

## Bruce Rosen, Ruth Waitzberg and [Sherry Merkur](#) Israel: health system review

### Report

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# Health Systems in Transition

Vol. 17 No. 6 2015



## Israel

Health system review

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Ruth Waitzberg  
Sherry Merkur

Sherry Merkur (Editor), Ellen Nolte and Ewout van Ginneken (Series editors) were responsible for this HiT

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# Health Systems in Transition

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## Israel:

### Health System Review 2015



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## Preface

**T**he Health Systems in Transition (HiT) series consists of country-based reviews 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 review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs 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; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the reviews 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 World Health Organization (WHO) Regional Office for Europe's European Health for All database, data from national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, data from the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. HiTs 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](mailto:info@obs.euro.who.int).

HiTs and HiT summaries are available on the Observatory's web site <http://www.healthobservatory.eu>.

## Acknowledgements

**T**he HiT on Israel was co-produced by the European Observatory on Health Systems and Policies and the Myers-JDC-Brookdale Institute, which is a member of the Health Systems and Policy Monitor (HSPM) network.

The HSPM is an international network that works with the Observatory on Country Monitoring. It is made up of national counterparts that are highly regarded at national and international level and have particular strengths in the area of health systems, health services, public health and health management research. They draw on their own extensive networks in the health field and their track record of successful collaboration with the Observatory to develop and update the HiT.

The Myers-JDC-Brookdale Institute is Israel's leading centre for applied research on social policy and services, serving Israel, the Jewish world, and the international community. MJB's goal is to continue to seek out the most effective means for Israeli society to address its major social challenges, to increase the wellbeing of Israeli citizens and expand the opportunities of society's most vulnerable members. Since its establishment in 1974, MJB has been involved in Israel's most important social initiatives, contributing to the planning and implementation of significant social policy and program reforms.

This edition was written by Bruce Rosen and Ruth Waitzberg. It was edited by Sherry Merkur, working with the support of Ellen Nolte and Bernd Rechel of the Observatory's team at the London School of Economics and Political Science. Over 20 senior Israeli health care professionals assisted in the preparation of particular chapters and they are acknowledged at the beginning of the relevant sections. The basis for this edition was the previous HiT on Israel which was published in 2009, written by Bruce Rosen and Hadar Samuel, and edited by Sherry Merkur.

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The Observatory team working on HiTs is led by Josep Figueras, Director, Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors), Richard Saltman, Ellen Nolte and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Gabriele Pastorino. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White, Jane Ward (copy-editing) and Pat Hinsley (typesetting).

## List of abbreviations

CAM	Complementary and alternative medicine
CBS	Central Bureau of Statistics
CLTCI	Community Long-term Care Insurance (Law)
CT	Computed tomography
ED	Emergency department
EU	European Union
EU-15	EU Member States before May 2004
FFS	Fee-for-service
GDP	Gross domestic product
HIV/AIDS	Human immunodeficiency virus/acquired immunodeficiency syndrome
HP	Health plan
HP-VHI	Health plan-provided voluntary health insurance
ICDC	Israel Centre for Disease Control
IDF	Israel Defence Force
IMA	Israel Medical Association
LTC	Long-term care
MJB	Myers-JDC-Brookdale (Institute)
MRI	Magnetic resonance imaging
NGO	Nongovernmental organization
NHI	National Health Insurance
NII	National Insurance Institute
NIS	New Israeli shekel
OECD	Organisation for Economic Co-operation and Development
OOP	Out of pocket
PCP	Primary care provider
PPP	Purchasing power parity
PRG	Procedure-related group
RN	Registered nurse
THE	Total expenditure on health
VHI	Voluntary health insurance
WHO	World Health Organization



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## Abstract

Israel is a small country, with just over 8 million citizens and a modern market-based economy with a comparable level of gross domestic product per capita to the average in the European Union. It has had universal health coverage since the introduction of a progressively financed statutory health insurance system in 1995. All citizens can choose from among four competing, non-profit-making health plans, which are charged with providing a broad package of benefits stipulated by the government.

Overall, the Israeli health care system is quite efficient. Health status levels are comparable to those of other developed countries, even though Israel spends a relatively low proportion of its gross domestic product on health care (less than 8%) and nearly 40% of that is privately financed. Factors contributing to system efficiency include regulated competition among the health plans, tight regulatory controls on the supply of hospital beds, accessible and professional primary care and a well-developed system of electronic health records. Israeli health care has also demonstrated a remarkable capacity to innovate, improve, establish goals, be tenacious and prioritize.

Israel is in the midst of numerous health reform efforts. The health insurance benefits package has been extended to include mental health care and dental care for children. A multipronged effort is underway to reduce health inequalities. National projects have been launched to measure and improve the quality of hospital care and reduce surgical waiting times, along with greater public dissemination of comparative performance data. Major steps are also being taken to address projected shortages of physicians and nurses.

One of the major challenges currently facing Israeli health care is the growing reliance on private financing, with potentially deleterious effects for equity and efficiency. Efforts are currently underway to expand public financing, improve the efficiency of the public system and constrain the growth of the private sector.



# Executive summary

## Introduction

Israel is a small country located at the juncture of Africa, Asia and Europe. Its population is just over 8 million, and its population density is among the highest in the western world: in the European Union (EU), only Malta and the Netherlands are higher. The largest population groups are Jews (75%) and Muslim Arabs (17%). In comparison with other developed countries, Israel's fertility rate is relatively high and its age mix is relatively young. Israel has one of the highest age dependency ratios among the countries of the Organisation for Economic Co-operation and Development (OECD), at 63% compared with the EU level of 52%.

Israel has a modern market-based economy with a substantial high technology sector. The 2012 gross domestic product (GDP) per capita was US\$ 32 567, slightly below the EU average of US\$ 34 148. At the same time, income inequality in Israel is among the highest in the developed countries of the OECD, within which only four countries (the United States, Turkey, Mexico and Chile) have more unequal income distributions.

