are covered, and guidance regarding when and where to seek care for various conditions. The web sites include easily searchable directories of affiliated physicians, labs and diagnostic centres, systems for scheduling appointments and for checking lab results, extensive

[11] See also Gross 2003.

information on coverage and rights, various downloadable forms, along with useful articles in Hebrew and video clips on a variety of popular health and health care topics.

Israel has a Freedom of Information Act, and in addition, the patient's right to review and transfer the information in her/his medical record is enshrined in the Patients' Rights Law.

There is a growing recognition in Israel regarding the need to make services more accessible to cultural and linguistic minorities, and several impressive initiatives have been instigated in this regard. For example, veteran Ethiopian immigrants who are not health care professionals are employed in some clinics and hospitals to serve as facilitators/liaisons in the care of newer immigrants from Ethiopia. Most primary care providers (PCPs) in Arab villages are themselves Arab. However, when it comes to specialty outpatient care and hospitals, significant cultural and linguistic barriers remain. For example, most hospitals do not employ professional translators and as a result there is an over-reliance on family members or hospital employees who have not been trained in translation.

Patients' rights

The Patients' Rights Law[12]

The Patients' Rights Law was enacted in 1996 after five private initiatives were combined into one national proposal. It was proposed based on a widespread feeling that there was a systematic lack of respect for and consideration of patients in the health care system. The Patients' Rights Law emphasized that patients have rights above and beyond the right to health care alone.

The Law was the product of cooperation between Knesset members, government offices, the Association for Civil Rights, religious and legal representatives, women's organizations and patient and professional associations. The Law defined the rights and obligations of patient–provider relationships, encapsulating the shift from a paternalistic model of care to a patient-centred model emphasizing patient autonomy. The main goals of the Law were to ensure caregiver professionalism and quality and to protect the dignity and privacy of patients. In addition, the Law included rights that were previously granted in lawsuit verdicts within the realm of medical ethics and social norms, for example, prohibition against discrimination, informed consent, patient access to medical records and privacy of medical information.

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[12] This section was prepared in consultation with Adina Marx, Carmel Shalev and Sharon Basson.

Box 2.1 The 12 principles of the Patients' Rights Law[13]

The Patients' Rights Law was enacted by the Knesset on 1 May 1996. Its objective is to regulate the relationship between people who require medical treatment and members of the medical staff who provide it. The Law has established norms and codes of conduct concerning patients' rights in a binding way for all those practising medicine. The medical staff and the patient are partners in the medical treatment. The Law is based on the assumption that the patient is a cognitive person capable of demanding her/his right to proper medical care. The opening paragraph of the Law states: "This Act aims to establish the rights of every person who requests medical care or who is in receipt of medical care, and to protect his dignity and privacy".

The Society for Patients' Rights in Israel has prepared the information presented in the following subsections, in leaflet form, in order to bring to the notice of the public the principles and essence of the Patients' Rights Law.

The right to medical care
The right to receive medical treatment is assured to all. Neither the medical facility nor the clinician administering the treatment may discriminate between patients on grounds of religion, race, sex, nationality, origin, and so on. Medical treatment should be provided according to existing terms and arrangements in the medical system in Israel. In case of medical emergency the patient will receive treatment without any pre-condition.

Proper medical care
The patient is entitled to proper medical care, which should be provided to the best professional standards and quality. Proper personal relations should also be maintained.

Information on clinician identity
The patient is entitled to know the name and professional role of every person giving treatment.

A second opinion
The patient is entitled to obtain, on her/his own initiative, a second opinion as to her/his medical care. The clinician and the medical facility shall give the patient all the assistance s/he requires fulfilling this right.

Right to continuity of proper care
In cases where a patient transfers from one clinician or facility to another, s/he is entitled, at her/his request, to cooperation between the clinicians or facilities involved, to ensure proper continuity of care.

The dignity of the patient
The dignity of the patient must be assured at all stages of the medical treatment.

The privacy of the patient
The privacy of the patient must be assured at all stages of her/his treatment.

Care under emergency or grave danger
Whenever a person is in grave danger or in medical emergency, s/he is eligible unconditionally to receive medical treatment. The clinician to whom s/he turns or is referred is obliged to examine and treat the patient to the best of her/his ability. Should the clinician be unable to do so, s/he shall refer the patient to a facility that can provide the medical

[13] This material has been excerpted, with permission, from a copyright-protected pamphlet produced by the Israel Society for Patients' Rights.

care that is required. If a patient is in grave danger and s/he refuses medical treatment, the clinician should administer the required treatment even against the will of the patient. This can be done only after the Ethics Committee has given its permission.

Informed consent
No medical treatment shall be administered unless the patient has consented to it. Such consent should be "informed consent", based on all the data on the diagnosis, the nature of the proposed treatment, the risks involved (including pain and discomfort) and the chances and the risks of alternative treatment or the lack of any treatment at all. The clinician shall provide the information to the patient at the earliest stage of the treatment in a manner that maximizes the ability of the patient to understand the information and make a free and independent choice. The consent to medical treatment may be given verbally, in writing, or demonstrated by the patient's behaviour.

The right to access to medical information
The patient is entitled to receive from her/his clinician or from the medical facility information concerning her/him obtained from the medical records, including a copy of her/his medical records. In cases where such information may cause serious harm to the patient's health or endanger her/his life, the clinician may decline to give the patient such information. The Ethics Committee may endorse or change the clinician's decision.

Medical confidentiality
A clinician or any other staff member of a medical facility may not disclose any information concerning a patient which came to their knowledge during their services or in the course of the treatment.

Disclosure of information to a third party
A clinician or a medical facility is allowed to disclose information to another party provided the patient has given her/his consent. Information may also be disclosed to specific authorities if the clinician or the facility is so instructed by law, or if the information is needed for continued treatment.

Internal control authorities
To assure the implementation of this law, three committees were established:

Investigative Committee
A committee appointed to deal with patients' complaints or exceptional incidents involving medical treatment. The minutes of the Investigative Committee shall not be disclosed to the patient, unless authorized by a court of law.

Quality and Control Committee
An internal committee appointed to evaluate medical procedures in order to improve the quality of medical care. The content of the deliberations of this committee, as well as documents prepared and its conclusions shall not be disclosed to the patient, but the factual findings concerning treatment shall be entered into her/his medical record.

Ethics Committee
An internal committee that must be established in every medical facility. It is appointed by the General Director of the Ministry of Health. The Ethics Committee comprises a chairperson who has the qualifications of a District Court Judge, two specialist physicians, a psychologist or a social worker and one representative of the public or a member of a religious establishment. The law also requires the appointment of a person in charge of patients' rights. The head of a medical facility shall designate a staff member whose responsibilities will include:

- advising and helping patients concerning their rights according to the law;
- dealing with patients' grievances; complaints regarding the quality of medical care shall be referred to the facility's director;
- instructing and educating members of the medical and administrative staff within the facility in all matters relating to the law.

Source: The Society for Patients' Rights 1998.

Implementation

The importance of the Patients' Rights Law is recognized in several domains, as outlined in the points that follow.

- *Definition of patients' rights*

This includes the anchoring of rights that had previously been legislated for, including informed consent, the right to privacy of information, the right to access one's medical file and the right to receive personal medical information. The Law requires patients to be notified of their rights, so the General Director issued a directive stating that a list of patients' rights is to be displayed in every institution providing medical services.

- *Responsibility for honouring patients' rights*

In every medical institution a representative has been appointed to be responsible for supervising institutional adherence to patients' rights legislation/policy and practices. This position includes provision of advice and assistance concerning all aspects of patients' rights, the receipt, investigation and care of complaints and the training of medical and administrative staff with regard to the Law. In a study conducted five years after the passing of the Law, it was found that various hospitals had different job descriptions for the representative responsible for patients' rights, based on the professional background and strengths of the employee (Kismodi & Hakimian 2001). The new legislation and the addition of formal avenues for filing complaints have increased knowledge regarding patients' rights, as well as the number of grievances.

- *The establishment of ethics committees*

Before the enactment of the Law, ethics committees existed in some hospitals, functioning as advisory committees. According to the Law, hospital administrative directors are responsible for the establishment of an ethics committee, whose main responsibilities are the transmission of medical information to patients and decisions regarding medical treatment against the patient's will. These committees are multidisciplinary and have the authority to make decisions regarding the patient. Israel is the only country that has legally regulated ethics committees. However, it has been noted that there is a

gap between the Law's requirements and actual practice (Wegner et al. 2002). Despite the legal requirement, in many institutions there is no timely access or referral to ethics committees and protocols are not brought up for discussion.

- *Inspection and quality assurance committees*

Inspection committees are in place to verify patient complaints and exceptional occurrences. One year before the enactment of the Law, the Supreme Court ruled that there was no immunity for inspection committee reports. On this basis, the IMA instructed its members not to cooperate with these committees. Within the Law, instructions were provided with regard to immunity to the discussions and conclusions of these committees, with a distinction made between inspection and quality control committees. Quality control committees are internal committees of medical institutions, which continually act to evaluate medical activity and improve quality of medical care. The findings and conclusions of these committees are not closed, and are forwarded to the relevant patients and caregivers. In contrast, all written materials produced by these committees are immune, and cannot be used as testimony in legal processes. Despite this, doctors have persisted in refusing to cooperate in quality control committees, even after the Law was passed.

Patient choice

All Israelis are free to choose their health plan and health plans must accept all applicants. There are four dates during the year at which a transfer can be affected. A person must remain in a plan for at least six months before transferring. In practice, each year approximately 1.0–1.5% of the population switches plans (Shmueli, Bendelac & Achdut 2007) and, interestingly, switching behaviour is relatively more common among lower-income individuals. There is also a group of citizens choosing a plan for the first time, because they are new immigrants – the size of this group changes markedly from year to year. In the case of neonates (of whom there were approximately 150 000 in 2007), if both parents belong to the same plan the newborn is automatically assigned to that plan; if not, the parents are able to decide which of their plans the infant will join.

Interestingly, in a recent MJB survey (Gross, Brammli-Greenberg & Matzliach 2007a), 20% of adult respondents indicated that they had considered switching plans in the past year. The reasons for ultimately remaining in the plan were: personal reasons (such as laziness or lack of time), 38%; realization that they were satisfied with their own plan, 32%; concerns regarding whether it was worthwhile to switch, 20%; and bureaucratic reasons, 18% (respondents were allowed to cite more than one reason). Another category included concerns

about continuity of benefits/eligibilities and the price of supplemental insurance in the new plan.

Within plans, patients have a great deal of freedom in choosing their community-based physicians – both primary care physicians and specialists – from among those physicians affiliated with the plan. In most specialties, and in most areas of the country, each plan is affiliated with numerous physicians so that there is choice in practice and not just on paper. At the same time, there are some specialties (for example, child psychiatry) and regions (for example, the Negev) where choice is more limited. Moreover, if a member is particularly keen to see a specific physician, who is very popular, s/he may have to incur a long wait, even if that physician is affiliated with the member's plan. If a member wants to see a physician not affiliated with the plan, access is not guaranteed through the basic benefits package, but in many circumstances partial coverage is available for those who have enrolled in supplemental insurance programmes.

Health plans have the right to direct their patients to particular hospitals. Until recently, however, they gave their members a great deal of leeway in choosing among hospitals. Recently, with the growth of selective contracting between health plans and hospitals, the plans have become much more active in directing patients. This has led to strong objections from many patients, and even more so, from certain hospitals.

In general, patients are not free to choose which hospital-based physician will treat them. Instead, department heads assign physicians to particular rotations and/or patients. However, in Jerusalem's non-profit-making hospitals, there is a Private Medical Service option, in which the patient can choose their physician in return for an additional fee (that is, beyond the fee paid by the health plan for the basic hospitalization). All of the supplemental insurance packages offer partial or total coverage for this additional fee.

Patients and cross-border health care[14]

The detection and control of infectious diseases is a major focus of cross-border cooperation and it is pursued through the Middle East Consortium for Infectious Disease Surveillance (MECIDS), which was established in 2003. Its first goal was to deal with improving detection and control of foodborne infectious diseases and facilitating data sharing and cross-border communication. This infrastructure proved invaluable in supporting a platform from which to broaden surveillance of other serious emerging infections, such as avian influenza,

[14] This section was prepared in consultation with Alex Leventhal.

when the threat was geographically closer to MECIDS partners in late 2005. MECIDS members immediately responded with a regional conference on the issue, which involved experts from Ministries of Agriculture as well as other international organizations. Each country presented its national plan to combat avian influenza and therefore established a foundation template for exchanging information in real time in the event of an outbreak.

Three months later, in March 2006, an avian influenza epidemic actually broke out among poultry within the MECIDS participating nations. Established and effective lines of communication, assistance between the three partners and cooperative control measures proved essential in the relatively quick mitigation of the human and economic impact of the outbreak. Since January 2007, an Executive Board has presided over MECIDS and it has expanded the scope of MECIDS activity to include ongoing workshops on building a memorandum of understanding in case of a pandemic influenza outbreak. Initiating these workshops was a series of table-top exercises focused on preparedness at both country and regional levels.

Hospital care is another focus of cross-border cooperation. Israel's tertiary hospitals attract patients in need of highly specialized care from various Mediterranean and Middle Eastern countries; in 2006, Israeli hospitals admitted 5000 patients from other countries. Israeli hospitals also treat patients from the Palestinian Authority in the West Bank and the Gaza strip. The ups and downs of the security and diplomatic situation influence the number of these types of patients, but in 2006, 2000 patients were admitted from the Palestinian Authority.

Israel has emerged as a medical tourism destination due to the many advantages it offers, including first-rate quality of care at reasonable prices. Israel's facilities are recognized throughout the world, with regular contacts maintained on a reciprocal basis with major medical and scientific research centres abroad. Israel is frequently the host venue for international conferences on a wide variety of medical topics. Patients come to Israel for procedures such as in vitro fertilization, bone marrow transplants, heart surgery and catheterization, oncological and neurological treatments, car accident rehabilitation and more. Psoriasis patients also flock to Israel to visit the Dead Sea, known as one of the most therapeutic resorts in the world (Wikipedia 2008).

Complaints procedures

All major Israeli health care institutions (such as health plans and hospitals) are required to assign a designated person responsible for handling patient complaints. In addition, the Ministry of Health itself operates several units

to which patients can send complaints regarding problems they encounter anywhere in the health system, whether of a clinical or more administrative nature. Both the Ministry and the providers try to respond to the complaints at two levels: (1) by trying to better meet the specific needs of the individual who submitted the complaint; and (2) by analysing aggregate complaint data to identify and then address problems that are prevalent and systemic in nature. The Ministry of Health also publishes an annual report which includes detailed information on the prevalence of complaints by provider and type of problem, as well as documenting the types of action carried out by the Ministry to address those complaints.

A 2003 survey (Shvarts & Ben Chaim 2003) of the general population found that, in the previous 12 months, 25% of the population had encountered a problem with the health care system which they felt justified a complaint. However, only approximately 10% actually complained and the vast majority of these complaints were transmitted orally to the local service provider rather than formally through the complaint system (thereby limiting the complaint systems' ability to identify systemic problems and track their prevalence over time). Over 80% of the interviewees had never seen notices detailing their right to submit complaints and regarding the availability of the formal complaint systems.

Patient safety and compensation

By law, all Israeli hospitals are required to maintain two types of quality committees. The first is a quality control committee and its mandate is to monitor and promote quality on an ongoing basis. The second is a quality examination committee, charged with examining specific untoward events.

A 1995 Supreme Court ruling (Civil Appeal Request 1412/94)[15] determined that patients and their families should be guaranteed access to the findings of the quality examination committees regarding their specific cases. The IMA objected strongly to this, arguing that granting patients access to committee findings would lead to an increase in malpractice claims and as a result, over time, the committees would not carry out their duties as seriously and critically. The IMA is working at the time of writing to overturn that ruling, and in the interim many physicians have refused to participate in the work of the quality examination committees, causing most of these to become dormant.

The hospitals are required to send reports to the Ministry of Health concerning all hospital deaths and unusual events in hospitals. The Ministry

[15] Civil Appeal Request 1412/94. Hadassa versus Gilad. Court Ruling 49(2) 516.

has a Unit for the Assessment of Reportable Deaths and Events that reviews these reports and determines which cases require more in-depth investigation (which in turn could lead to disciplinary measures). The Unit also maintains a database encompassing all the case reports, along with the Ministry of Health's assessment of the cases, and this is used to identify systemic problems as a basis for system-wide interventions.

With regard to adverse drug reactions (ADR), the public is authorized to report these directly to the Ministry of Health, although usually they discuss the ADR with their physician, who then reports the event to the Ministry.

Direct-to-consumer advertising of pharmaceuticals is illegal, while the situation with regard to medical devices is ambiguous. Advertisements by doctors are strictly regulated.

Patient participation/involvement

In addition to their influence via political parties, citizens also influence the health care system through their involvement in the boards of directors of key organizations, such as Hadassah, the health plans, Magen David Adom, and so on, and through participation on various government advisory bodies such as the National Health Council. Of course, some of these boards are dominated by professionals and the influence of "ordinary citizens" is not therefore particularly significant.

Citizens, as consumers, also have influence over the system through the mechanisms of "voice" and "exit". Increasingly, researchers are using surveys and in-depth interviews to help consumers articulate their needs and wants with regard to an ever-widening set of health care services and issues. Moreover, in those areas of health care characterized by competition, such as the health plan sector, shifts and potential shifts in market shares have led providers to be much more responsive to consumer demands and wants than they were in the past.

As indicated in Subsection *Patient information* (within Section 2.5 *Patient empowerment*), the MJB carries out a bi-annual survey of the general population regarding health system performance. In the 2007 survey, 88% of respondents indicated that they were "satisfied" or "very satisfied" with their health plans. In the first round of the survey (1995) the comparable figure was 83%; by the second round (1997) it had risen to 91% (probably as a result of the introduction of NHI), and has remained high in the range of 80% since then. The survey also enquires about satisfaction with the health system as a whole, and here the percentage of "satisfied" or "very satisfied" individuals was 63% in 2007, which was slightly higher than the 59% level found in the 2003 survey.

In 2003 a unique initiative was launched – the Health Parliament. Groups of ordinary citizens from around the country were given an opportunity to voice their views on pressing health policy issues, after being given extensive background on those issues in a series of regional meetings with leading health policy experts (Guttman et al. 2008). The initiative succeeded in providing policy-makers with valuable input on citizens' preferences, but was discontinued the following year due to funding problems.

Physical access

Israel has a law protecting the rights of the disabled. In 2008 the law was amended to require that, within 12 years, all public buildings will be accessible to the disabled and that all new buildings must provide such access from their inception.

There are no comprehensive data regarding the current extent of accessibility in health care facilities. However, a study several years ago regarding gynaecological clinics around the country revealed that the vast majority of them were not accessible for the disabled. In the wake of that finding, several voluntary organizations have worked to increase awareness of the needs and to persuade the health plans to increase access, and there are some preliminary indications that these efforts are bearing fruit.

3. Health care financing and expenditure[16]

3.1 Overview

Health care accounts for approximately 8% of GDP. Hospitals and public clinics each account for approximately 40% of national health expenditure, and dental care accounts for another 10%.

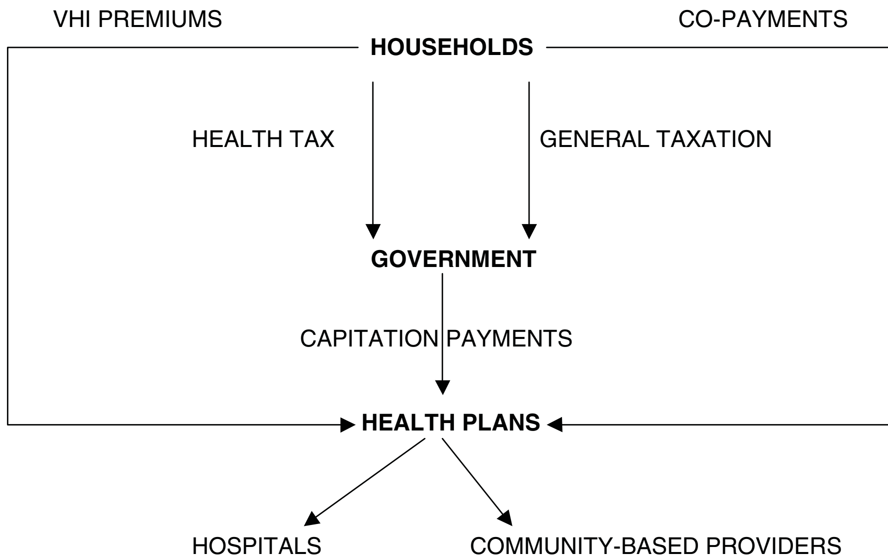
There is universal coverage via an NHI system. NHI provides access to a broad benefits package including physician services, hospitalizations, medications and so on; long-term care services and psychiatric services are not included at the time of writing. The NHI system is financed primarily from public sources – a mixed system of payroll tax and general tax revenue. These public funds are distributed among the health plans according to a capitation formula, which primarily reflects the number of members in each plan and their age mix. Cost sharing for pharmaceuticals, physician visits and certain diagnostic tests also plays a role in financing the NHI system.

Services outside the NHI system are financed via VHI, and direct out-of-pocket payments for private sector services. In recent years, the share of public financing has declined, while the share of private financing has increased.

Subsection *Compulsory sources of financing – national health insurance financing* (within Section 3.4 *Revenue collection/sources of funds*) briefly presents data on financing resources for the health care system as a whole and then focuses on the main component of the health care system, which is financed by NHI. The section also briefly notes those components of the health care system that are not financed by NHI. The following sections discuss how

[16] This section was prepared in consultation with Shuli Brammli-Greenberg.

Fig. 3.1 Financial flows



Source: Authors' own compilation.

the NHI benefits package is determined, along with complementary sources of financing and health care expenditure.

3.2 Health expenditure

Health care expenditure

As indicated in Table 3.1, in 2005 Israel spent almost NIS 43 billion (€11.41 billion in 2000 prices)[17] on health care, amounting to 7.8% of GDP. It is important to note that since the introduction of NHI in 1995, the share of health in GDP has been stable, in contrast to a rise in the preceding decade (CBS 2008a).

The proportion of Israel's GDP devoted to health is seen in a wider European context in Figure 3.2. Israel spends 7.8%, which is slightly below

[17] The average exchange rate for 2000 used is NIS 1 = €0.26614.

Table 3.1 Trends in total expenditure on health care in Israel, 1990–2005

	1990	1995	2000	2005
Value in 2000 prices (NIS billion)	24.98	32.38	39.42	42.86
Value in 2000 prices (€ billion)	6.65	8.62	10.49	11.41
Share of GDP	7.3	7.9	8.0	7.8
Public share in total expenditure	71	74	71	68
Private share in total expenditure	29	26	29	32

	1990–1995	1995–2000	2000–2005
Mean annual real growth in total health expenditure (%)	6.3	4.2	1.2
Mean annual real growth in GDP (%)	8.1	5.7	2.0
Total government spending[1] as a % of GDP	34	28	27
Government health spending as a % of total government spending[1]	10	20	20
Government health spending as a % of GDP	4	6	5
Government health spending as a % of total health spending	48.72	74.76	69.00
Out-of-pocket payments as a % of total expenditure on health[2]	27	26	29

Source: CBS 2008a.

Notes: [1] General government consumption expenditure; [2] Payments for goods (including medicines) and services.

the European (EU) average. Prior to 1994 Israel spent below the EU average on health care.

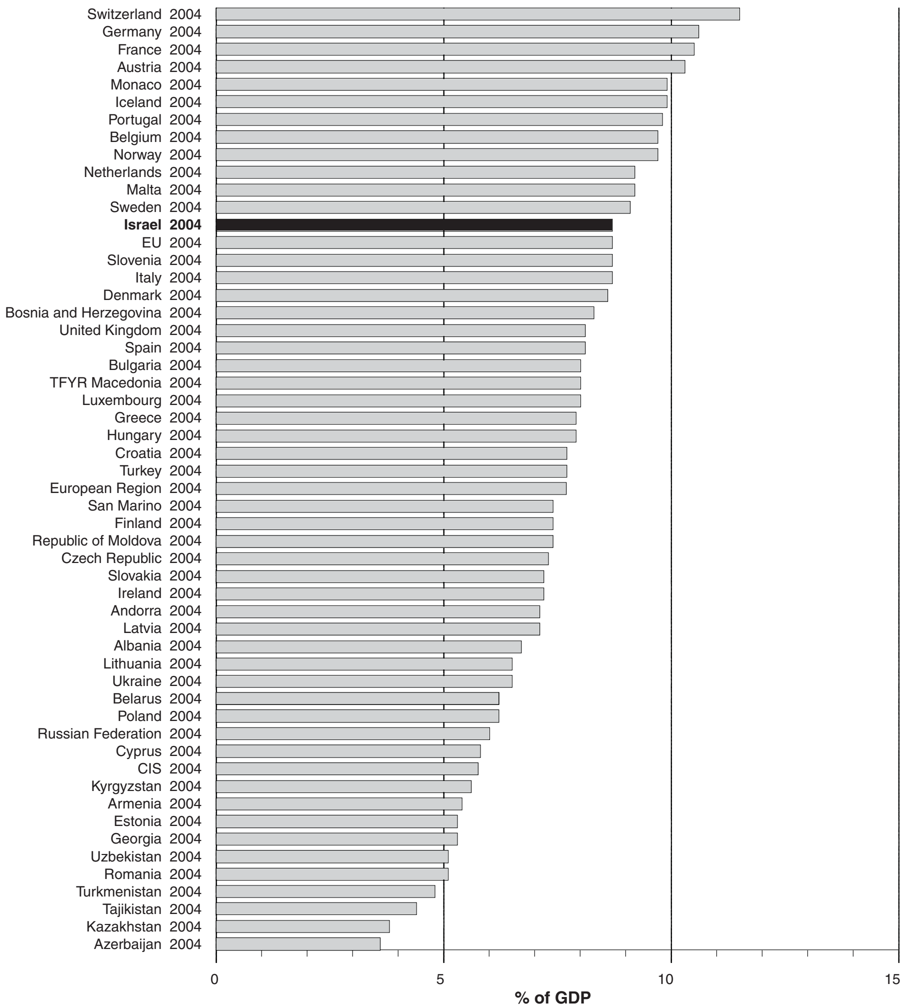
The level of health care expenditure in US$ PPP is shown in Figure 3.3 and amounts to US$ PPP 1975 per capita in Israel, which is lower than the EU average due to the fact that Israel's GDP is relatively low.

Figure 3.4 shows the proportion of total expenditure on health care from government or public sources. With 70% of total expenditure from public sources, Israel is among the lowest of the WHO European Region.

The most recent year for which there are data on expenditure (both public and private) by type of service is 2004 (Table 3.2). In that year, fixed capital formation accounted for 3% of national health care expenditure and current expenditure accounted for 97% (CBS 2008a).

Over time, the share of public clinics and preventive care has increased and the shares of hospitals and research have declined.

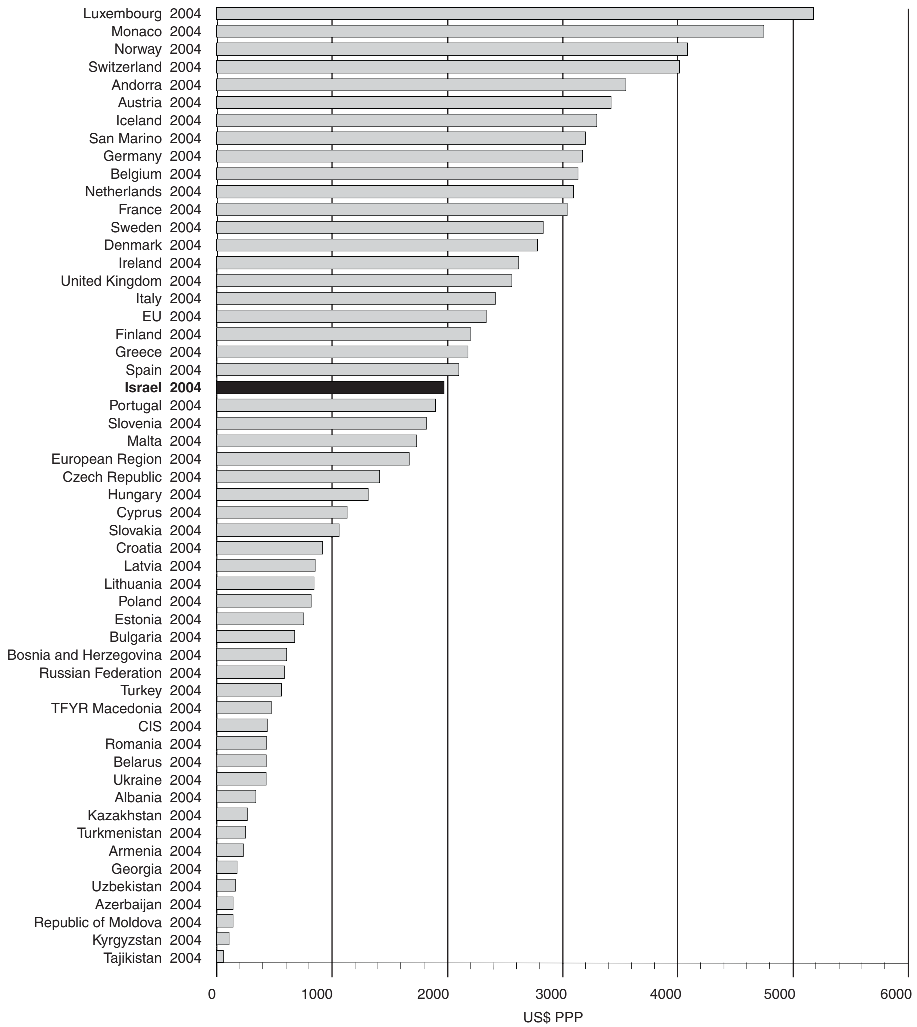
Fig. 3.2 Total health expenditure as a share (%) of GDP in the WHO European Region, latest available year



Source: WHO Regional Office for Europe 2007.

Notes: CIS: Commonwealth of Independent States; TFYR Macedonia: The former Yugoslav Republic of Macedonia; Countries for which data were not available have not been included.

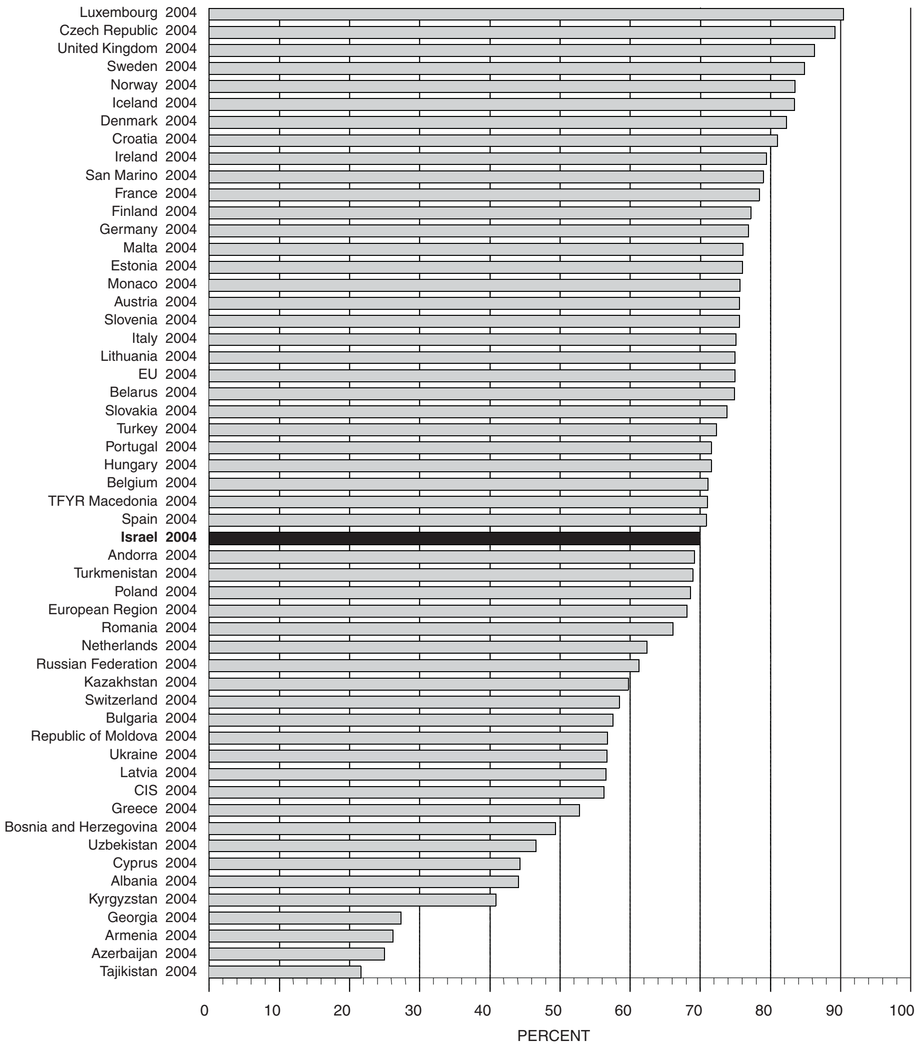
Fig. 3.3 Total health expenditure, US$ PPP per capita in the WHO European Region, 2005 or latest available year



Source: WHO Regional Office for Europe 2007.

Note: Countries for which data were not available have not been included.

Fig. 3.4 Public sector health expenditure as share (%) of total health expenditure, WHO estimates, 2004



Source: WHO Regional Office for Europe 2007.

Table 3.2 Health expenditure by type of service, 2004

Public clinics and preventive care	41%
Hospitals and research	39%
Dental care	9%
Private physicians	4%
Medicines and medical equipment purchased by households	3%
Government administration	1%

Source: CBS 2008a.

The distribution of current expenditure by operating sector in 2004 was:

- Government and local authorities – 9%
- Health plans – 34%
- Other non-profit-making institutions – 7%
- Market producers[18] – 50%.

3.3 Population coverage and basis for entitlement

The NHI system covers all citizens and permanent residents.

3.4 Revenue collection/sources of funds

Table 3.3 presents information on the main sources of financing for the health care system as a whole. General tax revenue is derived from a mix of progressive taxes such as income tax and regressive taxes such as value-added tax (VAT) and customs levies. The employer tax, which was known as the "parallel tax" and earmarked for health care, was abolished in 1997. The shortfall was compensated for by an increase in the share of general tax revenue, which rose from 26% in 1995 to 42% in 2000 (and then subsequently fell to 39% in 2005). Prior to the introduction of NHI in 1995, individuals paid their health

[18] This includes hospitals operated by the Government, the health plans and other non-profit-making entities; this reporting methodology differs at the CBS from those in force prior to 2003.

Table 3.3 Main sources of financing for health care in Israel (as % of total), 1990–2005

Source of finance	1990	1994	1995	2000	2005
Public	71	76	74	72	68
- general taxation	20	27	26	42	39
- employer tax	26	23	22	0	0
- health tax	0	0	22	25	26
- health plan premiums	18	22	0	0	0
- other/unknown	7	4	4	5	3
Private	29	24	26	28	32
Total	100	100	100	100	100

Source: Bin Nun & Kaidar 2007.

insurance premiums directly to the health plans on a voluntary basis. Health plan premiums were subsequently replaced by the health tax, which is a payroll tax earmarked for health (see later). By 2005 the health tax accounted for 26% of total health care financing.

Compulsory sources of financing – NHI financing

More than half of the health care system's activities are financed by NHI, which was established by the NHI Law in 1995. See Chapter 7 *Health care reforms* for further details on the background to and implementation of this Law.

Since the beginning of 1995, all permanent residents of the State of Israel[19] have been entitled to a benefits package specified in the NHI Law (see later). They are also required to enrol in one of four competing, non-profit-making health plans offering the NHI benefits package and are allowed to switch between plans once a year (Rosen & Shamai 1998; Gross, Rosen & Shirom 2001). Residents are free to choose among the health plans, which must accept all applicants. There are two "open enrolment" periods each year. No permanent resident can voluntarily opt out of the NHI system. The health plans

[19] The NHI system only covers recognized permanent residents. Israel currently has several hundred thousand foreign workers, primarily from eastern Europe and south-east Asia, and they are not covered under NHI. Employers of foreign workers are required to arrange private health insurance for them and the Knesset has ensured that these private packages are similar in scope to the benefits package offered by the NHI. Accordingly, foreign workers who are in Israel legally have adequate health insurance. However, there are also large numbers of illegal foreign workers and, generally speaking, they lack health insurance. Recently, the Government took measures to ensure basic health insurance coverage for the children of the illegal foreign workers.

are independent, nongovernmental legal entities, but they operate within a legal and regulatory framework defined by the Government.

Each year the Government determines the level at which the NHI system will be funded. The officially determined NHI funding level is financed predominantly from public sources. The remainder comes from private sources, through cost sharing (see later).

Public NHI financing comes from two sources: the health tax and general tax revenue. The health tax is an earmarked payroll tax collected by the NII. Individuals pay 3.1% on wages up to half of the average national wage and 4.8% on income beyond that level.[20] Income above five times the national wage is not taxed for NHI purposes. There are exemptions and discounts for various groups, such as pensioners and recipients of income maintenance allowances. Failure to pay the required health tax will result in government action to enforce payment, but in no way jeopardizes the individual's right to NHI benefits. Prior to the abolition of the employer tax in 1997, the proportion of public financing for health care that came from earmarked sources was substantially higher.

General tax revenue is used to fill the gap between the officially determined level of NHI funding and revenue from the health tax. The system therefore lies somewhere between a social health insurance system and a tax-financed system.

Some people in Israel are uncomfortable with this hybrid system and there are conflicting views regarding the direction in which the system should move. On the one hand, various economists and public finance professionals argue that the health tax should be absorbed into the income tax system, which they prefer because it is more progressive. However, their real motivation may be dissatisfaction with the precedent set by an earmarked tax, as earmarking reduces the Government's freedom, particularly the freedom of the Ministry of Finance.

On the other hand, many actors and analysts within the health care system argue for the reinstatement of the employer tax, which was earmarked for health, but was abolished in 1997. They contend that the health care system needs earmarked sources of financing because it is the only area in which the Government has stipulated a benefits package to which all residents are entitled by law. These proponents believe that a greater degree of earmarking will result in a higher level of public financing of health care in the long term.

The debate continues with no signs of immediate change in either direction.

[20] In the initial legislation the ceiling was four times the average wage. This was changed to five times the average wage in the year 2000. The ceiling was abolished in June 2002. Prior to this, the extra revenue was not earmarked for health, but could be used for any type of public expenditure.

Public NHI financing is allocated among the four competing health plans. See Section 3.5 *Pooling of funds* for further information on this process.

Prior to the introduction of NHI, enrolment in the health plans was voluntary. Approximately 5% of the population were uninsured, with relatively high rates of uninsured young, poor and Arab population groups. Health insurance premiums were set and collected by the health plans themselves. Premium levels rose with income, but were less progressive than the current health tax. The health plans also received financing from an employer tax collected by the NII and distributed among health plans, based on the number and age of their members.

The pre-NHI voluntary system was characterized by a number of problems, as listed here:

- 5% of the population were uninsured;
- the health plans had a financial incentive to "cream skim" younger or healthier people, who would use fewer services, or people with higher incomes, whose contributions were higher;
- the one health plan which did cater for older or poorer people, or people in poor health, was at a competitive disadvantage and incurred large and growing deficits;
- the system was highly politicized, with two of the four health plans having ties to the major political parties;
- the benefits package was stated in general terms only and the nature of members' entitlement to it was unclear (Rosen 1999).

The NHI Law addressed these problems by instituting universal coverage, tying health plan revenue to members' expected utilization levels (rather than their income levels), guaranteeing free choice of health plan, breaking – or at least weakening – the ties between the health plans and the political parties, and specifying the content of the benefits package in law.

Even with this major reform, however, many problems and issues remain (Rosen et al. 2000; Gross & Harrison 2001). It was hoped that NHI would bring an end to the accumulation of financial deficits in the health care system, but this has not happened and periodic financial crises have continued (Gross, Rosen & Shirom 2001). In addition, as co-payments and health plan VHI insurance payments have increased, there are concerns that the equity gains associated with NHI have been eroded (Bin Nun 1999; Shmueli, Achdut & Sabag-Endeweld 2008). For further discussion on ongoing debates regarding levels of NHI financing, see Section 7.2 *Introduction of national health insurance*.

Non-national health insurance financing

Services not included in the NHI benefits package and not generally provided by the health plans include long-term care, psychiatric care, preventive health care, public health services and dental care. Details regarding the financing of these services can be found in Section 6.1 *Public health*. Non-NHI financing also covers investment in hospital construction and equipment, and medical research. Services such as inpatient care and physician consultations are provided by the health plans and by the private sector on a commercial basis.

Long-term care financing is shared among households (through private insurance and out-of-pocket payments) and a number of agencies, including the NII, government ministries and the health plans. Mental health care in government hospitals, private hospitals and in psychiatric departments of general hospitals is financed by the Ministry of Health (see Section 6.1 *Public health*). Nongovernmental outpatient services are financed by fee-for-service payments and health plan financing.

Households pay out of pocket for the following services: private surgery and laboratory tests, visits to private physicians, alternative medicine, private nurses and ambulances, psychological and psychiatric visits, and dental care. In addition, households are subject to cost sharing for some services, such as visits to health plan specialists, institutional long-term care (see earlier) and medication purchased under the NHI. Approximately 95% of dental care is financed by households, approximately 10% of which have commercial complementary VHI coverage for dental care. The Government also plays a role in financing dental care, primarily for indigent or elderly people and school children (Horev & Mann 2007).

Complementary sources of financing

Table 3.4 presents data on the current sources of revenue of the health plans as a group. The vast majority of the health plans' revenue comes from the Government as part of its obligations under the NHI system. The next largest source of revenue source comes from cost sharing, primarily for pharmaceuticals.

The health plans also offer supplementary VHI (described in more detail later) to all members in exchange for a monthly age-related premium. Complementary VHI offered by the health plans provides cover for services not included in the NHI benefits package and constitutes approximately 9% of health plans' revenue (up from 5% in 2000). However, this is not reflected in Table 3.4, which indicates only revenue emanating from the profits/losses from supplementary VHI due to the fact that supplementary VHI is run as a separate

Table 3.4 Health plan financing sources, 2005[21]

Source of finance	%	NIS (millions)	€ (millions)
NHI-mandated revenue from government	85	21 544	3 871
Temporary "safety net" funding	0	97	17
Co-payments for physician visits	2	3 966	713
Co-payments for pharmaceuticals	6	1 459	262
Sale of pharmaceuticals outside benefits package	4	1 037	186
Supplementary VHI surpluses (deficits)	0	–7	–1
Services outside the benefits package + other	4	929	167
Total	**100**	**25 455**	**4 573**

Source: Waldman-Ashrov & Hillman 2006.

Note: The average exchange rate for 2005 used is NIS 1 = €0.17976

financial entity and only carry-overs to the main account appear in the health plans' official financial statements.

Table 3.5 presents data on household expenditure on health (excluding the health tax) in selected years (2000 and 2005). Household spending on health accounted for 5.1% of total household consumption in 2005, up from 4.6% in 2000 (CBS 2008a). The expenditure item that has grown most rapidly in recent years is supplementary/commercial VHI premiums (discussed in more depth later).

VHI

There are two forms of VHI available in Israel: supplementary VHI offered by the health plans and commercial VHI (Brammli-Greenberg, Gross & Matzliach 2007). In essence, the situation is characterized by competition between private insurers and public–private hybrids.

As of 2005, approximately 80% of Israelis had health plan VHI,[22] which provides partial coverage for services such as visits to private physicians,

[21] The average exchange rate for 2005 used is NIS 1 = €0.17976.

[22] In Israel, VHI provided by health plans is usually referred to as "supplemental insurance". However, the Health Systems in Transition (HiT) profile template uses the term "supplemental" to refer to the type of coverage provided (for example, faster access and increased consumer choice), rather than to the type of organization that is providing the coverage. This section employs the HiT template definition of supplemental, and uses the term "health plan VHI" for those insurance programmes usually referred to as "supplemental" in Israel.

Table 3.5 Average monthly household spending on health, 2000 and 2005

	2000 (NIS in current prices)	2005 (NIS in current prices)	2005 (in €)
Total household expenditure	9 749	10 816	1 943
Total health expenditure (w/o health tax)	445	556	100
(– as % of total household expenditure)	4.60	5.10	5.10
Medication	104	105	19
Health plan/commercial VHI insurance	79	140	25
Optical care	39	50	9
Other	75	112	20

Source: Bin Nun 2007.

treatment in private hospitals, complementary medicine and so on. Coverage is always opted for by individuals as opposed to groups. There is some variation in coverage rates among plans (ranging from 81% in Maccabi to 71% in Clalit); in the past, the differences in coverage rates between plans were much larger. Health plan VHI packages and premium rates must be approved by the Ministry of Health. The Ministry also requires the health plans to offer VHI to any member that requests it, for a premium determined by age alone (not health status). The health plans are prohibited from excluding pre-existing conditions.

Health plan VHI includes both services of a "complementary" nature – that is, those excluded from NHI (such as dental care and certain types of medical accessories) and services of a "supplementary nature" – that is, faster access or greater choice for services included in NHI (such as choice of hospital-based physician). It does not include "substitutive" insurance for people excluded from the NHI system.

In 2005, approximately a third of Israelis had commercial VHI. Interestingly, while the proportion of the population with commercial VHI grew rapidly from 16% in 1997 to 34% in 2003, it appears to have levelled off since then. Approximately 30% of the population is covered by both health plan VHI and commercial VHI. It is not known why so many people maintain both types of VHI coverage. It may be due to a lack of understanding of the extent of the overlap, a strong aversion to risk, the desire to have coverage for as many contingencies as possible, or other factors. Whatever the cause, the phenomenon has led to concerns that many consumers may unknowingly be paying twice

for insurance for the same risk (particularly private operations). As a result, the Insurance Commissioner has recently required the commercial insurers to also offer policies that add to, rather than duplicate, the coverage available via the health plan VHI packages.

Commercial insurers are regulated by the Ministry of Finance's Insurance Commissioner, whose main concern is to ensure that they have adequate financial reserves. Consequently, commercial insurers are free to reject applications on the basis of health status, to exclude pre-existing conditions and to rate premiums according to health status. In addition to partial cover of the same range of services covered by supplementary VHI, commercial VHI usually covers dental care, and many of the policies also cover medications not covered in the NHI benefits package. The cover provided by commercial VHI tends to be broader and deeper than the cover provided by health plan VHI. Premiums are also higher. Approximately half of those with commercial VHI are covered by group policies, which are purchased by employers or unions but paid for by the individuals covered (Gross & Brammli-Greenberg 2003a).

As with health plan VHI, commercial VHI also includes both services of a "complementary" nature and services of a "supplementary" nature. Commercial insurers also offer substitutive insurance for people excluded from the NHI system, such as tourists.

The demographic profile of people with commercial VHI differs somewhat from that of those with health plan VHI, in that they tend to have higher incomes and better health. In the commercial market for VHI, limitations not related to price, such as coverage limits, waiting periods, risk-rated premiums, the exclusion of pre-existing conditions and the rejection of applications for cover serve as a means of selecting healthier people and rejecting or charging higher premiums to less healthy people (Shmueli 1998; Shmueli 2001).

During the late 1990s there was a major policy debate regarding who should be allowed to offer VHI: the health plans, the private insurers, or both (Gross & Brammli-Greenberg 1997; Kaye & Roter 2001; Brammli-Greenberg & Gross 2003).

Arguments in favour of allowing the health plans to offer VHI included that:

- it would give the health plans an additional source of revenue and managerial flexibility
- it would make reasonably priced VHI coverage available to a wider range of people
- it would make it possible to offer VHI based, at least in part, on solidarity principles.

Arguments against allowing the health plans to offer VHI included that:

- they would have an unfair marketing advantage over the private insurers due to their existing relationship with the members;
- they would favour those who purchased VHI with regard to the NHI benefits package by providing them with faster or more courteous service, thus undermining the NHI's equity objectives;
- they might use public NHI funds to cross-subsidize VHI;
- they had relatively little experience of accumulating and maintaining actuarial reserves and might not have the financial discipline required to avoid spending in the present in order to accumulate reserves for the future – a concern particularly relevant to long-term care insurance.

At the time of writing, the Government's policy is to allow both the health plans and the private insurers to offer VHI, with the proviso that the health plans do not offer long-term care insurance.[23] In addition, the health plans must operate supplementary VHI under separate financial accounts and may not use public NHI public funds to cross-subsidize supplementary VHI. In practice, however, in some years the health plans have used profits from supplementary VHI to help offset deficits in the NHI-related part of their activity.

Periodically, there is public discussion regarding whether to allow health plan VHI to provide cover for choice of physician in public hospitals, which are not allowed to take money from patients in return for the right to select a physician. For more on this issue see Brammli-Greenberg and Gross (2003).

Over the years, the proportion of Israelis with health plan VHI coverage has increased markedly, from 35% in 1995 to 64% in 2001 and to 79% in 2005. This was primarily due to a push on the part of Clalit to increase the proportion of its members with supplementary VHI. Relative to the other health plans, Clalit got off to a late start with regard to supplementary VHI because it was not a major provider of supplementary VHI prior to the introduction of the NHI. Furthermore, the government-mandated NHI benefits package included everything that was included in Clalit's basic pre-NHI package, but excluded certain services that were covered by the pre-NHI benefits package of the other health plans. The other health plans were therefore able to say to their members that if they wanted to preserve all their pre-NHI services they would have to purchase health plan VHI.

Since the mid-1990s, there has been a substantial increase in the range of services covered by health plan VHI. Whereas initially these packages focused

[23] The health plans may market long-term care insurance policies offered by the private insurers, but cannot serve as the insurer for these policies.

on services which were nonmedical (such as recuperative care), the newer services include many which are definitely medical in nature (such as advanced oncological and prenatal tests).

In conjunction with this trend, several years ago the health plans began to offer a second tier of health plan VHI, the main attraction of which was coverage of various new life-saving medications that had not been incorporated into the NHI benefits package due to budgetary constraints. As described in Section 7.2 *Introduction of national health insurance*, this led to a fierce public debate, with equity advocates arguing that this development was creating a system of care split into two “classes”, in which certain life-saving pharmaceuticals would be available only to those with health plan insurance. Others responded by noting that health plan insurance already covered 80% of the population, and alternative financing arrangements could be made for low-income individuals without such coverage. In the end, a deal was worked out in the legislature, whereby significant additional funding was added to the NHI budget for new technologies, while health plan insurers were prohibited from offering coverage for life-saving medications.

Out-of-pocket payments

Cost sharing has long been a requirement of health care in Israel, including for preventive services at family health stations, visits to emergency departments (EDs) and inpatient long-term care. Prior to the introduction of NHI, most cost sharing took place for services financed by the Government. The health plans mainly charged co-payments for pharmaceuticals. Only one of the health plans – Maccabi – charged a fee for visits to physicians. The NHI Law required the health plans to freeze the pre-NHI level of co-payments.

In 1998 the Knesset authorized all the health plans, in principle, to charge their members for visits to specialists and community-based diagnostic centres. The health plans were also authorized to raise substantially their co-payment rates for pharmaceuticals. The Knesset stipulated that details of the co-payments would need to be approved by the Ministry of Health.

The new co-payments were part of a “package deal” intended to alleviate the health plans’ financial deficits; other components of the package included increased government funding from general tax revenue and cost reductions by the health plans. It is generally recognized that, at the Knesset level, the primary motivation for the new co-payments was revenue enhancement. However, the Ministry of Finance insists that it pushed the legislation through the system partly to reduce the frequency of unnecessary visits to physicians, with a view to containing costs.

The co-payments for visits to physicians, specialized clinics and diagnostic centres are structured as follows: there is a flat-rate charge for the first visit in any quarter; repeat visits within the quarter to the same specialist, specialized clinic or diagnostic centre are not subject to co-payments; elderly welfare recipients and children receiving disability payments are exempt from co-payments for all visits; and people afflicted with end-stage renal disease, cancer, AIDS, Gaucher disease, thalassemia or tuberculosis (TB) are exempt from co-payments at hospital outpatient departments and dialysis centres. There is also a quarterly ceiling on total co-payments at the household level, which is 50% lower for elderly people or households with one or more new immigrants: in 2007 the ceiling ranged from NIS 100 to 188 (€18–34), depending on the health plan; the ceiling is not a function of family size.

The co-payments for pharmaceuticals are structured as follows: the three smaller health plans generally charge 15% of the purchase price, subject to a minimum co-payment of NIS 13 (€2.50) (in 2008) per item purchased. However, if the medication has a less expensive generic alternative, the health plan will only cover 50% of the purchase price. Clalit charges a set fee (NIS 12, €2.30) per therapeutic dose (a standardized amount of medicine, as defined by the health plan) for medications included in the benefits package from 1998. For medications added subsequently, Clalit charges 10% of the maximum allowable price, subject to a minimum of NIS 12 (€2.30) per medication.

For the chronically ill, there is a quarterly ceiling of approximately NIS 250 (€45, varying according to health plan) for pharmaceutical co-payments. Chronically ill individuals who are elderly and receive welfare payments also benefit from a 50% reduction in pharmaceutical co-payments, as do certain categories of Holocaust survivors (Office of the Deputy Director-General for Regulation of the Health Plans 2007).

Health plan revenue from co-payments has grown markedly in recent years. For example, the revenue(s) of health plans from co-payments of all types, plus revenue from sales of pharmaceuticals outside the NHI benefits package and from over-the-counter (OTC) sales, per age-adjusted member, rose (in 2005 prices) from NIS 150 (€27) in 1993 to NIS 282 (€51) in 2000 and 351 (€63) in 2005, increasing from 6% to 8% and then 10% of the health plans' total revenue (Waldman-Ashrov & Hillman 2006). Health plan insurance alone accounts for 6% of health plan revenue.

There is evidence to suggest that the new co-payments have created financial barriers to access, particularly for people with low incomes (Gross, Brammli-Greenberg & Rosen 2007). It is not yet known whether these barriers to access have had an adverse effect on health status. Interestingly, one recently published study found that the co-payments for specialist services have not reduced uptake

of those services in cases where patients were referred to specialists by their primary care physicians (Vardy et al. 2008).

Another important type of out-of-pocket payment is for private physicians' services provided in community and hospital settings. In the community setting there are no legal restrictions on the provision of private care, apart from the stipulation that those physicians who also work in the public sector receive permission from their employer to practise privately. In practice, permission is almost always granted, although often with a limitation on the number of hours that the physician can practise privately. This situation is not monitored closely by the hospitals or the Government, but if cases of serious abuse come to light, they are dealt with administratively.

In the hospital setting, physicians can legally practise privately only in private hospitals and in Jerusalem voluntary hospitals. Private services are illegal in government and Clalit hospitals at the time of writing. This is primarily due to equity considerations; at least in public facilities, all patients should receive the same level of care, irrespective of their ability to pay. Nevertheless, some physicians do practise privately in government and Clalit hospitals, in return for under-the-table payments. There is widespread disagreement over the extent of this phenomenon and initial attempts to estimate its prevalence have been beset by major methodological limitations. Policy-makers periodically consider legalizing the provision of private services in government and Clalit hospitals, subject to various regulations and restrictions.

Most government hospitals have established "health trusts", as discussed in Section 7.6 *The hospital trusts initiative and other reforms of the hospital system*. These are distinct legal entities which engage physicians to work after hours, usually on a per-visit or per-operation basis determined by negotiation between the trusts and individual physicians. However, this activity is not primarily "privately financed" in the sense of being funded by out-of-pocket payments or commercial VHI. Rather, the trusts' revenue comes primarily from the sale to the health plans of surgical and outpatient clinic services carried out during late afternoon, evening and night hours.

Parallel health systems

Virtually all the health care services provided to soldiers are financed via the budget of the Israel Defense Forces (IDF) and the Ministry of Defense. The IDF's Medical Corps is responsible for all the medical care provided to all soldiers, in times of peace and in wartime, on and off the battlefield, whether they are conscripts (doing their 2–3 years of required service), reservists or career personnel. The IDF does not operate its own hospitals; it purchases all tertiary

services from the general (civilian) hospitals. The Medical Corps has special purchasing agreements with these hospitals and also has special arrangements whereby a certain number of IDF physicians are seconded to these hospitals. The Medical Corps is exploring the possibility of out-sourcing certain health services, particularly those provided on large bases in the centre of the country (Magnezi et al. 2007).

External sources of financing

The health care system benefits from two sources of external funding. First, donations from Jews residing in other countries, primarily the United States and western Europe, along with donations from Israeli philanthropists, often play an important role in funding capital expenditure for new buildings, renovations and the acquisition of major equipment. Second, research grants from foreign governments and pharmaceutical firms are key in terms of the financing of clinical and pre-clinical research.

Other sources of funds

Mental health care financing

The mental health care system is financed separately from the physical health system at the time of writing. Israel spends approximately 6% of national health expenditure on mental health care (Saxena, Sharan & Saraceno 2003).[24] These expenses are financed primarily by general tax revenue. This is particularly true for psychiatric hospitalizations and other services for the seriously mentally ill. With regard to psychotherapeutic services provided to the less seriously ill patients (largely individuals with non-severe depression and anxiety), there are several sources of care and each is financed differently, as outlined here.

- Services provided by the Government's network of mental health centres are financed via general taxation, through the operating budget of the Ministry of Health.
- Services provided by private therapists are funded primarily on an out-of-pocket basis.
- Services provided through the health plans are covered via the NHI funding stream in the case of two of the health plans, and through health plan VHI where the other two plans are concerned. In the case of all four health plans,

[24] Approximately one-third of the 89 nations that provided baseline data to the WHO's Atlas Project indicated that mental health accounted for more than 5% of federal health expenditure. It is not clear what percentage of national expenditure was used for mental health care in these countries (Saxena, Sharan & Saraceno 2003).

the involvement of primary care physicians in mental health care is funded fully via the NHI funding stream.

Long-term care financing

Institutional long-term care for individuals requiring skilled nursing care is generally the financial responsibility of the patient and/or her/his family. If they lack the necessary financial resources, they may receive funding assistance from the Ministry of Health, on a sliding-scale basis. The Ministry of Social Affairs provides partial funding for low-income elderly individuals who require less intensive forms of institutional care.

Community-based long-term care is financed in part by the Government through the Community Long-term Care Insurance (CLTCI) Law, which is administered through the NII. This finances moderate nursing care, primarily in the form of assistance with activities of daily living (ADL). Eligibility is conditional upon income level, and the amount awarded is determined by the age, disability level and living arrangements of the elderly person concerned.

Approximately half of all adults in Israel have some form of long-term care insurance, a rate that is quite high by international standards. These insurance packages provide assistance for both community-based and institutional care. However, the coverage provided by many of these policies is significantly lower than what is needed for an extended stay in a very good facility. Thus, in many cases, family members ultimately become involved in the financing and provision of long-term care services.

3.5 Pooling of funds

As indicated in Subsection *Compulsory sources of financing – NHI financing* (within Section 3.4 *Revenue collection/sources of funds*), the NII plays a central role in the pooling of funds for the NHI system. It is the NII that receives the Government's funds for NHI and distributes that funding among the health plans. As noted earlier, the system is financed according to ability to pay (that is, via a special health tax and general revenue which is in turn based largely on progressive income tax). The monies are distributed to the health plans largely based on needs. Thus, because of the pooling function of the NII, a health plan's income is in principle a function of the needs of its members, rather than of the incomes of its members.

The distribution of NHI funds to the health plans by the NII is carried out as follows: approximately 5% of the monies is allocated based on the distribution

of individuals with any of five rare and very expensive illnesses; the remaining 95% is distributed according to a capitation formula, whose only parameter at the time of writing is age, and for which the coefficients for the various age groups are meant to reflect differences in average health care expenditures across the age groups (Shmueli, Chernichovsky & Zmora 2003; Paoulucci et al. 2007). There are ongoing concerns that, because it only includes an age parameter, the Israeli formula does not do enough to prevent risk selection (van de Ven et al. 2003), but to date there is no evidence of systematic risk selection in Israel. Periodically, there are proposals to add additional parameters such as socioeconomic status, health status, disability status and region, but these proposals have not been implemented to date, due to a mix of concerns related to data availability and reliability, potential adverse incentives, and so on.

The capitation formula has two objectives: (1) to reduce the incentives for "cream skimming" by making all applicants equally attractive to the health plans; and (2) to promote fairness, by providing health plans with revenues that are proportionate to the needs of their members.

The health plans themselves also play a pooling function. Obviously, not all individuals in a given age group, such as 65–75, will have the same health expenditure ex post; moreover, even on an ex ante basis, some will have greater expected expenditure than others (in light of current health status and prior utilization). It is the health plans, rather than the NII, that carry out the pooling function within the respective age group.

In Israel, all the pooling takes place nationally; there is no regional or local pooling. In terms of its core principles and basic system design, Israeli health plans that overspend relative to their capitation revenue are not supposed to receive retrospective adjustments or other forms of ex post assistance from the Government. In practice, such assistance is sometimes made available to avoid bankruptcy situations. These "financial rehabilitation" packages usually come with detailed expenditure controls and supervisory oversight. They are quite constraining, so health plans do try to avoid them.

3.6 Purchasing and purchaser–provider relations[25]

In recent years, contracting has become a very significant feature of relations between hospitals and health plans. In the government hospital system, almost all sales of services to the health plans are governed by such contracts and they also govern a large proportion of the sales of the stand-alone non-profit-

[25] This section was prepared in consultation with Ruth Ralbag of the Ministry of Health.

making hospitals, such as Hadassah and Shaare Zedek. Contracts play a much more marginal role for the Clalit hospital system, as almost all of its sales are to Clalit regional management.

The contracts build upon the official government reimbursement prices and mechanisms (such as the cap) as benchmarks. In return for guaranteeing a minimum revenue stream, the health plans are given an additional price discount. The contracts also include commitments from the hospitals regarding maximum waiting times for certain services, and other dimensions of quality, but the focus of the contracts remain concerned with volume and costs, rather than quality.

The health plans have significant market power in their negotiations with the hospitals, as there are only four plans, and hence each has a sizable market segment (with concentration levels even higher at the regional level than at the national level). Moreover, a significant proportion of hospital expenditures are fixed, rendering them particularly vulnerable to the threat of sharp reductions in volume.

Interestingly, the smaller health plans have managed to secure larger discounts than Clalit. This is in part because they are smaller and hence in a better position to shift volumes among hospitals. In addition, the cap system (which serves as a benchmark) gives them greater discounts (see Subsection *The revenue cap*, within Section 3.7 *Payment mechanisms*) and these are reflected in the contracts.

By virtue of its role as the owner of the government hospitals, the Ministry of Health reviews and approves all contracts with those hospitals. However, the Ministry does not play a regulatory role in determining the nature of contracts signed by other hospitals. It is felt that this would not be appropriate, since the Ministry, as the owner of its own hospitals, is also competing with those other hospitals.

There is no law in Israel that forbids health plans from channelling patients to particular hospitals. With the spread of contracting arrangements, along with Clalit's growing interest in hospitalizing its members in hospitals that it owns, channelling has become more common and tensions have arisen regarding this development. Several government hospitals in the centre of the country have been particularly hard hit and are seeking ways to limit the extent of channelling. One idea being explored is the development of legislation that would ensure full consumer choice in the case of serious, and long-term, illnesses (for example, cancer), in order to ensure continuity of care and peace of mind for patients. Another direction being explored is to limit channelling via the clause in the NHI Law requiring that services be provided in reasonable proximity to the patient's home. While this would not necessarily limit channelling of patients

living in the centre of the country, where there are many hospitals and all the distances are quite small, it could limit efforts to channel patients living in the periphery to hospitals in the centre of the country.

3.7 Payment mechanisms

Payment for health services: hospitals[26]

Approximately 80% of hospital revenue comes from sales of services to health plans. Other sources of revenue include the IDF Medical Corps, private insurers, the NII, maternity care services and out-of-pocket payments. This section focuses on revenue from the sale of services to the health plans and on arrangements in what are referred to in Israel as "public hospitals", comprising both government[27] and non-profit-making hospitals. Public hospitals account for approximately 96% of the acute beds and 92% of acute admissions.[28]

Before 1980, historical criteria and top-down budgeting processes mainly determined the revenue of individual hospitals. Over the years, hospital revenue has become more and more a function of the sale of services. At the time of writing, the reimbursement of public hospitals in Israel takes place in the form of fee-for-service payments, per diem fees and case payments, and is subject to a revenue cap.

The fee-for-service charge list

A fee-for-service charge list established by the Government regulates payment for hospital outpatient care in ambulatory clinics and EDs. Payment for outpatient department services accounts for approximately a quarter of hospital revenue, a share that has increased markedly in recent decades. Although the charge list has undergone minor revisions from time to time, no major revisions have been carried out recently. As a result, there is widespread recognition that the charge list has not kept up to date with technological changes and that relative prices for the various items on the list do not accurately reflect differences in resource use. Moreover, the fee schedule is, in general, considered to be over-priced, both in relation to the true cost to the hospital and the prices

[26] This section benefited from input from Ruth Ralbag and Roie Ben Moshe.

[27] There are no full-scale, independent military hospitals in Israel. Military personnel receive inpatient care in general hospitals. The IDF operates several small hospital-like facilities, which can handle various simple procedures but are much more limited in scope than general hospitals.

[28] Private hospitals account for 8% of acute admissions, despite the fact that they only provide 4% of acute beds, because they focus on less intensive, short-stay admissions.

available at competing non-hospital facilities, which has been one of the factors accounting for the movement of secondary care from hospitals to community settings in recent years.

It is important to note that a slightly different system of reimbursement prevails when Clalit regions purchase outpatient department services from Clalit hospitals. In such cases the region pays the hospital a yearly subscription fee for each patient who visits a specific hospital department at least once during the year. There is no additional charge for repeat visits to the same department.

A key issue on the agenda at the time of writing is whether, and how, to modify the charge list. There is consensus that the prices for hospital outpatient department services are too high, and that this leads to a great deal of inefficiency. Recently, some changes have been made, such as a substantial reduction in the price for dialysis (due in part to the proliferation of stand-alone dialysis centres that were offering services at prices well below those prevailing in the hospitals). Still, much work remains to be done in this area, and the Ministry of Health has engaged a major accounting firm to help with the revision of the price schedule.

The per diem rate

Most inpatient admissions are reimbursed on a per diem basis. Until 2005, the per diem rate was uniform across hospitals and across departments. For many years there were periodic calls to move to a differential per diem rate, applying a higher rate for intensive care units (ICUs), for example, but no action was taken due to concerns that they would encourage the proliferation of more costly beds and units. Finally, in 2005 the per diem rate was increased for the ICUs (but only for the first three days) and for the neonatal ICUs, but the rate for internal medicine was decreased.

The per diem rate is set by the Government, through a joint Ministry of Health and Ministry of Finance committee, primarily on the basis of information regarding current operating costs in the government hospital sector. Between 1985 and 1995 the per diem rate more than doubled in real terms, whereas since 1995 it has been relatively stable. This may be related to the fact that the introduction of NHI in 1995 made the Government responsible for NHI and health plan financing, which has caused the Government to be much more sensitive to the financial situation(s) of the health plans. Furthermore, the health plans have been more involved in the process of setting the per diem rate than in the past, and at the time of writing they serve as official observers on the aforementioned government committee. A further factor may be that recent changes in the hospital reimbursement system (described later) have led to

changes in hospital behaviour that have slowed the increase in actual per diem costs, and the increase in government-determined prices.

Case payments

Over the course of the 1990s, differential case payments were established for about 30 types of admission. In most cases the defining characteristic is the principal procedure carried out, rather than the diagnosis. Case payments were established in order to shorten waiting times, primarily for more expensive procedures and for moderately priced procedures with short hospital stays, for which the per diem compensation was neither fair nor sufficiently attractive. Prior to the introduction of case payments, substantial queues had developed for many of these procedures. Since the establishment of case payments, the queues have virtually disappeared. There is even concern that some of the case payments are so high as to encourage unnecessary treatment.

In recent years, the range of conditions for which case payments have been established (as an alternative to per diem reimbursement) has significantly increased and there are now over 150 Israeli diagnosis-related groups (DRGs). At the time of writing, case payments account for approximately a third of hospital inpatient revenue in the general hospital sector as a whole, but there is great variation among hospitals in the proportion of revenue accounted for by case payments. Shmueli (2000) found that the institution of DRGs resulted in reduced lengths of stay, increases in admissions (particularly for those DRGs with the most generous rates), an increase in repeat admissions and no recognizable impact on mortality rates.

The revenue cap

A hospital revenue cap was established in 1995, at the same time as the establishment of the NHI, in response to the health plans' concerns that hospitals were inappropriately increasing volume and therefore also the health plans' expenses. The health plans pointed out that, with the move to NHI, their revenues would be determined largely by the Government, with little room for their own input (Rosen et al. 1998). They also argued that, with little control over their revenue, they needed some protection from potential expenditure increases. Thus the cap sought to advance two main objectives: reducing the growth in hospital utilization by removing incentives, and reducing the health plans' expenditure for services above the cap.

The cap system is complicated. To understand how it works, two issues need to be considered: what happens to utilization above the cap and how the cap is set. Modifications of the cap system have taken place several times since 1995.

What happens to utilization above the cap? In the initial formulation of the cap, from 1995 to 1996, the health plans were fully exempted from paying for services above the cap. From 1997 until 2005 the health plans were required to pay 50% of the usual rate for services above the cap – also referred to as "resource utilization" or "billings". The 50% rate was generally accepted as a reasonable estimate of the proportion of hospital costs that are variable, so the new 50% cap probably encouraged hospitals to use need, rather than financial gain, as the primary determinant of hospital volume. However, there were concerns that some of the health plans were concentrating volume in certain hospitals to maximize their cap-related discounts. Accordingly, in 2005, the Government introduced an intermediate step in the capping system, which has sometimes been referred to as a "honey trap": for utilization between the cap and 113% of the cap, health plans would receive a 70% discount.

How is the cap set? Each year a revenue cap is set by the Government for each hospital vis-à-vis each health plan. In the first year of the capping regime, the cap was a function of the previous year's spending plus an adjustment to reflect projected health plan growth for the coming year. Subsequently, the cap was based on the previous year's cap, with adjustments to reflect health plan growth in the past year and the extent to which the health plan utilized services in excess of the cap in the past year. For the health care system as a whole, the average increase in the cap has been constrained to approximately 1% in recent years.

In the initial period, the cap system apparently achieved its two main objectives (Rosen et al. 2000). From 1995 through 1999, the growth in per capita utilization of hospital services was stabilized. Moreover, the cap-related discounts in themselves generated substantial financial savings for the health plans. However, the cap has come under mounting criticism from several sources.

- The hospitals argued that, even if the cap system made sense, the cap needed to grow more rapidly than the prevailing 1% national average, in order to reflect growing labour costs and new technology.
- Some hospitals argued that the cap system favoured those with a high concentration of basic services, where marginal costs were well below 50%, and was unfair to those hospitals with a high concentration of tertiary services with high marginal costs.
- Hospitals in areas with relatively rapid population growth argued that the system was unfair to them as they were particularly prone to exceed the cap through no fault of their own.
- Conversely, health plans with relatively low rates of membership growth argued that they were discriminated against by the cap, as competing health plans more readily reach the cap and benefit from cap-related discounts.

By early 2001 there was widespread recognition that changes needed to be made. However, there were differences of opinion among interested parties and among disinterested observers regarding the nature of the changes required. Some favoured retaining the cap approach and making adjustments to deal with inequities vis-à-vis low-growth health plans and hospitals in high-growth areas. Others called for an end to the system of caps and its replacement with a system of negotiated volume contracts (like in the United Kingdom) between individual health plans and hospitals. The Director-General of the Ministry of Health appointed a high-level committee to explore these and other proposals. In January 2002 legislation was passed for a hybrid approach. The cap remains in place[29] as the default reimbursement system, after adjustments of the type noted earlier. However, the health plans and hospitals are allowed to negotiate contracts which, if both sides agree, take the place of the cap.

Starting in 2002, the bases for determining the caps have undergone serious modifications and recalculations every three years. In the most recent set of modifications (2008), the changes detailed here were made.

- For the first time, the discounts given to the health plans via the contracts between hospitals and health plans were taken into account in determining the base. In Israel, this is referred to as using "net" spending, rather than "gross" spending as the base. This change was made because contracts have become so widespread (see Section 3.5 *Pooling of funds*) that the system now "thinks" in terms of net spending, and also because it has become increasingly difficult to obtain reliable data on gross spending. This change has probably helped the health plans secure more extensive discounts in their contracts.
- Health plans will now be penalized if they rapidly reduce volume at any given hospital.
- The new system for calculating the bases explicitly gives weight to changes in the population of the hospitals' catchment areas. This is intended to help shift resources to the periphery.
- Initial steps have been taken to exclude ambulatory care from the capping system. This is being carried out due to a sense that the extent of the use of hospital-based ambulatory care is largely under the control of the health plans, thus there is less need to create incentives for the hospitals to constrain utilization.

[29] The cap was determined primarily as a function of average actual utilization in the three previous years.

Payment of professionals[30]

Current forms of reimbursement

Primary care physicians

Approximately 80% of Clalit health plan members – that is, 40% of the population – receive primary care from Clalit-owned and -operated clinics. Within their neighbourhood clinic, people are free to choose their PCP and can switch periodically. In practice, only a small percentage of the population every year actually switch PCPs.

The clinic-based PCPs receive a base monthly salary, primarily based on experience, and a monthly capitation payment for each member on their list above a prescribed basic number. What counts in determining actual list size and the additional compensation is whether the individual is enrolled with the physician. For purposes of compensation, it does not matter whether or not the individual actually visited the physician. In Israel this system is referred to as "passive capitation". In determining actual list size, individuals over age 65 or under age 3 count for more than others, reflecting their greater utilization. There is no penalty for caring for fewer than the prescribed number of individuals. A physician's age and years of experience affect her/his monthly salary, the number of hours s/he is expected to work each day and the basic list size, above which there are additional per capita payments.

The base salary, the capitation rate and the prescribed basic list size for clinic-based physicians are all determined in a collective bargaining agreement between the IMA and Clalit. The agreement also calls for special payments for house visits and for special, physician-initiated general assessment visits, which are much longer than patient-initiated visits. Physicians working in rural areas or those working split shifts, with a midday break, also receive special monthly payments.

Approximately 20–25% of Clalit members receive their primary care from independent physicians (IPs) at facilities operated by the IPs themselves. The IPs are paid a capitation rate set unilaterally by Clalit, reflecting the number of individuals on their list, irrespective of whether or not the individual actually visited the IP.

In the other health plans, most PCPs work as IPs. In some cases they are paid on a passive capitation basis, similar to the Clalit system, whereas in other cases they are paid on a quarterly active capitation basis, where payment is a function of the number of health plan members who visited the PCP at least once in the previous quarter, with no additional payments for repeat visits within the

[30] This section benefited from input from Orit Jacobson and Rachelle Kaye.

quarter. All of the other health plans also engage some PCPs in facilities owned and operated by the health plan. They are typically paid on a salary basis.

While the other health plans do have physicians' associations and they are consulted regarding possible changes in payment rates and systems, these health plans do not engage in collective bargaining per se, or sign any formal collective bargaining agreements. At the same time, it is generally acknowledged that wage levels in the non-Clalit health plans are, to some extent, influenced by changes in the collectively negotiated wage levels in Clalit.

Community-based specialists

Clalit has two main groups of community-based specialists: independent and salaried. Salaried specialists provide the majority of community-based specialist care. Almost all salaried specialists work in Clalit-owned and -operated clinics. Their salary is partly a function of the extent of their full-time work, professional rank and years of experience. In addition, for each daily session the physician receives an additional payment for seeing more "first-time" patients – that is, those making their first visit in three months – than is specified in the norm for a session, but there is no penalty if the number of such visits is below the norm. The per session norm varies primarily by specialty, but is also affected by the physician's age and years of experience, as well as the season, with lower norms in the summer. Older physicians and those with more experience not only have lower visit norms per session, but also are required to work fewer hours per session. A similar reduction in work hours and visit norms per session applies to all physicians in the summer months. Physicians can get additional payments for procedures on a contractually agreed list, and for initiating a special longer-than-average general assessment visit. Finally, there are special payments for teaching residents and for carrying out administrative duties.

Most of the independent specialists work in their own offices rather than in clinics owned and operated by Clalit. They are paid on an active capitation basis, but also receive fee-for-service payments, based on a fee schedule, for various procedures. There are limits on the quarterly volume of certain procedures, above which physicians do not receive fee-for-service payments. Clalit also works with a small number of independent specialists who work in Clalit clinics. Some of them receive a flat rate per shift, while others are paid on the basis of the number of visits and/or the volume of procedures performed.

In the other health plans, community-based specialists are typically paid on the basis of a "points" system which takes into account the number of sessions they work (3–4-hour periods), the number of visits and the number and nature of special procedures performed.

In Maccabi, most community-based specialists are paid on a quarterly active capitation basis, similar to the plan's primary care physicians, but the capitation fee is lower because it is supplemented by fee-for-service payment(s) for procedures performed, calculated on a points basis. Senior consultants are paid somewhat differently; most of them work sessions of 3–4 hours in duration and are paid per session, rather than according to a points system. As a rule there is no necessary correlation between the amount of payment they receive per session and the number of visits.

Clalit and Maccabi have begun to experiment with "pay for performance" systems (Gross, Brammli-Greenberg & Waitzberg 2008). While implementation has been successful, both managers and physicians within those plans have voiced concerns regarding the effects of measuring clinical performance, such as focusing attention on the measured areas while neglecting other areas, and motivating a statistical approach to patient care instead of providing patient-centred care.

Hospital-based physicians

Salaries constitute the primary component of hospital physicians' monetary compensation. The salary level is primarily a function of clinical/administrative responsibility and years of experience. The salary scale is determined via a collective bargaining agreement between the IMA and the employers, which are the Government, particularly the Ministry of Health and Ministry of Finance, along with Clalit and Hadassah. Compensation for active night rotations and on-call duty also constitutes a major component of payment, but the IMA views this as problematic, since such payments are not made during vacations and do not figure in pension calculations.

In addition to a salary, sought-after physicians can earn additional funds in several ways.

- Some of them take on private work, either in private hospitals or in community-based settings, typically on a fee-for-service basis.[31]
- Most government and Clalit hospitals have established health trusts, which are related but separate legal entities authorized to sell surgical and outpatient clinic services to the health plans during late afternoon, evening and night hours; the health trusts engage sought-after physicians to work after hours, usually on a per-visit or per-operation basis, determined by negotiation between the trusts and the individual physicians.

[31] The scope of private work is limited by contract in the case of physicians employed in government hospitals; however, these restrictions are not always strictly enforced.

- The voluntary hospitals in Jerusalem operate *Sharap*, which are private medical services in public hospitals, paid for primarily out of pocket and by supplementary or commercial VHI, also on a per-visit or per-operation basis; in one Jerusalem hospital the individual physician sets the rates, while in another they are set by the hospital, in consultation with a committee of physicians.
- Clalit hospitals make special “per session” payments to senior physicians who work a second shift in the hospital outpatient departments; these payments, which tend to be generous, were initially instituted to deal with what were perceived to be lengthy queues.[32]
- Some physicians in government and Clalit hospitals accept illegal, under-the-table payments that are disapproved of by all key health care system actors. The scope of this phenomenon is unknown and subject to much debate; the physicians are generally paid on a per-visit or per-operation basis, at rates set by themselves.

Collective bargaining, strikes and physician wages

The wages and working conditions of salaried physicians in the Ministry of Health, the Clalit Health Plan and the Hadassah Medical Organization are governed by a collective bargaining agreement between the employers and the IMA. That agreement is not binding upon the smaller health plans in their relationships with their physicians (most of whom work as independents), but it does serve as a benchmark for them as well.

On the employer side of collective bargaining, the dominant force has been the Ministry of Finance, which has usually approached the negotiations with an eye on the agreement’s impact not only on the physician wage bill, but also on public sector wages in general. There is a high degree of informal linkage between the physicians’ collective bargaining agreements and those of other public sector employees. Accordingly, in those cases where the Ministry of Finance was willing to grant a wage increase, it preferred the increase to take a form unique to physicians, such as payment for evening/night rotations and on-call duty, thereby limiting the spill-over effects to other sectors. Recently, the Ministry has started taking a broader view of the collective bargaining agreements and is paying increasing attention to the potential impact of these agreements on the overall functioning and efficiency of the health care system.

[32] It is not clear whether lengthy queues were ever as widespread as they were perceived to be. It is even less clear whether there are any lengthy queues at the time of writing.

In the collective bargaining process the Ministry of Health often finds itself caught in the middle between the Ministry of Finance and the IMA. It shares some of the budgetary concerns of the former, but is also sympathetic to the physicians' wage concerns. Because the Ministry of Health also has the lead responsibility for ensuring public health, it tries to avoid strikes and to ensure that the agreements contribute to the quality and accessibility of health services.

As indicated by Yishai (1990), the IMA is a uniquely powerful union, even for Israel, a country in which unions in general tend to be quite powerful. This is due to a number of factors, including the high status of physicians, control over access to a life-saving public service and the very large proportion of physicians enrolled in the IMA. While most Israeli unions are affiliated with Israel's General Federation of Labour (Histadrut), the IMA is independent and has no such affiliation.

The IMA has two major roles: as a physicians' union, seeking to advance their interests in the areas of wages and working conditions, and as a professional association dedicated to advancing the public good through such activities as promoting medical training, ensuring quality standards for physicians, and influencing health policy in general. This section focuses on the first role. Its second role is covered in other sections of this report.

Physicians' strikes have been a frequent occurrence in the Israeli health care system, with strikes taking place in 1973, 1976, 1983, 1987, 1988–1990 (intermittent) and 1999. Of particular note is the long-lasting physician strike of 1983, in which most of the nation's hospitals were forced to work on a "weekend basis" for nearly four months. The strike culminated in a hunger strike and mass exodus from the hospitals by many physicians and resulted in significant collective bargaining gains. However, many believe that the strike also damaged public trust in the physicians and their representatives.

The latest physicians' strike took place in 2000. The physicians called for substantial pay increases; limits on the number of consecutive hours that interns and residents are expected to work; the right to private practice within public hospitals; and recognition of payments for evening/night rotation and on-call duty as part of the base pay for calculating vacation pay and pensions. The physicians also called for enhanced funding for the health care system as a whole, along with other financial and structural measures to strengthen the public system.

The strike led to two major developments. First, the Government agreed to the formation of a blue-ribbon public commission to examine the overall functioning of the health care system, with special attention to the status of physicians. For a full discussion of the work of the public commission, see

Chapter 7 *Health care reforms*. Second, the IMA agreed not to strike for 10 years and the parties agreed to submit unresolved disputes to binding arbitration. Israel is currently (2008) in the midst of just such an arbitration effort, and the two sides presented very different positions regarding the extent to which physicians' wages should be increased, as well as other related issues. The arbitrators have recently determined that the physicians should be given a major salary increase.

In addition, some immediate changes were made to physicians' wages and limits were placed on the number of consecutive hours that interns and residents are expected to work. The latter has substantially increased hospitals' costs, but at the same time has probably improved the quality of life for physicians-in-training and their families, and may also have contributed to the quality of patient care.

There are no current, reliable statistics on how physician pay in Israel compares with other countries. It is still worth noting that, as the United States has been the most common location of fellowships for up-and-coming Israeli physicians, in the past the American physicians' particularly high incomes no doubt contributed to Israeli physicians' perceptions that they were being underpaid. However, Israel's relative ranking has probably increased since the mid-1990s, with the position of physicians relative to other workers improving in Israel and declining in other countries, including the United States.

Emerging issues

There is a debate in Israel regarding whether quality of care should be taken into account explicitly in physician payment schemes. No concrete changes have taken place and there is a great deal of debate regarding the desirability and feasibility of such a move. However, at least one of the health plans (Maccabi) is seriously considering incorporating quality measures into its reimbursement system, and another (Clalit) supported movement in this direction in its submission to the public commission mentioned earlier (see Chapter 7 *Health care reforms*).

Another emerging issue is whether physicians should be at financial risk for the health care expenditure they generate – that is, whether they should be rewarded for containing costs. Here, too, there is a great deal of controversy. The prevailing thinking at the time of writing seems to be that, while it might be desirable to give physicians an incentive to control costs at the level of the community clinic (typically a group of 4–8 physicians with nursing and administrative support), it would not be appropriate to do so at the level of the individual physician. Clalit carries out a nationwide effort to hold clinics accountable for both internal and external health care costs. Clinics that contain

costs while meeting various patient satisfaction and quality goals are given additional budgetary resources. However, this does not as yet translate into higher pay for individual physicians.

Payment of other health care professionals

Most nurses work as salaried professionals of large organizations such as hospitals and the health plans. The key determinants of their salaries, established through collective bargaining agreements, are their role in the organization, years of experience and level of education. There are additional payments for evening, night and weekend shifts. The last major nursing strike was in the late 1980s, leading to the establishment of the minimum required nurse–bed ratios that are in force today.

Most Israeli dentists work as independent solo practitioners. They are paid on a fee-for-service basis and, generally speaking, are free to set their own fee schedules. A total of 10% of the Israeli population has commercial VHI covering dental care, which is usually sold to groups. An increasing proportion of dentists are working for commercial dental chains or the health plans. Although health plan dentists have several pay scales based on patients' method of payment – for example, commercial or supplementary VHI – they tend to be paid on scales similar to those of commercial dentists. It is noteworthy that dental fees have dropped substantially since the mid-1990s, due in part to the influx of large numbers of immigrant dentists and the growth of the dental chains.

The payment of pharmacists who work for the hospitals or the health plans is governed by a collective bargaining agreement negotiated between the employers and the Israel Pharmacists' Association. As is the norm in the public sector, payment is in the form of salary and depends primarily on a pharmacist's role in the organization and years of experience. Pharmacists working for the large chains are also paid on a salary basis, but their salary level is set by market conditions. There are sometimes bonuses for large volume, as measured by the number of prescriptions or sales revenue. Independent pharmacists are essentially small businessmen and their compensation consists of the profits from their businesses.[33] A pharmacy's revenue from any prescription it dispenses is determined by law. The allowable mark-up is set as a percentage of the price, ranging from 37% for items costing less than NIS 38 (€7) to 17.5% for items over NIS 193 (€34).