Israel is a democratic state with a parliamentary, multiparty system. It is an active member in many major international organizations, and in 2010 it formally joined the OECD as a full member.

Generally speaking, health status in Israel is similar to that of other developed countries, even though the share of GDP spent on health is relatively low (7.6%, compared to 8.7% for the EU average and 8.9% for the OECD average). Life expectancy in Israel is slightly above the average for the EU Member States before 2004 (EU-15) for both men (80.8 years, compared with 79.1 for the EU-15) and women (84.4 years, compared with 84.2 for the EU-15), with life expectancy for Israeli men being among the highest for OECD countries. As

in other countries, Israel's health status has improved significantly in recent decades, even though the share of GDP allocated to health has been stable. Gains have been achieved for all population subgroups, but disparities persist.

## Organization and governance

Israel has a national health insurance (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 sickness funds, called health plans (HPs). These HPs must provide their members with access to a statutory benefits package. Non-resident workers are not eligible to receive NHI but employers are obliged by law to purchase private health coverage for non-resident workers.

The Ministry of Health owns and operates about half of the nation's acute care hospital beds, although they operate increasingly autonomously. The largest HP operates another third of the beds, and the remainder of the beds are operated through a mix of non-profit-making and profit-making organizations.

Within HPs, patients have a great deal of freedom in choosing their community-based physicians – both primary and specialist – from among those physicians affiliated with the HP. In most specialties, and in most areas of the country, each HP is affiliated with numerous physicians so that there is real choice in practice. Nevertheless, there are some specialties (e.g. child psychiatry) and regions (e.g. the Negev) where choice is more limited. If a member wants to see a physician not affiliated with the HP, 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.

Since 2010, there has been a surge of large-scale health system changes, including expanding the statutory benefits package to include dental care for children and mental health services, and strengthening the monitoring of the quality of hospital care.

All the HPs and hospitals have sophisticated information systems that include electronic medical records and data on activity levels, services provided and quality of care; there also several systems for aggregating data across providers, including national registries for conditions such as cancer and diabetes and reporting of cases of infectious disease.

Israel has a formal, highly sophisticated process for setting priorities for the adoption of new technologies. The prioritization process draws upon both technical information on costs and health benefits and an intuitive sense of public preferences and aspirations.

The government uses regulation to promote access to care, quality of care, financial stability and equity. This is mainly done through regulation directed at the HPs, but hospitals, private insurers, manufacturers and health professionals are also highly regulated.

In recent years, Israel had made great strides in making more information available to consumers regarding health care services, health insurance options and health rights.

Reflecting Israel's unitary system of government, authority rests with the national authorities (and with the national headquarters of the HPs), although all have regional organizations. At the national level, the Ministry of Health takes an intersectoral approach, with wide-ranging collaborations across government and with nongovernmental partners to tackle health issues.

Israel's tertiary hospitals attract patients in need of highly specialized care from various Mediterranean and Middle Eastern countries. In recent years, Israel has emerged as a major medical tourism destination for patients from beyond the region, particularly from eastern Europe. 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 patients.

## Financing

The system is financed primarily via a combination of a health-specific payroll tax and general taxation. The government distributes funds among the HPs according to a capitation formula that takes into account the number of members in each plan and their age mix, gender and place of residence (centre/periphery of the country). While public financing remains the primary source of health system resources, the share of private financing has been increasing in recent years, rising from 32% of total health expenditure (THE) in 1995 to 39% in 2012 (high compared with 27% for the EU, for example), primarily through a sharp increase in spending on voluntary health insurance (VHI).

Israel's ability to maintain its relatively low level of spending on health is probably in part a reflection of its relatively young age distribution along with various structural features and policies that contribute to cost containment. Those related to financing include:

1. The financing of universal health care coverage through a combination of earmarked health taxes and general government revenues, with high-income and low-risk individuals subsidizing low income and high-risk individuals. Moreover, due to the combination of earmarked and general government funding, when there are economic slowdowns and the health tax revenue decreases, the government can increase its share of funding so as not to decrease overall public funding. On the other hand, there is always a stable, predictable part of public funding that does not depend on year-to-year government decisions and priority settings;
2. There are effective mechanisms for risk sharing between the government and the main providers/purchasers of care, through:
  - financing of HPs primarily via prospective payments based on a capitation formula with simple and objective risk adjusters; and,
  - supplementary HP funding via retrospective payments based on performance and the prevalence of outlier costly diseases;
3. HPs work as managed care organizations with gatekeeping, and some cost sharing from patients for visits to specialists and for medications. Most of the physicians working with HPs are paid via capitation and/or salary arrangements, thereby largely avoiding the cost-promoting effects of fee-for-service reimbursement;
4. HPs purchase inpatient care from hospitals through 50 differential daily fees and activity-based payments based on procedure-related groups. The government publishes maximum-price lists for inpatient care and sets hospital revenue caps to contain hospitals' income increases. Moreover, due to their dominance, HPs are further able to obtain discounts from hospitals.

Along with the low and decreasing public expenditure on health, there has been a constant and marked trend of increases in private spending. The VHI market is one of the biggest in OECD countries with about 87% of Israel's adult population covered with health plan VHI, and 53% covered with commercial insurance. Household spending on VHI has increased markedly over the past decade. Out-of-pocket (OOP) expenditures are also high relative to many other countries (26% of total health expenditure, compared to an EU average

of 21%), and have increased somewhat over time. There are large differences in households' expenditures on health by income quintile, which indicate the existence of inequalities.

On the one hand, the low and stable expenditure on health has been a source of pride for the Israeli health care system. On the other hand, the increasing growth of private expenditure has raised serious concerns about a shortage of resources in the public system and rising inequalities; these, in turn, could pose risks to access to services and the population's health. It is not clear whether the Israeli system is an adequately funded system that can provide good care through a very high level of efficiency or whether it has steadily been eroding its resources up to an unwanted point.

## Physical and human resources

Israel's acute care hospital system is characterized by:

- a low bed-to-population ratio (at 189 beds per 100 000 people, only just over half the EU average of 384)
- an extremely low average length of stay (4.3 days, compared with the EU average of 6.4)
- a mid-to-high rate of admissions per 1000 population; and
- a high bed occupancy rate (98%, compared with an EU average of 75.9%).

The low bed-to-population ratio is the result of deliberate, long-standing government policy to shift as much care as possible to community settings and to contain costs. However, several years ago the Ministry of Health identified a serious need for expansion, particularly in the periphery. As of mid-2015, the implementation of a national bed expansion plan is underway including the establishment of two new hospitals in the southern periphery.

In 2014, Israel had relatively few computed tomography (CT) and magnetic resonance imaging (MRI) units for its size (e.g. three MRI units per million people in comparison with an EU average of 10.5), but these devices are being used intensively. In 2015, a major government initiative was launched to increase the availability of these diagnostic devices. Regardless of the potential purchaser, major medical devices require governmental approval before purchase.

In 2014, the Ministry of Health launched a national health information exchange for sharing clinical patient data across all of Israel's general hospitals, HPs and additional providers. This provides Israeli clinicians with the world's first national data exchange programme, enabling secure authorization-based sharing of clinical data.

Historically, Israel has had a very high physician-to-population ratio but this ratio has seen a marked decline. By 2012, Israel's rate and the OECD average converged at around 3.3 physicians per 1000 people, and at that time the rate for Israel was projected to decline even further. Recently, several concrete steps have been taken to expand the overall supply of physicians (see below); the number of newly licensed physicians has reached a record high, and Israel's ratio of physicians to the population has not fallen below the OECD average.

The nurse-to-population ratio has been decreasing and at 502 per 100 000 people is lower than the EU-15 average of 836. Several policy measures have also been undertaken recently to increase the supply of nurses, which are beginning to prove successful.

## Provision of services

The Ministry of Health provides national leadership in a broad range of public health domains including food safety, control of communicable diseases, screening, health promotion, environmental health and epidemiological monitoring. Its key partners include HPs, municipalities and the Ministries of Education, Sport and Culture, Finance, and Environment.

One of the principal environmental problems used to be a water shortage, exacerbated by the deteriorating quality of water resources under demographic, industrial and agricultural pressures. The establishment of large water desalination facilities has helped to solve this problem.

Primary care is provided almost exclusively by salaried physicians (and other professionals) employed by the HPs, and independent physicians with whom the HPs contract. Primary care doctors play a gatekeeping role for access to secondary care, although the exact process depends on the specialist and the HP. Nurses also play an extensive role in primary care in areas such as preventive health care, counselling, triaging of urgent cases, home care, chronic disease management and the handling of clinical paperwork related to the patients' eligibility for various social benefits.

Most specialized ambulatory care is provided in community settings, despite recent hospital efforts to attract activity to their outpatient departments. In contrast, the hospitals are the main source of emergency care, with a relatively small but growing role for community-based providers (e.g. evening service centres sponsored by HPs and independent urgent care centres). The average waiting time for a publicly funded specialist physician in the community is 3.2 weeks, although there is wide variation by specialty and geographical area. Rates of visits to specialist physicians are substantially lower among Israeli Arabs than among Israeli Jews, while visit rates to primary care and hospitalization rates are higher among Arabs than Jews.

Israelis have access to a secure, safe and stable supply of a wide range of pharmaceuticals. The government approves pharmaceuticals for sale, establishes a national formulary of pharmaceuticals that all HPs must make available to members, sets maximum prices, licenses pharmacists and regulates the pharmaceutical market. Israel also has a large, successful and growing pharmaceutical industry, with an emphasis on genetic pharmaceuticals. Advertising of non-prescription pharmaceuticals is allowed, but direct-to-consumer advertising of prescription pharmaceuticals is not. However, the Ministry of Health has recently established regulations regarding “disease awareness campaigns” so that consumers can be empowered with information about the availability of new treatments in a manner that does not involve the promotion of a particular commercial product.

The system of health and welfare services for the elderly with disabilities in Israel has been developed enormously in the past decades. The vast majority of elderly people live, or are cared for, at home, with only 3.5% residing in any kind of institutional setting (with some 2.5% in a skilled nursing home). Even among the disabled elderly, nearly 80% still live in the community. This is because of the extensive care provided by families and the development of formal services (some quite innovative) intended to reinforce this social support and to help families to cope with the burden of care. Institutional care is subject to co-payments according to income – children are also required to contribute to the cost of institutional care for their parents, depending on their economic situation and that of the parents concerned. Informal carers also have special rights in Israeli law, for example being entitled to miss workdays because of the illness of a parent.

Palliative and hospice services are covered as part of the statutory benefits package. However, there are no governmental guidelines on when, how and to what extent HPs are required to provide these services. Hospital- and community-based palliative and hospice services exist, but they are not well developed.

As in other countries, over the past two decades Israel has gone through a process of de-institutionalization of mental health care. In mid-2015, an additional major change was introduced into the mental health care system, when responsibility for the provision of publicly financed mental health care (not including substance abuse care) was shifted from government to HPs. The government continues to operate most of the psychiatric hospitals and a network of community clinics as well as a comprehensive programme of rehabilitation services for the chronically mentally ill. The private sector is also a major provider of community-based mental health services.

Dental care, particularly for adults, is predominantly provided by the private sector – mostly by independent dentists but commercial chains are also significant providers – and generally speaking is not part of the statutory benefits package. The exception is dental care for children, which (since its addition to the benefits package in 2010) is increasingly being provided by HPs and financed by government. The government also provides financial support for school dental services and limited programmes of dental care for poor people.