[33] The Ministry of Health sets maximum prices, where the permitted percentage mark-up from the wholesale price declines with increases in the wholesale price. These constitute only a maximum, with the health plans and other insurers pressuring the pharmacists for discounts from these prices.

4. Regulation and planning

4.1 Regulation

Until the mid-1990s, outside the public health arena, Israel did not have a well-developed culture of government regulation in the health sector. Instead, the Government relied primarily on budgetary controls, offers of subsidies and moral and political suasion to influence nongovernmental providers. Since the introduction of NHI and the Patients' Rights Act in the mid-1990s, the Ministry of Health has developed new capabilities and launched many new initiatives in the regulatory field.

In the public health arena, key areas of regulation include:

- food safety
- water safety
- pharmaceutical safety and efficacy
- filtration of community water supplies
- mandatory fluoridation of community water supplies
- smoking bans in public places.

With regard to the health care delivery system, some of the main interfaces and areas regulated by government include: the interface between the Government and the health plans; the health plan–consumer interface; the Government–hospital interface; the pharmaceutical sector; health care personnel; and the hospital–health plan interface. These are discussed in turn in the following subsections.

Regulation and governance of third-party payers

The Government regulates several aspects of the health plans and their operation. First, the total amount of government financing to be allocated to the NHI system is regulated, with separate decisions regarding the amount to be paid for the existing benefits package (to reflect population growth, inflation of key inputs and so on), and the amount to be made available for expansions of the benefits package. Next, the Government provides the authorization necessary to operate a health plan.

Furthermore, the capitation system that governs how the bulk of NHI funds are distributed among the health plans is set by the Government. In part, this involves determining what parameters will be included in the capitation formula, for example, determining whether health status, socioeconomic status and/or quality measures should be added, alongside age and sex. In addition, the coefficients of the existing parameters – age and sex – need to be updated periodically. A related decision is the extent and nature of payments to the health plans outside the capitation formula, such as the payments for "serious illnesses" and various safety net payments (see Section 3.4 *Revenue collection/ sources of funds*).

The Government also specifies the health plans' financial reporting requirements and ensures that the plans' financial and operational activities are consistent with various legal requirements (for example, limits on advertising expenditures).

With regard to the health plan–consumer interface, regulation involves determining the extent and nature of the co-payments that health plans and others can charge their members. The content and pricing of supplemental insurance packages offered by the health plans are also regulated. This includes such issues as whether the VHI packages can include coverage for life-saving pharmaceuticals (see Section 7.2 *Introduction of national health insurance*) and choice of hospital-based physician (see Section 7.8 *The Patients' Rights Law*). A related issue that is also regulated is whether the health plans can use their VHI programmes to cross-subsidize their core activities (that is, those related to the basic benefits package), or vice versa.

Regulation and governance of providers

In terms of hospitals, the Government regulates hospital licensure and oversees the authorization process for opening a new hospital or department. Furthermore, the number of hospital beds is regulated, along with their distribution in terms of ownership, specialty and location, as are major capital expenditures, such

as the acquisition of magnetic resonance imaging (MRI) scanners and other expensive equipment. In Israel, monitoring of nonmedical components of quality takes place through a system of inspections and other types of reviews. There is talk of also developing measures for the medical components of quality in the coming years.

In the pharmaceutical sector, the maximum prices that pharmacies are allowed to charge consumers in direct sales to them are centrally set. Also regulated are the types of pharmaceuticals that can be sold in Israel, from a safety and efficacy perspective. Further controls include which pharmaceuticals and other technologies will be covered via the NHI basic benefits package.

In terms of health care personnel, the requirements for licensure as a physician, nurse, or other health care profession are regulated. There are also requirements for specialty recognition (together with the IMA) through the jointly operated Scientific Council.

Israel has an extensive system of advanced courses for nurses and, in recent years, increasingly more units are requiring nurses interested in filling positions to be graduates of such courses. These requirements do not vary by ownership type.

There are no legal requirements for physicians to participate in continuing medical education courses. However, many of the organizations encourage such participation through mechanisms such as funding the time for participating.

As in other countries, there is a trend in Israel of increasing medical specialization and sub-specialization. Even in primary care, it is difficult for a nonspecialist general practitioner (GP) to find a new job (although the system continues to employ many older GPs, including immigrants from the FSU).

Regulation and governance of the purchasing process

The hospital reimbursement system governs the financial interface between the health plans and other payers. This involves determining both the forms of reimbursement (per diem, DRGs, fee-for-service payments, and so on) for various services and the rates (such as the per diem rate, the rate for various outpatient procedures and so on). The nature of hospital revenue caps are also regulated, as discussed in Subsection *The revenue cap*, within Section 3.7 *Payment mechanisms*. Furthermore, there is monitoring and authorization of contracts between hospitals and health plans, which grant the health plans various types of discount, typically in return for a guaranteed volume of activity.

With regard to the health care system, almost all regulation is handled by the national headquarters unit of the Ministry of Health. This contrasts with many of the regulatory activities involving public health, where the policy is developed at the national level, but implementation takes place through regional and district offices.

Regulating quality of care

Monitoring quality of care in hospitals and other facilities

The Ministry of Health licenses and monitors the quality of Israel's hospitals, outpatient surgery centres, dialysis centres, clinical labs and other key health care facilities.

The licenses granted to hospitals are valid for 1–3 years, depending on the results of the latest inspection. The licences are very detailed. They refer to a specific number of beds, by department, as well as specifying the types of outpatient clinics the hospital is authorized to operate.

In the early 2000s the Ministry of Health's Quality Assurance Unit began a system of quality inspections of hospitals and other heath care facilities (irrespective of whether the facility is run by the Ministry or another provider). The inspections are carried out annually and, in the case of hospitals, involve a large multidisciplinary team of up to 25 inspectors. The inspections include detailed reviews of a sample of records. Hospitals are forewarned so that they can prepare for the inspections. During this period, three facilities have been closed due to severe and persistent quality problems; many others have been cited as having serious deficiencies which have subsequently been addressed. The Ministry has begun to carry out inspections of the health plans' operations on a district-by-district basis, even though health plans operate under the auspices of the NHI Law, and as such are not licensed by the Ministry of Health.

The Ministry of Health's Department of Health Services Research develops quality monitoring tools with an emphasis on outcomes. Major in-depth studies have been carried out regarding such topics as hospital-acquired infections, coronary bypass operations, ICU care and transplants.

Another Ministry of Health project focuses on antibiotic-resistant infections.

Several Clalit hospitals have been accredited by the Joint Commission and the Ministry of Health is exploring the possibility of working with the Joint Commission on the accreditation of the hospitals that it operates.

Israel's National Blood Bank is operated by the national ambulance service (MDA) and adheres to the highest international safety standards.

Monitoring quality of care in the community

The National Quality Measures Program is an exemplary case of how research findings translate into policy decisions and action plans. The programme began as a research project initiated by a team of researchers from Ben Gurion University, in cooperation with all four health plans and funded by the NIHP. During the research stage, a unified standardized measures system was developed, mainly for primary care. This enabled a reliable and ongoing assessment of the quality of care in the community to be established, in accordance with national and international goals. In 2004 the project was adopted by the Ministry of Health and elevated to an operational national programme run by the initiating team, with the sponsorship of the NIHP.

The programme allows routine and dynamic quality assessment of the preventive, diagnostic, therapeutic and rehabilitative services supplied by the health plans. To date, 69 indicators have been developed in six principal medical fields and are regularly measured in the total Israeli population of over 7 million.

This ongoing scientific infrastructure helps with national prioritizing during the policy-making process and induces quality improvement. The information is also available to the general public, inviting them to assess the quality of services in Israel and access them in an informed and responsible way.

The 2008 report of the National Quality Measures Program (Porat, Rabinowitz & Raskin 2008) indicates that, in the wake of the project's implementation, there have been significant improvements in many of the measures being monitored, including those related to diabetes, cardiovascular disease, asthma, cancer screening, child health, and 'flu and pneumococcal vaccinations. Moreover, Israel's performance in terms of most of these measures appears to be good in comparison with that of other countries. Clearly, the health plans have taken the information generated by the project very seriously, and have introduced a variety of administrative and clinical changes that have produced the quality improvements.

At the same time, the project has identified numerous areas in need of improvement. These include the lag time in the availability of key outcome data (such as disease-specific mortality rates), and problems in accessing hospital discharge diagnoses (which are very important for building various registries).

One of the most impressive aspects of the project has been its ability to build and sustain cooperation among the four competing health plans, which need to agree on what areas of health care should be monitored and how performance in these areas should be defined and measured. They also need to adjust their data systems accordingly and submit their performance data to the central project

team. There are anecdotal reports that the health plans have been sharing with one another various strategies, regarding not only how to measure, but also how to improve, performance. Cooperation has been built up and sustained through a variety of measures, including: involving health plan leaders in the design of the project from the very first stage; basing all major project decisions on consensus; and maintaining high scientific standards with regard to the choice of measures implemented and the data collection itself.

The project team publishes an annual report with its key findings. At the time of writing, the findings are published by age group and gender, as well as by a proxy for socioeconomic status. Within the next few years, the data are due to be published by region as well, once a methodology has been put in place to control for inter-regional differences in key sociodemographic characteristics. There continue to be differences of opinion on whether, and when, the data should be published by health plan. The arguments against publishing performance results by health plan include concerns that doing so will disrupt the cooperation that has formed the basis of the project and is also one of its greatest achievements. The arguments in favour include the concept that doing so will enable consumers to make more informed choices among health plans and that the resultant market forces will spur the health plans to invest even greater efforts to improve performance.

Patient safety

The Quality Assurance Unit of the Ministry of Health periodically checks the extent to which Israeli health care facilities meet various patient safety standards (see earlier). In addition, Israel has begun to explore a cooperative relationship with the Joint Commission to expand and upgrade these activities.

Israel does not have a formal procedure for identifying and reporting medical errors, aside from those which result in deaths in hospitals, or other very severe outcomes. However, patients – with the assistance of the media and personal injury lawyers – do identify and publicize many such cases each year, and the Ministry of Health does follow up on those cases.

4.2 Planning and health information management

In many areas that require the development of new policies on sensitive subjects, the Ministry of Health has appointed ad hoc commissions or committees of prestigious experts (from within as well as outside government) to advise on the matters concerned. In recent years, these have included panels on the following:

- care of terminally ill and dying patients, including the operational definition of death
- surrogate pregnancy and egg donations
- a national system of electronic medical records (EMRs).

There has been a major upsurge in the number and quality of planning efforts in Israel since the mid-1990s. Most planning efforts are led by the Ministry of Health, with the work dispersed among various Ministry of Health departments and ad hoc planning commissions, and integration and consistency promoted by top management within the Ministry. For example, planning for the number and type of hospital beds required is led by the Ministry's Facilities Division, with analytic support from the Statistics and Information Division. Human resource planning, in contrast, is led by an inter-divisional committee chaired by the Director of the Economics and NHI Division. These planning efforts are particularly professional and data driven, but of course this does not prevent controversies surrounding their recommendations, with nongovernmental actors often questioning key assumptions regarding the future shape of the health system.

Key planning activities led by government include:

- the setting of national health targets and strategies for achieving them (see Subsection *Health targets*, within Section 4.2 *Planning and health information management*);
- forecasting the number of health care professionals the country will need and designing strategies to ensure that supply will match needs (see Chapter 5 *Physical and human resources*);
- preparedness for large-scale health emergencies or disasters (such as wars, epidemics, and so on);
- the development of a national voluntary system to monitor quality within the health plans (see Subsection *Regulating quality of care*, within Section 4.1 *Regulation*).

Health technology assessment

HTA activities in Israel have three main types of focus: official governmental efforts related to the annual process for determining additions to the benefits package; internal assessments carried out by various groups seeking to influence those governmental decisions; and the activities of various research and academic units.

The governmental process

In 1998 Israel established a formal process for setting priorities for adding new services to the benefits package. Each year, the Government decides how much money it will allocate for these additions. In parallel, the Ministry of Health solicits recommendations for which new technologies/medications (henceforth "technologies") should be prioritized for inclusion in the benefits package. Health plans, pharmaceutical companies, the IMA, patient organizations and other groups submit recommendations, along with supporting analytic material. These proposals are reviewed by a staff unit within the Ministry of Health, which analyses the likely costs and benefits of each proposal. This background material is brought before a public commission that recommends to the Ministry and the Government which new technologies should be adopted, given the previously determined budget constraints (Chinitz et al. 1998; Shani et al. 2000; Shemer, Abadi-Korek & Seifan 2005).

In 2005 a subcommittee was established, consisting of representatives of the health plans, the Ministry of Health and the Ministry of Finance, to review and refine the more technical components of the background information (such as the price and volume projections), thereby allowing the full committee to focus its efforts more on values and priorities. While this explicit priority-setting process does have various problems and limitations, it has been considered by many health policy analysts in both Israel and abroad to be ground breaking on an international scale (Chinitz & Israeli 1999).

In analysing the costs and benefits of proposed new technologies, the professional staff of the Ministry of Health examine various factors, as follows:

- the health problems and conditions that the new technology would address;
- the extent to which the benefits package already includes treatments for those problems and conditions, and the efficacy of those treatments;
- the number of patients whose care would be improved;
- the extent of the improvement in terms of duration and quality of life;
- health risks associated with the new technology;
- the number of units of the new technology that would be likely to be consumed if the new technology were to be adopted;
- the projected unit price of the new technology;
- the total cost to the system of adopting the new technology;
- potential savings from reduced consumption of existing technologies, for which the new one serves as a substitute.

In carrying out these analyses, the Ministry of Health staff rely on a number of sources, including:

- the background materials submitted by the person/organization that proposed the adoption of the new technology;
- analyses carried out by HTA units in other countries;
- assessments of panels of clinical experts, such as the various National Medical Councils, regarding the expected clinical benefit and the number of affected patients;
- epidemiological data available from government sources, such as the ICDC and various disease registries;
- relevant data on consumption and pricing from the health plans, hospitals and other provider organizations.

The Ministry of Health staff employ a two-stage annual funding cycle. First, from a preliminary assessment of costs and benefits, and in light of the amount of new money available that year, they weed out those technologies which have no chance of being added to the benefits package. Second, they carry out in-depth analyses for those technologies which made it through the first phase. For each technology, they then prepare a detailed analysis (typically 4–5 pages) as well as a recommended priority score. The analyses for all candidate technologies are published in a book prepared for the public commission. This book is not distributed to the general public, but is distributed to the key interested parties and is also made available to academic researchers studying relevant issues. Table 4.1 indicates the number of new technologies considered and added to the benefits package in each funding cycle since 1999.

There is general consensus that the Ministry unit dealing with this process is understaffed relative to the amount of HTAs they need to prepare, the tight time frame in which they must prepare them, and the sought-after levels of analytic depth. Additional professionals with the relevant skills do exist in Israel, but budget constraints prevent the Ministry of Health from hiring them for this purpose.

In evaluating the new technologies, the staff make use of relevant clinical trials, systematic reviews, submissions from those proposing that the technology should be added to the benefits package, and additional information on expected

Table 4.1 Number of new technologies considered and added to the benefits package, by year, 1999–2007

Year	1999	2000	2001	2002	2003–2004	2005	2006–2007
Considered	88	300	316	367	369	429	400
Added	54	130	84	61	35	69	75

Source: Ministry of Health, Technology Administration, private communication.

volume and/or price from national disease registries, health plans, hospitals and pharmaceutical companies.

Internal processes

HTA activities also take place within various organizations and groups seeking to influence the Government's decisions on the adoption of new technology. Prominent efforts include those undertaken by pharmaceutical companies. A pharmaceutical company's HTA will typically consider the full range of considerations listed earlier, but will naturally focus on those pharmaceuticals which that company has proposed for adoption.

A health plan's HTA will typically consider the full range of new technologies under consideration, but will tend to focus on key issues, including the number of patients affected, projected consumption, and price, relying to a large extent on Ministry of Health assessments of expected clinical benefit.

Interestingly, the IMA has recently increased its involvement in HTA. It uses panels of leading physicians to assess and prioritize new technologies under consideration and make funding decisions in the official process run by the Government, with a focus on their potential benefits. It does not carry out independent assessments of costs.

Health technology assessment activities on the part of research and academic units

In Israel, a growing number of researchers and research units are getting involved in HTA-related activities. This is apparently due in part to a combination of intellectual curiosity, growing international attention to HTA, and the existence of a formal and well-publicized governmental process for prioritizing new technologies, costing hundreds of millions of shekels each year. In contrast to HTA efforts within government and provider organizations, which naturally focus on particular technologies within the time constraints imposed by an annual process, these academic units have the luxury of addressing more fundamental issues with a time frame that spans several years.

Prominent among these efforts is the Israeli Center for Technology Assessment in Health Care (ICTAHC), which was established in 1998 at the Gertner Institute for Epidemiology and Health Policy Research. It is an independent research centre, and one of its major tasks is to advise the Israeli Ministry of Health on national policy in technology management. Its activities include systematic reviews; consensus conferences; establishing a database on utilization patterns; developing a technology index; educating students, professionals and organizations about HTA; representing Israel in various

international HTA forums; and research studies on such issues as physicians and consumer cost-consciousness.

Other significant foci of activity include Ben Gurion University, Tel Aviv University and Hebrew University. These include various efforts by health economists to better integrate information on costs and benefits into Israeli HTAs; efforts by political scientists to understand the institutional dynamics of the Israeli prioritization process; and efforts by multidisciplinary teams to investigate and assess whether current funding levels for new technologies are adequate. Plans are also under way to explore how equity considerations might be given a more central and formal role in Israeli HTAs.

Information systems

As indicated in Subsection *Information technology* (within Section 5.1 *Physical resources*), all the health plans and the hospitals have sophisticated information systems that include data on activity levels, services provided and quality of care. Each of these organizations makes extensive use of their own data systems at both the individual care level, and to make broader policy decisions.

In addition, there are several systems for aggregating data across providers – listed here – so that the data can be used to monitor and analyse overall national developments.

- The Ministry of Health's infectious disease surveillance system. By law, any provider coming into contact with a patient who has any one of a long list of infectious diseases must report this information to the Ministry of Health.
- The disease registries maintained by the ICDC and other units of the Ministry of Health. These exist for such topics as cancer, trauma, low birth weight, diabetes and heart disease.
- The Ministry of Health's National Hospitalization Database, which includes micro-level demographic, diagnostic and treatment data for almost all hospitalizations.
- The Ministry's system of monitoring and disseminating aggregate hospital activity data (at the level of the hospital and the department).
- The Ministry of Health's information systems for dealing with psychiatric hospitalizations, visits to emergency rooms and institutional long-term care benefiting from government financial support.
- The Central Bureau of Statistics (CBS)/Ministry of Health system for monitoring and reporting causes of death.

- The National Quality Measures Program, which collects information from the health plans on over 50 measures of the quality of community-based care (see Subsection *Regulating quality of care*, within Section 4.1 *Regulation*).
- The Ministry of Health's system for reporting and investigating deaths and other adverse events in hospitals.
- The Ministry's information system for monitoring and analysing infections in hospitals.
- The Ministry of Health's disease registry systems, including registries for cancer, TB and AIDS.
- The Ministry's workforce registry systems, covering physicians, nurses, dentists, pharmacists and others.

In addition, there are several important national population surveys that periodically collect nation-wide data, as detailed here.

- The Health Survey, carried out by the CBS and the Ministry of Health, collecting information on self-perceived health status, health behaviours, utilization of services and so on. The most recent survey in the series was carried out in 2003 and the next round is planned for 2009.
- The CBS annual Family Expenditure Survey provides information on spending for many different categories of health care.
- The CBS ongoing Labor Force Survey, which always includes a set of questions regarding health and health care.
- The MJB's bi-annual survey into the public's perceptions of the level of services provided by the health plans. The topics covered include: satisfaction with various dimensions of care, access/barriers to care, waiting times, and the nature of the interactions with providers of care.
- Various surveys carried out by the ICDC, including the KAPS (survey looking at knowledge, attitudes and practices related to health behaviours) the MABAT series of surveys (which look at nutritional patterns in various age groups), and the European Health Interview Surveys (EUROHIS, collecting information on health status and service utilization in a manner that is comparable to similar surveys carried out in various European countries).

Research and development

Both health services research and biomedical research are well-developed in Israel. They are funded by a mix of governmental and nongovernmental sources.

Health services research

Israel has a vibrant and growing community of health services researchers, who are based primarily at the universities, stand-alone research centres (such as the MJB Institute and the Gertner Center), the Ministry of Health, other governmental agencies, and health care provider organizations. The latest national health services research conference drew over 700 participants and over 120 papers were presented. In general, links between researchers and policy-makers are very good, in part because Israel is a small country. As a result, research findings are often cited in policy discussions and they have an impact on both policy decisions and service development.

An important source of funding is the NHI Law, which set aside 0.1% of the funds collected via the health tax for research on health care services. Those funds are distributed via a competitive process, which is managed by the NIHP. The NIHP also plays an important role in organizing research seminars, policy discussions, and various types of international symposia and conferences.

Biomedical research

The level of biomedical research in Israel is considered to be very high from an international perspective, with a large number of world-class researchers employed by the universities, independent research centres, hospitals and the biomedical industry. At the same time, there is a great deal of concern surrounding a possible and actual brain drain, due to the shortage of funding for research and the greater availability of expensive, specialized facilities abroad, along with wider networks of potential collaborators.

Basic research is funded from a variety of sources, including foreign governments (particularly the United States National Institutes of Health and the EU), foreign multinational and bi-national research foundations and Israel's own Ministry of Health via its Chief Scientist's Office (CSO-MOH). The CSO-MOH issues annual Calls for Applications, which are selected for funding by study sections and a peer-reviewed process, within Israel. The CSO-MOH funds only biomedical research projects. Within this domain, the CSO-MOH does not identify priority areas for research, nor does it proactively solicit proposals on particular topics. Research topics are investigator initiated (a "bottom-up" approach).

Health targets

The Healthy Israel 2020 initiative was created by the leadership of the Ministry of Health to define Israeli policy in the areas of disease prevention and health

promotion for the coming years (for further information, see Ministry of Health 2008a). The initiative seeks to establish and prioritize objectives, quantitative targets and interventional strategies necessary to improve the health of and reduce disparities in access to health care and in health outcomes among the population (Rosenberg et al. 2008).

The initiative is based on several similar initiatives implemented in other parts of the world. These include “Health21” – the European Region version of the WHO Health for All initiative – and the Healthy People 2010 initiative of the United States Department of Health and Human Services. This effort will serve to update a much less intensive effort carried out 10 years earlier, in conjunction with the WHO’s Health for All initiative.

The initiative is based on the understanding that lifestyle behaviours and environmental factors have a critical influence on morbidity and on quality of life. Modification of health-related behaviours and implementation of preventive interventions have the potential to increase life expectancy and quality of life, as well as to reduce associated costs, such as those related directly to health care and those due to loss of work days.

The initiative was launched in 2005. Over 300 leading Israeli professionals have been engaged in the process, through the work of 19 committees, and numerous experts from other countries are involved as consultants. The committees are defining objectives related to the health conditions, health behaviours and environmental factors which most influence the health of the population. They are also establishing quantitative evidence-based targets and identifying the evidence-based interventions needed to achieve the objectives. Several of the committees (such as those dealing with tobacco, nutrition and physical activity) have already submitted their reports and they have begun to influence policy development in a variety of indirect ways. It is expected that by the end of 2008 the drafting of this “preventive health blueprint” will be completed and it will be submitted to the Knesset for legislative and funding purposes.

The ultimate success of the initiative hinges on the collaboration of a broad spectrum of individuals and organizations; these include representatives of various government offices, local community centres, businesses and the Knesset. The Ministry of Health is coordinating these efforts.

5. Physical and human resources

5.1 Physical resources

Infrastructure

In 2005 Israel had 47 general (acute) hospitals, with approximately 14 600 beds; 15 psychiatric hospitals, with approximately 4200 beds; and 309 chronic disease hospitals, with approximately 21 800 beds (see Table 5.1). This section focuses on general hospitals.

Israel's 47 acute hospitals are spread throughout the country. The overall general care bed-to-population ratio is 2.1 per 1000 population. As in other countries, the bed–population ratio is higher in the centre of the country than in the periphery, ranging from 1.5 in southern region to 2.7 in the Haifa region. Still, the vast majority of the population lives within an hour's drive of a hospital. All the hospitals tend to have up-to-date medical equipment and

Table 5.1 Mix between beds in acute care hospitals, psychiatric hospitals and long-term institutions, 1980–2005

	Acute care	Mental health	Long-term care	Total
1980	11 580	8 556	5 595	25 731
1985	11 908	7 941	7 193	27 042
1990	12 205	7 123	9 264	28 592
1995	13 105	6 789	12 682	32 576
2000	14 165	5 619	18 210	37 994
2005	14 607	5 352	21 754	41 713

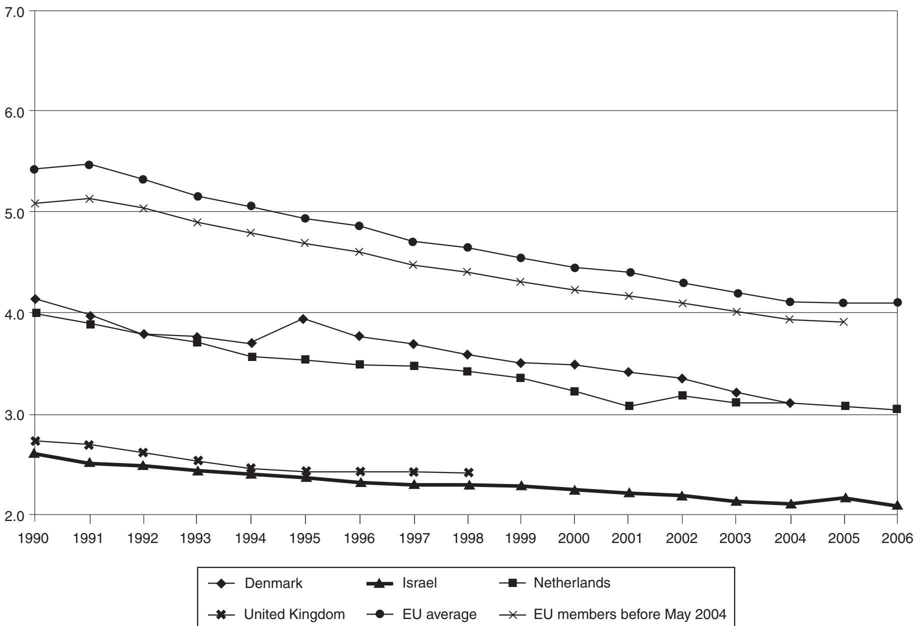
Source: Ministry of Health 2007.

provide specialty services. There is more variation with regard to the physical buildings themselves, although several major modernization efforts have been undertaken in recent years.

Compared to OECD countries, Israel is characterized by a low bed–population ratio (see Fig. 5.1), an extremely low average length of stay, a mid to high rate of admissions per 1000 population and a high occupancy rate. The low bed–population ratio is the result of deliberate government policy based on the view that resources should be focused on community care and on the assumption that the greater the number of beds, the larger the hospital's share of total health resources.

The Ministry of Health has gone through an extensive planning process to assess the need for additional beds. It determined that there is a serious need for expansion, particularly in the periphery. A national bed expansion plan was developed and approved by the Ministry of Health. However, the plan has not been implemented, as the required funds have not been allocated by the Ministry of Finance.

Fig. 5.1 Beds in acute hospitals per 1000 population in Israel and selected other countries, 1990–2006



Source: WHO Regional Office for Europe 2007.

Table 5.2 Hospital data, 1980–2005

	1980	1985	1990	1995	2000	2005
Acute beds per 1000 population	2.95	2.83	2.53	2.33	2.23	2.09
Latest data for:						
– discharges/1000	145	148	157	177	175	173
– days/1000	991	911	833	818	764	730
– average length of stay	6.8	6.1	5.3	4.5	4.3	4.2
– occupancy rate	0.90	0.90	0.88	0.95	0.93	0.96

Source: Department of Health Information 2006.

In recent years there has been serious talk of opening two new hospitals (in Ashdod and in the Haifa suburbs). This would be a striking development, as no major new hospital has been created in Israel for many years.

Interestingly, there is a growing discrepancy between the official number of beds, and the number of beds actually in operation.

In recent decades the average length of stay has declined dramatically, from 6.8 days in 1980 to 4.2 days in 2005, with most of the decline taking place prior to 1995, followed by stability since 1997. Similarly, the admission rate increased dramatically from its 1980 level of 145 per 1000 population to 177 per 1000 in 1995, and stabilized thereafter, with a level of 173 per 1000 in 2005. The number of hospital beds per 1000 population continues to decline and in 2005 it was below 2.1 per 1000 (see Fig. 5.1 and Table 5.2). As the decline in average length of stay has been greater in percentage terms than the increase in admission rates, the rate of patient days per 1000 population has declined somewhat. The volume of day care and ambulatory surgery has increased dramatically since the mid-1990s.

Since the outbreak of the *intifada* in September 2000,[34] hospitals have had to mobilize to care for the casualties, including victims of shock, which requires an increase in both medical and psychiatric services. Due to the fact that other threats to the population persist, hospitals continue to be prepared for any potential emergency.

[34] The *Second Intifada*, also known as the *al-Aqsa Intifada* is the second Palestinian uprising, a period of intensified Palestinian–Israeli violence, which began in September 2000. The death toll to date, including both military and civilian, is estimated to be over 5300 Palestinians and over 1000 Israelis, including 64 foreign citizens.

Almost half of all acute hospital beds (46%) in Israel are located in government-owned and -operated hospitals. Another 30% of the acute beds can be found in hospitals owned and operated by Clalit. Approximately 4% of acute beds are located in private profit-making hospitals and the remaining acute beds are to be found in church-affiliated and other voluntary, non-profit-making hospitals. Virtually all hospital physicians are directly employed by the hospitals. The exception is the private profit-making hospitals, in which most physicians work as independent practitioners with admitting privileges. Interestingly, one of the private hospitals (Assuta) is owned by the Maccabi health plan as a profit-making subsidiary, and another (Herzliya Medical Center) is partly owned by the Clalit health plan.

While Israel does have a few small, "single specialty" hospitals, particularly in the maternity field, the vast majority of the country's hospital beds are located in general hospitals. Almost all Israeli hospitals have university affiliations and operate training programmes for medical students, interns and residents. The range and depth of these university affiliations varies. Of Israel's 47 general hospitals, 6 have been recognized as supra-regional hospitals and they tend to have the greatest concentration of research and training activities, as well as centres for complicated and expensive treatments.

While the number of beds in private hospitals is fairly stable, the leading private hospitals are in the midst of a serious modernization and upgrading of their facilities at the time of writing, including an expansion in the range and number of operations they are able to perform. In these private hospitals, care is covered via a mix of out-of-pocket payments, commercial insurance and supplemental insurance. Patients are able to exercise a great deal of choice with regard to the surgeon, the anaesthesiologist and, where applicable, the medical equipment to be used (such as the grade of implant to be used). The upgrading of these facilities has aroused concerns in the public hospitals that they will lose both staff and patients.

Medical equipment, devices and aids

There are seven different types of medical equipment, the acquisition of which requires Ministry of Health approval – irrespective of whether the potential purchaser is a governmental agency, a non-profit-making or profit-making provider. The devices requiring approval are: computerized tomography (CT) scanners, MRI scanners, positron emission tomography (PET) scanners, gamma cameras, pressure chambers, linear accelerators and angiography devices. Regulations adopted in 1994, and subsequently amended, set national ceilings for each of these devices, in terms of units per million population. The Ministry of Health must also decide how to allocate these national quotas

among providers (in response to applications for purchase approvals) and (implicitly) among regions. To some extent, the considerations are detailed in the regulations, but there remains ample room for taking into account additional factors (Tal, Shefer & Vaknin 2008).

With regard to CT scanners, Israel has 6.2 devices per million population, which is relatively low by international standards. It is similar to the rate for the United Kingdom (7.0 per million) and much lower than the rates for the United States (32.3 per million) and Japan (92.6 per million).

With respect to MRI devices, comparative data are not available on the number of devices in Israel. However, we do know that the number of tests per 100 000 population is relatively low (7.8 in Israel versus 9.6 in Denmark, 10.3 in France and 12.2 in Germany). We also know that the devices are used relatively intensively in Israel, with almost 5000 tests per device per year (compared with roughly 2600 in Denmark, 4300 in France and 2000 in Germany).

Information technology[35]

The general context in which information technology (IT) systems operate within a country, particularly the level of access to the Internet, will influence how IT can be used within a health system. In Israel, two-thirds of adults use the Internet, and approximately half of all adults use it on a daily or almost daily basis. Approximately half of Internet users used it for health-related purposes at least once in the course of 2007. Approximately a quarter of users used medical forums to seek health advice and 10% of users even posted a medical question in such a forum.[36]

Israel is considered a world leader in health care IT implementation. Generally speaking, the IT penetration level in primary and secondary care institutions is very high. Most clinical and administrative interactions are computerized; in addition to contributing to patient care at the individual level, the use of business intelligence (BI) systems makes it possible to analyse these data statistically at the local, regional and national levels to monitor patterns of care and identify ways to improve them.

In Israel, EMRs and Practice Management Systems (PMS) are implemented in more than 95% of primary care clinics and other community-based physician clinics. Some of the health plans (accounting for 60% of the population) use centralized databases to store most of the patient-level data, while others keep

[35] The first draft of this section was prepared by Yossef Bahagon; that draft has been expanded upon, based on material provided by Rachelle Kaye and Batami Sadan.
[36] Data that appear in this section were taken from a national survey of Israeli adults carried out by Clalit Health Services in January 2008.

the data primarily at the provider level, with centralized databases being used only for back-up purposes.

All the health plans operate extensive web sites, through which the general public can learn about the types of services they offer, as well as accessing the contact information for specific practitioners, while members can also easily access test results, and in some cases schedule appointments. The health plans also operate call centres through which members/patients can obtain 24-hour guidance (usually from specially trained nurses) on how to respond to various illnesses and symptoms.

Some of the interesting developments within particular health plans are discussed here.

- Clalit Health Services also uses an innovative Health Information Exchange (HIE) system (*Ofek*) for aggregating clinical patient data from various sites, enabling secure authorization-based sharing of clinical data among caregivers. In particular, the system facilitates the flow of information between hospital-based providers and providers based in the community. Thus, primary care physicians can be alerted when their patients have been hospitalized; can find out what treatments have been provided in hospitals; and can better prepare for their patients' post-hospital care. Hospital-based physicians can benefit from information on laboratory and diagnostic tests carried out in the community as well as information from community-based providers regarding co-morbidities and sensitivities.
- Maccabi uses a fully centralized computerized medical record. The entire medical record is held within the central database and the doctors (and other health professionals) are connected to it by a server. The independent doctors have a back-up version for their own personal records on their personal computers, but the actual EMR is one central record and everything anyone adds appears there (in real time) and can be accessed by authorized individuals. This of course raises the issue of privacy and, consequently, Maccabi patients have the right to opt out of or limit access to their medical record.
- Maccabi also offers its members a "Personal Health Record" on the web (Maccabi Online), enabling the patient to add and store information in her/his own personal EMR. It is also pioneering biometric identification at the point of service (doctor's offices, laboratories and so on), which has been successfully piloted and is now being gradually implemented across the country. This system will ultimately supplant the magnetic card system in use at the time of writing.

Since 2005, the major strategic health care IT objective at the national level has been the creation of a national medical health record which contains essential

health information on each and every citizen. Progress has been slow, due to a variety of technological, medico-legal, ethical and political barriers.

The next significant developmental stage of health care IT will be the use of the Internet platform for health care-related services (as opposed to the current stage, in which the Internet is used mainly as a health information source). Patients will be able to initiate end-to-end health care-related interaction cycles, both clinical (such as e-prescriptions and e-visits) and administrative (such as billing), through a secure, personal health account.

Some interesting developments are already taking place within particular health plans:

- in Maccabi, all prescriptions are sent directly, and electronically, to pharmacies;
- in all the plans, patients can use the Internet to obtain their lab results and set up certain types of appointments.

The development of new health care IT applications involves the collaboration of business and IT units. Often, the management team of a business unit will map the field's needs and translate the results into requirements documents (that is, formal, detailed descriptions of the needs). These documents are then delivered to IT personnel who serve as the internal operating contractors. The IT department is typically responsible for the mapping of potential technological solutions (request for information/proposal stages; RFI and RFP, respectively). The decision on the preferred solution is usually made jointly by business and IT representatives and takes into account business, technological and financial considerations.

For Israel as a whole, EMRs are implemented in over 95% of primary care clinics and in approximately 40% of inpatient facilities. Appointment booking for primary care clinics and inpatient facilities has been, for several years now, a completely digitalized process. Furthermore, since 2006, patients have been able to book an appointment to visit primary and secondary ambulatory clinics through a secured web interface.

NAMER is the largest hospital administration information systems project in Israel. It provides ATD (admissions/transfers/discharge), billing, ward management, patient acceptance and discharge capabilities to the Ministry of Health's general hospitals. In addition, it is tied into picture archiving and communication systems (PACS), operating rooms, laboratory and local hospitals/CPR (computerized patient records) and has a module for multi-casualty incidents. A great deal of progress has also been made in terms of clinical automation in hospitals. Computerized physician order entry and clinical support systems have been implemented in several of the large hospitals in Israel.

The Israeli Center for Medical Simulation (MSR), located in Sheba Medical Center, is a world leader in simulation-based medical education and patient safety.

Israel is also an international leader in telemedicine. For example, Maccabi makes extensive use of tele-radiology, tele-ultrasound, tele-electrocardiogram (-ECG) and tele-holter, all of which have images/graphs transmitted digitally to a single hub, where highly qualified specialists and sub-specialists carry out the interpretation. The interpretation is then transmitted back to the referring physician, as well as being archived so that other physicians with authorized access can see both the image and the interpretation. The interpretation is also made available to the patient on the patient portal, along with lab results, and so on. There have recently been two new additions to this tele-family: tele-ophthalmology and tele-consultation.

5.2 Human resources

This section provides information regarding physicians, nurses, dentists, pharmacists and other health care professionals. Unless otherwise noted, all the Israeli data are from the Ministry of Health publication entitled *Manpower in the health care professions* (Ministry of Health 2008b).

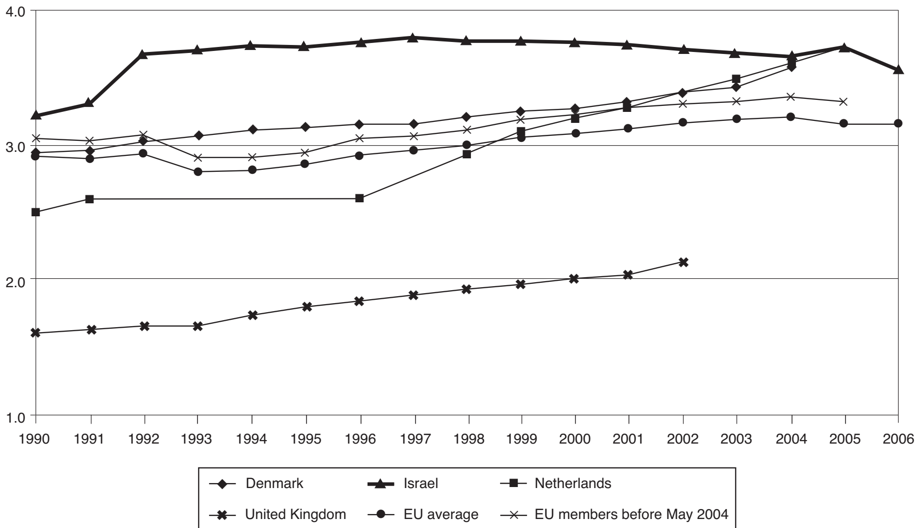
Physicians

Trends in the physician-to-population ratio

The physician-to-population ratio has been relatively stable since the early 1990s, with an increase from 3.6 to 3.75 per 1000 between 1992 and 1997, followed by a gradual decline to 3.5 per 1000 in 2006 (Fig. 5.2). This is in contrast to major changes that took place in this ratio during the previous decades and the changes being projected for the years ahead.

In 1970, Israel had 2.0 physicians per 1000 population. During the 1970s this ratio increased gradually, in large part due to the immigration of many physicians from the Soviet Union and eastern Europe. By the early 1980s this ratio had passed the 3.0 mark, where it remained stable until the massive immigration from the FSU that began in late 1989. Between 1989 and 1994, over half a million people immigrated from the FSU to Israel and the ratio jumped from 3.1 to 3.6 per 1000. There was an extraordinarily high percentage of physicians among these immigrants (over 2.0%, compared with 0.3% for the Israeli population prior to the immigration wave). In the years 1990–1994,

Fig. 5.2 Number of physicians per 1000 population in Israel, selected countries and EU averages, 1990–2006



Source: WHO Regional Office for Europe 2007.

Israel granted licences to approximately 7650 physicians, of whom 1250 (16%) were educated in Israeli medical schools; 5450 (71%) in medical schools in the FSU; and 950 (12%) in medical schools in other countries.

As of 2006, 37% of all licensed physicians up to the age of 65 had trained in an Israeli medical school. In contrast, Israeli-trained physicians constituted approximately half of the newly licensed physicians for the year 2006.

Israel in international perspective

At the time of writing, Israel has one of the highest physician-to-population ratios in the world; it is approximately 20% higher than the OECD average. However, while the ratio has declined somewhat in Israel in recent years, it has continued to increase in most OECD countries.

Inter-regional variation in Israel

There is substantial variation in the physician-to-population ratio across regions; it ranges from 1.7 per 1000 in the north of the country to 4.2 per 1000 in Jerusalem.

Looking to the future

Until recently, the Israeli physician supply relied heavily on physicians trained in other countries – primarily the FSU and eastern Europe. However, that source is now drying up. The massive immigration of the early 1990s dramatically decreased the FSU's reservoir of potential Jewish immigrants to Israel. Since 2005, total immigration from the FSU has been less than 10 000 per year (compared to an annual average of over 100 000 for the 1990–1994 period and approximately 40 000 for the 1995–2004 period). The number of FSU-trained physicians receiving licences peaked in 1992 at 2368; by 2000 it had dropped to 412. Since 1980, the number of graduates from Israeli medical schools has remained stable, at approximately 300 per year; in recent years this number has risen gradually to 400.

Throughout this period, the number of physicians needed in Israel has continued to grow, due to natural population increase, population ageing and technological advances. In the late 1990s, a past chairman of Israel's Council for Higher Education (CHE, which oversees Israel's system of universities and colleges) raised concerns about a future shortage of physicians (Rosen 2008). However, it took several years, and several study commissions, before the problem seeped into the collective consciousness of health policy-makers. After all, Israelis had always viewed their health system as being characterized by a physician surplus, not a shortage. Moreover, the projections of a shortage were based on a series of assumptions and pen-and-paper calculations, while in the real world the physician-to-population ratio remained stable at levels significantly higher than the OECD average.