The use of complementary and alternative medicine (CAM) has grown markedly in Israel in recent decades. Moreover, mainstream health providers – including hospitals, HPs and physicians – are increasingly involved in provision of CAM. In 2010, an experimental programme was started using CAM in some pre- and postsurgical settings.

## Principal health reforms

In recent years, the intensity of reform efforts in the Israeli health care has been greater than at any time since the passage of the NHI Law in 1995. Many of these efforts have been, or are in the process of being, implemented. Others have not been realized, at least as yet.

The Ministry of Health and the health care system more broadly are in the midst of a major, multipronged effort to reduce health inequalities. The effort is based, in part, on the understanding that, as in other countries with universal

health insurance programmes, inequalities persist despite universal coverage. In Israel, the growth of private insurance and private care provision, and the erosion of public funding relative to needs, further underscores the need to address health equity issues. Major components of the effort include enhancing financial access to services, strengthening the public health system, constraining the growth of the private system, enhancing the availability of services and key professionals in the periphery, addressing the specific needs of various linguistic and cultural minorities, promoting interministerial and intersectoral cooperation and providing information about health care disparities.

In July 2015, mental health services were added to the set of services that the HPs must provide to their members, and the government substantially increased the level of funding to cover the costs expected to be incurred by them because of this new responsibility.

For over a decade, Israel has had an extensive and successful programme for monitoring quality of care in the community. In recent years, that programme has undergone several important developments, including the first publication of performance data by HP. In addition, the Ministry of Health has launched an extensive programme to monitor quality in hospitals, including publication of comparative data on sensitive issues such as waiting times.

Since the early 2000s, several significant steps have been taken to increase the overall supply of physicians. Key measures include the establishment of a new medical school in the Galilee (Israel's northern region) and the expansion of class sizes in all existing medical schools. The number of new medical licences issued has doubled in less than 10 years.

Israel's long-term care (LTC) system is seriously fragmented, with consequences for service gaps, duplication, inefficient incentives and inadequate investment in prevention and rehabilitation. In 2011, the Ministry of Health put forward a detailed plan for a major reform of the LTC system, which involved adding it to the statutory benefits package. The plan was not adopted at the time, but a variant of it is now being reconsidered.

In June 2014, Israel's Advisory Committee for Strengthening the Public Health System issued a report proposing a comprehensive reform to Israel's health care system, including a substantial increase in financing. However, because of a change in government, it is unclear which, if any, of the committee's recommendations will move ahead.

## Assessment of the health system

Israel's NHI Law, which established a system of national insurance based on the principles of justice, equality and mutual aid, continues to be an inspiration and moral compass for Israel's health care system to this day. However, Israel's record of achievements regarding financial protection and equity in financing is complicated and mixed. Israelis have universal health care coverage with a broad benefits package. Moreover, the health system is financed predominantly via progressive taxation, but approximately 40% of health care expenditure is financed privately.

Recent national surveys show that most (75%) patients are satisfied with their hospital care and that almost all Israelis are satisfied or very satisfied with their HP overall (~90%). Interestingly, only 61% of Israelis felt that way about the health system overall.

Access to primary care physicians is excellent, both in terms of travel times and waiting times, and quality has been found to be good from an international perspective. Waiting times for community-based specialists are also good overall, although waits for advanced specialties are somewhat longer in the periphery. However, approximately 10% of Israelis report that someone in the family had foregone a medication or health care over the past year. Waiting times for publicly financed surgery are highly variable and are problematic for some types of operation.

Life expectancy is higher and mortality lower than the OECD average, but Israel ranks in the mid-range among European countries for amenable mortality. Israel's standing relative to the OECD average is mixed with regard to avoidable hospitalizations and in-hospital mortality, while it outperforms on several key safety measures. Despite this, Israel's rate of hospital-acquired infections is higher than in many other developed countries.

Overall, the Israeli health care system appears to be quite efficient. Compared with other developed countries, its expenditure on health is relatively low, while achievements in population health and the quality of primary care are significant. The 2012 OECD report stated "Israel has established one of the most enviable health care systems among OECD countries".

Israeli health care has a history and culture that champion disease prevention and primary care, along with tight regulatory controls on the supply of hospital beds and advanced medical equipment. Allocative efficiency is promoted by having HPs as the main budget holders and organizers of care, as they are required to balance cost control and quality/service imperatives.

Concurrently, there are several features of the system that appear to limit its ability to channel resources where they could have the greatest benefit. For example, the growth of public health care financing is much more tightly controlled than the growth of private financing, despite the recognition that a shekel of public funds is likely to yield more benefit than a shekel of private funds. Moreover, the most tightly controlled budgets are those for services provided by the Ministry of Health itself, despite the vital nature of those services (such as public health and LTC). The lack of clarity regarding who is responsible for certain services (e.g. health promotion) also leads to missed opportunities. Finally, the multiple roles of the Ministry of Health as regulator, provider and funder creates conflicts of interests (or at least perceived conflicts of interests) that may be creating various barriers to efficiency.

Israeli health care also has a number of features that promote its capacity to secure high levels of output per unit of input. These include a system of regulated competition among HPs, a strong system of health professional education and training, a high degree of alignment between the incentives of the HPs and those of the professionals whom they employ and a well-developed system of electronic health records. In addition, the size and purchasing power of the HPs have helped them in price negotiations, particularly with regard to pharmaceuticals.

At the same time, there are some significant barriers to technical efficiency, including an outdated hospital pricing system, a capitation formula that does not adequately take into account differences in health status, and bureaucratic barriers that limit the hours during which operating theatres are in use.

In recent years, the Ministry of Health has made transparency one of its main goals and it has made major strides in increasing the public's access to comparative data on quality, finances and patient satisfaction. These advances in transparency have also facilitated greater accountability, both to the government and to the general public.

## Conclusions

The Israeli health care system has demonstrated a remarkable capacity to innovate, improve, establish goals, be tenacious and prioritize – all of which have enabled it to achieve good health outcomes with limited resources. In the years ahead, Israel must find ways to draw on these capacities to address the major challenges now facing its health care system.