Over time, however, policy-makers came to understand that Israel would face a major decline in the physician-to-population ratio (to substantially below 3.0 by 2020), unless corrective actions were taken. They were helped along in this realization by studies carried out independently by the CHE and the Ministry of Health (Rosen 2008). Moreover, Israel was already beginning to experience shortages in certain specialties, such as internal medicine and anaesthesiology. Some observers believe that relatively low physician wage levels have also contributed to the problem by encouraging emigration to high-wage countries, a shift in medical manpower from public to private health care, and abandonment of the medical profession for higher-paying lines of work.

Consequently, there is a general agreement that Israel needs to increase the number of domestically educated physicians. Views differ on the magnitude of this increase and on the ways to achieve it. While there seems to be a consensus that total enrolment at the four existing medical schools should be increased, there are differing views on whether Israel should open a fifth medical school. As medical schools in Israel rely heavily on state funding, both of these ideas

(expansion and addition of medical schools) will require major budgetary allocations, and steps are under way to secure these allocations.

Some policy-makers argue that any new medical school should be located in the country's northern region – the only region without a medical school at the time of writing. This is seen as a way to strengthen the economy and society of the north – a region which has traditionally been relatively weak and was further battered by the 2006 Second Lebanon War.

Another issue that has emerged is how to ensure that all of the medical schools will have enough places in teaching hospitals for clinical rotations. It appears that some increase in the number of "teaching beds" will be required. In addition, there may be a need to reallocate some of the teaching beds from certain medical schools to the others – a process which would entail clear winners and losers, and hence is expected to be controversial.

The main proponent of establishing a new medical school is the CHE. It argues that the existing medical schools cannot expand beyond a throughput of 600 without reducing their quality, whereas Israel will need to educate at least 1000 physicians each year domestically by the year 2018 to maintain a physician-to-population ratio of 3.0, or by 2020 to maintain a ratio of 2.8. The government has recently decided that a new medical school will be established in the north.

Physicians: planning

The Ministry of Health does not have a specific department charged with carrying out workforce projections and planning on an ongoing basis. This may have been due, in part, to a feeling that unpredictable spikes in immigration made such planning extremely difficult. Instead, if/when a problem is perceived, an ad hoc committee is established to examine the matter. For example, in the early 1990s an inter-ministerial committee was appointed to identify employment opportunities for the large number of physicians who had recently arrived from the FSU. Similarly, with growing concerns regarding a potential personnel shortage, in 2006 the Director-General of the Ministry established an internal Ministry of Health committee to look at future needs in a wide range of medical professions.

Planners and policy-makers have a number of tools at their disposal to influence workforce numbers. These include: changing the number and size of Israeli medical schools; the amount of assistance given to new immigrants to help them pass licensure examinations; the number and size of residency programmes approved; and the provision of financial support for residencies and teaching.

If a university wants to establish or expand a medical school it must receive authorization from the CHE. The Council is independent, but its decisions are influenced by the Ministry of Health and the Ministry's perceptions of future needs. The Ministry of Finance also has a major say, as most of higher education is publicly funded.

The Ministry of Health has a number of tools that influence the ease with which new immigrants will find work as physicians in Israel. These include: the provision of special courses in Hebrew; "refresher" courses on medical knowledge required for the licensure exams; the degree of difficulty of the exams; exemptions from the exams for immigrants with substantial experience; and special funding of residency slots for new immigrants.

Residency programmes must be approved by the Scientific Council of the IMA.

Physicians: training

Israeli medical schools grant the degree of Doctor of Medicine (MD) after six years of study, of which the first three focus on the basic sciences and the latter three focus on clinical knowledge and skills, with one year of rotating internship and a submission of a scientific thesis. Entrance to medical schools does not require a Bachelor's degree. Students who are exempted from army service begin their medical studies immediately after high school. However, most of them enter medical school after completing their required army service (two years for women and three years for men) or other voluntary assignments.

Israel has a well-developed system of specialty training, with residencies lasting approximately four years on average (with significant variation across specialties). Board certification is handled by the IMA's Scientific Council, in cooperation with the Ministry of Health and the various specialty societies. Typically, residents take their specialty exams in two stages, with the first stage taking place after two years of residency and the second taking place after completion of the residency. Most residency slots are funded by the hospitals out of their regular operating revenues; there is sometimes special government funding for a certain number of slots, such as in the effort to encourage employment of immigrant physicians in the early/mid-1990s. Israel also has a well-developed system of sub-specialty training and fellowships. Many promising Israeli physicians pursue fellowship training abroad, typically in the United States or Europe.

Recently, there has been growing interest in moving a greater proportion of residency training from hospital settings to community settings. This is because a growing proportion of medical care is taking place in the community, and it is important to prepare young physicians for this changing reality. There has

been some movement in this direction, but significant barriers to change remain (Nirel, Birkenfeld & Israeli, 2007).

Physicians: registration/licensing

Graduates of Israeli medical schools are granted a medical licence upon graduation. Foreign graduates must pass an exam administered by the Ministry of Health and by the IMA's Scientific Council in order to secure a licence, unless they have at least 14 years of work experience abroad. In the latter case, in lieu of a licensure exam they can work in a supervised setting for a period of six months and then, if the department head writes a letter of endorsement, a licence will be granted.

Israel does not have mandatory re-licensure or re-registration. A medical licence, once granted, is for life. While licences can be revoked in extreme circumstances (such as physical or mental incapacitation or a felony conviction), revocations are rare events.

Physicians: career paths

There are several career paths available to physicians in Israel, as in other countries. One such path is the academic path and both full academic and clinic appointments are available. A second path is to advance up the organizational hierarchies in the health plans, hospitals, or government (Kokia, Siegal & Shemer 2008). A third path is professional – increasing skill level and/or extent of specialization. This is often combined with efforts to rise on the academic or organizational ladders, but this is not always the case.

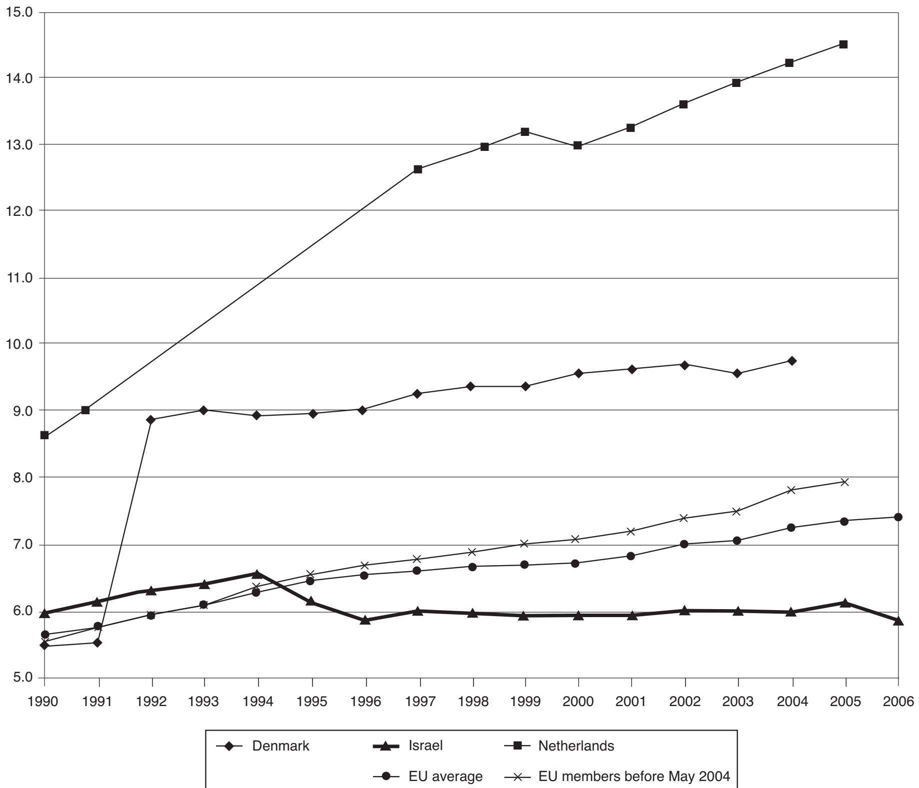
Nurses[37]

Nurses: trends

Until recently, Israel did not have an overall shortage of nurses. The mass immigration from the former FSU, which included thousands of nurses, supplemented the supply of nurses being training within Israel. At the time of writing a nursing shortage is projected (Rotem-Picker & Toren 2004), and in some areas a shortage already exists. The change appears to be due to population growth, with no expansion of (and even some evidence of a decline in) the number of students in the universities and the number of newcomers to the profession, along with a decline in the numbers of new immigrants.

[37] This section was prepared in consultation with Nurit Nirel, Sima Reicher and Orly Toren.

Fig. 5.3 Number of nurses per 1000 population in Israel, selected countries and EU averages, 1990–2006



Source: WHO Regional Office for Europe 2007.
Note: The Israeli data is for nurses up to age 60.

At the end of 2006 Israel had 5.8 nurses up to age 60 per 1000 population, of whom 4.3 were RNs and 1.5 were licensed practical nurses (LPNs). Thus, RNs constituted 74% of the total, up from 58% in 1995. Whereas in 1995 the new nursing licences were roughly evenly split between RNs and LPNs, in 2006 RNs accounted for almost 90% of the new licences. This trend is consistent with the policy of the nursing division at the Ministry of Health that the entry level to the profession is to be at the baccalaureate degree level, and LPN training programmes are to be terminated.

Moreover, as of 2006, 44% of RNs had received advanced specialist training, up from 37% in 1998. Thus, in 2006 Israel had 2.4 nurses with advanced training per 1000 population.

The overall figure of 5.8 nurses per 1000 population is down slightly from the rate of 5.9 that prevailed in 2000 and the 6.1 rate that prevailed in 1995. Israel's rate of 5.8 is substantially below the OECD average of 7.4;[38] for many years the Israeli rate has been below that of the OECD and in recent years that gap has grown larger. In 2003, a committee established by the CHE had already projected a nursing shortage in the years ahead, and this view was endorsed by a recent Ministry of Health committee on future health care workforce needs. Some health system leaders feel that we are already in the midst of a nursing shortage, which is felt in particular in specific subfields, such as internal medicine, general surgery and geriatrics.

Approximately 10% of Israel's nurses are men. Half the nurses are below the age of 45, approximately a third are between the ages of 45 and 59 and about a fifth are 60 years or over.

A major 1997 study of nursing human resources in Israel found that 60% of employed nurses worked full time or more, contrary to the prevailing perception that most Israeli nurses worked part time. The study also found that, on average, Israeli nurses worked 35 hours per week. While this issue has not been revisited recently, the perception is that these patterns still prevail (Nirel, Parientte & Haklai 1997).

There are substantial inter-regional differences in the availability of RNs. In the central region there are more RNs per 1000 population, and they work more hours, on average. If attention is restricted to nurses working in the community, the nurse-to-population ratios are actually higher in the peripheral regions (Nirel et al. 2000). Nurses in rural areas tend to carry out a wider range of tasks than their counterparts in urban areas.

The role of nurses in the health plans and hospitals is expanding. They are playing a greater role in clinical case management, management of drug concentration levels, operation of high-tech clinical equipment and provision of consultations on complex nursing cases in specialized fields (such as the care of ulcers and the provision of palliative care).

Nurses: planning

The Ministry of Health's Division of Nursing is responsible for national planning and policy development related to nurses. The division works closely with the schools of nurses and with the directors of nursing of the various health care providers.

[38] It should be borne in mind that this comparison may be complicated by differences in the definition of what constitutes a nurse.

Israel is in the midst of a major long-term effort to upgrade the professional level of its nurses. This has involved a policy of:

- shifting away from LPNs to RNs in many settings;[39]
- shifting RN education from non-academic degree programmes to university-based Bachelor of Arts (BA) programmes;[40]
- encouraging growing numbers of nurses to participate in Master's programmes and advanced specialist training in areas such as intensive care, public health, oncology, midwifery, geriatrics and operating room nursing (Brodsky & Van Dijk 2008);
- developing a significant and growing cadre of nurses with doctoral degrees and research capabilities.

Historically, the scope of nursing practice sanctioned by regulations in Israel has been narrower than in many Western countries. This may be due, in part, to the existence (until recently) of a physician surplus in Israel.

Increasingly, there is talk about the need to expand the roles of nurses in at least three areas:

1. the monitoring and management of chronic disease;
2. the treatment of common, non-complicated acute conditions in the primary care setting;
3. the performance of advanced, specialized tasks in the hospital setting.

Some of the changes being discussed involve giving nurses greater autonomy and discretion, while others would authorize them to carry out various technical procedures currently barred to them, but without the authority to make the decisions regarding when these procedures should be carried out.

The impetus for the role expansion comes in part from unmet needs of the population. For example, most physicians seem unwilling or unable to monitor and manage chronic disease patients on their own. Another factor is the interest of nursing leaders to make their profession more appealing, interesting and respected.

A recent directive of the Ministry of Health's Director-General sought to make major strides in these areas. This has led to objections from the IMA, which are being advanced in both policy and judicial arenas.

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[39] In light of this policy, Israel no longer trains practical nurses, and the number of LPNs up to age 60 years is expected to decline from 11 500 in 2006 to 2500 in 2020 (CHE 2004). In addition, Israel has invested substantial resources in a successful effort to upgrade large numbers of LPNs (including many new immigrants) to RN status.

[40] However, in light of the expected shortage in nurses, and difficulties in attracting large numbers of appropriate candidates to the BA programmes, the decision to close down non-BA RN training programmes has been put on hold.

Nurses: education and licensure

Almost all schools of nursing in Israel operate 4-year BA programmes and are affiliated with a major research university or college. Some of these schools also offer 2.5-year programmes leading to a BA in nursing for people who already have a BA in a related field. In addition, several hospitals continue to operate nursing schools with 3-year programmes leading to diplomas in nursing, without a BA. In all the programmes, the final year of study includes a clinical placement.

The Ministry of Health's Nursing Division sets the required curriculum for all of the training programmes, and monitors the programmes to ensure that they adhere to the curriculum. The BA programmes must also be approved by the CHE.

There are growing concerns about the number and quality of applicants to nursing schools. These schools are facing increasing competition from degree programmes in other health care professions, such as occupational, physical and communications therapy, as well as programmes in law and computers.

In order to receive a licence to work as a nurse in Israel, a person must graduate from an approved training programme and pass a national licensure examination run by the Ministry of Health. At the time of writing, there are no re-registration or re-certification requirements, although there is talk of possibly moving in that direction in the future.

The Ministry of Health also offers certification of advanced training in particular areas of nursing care. There are 15 different areas of specialization, such as emergency care, ICUs, neonatal care, nephrology, oncology, geriatrics, psychiatry and mental health, which authorize a nurse to carry out additional, specialized procedures and tasks. These require a full additional year of advanced clinical education and passing a national exam, which entitles the nurse to an advanced registration licence.

Nurses: career paths

At the time of writing there are two main career pathways open to nurses who wish to advance within the profession. The first – the academic path – involves teaching nursing students and training young graduates within the clinical fields and in academia. The second involves advancing up the managerial hierarchy, within a hospital or in the community, or the policy development hierarchy within the Ministry of Health. Efforts are under way to develop a third track, involving continued development of clinical skills in a particular specialty; to date, the skill development opportunities are advancing faster than the actual compensation for a specific clinical specialization.

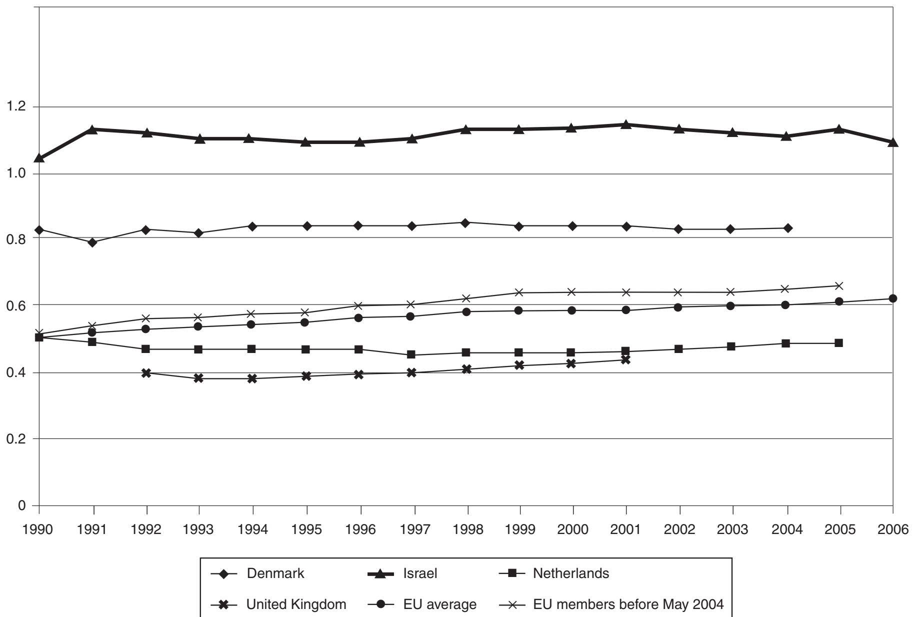
Dentists

Dentists: trends

The dentist-to-population ratio in Israel has been relatively stable since the mid-1990s, increasing from 1.28 per 1000 in 1995 to 1.31 per 1000 in 2007. At the end of 2007, 37% of all dentists were women, a slight increase from 1995 when women composed 35% of the dentist population. Immigrants accounted for 25% of all licensed dentists in 2007, half of whom were women. However, many Israeli-born dentists travelled abroad for training, so that at the end of 2007 only 27% of all licensed dentists up to the age of 65 were trained in Israel, with 52% trained in eastern Europe and 10% trained in the United States.

Fig. 5.4 presents trend data on the ratio of dentists (up to age 65) to population in various countries. It is worth noting that Israel's ratio is relatively high and that the ratios have been fairly stable for all the countries covered.

Fig. 5.4 Number of dentists per 1000 population in Israel and selected countries, 1990–2006



Source: WHO Regional Office for Europe 2007.

Dentists: registration

Since 1992 it is necessary to pass a government licensing exam, regardless of place of training, in order to work as a dentist in Israel. Almost all those trained in Israel pass the exam, and approximately half of those trained abroad do so.

Dental care is not covered by the NHI Law, meaning that almost all patients see their dentist(s) on a private basis. However, patients who suffer from general diseases which effect oral health are eligible to receive dental treatment under certain conditions covered by the NHI Law. In addition, special population groups, for example elderly or low-income individuals, receive free dental treatment in public dental clinics.

Dentists: employment opportunities

The vast majority of dentists in Israel work in private clinics or in group practice (Nefesh B'Nefesh 2008). Some dentists practise in primary school clinics and are paid by the local municipality. Such practices are usually limited to fillings and extractions. The army employs dentists, and conducts periodic dental examinations for soldiers. Dentists also practise in public clinics run by charitable societies. Other employment opportunities include kibbutzim and moshavim, where the dentist is not a member of the community but an employee (Nefesh B'Nefesh 2008).

Specialist dentists

At the end of 2007, 8% of all dentists were specialists in one of the following dental specializations, which are recognized in Israel: endodontics; oral medicine; oral pathology; oral and maxillo-facialsurgery; orthodontics; pedodontics; periodontics; oral rehabilitation; and public health dentistry. Recognition as a specialist is granted by the Scientific Council of the Israeli Dental Association. In 2007 the specialist dentist-to-population ratio was 0.11 per 1000. As a comparison, the ratio was 0.08 per 1000 in 1995. Women made up 27% of the specialist dentists in 2007.

Other dental professionals

Dental hygienists

The dental hygienist-to-population ratio, which was 0.09 per 1000 in 1995, had more than doubled by 2007, reaching 0.18. Dental hygienists must successfully pass a government licensing exam in order to work in Israel. Eligibility to take the exam is evaluated by the Division of Dental Health of the Ministry of Health. The exam consists of two parts: a written exam and a practical test.

Dental assistants

At of the time of writing, dental assistants do not need a licence to be employed in Israel. Nevertheless, a large number of dental assistants choose to complete a recognized course and pass a licensing exam. The licensing exam is held twice a year and, as in the case of dental hygienists, it includes both a written exam and a practical test. It is expected that a change in regulations will soon require all dental assistants, like other dental professionals, to be certified by the Ministry of Health.

Pharmacists

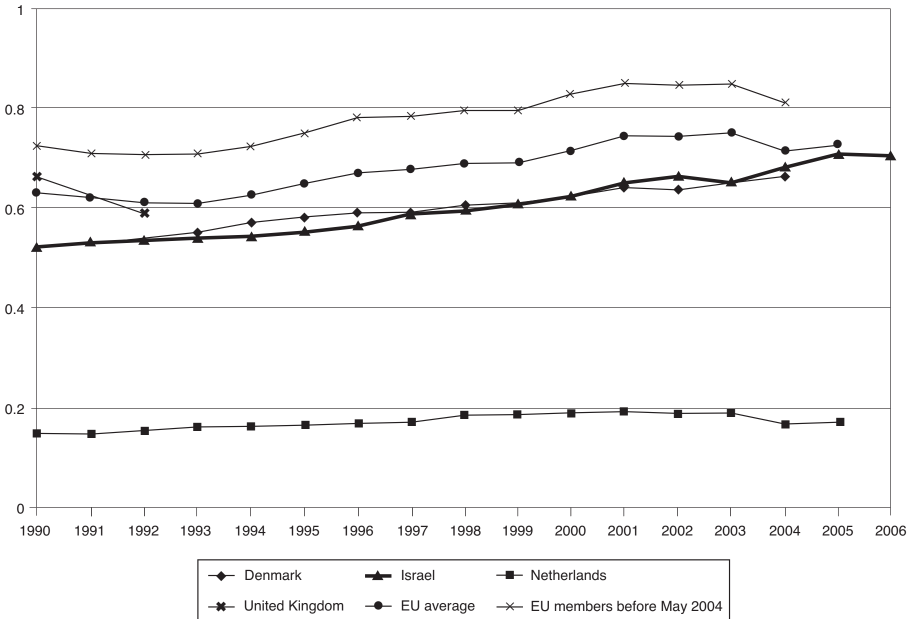
In 2007 the Ministry of Health granted licences to 331 new pharmacists, of whom 53% were educated in Israel, 29% in Jordan and 10% in eastern Europe. The pharmacist-to-population ratio in Israel has grown from 0.78 per 1000 population in 1995 to 0.92 per 1000 at the end of 2007. The percentage of pharmacists below the age of 45 years has been growing since the mid-1990s, as opposed to a stable percentage of pharmacists between the ages of 46 and 64, and a decrease in the percentage of pharmacists over the age of 65 years. At the end of 2007 Israel had 6642 licensed pharmacists, of whom 54% were under the age of 45 and approximately 17% were over 65 years. At the end of 2007, more than half of the pharmacists in Israel were women.

Figure 5.5 presents trend data on the ratio of pharmacists (up to age 65) to population in various countries. Note that Israel's ratio is similar at the time of writing to that in most of the other countries covered, whereas in 1990 it was lower than most of those countries.

Other health care professions

While legislation exists to regulate many health care professions, such as medicine, nursing, dentistry and pharmacy, such legislation does not yet exist for many other professions. These include occupational, physical and communication therapy, podiatry, radiation technology and so on. Until 2005, the Ministry of Health used its administrative authority to determine who could work in these fields, but in the same year the Supreme Court ruled that such restrictions on employment required legislation. In 2008 the Knesset passed laws regulating the work of dieticians and physical, occupational and communication therapists, and parallel legislation is in process for additional professions.

Fig. 5.5 Number of pharmacists per 1000 population in Israel, selected countries and EU averages, 1990–2006



Source: WHO Regional Office for Europe 2007.

Complementary and alternative medicine

According to the Bureau for Complementary Alternative Medicine (BCAM) (BCAM 2008), Israel has approximately 60 programmes for complementary and alternative medicine (CAM), varying in length from 3-month courses to 4-year programmes. The programmes also vary in the quality of training they provide for their students. Over the years, there have been a number of attempts to regulate the practice of CAM in Israel. The latest committee, which is still at work, was established in 2005 by the Ministry of Health. It seems that the main point of disagreement is the question of who will supervise the schools for CAM: the CHE, by creating a standardized academic degree, or a national professional board.

6. Provision of services

6.1 Public health[41]

During the Mandate period, the British established a public health system similar to those it had established in its colonies in other parts of the world, with a strong central department of health and field units at the sub-district, district and mandate-wide levels, along with an emphasis on water, sanitation and food safety. Professional public health officials led the mandatory health department. In parallel, the Jewish community established public health services (such as mother and child health centres, school health services and immigrant health services), mainly through Hadassah Medical Organization and the General Sick Fund. The British district structure remains in place today, with the Ministry of Health operating a Public Health Service comprising national headquarters, which in turn operate regional and district offices and a variety of field units. These units are staffed by career public health physicians. Several Israeli universities have programmes in place for the training of public health personnel. Four of Israel's seven universities offer Master of Public Health (MPH) programmes.

Environmental health activities

One important structural change took place when certain responsibilities were reassigned to the newly formed Ministry of Environmental Protection, established in 1988. This Ministry has the lead responsibility for controlling noise levels, air pollution, radiation, and waste collection and disposal. The Ministry of Health remains the lead agency for ensuring water quality, regulating

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[41] This section was prepared in consultation with Itamar Grotto and Nadav Davidson.

water recycling efforts and the use of pesticides in agriculture, as well as for food safety. Coordination efforts have been implemented between the two ministries, but these are not always as effective as they could be. That said, the communication and coordination between the two ministries has been improved recently. Examples of such cooperation are the Clean Air Bill submitted to the Knesset, as well as the possibility of introducing a Health Impact Assessment to the current existing environmental risk assessment requirements for the official land/building planning process. The Ministry of Health is considering establishing a unit for environmental epidemiology to improve its capacity to address issues in the growing field of environmental health.

The goals of the Ministry of Environmental Protection are to formulate and implement a comprehensive national environmental policy. The Ministry seeks to incorporate environmental considerations into decision-making and planning processes; to implement programmes for pollution control, monitoring and research; to develop and update legislation and standards; to ensure effective enforcement and supervision; to promote environmental education and awareness; and to advance regional and global environmental cooperation. In addition, the Ministry of Environmental Protection has been responsible for the upkeep, cultivation and restoration of Israel's nature reserves and national parks.

Local authorities serve as the implementing arm of the central Government in carrying out environmental policy at the local level. Municipalities are responsible for local environmental planning; operation and maintenance of environmental infrastructures such as sewage collection and disposal, waste collection, pest control and street cleaning; as well as preservation of local parks and historic sites; inspection and enforcement of industries and businesses; and monitoring of air, noise and drinking water.

Water shortage may be the most crucial environmental problem facing Israel today, exacerbated by the deteriorating quality of water resources due to demographic, industrial and agricultural pressures. The establishment of large water desalination facilities is now moving ahead, in coordination with the Ministry of Health. The main sources of air pollution in Israel are energy production, transportation and industry. Dense vehicular traffic is a major cause of air pollution, especially in the heavily populated urban centres of Tel Aviv, Jerusalem and Haifa. At the time of writing a fierce debate in full swing regarding the suggestion of the Israel Electric Company to build a second coal-fired power station in Ashkelon and its environmental health implications.

Control of communicable diseases

The Ministry of Health takes the lead in efforts to prevent, monitor and control communicable diseases, with important support from the health plans and

physicians. At the forefront of the Ministry's efforts is a nationwide system of family health centres. Most of these are owned and operated by the Government, although in Tel Aviv and Jerusalem they are run by the municipalities and in some areas they are run by the health plans (see later for further details of the ongoing debate regarding who should operate these centres). The family health centres were started by Hadassah in 1912 and have focused on services for mothers and children. They are usually referred to as *Tipat Halav* ("drop of milk" centres).

Family health centres have much in common, irrespective of who owns them. They are primarily staffed by public health nurses, with only a small number of physicians involved, and have developed both the commitment and the capacity to engage in intensive outreach efforts in the areas of immunization and well-child care more generally. Until children reach the age of 6 years, outreach efforts are targeted at parents; thereafter, family health centre staff work closely with schools to ensure the success of immunization efforts.

The Ministry of Health's district and regional offices support and monitor the front-line efforts of the family health centres. They receive reports from physicians, clinics and hospitals on conditions reportable by law, which include routine reports and those related to outbreaks of communicable diseases. A highly professional epidemiology unit at the national level within the Ministry of Health uses geographic information systems and other sophisticated tools to identify and analyse suspected outbreaks. This work is performed in coordination with the ICDC, and reports to WHO are routinely carried out. In addition, there is a network of school health services providing, among other things, preventive care, immunization and health education, with an emphasis on risk-taking behaviour. In April 2007 the school health system was transferred from the Ministry of Health to a non-profit-making organization. Individual physicians also play an important role in this system, diagnosing and treating patients with communicable diseases and advising patients on steps to prevent further spread of illness within the family and the school system. Physicians are required by law to report to the Ministry of Health all cases on a specified list of reportable illnesses.

Vaccination coverage in Israel is high, with approximately 92–94% coverage among infants.[42] The vaccination programme is updated regularly, with input from an epidemiological advisory committee. Immunizations are given in family health centres. Until recently, vaccination coverage in Israel compared

[42] Basic coverage of diphtheria, pertussis and tetanus in infancy is followed by a booster dose of diphtheria-tetanus at school entry. Both live oral (Sabin) and inactivated (Salk) polio vaccines are used routinely. Measles, mumps and rubella is given at age 12–15 months and followed by a booster dose at age 6 years. Hepatitis B vaccine is given routinely in infancy (three doses), as is Haemophilus influenza B and, recently, hepatitis A vaccine was added to the programme.

Fig. 6.1 Levels of immunization for measles in the WHO European Region, 2005 or latest available year

Source: WHO Regional Office for Europe 2007.

favourably with other developed countries, both in terms of the range of vaccines provided free of charge and the proportion of the population inoculated. As can be seen in Fig. 6.1, Israel ranks among the top half of western European countries, with a 96% level of measles immunization in 2005.

In recent years the health plans and the Ministry of Health have collaborated on programmes to promote various vaccinations, such as pneumococcal pneumonia and influenza, targeted at adults. Family health centres were not considered the most effective vehicle for reaching this target population. Typically, the Ministry of Health covers the cost of public information campaigns, while the health plans provide vaccines at subsidized prices and are responsible for service delivery at patient level.

Until recently, very effective cooperation took place between Israel's Ministry of Health and its Palestinian Authority counterpart in the area of communicable disease control. The primary types of cooperative activity undertaken were training, research, service development and provision, policy planning and conferences, seminars, dialogues and youth activities (Barnea et al. 2000). This has been important to both Israelis and Palestinians because there were substantial flows of people and goods between Israel and the Palestinian Authority. Since the *intifada* began in September 2000, cooperation in this area has deteriorated significantly, but since 2004, the cooperation has been improved with the establishment of the MECIDS.

The Ministry of Health has developed a detailed pandemic preparedness plan which relates to the key elements of surveillance, hospital and laboratory preparedness, stockpiling and distribution of antivirals, and risk communication. During March 2006 an outbreak of highly pathogenic Avian influenza (H5N1) occurred in multiple poultry farms in southern Israel. A simultaneous outbreak was identified in the Gaza strip and Jordan. This outbreak was contained by a joint effort of the Ministries of Agriculture and Health (Balicer et al. 2007). Mitigation of this outbreak was characterized by regional collaboration between Israel, the Palestinian Authority and Jordan (Leventhal et al. 2006).

In 1994 the Ministry of Health established the ICDC. Its primary goal is to collect and analyse updated health-related data, with the aim of providing health policy-makers with the evidence base necessary to make informed decisions. The ICDC plays important data collection, monitoring and analysis roles with regard to both communicable and noncommunicable diseases.

Israel has an extensive and active Healthy Cities Network (Donchin et al. 2006) in which the municipalities, residents, businesses and NGOs work together to ensure the vitality and health of their cities. The Network was initiated in 1990 and by 2008 over 40 cities were participating in the network.

Screening

Screening is also characterized by the involvement of both governmental and nongovernmental actors. All neonates are screened for phenylketonuria and congenital hypothyroidism; those found to be positive are followed up in specialized national centres or in family health centres. The latter also offer prenatal screening services, but many women prefer obstetricians, many of whom provide care through the health plans, while others practise privately. Family health centres are the primary source of screening for problems in child development and for vision and hearing problems. They also screen pre-school children before this function is taken over by schools.

The health plans have become increasingly active in the field of women's health, including establishing special Women's Health Centres. Screening constitutes an important part of their activities. Some screening tests – particularly those that are new and whose cost–effectiveness has not yet been proven – are provided by the health plans through VHI. Others, such as screening for breast and colorectal cancers, are carried out by the health plans as part of the NHI benefits package. Screening programmes for these cancers are implemented at the time of writing via special national programmes as part of the effort to increase compliance among target populations.

Health promotion and education

In this field, too, a number of actors are involved. The Ministry of Health has an active Department of Health Education, the aim of which is to enable the population to increase control over their own health and to improve it. To achieve this aim the Department produces educational tools and provides support to aid health-related behavioural change at the individual, community, environmental and political levels. In addition, a special Health Promotion Committee, reporting directly to the Director-General of the Ministry of Health, fosters collaboration between governmental and nongovernmental actors.

The health plans are increasingly involved in both patient education in the care of specific illnesses and health education for their members more generally, making use of their physicians and other professionals, as well as newsletters and other printed materials. However, there is a lack of a national policy and no clear definition of what should be included in promotion and prevention programmes. This national policy is under development at the time of writing.

The Ministry of Health has initiated a major effort to set national health targets for the year 2020, along with strategies for achieving them. For further details, see Subsection *Health targets*, within Section 4.2 *Planning and health information management*.

Health promotion efforts within the health plans face a challenge in terms of engaging physicians to be active in the area of health promotion. Medical students are rarely trained in health promotion or in early detection and prevention (Notzer & Abramowitz 2002). Primary care physicians often feel they do not have sufficient time to engage in health promotion and there are no financial or administrative incentives to do so. In a recent survey of the Israeli population (Gross & Brammli-Greenberg 2003), a very small percentage of respondents reported that their physicians had discussed health behaviour with them; rates were particularly low among women. However, the National Quality Measures Program, which includes many measures related to primary and secondary prevention, is expected to increase the rates of performance of these activities by primary physicians. This quality programme includes measurement of quality performance at all levels, and is expected to increase the rate of health promotion and prevention activities by these physicians.

Recent developments and key issues

A key issue relates to the funding level for public health services. At the time of writing, only 0.8% of national health expenditure is channelled through the Ministry of Health's Public Health Service. There is a fairly broad consensus that increasing this share could lead to substantial gains in population health. However, for a variety of political and bureaucratic reasons, little has been done to shift resources from the curative to the public health sector.

Related to this is the issue of how to prioritize and fund opportunities for innovative public health measures. Prior to 2002 special government funding for new technologies (see Chapter 3 *Health care financing and expenditure*) was set aside for services provided through the health plans. In practice, this meant that what was funded was primarily of a curative nature. In 2002 some of the new technology funds were set aside for services provided through the Ministry of Health, which has given a boost to preventive care. Some of the funds were used to reduce the fees at family health centres, while others were used to add new vaccinations to the range of services.

Another key issue on the agenda is who should operate family health centres. At the time of writing, most of the centres are owned and operated by the Ministry of Health, although in Jerusalem and Tel Aviv the municipalities operate them. In some areas, mostly those with a high concentration of kibbutzim and other collective settlements, the services are provided by the health plans. Until the mid-1990s Clalit was essentially the only health plan to operate family health centres but, after the introduction of NHI, the other health plans began to offer such services in some of those areas where Clalit had previously been the sole provider.

The NHI Law called for the transfer of responsibility for family health centres from the Ministry of Health to the health plans by the end of 1998. Proponents of this change sought to advance several objectives: first, to improve continuity between preventive and curative services; and, second, to reduce costs by eliminating the need for separate buildings – and to some extent, staff – for preventive and curative services. In addition, there was a realization that increasing numbers of upper- and middle-class women were already choosing to visit their health plan physicians rather than the family health centres, particularly for prenatal care, but also for well-baby care.

Proposals to shift ownership of the family health centres from the Government to the health plans provoked strong opposition on the part of a variety of consumer and professional groups, who argued, among other things, that the government-run family health centres were doing a superb job. They further argued that the achievements of these centres in the field of prevention (for example, high immunization rates) would not be matched by the health plans with their curative focus. The argument was that urgent needs would receive precedence and push aside more important, but less urgent ones. Another concern was that while the health plans might invest energy in providing good services in middle- and high-income areas, they might neglect lower-income areas, where outreach activities are particularly important. Finally, public health nurses were concerned that their professional autonomy would be reduced, since within a health plan they would come under a traditional medical model, and that, in addition, the number of jobs for public health nurses would be reduced.

In 1998 the Knesset decided to amend the NHI and leave responsibility for the provision of preventive care in the hands of the Ministry of Health. In practice, this meant that those family health centres operated by the Ministry in 1998 continued to function under Ministry control. However, in those areas in which, as of 1998, the centres were operated by municipalities and the health plans, there was no effort to transfer the centres to the Ministry. At the same time, the Ministry did not provide any special funding for the operation of these centres. This has created a complicated and unstable situation.

A pilot programme that was supposed to analyse the transfer of family health centres was halted in 2007 by the Israeli Government. For further information see Chapter 7 *Health care reforms*.

A third key issue on the agenda relates to the modernization of the family health centre system. Traditionally, these centres have focused almost exclusively on young women and children. Many analysts believe that they should broaden their target population to include elderly people and, perhaps, the adult population in general. This is motivated in part by the growing

awareness of the need for health promotion and health education activities for all age groups; another factor is that the health plans are increasingly assuming some of the traditional responsibilities of family health centres in the care of women and children.

Other recent activities in the public health field include the promotion of a working paper by the Israeli Public Health Physicians Association (part of the IMA) to be submitted to the Ministry of Health and Israeli Prime Minister on the future of the public health system in Israel. It includes 10 core functions of the public health system and methods of implementing them. Another activity of the Israeli Public Health Physicians Association is the discussion of the public health ethics code, together with other public health, medical and nonmedical organizations.

6.2 Primary care[43]

Primary care is highly accessible in Israel. In three of the four health plans, the cost of primary care visits is fully covered by NHI, and co-payments are limited to specialist visits. The Maccabi health plan charges a small co-payment for primary care visits.

There are over 5000 PCPs working with the health plans throughout the country. In a recent national survey (Gross & Brammli-Greenberg forthcoming) only 5% of respondents reported having to wait more than three days for an appointment with a PCP and two-thirds of respondents visited the PCP on the same day that they called to arrange an appointment. A total of 63% of the respondents waited for less than 15 minutes before seeing the PCP; 89% reported being "satisfied" or "very satisfied" with the professionalism of their PCP; and 93% reported being "satisfied" or "very satisfied" with the interpersonal skills and behaviour of the PCP (Gross & Brammli-Greenberg forthcoming).

Primary care in Israel has improved substantially in recent decades. Historically, very few graduates of Israeli medical schools pursued careers in primary care. The immigrant physicians who provided the bulk of primary care were not always able to communicate effectively with the population groups among whom they worked. Few of them had specialty training in family medicine or other primary care specialties and there were serious questions regarding the quality of the care they provided. The clinics tended to be poorly

[43] This section was prepared in consultation with Revital Gross, Hava Tabenkin and Orit Jacobson.

run, understaffed, and characterized by long waits and disputes among patients concerning whose turn was next and, in some areas, poor facilities.

Israel has had one of the world's highest rates of visits to physicians per 1000 population (Sax 2001; Shuval 1988),[44] partly because patients' medical and psychosocial needs were not being adequately addressed, resulting in repeat visits, but rates have fallen in recent decades. Still, as shown in Figure 6.2, the number of outpatient contacts in Israel ranks among the highest in the European Region, with 7.1 per person in 2000, exceeding the European average of 6.8, but still well below the visit rates of several other countries. Israel's above-average rate may be due, in part, to the geographic and financial accessibility of primary care in Israel.

Factors accounting for improvements in primary care since the mid-1980s include:

- growing competition among health plans
- the founding and expansion of family practice residency programmes
- computerization of clinics
- upgrading of clinic management skills
- giving health plan members more choice among PCPs
- substantial investment in facility upgrading and modernization
- introduction of appointment systems for clinic visits
- increased opportunities for continuing education.

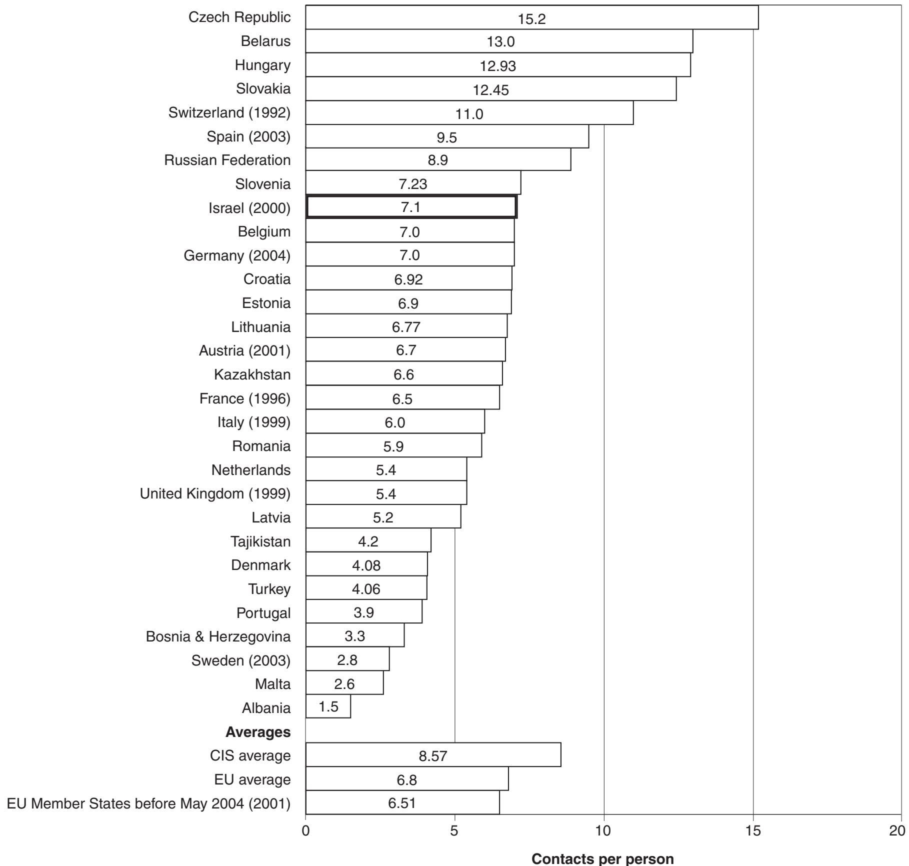
Although primary care in Israel is, in many ways, stronger now than it was in the 1980s, substantial problems and limitations remain and these are discussed in further detail in the subsections that follow.