# 1. Introduction

Israel is a small country located at the juncture of three continents (Africa, Asia and Europe). Its population is just over 8 million, and the population density is very high. The largest population groups are Jews (75%) and Muslim Arabs (17%). In comparison with other developed countries, Israel's fertility rate is relatively high and its age mix is relatively young.

Israel has a modern market-based economy with a substantial high-technology sector. The 2012 gross domestic product (GDP) per capita was US\$ 32 567, placing Israel among the middle-income countries. At the same time, income inequality in Israel is among the highest in Organisation for Economic Co-operation and Development (OECD) countries.

Israel is a democratic state with a parliamentary, multiparty system. It is an active member in many major international organizations and in 2010 it formally joined the OECD as a full member.

Generally speaking, health status in Israel is similar to that of other OECD countries, even though the share of GDP allocated to health is relatively low (7.6%, compared with 8.7% for the EU average and 8.9% for the OECD average). Life expectancy for Israeli males is among the highest for OECD countries and that for women is among the top third. As in other countries, Israel's health status has improved significantly in recent decades, even though the share of GDP allocated to health has been stable. Gains have been achieved for all population subgroups, but disparities persist.

## 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<sup>2</sup> (CBS, 2014e). It is approximately 470 km in length and 135 km in width at its widest point. 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. The final status of Judea, Samaria and Gaza has not yet been resolved and is the subject of negotiations between Israel and the Palestinian Authority.

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, which 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. At the same time, 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.

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 2014, Israel had an estimated population of 8.2 million (Table 1.1), of whom 75% were Jewish, 17% were Muslim Arabs and the remainder other minority groups included Christians (2%) and Druze (2%) (CBS, 2014f). Population density is among the highest in the Western world, with 353/km<sup>2</sup>. 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 (815 300 inhabitants), Tel Aviv (414 600) and Haifa (272 200) (CBS, 2013c). 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; fewer than 10% live in rural areas, principally in two types of cooperative communities: *moshavim* and *kibbutzim*. Most of the Arab population lives in small- to medium-sized towns.

**Table 1.1**

Trends in population/demographic indicators, 1980–2013, selected years

	1980	1990	1995	2000	2005	2013
Total population (in thousands)	3 878	4 660	5 545	6 289	6 930	8 060
Population, female (% of total)	50.1	50.3	50.5	50.7	50.6	50.5
Population, aged 0–14 (% of total)	33.2	31.3	29.6	28.6	28.3	26.2
Population ages 65 and above (% of total)	8.6	9.1	9.5	9.8	9.9	10.5
Population ages 80 and above (% of total)	n/a	1.8	2.2	2.2	2.5	2.9
Population growth (average annual growth rate)	2.4	3.1	2.7	2.6	1.8	1.9
Population density (people per km <sup>2</sup> )	186.7	220.4	247.4	278.7	305.2	359.4
Fertility rate, total (births per woman)	3.2	2.8	2.9	3.0	2.8	3.0
Age-dependency ratio <sup>a</sup>	71.9	67.7	58.4	62.3	61.9	63.3
Distribution of population (rural/urban)	n/a	90.0	89.6	90.6	91.7	n/a
Proportion of single-person households	14.0	15.4	15.9	17.2	16.9	n/a
Proportion with 12 years schooling	n/a	53.5	60.5	65.9	70.0	n/a

Source: CBS, 2014e.

Notes: <sup>a</sup>Ratio of population 0–14 and 65+: population 15–64 years; n/a: Not available.

Israel is a relatively young society; 26% of the population is younger than 15 years and only 11% is older than 64 years. Israel's general population is still significantly younger than that of other industrialized countries. Its relatively high total fertility rate (3.0 per woman) has been accompanied by substantial growth in the absolute number of elderly people. Since 1955, the elderly population (aged 65 years and over) has increased ten-fold, while the general population has increased approximately five-fold. The proportion of elderly people in the population is expected to reach 12% by 2020 and 14% by 2030. Consequently, the age-dependency ratio in Israel is 63%, which is one of the highest among OECD countries and which contributes to a heavy burden on the working-age population.

Immigration has played a critical role in the demography of Israel. When the State of Israel 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 USSR. Immigration rates were lower in the 1980s, surged again in the 1990s and then declined gradually during the 2000–2010 decade.

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 former countries of the USSR. Between 1980 and 2005, Israel also absorbed approximately 70 000 immigrants from Ethiopia (CBS, 2014h). Moreover, Israel has been absorbing Jewish immigrants from all over the world since its establishment. In 2013 immigration accounted for 14% of total population growth (CBS, 2014g).

From 1990 to 1995 – years of particularly high immigration rates – the Israeli population grew at an annual average rate of 3.5% per year, while the average annual growth was 2.5% from 1995 to 2000, 2.3% from 2000 to 2005 and 1.9% from 2005–2010.

## 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, 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-technology sector. The 2012 GDP per capita income was US\$ 32 567, somewhat lower than the average for the OECD countries (37 342). Israel's economy grew rapidly in the mid-to-late 1990s and growth slowed in 2000 owing to the worldwide recession, the global downturn in the high-technology 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 63.7% of the population aged 15 years and over was part of the civilian labour force in 2013 and the unemployment rate was 6.2% (CBS, 2014e). Traditionally there are two population subgroups that intentionally participate less in the labour market because of cultural preferences: Arab women and ultra-Orthodox men. 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 (new Israeli shekel: NIS).<sup>1</sup>

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<sup>1</sup> The average exchange rates for 2013 were US\$ 1 = NIS 3.61 and €1 = NIS 4.80. The Bank of Israel (2015) quotes an average exchange rate for 2014 of €1 = NIS 5.0.