The employment structure of primary care physicians

The Government does not make NHI funds directly available to individual physicians; all NHI funds are channelled through the health plans. Any PCP who finds employment with a health plan, either as a salaried employee or IP, can accept patients under the NHI framework. Overall, when data from the four health plans are taken together, approximately 40% of Israelis receive primary care from IPs and 60% from PCPs working as salaried employees of the health plans (Zvielli 2002). There is substantial variation across the health plans (for example, IP care accounts for 90% of patients in Maccabi and approximately 25% in Clalit). In some health plans, such as Clalit, the plan is selective in

[44] These international comparisons included visits to primary care physicians and specialists, with visits to primary care physicians accounting for the lion's share of the total.

Fig. 6.2 Outpatient contacts per person in the WHO European Region, 2006 or latest available year



Source: WHO Regional Office for Europe 2007.

authorizing which of its PCPs may work as IPs, and in certain regions also limits the number of members they can accept within their IP practices.

Any licensed physician can work as a PCP in the private sector. Some patients visit private PCPs and pay for their services out of pocket.[45]

Approximately 80% of Clalit members receive primary care from salaried physicians at Clalit-owned and -operated clinics. Within their neighbourhood, clinic patients are free to choose their PCP and can switch as often as they want. Approximately 20% of Clalit members receive their primary care from IPs operating their own facilities. Most of the Clalit IPs work in solo practices,

[45] Generally speaking, the health plans do not allow their physicians to see health plan patients privately.

although there are some group practices. Officially, any Clalit member can choose to enrol with any IP in the region, but this opportunity is often limited by the number of IPs in the region and their willingness to take on additional patients (Yuval et al. 1991). Leumit members mainly receive primary health care from salaried physicians. The two other health plans engage some PCPs in facilities owned and operated by the health plans, but most PCPs work as IPs, caring for approximately 90% of Maccabi members and about half of Meuhedet members. Most of these IPs will accept patients from different health plans. Both group and individual practices exist.[46] In the smaller health plans, patients are free to switch PCPs quarterly, although few patients avail themselves of this option.

The role of nurses in primary care

Traditionally, most IPs worked without nurses and many continue that practice today. In recent years the health plans in which primary care is provided largely by IPs[47] have come to recognize the need for a nursing role in primary care and have employed nurses to work in central clinics, which provide various services, such as nursing, physiotherapy, laboratory work and imaging to supplement the work of the IPs in the service area. In Clalit, the contract for its IPs in place at the time of writing stipulates that if they have a patient load of 500 or more, they must employ a nurse.

Historically, Clalit made extensive use of nurses in its primary care clinics. The model in place involved the patient being treated by a primary care team headed by a physician, but also including a nurse and others as needed. In the early years of the State's existence, nurses played a vital clinical role in these teams, but over time primary care physicians took on many of these roles themselves, leaving the nurses to play an increasingly administrative role. However, since the early 2000s there has been a major expansion of the role of nurses, with a focus on preventive care, ongoing monitoring and care of the chronically ill, and care of the elderly. Nurses have also been given greater authority in prescribing OTC medication(s) and ordering imaging tests.

In the 1990s, at a time of financial stress for Clalit, the role of nurses in primary care was reduced.[48] The rationale was that if nurses were primarily

[46] Most group practices consist only of PCPs, but some contract with sub-specialists to provide services within their facility.

[47] Information provided in a private communication in 2008 from Rachelle Kaye (Maccabi) and Joseph Rosen (Meuhedet).

[48] Some observers have suggested that this may have been related to the massive influx of physicians from the FSU during this period.

engaged in administrative work anyway, it would be cheaper and more efficient to reduce the number of nurses and increase the number of clerical staff. Some of the tasks previously carried out by nurses were transferred to the clerical staff, while others were absorbed by physicians, in return for a small salary increase.

Recently, the pendulum has begun to swing back and there is growing realization that nurses and other non-physician professionals can play an important role in working with chronically ill patients, in clinical case management and in strengthening patient education and health education in broader terms. In the coming years we may see this realization translated into practical changes in the health field. Furthermore, a Directive of the Director-General from April 2007 has formally delegated some clinical responsibilities to nurses who have graduated from an advanced course in their field. However, the IMA has adopted a more cautious approach regarding formal, legal changes in the range of activities that nurses are authorized to carry out. The IMA has appealed to the Supreme Court, asking for the Directive to be nullified.

The National Council for Health in the Community[49] (Shani 2001) has emphasized the importance of team effort in primary care and the critical role of nurses in the management of chronic illnesses. It has called for the recognition of "rural nurses" as a new category, with extensive responsibilities and autonomy, somewhat similar to the situation regarding nurse practitioners in other countries. Indeed, nurses have functioned as nurse practitioners in kibbutz settings for many years and the recommendations of the National Council essentially call for provision of formal recognition of the expanded role of nurses in those settings, as well as a framework for implementing it in other types of (small) localities.

Israel's nursing leadership would like to see an expanded role for nurses in urban as well as rural areas. For them, the National Council's recommendations regarding "rural nurses" constitute a pragmatic first step in the right direction, made possible by the paucity of physicians in rural areas and the consequent moderation of IMA opposition.

Another mechanism through which nurses are playing an increasingly important role is the call centres operated by each of the four health plans. These are staffed primarily by specially trained nurses who provide members/ patients with 24-hour guidance on how to respond to various illnesses and symptoms.

[49] The National Council includes leaders in community-based services from the health plans, the Government, medical associations and medical schools.

The primary care practitioner specialty mix

As of the end of 1998 approximately 55% of PCPs were GPs[50] – that is, nonspecialist graduates of medical schools – and 45% were board-certified specialists. The most common specialties among board-certified PCPs were family medicine (13%), paediatrics (16%) and internal medicine (10%) (Shemesh et al. 2000). Together, these three specialties account for 39% of all PCPs and almost 90% of the PCPs who are board certified.

For many years there was considerable dispute among primary care leaders in Israel over whether family medicine or paediatrics and internal medicine training was the best basis for high-quality primary care. While differences of opinion on this issue remain, the debate is not nearly as heated as it was in the 1980s and 1990s. The general – but by no means unanimous – consensus is that paediatrics and internal medicine training can provide a good base for primary care, but only if those training programmes are modified to provide more exposure to primary care settings. Today, most children are cared for by paediatricians rather than family physicians.

Primary care practitioners and gatekeeping

In all the health plans, visits to hospital-based specialists require prior authorization, either from a PCP or a community-based specialist. In the smaller health plans, members have free access to all plan-affiliated community-based (as opposed to hospital-based) specialists, without prior authorization from a PCP. In Clalit the PCP plays more of a gatekeeper role; members have free access to specialists in six areas – ear, nose and throat (ENT); dermatology; orthopaedics; ophthalmology; gynaecology; and surgery – but access to other specialists is contingent upon referral from a PCP. Clalit is considering expanding the free access policy to all specialists, in order to reduce bureaucracy and increase patient satisfaction, but to date this has not been implemented on a widespread basis.

In 1999 a comprehensive study of PCPs as gatekeepers used interviews with doctors and patients, and in-depth discussion with leading policy-makers to explore the extent and nature of PCP gatekeeping, as well as the extent of interest in expanding the gatekeeping role (Tabenkin et al. 1999; Gross, Tabenkin & Brammli-Greenberg 2000; Tabenkin & Gross 2000). The study differentiated between three aspects of gatekeeping: coordinating and managing patient care; being the sole referring agent; and taking budgetary factors into consideration.

[50] In Clalit, 95% of family physicians are specialists, as are 85% of its paediatricians.

Approximately two-thirds of PCPs reported that they coordinated and managed the care for nearly all their patients. Of those two-thirds, approximately 40% indicated that patients usually come to them for referrals to “common” specialties – that is, those for which Clalit does not require a PCP referral – and approximately 70% reported that their patients usually do so for the less common specialties. Approximately half of the PCPs reported taking cost[51] into consideration “to a great extent” and 10% reported doing so “to a very great extent”. Thus, many PCPs are implementing substantial components of the gatekeeping role.

Interviews with health plan members, PCPs and policy-makers in the health plans and the Government indicated support among all three groups for expanding certain aspects of the PCPs’ gatekeeping role.[52] While the vast majority of health plan members want to have direct access to specialists, approximately 40% of the members want the PCPs to take on a coordinating role, referring patients to appropriate specialists and integrating the specialists’ recommendations into their care plan. Among policy-makers there was an even broader consensus in favour of expanding the role of physicians as care coordinators, although there remained differences of opinion over the issue of requiring patients to have a sole referring agent. A total of 95% of the doctors interviewed supported the view that PCPs should be the coordinators of care.

The study did, however, find various obstacles to the implementation of the full gatekeeper model, such as the culture of health services consumption, the public’s desire to turn directly to specialists, a lack of primary care physicians with appropriate professional training, limited accessibility of primary care doctors[53] and competition among health plans, “which spurs them to cater to the public and hence keeps them from eliminating direct access to specialists”.

The study’s authors conclude with a clear call for implementation of the coordination component of gatekeeping. They also call for patient and provider education to encourage voluntary use of the PCP as the sole referring agent. The authors suggest the possible use of incentives, such as exemptions from co-payments and shorter waiting times, to encourage patients to voluntarily confer with their PCPs instead of directly approaching specialists. Finally, expansion of the cost-containment component of the gatekeeping role is presented as a desirable goal, but one that will require increasing physician interest in assuming responsibility. This could be pursued through physician

[51] The questionnaire did not specify which “costs” are involved; most respondents probably understood this to mean the full cost to the health plan of providing care to the patient.

[52] Member support for gatekeeping was strongest in Clalit, where gatekeeping has already been the norm, but even in the smaller health plans there was interest in it.

[53] There have been changes in the health care system since this study was published, and at the time of writing primary care is, largely speaking, accessible.

education, greater decentralization of authority and the granting of greater budgetary autonomy to clinics and PCPs.

Current issues in primary care

A high-level working group on primary care (NIHP 2001) highlighted the need for better delineation of the PCPs' scope of responsibilities, the role of non-physicians in primary care, how PCPs should be trained and how the PCPs' environment should be structured to best facilitate their work.

There is a growing – though by no means unanimous – sense that the PCPs should be expected to do more. There are several dimensions of this, including:

- attention to psychosocial components of care;
- responding effectively to differences in culture and socioeconomic status;
- detection and treatment of certain mental health problems;
- active health promotion and disease prevention;
- effective handling of a wider range of health problems;
- coordination of the work of the patient's specialist physician(s);
- responsibility for the patient beyond the usual working hours;[54]
- addressing the unique medical, social, cultural and linguistic needs of new immigrants and other vulnerable populations (see Nirel, Ismail & Taragin 2002);
- addressing the health needs of women;
- screening for violence;
- taking resource constraints into account;
- adherence to clinical guidelines.

While some PCPs already engage in many of these activities, and some of the health plans consider them to be the responsibility of the PCPs (aside from after-hours coordination), this is not uniformly the case. Moreover, there is growing recognition that the conditions needed to realize this vision do not exist at the time of writing. Barriers include inadequate training, heavy caseloads, lack of incentives for PCPs and insufficient infrastructure. In order to address the gap between vision and reality, several policy changes have taken place or are under serious consideration, as detailed here.

[54] Unlike in many developed countries, PCPs in Israel are not responsible for the care of their patients beyond the usual daytime working hours. Working hours vary by health plan and by region. In most Clalit clinics in urban areas, the usual working hours are 8:00–13:00 and then 16:00–19:00, with half days on Fridays and, in certain regions, on Wednesdays as well.

- The establishment in 1996 of a National Council for Health in the Community, charged with taking a serious long-term look at the challenges facing primary care; as an indication of how seriously this issue is being taken, the Director-General appointed one of the most respected and powerful figures in Israeli health care to chair the Council.
- The National Council recommended that by 2003 all the health plans should be required to ensure that their members have "personal physicians"[55] and that by 2007 recognition as a personal physician will require board certification in family medicine, paediatrics or internal medicine, or participation in a substantial, carefully specified upgrading programme for generalists (Shani 2001). In Clalit, every patient now has a personal physician, and Maccabi has initiated a pilot programme on this issue (Wilf-Miron, Kokia & Gross 2007).
- All the health plans have established various community-based programmes to supplement their members' personal PCPs by making other physicians available for after-hours care (Taragin, Milman & Greenstein 2000; Greenstein & Taragin 2001);[56] the health plans also operate 24-hour telephone hotlines staffed by experienced RNs, and the challenge at the time of writing is to improve their links with PCPs.
- A large number of family physician positions are unfilled.
- Serious efforts are under way to provide better financing for family physician residency programmes.
- Health plans for which primary care is based largely on the work of IPs are giving serious consideration to methods of encouraging group practices, improving quality control mechanisms, and so on.
- All the health plans have made major investments since the mid-1990s in the computerization of primary care.
- Various pilot programmes are under way to improve communications between PCPs and various vulnerable groups, most notably new immigrants from Ethiopia (Nirel, Ismail & Taragin 2002).
- A major nationwide effort is under way to improve primary care services for women, which includes the promotion of community and consumer awareness, empowerment through the development of lay women for health

[55] Some primary care leaders endorse the "personal physician" concept as a desirable goal, but argue that it is not achievable in the foreseeable future. They point to the fact that PCPs are already overloaded and that they have no incentives to assume the additional responsibilities, some of which are seen as conflicting with the PCPs' role as patient advocates.

[56] These after-hours services were established by the health plans in part on their own initiative, in order to reduce ED use and in part in response to a Knesset stipulation that such services be made available to all as part of the NHI benefits package. This stipulation was not accompanied by additional funding.

promotion in the community, and an increase in medical education regarding women's health.

- Management and economics training is being provided (see later).
- Efforts have been made at decentralization, quality monitoring and increasing incentives to control costs and meet quality targets.
- The role of the patient ombudsman as a focal point for patient complaints has been expanded.
- Increased attention is being paid to the elderly and to disease management, particularly with regard to diabetes, cardiac disease and asthma; in the case of diabetes, some of the health plans have already documented significant improvements in processes and outcomes.
- The introduction of an extensive system of quality measures in community care has increased the workload of PCPs and focused their attention on achieving high scores in terms of those measures.

At the 2001 annual meeting of the health care system leadership – the Dead Sea Conference – various primary care experts pointed out that policy within the health establishment is still predominantly controlled by hospital-based physicians. They contend that this is the case within both the Ministry of Health and the IMA, despite the increasing number of academic family physicians in leadership positions, thus limiting the ability to make serious policy shifts in primary care. Furthermore, medical education is still predominantly hospital based. Internal medicine and obstetrics-gynaecology involve minimal community exposure for undergraduates or residents. Paediatrics has made some inroads by instituting a 6-month elective position in the community and one of the medical schools offers a primary care paediatrics pathway. Finally, it was observed that patients are becoming increasingly demanding with regard to legitimate patients' rights and services, including treatments and medication(s) that are not called for medically.

A 2008 symposium on primary care, organized by Maccabi Health Services, raised a number of methods to improve primary care, including: using 'phone and e-mail to enable patients to contact their PCPs outside of regular working hours; encouraging selected PCPs to become the experts within their clinics on particular conditions (for example, back pain) or age groups (for example, adolescents); moving a greater portion of residency training into the community; assigning more administrative and routine monitoring tasks to non-physicians; linking compensation to the extent to which the PCP handles a broad range of conditions her/himself instead of referring patients to specialists.

6.3 Secondary and tertiary care

Board-certified specialists

In 2005 Israel had approximately 17 200 board-certified specialists, 13 900 of whom were below the age of 65.[57] As in other countries, the proportion of specialists among all licensed Israeli physicians below the age of 65 years is increasing rapidly, reaching 55% by 2005. Of course, not all board-certified specialists engage in secondary care. In 2005, among board-certified specialists up to the age of 65 years, there were almost 1200 family physicians working exclusively as PCPs, as well as approximately 2100 internists and 1700 paediatricians, many of whom work at least part time as PCPs. There are no definitive figures on the number of Israeli physicians engaged in secondary care.

The locus of specialist care

While all Israeli hospitals operate outpatient clinics, most specialized ambulatory care has traditionally been provided in community-based settings. In the 1990s there was a further shift in the locus of specialist care from the hospital to the community. Indeed, whereas in 1993, 23% of visits to specialists took place in hospitals, this figure had declined to 12% by 1996/1997, and the comparable figure for 2004 was 11%. There are several reasons for this shift. First, the health plans felt that they often lost control of treatment plans and expenditure when their patients were cared for at hospital outpatient clinics. Second, the health plans were able to provide and/or purchase community-based specialty care at costs well below those of the hospitals. Finally, various technological innovations and cultural changes facilitated the shift from the hospital to the community setting.[58]

In recent years, many of the hospitals have made a special effort to try to attract activity to their outpatient departments. The prices for hospital ambulatory services have been substantially reduced, and there have been cases where hospitals, in negotiating overall contracts with health plans, have proposed to provide these services free of charge as part of an overall package.

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[57] In some of the statistics that follow it is assumed that physicians over the age of 65 years – the legal retirement age – have stopped practising, although of course this is not universally true.

[58] There has also been a shift in the locus of emergency services. The health plans have developed community-based emergency centres as well as emergency home visit services as alternatives to hospital EDs (Taragin, Milman & Greenstein 2000; Greenstein and Taragin 2001).

The expansion of community-based specialist care involves facilities owned and operated by both the health plans and independents, from whom they purchase services. In many cases hospital-based specialists work part time in community settings in order to supplement their incomes, raising both hopes and concerns. The hopes are that hospital–community communication, continuity of care, the quality of community-based specialist care and health care system efficiency will be enhanced. The concern is that physicians working in both settings may not be putting enough hours into their hospital jobs and may lack a sense of institutional loyalty to either of their employers.

A 2001 survey (Nirel, Shirom & Ismail 2004) explored the work patterns of specialists in six areas of specialization: ophthalmology; dermatology; ENT; gynaecology; cardiology; and general surgery. The findings revealed that 84% of all specialists work in more than one job, and approximately 90% of hospital specialists work in more than one job. More than 40% of the specialists work in three or more workplaces. The findings also revealed that physicians worked 63 hours per week on average, including on-call duty.

Nearly all the specialists interviewed (98%) were employed by a public employer. More than half of the specialist physicians work primarily in hospitals (55%); and the rest in specialty medicine for the health plans, whether as salaried workers within the plan (27%), or as IPs providing services to health plan members (16%).

The nature of community-based specialist care

All of the health plans work with a mix of employed and independent community-based specialists. In Clalit, most of the specialists are employees who work in facilities owned and operated by the health plan, although the plan also works with independent specialists. Conversely, in the other health plans the majority of the specialists are independent individuals working in their own facilities, but the plans also use some employed and independent specialists in plan-owned facilities.

Cooperation and communication between community-based specialists and primary care physicians are reasonably good. More cooperation and communication problems occur between the hospitals and the health plans. The hospitals are unhappy with the health plans' efforts to shift more care to community settings and to increase monitoring and control. The health plans do not like what they perceive as hospitals' tendencies towards over-treating patients, repeating tests already carried out in the community and not providing the health plans with full and up-to-date information in real time on the care of their members.

Not surprisingly, specialists tend to be concentrated in urban areas. This can result in inconvenience and access problems for people living at the periphery and in small villages, although distance does not prevent most residents from visiting specialists. Waiting times for specialists also appear to be reasonable. In 1999, among people who visited a specialist in the preceding three months, 50% reported waiting less than a week, 20% waited 1–2 weeks and 30% waited more than 2 weeks. Over 80% of respondents reported being able to choose to visit a particular specialist physician (Gross & Brammli-Greenberg 2001).

Rates of visits to specialist physicians are substantially lower among Israeli Arabs than among Israeli Jews. This finding is particularly significant in light of the fact that visit rates to PCPs and hospitalization rates are higher among Arabs than Jews. The reasons for the large gap in specialist visit rates are not fully understood. A key factor appears to be the time and inconvenience involved in travelling from many Arab villages to urban centres, particularly for mothers of large families and people who do not own cars. Another factor may be the shortage of Arabic-speaking specialists. A third factor may be a greater tendency among Jews than Arabs to insist on being seen by a specialist rather than a PCP, a factor which may in turn be linked to differences in educational and socioeconomic levels, as well as urban–rural differences.

Nirel (2008) found that a community-based specialist sees an average of 34 patients per work day. The number of patients whom specialists see per day raises the issue of how much time and attention they are able to devote to their patients. In this context, the time that physicians allocate to their patient appointments was examined. According to the results of the study, specialists allocate an average of 13 minutes to an appointment.

In that same study, 80% of specialists reported that their patients exercised freedom of choice in selecting a specialist physician, and that the physicians were chosen by their patients and not referred by the health plan.

Hospitals

Almost all the specialists working in Israeli hospitals are salaried employees of those hospitals. This is similar to the situation that prevails in most European countries, in contrast with the North American system of independent attending physicians. Only the few private hospitals have implemented the independent attending physician model.

Department heads play a dominant role in Israeli hospitals. They have a major say in the selection of the specialists who will work with them and the tasks they will be assigned.

Generally speaking, patients in Israeli hospitals cannot select which specialist will care for them. They are assigned a physician according to the rotation schedule determined by the department head and her/his assistants. The exception is the Private Medical Service in Jerusalem's non-profit-making hospitals where, in return for an additional fee, the patient can choose her/his physician.

As indicated in Chapter 5 *Physical and human resources*, Israel is projecting an overall physician shortage and, according to the Director-General of the Ministry of Health, there are already shortages in certain hospital-based specialties, such as anaesthesiology, intensive care and neonatology. The shortages are particularly acute in hospitals in peripheral regions.

6.4 Emergency care[59]

Israel has a system of emergency care delivery that arises from its civilian needs and its national disaster preparedness needs.

The country's civilian needs are addressed primarily from fixed locations: hospital-based EDs, independent urgent care centres, and evening care centres sponsored by the health plans. Israel's pre-hospital point-of-care service is delivered by official ambulance carriers and private carriers. Home care services, including medical, nursing and physiotherapy, are delivered by visiting health care professionals, some of whom work in conjunction with the health plans, while others work privately.

Israel's activities relating to disaster planning (or disaster training/care) are supervised by the National Emergency Committee. Training to deal with disasters, and research into the community impact of natural and man-made disasters is performed by the IDF Home Front Command. The training function is carried out in coordination with Israel's official ambulance service, the general hospitals and army medical units.

The nature of medical care

EDs deliver the full range of services customary in similar European departments; advanced cardiac and trauma care, as well as paediatric, orthopaedic, gynaecologic and general medical care. They also compete with the stand-alone urgent care centres in the care of ambulatory patients with

[59] This section was written by David Kreiger.

less severe medical problems. Psychiatric emergency care is delivered both in general EDs and in psychiatric hospitals at intake/emergency centres.

Urgent care centres (approximately 15 nationally) deliver primary care and have Advanced Life Support (ALS) capabilities to sustain life until transfer to an ED is accomplished. One of the leading providers, which operates several such centres, also delivers intermediate care, such as fluid resuscitation. In some cases, the centres are supported by basic radiology services and laboratory back-up.

The health plan-affiliated evening care centres are spread throughout all major population centres in the country and they tend to treat less severe cases.

The MDA delivers ALS and Basic Life Support (BLS) services, including cardiac and trauma care, as does the independent non-profit-making Red Crescent ambulance service. There are also private profit-making ambulance services, including some who sell yearly subscriptions; they deliver ALS and cardiac/medical services, but not trauma care. One of them also has a well-developed telemedicine programme to treat its patients from home and another offers private, fee-for-service home care. Other private ambulance services cater to specific sectors of the Israeli population (for example, the ultra-religious) and usually limit their level of care to BLS services.

The disaster aspect of care is two-fold: the planning section (the National Emergency Committee) and the IDF Home Front Command, with the affiliated ambulance and ED branches offering the full gamut of BLS and ALS services.

Affiliation and manpower issues

Hospital-based emergency care is delivered in EDs of hospitals; six hospitals have received the designation of national trauma centres. The EDs are staffed by physicians and nurses. The physician component includes certified ED physicians, physicians engaged in two years of post-residency ED training, GPs and temporary "on loan" representatives of various departments (orthopaedics, paediatrics, surgery and so on). The ED nursing staff are dedicated exclusively to emergency care. Some of the nurses have obtained six months' training in advanced emergency care.

Urgent care centres (private) and health plan night care centres are staffed by emergency and family medicine-trained physicians, physicians with some postgraduate training and by post-intern practitioners (some awaiting their specialty training). The nurses are licensed RNs. Urgent care centres often deliver X-ray, laboratory and specialty medical services as well (for example, Terem in Jerusalem).

Ambulance services are staffed by paramedics, Emergency Medical Technicians, physicians and volunteers. They offer a variety of services; see Chapter 3 *Health care financing and expenditure* for further details.

The Supreme Health Authority, established by the Emergency National Council, is composed of government staff, IDF (Home Front Command), MDA and hospital representatives.

Reimbursement issues

Employees of the EDs are in the employ of their respective hospitals. The hospitals receive payment for the services delivered either from the health plans or from the consumer as a private payment.

Urgent care centres are private enterprises. They often have special billing agreements in association with the major health plans. The evening care services of the health plans are staffed and paid for by the health plans themselves, with a small additional charge falling upon members availing themselves of these services.

Ambulance reimbursement in the MDA is carried out by the health plan, the local authorities and the individual using the service. The private ambulance services offer their services to pre-paid registered members, and have their medical information on computer databases.

Disaster care is covered for the most part by governmental agencies. Some of the committee work is carried out on a volunteer basis.

Training programmes

Emergency Medicine is recognized as a sub-specialty, requiring two and a half years of training after an initial residency period. The RNs specializing in emergency care must complete a 6-month training programme.

Physicians working in urgent care centres are a mixed group, some having completed specialty training but the majority without a completed residency period. Nursing staff usually undertake onsite training.

Paramedics have a number of possible training programme options, the longest standing of which is a 15-month course run by the MDA. There is a university-based programme conferring a BA after three years at Ben Gurion University. A special programme added to the 4-year nursing course exists in Assaf Harofe Hospital (Hebrew University affiliated) and the IDF has a training programme to provide front-line paramedic care in place of physicians.

Disaster drills are held regularly, typically on a regional basis. They include components of chemical, biological and conventional mass casualty situations.

All paramedic training, army physician training, and emergency centre training programmes contain the essential elements of disaster protocol and organization according to how this relates to their individual function(s).

Advanced (Master's level) disaster programmes are to be available as of November 2008 across three sites:

1. Haifa University – a programme with an emphasis on geographic aspects of disaster planning;
2. Tel Aviv University – a programme emphasizing the logistical support aspects of disaster preparation;
3. Ben Gurion University – a programme dealing with medical/psychological response to disaster planning and care implementation, with an emphasis on research.

International cooperation

The IDF has emergency rescue teams dispatched to sites of natural disasters around the world (for example, Asia – tsunami, Turkey – earthquake, and so on).

A joint programme between Ben Gurion University and the Jordanian Red Crescent Society to train paramedics is scheduled to open in 2009.

One of the private ambulance services (Shahal) is an international corporation which develops and shares technology and research with its affiliates in Germany and the United States.

6.5 Pharmaceutical care[60]

Israelis have access to a secure, safe and stable supply of a wide range of pharmaceuticals. In 2005 pharmaceutical expenditure in Israel accounted for approximately 20% of total health plan expenditure as well as 20% of total household spending on health care (Bin Nun & Kaidar 2007).

Israel has a large, successful and growing pharmaceutical industry. The major companies include several that are traded on the New York Stock Exchange, most notably Teva, the world's leading generics company. Although there are many new biotechnology research and development (R&D) companies, it is important to keep in mind that most manufacturing companies focus primarily on generic pharmaceuticals. The vast majority of patented medications dispensed

[60] This section was prepared in consultation with Segev Shani, Tal Morgenstin, Jacques Baer, Philip Sax, David Chinitz, Avi Israeli and Miri Siebzehner.

in Israel are imported from abroad or are produced in Israel under licence from foreign pharmaceutical companies. Imports account for approximately half to two-thirds of the total market in terms of sales.

The Government plays several key roles in the pharmaceutical sector, including approving pharmaceuticals for sale, establishing the NHI formulary of pharmaceuticals that all health plans must make available to members, setting maximum prices, licensing pharmacists and regulating the pharmaceutical market. The Pharmaceutical Administration is the regulatory agency overseeing the pharmaceuticals market. There are more than 4000 products approved as medications.

Although advertising of non-prescription pharmaceuticals is allowed, direct-to-consumer advertising of prescription pharmaceuticals is prohibited. Patient information brochures are permitted for distribution by the prescribers, provided they meet the strict criteria defined by the Ministry of Health guidelines. Besides commercial homeopathic preparations, no complementary medicine products are regulated. Mail order or remote ordering (including Internet procurement) are permitted, according to defined guidelines.

Under NHI, health plan members must make a co-payment for pharmaceuticals (see Chapter 3 *Health care financing and expenditure*). Most community-based pharmaceutical use is provided under NHI and is therefore financed primarily by the health plans and secondarily through co-payments. In addition, individuals purchase pharmaceuticals without contributions from their health plans, especially for OTC medication(s). Individuals cover the full cost of prescribed medications that are not in the NHI formulary and all prescriptions by private physicians.

The Ministry of Health establishes maximum prices for all pharmaceuticals approved for sale. These prices serve as ceilings only and are relevant primarily in the case of private purchases by individuals. All the health plans negotiate substantial discounts with manufacturers and importers, which are applied in every type of pharmacy. Various efforts are under way to promote the use of generic medications and the use of lower-cost pharmaceuticals in particular. For example, the health plans highlight these types of medications in various circulars or lists of recommended pharmaceuticals and, in some cases, very expensive patented alternatives can be prescribed, provided special permission is obtained from the management of the health plans.

Many of the health plans' clinical protocols developed to reduce costs and improve the quality of care are related to pharmaceutical use. Some health plans monitor the prescribing behaviour of individual physicians and groups, by specialty, sending them periodic feedback regarding their prescribing pattern compared with others in the same specialty. Frequent updates regarding

suggested prescribing are sent out from the health plans' central offices, based on computerized systems, to register the health plans' prescribing preferences. There are no formal or automatic financial penalties for physicians who overprescribe. The management may contact them to discuss their prescribing patterns, giving them an opportunity to explain, and to exhort them to be more careful in future.

As in other countries, the vast majority of pharmaceuticals are dispensed in community settings, as opposed to hospitals. There are approximately 1300 pharmacies in Israel: 40% are operated by health plans (usually in clinics owned by the health plans) or hospitals; 45% are private (independent) pharmacies; and 15% are part of large chain pharmacies.

All four health plans have community pharmacies of their own, but they also have arrangements with the pharmacy chains and independent pharmacists to bill them for pharmaceuticals dispensed to their members. The role of health plan pharmacies is most pronounced in Clalit. Recently, independent pharmacies have been closing while the pharmacy chains have been intensively growing, and the system is in the end stages of stabilizing itself.

In 2005 Israel had approximately 4800 licensed pharmacists under the age of 65, or 0.68 per 1000 population, up from 0.50 in 1990. Just over half of the pharmacists (57%) are women. Approximately half of the pharmacists were born outside of Israel and half of them had studied pharmacy outside Israel.

Most pharmacists are salaried employees. In health plan pharmacies they sometimes receive bonuses, which can be tied to sales volume and measured in revenue or according to the number of prescriptions.

Pharmaceutical services also play a significant role in hospitals. The main services provided by hospital pharmacies consist of pharmaceutical preparations and inventory management. Israeli hospitals are a major locus of large, multi-site international clinical trials. This is believed to be due to the high level of medical care provided and the reputation for careful adherence to study protocols.

Israelis are generally perceived to be eager consumers of medication(s). Physicians often feel pressured to conclude a visit by writing a prescription and there is substantial public pressure to keep adding new medications to the NHI benefits package.

In recent years, the pharmaceutical market has undergone several important changes, including:

- efforts to speed up the licensing process for new pharmaceuticals;
- growth of the pharmacy chains;
- increased efforts to encourage the use of generic pharmaceuticals, including generic substitution by pharmacists;

- efforts to make more pharmaceuticals available on an OTC basis – general sale list (GSL) status approved, as well as the possibility to sell pharmaceuticals in other businesses besides pharmacies;
- establishment of a priority-setting process for determining which new pharmaceuticals and other technologies should be added to the NHI benefits package (see Chapter 3 *Health care financing and expenditure*);
- repeal of the law requiring that no pharmacy may be established within 500 metres of an existing pharmacy;
- a change from setting maximum prices as a percentage mark-up over the importer's "free on board" price to reference pricing (the "Dutch model"), in which a maximum price is set as the average price for pharmacies of the medicine in seven European countries (Germany, Belgium, France, the United Kingdom, Spain, Portugal and Hungary);
- a change in Ministry of Health regulations, to allow parallel imports (1999).

This last item is the most controversial: until 1999, Ministry of Health regulations stipulated that a pharmaceutical could only be imported by the marketing authorization holder (MAH) that initially arranged for the pharmaceutical to be approved for distribution in Israel – that is, a subsidiary or agent of the manufacturer. This exclusivity arrangement conferred substantial monopoly power on the MAH, which used it to advance the objectives and pricing policies of the manufacturer. In an effort to increase competition and reduce prices, the Knesset approved a change in these regulations in 1999, introduced into law by the Ministry of Health in 2000. The new regulations permit various non-profit-making organizations, particularly the health plans and recognized pharmaceutical traders, to import licensed pharmaceuticals from developed countries without approval from the manufacturer or its agent.

The change was vigorously opposed by the large multinational pharmaceutical companies, their agents and subsidiaries in Israel, and Pharma, the association for research-based pharmaceutical companies. They argued that parallel importation violates patent rights and international trade agreements, and that there are health risks since some of the medications might be counterfeit or damaged. The battle against parallel imports was waged on two main fronts; legal and diplomatic. On the legal front, the multinationals brought a suit, eventually taking the case as far as the Supreme Court of Israel. On the diplomatic front, the office of the United States Trade Representative and other organs of the United States Government brought heavy pressure to bear on the Israeli Government to disallow parallel imports.

Israel actually began to engage in parallel importation at the beginning of 2001. In mid-2001 the Supreme Court upheld the legality of parallel imports, rejecting claims that it constituted a patent infringement or that it posed health

risks, since Israel would be importing only from industrialized countries. Practically, parallel import was used as a tactical tool to improve the health plans' status in negotiating pharmaceutical prices with manufacturers/importers and, after the first year, almost no parallel importation actually took place.

With this in mind, it should be noted that the Israeli Patent Law was amended to include a Bolar provision[61] in 1998 and, a few years later, marketing exclusivity of five years' duration was granted for innovative products, in order to ensure a level of balance between the two industries (generic versus innovative).

6.6 Rehabilitation[62]

Rehabilitation is included in the NHI benefits package and responsibility for its provision therefore lies with the health plans. All rehabilitation services, whether provided in the hospital or in the community, incur a co-payment. The co-payment for inpatient services is approximately NIS 100 (€20) per day at the time of writing, and for community clinics it is approximately NIS 30 (€6) for each quarter. Outpatient services include clinics for child development and rehabilitation, and clinics for general rehabilitation. Ambulatory rehabilitation services are provided in special community facilities of the health plans.

At the end of 2006 there were 987 rehabilitation beds in Israel. Of these, 37% were in two rehabilitation centres, 35% in ten rehabilitation wards in general hospitals, 28% in six geriatric rehabilitation centres, and 25% for individuals who were comatose for an extended period of time. Approximately one-third (31%) of the beds were for neurological rehabilitation, 18% for general rehabilitation, 25% for people comatose for an extended period, 13% for children and 13% for orthopaedic rehabilitation.

Approximately one-third of these beds were owned by the Government and one-third by two health plans, while a few of the beds were either publicly or privately owned. The general rehabilitation bed rate at the end of 2006 was 0.14 per 1000, compared to 0.10 per 1000 in the year 2000. Most of the growth is attributable to beds for people who were comatose for an extended period of time. Most of the beds are concentrated in the central region of the

[61] A "Bolar provision" permits the manufacturers of generic medicines to use the technology of a patented pharmaceutical to perform work that would assist in the marketing or regulatory approval of the generic product, while the patent remains in force. This then allows the generic producer to manufacture and market their product as soon as the patent expires.

[62] This section was written by Netta Bentur.

country, whereas the rate of general rehabilitation beds is low in the southern and northern regions.

The overall bed occupancy rate in 2006 was similar to previous years, at 82%. Average length of stay was 44 days, and has been stable in that range since the mid-1990s. Stays in chronic disease hospitals are longer, on average, than stays in rehabilitation hospitals (Ministry of Health 2006a).

The four health plans operate rehabilitation clinics within the community, offering physical, occupational and speech therapy. In order to receive care at one of these clinics, a patient must obtain a referral from a family physician or specialist, and this incurs a co-payment. The clinics provide neurological and orthopaedic rehabilitation services, as well as child development services. Most of the clinics contain the latest equipment and are operated by licensed professionals who remain abreast of the changes within their field. To a limited extent, the health plans also provide rehabilitation services in the home, through the medical home care units.

In 2004 there were approximately 7625 rehabilitation professionals in Israel: 95 physicians, specialists in physical medicine and rehabilitation; 3170 physical therapists (0.46 per 1000 population); 2670 occupational therapists (0.39 per 1000); and 1790 speech therapists (0.26 per 1000). Israel has 10 schools for the rehabilitation professions, all of which operate within faculties of medicine and health at the country's four large universities and colleges. Nevertheless, there is a significant shortage of rehabilitation professionals both in hospitals and within the community care setting; the shortage is particularly striking in geriatric rehabilitation services and in psychiatry hospitals.

The Ministry of Health participates in purchasing some rehabilitation equipment and provides a limited number of devices to the population, such as walkers and vision aids, without requiring a co-payment. Yad Sarah, one of the largest non-profit-making organizations in Israel, loans a wide variety of rehabilitation devices to the public, free of charge.

Critical issues facing rehabilitation

One critical issue is the constant shortage and the high turnover of skilled human resources. As in other parts of the world, this stems from the fact that the majority of these rehabilitation professionals are women: some work only part time, some leave after having children and some leave the profession altogether.

The relatively low salary of these skilled professionals is another incentive for leaving the field and/or the public sector. The salary, especially of speech therapists, is low compared to that of other trained professionals in the health

care system, such as nursing personnel or X-ray technicians. Moreover, the high wages paid to rehabilitation professionals in the private sector, where compensation is awarded on a fee-for-service basis, also provide an incentive to leave public sector jobs.

Due to the shortage of human resources, poor physical conditions and other factors, most of the community rehabilitation centres have waiting times of months for treatment. Consequently, rehabilitation centres often have two parallel queues: one for acute cases, consisting primarily of younger people after a road or work accident and traumatic-orthopaedic cases, and the other for chronic patients, consisting primarily of older adults who suffer from back pain or neurological diseases such as a stroke or Parkinson's disease. However, due to the constant pressure on rehabilitation centres, treatment of patients in the latter group is postponed for months or even longer. The main victims of this serious shortage of rehabilitation services in the community are older patients, with chronic conditions. In the absence of appropriate provision, frequency and scope of rehabilitative care, they suffer from disabilities and limitations that could be treated so as to improve their functioning and, in some cases, even to postpone the need for nursing care.

6.7 Social care[63]

The system of health and welfare services for the elderly with disabilities in Israel has been developed enormously since the mid-1980s. In particular, accelerated advancement of the home care and other community services has been carried out, chiefly for the population with disabilities. There have also been developments in institutional facilities, particularly those for elderly individuals with varying levels of disability who are unable to remain at home.

We now describe a few of the major services and highlight some of the challenges related to the provision of care for disabled elderly people.

The vast majority of elderly people live or are cared for at home, with only 4.5% residing in any kind of institutional setting (with less than 3% in a nursing home). Even among the disabled elderly, 78% still live in the community. This is due to the extensive care provided by families and the development of formal services (some quite innovative) intended to reinforce these social constructs and as such to help families cope with the burden of care.

[63] This section was prepared by Jenny Brodsky.

The CLTCI Law

Of the various models available, Israel chose to adopt the social insurance approach to the provision of non-professional home care. In 1980 a 0.2% employee contribution to the NII was levied to create a reserve fund for implementing the CLTCI Law. By 1986, Knesset had completed the enactment of the CLTCI Law, and full implementation began in April 1988. The basic entitlement is for in-kind services, carefully delineated as a "basket of services" closely related to the direct care functions normally provided by families, such as personal care and housekeeping. Benefits may also be used to purchase day care services, laundry services, absorbent undergarments for the incontinent, or an alarm system.

Actual services are provided on the basis of benefit levels, according to the level of disability (equivalent to 10, 16 or 18 hours of home care per week). Eligibility for benefits is dependent on disability and not affected by any informal assistance an elderly person may receive. There is a means test for receiving benefits under the CLTCI Law, but it is set at such a high level relative to the income status of the elderly that the majority of those who meet the clinical requirements are eligible for the entitlement. The less disabled elderly, who are not eligible for such services, may still receive home care services from the social welfare system under a budget-restricted, income-tested programme. This programme, however, provides fewer hours of care.

Home care (personal care and housekeeping services), is provided by semi-professional staff working for certified, licensed agencies. These agencies may be NGOs or profit-making agencies. The choice of service provider is made by a local committee responsible for care planning, in consultation with the client and her/his family.

The first effect of the CLTCI Law was to tremendously increase the resources earmarked for community care. This decision resulted in a more balanced allocation of public resources between institutional and community care. Prior to the Law's implementation, expenditures for community services were limited, representing only 17% of public funds for long-term care. However, by 1994 (four years after the Law's implementation), public funds for community care grew to constitute half of public funding for long-term care. This legislation has had a dramatic effect on health care coverage for disabled elderly people in the community. For example, the proportion of elderly receiving home care increased from 2% prior to implementation of the law to 16–17% of the total elderly population (approximately 120 000 elderly people in 2006) (Brodsky, Shnoor & Be'er 2007).

Day care centres

In addition to some 900 social clubs that provide a framework for activities and facilitate interpersonal contact and socialization for the elderly population that are in good health, a network of day care centres for the disabled elderly has been developed. Day care centres constitute a significant service that contributes to the ability of the disabled elderly to remain in the community. The service also improves the quality of their lives, and releases the family from caregiving duties during the day, freeing them to work and attend to other tasks.

A network of some 180 centres serves approximately 16 000 elderly individuals, comprising just over 2% of the country's elderly population. The number of centres has expanded since the enactment of the CLTCI Law, which also provides entitlement to day care services. Most centres are stand-alone organizations, although some are affiliated with other institutions (sheltered housing, old-age homes and so on). The centres must be licensed by the Ministry of Social Affairs and they usually operate five or six days a week, offering social and recreational activities, personal care, hot meals, transportation, counselling and health promotion. Day care centres in Israel differ from centres in other countries, as they emphasize social rather than medical care, and thus are relatively lower in cost.

Another significant development within the day care centre network has been the establishment of special programmes for the cognitively impaired, including elderly people with Alzheimer's disease and other types of dementia. Recently adopted standards for adult day care in Israel require that all new facilities set aside a special place for cognitively impaired elderly individuals.

Supportive neighbourhoods

One of the most important and innovative developments in community care in recent years has been the supportive neighbourhood programme, designed to emphasize the neighbourhood as a force that provides the elderly with a sense of security and access to services. Elderly people who live in supportive neighbourhoods in cities, towns or rural areas enjoy a "basket" of services that includes:

- a neighbourhood facilitator who ensures their personal safety, as well as the safety and security of their homes, and also provides home repairs;
- an emergency call button;
- a physician/ambulance on call 24 hours a day;
- social activities.