**Table 1.2**

Macroeconomic indicators, 1990, 2000 and 2013

	1990	2000	2013
GDP (current US\$, billions)	52.49	131.45	290.55
GDP growth (annual %)	6.8	8.9	3.2
Inflation, GDP deflator (annual %)	15.9	2.2	2.5
Exports of goods and services (% of GDP)	35	36	33
Imports of goods and services (% of GDP)	45	36	32
Gross capital formation (% of GDP)	25	22	20
Revenue, excluding grants (% of GDP)	n/a	38.6	31.7
Cash surplus/deficit (% of GDP)	n/a	-3.4	-5.4
Time required to start a business (days)	n/a	19	13
Domestic credit provided by financial sector (% of GDP)	106.2	72.7	n/a
Tax revenue (% of GDP)	n/a	27.3	22.1
Military expenditure (% of GDP)	14.8	7.1	5.8
Mobile cellular subscriptions (per 100 people)	0.3	73.2	122.8
Internet users (per 100 people)	0.1	20.9	70.8
High-technology exports (% of manufactured exports)	11	19	16

Source: World Bank, 2015.

Note: n/a: Not available.

The CIA World Factbook (2015) lists the following key points about the Israeli economy.

- Between 2004 and 2011, growth averaged nearly 5% per year, led by exports. The global financial crisis of 2008–2009 spurred a brief recession in Israel, but the country entered the crisis with solid fundamentals, following years of prudent fiscal policy and a resilient banking sector... The economy has recovered better than most advanced, comparably sized economies, but slowing demand domestically and internationally, and a strong shekel, have reduced forecasts for the next decade to the 3% level.
- Natural gas fields discovered off Israel’s coast since 2009 have brightened Israel’s energy security outlook. The Tamar and Leviathan fields were some of the world’s largest offshore natural gas finds this past decade.
- In mid-2011, public protests arose around income inequality and rising housing and commodity prices. Israel’s income inequality and poverty rates are among the highest of OECD countries and there is a broad perception among the public that a small number of “tycoons” have a cartel-like grip over the major parts of the economy.
- Over the long term, Israel faces structural issues, including low labour participation rates for its fastest growing social segments – the ultra-Orthodox and Arab-Israeli communities. Also, Israel’s progressive,

globally competitive, knowledge-based technology sector employs only 9% of the workforce, with the rest employed in manufacturing and services sectors, which face downward wage pressures from global competition.

### 1.3 Political context

Israel is a democratic state with a parliamentary multiparty 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. 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 most recent parliamentary elections were held in March 2015, and they resulted in a Knesset comprising representatives of 10 political parties. The current government is a right-of-centre/ultra-Orthodox coalition government made up of five political parties. Together, these parties have 61 of the Knesset's 120 seats; this is the minimum needed to form a government. The dominant party, Likud, has 30 seats.

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 of several major international organizations, including the United Nations and the World Health Organization (WHO) European Region. In 2010, Israel formally joined the OECD as a full member.

It is a signatory to many significant international agreements, including the General Agreement on Tariffs and Trade, the Framework Convention on Tobacco Control and the Convention on the Rights of the Child.

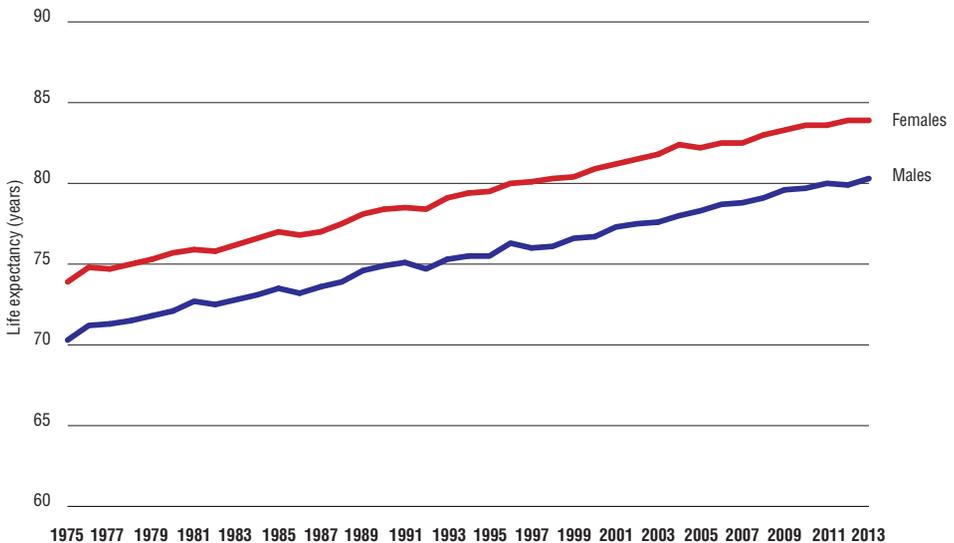
## 1.4 Health status

### 1.4.1 Health indicators

In 2013, life expectancy at birth was 80.3 for males and 83.9 for females (CBS, 2013a, 2014b) (Fig. 1.1 and Table 1.3).<sup>2</sup> Life expectancy for Israeli males is among the highest for OECD countries and that for women is in the top third of OECD countries (OECD, 2012b). From 1990 to 2013, life expectancy increased by 5.4 years for males and by 5.5 years for females (CBS, 2014b). The most recent estimates of health-adjusted life expectancy at birth are for 2013, with 69.5 years for males and 71.7 for females (Murray et al., 2015).

**Fig. 1.1**

Life expectancy at birth in Israel, by gender, 1975–2013



Source: CBS, 2013a.

<sup>2</sup> This section is based on data collated by the Israel Centre for Disease Control and was prepared by Anneke Ifrah.