The elderly pay a fee to join the programme, which is subsidized for those with low incomes. At the time of writing, there are more than 200 supportive neighbourhood programmes across Israel, serving some 30 000 elderly people.

In addition to the above-mentioned services, the network of services available to the elderly include:

- social workers – approximately 400 social workers across the country caring for the elderly population in the municipalities, providing consultation, case management, supportive care and so on;
- home repairs and adaptations;
- sheltered workshops;
- medical equipment and devices for functionally disabled people, primarily by Yad Sara Voluntary Organization;
- information and counselling centres;
- voluntary home visits.

Institutional long-term care

While the acute and rehabilitative aspects of care are highly socialized, in terms of institutional long-term care, the Israeli system is more analogous to the American Medicaid programme. Unlike the system in effect in the acute and rehabilitative care sector, long-term institutional care is not covered by the above-mentioned universal mechanism. In addition, patients are categorized according to (one of) five levels of dependency with the institutions, and regulated by two ministries: the Ministry of Health and the Ministry of Social Affairs. As is the case in the American system, those families that are able to purchase care from a licensed long-term institution (whether profit-making or non-profit-making) are expected to do so. However, given the high cost of such care, more than two-thirds of families turn to the Ministry of Health for a subsidy.[64] In addition, co-payments are demanded according to a progressive system. Interestingly, according to the Alimonies Law, which provides for filial responsibility, children in Israel are required to contribute to the cost of institutional care for their parent(s), depending on their economic situation and that of the elderly parent concerned.

[64] This can cover up to the entire cost of care, which is approximately US$ 2500 per month, or €1800.

Issues and challenges

In recent decades, Israel has increased the resources it earmarks for community care and created an infrastructure of community services. This has resulted in a more balanced allocation of public resources between institutional and community care, and a better balance of responsibility between the family and the State. While the solutions are still far from meeting all needs, and families continue to be the primary caregivers, the services provide at least a modicum of care to all elderly people. Moreover, the system implicitly recognizes the value of caregiving, and the Government shares at least some of the burden of caring for the elderly population.

Nevertheless, the significant growth in the number of elderly, mainly through the ageing of the elderly population itself, has led to an astonishing rise in the need for long-term care, and to pressure on the formal system of care. The backdrop to this situation is very complex.

On the one hand, social policies and the welfare state in general are being called into question, in part due to pressure to reduce public expenditure. This provides an impetus to develop home and community services, which are viewed as the best solution in both economic and human terms. "Ageing in place" is perceived as being preferred by the elderly and, in the majority of cases, a less expensive alternative to institutional care. On the other hand, there is increasing pressure on families to care for their elderly relatives precisely when many women (the majority of primary caregivers) are joining the labour force and have less time to devote to the care of elderly relatives.

In this context, it is important to promote and develop legislation and work agreements that facilitate family members to care for and look after their elderly parents and relatives while continuing to fulfil their obligations to their employers and the nuclear family. Such an example in the Israeli context is the Sick Pay (Absence because of Parent's Sickness) scheme, which allows employees to ascribe up to six days of their accumulated annual sick leave to absences due to the illness of their own or their spouse's parents, aged over 65 years. It is important to continue to promote this type of development. Support of informal caregivers should entail the development of a range of intervention activities that reflect the caregivers' needs in various areas, such as information, counselling, acquisition of skills, care management, socio-emotional support, provision of respite options and financial support.

Another policy issue that continues to be a major concern in the system is fragmentation between health and social services, as well as among long-term care services, which leads to wasted personnel and financial resources, and all but precludes the adequate utilization of services. Problems of coordination must be solved at both the policy-making and service provision levels.

6.8 Services for informal caregivers[65]

Informal care refers to the provision of unpaid care, typically by a family member, to an individual who requires help with ADL. Examples of individuals with such needs could be people with dementia, the physically disabled, individuals with learning disabilities, the terminally ill and people with mental health problems.

In Israel, informal care has remained extensive despite the accelerated development of the formal service system, and informal caregivers provide most of the care for the elderly and people with disabilities, as described earlier (Brodsky et al. 2004; Wertman et al. 2005).

The estimated percentage of adults (aged 20 and older) providing informal care is 30%, and among individuals aged 45–64 this percentage reaches 38%. Approximately two-thirds of informal caregivers provide support to a relative aged 60 years or older. Most primary caregivers live with or in proximity to their elderly relative.

Informal caregivers provide assistance in a range of areas, for example (CBS 2008b):

- ADL (such as washing and dressing) – 43% of informal caregivers;
- household management (instrumental activities of daily living (IADL), such as preparing meals and shopping) – 25%;
- errands outside the home (such as going to the bank and post office, purchasing medications, and accompanying the patient to medical treatment settings) – 71%;
- social support – 86%.

A significant percentage (between half and two-thirds, depending on the population) of primary caregivers report feeling burdened. According to various studies, more than two-thirds of caregivers report having physical difficulties (including that caregiving requires too great a physical effort and adversely affects their health). More than two-thirds report that their social and leisure activities have suffered (for example, that caregiving leaves the caregiver little time for her/himself or her/his family). Over 90% of caregivers report emotional stress (for example, that caregiving increases tension in the caregiver's own home, or that the relative's condition worries and upsets the caregiver). Studies have shown that caregiving also has implications for the caregiver's participation in the job market, and for the work of those who are employed. A total of 58% of all caregivers are employed; this percentage increases to more than two-thirds

[65] This section was prepared by Jenny Brodsky.

among caregivers who have not yet reached retirement age. A considerable proportion (19%) of caregivers who are employed report losing working days during the past month (CBS 2006).

In general, there are two ways to alleviate the burden on family caregivers:

1. provide formal services for the elderly and those with disabilities (for example, a home caregiver, a day care centre);
2. provide services to caregivers (such as monetary or emotional support).

Section 6.7 *Social care* provides a description of the main formal services provided to those in need of long-term care. These services aim to enhance the quality of life of the disabled and provide assistance and support to informal caregivers. It is interesting to note that, in the past, the formal, subsidized help provided by public agencies focused on elderly people who had a dysfunctional family or no family at all – these were the only cases in which society felt responsible for the welfare of the elderly. The coverage provided by the service system today is broader, recognizing that the family alone cannot carry the entire burden of care, which has ramifications for society. In fact, assistance to the family is often now official policy, affecting the development of formal services.

The status of informal caregivers in Israel: laws, programmes and policy

The service system sees the family as primary agent of the elderly person's well-being and welfare, and formal services as supplementary. Moreover, in Israel, family members are legally obligated toward their elderly relatives; it is one of the few countries in which the obligation of children toward their elderly parents is anchored in law. Not only is an elderly person entitled to demand subsistence payments from his relatives but also, in principle, government offices may also require families to care for an elderly relative before they agree to supply formal services. As long as the elderly person remains in the community, the Government rarely exercises its right to require his family to care for her/him. However, the Government does demand that families fulfil their legal obligation to finance the residence of an elderly relative in a long-term care institution.

The legal rights of family caregivers centre on finances and employment. Four laws govern caregiving by a relative, as detailed here.

1. An individual is entitled to miss work days because of the illness of a parent or spouse – these are considered "sick days".
2. An individual is entitled to compensation from her/his employer if s/he resigns because of relative's poor health.

3. A tax exemption is granted to individuals who help finance a parent's placement in an institution.
4. An individual is entitled to an income supplement without undergoing an employment test if s/he cares for a sick relative.

Direct support of other kinds for family caregivers is limited. Some local programmes exist, but the national Government has not devised any comprehensive programmes to support family caregivers directly. For example, since no clear guidelines exist, local government is not obligated to offer programmes, and these remain dependent on good will and the availability of a budget. Nevertheless, important initiatives have been taken by several non-profit-making organizations.

6.9 Palliative care[66]

In Israel, palliative and hospice care are available in a number of settings, including acute care hospitals, long-term care institutions, home medical units, home hospices, community-based oncology units and volunteer hospices (Cherny, 1996; Bentur, Resnizky & Shnoor 2005; International Observatory on End of Life Care 2005).

Acute hospitals

There are three hospital-based hospices in Israel – in Jerusalem, Tel Aviv and Haifa – with approximately 76 beds and serving some 1000 patients per year. In addition, in some acute hospitals, palliative consultation services are offered by nurses with training in oncology and palliative care, and/or by physicians who are specialists in anaesthesiology or pain management. However, this service is not significantly visible; the staff of other hospital departments are often unaware that it exists. Consequently, many of those who die in hospitals never receive the palliative care that could ameliorate their suffering at the end of life (Cherny 1996; Cherny 2003; Bentur, Resnizky & Shnoor 2005).

Long-term care institutions

Although a large proportion of the residents of long-term care institutions suffer from multiple symptoms at the end of life, most of these institutions abide by conservative treatment methods, which consist primarily of medication

[66] This section was written by Netta Bentur.

to alleviate pain and other physical symptoms. A few geriatric hospitals and institutions have recently begun implementing the modern hospice approach, by providing psychological and emotional support while treating physical symptoms (Bentur, Resnizky & Shnoor 2005; Bentur 2008).

Home medical care units, and units for continuing medical care and monitoring

Israel's four health plans have approximately 100 units across all of their districts, which provide medical, nursing, and rehabilitative home care. These units treat housebound individuals, many of whom are elderly and/or suffer from a variety of chronic and functional disabilities; however, they do not focus on specific illnesses (Bentur, Resnizky & Shnoor 2005). The units treat approximately 4000 patients per year with metastasized cancer who need palliative care. Some of these patients receive care directly from the staff of the home medical care unit, but most are treated by their family physician and community clinic, who choose to avail themselves of the consultation, guidance and support of the staff of a home care unit. Most of these staff are only available during working hours; although some are on call and can be contacted by telephone until evening, they are not physically available during the evening and at night.

Oncology nurses in the community

Some of the home care units have oncology nurses on their staff, who care for dying patients in the community (always along with the patient's direct caregivers). However, for the most part, these nurses guide other community health care providers in coping with situations that have no simple solution. In all, some 20–30 oncology nurses, who received oncological and/or palliative training in Israel or abroad, work in the community. All of them are available by telephone 24 hours a day, although most of them will not make house calls after working hours, because they are not reimbursed for these. In addition, they play a central role in coordinating hospital and community services, developing and implementing oncology and palliative projects within their district, training medical personnel and overseeing this type of care within their district.

Home hospices

There are seven home hospice units in Israel (Bentur, Resnizky & Shnoor 2005). They are dedicated to serving people who are dying in the community and their families. Four units are implemented by Clalit Health Services, two

are implemented by the hospice departments of large acute hospitals, and one is implemented by an independent association (Shnoor et al. 2007). All of them are funded in several ways, including direct budgets from Clalit Health Services, the sale of services to other health plans and donations from philanthropists. Consequently, there is no steady supply of funds to these units, making their existence precarious, and impeding their ability to expand their activities.

Each unit has a core staff of physicians, nurses and a social worker; most do not have other professionals. The number of staff, primarily the number of physicians and nurses, depends on the number of patients in the unit and arrangements with the health plan. While only a few of the physicians have formal training in palliative care, almost all of the nurses have studied more than a basic level of oncology and/or palliative care in Israel or abroad. Only four units use volunteers.

Each unit has established procedures that govern the number of regular physician and nurse visits (that is, exclusive of emergency house calls). A physician is meant to visit each patient once a week, a nurse between once a week – in most units – and twice a week in others, and a social worker between once a week and once every two weeks. Unit staff are usually available 24 hours a day, in person and by telephone, although the arrangements for this differ among the units. Usually, a community clinic is also involved to some extent in treating the unit's patients; one unit has made this a condition of admission.

The smallest unit treats 19 patients and the largest treats approximately 60 patients; at any given time, some 240 terminally ill patients may be receiving treatment from home hospice units around the country. In 2003, the home hospice units together treated some 1000 patients, most of whom suffered from metastasized cancer. Since some 12 000 people die of cancer in Israel every year, one can calculate that only approximately 8% of them receive hospice services in the community during the final stages of life (Bentur, Resnizky & Shnoor 2005).

Volunteer hospices

In Israel, there are two volunteer home hospices, in Kiryat Tivon and Arad, which are staffed only by volunteers; they were established by people dedicated to the hospice approach, who recruited additional volunteers. These hospices primarily provide psychosocial and emotional support, resolve problems, and coordinate services; medical and nursing care remain the province of the health services, primarily community clinics, home care units, and oncology departments. Each hospice is staffed by approximately 20 volunteers, who are assisted by municipal community services (Bentur, Resnizky & Shnoor 2005).

6.10 Mental health care[67]

Providers and financing[68]

In 2005 Israel had approximately 5350 psychiatric beds – 1.07 beds per 1000 population over the age of 15 years. Only 7% of those psychiatric beds were in general hospitals; 93% were in psychiatric hospitals (Nahon 2006; Haklai et al. 2006). The proportion of psychiatric beds in general hospitals is lower than in most Western countries, but as in other countries the trend is for a higher proportion of the beds to be located in general hospitals.

The psychiatric hospital network comprises 16 psychiatric hospitals, of which 8 are government owned, 4 are privately owned, 2 are owned by health plans, and 2 are owned by other non-profit-making organizations. In addition, there are 12 psychiatric departments in general hospitals and one in the prison system. The government and health plan psychiatric hospitals treat a mix of long-term and short-term patients, while the private psychiatric hospitals treat long-term patients almost exclusively. Many of the private hospitals are small to medium in size and there are plans to close some of them in the coming years. In 2005, government hospitals accounted for 70% of the beds, 67% of the patient days and 82% of the admissions (Haklai et al. 2006). The Ministry of Health finances care in government hospitals, private hospitals and psychiatric departments in general hospitals.

In the community there are a large number of private, independent mental health practitioners and, as of 2003, there were 114 public mental health clinics.[69] Over half of them (64) were operated by the Ministry of Health and provide services free of charge, while 36 belonged to Clalit. The remainder were operated by other non-profit-making agencies. Nongovernmental outpatient services are not government financed, instead relying on fee-for-service payments and health plan funding.

The Israeli component of the World Mental Health Survey (2003–2004) found that the prevalence of common psychiatric disorders and the rate of care seeking are within the ranges found in other developed countries. Still, only half the respondents who met the criteria for a psychiatric disorder actually sought care for that disorder (Levinson et al. 2007b).

In a 2007 MJB survey of the general population (Gross & Brammli-Greenberg, forthcoming), 25% of respondents indicated that they had

[67] This section was prepared with the assistance of Naomi Struch, Israel Sykes, Daniella Nahan, Baruch Levi and Yehuda Baruch.

[68] This section draws heavily on Ministry of Health 2002.

[69] These figures include outpatient clinics in psychiatric hospitals.

experienced mental distress over the past year that was difficult to cope with alone. From among that group, a quarter did not seek any assistance, a third sought assistance from informal sources (such as friends and family members), and approximately 45% sought assistance from professionals. Over half of those who sought assistance from professionals did so within the framework of their health plans: 44% turned to their PCPs and 12% sought help from health plan-affiliated mental health specialists.

The Mental Patients' Treatment Act 1991 empowers the district psychiatrists employed by the Ministry of Health to order compulsory psychiatric examination or psychiatric inpatient and outpatient care. In 2005 approximately a quarter of new psychiatric hospitalizations were compulsory. There are various efforts under way to reduce the powers of the district psychiatrists – for example, by transferring more of the powers to the courts.

In 1990 the Ministry of Health created a Unit for Addictions Treatment within the Mental Health Services Division in order to have an effectively organized administrative system to respond to the complex needs of addiction treatment. In 2003 Israel had four ambulatory treatment centres for addiction, with a total capacity of 1300 patients. Some of the centres that had existed in the past were transformed into drug substitute care centres. Israel also had 10 methadone maintenance centres and 3 mobile methadone maintenance units – which together cared for 1900 opiate addicts in the year 2000 – along with 7 inpatient care units for drug addicts, with a total of approximately 86 beds. While services for people with addictions are much more widely available than they were in the mid-1990s, they are increasingly recognized as falling far short of need. The Ministry of Health has targeted this area as a priority for expansion.

It has only recently been recognized that there is a need to develop services for people suffering from both mental illness and substance abuse. These people have traditionally been passed back and forth between psychiatric and addiction treatment centres, being treated properly in neither. At the time of writing there are several new programmes targeted at this component of the population, but these too, fall far short of need.

Recent changes in infrastructure and utilization

Since the early 1990s, the mental health care system has undergone several significant changes. Consistent with international trends, the supply of psychiatric beds dropped from 2.13 per 1000 population aged 15 years and over in 1990 to 1.07 per 1000 in 2005. There has also been a dramatic reduction in the utilization of psychiatric hospitals. Following a rapid decline during the 1990s, inpatient care days per 1000 population fell from 723 in 1990 to 285 in

2005 (Ministry of Health 2006a). There has also been a shift in the composition of psychiatric hospitalizations, from long-term to short-term admissions and day care.

During the same period there was an expansion of community-based mental health services, including both public mental health clinics and rehabilitation services involving hostels, independent housing, social clubs and others. In 2005 approximately 12 200 people used these services. Some have argued that this expansion of community-based services has been one of the factors that permitted the reduction of inpatient volume, while others dispute it (Aviram & Rosenne 1998). There was also a deliberate government policy of closing psychiatric beds in order to reduce costs. Advances in the psycho-pharmaceutical domain may also have played a role. In any case, it is generally believed that while the community-based service network has expanded, it continues to fall short of need.

Rehabilitation has been given a significant push recently, with the passing of the Community-Based Rehabilitation of the Mentally Disabled[70] Act in 2000 and a subsequent increase in government funding. The Law grants people with psychiatric illnesses the entitlement to a range of rehabilitation services, including appropriate housing in the community, supported employment, leisure time activities, supplementary education, dental care, family support and case management. Entitlement to specific services is determined on a case-by-case basis by a regional committee. Individuals use this entitlement to receive services operated by profit-making and non-profit-making organizations in their area and are financed by the Ministry of Health.

Financing from the Ministry of Health has led, since 2006, to a rapid expansion of a range of rehabilitation services within the community. However, at the time of writing these services are available to only approximately 10% of the population. In addition, some of the services being developed have, to a large extent, targeted people who were previously in hospital, for whom rehabilitation services are being expanded as a more cost-effective form of care than long-term hospitalization. The vast majority of individuals with psychiatric illnesses live in the community, often imposing a severe burden on families (see Section 6.8 *Services for informal caregivers*). Rehabilitation services are difficult to obtain for these people.

In addition to financing on the basis of individual entitlement, the 2000 Community-Based Rehabilitation of the Mentally Disabled Act called for the establishment of two services to be directly funded by the Ministry of Health: a national mental health information centre and regional family support centres.

[70] The phrase “mental disability” is still used extensively in legislation and public debate, despite the fact that its use is believed by some to be contrary to recent trends not to stigmatize mental health problems.

The mental health care system is in the midst of a major reform effort, described in more detail in Chapter 7 *Health care reforms*.

6.11 Dental care[71]

Dental care is not included in the NHI benefits package, except for maxillo-facial surgery in trauma and oncological cases, and dental care for oncology patients. The Netanyahu Commission recommended that services provided under the NHI include maintenance and preventive dental care for children aged 5–18 years, and maintenance and rehabilitative dental care for elderly people, but these were not included in the NHI Law. Serious concerns therefore remain regarding access to care, particularly for vulnerable populations.

In 2004 dental care expenditure accounted for 8.6% of total health expenditure (CBS 2008a), almost all of it in the form of direct out-of-pocket payments. Approximately 10% of the population have VHI from commercial insurers covering dental care (see Chapter 3 *Health care financing and expenditure*). A further 70% have VHI from their health plans, which provides discounts for a very limited set of dental services. In 1999 the average household spent NIS 126 (€25) per month on dental care and NIS 7 (under €2) per month on VHI from commercial insurers covering dental care. These figures accounted for 16% and 1% of household spending on health, including the health tax, respectively. Among households in the lowest income quintile, average spending on dental care was only NIS 86 (approximately €17) per month, 40% below the national average, and spending on dental VHI was negligible, despite the greater-than-average prevalence of dental problems in this group.

A 1998 national survey of the adult population (Berg, Horev & Zusman 2001; Horev, Berg-Warman & Zusman 2004) found significant problems in dental health status and in preventive health behaviour, such as regular check-ups and brushing. In most areas examined, there were significant gaps among various population groups regarding awareness of, and attitudes toward, dental care, preventive behaviour, the frequency of visits to a dentist and self-perceived morbidity. The survey shows that particularly vulnerable populations include people with low incomes and Russian and Arabic speakers. In addition, the study confirmed widespread concerns that cost considerations have led many low-income people to forego medically necessary treatment.

[71] This section was prepared in collaboration with Shlomo P. Zusman. It draws heavily on Kelman 1998, as well as Berg, Horev & Zusman 2001.

In 2002, a national survey among 12-year-olds showed improvement in dental health, with an average decayed/missing/filled teeth (DMFT) level of 1.66 compared to 2.99 in a similar survey in 1989. Moreover, 46% of 12-year-olds were caries free (ICDC 2008a).

Until the mid-1990s almost all the dental care in Israel was provided by independent private dentists. Since then there has been substantial growth in commercial dental chains and the health plans have also become increasingly involved in the provision of dental care, for which they are paid either through out-of-pocket or VHI payments. In 2007, independent private dentists accounted for approximately two-thirds of dental care provision, while the health plans accounted for 9% and commercial chains accounted for 20%.

The Government also plays an important role in the provision of dental services. The Ministry of Health provides financing to local authorities offering oral preventive services and treatment services for children and low-income individuals. Only 25% of municipalities offer school dental services (Machnes & Carmeli 2008), which are financed in part by the municipality, aside from the Ministry of Health grants mentioned earlier and in addition to part funding by parents. The Ministry of Social Welfare also runs clinics for disabled people and subsidizes dental care costs for indigent people.

Licensing of dentists is the responsibility of the Ministry of Health. In 2004 Israel had 9098 licensed dentists, for a dentist-to-population ratio of 1.34 per 1000 population – among the highest in the world.[72] This was also significantly (64%) higher than 1989 ratio of 0.94, primarily due to the immigration of over 1200 dentists from FSU countries in the early 1990s. There are also 3443 licensed dental technicians, 5246 dental surgery assistants and 1001 registered dental hygienists, whose tasks are centred around dental health education and prevention of dental illnesses.

Another important government role is promoting fluoridation of the water supply. Israel's fluoridation programme began in the late 1970s. In 2007 approximately 65% of the population benefited from having fluoride in the water. Since the regulations were amended in 1998, it is expected that by the end of 2010 most settlements with more then 5000 inhabitants will enjoy the benefits of fluoridated water.

A number of measures are being considered to improve access to dental care. Inclusion of dental treatment for young people aged 0–18 years would be an important step. In addition, consideration is being given to extending dental coverage within the NHI benefits package to the elderly, to ensure access to dental care for those who need it most and can afford it least.

[72] In 1998 Israel was third, after Sweden and Norway.

6.12 Complementary and alternative health care[73]

Major changes in the status and influence of CAM have occurred in Israel since the mid-1990s. These processes are partly similar to those seen in other Western countries. They reflect growing disillusionment with the technology and bureaucracy of biomedicine; increased questioning of its excessive invasiveness; heightened consumer awareness of the iatrogenic effects of modern medicine; growth in the expectation for high-quality service, including structural changes in the physician–patient relationship; and widespread demystification that has led to considerable erosion of confidence in modern medicine (Clavarino & Yates 1995; Rees & Weil 2001).

A 1976 law provides that only those holding a recognized medical licence may practise medicine in Israel. In an official publication the IMA deplores the unscientific and unproved basis of "alternative" [sic] medicine, the absence of acceptable training of its practitioners and its potential dangers to unknowing patients. At the same time it acknowledges the possible usefulness of certain forms of "alternative" medicine (acupuncture, chiropractic, podiatry and so on), provided these are practised by or under the full supervision of a biomedical physician. As for homeopathy and herbal medicine, the IMA states that only licensed physicians are authorized to practise in these fields (IMA 1997).

Despite this formal stance, many physicians in Israel today view certain CAM methods as useful. Research shows that some physicians, nurses, midwives and physiotherapists have studied and actively practise in one or several CAM fields (Shuval & Mizrachi 2004; Shuval 2006; Shuval & Gross 2008). Between 42% and 60% of GPs have reported referring patients to complementary practitioners (Schachter, Weingarten & Kahan 1993; Borkan et al. 1994). The director of CAM at one of the health plans stated that 65–70% of the patients attending CAM clinics are referred by physicians (Smetannikov 1998).

Over 20 forms of CAM are in widespread use in Israel at the time of writing. At the start of the millennium, it was estimated that there were approximately 5500 alternative practitioners in the country – approximately 2500 in full-time and 3000 in part-time practice. Approximately 10 000 individuals are participating in a variety of training programmes at the time of writing; approximately half attend 3–4-year programmes in six large schools, while the remainder attend a variety of short courses. There is evidence of relatively high levels of satisfaction among users of complementary health care practitioners (Chen 1998).

In 1993, 6.1% of the adult population reported consulting with CAM practitioners at least once during the previous year. In 2000, that proportion

[73] This section was prepared by Judith Shuval

increased to 9.8% and in 2007 it was 12.2%. Relatively large increases have been observed in several sociodemographic groups: women, younger people, individuals having 12 or more years of schooling, people with higher economic status and residents of large cities. Between 1993 and 2007, nonconventional medicine in Israel turned from an infant industry into a mainstream health commodity (Shmueli & Shuval 2004; Shmueli & Shuval, recent unpublished data).

On a structural level, the use of CAM gained momentum under the NHI Law, which was passed in 1995. In addition to providing comprehensive health insurance for curative and preventive ambulatory care, as well as hospitalization entitlement for the entire population, the Law sought to reduce costs and encourage competition among the hospitals and among the four health plans. While the mandatory benefits did not include CAM, the context of growing competition spurred health care providers to initiate such services as a cost-effective means of expanding their services and augmenting their income by attracting growing numbers of consumers interested in obtaining CAM services.

As a result, there has been a growth in the establishment of CAM clinics under the auspices of major segments of the publicly supported biomedical system. The first of these was at a government hospital in the Tel Aviv area (Assaf Ha'rofe), where a clinic for complementary medicine was first established in 1991 on the grounds of the hospital within its formal organizational structure. Soon after, similar CAM clinics were established under the auspices of one-third of the public hospitals in Israel and in extensive networks by all four of the health plans in the major urban areas (Shuval & Mizrachi 2004).

These clinics are generally headed by a physician who has also trained in one of the CAM specialties. S/he is responsible for an initial interview with all new patients and their referral to the desired CAM practitioner. A wide range of CAM services are offered by practitioners in the fields of acupuncture, shiatsu, homeopathy, chiropractic, reflexology, Feldenkreis, naturatherapy, herbal medicine, biofeedback, Alexander Technique, aromatherapy, alternative nutrition, and others. Ideally, all of these clinics prefer to employ physicians who have also specialized in one of the CAM fields as care providers, but in reality, this is not possible because physicians do not in fact practise in a large number of CAM fields.

CAM practitioners are generally employed on a part-time basis at the clinics and most of them also maintain their own private clinics elsewhere. None take up posts as hospital or clinic staff, and they work on the basis of ad hoc contracts. Patients pay on a fee-for-service basis; however, since most of the population carries VHI to cover services not included in the universal set of health care entitlements, part of the fee-for-service payment is reimbursable (Gross & Brammli-Greenberg 2003b; Shuval & Mizrachi 2004).

6.13 Health care for specific populations

In Israel, there are two specific population groups that receive care outside of the mainstream health system: military personnel and migrant workers.

Military personnel

Virtually all the health care services provided to soldiers are financed via the budget of the IDF and the Ministry of Defense. See Subsection *Parallel health systems*, with Section 3.4 *Revenue collection/sources of funds* for more information.

Migrant workers

It is estimated that at the end of 2006 Israel had approximately 100 000 legal migrant workers (that is, those with valid work visas) and an additional 80 000 foreign workers living in Israel without such visas. Neither group is included in the NHI system. However, the Foreign Workers Law (2000) requires employers to provide health care insurance for documented migrant workers.

While this means that all documented workers have health insurance (and this is clearly better than the situation in some other countries), the system still has problems and limitations. The scope of services the system is required to provide is somewhat narrower than the services provided to Israeli citizens by the NHI Law. Furthermore, the monitoring of its implementation and of private insurance companies' practices is less stringent. The commercial orientation of private health insurance creates incentives to avoid coverage of medical expenses for insured documented migrant workers on the basis of pre-existing conditions, loss of work ability or non-disclosure of previous medical conditions.

In the case of undocumented migrant workers, a few health services are available including emergency care (according to the Patients' Rights Law), preventive mother and child health services, and treatment of TB and sexually transmitted infections. At the local level, several welfare services have been developed, mainly in the Tel Aviv area, by the municipality and various non-profit-making organizations.

Starting in 2001, by an administrative arrangement, children of migrant workers – irrespective of their parents' legal status – can be registered with one of the health plans (Meuhedet). In practice, few parents choose to enrol their children here; this is partly because of the relatively high premiums compared to their income and partly due to fear of being registered officially and being expelled from the country.

7. Health care reforms

This section reviews eight major reform efforts:

1. The NHI Law
2. The prioritization of new technologies
3. The mental health care reform
4. The effort to transfer the family health centres to the health plans
5. The hospital trusts initiative and other changes in the hospital system
6. The reform of the emergency response system
7. The Patients' Rights Law
8. The reform of the status and pay levels of physicians.

Although there have been other reform initiatives in the health care system in recent years, they are not reviewed here due to the need to limit the scope of this report. Some of these initiatives have been discussed elsewhere in the HiT, including the introduction of a new system for measurement of the clinical quality of care of health plan services (see Subsection *Regulating quality of care*, within Section 4.1 *Regulation*) and the development of national health targets and strategies for achieving them (see Subsection *Health targets*, within Section 4.2 *Planning and health information management*).

It should also be noted that, in addition to the government-initiated major structural reforms of the type reported here, the Israeli health system has benefited greatly from a large number of mid-level evolutionary changes. Many of these were initiated by health plans, hospitals, universities and other nongovernmental actors. In contrast to the government-initiated reforms which

focused on financing issues and the question of who should provide services, these evolutionary changes focused on how services would be delivered.

Before discussing the eight reform efforts, this chapter provides an overview of the Netanyahu Commission, which laid the groundwork for much of the reform activity since 1990. Finally, the chapter presents information on the public commission that was formed in 2000 to examine the overall functioning of the health care system, with special attention to the status of physicians.

7.1 The Netanyahu Commission

Most analysts would agree that the modern history of health care reform in Israel starts with the work of the Netanyahu Commission. Chapter 2 *Organizational structure* described the Commission's antecedents, mandate and modus operandi and very briefly summarized its report. This section provides additional details of how the Commission viewed the problems of the health care system and its recommendations.

The Commission's findings

The Commission highlighted various problems in the Israeli health care system at the end of the 1980s, as discussed in the following subsections.

Inadequacies in the services provided to the public

The public system did not respond to rising expectations and standards of living. There was a lack of sensitivity to patients' privacy, time and freedom of choice of physician. Substantial queues had developed while expensive equipment lay idle. Strikes frequently disrupted the provision of services. Some physicians engaged in "black market medicine" – care provided illegally on a private basis in public facilities.

Constraints on the Ministry of Health

The Commission noted that the health care system was fragmented, with the Ministry of Health sharing a great deal of decision-making power with the Ministry of Finance (which determines its budget) and Clalit, the largest health plan. This fragmentation had hindered the Ministry's ability to establish and implement a clear and consistent national health policy.

In addition, the Ministry was heavily involved in the operation of services – for example, it owns 40% of the hospital beds – which detracted time and

energy from policy-making and monitoring. Serving as both provider and regulator also entailed real and perceived conflicts of interest.

Key Ministry decisions had been influenced by political and other inappropriate considerations. Due to the lack of an overall policy, important topics had not been given the priority they deserved. Prevention and health education had not received adequate resources. Human resources planning, regulation of the proliferation of technology, and quality assurance activities were deficient. Information systems had suffered from many years of neglect. In this policy vacuum, providers and insurers engaged in competition that produced wasteful duplication. Far too much attention was given to enhancing prestige rather than meeting real societal needs.

Vague financing and budgeting procedures

The Ministry of Health's budget was determined by the Ministry of Finance, without a professional analysis of the expanding need for funds in light of population growth and ageing, as well as technological advances. The division of responsibility in the provision of services between the Government and the health plans had not been spelled out in legislation. Government spending on health care services was channelled through a variety of ministries, without sufficient coordination, and the system lacked incentives for increasing efficiency. Finally, health insurance premiums were set in such a way that costs were not taken into account.

Suboptimal organization and lack of managerial tools

The system was overly centralized, especially within the Ministry of Health and Clalit. Wage policy was controlled centrally by the Ministry of Finance, which limited responsiveness to local conditions and institution-specific rewards for increased efficiency. In addition, there were no uniform financial or other reporting requirements. Furthermore, the Commission found that there was a critical shortage of trained managerial personnel and a lack of continuity between hospitals and community providers.

Low levels of employee satisfaction and motivation

Physicians and other professional groups felt that they were underpaid. In addition, health plan hospitals paid their physicians and other employees substantially more than government hospitals for equivalent work. The Commission called for major changes in the organization and financing health services. Some of these focused on the health insurance system, while others

focused on the hospital system; relatively little attention was given to the organization of community-based services.

The Commission's recommendations

The Commission made various recommendations, as detailed in the following subsections.

Legislation for NHI

The report called for swift legislation to introduce NHI, in order to ensure universal health insurance coverage, provide free choice of competing health plans, define a minimum benefits package, set maximum waiting times for service provision, define how the health care system would be financed and provide a legal basis for government regulation of the health plans. The proposed benefits package went beyond those then guaranteed by most of the health plans by including institutional long-term care, psychiatric care, additional preventive services, treatment abroad that could not be carried out in Israel, and dental services for children and, to some extent, elderly people.

Reorganization of the Ministry of Health

The Ministry of Health would relinquish day-to-day operation of government hospitals, instead focusing on planning, policy-making and monitoring, with highly professional units engaged in developing policy on the proliferation of technology, quality assurance, information system development and health care system financing. A separate National Health Authority responsible for regulating the delivery system would be set up to operate though regional health offices (see the following subsection).

Regionalization, decentralization and enhanced competition

Service provision and regulatory functions would be decentralized, primarily on a regional basis. All hospitals, including those of the Government and Clalit, would be run as self-financed non-profit-making entities, with budgetary authority delegated to department heads. The country would be divided into five or six regions, each with an office of the National Health Authority. These regional offices would be responsible for certifying and monitoring the regional (decentralized) health plans, hospitals and other providers, according to policy established by the Ministry of Health. The regional health plans could be decentralized subunits of national health plans, but they would have to be financially independent of their parent organizations. Encouragement would be given to the regional health plans and consumers would have free choice of

health plan. The health plans would be non-profit-making entities and would decide where to hospitalize patients. Hospitals would compete to sign contracts with health plans within their region. Patients would be channelled to hospitals outside their region only in exceptional circumstances – for example, for highly specialized services available only at national centres.

A centralized financing system and capitation payments

The public system should be funded primarily by payroll taxes on employers and employees, to be collected by the NII, with supplementary funding from general tax revenue and other sources. The health plans would no longer be permitted to set premium rates or to collect premiums directly from their members. This would largely disconnect the health care system from politically affiliated labour organizations. Funds from all sources would be channelled into a single pool. A small portion of this general pool of funds would be set aside as a government-controlled reserve that would be used to finance major capital expenditure.

The remaining resources – that is, the bulk of the general pool – would then be distributed among regions according to a capitation formula that would take into account various indicators of need and the extent to which a region lacked basic services and infrastructure. Within each region the funds would be distributed to regional health plans on the basis of a capitation formula that would reflect the characteristics of each health plan's membership. Membership of a regional health plan would be limited to residents of that region and funds received by the health plans could only be spent on providing health care to members in that region.

The introduction of private practice in public hospitals

Private medical services were to be allowed in public hospitals, subject to a series of limitations that would minimize inequity. In return for out-of-pocket payments, the private medical services would allow patients to choose their physician and better accommodation, but would not permit patients to jump queues for treatment. Private providers would still be allowed to operate, but efforts would be made to ensure that they did not flourish at the expense of the public system. Commercial and supplementary VHI would be encouraged.

Financial incentives to increase productivity and equal pay for equal work

A uniform national wage agreement should be established to remove the previous situation in which Clalit hospital physicians earned more than their counterparts for carrying out equivalent work in government hospitals. Wage scales would

be rationalized and most of the distorting wage supplements would be included in the base salaries. The national agreements would enable efficient hospitals to share with employees the savings from increased productivity. Senior managers and professionals would be employed on a personal contract basis.

Information systems and research
The Government, the health plans and providers should all invest heavily in information systems and planning. Among the priority areas mentioned were human resources planning, departmental budgeting systems, capitation formulae for distributing funds to health plans (including regional levels), and quality assurance. Half a percent of the parallel tax collected from employers by the NII would be set aside for general health research. The CSO-MOH would set the policy for the distribution of these research funds.

Implementation

In its summary, the majority report noted that implementation of its recommendation would entail significant legislative and organizational changes. A 4-year timetable for implementation was proposed.

7.2 Introduction of national health insurance

The establishment of NHI sought to address several problems, many of which were highlighted by the Netanyahu Commission, including incomplete insurance coverage, lack of clear delineation of health plan members' rights to services, limitations on free of choice of health plan, cream-skimming by health plans, the development of a two-tier system and the health care system's financial instability.

Prior to the enactment of NHI, approximately 4% of the population – about 200 000 people – were uninsured. Uninsured rates were highest among the Arab population (12%), residents of the northern region (10%) and people aged 15 to 34 (8%). Lack of insurance coverage was probably a significant barrier to access to health care, but even before the introduction of NHI, Israel's insurance problem was relatively small by international standards; in the United States, for example, over 15% of the population are uninsured (Hadley et al. 2008). Moreover, the problem of lack of insurance coverage was probably not the primary factor leading to the establishment of NHI; the uninsured proportion of the population had been stable for over two decades and numerous attempts to pass NHI legislation before 1995 had not succeeded.

One factor that may explain the 1995 success was growing public dissatisfaction with the health care system. There were more and more reports of people in need of serious treatment who could not get it from their health plans in a timely way, despite having paid their health plan premiums on a regular basis for years. The media were filled with stories of people paying privately for expensive treatment and of individuals seeking donations to finance organ transplants, cancer treatment and other expensive care abroad. Health plan members' rights to services were not adequately defined, so that when budgets became tight the health plans were able to use their discretion in deciding which services not to cover.

Another key issue was that not everyone had free choice of health plan in practice. Some of the health plans avoided and even rejected ill, poor or elderly people. A 1993 survey (Rosen et al. 1995) found that 4% of the adult population had been rejected by a health plan during their lifetime, and that another 8% did not try to switch to a health plan they considered better than their current one because they thought they would be rejected. In many low-income areas, Clalit – the health plan owned by the Histadrut (Israel's large national labour federation) – was the only health plan available, resulting in a de facto limitation of choice. Choice was also limited for people employed by Histadrut-owned firms who were required to join the Histadrut and, therefore, Clalit.

Partly as a result of cream-skimming by some of the health plans, the proportion of elderly members varied substantially across the health plans. For example, at the end of 1994 almost 12% of Clalit members were over the age of 65 years, while the comparable percentages for Maccabi and Meuhedet were 6% and 5%, respectively. Similarly, Clalit had a higher proportion of members with chronic illnesses, even within a given age group, and a higher proportion of low-income members.

Clalit was seriously competitively disadvantaged due to the fact that premiums were related to income, even though a health plan's expenses are of necessity a function of the health care needs of its members. For example, in 1992 the amount of money per age-adjusted member that Maccabi was able to spend was almost 30% higher than that which Clalit was able to spend, which led to problems for Clalit and its members. For the members it meant that the needs of elderly and poor people, concentrated in Clalit, could not be met, as well as those of stronger population groups, who were concentrated in the smaller health plans. Moreover, these more vulnerable populations were not always able to switch to other health plans. Young and middle- and upper-class individuals who were courted by the smaller health plans could and did switch, however, and Clalit's market share declined from over 80% in the early 1980s to less than 67% in 1993. In addition, due to its high concentration of low-income members, managerial inefficiency and the fact that the "unified

tax" – the voluntary membership dues alluded to earlier – went to the Histadrut rather than Clalit, by the early 1990s Clalit had accumulated a debt of over NIS 3 billion (approximately US$ 1 billion).[74] As Clalit insured more than two-thirds of the population, its financial instability threatened the stability of the entire health care system.

In the late 1980s and early 1990s concerns regarding financial stability, cream-skimming, growing inequality and the lack of a legal entitlement to a defined benefits package led to growing consensus on the need for major change. In its 1990 report to the Government, the Netanyahu Commission called for the introduction of NHI to address these problems. This recommendation was taken up both by the Likud Government then in power and the Labor Government that succeeded it. After much debate over the type of NHI needed, the Knesset passed the NHI Law in June 1994 and it came into effect in January 1995.

Key components of the NHI Law

The NHI Law of 1994, one of the most ambitious pieces of social legislation of the 1990s, contains numerous provisions – detailed here – each designed to address a different subset of the problems listed in the previous subsection.

- The determination that health care is a right means that there is universal coverage.
- The delineation of a legal entitlement, guaranteed by the Government, to a defined package of benefits is intended to ensure access to needed services and to clarify the obligations of the health plans to their members.
- The institution of a capitation formula is to ensure that the health plans have incentives to compete for elderly and poor people (see the Section 3.5 *Pooling of funds*).
- The collection of premiums by the NII rather than the health plans is meant to ensure that all the funds collected are allocated to health care; to make the premium structure more progressive; to sever the link between Clalit and the Histadrut; to increase the efficiency with which funds are collected; and to make it possible to cross-subsidize the care of members of health plans with weaker populations, using funds collected from those with stronger populations. Under NHI, the health tax collected from the members could be pooled with the parallel tax collected from employers and distributed among the health plans according to the capitation formula.

[74] The average exchange rate for 1993–2004 used is NIS 1 = US$ 0.33507.

- The requirement that health plans must accept all applicants, together with the capitation formula, is meant to eliminate or drastically reduce cream-skimming.
- The Government's commitment to fund health services at a level reflecting the cost of the benefits package means that if the earmarked "health tax" collected from households plus the earmarked "parallel tax" from employers falls short of the specified level, the Ministry of Finance must make up the difference by drawing on general tax revenue; this provision is meant to ensure the financial stability of the health care system.
- A commitment to monitor the Law's impact sets aside 0.1% of the health tax for relevant research coordinated by the NIHP.
- Responsibility for psychiatric, geriatric and preventive care is transferred to the health plans during a 3-year transition period, ending on 1 January 1998.

The passing of the NHI Law

Although there had been previous attempts to introduce NHI-type reforms, a number of factors made change possible in the mid-1990s. The passing of the NHI Law by the Knesset in 1994 was remarkable in that, over the previous four decades, no fewer than 14 attempts to pass similar laws had failed. What were the conditions and the strategies that made it possible for Israel to introduce NHI in the mid-1990s? The following analysis considers the need for health care system change and its precedents, political factors and pragmatic compromise, in terms of the broader social, economic and political developments in Israeli society.