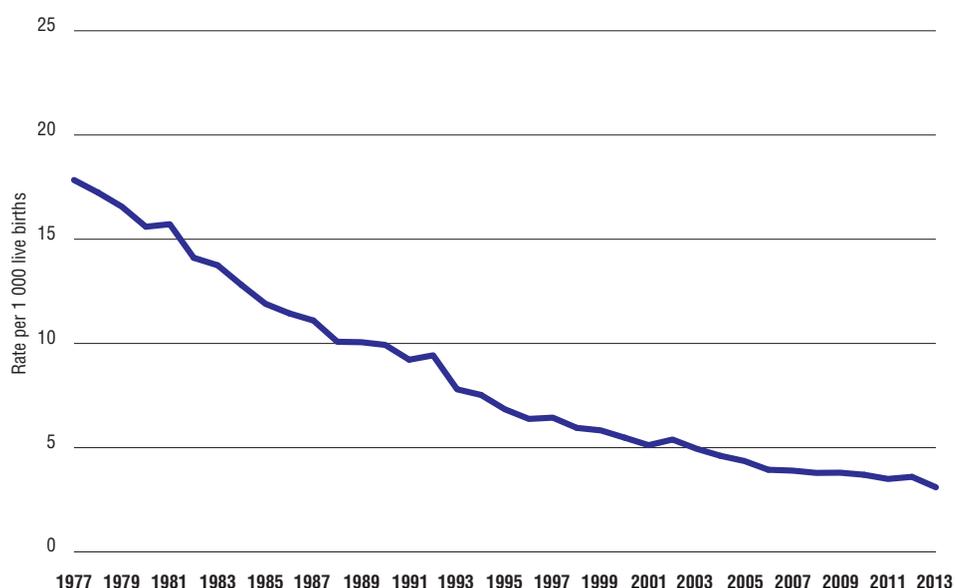
**Table 1.3**  
Mortality indicators, 1980–2013, selected years

	1980	1990	1995	2000	2005	2013
Life expectancy at birth (total, years)	73.9	76.7	77.5	78.8	80.2	82.1
Life expectancy at birth, male (years)	72.1	74.9	75.5	76.7	78.2	80.3
Life expectancy at birth, female (years)	75.7	78.4	79.5	80.9	82.2	83.9
Mortality rate, males aged 15–59 (per 1000) <sup>a</sup>	2.5	1.8	1.9	1.9	1.8	1.4
Mortality rate, females aged 15–59 (per 1000) <sup>a</sup>	1.5	1.2	1.1	1.0	1.0	0.8

Sources: World Bank, 2015; <sup>a</sup>CBS, 2014b.

In 2013, the infant mortality rate was 3.1 per 1000 live births (CBS, 2014b) (Fig. 1.2); it has declined by 39% since 2000. The infant mortality rate for the Arab population has shown an even more rapid decline than that for the Jewish population, but it still remains approximately double that of the latter, reflecting the influence of high rates of consanguineous marriages and various socioeconomic factors. The main immediate causes of infant mortality are prematurity in the Jewish-Israeli population and congenital anomalies in the Arab-Israeli population (Ministry of Health, 2014f). The rate of under-5 mortality in 2015 was estimated at 4.0 per 1000 live births (UNICEF, 2015).

**Fig. 1.2**  
Trends in infant mortality in Israel (infant deaths per 1000 live births), 1977–2013



Source: CBS, 2013a.

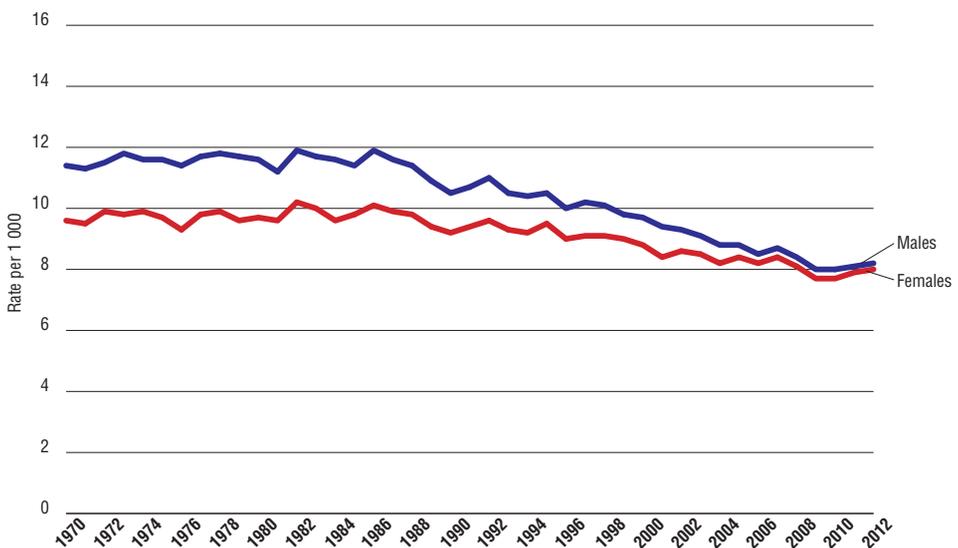
The crude mortality rate in 2013 was 5.3 per 1000 population, down from 6.0 per 1000 population in 2000. The leading causes of death were malignant neoplasms, heart disease, diabetes, cerebrovascular disease, chronic lower respiratory diseases, infectious diseases and injuries, accounting for two thirds of all deaths in 2012 (CBS, 2014b,i).

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. From 1985 to 2015, rates of cancer mortality have declined in the Jewish-Israeli population and increased in the Arab-Israeli population (and less markedly in women than in men for the former).

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. 1.3). With regard to the crude death rate for the under-65 population (Fig. 1.4), the male rate remains higher than the female rate, although here, too, the gap has narrowed somewhat over time.