In the late 1980s and early 1990s the Israeli health care system faced many problems and these provided the immediate impetus for reform. The bill's backers invested considerable energy in explaining to the public and to policy-makers that these problems were real, severe and pressing. In retrospect it appears very likely that the legislative effort would have stalled had they failed to make the case for the necessity of immediate action. Nevertheless, these problems could not have been addressed had it not been for the availability of new models for their solution. No previous NHI bill included a call for a capitation formula for allocating resources to competing health plans, an idea that played a key role in health care reforms in the Netherlands and in Israel's recent reform of the parallel tax system. Unlike some of the previous attempts to introduce NHI, the 1994 reform sought to build on the system of competing health plans rather than to replace them with a single insurer or provider, a far more radical approach that engendered automatic opposition from all of the health plans. Moreover, policy-makers were able to draw moral support

from health care reform efforts under way in several industrialized countries in making the case for reform in Israel.

The Minister of Health and his team were able to turn these ideas into legislation partly because of their own skilful political manoeuvring and partly because they were able to take advantage of various political, social and economic developments not of their making. A major potential source of opposition was the Histadrut, which opposed the separation of Clalit from the Histadrut, since it provided substantial funding and a powerful organizational base. The Histadrut "old guard" tried to bury the reform, as embodied in the NHI legislation put forward by the Government, and would have succeeded if Minister of Health Haim Ramon had not resigned from the Government in April 1994 and succeeded in his bid to be elected Secretary-General of the Histadrut.

Many observers see Ramon's action as the pivotal point in the legislative history of NHI. However, this act of individual political courage alone would not have brought about the reform in the absence of other favourable conditions. The story really started with the convening of the Netanyahu Commission, an event of major political significance precisely because the Commission was apolitical. Many of the NHI ideas put forward in the Commission's report were incorporated into legislative proposals prepared both by the Labor Government's Minister of Health and his Likud predecessor. The reform plan's origin in an apolitical commission made it possible for the Likud to support the NHI Bill submitted by the Labor Party, conditional on the inclusion of the provisions that would weaken the Histadrut.

The Law also benefited from the political strength of its key backers, the Minister of Health and the Minister of Finance. In the 1992 elections a campaign commitment to separate Clalit from the Histadrut had figured prominently. The support of the Minister of Finance was crucial, as otherwise the career civil servants within the Ministry might well have blocked the legislation out of concern for its implications for future government expenditure. No less important was the political weakness of those who stood to lose most from NHI – the Maccabi and Meuhedet health plans[75] and the Histadrut. Particularly significant was the declining power of the Histadrut in the decade preceding the passing of the NHI Law.

Ministry of Health professionals responsible for moving the bill through the Knesset were guided by the dictum "the best is the enemy of the good". On issue after issue they opted for practicality over academic purity and for feasibility

[75] The shift to capitation financing moved substantial resources from Maccabi and Meuhedet to Clalit and Leumit.

over conceptual tidiness. Wherever possible the treatment of time-consuming technical issues was deferred until the end of the Bill's 3-year phase-in period and/or left to the ministries to determine at a subsequent date. For example, in the designing of the capitation formula, the Ministry of Health professionals succeeded in their efforts to ensure that the formula would be a simple one that could be implemented immediately, facing down calls to develop a more accurate and more complex formula that would have required years of further research. They were also successful in ensuring that detailed specification of the benefits package was left to a future date, so as not to hold up the passing of the Law. In addition, they made sure that the costing of the benefits package used a methodology that could be implemented in a relatively short time. Likewise, they decided to provide transitional funding to the smaller health plans that would lose money due to the institution of the capitation formula, for a period of three years.

The bill also benefited from several broader developments in Israeli society. In the early 1990s the country was in the midst of unprecedented economic expansion, with an average annual growth rate of 6%, making it politically easier to introduce new – and potentially costly – entitlements to health care. Also important was a major trend to replace discretionary funding of public institutions with formula-based funding; a change reflected not only in the NHI, but also in reforms of the financing of religious institutions and local governments. Finally, the growing interest in protecting consumer rights and free choice was not restricted to health care but was also evident in many other spheres.

Implementation phase one: 1995–1997

The introduction of NHI immediately increased the number of people with health insurance by approximately 5%, the same as the increase in total health plan revenues, so the total per capita revenue remained roughly constant. However, there were two important changes with regard to the composition of health plan revenue. First, whereas in 1994 almost 10% of health plan revenue came from discretionary government subsidies (primarily to Clalit), in subsequent years this was largely replaced by legislatively mandated government funding. Second, the introduction of capitation financing substantially shifted revenue from Maccabi and Meuhedet to Clalit and Leumit. The Government provided short-term subsidies to Maccabi and Meuhedet to aid in this transition in 1995 and to a lesser extent in 1996.

In 1995 the health plan system as a whole was in financial balance. Compared to 1994, per capita revenue and expenditure for the health plans as a group remained unchanged. This situation changed dramatically in 1996 and 1997 and

the health plans incurred substantial deficits. Per capita expenditure increased by 2%, while per capita revenue declined by 6%.

This period was also characterized by an ongoing disagreement between the Ministry of Finance and the Ministry of Health regarding the principles that should govern health care system funding levels and the mechanism for setting the annual funding level. The Ministry of Health argued that the funding level should be a function of need and called for a formula to set it as a function of population growth, age mix, input prices and technological advances. The Ministry of Finance maintained that, as in other areas of public activity, health care system funding levels should reflect health needs, but also macroeconomic developments and competing budgetary pressures. Accordingly, the Ministry of Finance objected to setting funding levels by formula and instead favoured leaving the priority setting and budgeting decision to policy-makers.

In phase one the health plans invested substantial efforts in improving their service levels and upgrading their facilities, mainly in order to attract new members. These efforts resulted in substantial improvements in member satisfaction levels and in various aspects of the accessibility and availability of services, particularly within Clalit. They probably also contributed to the increase in per capita expenditure levels.

The same period was also characterized by significant marketing efforts and expenditure on the part of the health plans to attract new members. Nevertheless, the rate of switching between the health plans remained at 4% per year, similar to the rate in the years immediately preceding the introduction of NHI.

On the legislative front, several important changes took place towards the end of this period, most of them geared to controlling the growing deficits in the health plans. The Government was given increased authority to monitor and control health plan spending. In addition, explicit limits were placed on their advertising expenditure and freedom to establish new competing clinics in small localities. In addition to the limit on advertising expenditure, health plan marketing practices, which had become quite aggressive, were restricted in several other ways. For example, health plan marketing agents could no longer sign up new members on their own; instead, all requests for transfers or enrolments could only be submitted by members themselves at a government-run postal bank.

Of particular importance was the decision at the end of 1997 to allow the health plans to increase co-payments for pharmaceuticals and to begin charging for physician visits. This appears to have been undertaken primarily as a mechanism for increasing revenue and only secondarily as a mechanism for reducing utilization levels and expenditure.

Another important change was the 1997 cancellation of the health tax on employers. As explained in Chapter 3 *Health care financing and expenditure*, the lost revenue was ostensibly made up by increased funding from general tax revenue. However, many observers believe that the loss of this earmarked revenue reduced the bargaining power of the Ministry of Health in annual budget battles.

Little progress was made in easing the Ministry of Health out of its role as a direct provider of services. As described in Section 6.1 *Public health*, a major effort was undertaken to prepare for the transfer of responsibility for mental health care to the health plans, but this effort was abandoned in 1997. In 1999 the Knesset formally decided to amend the NHI Law and leave responsibility for preventive care in the hands of the Government rather than the health plans. In addition, the NHI-mandated transfer of responsibility for geriatric care to the health plans was not implemented either, in the midst of continued debates.

Implementation phase two: 1998–2003

This period was characterized by a gradual reduction of the health plans' deficit through various means, including increasing revenue from co-payments, increased government funding levels and cost-reduction measures undertaken by the health plans. The latter appears to have taken a toll in terms of service levels: the bi-annual MJB Institute consumer survey (Gross & Brammli-Greenberg 2001) indicates that both satisfaction levels and the availability and accessibility of services declined in the 1997–1999 period.

The rate of switching between the health plans had slowed down. While in the pre-NHI and immediate post-NHI period, 4% of the population switched health plan each year, in recent years the annual switching rate has been approximately 1%.

On the financing front, two important developments took place during this period. The Knesset began to designate funds to the order of NIS 150 million (€30 million) a year, or 1% of the cost of the benefits package, specifically for adding new pharmaceuticals and technologies to the package (see Section 7.2 *Introduction of national health insurance*). In addition, a small portion of government funding to the health plans was made contingent on their meeting designated deficit reduction targets.

There was a significant increase in the proportion of the population with commercial or health plan VHI (see Subsection *VHI*, within Section 3.4 *Revenue collection/sources of funds*). The main piece of legislation governing the VHI market was passed in 1998, and there have been subsequent periodic updates.

In 2000, a 3-year contract was agreed upon between the health plans and the Ministry of Health, stipulating the health plans' budget guidelines for 2001–2004. Previously, budget considerations had been dealt with annually. The new contract included an upward correction of the basic parameters used to determine the long-term health care system funding level. This contract shielded the health care system somewhat from the stagnation of the Israeli economy that set in after its period of rapid growth in the mid-1990s.

Implementation phase three: 2004 to present

The most recent period has been characterized by the following developments:

- continued increase in the share of co-payments in health plan financing;
- continued growth in the share of the population covered by health plan VHI, along with enhanced monitoring and regulation of this activity;
- a shift in the balance of power from hospitals to health plans, as the health plans have increasingly used their ability to channel patients to secure various types of discounts;
- proposals to give the Government a greater role in determining the health plans' boards of directors;
- proposals to launch a fifth health plan, in order to increase competition; these plans include variants in which the fifth plan could be a profit-making plan or a plan affiliated with major medical centres;
- proposals to introduce price competition among the health plans, by substituting part of the tax-based financing with a premium to be collected directly by the health plans, which would not be income related.

National health insurance and unfinished business

The NHI Law called for the transfer of responsibility for three key services – inpatient long-term care, mental health care and preventive services – from the Government to the health plans at the end of a 3-year transition period. Although these three services have long been the direct responsibility of the Government, there has been no legal entitlement to them and their availability has been subject to budgetary pressures. Means testing plays an important role in determining eligibility for government financing and the extent to which the Government covers costs, particularly in the case of inpatient long-term care. The NHI Law sought to transfer responsibility for these services to the health plans in order to introduce entitlement to them, to improve quality through greater continuity of care and to reduce costs through integration. However,

these services have not yet been transferred to the health plans' remit and they continue to be the responsibility of the Government.

Several other services remain outside the responsibility of both the Government and the health plans. These include complementary medicine, optician services and dental care (Bin Nun & Katz 2001). No serious discussion was undertaken regarding their inclusion within the NHI because there were concerns that the NHI might be underfunded and legislators were therefore reluctant to add new benefits. In subsequent years this decision has been questioned, particularly with regard to dental care.

National health insurance and equity

NHI was initially expected to enhance equity through several mechanisms, but subsequent developments – several of them related to the 1998 Budget Arrangements Law – are believed to have adversely affected equity. Table 7.1 summarizes the expected impact of the initial legislation, while Table 7.2 summarizes the likely impact of subsequent developments.

Prior to the introduction of NHI, gaps existed among specific demographic groups in the following areas: insurance coverage, accessibility and utilization of health care, satisfaction with the level of services, and the extent of choice of both health plans and services. NHI had the potential to reduce these gaps through extension of insurance coverage, more progressive financing, measures to make the poor and elderly people and large families more attractive in financial terms and redistribution of funds between health plans.

Table 7.1 The expected impact of initial national health insurance legislation

Change	Expected impact
Universal coverage	Previously 5% uninsured, particularly high in the non-Jewish population; subsequently 0%
Capitation formula: health plan revenue becomes a function of members' age and number of members rather than income	Increased incentive to attract ill, elderly or poor people, or those with large families, including the non-Jewish population
Capitation formula: shift of funds from Maccabi and Meuhedet to Clalit and Leumit	Health plans with weaker populations have more funds with which to meet their needs
Free choice of health plans	Health plans can no longer reject ill or elderly applicants
A health tax replaces premiums collected by the health plans	Contributions become more progressive

Source: Authors' own compilation.

Table 7.2 The expected impact of subsequent developments in national health insurance

Subsequent developments	Expected impact
Co-payments	In the absence of exemptions and discounts, co-payments would definitely have placed greater financial burden on poor and elderly people and probably would have also discouraged people from seeking needed care. It is unclear to what extent this has been offset by exemptions and discounts.
Growth of VHI	This has probably reduced differences between middle and upper-level income groups in terms of their access to certain services, but has probably also increased such gaps in lower and middle income groups.
Regulation of VHI	This has required the health plans to charge the same premium to all applicants of a given age, irrespective of health status.
Growth of private options in some public hospitals (terminated by the Supreme Court in early 2002)	There is two-tier care in hospitals. It is not clear whether this has led to a reduction in service levels for non-private patients.

Source: Authors' own compilation.

Of course, there are still differences among socioeconomic groups with regard to health expenditure, including private health services, medication(s), dental care and VHI (see Chapter 8 *Assessment of the health care system*). There were also differences in specialist visits and in choice of health plan among socioeconomic groups, as well as between new immigrants and other Israelis in terms of hospitalizations, primary care, specialist visits and dental visits. Differences remain between Arabs and Jews for specialist and dental care, choice of health plan and health expenditure, including VHI, private physicians and pharmaceuticals.

7.3 Prioritization of new technologies

The NHI Law stipulates the benefits package which all residents are entitled to receive from their health plans. In setting out the details of the initial benefits package in 1995 the Knesset essentially adopted that of Clalit, the largest health plan. The initial benefits package provided by the health plans under NHI included hospital care, community-based health care, pharmaceuticals, and so on. All health plans are legally mandated to provide the same benefits package.

Prior to the introduction of NHI, there were slight differences in the benefits covered by the health plans, although they basically covered the same broad categories of care. The NHI therefore brought greater detail, specificity and clarity to the benefits package, but did not bring about any immediate major changes in the types of benefits covered (Gross & Brammli-Greenberg 2001).

In 1997 Israel established a formal priority-setting process for the addition of new services to the benefits package. Each year, as part of the annual budgeting process, the Government determines how much money will be available to fund new technologies. At the same time, the Ministry of Health solicits recommendations from the health plans, pharmaceutical companies, the IMA, patient organizations and other groups for new technologies to be given priority for inclusion in the benefits package. After the Ministry of Health has carried out a cost–benefit analysis, a public committee – made up of health plan representatives, the Ministry of Health and the Ministry of Finance, the IMA, experts in health economics and health policy, and public figures from outside the health care system – recommends which new technologies should be adopted (Chinitz & Israeli 1999). Final decisions as to what will be included are made by the Minister of Health. The public committee's recommendations are not legally binding, but to date its recommendations have been fully adopted.

In the first few years of the priority-setting process, most additions to the benefits package were pharmaceuticals. Moreover, almost all of the funds went to life-extending (as opposed to life-enhancing) medications. Over the years, greater emphasis has been placed on life-enhancing medications and non-pharmaceutical innovations.

This explicit priority-setting process is considered by many health policy analysts, both in Israel and abroad, to be ground breaking on an international scale (Chinitz et al. 1998). It certainly constitutes one of the most serious efforts in health care in Israel to base decisions on solid information and a structured decision-making procedure. However, several criticisms of the process have been noted, as detailed here.

- Not enough money is allocated to fund new technologies and many cost-beneficial items therefore remain outside the benefits package; between 1998 and 2002, 1% of the cost of the benefits package was allocated every year to fund new technologies (Rabinovich, Wood & Shemer 2007; Shmueli & Nissan-Englcin 2008).
- Not enough use is made of cost–benefit analyses, quality-adjusted life years (QALYs), disability-adjusted life years (DALYs), and so on, neither in the decision-making process nor in the background documents prepared by staff (Shmueli 2008).

- Not enough has been done to incorporate the priorities, values, views and preferences of the general public.
- The process does not benefit from sufficient input and guidance from the National Health Council, a broadly representative body established by the NHI Law to advise the Minister of Health; some have argued that the National Health Council should be setting the broad criteria used to guide the prioritization work of the public committee, while others think that these criteria should be set by the public committee itself.
- Some of the key data needed to project how many people are candidates for the use of a proposed new technology – a key component of the cost–benefit analyses – are available only to the health plans; the Government has not made full use of its right to require the health plans to make these data available to the process as a whole, nor has does it appear to have the authority to require the health plans to divulge information on the amounts paid for particular pharmaceuticals; as a result, the health plans tend to share only those data that advance their interests.
- Interested parties, particularly the health plans, have too much power on the public committee.
- The Israeli courts have seen fit to mandate the health plans to provide certain benefits not recommended by the public committee.

To some extent these problems may only be related to the start of the process, while others may be more structural and long lasting (Chinitz et al. 1998).

Another issue that has arisen recently relates to whether the amount of money given to the health plans for new technologies (on the basis of various assumptions about the future price and consumption levels) should be adjusted retroactively once data become available on actual price and consumption (Hammerman & Greenberg 2008).

From time to time the health plans and others have called for the removal of certain services from the benefits package or for reductions in the number of treatments covered for particular services, such as in vitro fertilization. These proposals have met with strong public opposition and none of them has been adopted. Moreover, none of these proposals has been formally considered by the public committee. In the coming year, the public committee plans to begin grappling with the challenge of how to go about considering whether items currently in the package should be removed.

Prior to 2001 all funding for “new technologies” was spent on services provided by the health plans. From 2001 there has been funding earmarked for new technologies for services provided directly by the Government in areas such as public health, prevention, geriatric care and psychiatric care. It remains to be

seen whether these funds will be allocated using a serious prioritization process, similar to that for funding new technologies for the NHI benefits package.

A key innovation in 2005 was the formation of a “technical subcommittee” consisting of representatives of the Ministry of Health, the Ministry of Finance and the health plans. This subcommittee reviews and refines the Ministry of Health staff’s projections regarding the prices of proposed new medications and other technologies, along with the volumes likely to be consumed. This eliminates the need for the full committee’s involvement in various technical disagreements and allows it to focus on the more fundamental issues.

2006 was a landmark year as, for the first time, the committee refused to make a set of recommended additions to the benefits package that would conform to the budget constraint initially established by the Government. The committee argued that the budget was insufficient for financing many of the population’s basic health needs that could be addressed by newly available technologies. The committee’s call for additional funding was reinforced by various patient disease associations, the IMA and even some of the political parties. As a result, an agreement was reached with the Ministry of Finance to increase the funding level for 2006 and also to make some of the funding for 2007 available “as an advance” already in 2006.

In the wake of this successful “rebellion” by the 2006 committee and its unwillingness to “play by the rules” and accept the Government’s budget constraint, in 2007 the Ministry of Finance demanded, and succeeded in bringing about, a change in the composition of the committee. In particular, the number of economists and financial experts on the committee was increased and the representation of the IMA on the committee was reduced. Interestingly, the IMA responded by setting up its own “shadow” prioritization committee, named “The Public Forum”, consisting of leading physicians, jurists and other prominent public figures. That committee has no statutory standing, but it does attract substantial media attention, and as a result it may be able to influence the decisions of the Government (about the overall level of new technology funding) and the committee (about the allocation of the new technology funds).

2008 was another landmark year in that, for the first time, the Government decided on a multi-year allocation for new technologies: three years instead of one year. This makes it easier for the Ministry of Health staff and the committee to plan and work more effectively (for example, by focusing on only certain therapeutic categories each year).

Moreover, in 2008, the annual amount allocated (1.8%) was higher than in any other previous year. This came about as follows: over time, an increasing number of life-saving medications remained outside the NHI benefits package, due to budget constraints. Some of the health plans, reacting to interest and

pressure from their members, began developing and selling health plan VHI packages that covered life-saving medications not included in the NHI package. Moreover, initially, this development received the approval of the Ministry of Health. This led to a major public and political outcry, with fears that Israel was moving toward a two-tier system of care with some important life-saving medications available only to those who could afford health plan VHI. In the legislature, an agreement was reached whereby the Ministry of Finance would increase funding for new technology to the level of 1.8% and, in return, the Ministry of Health would rescind its prior decision and forbid the health plans from including life-saving medications in their health plan VHI packages.

Another interesting development is that, until recently, almost all the additions to the "basket" were for life-saving technologies, and very few involved technologies that improve the quality of life without extending its duration. Recently, increased attention and priority is being given to the latter.

Finally, the committee process is becoming more transparent, with greater public and media access and coverage.

7.4 Mental health reform

The mental health system functions, to a large extent, separately from the physical health system, in terms of financing, planning, organization and practice setting. Israel spends approximately 6% of national health expenditure on mental health care. These expenses are financed primarily by general tax revenue. The Government is also the largest provider of mental health services, operating approximately half of the psychiatric hospitals as well as the largest network of community mental health centres.

Since its adoption in 1995, the NHI Law has included a long list of mental health services that the Government is expected to provide. However, it also included an overlapping list of mental health services that the health plans are expected to provide. This has resulted in confusion about the division of responsibility between the Government and the health plans, and made it difficult for those in need of mental health care to realize their rights to care.

Israel is in the midst of a major reform of its mental health service system. The main objectives of that reform are to improve the quality of life of the mentally ill, and to improve system efficiency (Aviram & Rosenne 1998). The need for a major overhaul of the mental health system had already been articulated in 1990 by the State Commission on the Functioning and Efficiency of the Health Care System, a blue ribbon panel which called for far-reaching changes in the financing, organization and operation of the Israeli health

system as a whole. The mental health reform, as it has evolved since then, has three main components, generally referred to as the hospitalization reform, the rehabilitation reform, and the insurance reform.

The first component – the hospitalization reform – was initiated at the beginning of the 1990s. It sought to reduce the use of inpatient psychiatric care and shift services from hospital to community settings. That effort has been largely successful, with beds per 1000 population dropping from 2.13 in 1990 to 1.17 in 1996 and 0.77 in 2005, and inpatient care days per 1000 declining in parallel (Haklai et al. 2006; Nahon 2006). The decrease in the inpatient population has not created major dislocations, such as a significant homeless population, and a growing proportion of the mentally ill are functioning reasonably well in community settings (Shereshevsky 2006). There has also been a shift in the composition of psychiatric hospitalizations, from long-term admissions to short-term admissions and day care.

As of 2006, approximately 63% of direct government spending for mental health care was disbursed for inpatient services. Israel officially had approximately 5400 psychiatric beds, of which only 3500 (0.50 per 1000 population) were considered active beds. Only 7% of all psychiatric beds were in general hospitals, and 93% were in psychiatric hospitals (Health Information Unit 2008).

Israel has approximately 90 community-based public mental health clinics. Over half of them (55) are operated by the Ministry of Health; they are financed via general government revenue and they provide services free of charge. In addition, 25 clinics belong to Israel's largest health plan, Clalit, while the remaining public clinics are operated by other non-profit-making agencies. A large number of private, independent mental health practitioners provide community-based mental health services as well, either in conjunction with the health plans or on a completely private basis. Interestingly, a recent survey has found that among consumers who turned to a professional for help with a mental health problem in the previous year, 24% sought care privately, 8% in a Ministry of Health clinic, 56% via a health plan (primarily to primary care physicians) and 12% from other public providers (Gross & Brammli-Greenberg 2003).

The aforementioned decline in psychiatric hospitalizations without major dislocations is probably due, in part, to the second component of the reform, the development of community-based rehabilitation services. The right to such services was established by law in 2000, which also provided for government funding of the services. The services include assistance with employment, housing, and leisure time activities, and the supply of these services has expanded greatly as a result of the new funding available. At the time of writing,

approximately 12 000 Israelis are receiving assistance under the terms of this law, but it is unclear to what extent the population eligible to benefit from the rehabilitation services are receiving them.

The third component of the reform – the insurance reform – would transfer responsibility for mental health care from the Government to the health plans (Rosen et al. 2008). The above-mentioned 1990 State Commission of Inquiry referred to the need for such a transfer, citing two main reasons for it: the need to free the Government from operations so that it can focus on policy, and the need to clarify the division of responsibility in this area between the Government and the health plans. Since the introduction of NHI in 1995 there have been several serious attempts to transfer mental health to the health plans, and they have all failed, for a complex set of reasons discussed elsewhere (Aviram, Guy & Sykes 2006; Sykes 2006). At the time of writing, a new effort is under way, and it appears promising as there is essential agreement on the terms of the transfer between the Ministry of Health, the Ministry of Finance and the health plans. Moreover, the relevant legislation has already passed its first reading in Knesset.

Some of the main problems facing the mental health system, that the insurance reform seeks to address, are discussed here.

- The linkages between physical and mental care are inadequate. As a result, the physical health needs of patients under psychiatric care often go untreated, and PCPs are not as effective as they might be in diagnosing, treating and referring mental illness.
- There is a great deal of unmet need for ambulatory mental health services (Levinson et al. 2007b); in part, this is because many people in need do not seek care (Rabinovich, Wood & Shemer 2007).
- Mental illness and mental health care carry a stigma for the mentally ill themselves, their families and the general population (Struch et al. 2007).
- Moreover, individuals seeking ambulatory care from Ministry of Health clinics must often endure long waiting times. This may be due in part to inadequate staffing levels and in part to suboptimal allocation of available staff time.
- Insufficient attention is being given to mild and moderate psychiatric problems, as the vast majority of system resources are focused on the relatively small number of seriously mentally ill individuals.
- There are substantial disparities in service availability between the centre of the country and peripheral regions.
- There is a lack of clarity regarding the division of responsibility for mental health care between the Government and the health plans.

These problems have led to renewed efforts to transfer the principal responsibility for mental health care from the Government to the health plans (Rosen 2003). The main objectives at the time of writing are to improve the link between mental and physical care and to improve access to and the availability of mental health services.

According to the reform plan, the responsibilities of the health plans under the NHI Law will be expanded to include all mental health services, aside from rehabilitation care and substance abuse care. The specific mental health services to which residents of the State of Israel will be entitled will be spelled out in the legislation (in terms of both types of services and the amount of services). The Law will stipulate that the health plans will be required to provide these services to all members who need them with reasonable timeliness and accessibility (as is the requirement regarding other services provided by the sick funds for physical health care).

The health plans will be responsible for securing for their members ambulatory care and inpatient psychiatric care (which they will purchase from psychiatric and general hospitals at rates established by the Ministry of Health). Responsibility for rehabilitation services will not be transferred to the health plans; this responsibility will remain with the Ministry of Health.

The Law also calls for the Ministry of Health to divest itself of its public clinics, along with a target date for the completion of that process. The expectation is that some of the clinics will be closed, while others will be transferred to particular health plans, a non-profit-making association that is loosely affiliated with the Ministry of Health, or to private entrepreneurs.

The health plans will have a substantial degree of freedom in determining the mix of professionals, contractual arrangements, treatment modalities and practice settings through which they will deliver mental health services. As long as the Ministry of Health continues to operate mental health clinics, the health plans will be free to purchase some or all of the community-based services for their members from those clinics, but will not be under any obligation to do so. The Ministry of Health will monitor the performance of the health plans and other operational aspects of the reform; it has set up a special unit (the “reform authority”) charged with doing so.

The mental health services to be provided by and through the health plans will be financed via general government revenue (that is, predominantly via progressive taxation). In the first year of the reform, the Government will add approximately €190 million (US$ 275 million) to the funds to be distributed among the health plans, to compensate them for their new responsibilities in the mental health field. The funding will be in the form of capitation payments, reflecting the number of members in each plan and their expected use of mental

health services. These payments will be in addition to the capitation payments made to the health plans at the time of writing for physical health care and will, naturally, be based on a somewhat different set of parameters.

The reform effort under way has the support – in principle – of the health plans, representatives of consumers of mental health services and their families, the Ministry of Health and the Ministry of Finance, although differences remain with regard to various second-tier issues. The main opposition at the time of writing is from the psychologists' association, which argues that cost pressures combined with managed care will lead to an erosion of quality, inter alia through limits on the number of treatment sessions and a shift from multidisciplinary treatment teams to solo practitioners. They also argue that the reform will lead to a shift from a bio-psychosocial model to a more medical model, both in terms of diagnosis and treatment.

7.5 The effort to transfer mother and child preventive health care services to the health plans

The MCH care system began in the 1920s in Jerusalem and, over time, it grew to be a nationwide, internationally respected system of preventive care (Freed et al. 2000). The main populations served by the MCH system are pregnant women, infants and young children up to age 6. With regard to each of these groups, the MCH system provides a wide range of health promotion and disease prevention services at the individual level, along with activities that focus on the group level – both within the MCH facility and at other sites within the community. Further information on the services provided by the MCH system can be found in Section 6.1 *Public health*.

In recent decades, the proportion of pregnant women making use of the MCH services as their principal source of prenatal care has declined dramatically – from close to 100% in the mid-1980s to approximately 20% of Jewish women and 50% of Arab women as of 2002 (Palti 2006) – as increasing numbers of women opted to receive their prenatal care from the health plan or private obstetricians.

The MCH services remain essentially the sole source of well-baby care. In 2006 approximately 145 000 infants received care at over 1200 clinics belonging to the Ministry of Health, the health plans and two localities (Jerusalem and Tel Aviv). The Ministry of Health operated 44% of the clinics and cared for approximately two-thirds of the infants. The health plans operated

50% of the clinics, including many relatively small clinics in rural areas, and cared for 20% of the infants (Rosen 2006).[76] The other major service providers were the municipalities of Tel Aviv-Jaffa and Jerusalem. All of the service providers operate under the supervision of the Ministry of Health and are expected to conform to service guidelines promulgated by the Ministry.

Since the late 1970s there has been a vigorous debate in Israel regarding who should operate the MCH clinics and, in particular, whether the government clinics should be transferred to the health plans. Historically, the main argument in favour of such a transfer has been that this would tighten the linkage between preventive and curative care – an objective emphasized by the WHO 1978 conference at Alma Ata. In addition, proponents of the transfer argued that competing nongovernmental entities would have greater operating flexibility than a sole governmental provider, along with competitive pressures to respond to consumer needs and desires. As a result, they argued, a transfer to the health plans would increase both efficiency and service levels.

Historically, the main argument against the proposed transfer has been that "the urgent would get precedence over the truly important", that is, that a health plan physician would feel impelled to first address the immediate needs of the acutely ill children waiting outside his door, at the expense of preventive, well-baby care. In addition, there was a concern that health plans would neglect the less "medical" dimensions of well-baby care such as counselling, supportive listening, and community-based group-level health promotion activities. There was also a concern that if the responsibilities within a locality are to be divided among Israel's four competing health plans, none of them would have a community-wide perspective on health promotion needs and epidemiological developments.

The 1995 NHI Law called for transfer of the well-baby clinics from the Government to the health plans within a 3-year period. However, that element of the Law was subsequently cancelled and the issue of who should provide well-baby care continued to be an open and contentious issue.

The evolution of the debate and its context

Over the decades, the debate has evolved in response to changes in the content of MCH care, the key providers, and the broader context. One key contextual change has been the adoption of a broad, multi-year policy effort to reduce the size of government (including the number of government employees)

[76] There is an agreed-upon geographic division of responsibility between the Ministry of Health and the health plans.

and its role in direct service provision. The objectives of this policy effort have been to improve system efficiency and to reduce the tax burden, thereby enhancing Israel's competitiveness in a global economy. Accordingly, the role of government has been reduced in a wide range of areas such as banking, transportation and telecommunications, via the sale of operating units to nongovernmental agencies. In addition, many services that continue to be provided by the Government, such as welfare services, have undergone substantial budgetary cutbacks. These changes have led to strong opposition from supporters of the welfare state who are deeply concerned about the erosion in Israel of the Government's responsibility to the well-being of its citizens – in both theory and practice.

As a result, the budgets of those health services provided directly by the Government have been hard hit in recent years. Between 2000 and 2006, while real private per capita spending on health care increased by 19%, real per capita government spending declined by 6% (Bin Nun 2007).

In the case of the government MCH system, this has led to a reduction of the workforce by approximately 15% between 2000 and 2006. Even among policy-makers who believe that MCH should ideally remain a government service, these cutbacks have led some to believe that a transfer to a nongovernmental provider may be needed to ensure adequate funding for vital MCH services.

At the same time, opposition to the transfer is now fuelled both by concerns that are specific to preventive health care for women and children and by broader concerns regarding the future of the welfare state. In addition to its practical implications, the MCH debate has also taken on symbolic significance.

The MCH care debate has also been influenced by the growing concerns, in Israel and elsewhere, about bio-terrorism and potential pandemics. There is a sense that the public health nurses employed by the government MCH system constitute an important reservoir of expertise for responding to public health emergencies.

On the other hand, the revolutions in computers and telecommunications may have strengthened the case for transferring the services to the health plans, all of which have invested heavily in information system development in recent years. They may be in a better position than the Government to make use of these technological developments to improve routine one-on-one care as well as for planning and monitoring activities.

Since the mid-1990s, the health plans have also become more involved in health promotion and disease prevention, across the full range of age groups. Activities include promotion of vaccinations against 'flu and pneumonia among the elderly, and mammography promotion campaigns. This increased interest in health promotion seems to stem from several factors, including a growing

appreciation for how health promotion can improve members' health and at the same time help to attract new members (Hertzberg 2005) and constrain health care costs. Whatever the motivation(s), the growing experience and commitment of the health plans to health promotion makes them a more attractive candidate for MCH care provision than they were in the past, when their focus on curative care was much more predominant. Moreover, some policy-makers favour the transfer as a means of further encouraging the health plans to view health promotion as a key component of their organizational identity, with spill-over effects beyond the population using MCH services.

Finally, the debate has been affected by changes in how policy-makers and the public view the health plans on the spectrum ranging from self-interested "private" entities to altruistic "public" entities. The introduction of NHI in 1995 probably enhanced the perception of the plans as public entities, while the growing co-payments and supplemental insurance packages have probably enhanced the extent to which they are seen as private entities. Among many policy-makers, there is a greater willingness to transfer the MCH services to an entity that is more publicly minded.

The pilot and its cancellation

In 2004 the Government of Israel approved plans for a pilot, in which responsibility for the MCH services in selected localities would be transferred from the Ministry of Health and municipalities to the health plans, who would receive special government funds for this purpose. This was followed by extended negotiations among the parties (the Ministry of Health, the Ministry of Finance, the health plans and the municipalities) regarding the services to be provided, the level of compensation and the participating localities. Originally, the plans called for the involvement of 20 localities in the first phase of the pilot, and a further 20 in a second phase, to be carried out several years later. By the end of 2006, due to various political pressures and operational constraints, the scope of the pilot was reduced to three localities (Tel Aviv-Jaffa, Modi'in and Elad), with discussions continuing on whether selected neighbourhoods in Jerusalem would also participate.

In 2007, political opposition to the pilot intensified, with the National Council for the Child, the Adva Centre, the IMA and others joining forces with the public health nurses and their union, the INA. At that juncture, the key arguments made against the transfer were that it would: (1) reduce the rates of visits to MCH clinics, as well as vaccination levels, counselling and developmental testing; (2) make it impossible for the Ministry of Health to supervise the preventive care system effectively; (3) impair Israel's capacity to respond to public health emergencies; (4) reduce the frequency of community-based health promotion

programmes undertaken outside the clinics; and (5) pose a major risk to public health and well-being in general (Blachar 2006; IMA 2006; Swirski 2007).

In February 2007, the Prime Minister decided to halt the pilot and several months later, that decision was confirmed by the Government. However, the debate concerning who should provide MCH care continues and it is quite possible that the Government will revisit the issue after the next round of elections.

7.6 The hospital trusts initiative and other reforms of the hospital system

The fact that the Government owns and operates half of all hospital beds has long been recognized to be a major problem, creating conflicts of interest due to the fact that the Ministry of Health functions both as regulator and competitor in the hospital market. Furthermore, the need to deal with operational issues distracts the attention of top Ministry policy-makers from planning and quality assurance activities. The situation also makes it difficult to provide efficient and responsive hospital care and the Ministry is constrained by civil service regulations and public sector procurement processes. Accordingly, there is a consensus among policy-makers regarding the need for the Ministry of Health to extricate itself from the business of providing hospital care.

Over the years, two major proposals have been put forward: one to set up government hospitals as stand-alone, non-profit-making hospital trusts; and the other to set up a National Hospital Authority, distinct from the Ministry of Health, to which all government hospitals would be transferred. Since 2005 another option is being explored: transfer of ownership of the government hospitals to the health plans. This is visualized as being a transition phase in the shifting of hospitals to totally independent hospital trusts. The proposal is that the hospital would become a non-profit-making subsidiary of the health plan.

In the early 1990s the Government initiated a major push to divest itself of the government hospitals. According to this plan the hospital trusts would be separate legal, nongovernmental entities controlled by community Boards of Directors. Civil service regulations and government procurement requirements would cease to apply. Employees would cease to be government employees and instead would become employees of the individual trusts, with pay tied more to performance and less to seniority.

This attempt failed, due to objections from the health care unions, who feared that the reform would decrease job security and pension rights. They

may also have been concerned about potential reductions in their own power. In any event, efforts to implement the hospital trust reform were abandoned. However, in its place there has been a gradual process of giving the individual hospitals more autonomy and control, with increasingly less involvement of Ministry of Health headquarters. One aspect of this has been the establishment of independent “research accounts” or “trust funds” within government hospitals. These are funded primarily through the sale of after-hours services to the health plans. The hospitals are interested in developing the trust funds because they have greater freedom in spending this money than they do with the regular budget. For example, they can use it to pay the most sought-after physicians at a special hourly rate for work carried out outside of regular working hours. The trust funds have grown dramatically in recent years, and now account for over 10% of the activity of the government hospitals.

In recent years, the Ministry of Finance has been promoting the idea that the Government should divest itself of its hospitals by selling them to the health plans. The Ministry of Finance believes that health plan ownership of hospitals will contribute to the control of hospital expenditure(s). Leading figures within the Ministry of Health oppose this approach, due in part to a belief that consumers are better off when hospitals and health plans act as countervailing forces, where the hospitals have an incentive to develop and sell new services and the health plans have an interest in controlling spending. The Ministry of Health has recently established a new unit called the Hospital Administration, which is preparing the hospitals for greater independence by improving their operational and financing skills, and by developing legislation that would regulate the composition and functioning of Boards of Directors for independent hospitals.

Additional issues on the agenda regarding hospital care include:

- whether public hospitals should be allowed to offer private medical services (see Subsection *Payment of professionals* within Section 3.7 *Payment mechanisms*);
- how quality of care should be monitored and improved;
- whether appointments to department chairmanships should be limited in terms of time and subject to rotation; the system at the time of writing, of open-ended appointments, is widely believed to have led to over-concentration of power and to have slowed innovation;
- whether hospital patients should be assigned a personal hospital physician who will coordinate their care; the situation at the time of writing, of “ward patients”, is not conducive to effective communication with the patient and has also raised questions regarding quality and continuity of care;

- the extent to which resources should be invested in expensive and highly sophisticated end-of-life care; in all areas of life, Israelis are avid and early consumers of new technologies, and in health care this tendency is further strengthened by religious considerations of the sanctity of life – in recent years, however, there has been increasing talk about the need to pay greater attention to quality of life issues, alternative uses of health care resources and the right of patients to influence how they live and die.

7.7 Reforming Israel's emergency response system during and after the Second Lebanon War[77]

During Israel's Second Lebanon War (2006), Hezbollah[78] carried out a massive and continued rocket attack on the entire northern part of the country (approximately 5000 km^2). Overall, 3970 rockets landed in Israel and halted the normal course of life for over 2 million people living in the areas affected. Workplaces shifted to limited emergency operations and the functioning of the social service system was greatly impaired. Israel's Home Front Command ordered the residents of the north to remain in or near underground shelters or other specially protected indoor spaces. Approximately 300 000 residents of the north chose to evacuate the area and stayed with family or friends in other parts of the country. This situation lasted until the ceasefire went into effect, about a month after the war began. As a result of the missile attacks, 42 civilians were killed, 1489 were physically injured and 2773 were identified as victims of stress.

During the course of the war, the health system had to operate emergency response models to meet the needs of three key groups of patients: soldiers injured in the fighting in Lebanon, civilians injured (physically or emotionally) by the missile attacks, and civilians in need of routine medical services unrelated to the war. Thus the war placed major demands not only on the hospitals (who take the lead in treating casualties injured in war or terror attacks) but also on the health plans (who play a major role in routine care and in trauma-related mental health care). All this took place under conditions in which it was dangerous for health care professionals and patients to travel to health care facilities, and the health care facilities themselves were open to attack.

Prior to the Second Lebanon War, the Israeli health system had already acquired substantial experience in addressing the needs of both injured

[77] This section draws on Rosen et al. 2007.

[78] Hezbollah is a Shi'a Islamic political and paramilitary organization based in Lebanon.

soldiers and civilians injured in terror attacks. One of the unprecedented features of the Second Lebanon War was the need to provide routine care to a large population over an extended period of time under unsafe conditions. To some extent, there were precursors during the 1993 and 1996 missile attacks on Israel's most northerly cities and towns, but these were limited in duration and geographic scope.

Overall, the innovations in emergency response that were implemented during the missile attacks had two key sources: Israel's extensive prior experience in responding to major security-related public health emergencies, and the specific new challenges posed by the missile attacks.

All health systems need to prepare themselves for a wide range of public health emergencies. During times of peace, these include natural disasters, large-scale accidents and terrorist attacks; in wartime, there is a need to respond to both conventional and nonconventional attacks. Israel, because of its unique geopolitical situation, must invest substantial efforts and resources in preparing its health system for terrorist attacks and wars. These efforts include comprehensive contingency planning; development of national doctrines and protocols; the development of a wide variety of coordination, control and command mechanisms; extensive training at the individual, organizational and national levels; and construction of vital infrastructure and equipment.

A key feature of Israel's approach to emergency preparedness is national (governmental) control of preparedness for all mass casualty events and national coordination of the real-time response. This is not an insignificant challenge in a health system which, while largely publicly financed, relies primarily on nongovernmental hospitals and health plans for the provision of services. Under normal conditions, there is significant competition among health plans and among hospitals in an environment of regulated competition. During public health emergencies, all of the key providers are highly motivated by patriotism and humanitarianism to respond to national health emergencies, but are also interested in protecting institutional interests (including considerations of prestige and financing) while doing so. Cooperation is promoted via a mixture of legal stipulations, financial payments and guarantees, and ongoing consultative processes. Thus, in public health emergencies the system is transformed from managed competition to managed cooperation.

The health system's ongoing emergency preparedness efforts and its real-time response to major emergencies are coordinated by the Ministry of Health's Division for Emergency and Disaster Management (DEDM). Policy is set out by the Supreme Health Authority, which includes senior representatives of government, hospitals, health plans, MDA and other key players. The driving

force behind this set-up is to combine government leadership with input from all the care providers, to develop effective and coordinated responses.

Since its founding in 1948, Israel has had to face a series of wars and waves of terror attacks. This led to substantial investment in preparedness of "the Home Front" in general, and within the health system in particular. Until the first *intifada* (1987–1991), the focus was on treating injured soldiers. In contrast, the terrorist attacks associated with the *intifadas*, and the missile attacks during the first Gulf War, focused attention on the need to respond to mass civilian casualties. Public health preparedness doctrines, training and exercises have been expanded accordingly.

Emergency preparedness systems need the capacity to learn from past successes and failures, and it is best if that learning occurs quickly, as similar emergencies can recur. In the wake of the war, an intensive and multifaceted effort has been launched to review the health system's response and to learn the appropriate lessons for the future. Some of these review efforts took place within the health system, with each hospital and health plan launching its own internal review effort and the Ministry of Health reviewing the system response. In addition, as part of broader reviews of the operation of the Home Front during the war, the health system's response was reviewed by the Knesset's foreign and defence affairs committee, the Comptroller-General, and a governmental inquiry commission. Aside from these official review efforts, voluntary organizations (such as the IMA), the press and various academics have also put forward critiques.

The widespread involvement of actors from outside the health system in the review process contrasts with the review of responses to smaller-scale emergencies (such as the response to localized terror attacks), which tend to be handled by the health system alone.

Another important mechanism for improving emergency preparedness is learning from other countries. Because of the needs imposed by its geopolitical situation, Israel has become a world leader in emergency preparedness and receives many delegations from other countries seeking to learn from its experience and strategies. At the same time, Israel is also constantly learning about, and from, parallel developments in other countries and from comments and questions by experts on how Israel has dealt with emergencies. To facilitate such input, a number of scientific publications concerning the health system response to the Second Lebanon War are in process and opportunities for bi-national and international symposia on this topic are being explored.

It is agreed that there were various problems and mistakes and that there are many areas for improvement. These include:

- the need for a better system for communicating health risks to the public, along with recommended precautions, and information on the availability and location of health care services;
- clearer delineation of areas of responsibility between the Home Front Command and the Ministry of Health, the hospitals and the health plans;
- the need to make more health care facilities impenetrable by missiles;
- the need to specify the health plans' NHI obligations to their members during public health emergencies, including defining the package of services, and the availability and accessibility of medical services;
- more accurate assessments of the likely duration and intensity of the emergency situation.

The Ministry of Health, the IDF's Medical Corps, and the Home Front Command have already taken many steps to address these issues, and continue to develop and improve mechanisms to respond to large-scale emergencies. These improvements were successfully implemented in the 2008–9 Operation Cast Lead in Gaza.

7.8 The Patients' Rights Law[79]

The Patients' Rights Law was enacted in 1996 after five private initiatives were combined into one national proposal. It was put forward based on a widespread feeling that there was a systematic lack of respect for, and consideration of, patients in the health care system. The Patients' Rights Law emphasized that patients have rights above and beyond the right to health care alone.

The Law was the product of cooperation between Knesset members, government offices, the association for civil rights, religious and legal representatives, women's organizations, and patient and professional associations. It defined the rights and obligations of patient–provider relationships, encapsulating the shift from a paternalistic model of care to a patient-centred model emphasizing patient autonomy. The main goals of the Law were to ensure caregiver professionalism and quality and to protect the dignity and privacy of patients. In addition, it included rights that were previously granted in lawsuit verdicts in the realm of medical ethics and social norms, including the prohibition against discrimination, informed consent, patient access to medical records and privacy of medical information. For further information, see Subsection *Patients' rights*, within Section 2.5 *Patient empowerment*.

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[79] This section was prepared in consultation with Carmel Shalev and Sharon Basson.

7.9 Reforming the status and pay levels of physicians

In the year 2000, as part of the agreement with the IMA to settle a major strike by physicians, the Government agreed to the formation of a blue ribbon public commission (sometimes called the Amorai Commission) to examine the overall functioning of the health care system, with special attention to the status of physicians. One of the key issues considered by the public commission was whether to allow government and Clalit hospitals to operate private medical services (*Sharap*),[80] a change which would be lucrative for many physicians. Another key issue was how much physicians in the public sector should be paid and who should constitute their "reference group". Other matters on the agenda included to what extent there should be financial incentives for physicians to work in peripheral areas and less popular specialties; which elements of the compensation package should be included in pension calculations; and whether physicians should be encouraged to work full time for a single employer.

Proposals put forward by the IMA

In its submission to the aforementioned public commission, the IMA called for three broad types of changes in physician compensation: a general increase in physician wage levels, additional targeted increases for certain subgroups of physicians and changes in how physician pension levels are determined.

The general wage level

The IMA argued that physicians' salaries should reflect key aspects of their work, including the many years of training required to become a physician, the importance of their task, their commitment to serving the public, the physical and emotional demands of the job, the exposure to malpractice suits, the health risks involved, the impact of the work on physicians' lifestyles and their opportunities for well-paid employment in other fields.

It noted that, despite these factors, physicians today typically earn far less than judges, executives of government companies and ministries, as well as senior university professors, and argued that these low wage levels are not only unfair, but have also resulted in a decline in interest among top students in joining the medical profession, as well as the projection that further declines are likely. Accordingly, the IMA argued that the salary of physicians in the public

[80] *Sharap* refers to a specific type of private medical care where the patient gets to choose the doctor in the hospital in return for an additional fee. Often, part of the fee is covered by VHI.

sector should be made the same as that of senior professionals with doctorates in the public sector.

In response, the Ministry of Finance argued that no major general increase in physician wages is needed. Physicians are already well paid, and have also received significant increases since the late 1990s. Moreover, there is no need to increase the number of people interested in becoming doctors, as the physician-to-population ratio is already high and there are no convincing signs that large numbers of doctors are leaving the profession to seek higher incomes elsewhere. The Ministry of Finance also noted that increasing physician incomes would lead to demands for similar increases from other key groups of public sector employees.

Targeted increases for subcategories of physicians

The IMA called for targeted increases in wage levels for certain subcategories of physicians or types of work. For example, it contended that the level of compensation for evening and night rotations and on-call duty should be increased to reflect the heavy workload involved. It argued that the current payment levels for such work are not only unfair, but also make it difficult to recruit top-quality physicians to take on these responsibilities.

Furthermore, incentives should be developed to encourage physicians to work for a single employer. In recent years, in pursuit of additional income, increasingly more physicians work part time for a health plan or at a private hospital, in addition to their main job at a public hospital. The IMA contended that this has resulted in both operational inefficiencies and conflicts of interest. While it looks favourably on situations where the same physician works in both hospital and community settings, it believes this situation is best handled by having the physician work for a single employer (for example, a hospital) who can then allocate the physician's time between the two workplaces.

The IMA argued that incentives for work in peripheral areas should be enhanced. At the time of writing physician-to-population ratios are much higher in the centre of the country than in the periphery. Physicians are hesitant to work and live in peripheral areas because they offer fewer opportunities for private work or professional development, and educational and cultural advantages for the family.

Concrete steps should be taken to make certain specialties, such as internal medicine, more attractive. The IMA called for a reduction of workload and special financial incentives for these at-risk specialties.

The Ministry of Health supported special payments to physicians working in peripheral areas and in understaffed specialties and called for greater incentives for specialists to take on evening and night rotations and on-call duties. It also

agreed with the IMA in supporting additional pay for "full-timers". However, the Ministry differed from the IMA in calling for a requirement that physicians use a "clocking-in" system to ensure that they actually work the hours called for in their contracts. The Ministry also called for the creation of financial incentives for participation in continuing education.

The Ministry of Finance agreed that it could be appropriate to use financial incentives to increase the attractiveness of work in certain specialties and regions. However, the Ministry believed that, before discussing such incentives, a decision must be made on the overall national physician wage bill. After that, trade-offs could be made between special incentives for certain groups in return for reducing the base wage levels of physicians in general. Neither did the Ministry of Finance agree with the IMA on the issue of "full-timers", taking the position that it is good for the health care system that many hospital-based physicians also work part time for the health plans, as this reduces some of the communication barriers across organizations and enhances competition in the health care system.

Clalit did not support the move to full-timers, particularly on the basis of the voluntary model proposed by the IMA. Clalit was concerned that those physicians who would choose to work as full-timers were not necessarily those whose full-time service would be most needed by the health care system. Clalit was also concerned that the model would generate overprovision of services. Finally, Clalit also questioned whether the existence of full-timers would truly promote the declared goal – better access for the normal, non-private (that is, non-*Sharap*) patient.

Calculation of pensions

At the time of writing many components of physicians' salaries are not included in pension calculations. Most prominent among these are pay for evening and night rotations and on-call duty. The IMA has called for including these components in the pension calculations, arguing that physicians work hard during evening and night rotations, which constitute an important aspect of their work.

Proposals put forward by Clalit[81]

In addition to responding to suggestions raised by the IMA, Clalit put forward several proposals of its own. The guiding principle was to increase the system's

[81] It is worth noting that many of the proposals put forward by Clalit were also endorsed in the submissions of the other health plans.

responsiveness to consumer needs. This would require more flexibility than is possible in the existing collective bargaining agreements. It would also require physician compensation to be linked more closely to the volume and quality of care provided. Specific proposals included taking patient characteristics into account when determining capitation payments to physicians, tying physicians' payment to quality of care, reducing physicians' income for underperformance in terms of their list size and visits per shift, installing time clocks to monitor physicians' fulfilment of contractual obligations, increasing pay rates for evening and night rotations and decreasing the on-call pay rate.

Key recommendations

In December 2002 the Amorai Commission submitted its recommendations to the Government. Key recommendations included those listed here.

- The principle that patients in public hospitals should be allowed to choose their physician was endorsed almost unanimously,[82] but there was a split in opinion on the issue of whether that choice should be available to all patients, free of charge, or whether it should be available only to those able and willing to pay a special out-of-pocket payment (*Sharap*).
- There was a split in opinion on the issue of whether physicians' salaries should be markedly increased, with a slight majority favouring a substantial but unspecified increase to be phased in gradually, taking into account the overall situation of the Israeli economy, the health care system and other factors.
- Other changes in the payment system of physicians were endorsed unanimously, including providing financial incentives to draw physicians to neglected specialties, simplifying the collective bargaining agreements and ensuring reasonable pay levels during vacation and sick leave.
- Several changes in the organization of care in hospitals called for: including periodic rotation of the heads of departments, grouping departments into divisions, the appointment of term-limited divisional directors, and elimination of minimum requirements for physician-to-patient staffing levels.
- There was a call for a move towards board certification for all primary care physicians in one of the primary care specialties.
- The health plans were called upon to identify a "personal PCP" for each plan member, who would be responsible for coordinating all the health care provided to that member.

[82] One member of the Commission did not accept this view and called for setting up private hospitals adjacent to major public hospitals and limiting choice of physician to those private hospitals.

- A preference was expressed that most outpatient specialist care be provided in community settings.
- The Ministry of Health was called upon to assume a leadership role regarding quality of care and to take various steps to improve quality assurance systems.
- Uniform licensure exams for all physicians were called for, along with periodic re-registration of all physicians.

The Commission also made important recommendations regarding the level at which the Israeli health care system should be financed, the nature of the financial arrangements between hospitals and health plans, how VHI should be organized and regulated, and how the medical malpractice system should be restructured.

As many of the recommendations require additional funding and/or significant changes, there will no doubt be implementation challenges. Some observers believe that implementation will be helped along by the agreement between the Government and the IMA to refer to binding arbitration (by the labour court) any issues in the upcoming negotiations on wages and work conditions that the parties are unable to resolve by themselves. Other observers have expressed scepticism regarding the implementation of many, if not most, of the recommendations.

The previous contract between the Government, the IMA and the employers expired in 2000. The parties could not reach agreement on a new contract (including on the key issues of the size of the wage increase and whether private services would be allowed in public hospitals). Accordingly, the labour court appointed arbitrators to settle the dispute. The arbitrators announced their decision in November 2008, and have awarded a major (25%) salary increase to the physicians.

7.10 Summary and timeline of health care reforms

The 1990s was a decade of continued efforts to reform the Israeli health care system. These efforts were at times intense and, occasionally, they were also successful. Reforms were initiated by the report of the Netanyahu Commission, followed by the largely unsuccessful effort by the Government to divest itself of government hospitals. In the mid-1990s, attention turned to the successful effort to introduce NHI. Various issues related to implementing NHI were a major focus of the health care system in the second half of the 1990s. Other important health care reforms in this period included the enactment of the Patients' Rights Law and major changes in hospital reimbursement rules.

An important focus in recent years has been the efforts to transfer various services from the Government to the health plans. The planned transfer of MCH services was aborted in its pilot stage. With regard to mental health services, a major effort to transfer the services from the Government to the health plans in the late 1990s failed, but the effort to do so under way at the time of writing has received cabinet approval and is progressing through the parliamentary process.

Table 7.3 Timeline of health care reforms

Year	Reform
1988	Establishment of the Netanyahu Commission
1990	The Netanyahu Commission submits its recommendations to the cabinet
1990s	Attempts to spin off government hospitals as independent trusts
1994	NHI Law
1995	Implementation of NHI begins
1995	Institution of hospital revenue caps
1996	Patients' Rights Law
1996–1997	Efforts to transfer responsibility for mental health care to the health plans
1996–1997	Preparation for transfer of preventive care to the health plans
1997	Shift from 100% to 30% hospital revenue cap
1997	Knesset decides that preventive care will remain with the Government
1997	Knesset decides to cancel the parallel tax (the health tax on employers)
1998	Imposition of co-payments for physician visits
1998	Legislation related to VHI
1998	Establishment of process for prioritizing new technologies
2001	Establishment of Public Commission on the status of physicians
2002	The Public Commission on the status of physicians releases its report
2003	The Government decides, in principle, to transfer the responsibility for mental health care to the health plans
2004	Cabinet approves pilot transfer of MCH services to the health plans
2005	Establishment of technical subcommittee for the prioritization process
2006	Second Lebanon War; response of the health care system
2007	Law incorporating mental health into NHI passes first reading in Knesset
2007	Cabinet cancels pilot transfer of MCH services to the health plans
2008	Arbitrator awards physicians a 25% wage increase

Source: Authors' own compilation.

8. Assessment of the health care system[83]

8.1 National performance

The Israeli health system can be proud of its accomplishments for the population as a whole, particularly in light of the level of resources that Israel allocates to health care. In support of this contention, in this section we compare the situation in Israel with that of the OECD, with regard to national average health status, financial resources, physical and workforce inputs, and patient perceptions of health system responsiveness. The section relies heavily on data and analyses assembled by Bin Nun & Kaidar (2007).[84] At the end of this section, we also indicate various problems and warning signs besetting the Israeli health care system at the time of writing that threaten to undermine its accomplishments for the population as a whole.

In the section that follows, we go beyond the data on national averages to summarize the latest available information on differences among population groups in Israel. We consider groups defined in terms of nationality, region, and income or educational level.

Health status

Compared with the OECD countries, life expectancy in Israel is well above the OECD average[85] for men (78.5 versus 76.1 years) and slightly above average for women (82.2 versus 81.7 years). The infant mortality rate in Israel is 4.3,

[83] This chapter was prepared in collaboration with Nir Kaidar and Hadar Samuel and benefited from comments from Tuvia Horev, Gabi Bin Nun, Leon Epstein, Anat Shemesh and Orna Baron-Epel.

[84] Where available, this includes updates from the forthcoming version of the publication.

[85] Unless otherwise stated, in the data presented here regarding the OECD average, each OECD country carried equal weighting, irrespective of the size of the country, in keeping with common practice.

Table 8.1 Comparisons of Israeli Quality Measures with United States NCQA Data

Measure[1]	Israel (%)	United States (%)
Lipidogram for diabetics	91	71–85
Eye exams for diabetics	63	51–62
Test for protein in urine for diabetics	71	75–85
Diabetics with low-density lipoprotein cholesterol <100	61	31–47
HBA1C below 7%	49	30–49
HBA1C above 9%	13	27–49

Source: Porat, Rabinowitz & Raskin 2008.
Notes: [1]The first three measures are diagnostic tests that should be carried out periodically for all diabetics, thus higher numbers indicate better performance. Better performance is also indicated by a higher percentage of diabetics whose LDL cholesterol levels are under control (<100) and whose haemoglobin HBA1C levels are under control (below 7%). When HBA1C levels are above 9% this is an indicator of poor performance.
NCQA: National Committee for Quality Assurance.

which is below the 5.2 OECD average. In addition, 85% of Israelis assess their health as "good" or better, compared with the 70% OECD average, and, as Levinson et al. (2007a) note: "contrary to expectations born out of Israel's unique life circumstances, the prevalence of mood or anxiety disorders fall within the range of other western countries".

Quality of care

As indicated in Subsection *Regulating quality of care* (within Section 4.1 *Regulation*), Israel has a well-developed system for monitoring quality of care in the community. As several indicators being monitored in Israel are also being monitored by the National Committee for Quality Assurance (NCQA) in the United States, we have been able to assemble various comparisons, all of which relate to diabetes care (see Table 8.1). The data suggest that both control of diabetes and the monitoring of potential complications are better in Israel than in the United States for the population as a whole. Unfortunately, no such comparative data were available for other conditions.

Financial resources

Per capita national health expenditure in 2005 was approximately US$ 2100 in Israel (in PPP terms),[86] compared with US$ 2800 for the OECD.[87] Health care

[86] This is equivalent to approximately US$ 1975, if one uses the exchange rate rather than PPPs for conversion.

[87] Note that if the OECD countries were weighted by size, the weighted OECD average for per capita spending would be over US$ 3200!

accounts for 7.8% of GDP in Israel, compared with the 9.0% OECD average. It is also important to note that overall GDP per capita in Israel is less than the OECD average (US$ 26 100 versus US$ 29 300). This is relevant to Israel's relative standing in terms of health status, because a nation's overall economic situation can affect the population's health by means of such factors as nutrition, housing, unemployment and environmental hazards, in addition to its effect in terms of health care spending (Commission on the Social Determinants of Health 2008).

Finally, it should be noted that income inequality in Israel is among the highest in the world (Ben-Bassat & Dahan 2004).[88] This is significant here, because income inequality has been found to be negatively correlated with average population health (Wilkinson & Picket 2006), making Israel's achievements in health status all the more striking.

Physical and personnel inputs

In comparison with the OECD, Israel is also parsimonious when it comes to many of the physical and personnel inputs to health care. The Israeli supply of acute care beds per 1000 population is just over half of the OECD average (2.1 versus 3.9). Israel also has far fewer nurses per 1000 population than the OECD average (5.8 versus 9.6). While the supply of physicians in relatively abundant (3.5 versus 3.1 per 1000 population) at the time of writing, as noted in Chapter 5 *Physical and human resources*, the number of physicians in Israel is growing much more slowly than in other countries, and a physician shortage is projected in the years to come.

Health system responsiveness

In 2005 Israel participated in the WHO's World Health Survey that generated comparative data on health status and responsiveness (Goldwag & Rosen 2007). The latter relates to patients' experiences with the health system, with a focus on the interpersonal aspects of the care they receive. WHO has published responsiveness data for the average of the 14 European countries (henceforth "Europe") that fielded the survey by telephone (as did Israel).

For both inpatient and ambulatory care, Israel's responsiveness scores were similar to those of Europe for most domains of care. However, Israel scored lower than Europe with regard to choice of provider for both inpatient and

[88] This statement refers to gross incomes – before tax and transfer payments. Israel's relative position is not as bad with regard to net incomes.

ambulatory care (60% versus 70% and 77% versus 97%, respectively), as well as on amenities (that is, cleanliness of) for inpatient care (79% versus 87%).

Discussion

How has Israel succeeded in achieving above-average levels of health status (for the nation as a whole), despite the below-average level of resources allocated to health care? We cannot know for sure, but possible factors include:

- a relatively young population;
- universal health care coverage;
- a national health care system which is predominantly publicly financed, and government regulated, combined with competition among providers (both health plans and hospitals);
- a health care system based on health plans that bear responsibility for all levels of the curative general medical care[89] of a defined population;
- the development of effective and coordinated (although far from perfect) systems of care by the health plans, including linkages among different types of specialists and levels of care, and effective use of modern information and communication systems;
- small (geographic) size, which limits travel times to health care facilities;
- good access to high-quality primary care services throughout the country;
- a strategy of constraining the development of tertiary services in order to ensure adequate resources for community-based services;
- the high skill level of most health care professionals, due in part to the strong academic training available;
- the development of innovative models for effective integrated systems of care by the health plans;
- a national system of prioritizing in the field of new health care technologies;
- a strong system of MCH preventive services;
- a population with a high degree of health awareness and health literacy;
- special mobilizations to address the health care needs of new immigrants from Ethiopia and the FSU which, while incomplete, were still quite impressive;
- growing awareness of the need to ensure that health care services are culturally appropriate for Israel's Arab population, along with several new initiatives to begin to translate awareness into action;

[89] This does not include dental care, mental health care and long-term care. In addition, the division of responsibility between the health plans and the Government, with regard to health promotion and disease prevention, remains ambiguous.

- investment in efforts to improve the systems for responding to mass-casualty events.

Of course, some of the items on this list are unique to Israel, while others are shared by Israel and a subset of OECD countries.

Problem areas

A variety of problems exist (many of which are not unique to Israel), which limit Israel's accomplishments, as detailed here.

- The age-adjusted mortality rates due to homicide and infectious diseases are higher in Israel than the corresponding rates for the average of the countries belonging to the EU before 1 May 2004 (EU15) (Department of Health Information 2005).[90]
- Lack of public insurance coverage for long-term care.
- Insufficient funding of mental health services and access barriers to those services, as well as long-standing uncertainty regarding whether the responsibility for these services will be transferred to the health plans.
- Lack of public insurance coverage for dental care.
- The Ministry of Health continues to serve as both a regulator and a provider of health care services.
- Linkages between the health system and other social systems (such as municipal governments, employers and the educational system) are not well developed.
- A relatively high (and growing) share of national health expenditure is privately financed (35% versus 27% for the OECD).
- The elderly (and others) continue to face major deficiencies in continuity of care and suffer from a shortage of rehabilitation services.
- There continues to be a major shortage of organs for transplantation, in part due to relatively low rates of organ donation.
- The unique health needs of the economically disadvantaged, as well as Ethiopian immigrants and Israel's Arab minority pose a continuing challenge to the health care system.
- Health promotion, health education and prevention activities are not adequately addressed, at the national level or by physicians in individual care settings.

[90] On the other hand, age-adjusted rates of mortality due to external causes, cerebrovascular diseases and digestive system diseases are lower in Israel than the EU15 average.

- The practice of scheduling many visits to PCPs each day results in a situation whereby the average visit is less than 10 minutes in duration and opportunities for engaging in screening and health promotion are quite limited.
- Israelis need to improve health-related behaviours in a number of areas. Smoking levels remain high, and many Israelis have nutritionally inadequate diets and/or do not exercise regularly.
- Life expectancy for Israeli women is only in the middle range among industrialized countries, in contrast with the higher-ranking longevity of Israeli men.

Moreover, there are various emerging problems and challenges (again, not necessarily unique to Israel) that threaten to undermine the accomplishments to date. These include:

- growing co-payments for physician visits and pharmaceuticals, creating access barriers, particularly for vulnerable populations;
- an impending shortage of physicians, nurses and acute care beds;
- population ageing (albeit at a slower rate than Europe), with its implications for health care spending overall, and for spending on long-term care services in particular;
- disparities in health status and health care resources between regions and among localities.

8.2 Comparisons among population subgroups

Table 8.2 summarizes the most recent Israeli data comparing key population subgroups with regard to health status, supply of readily accessible health care facilities and professionals, use of health services, quality of care, and satisfaction with care. (The key data sources are listed in the notes to the table.) The population groups are defined in terms of ethnicity, income level and region. We consider each of these population groups in turn, while recognizing that there are significant correlations between ethnicity, income and region, so the underlying causes of the inequalities are not always clear.

Ethnicity: Arabs and Jews

Arabs constitute approximately 20% of the population of the State of Israel. They are citizens of the State of Israel and are legally entitled to all the benefits of citizenship in the country (such as free public education, NHI coverage and legal protection against discrimination in employment, housing, and so on).

Table 8.2 Summary of comparisons among population groups

	Arabs compared with Jews	Poor compared with non-poor	Southern region compared with national	Northern region compared with national
A. Mortality and life expectancy				
Infant mortality rate	- -	n/a	- -	- -
Age-adjusted mortality rate		n/a	- -	- -
Life expectancy at birth	-	n/a	- -	- -
B. Morbidity and health status				
Physical health (self-assessed)	+	n/a	- -	/
Mental health (self-assessed)	-	n/a	- -	-
Absence of specific chronic disease diagnoses	+	n/a	-	/
Absence of diabetes (via Rx indicators)	n/a	- -	n/a	n/a
C. Use of health services				
Primary care physicians	++	n/a	+	+
Specialist physicians	- -	n/a	+	-
Hospitalizations	+	n/a	/	+
Dentists	-	n/a	/	/
D. Payments and financial barriers				
Out-of-pocket payments not burdensome	++	-	- -	/
No foregoing of services/meds due to price	/	- -	- -	-
E. Satisfaction and service levels				
Primary care physician	/	+	/	+
Nurses	++	++	+	+
Specialist physicians	++	++	- -	+

Table 8.2 Summary of comparisons among population groups (continued)

	Arabs compared with Jews	Poor compared with non-poor	Southern region compared with national	Northern region compared with national
E. Satisfaction and service levels (continued)				
Other dimensions of care	+	/	/	/
Health plan in general	/	+	+	/
F. Supply of community-based physicians				
Primary care physicians	n/a	n/a	/	-
Secondary physicians	n/a	n/a	- -	- -
G. Clinical quality indicators				
Process of care	n/a	+	n/a	n/a
Prevention	n/a	+/-	n/a	n/a
Monitoring and documentation	n/a	+	n/a	n/a
Outcomes of care	n/a	/	n/a	n/a
H. Supply of beds and special units				
Acute care beds	n/a	n/a	- -	- -
Rehabilitation beds	n/a	n/a	- -	- -
Dialysis stations	n/a	n/a	- -	/
Emergency medicine stations	n/a	n/a	- -	/

Sources: A (Mortality and life expectancy): CBS 2007; B (Morbidity and health status): CBS 2006; C (Use of health services): CBS 2006; D (Payments and financial barriers): Gross, Brammli-Greenberg & Matzliach 2007b, Ministry of Health 2006a; E (Satisfaction and service levels): Gross, Brammli-Greenberg & Matzliach 2007b; F (Supply of community-based physicians): Shemesh et al. 2007; G (Clinical quality indicators): Porat, Rabinowitz & Raskin 2008; H (Supply of beds and special units): Ministry of Health 2007.

Notes:

- - Disadvantage of 20% or more; / Equivalent or roughly equivalent; ++ Advantage of 20% or more
- Disadvantage of less than 20%; + Advantage of less than 20%; n/a Data not available

Nonetheless, in comparison with the Jewish population, Israeli Arabs tend to have lower education levels, lower labour force participation rates, and lower income levels. The Arab population are also younger, with 41% under the age of 15 years and 3% over the age of 65 years (compared with 25% and 11%, respectively, for the Jewish population).

As indicated in Table 8.2, in comparison with Israeli Jews, Israeli Arabs have significantly higher infant mortality rates (7.2 versus 3.0). The higher Arab infant mortality rate is due, in large part, to a higher rate of deaths from congenital malformations, which in turn are related to the high rate of consanguineous marriages in the Arab population, particularly among the Bedouin (Tarabeia et al. 2004; Amitai et al. 2005; Jaber & Halpern 2006; Epstein & Horev 2007).

Age-adjusted mortality rates are also slightly higher for Arabs than Jews in Israel. Interestingly, in a study using localities as the unit of analysis, Chernichovsky & Anson (2005) found that variations in mortality rates between Arab and Jewish localities are largely accounted for by differences in the socioeconomic level of those localities. Of course, part of these variations in socioeconomic level could be due to differences in nationality. But the findings do suggest that underlying factors, rather than differences in the level of health care delivery, are the main source of the discrepancy.

Life expectancy at birth is somewhat lower for Israeli Arabs than for Israeli Jews, both among males (75.3 versus 79.5) and among females (78.8 versus 82.9), and it is particularly troubling that these gaps have grown substantially over time (Epstein 2007).[91] At the same time it is worth noting that the life expectancy for Israeli Arab males is very close to the OECD average and that of Israeli Arab women is well within the range of the OECD countries, albeit 2.5 years below the OECD average. Chernichovsky & Anson (2005) point out that "as a minority population, Israel's Arabs have, relative to the majority and in absolute terms, a higher life expectancy than other large minorities in the developed world".

The Arab–Jewish difference in life expectancy is due primarily to differences in infant and childhood mortality rates. The high childhood mortality rates in the Arab population are due in part to a higher rate of childhood accidents (Chernichovsky & Anson 2005).

In surveys, Israeli Arabs tend to report relatively high levels of self-assessed physical health and lower prevalence of most chronic diseases. However, as Baron-Epel and colleagues (2005) found: "SH (subjective health) in Jews and Arabs does not necessarily have the same meaning in relation

[91] In 1996 the gap was 1.5 years.

to objective measures of health, and caution should be exercised in the use of this measure in different population groups with different cultures". In a related study, differences in socioeconomic status were also found to account for Arab–Jewish differences in self-assessed physical health among men, but not among women.

Arabs and Jews in Israel report similar levels of satisfaction with their health plan overall,[92] while Arabs tend to be more satisfied than Jews with the care they receive from health plan nurses and specialist physicians. Arabs also tend to rate health system responsiveness higher than Jews do, but there are indications that this may be due to lower expectation levels rather than better levels of care in practice (Goldwag & Rosen 2007).

In terms of health service utilization, raw data from the CBS indicate that, in comparison with Israeli Jews, Israeli Arabs tend to visit the family physician more often, and to be hospitalized more often, but tend to visit specialist physicians less often. Baron-Epel and colleagues (2007) found that differences in socioeconomic levels did not explain the Arab–Jewish differences in the patterns of health care utilization.

According to a report from the Sikuy advocacy group (Blikoff 2005), there are large disparities in the types and amount of health services available in Arab and Jewish localities. For example, Jewish localities had more primary care clinics per 1000 population (11.8 versus 8.6) and more specialist clinics (29.5 versus 15.5).

In addition to facing barriers to care related to income and geographic distance, Israeli Arabs often face cultural and linguistic barriers to care, particularly when seeking care from specialists and hospitals. While there is a growing awareness in Israel of the need to make care more culturally responsive, and some promising initiatives are under way, a good deal remains to be done in this area.

Regions: periphery and centre[93]

Israel's southern and northern regions have higher rates of poverty and unemployment, and a higher concentration of Arab Israelis. They also have relatively high infant mortality rates, age-adjusted mortality rates and lower

[92] The introduction of NHI in 1995 made the Arab population more attractive to the health plans than they had been previously, as it made health plan revenue a function of the number of members rather than members' incomes. Moreover, the Arab population are particularly attractive to the plans because they tend to incur lower costs, in part because of less use of specialized services.

[93] Note that this section presents data primarily at the regional level. Regions tend to be quite large and diverse, and as such, inter-regional comparisons can obscure important differences among specific localities.

life expectancy at birth. In the southern region, there are also higher rates of self-reported illness.

Use of primary care services is relatively high in both peripheral regions, while use of specialist services is relatively high in the south and relatively low in the north. Utilization of hospitals is relatively high in the north and similar to the national average in the south.

Satisfaction with health plan services overall is relatively high in both the south and the north. Interestingly, in the north, satisfaction levels are relatively high with regard to nurses and physicians. In the south, satisfaction with specialists is markedly below average.

In terms of the supply of services, the south has significantly lower-than-average rates of specialist physicians, acute care and rehabilitation beds, and various specialized hospital units; the rate for PCPs is similar to the national average. The north also has significantly lower rates of beds, but has average rates for those specialized hospital units that were considered. Its rate of specialist physicians is well below the national average, while the rate of PCPs is somewhat below that average.

According to a recent review by Physicians for Human Rights (PHR – Israel 2008), various vital and expensive types of medical equipment (such as PET, MRI and CT scanners) are highly concentrated in the centre of the country, with scanner-to-population ratios well above the standards set by the Ministry of Health. At the same time, there is a shortage of this equipment in peripheral regions. This forces residents of those regions either to wait a long time for scans or to travel long distances to the centre in order to be scanned in a timely manner.

Income levels: low-income individuals and localities

In Israel, as elsewhere, there is an important link between income and health or health care. Some of the available data relate to individual incomes, while in other cases information on income is available only at the neighbourhood or locality level. The summary of the evidence presented here also includes studies on the links between education and health, as education and income levels tend to be highly (although imperfectly) correlated.

Mortality and life expectancy data are not usually published by individual income level, but are available at the locality and neighbourhood level. Jaffe et al. (2005) found a significant relationship between mortality rates and neighbourhood socioeconomic level, while Shemesh (2007) found that at the level of the locality, differences in socioeconomic status by locality accounted for over 25% of the variation in overall mortality rates. Jaffe and colleagues (2008)

found that mortality rates were linked to individual educational levels and that educational inequalities in mortality are increasing over time.

Lower-income individuals are much more likely to forego needed health services on the grounds of price and to report that health care payments constitute a financial burden (Gross & Brammli-Greenberg forthcoming). They have also tended to be less aware of various co-payment discounts, exemptions and ceilings,[94] and this enhances the extent to which co-payments constitute barriers to care for many low-income individuals (Epstein 2007).

Interestingly, while the prevalence of diabetes tends to be significantly higher among the poor,[95] the quality of clinical care being provided to them is actually higher in terms of most of the quality measures available, based on data available in work by Porat and colleagues (2008). The same source also suggests that the poor are more often screened for various health risks, such as cardiovascular risk factors.

The poor report higher levels of satisfaction with health plan services in general, and with nurses in particular. This may be due in part to below-average expectations. They are also less likely to have voluntary supplemental health insurance coverage (particularly of the type offered by commercial insurers, but also of the type offered by the health plans) (Gross & Brammli-Greenberg, forthcoming).

It is worth noting that, while the health tax is linked to income and hence progressive, there is a cap at five times the average income, and this limits progressivity.

Recent policy and public developments related to equity

There is a growing awareness among some of Israel's health care leaders of the existence of gaps and the need to address them. Economic, geographic and cultural barriers to care are all receiving increased attention. This has been due, in part, to studies published by a variety of major research centres and leading researchers (Epstein et al. 2006; Avni 2007; Epstein & Horev 2007). Conferences, such as the National Institute's 2007 workshop on cultural competence in health care (Epstein 2007), also play an important agenda-setting role. The increase in awareness is also leading to action, with several health plans taking concrete steps to enhance equity, and the Ministry of Health is working

[94] This is becoming less of an issue as the discounts are being made automatic. However, lack of awareness could still deter individuals from seeking care.

[95] In this paragraph we use the term "poor" to refer to all individuals receiving exemptions from co-payments (the only socioeconomic status-related variable available in the quality of care database), even though this provides an imperfect proxy for income level.

on a national plan to reduce discrepancies in health status and access to health care among the population.[96] The Healthy Israel 2020 initiative is providing a major emphasis on equity considerations, through its targets and strategies.

Nonetheless, there have been several recent developments in Israeli health policy that could adversely affect equity. As noted in Chapter 3 *Health care financing and expenditure*, the role of private financing in health care is growing; this has been due largely to the growth of co-payments and supplemental insurance coverage. These regressive forms of financing are particularly burdensome for low-income populations, and in the case of co-payments, can also constitute barriers to care. In addition, plans are moving ahead for the establishment of a new hospital in Ashdod, which will be permitted to operate a private medical service, in which those who can afford to do so will be able to select their physician in return for a special fee. Also troubling are the growing links between the health plans and Israel's existing private hospitals.

There have also been several encouraging developments recently. As noted in Chapter 7 *Health care reforms*, the Government recently decided to allocate more money for new technologies, in order to avoid the creation of an additional level of supplemental insurance for life-saving pharmaceuticals. The latter would have created a two-tier system of care, at least as far as access to new and expensive life-saving medications was concerned, and this situation has been avoided, at least for the time being. The Government has also introduced a 10% discount in the co-payments for medications for the elderly and reduced the co-payment ceiling for disabled elderly individuals; both of these changes have contributed to access and equity. The same can also be said for the increase in the number of low-income individuals for whom the Government is willing to finance institutional long-term care.

[96] This would build upon various existing efforts, such as the initiative to reduce infant mortality among the Bedouin.

9. Appendices

9.1 References

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9.3 Useful web sites

National sites

Ministry of Health: http://www.health.gov.il/english/

Ministry of Finance: http://147.237.72.111/mainpage_eng.asp

Prime Minister's Office: http://www.pmo.gov.il/PMOEng

Knesset: http://www.knesset.gov.il/main/eng/home.asp

Central Bureau of Statistics: http://www.cbs.gov.il/reader/?MIval=cw_usr_view_Folder&ID=141

Center for Disease Control: http://www.cdc.gov/

National Institute for Health Policy: http://www.israelhpr.org.il/english/

Israel Center for Disease Control: http://www.health.gov.il/pages/default.asp?maincat=25&catId=76&PageId=534

Myers-JDC-Brookdale Institute: www.jdc.org.il/brookdale

Gertner Institute: http://www.gertnerinst.org.il/e/

Hebrew University: http://www.huji.ac.il/huji/eng/index_e.htm

Tel Aviv University: http://www.tau.ac.il/index-eng.html

Ben-Gurion University: http://web.bgu.ac.il/Eng/Home/

Haifa University: http://www.haifa.ac.il/index_eng.html

Bar-Ilan University: http://www1.biu.ac.il/indexE.php

Clalit Health Services: http://www.clalit.org.il/HE-IL/english

Maccabi Health Services: http://www.maccabi4u.co.il/english_site/index.html

Meuhedet Health Services: www.meuhedet.co.il

Leumit Health Services: http://www.leumit.co.il/eng/homepage.asp

Israel Medical Association: http://www.ima.org.il/EN/

Society for Patients Rights: http://www.patients-rights.org/index.aspx?id=2168

Hadassah Medical Organization: http://www.hadassah.org.il/English

International sites

International Network Health Policy & Reform – Health Policy Monitor: http://www.hpm.org/en/index.html

World Health Organization Regional Office for Europe European Health for All database: http://www.euro.who.int/hfadb

Organisation for Economic Co-operation and Development: www.oecd.org/health/healthdata

9.4 HiT methodology and production process

The Health Systems in Transition (HiT) profiles are produced by country experts in collaboration with the Observatory's research directors and staff. The profiles are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources, and examples needed to compile HiTs. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/observatory/Hits/20020525_1.

Authors draw on multiple data sources for the compilation of HiT profiles, ranging from national statistics, national and regional policy documents, and published literature. Furthermore, international data sources may be incorporated, such as those of the Organisation for Economic Co-operation and Development (OECD) and the World Bank. OECD Health Data contain over 1200 indicators for the 30 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the World Health Organization (WHO) Regional Office for Europe for the purpose of monitoring Health for All policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its July 2008 edition, the Health for All database started to take account of the enlarged European Union (EU) of 27 Member States.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT profile consists of 10 chapters.

1 Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2 Organizational structure: provides an overview of how the health system in the country is organized and outlines the main actors and their decision-making powers; discusses the historical background for the system; and describes the level of patient empowerment in the areas of information, rights, choice, complaints procedures, safety and involvement.
3 Financing: provides information on the level of expenditure, who is covered, what benefits are covered, the sources of health care finance, how resources are pooled and allocated, the main areas of expenditure, and how providers are paid.
4 Regulation and planning: addresses the process of policy development, establishing goals and priorities; deals with questions about relationships between institutional actors, with specific emphasis on their role in regulation and what aspects are subject to regulation; and describes the process of health technology assessment (HTA) and research and development.
5 Physical and human resources: deals with the planning and distribution of infrastructure and capital stock; the context in which information technology (IT) systems operate; and human resource input into the health system, including information on registration, training, trends and career paths.
6 Provision of services: concentrates on patient flows, organization and delivery of services, addressing public health, primary and secondary health care, emergency and day care, rehabilitation, pharmaceutical care, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health care for specific populations.
7 Principal health care reforms: reviews reforms, policies and organizational changes that have had a substantial impact on health care.
8 Assessment of the health system: provides an assessment based on the stated objectives of the health system, the distribution of costs and benefits across the population, efficiency of resource allocation, technical efficiency in health care production, quality of care and contribution of health care to health improvement.

9 Conclusions: highlights the lessons learned from health system changes; summarizes remaining challenges and future prospects.
10 Appendices: includes references, useful web sites and legislation.

Producing a HiT is a complex process. It involves:

- writing and editing the report, often in multiple iterations;
- external review by (inter)national experts and the country's Ministry of Health – the authors are supposed to consider comments provided by the Ministry of Health, but not necessarily include them in the final version;
- external review by the editors and international multidisciplinary editorial board;
- finalizing the profile, including the stages of copy-editing and typesetting;
- dissemination (hard copies, electronic publication, translations and launches).

The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

9.5 About the author

Dr Bruce Rosen is the Director of the Smokler Center for Health Policy Research of the Myers-JDC-Brookdale Institute in Jerusalem. He holds a BA in economics from Harvard College and a doctorate in Health Policy and Management from the Harvard School of Public Health. Dr Rosen is a member of the Board of Directors of the Israeli National Institute for Health Policy. He lives in Jerusalem and is married with four children.

Dr Rosen's research has focused on the areas of financial incentives, vulnerable populations, and the evaluation of major policy changes. In the mid-1990s he served as a key professional consultant to the Knesset committee that developed Israel's National Health Insurance Law. He recently edited the proceedings of the 3rd Jerusalem Health Policy Conference, entitled *Health systems: are we in a post-reform era?* Throughout his career, Dr Rosen has emphasized the need to link research with policy development, and to bring international expertise to bear in terms of Israeli health policy issues.

Dr Rosen would welcome comments on this monograph and can be reached at bruce@jdc.org.il.

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A series of the European Observatory on Health Systems and Policies

The Health Systems in Transition (HiT) country profiles provide an analytical description of each health care system and of reform initiatives in progress or under development. They aim to provide relevant comparative information to support policy-makers and analysts in the development of health systems and reforms in the countries of the WHO European Region and beyond. The HiT profiles are building blocks that can be used:

- to learn in detail about different approaches to the financing, organization and delivery of health services;
- to describe accurately the process, content and implementation of health reform programmes;
- to highlight common challenges and areas that require more in-depth analysis; and
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in countries of the WHO European Region.

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Belgium (2000, 2007)
Bosnia and Herzegovina (2002[g])
Bulgaria (1999, 2003[b], 2007)
Canada (2005)
Croatia (1999, 2007)
Cyprus (2004)
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Denmark (2001, 2007)
Estonia (2000, 2004[g,j], 2008)
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Malta (1999)
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New Zealand (2001)
Norway (2000, 2006)
Poland (1999, 2005[k])
Portugal (1999, 2004, 2007)
Republic of Moldova (2002[g], 2008)
Romania (2000[f], 2008)
Russian Federation (2003[g])
Slovakia (2000, 2004)
Slovenia (2002)
Spain (2000[h])
Sweden (2001, 2005)
Switzerland (2000)
Tajikistan (2000)
The former Yugoslav Republic of Macedonia (2000)
Turkey (2002[g,i])
Turkmenistan (2000)
Ukraine (2004[g])
United Kingdom of Great Britain and Northern Ireland (1999[g])
Uzbekistan (2001[g], 2007)

Key

All HiTs are available in English.
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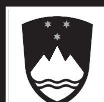
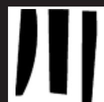
[i] Turkish
[j] Estonian
[k] Polish





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