**Fig. 1.3**

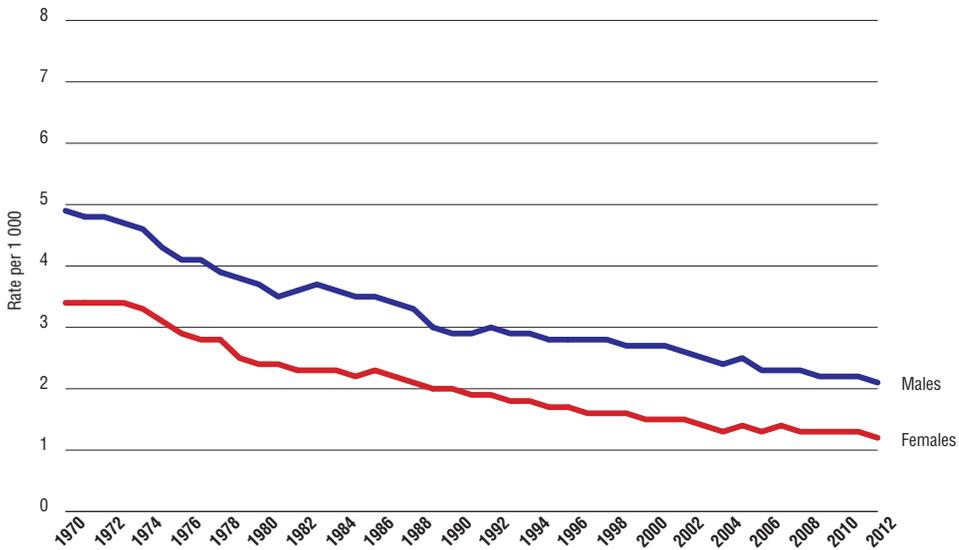
Mortality rates for adults ( $\geq 20$  years), by gender (per 1000 adults), 1970–2012



Source: CBS, 2013a.

**Fig. 1.4**

Under-65 mortality rates, by gender (per 1000 adults, aged 20–65 years), 1970–2012



Source: CBS, 2013a.

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) (CBS, 2014i).

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 2009 National Health Survey (CBS, 2010) and the Israel National Health Interview Survey (ICDC, 2012). In addition, national hospital-based surveys of coronary heart disease and stroke have been established: the Acute Coronary Syndromes in Israel Survey has been carried out in 2000, 2002, 2004, 2006, 2008, 2010 and 2013 (Goldenburg, 2014) and the National Acute Stroke Israeli Survey in 2004, 2007, 2010 and 2013 (Bornstein, 2014).

Among the Arab-Israeli population, the leading causes of morbidity and mortality are cancer, heart disease, injuries, diabetes and stroke. Risk factors for cardiovascular diseases, such as obesity, diabetes and physical inactivity, are particularly prevalent among Arab men and women over the age of 45. 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 39%) compared with Jewish men (approximately 21%) (Ministry of Health, 2014e).

With regard to lifestyle factors, alcohol consumption is appreciably lower in Israel than in other OECD countries, while rates of cigarette smoking are similar in men and slightly lower in women (OECD, 2012b). Rates of smoking have shown a decline since the mid-1990s; in 2013 approximately 19% of the population aged 21 years and older reported that they were smokers (compared with approximately 27% in 2000) (Ministry of Health, 2014e). The prevalence of cigarette smoking has also declined somewhat in teenagers. In 18-year-old army inductees, there has been no decline in smoking rates in men since the mid-1990s. In women inductees, however, smoking rates have declined somewhat since 2008 (Ministry of Health, 2014e).



## 2. Organization and governance

The Israeli health care system is, in its basic structure, a universal statutory health insurance system. Health care service provision is the responsibility of four nationwide non-profit-making health plans (HPs): Clalit, Maccabi, Meuhedet and Leumit.<sup>3</sup> Health care services in Israel were developed over the past century, with all four HPs established between 1920 and the early 1940s. The modern era of Israeli health care began in 1988 when the government established the Netanyahu Commission. The recommendations of this Commission constituted a major watershed in the history of Israeli health policy and laid the groundwork for the passage of the 1995 National Health Insurance (NHI) Law. From 1995 to the late 2000s, there were almost no major structural reforms, but there was a good deal of positive evolutionary change in health system organization and service delivery. Since 2010, there has been a resurgence of large-scale health system changes, including an expansion of the NHI benefits package to include dental care for children and mental health services.

In the early 1990s, a major effort to transform government hospitals into independent, non-profit-making trusts did not succeed. Instead, government hospitals have been gradually given increasing autonomy.

The NHI Law called for the government's role in service provision to be reduced, specifically in personal preventive care, long-term care (LTC) and mental health care, and these responsibilities were to be transferred to the HPs over three years. To date the transfer has only been successful for mental health care, although efforts have been made in the other two areas as well.

Most analysts interpret the NHI Law as increasing government control of the main elements of the health care system. Previously, HPs were largely unregulated, but under the Law the government has substantial powers regarding

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<sup>3</sup> HPs are insurers that also provide services. In the United States, they are sometimes referred to as health maintenance organizations or managed care organizations. In some European countries, they are referred to as "sickness funds".

the benefits to be provided and to the level of HP revenues. Nevertheless, the HPs remain separate legal entities with considerable latitude for strategic and managerial discretion.

Since 2013, the Ministry of Health has initiated moves towards addressing Israel's growing health challenges, with the establishment of a Planning Directorate to lead and coordinate long-term planning, appointing ad hoc commissions or expert committees to support development of new policies on sensitive subjects and increasingly collaborating with other organizations.

There are sophisticated information systems within all the HPs and hospitals that aggregate data on services and quality of care; data are also combined from across providers to support broad policy decisions and to monitor and analyse overall national developments.

Israel has a formal, highly sophisticated process for setting priorities for the adoption of new technologies. The prioritization process draws upon both technical information on costs and health benefits and an intuitive sense of public preferences and aspirations.

The government uses regulation to promote access to care, quality of care, financial stability and equity. This is mainly done through regulation directed at the HPs, but hospitals, private insurers, manufacturers, and health professionals are also highly regulated.

In recent years, Israel had made great strides in making more information available to consumers regarding health care services, health insurance options and health rights.

## 2.1 Overview of the health system

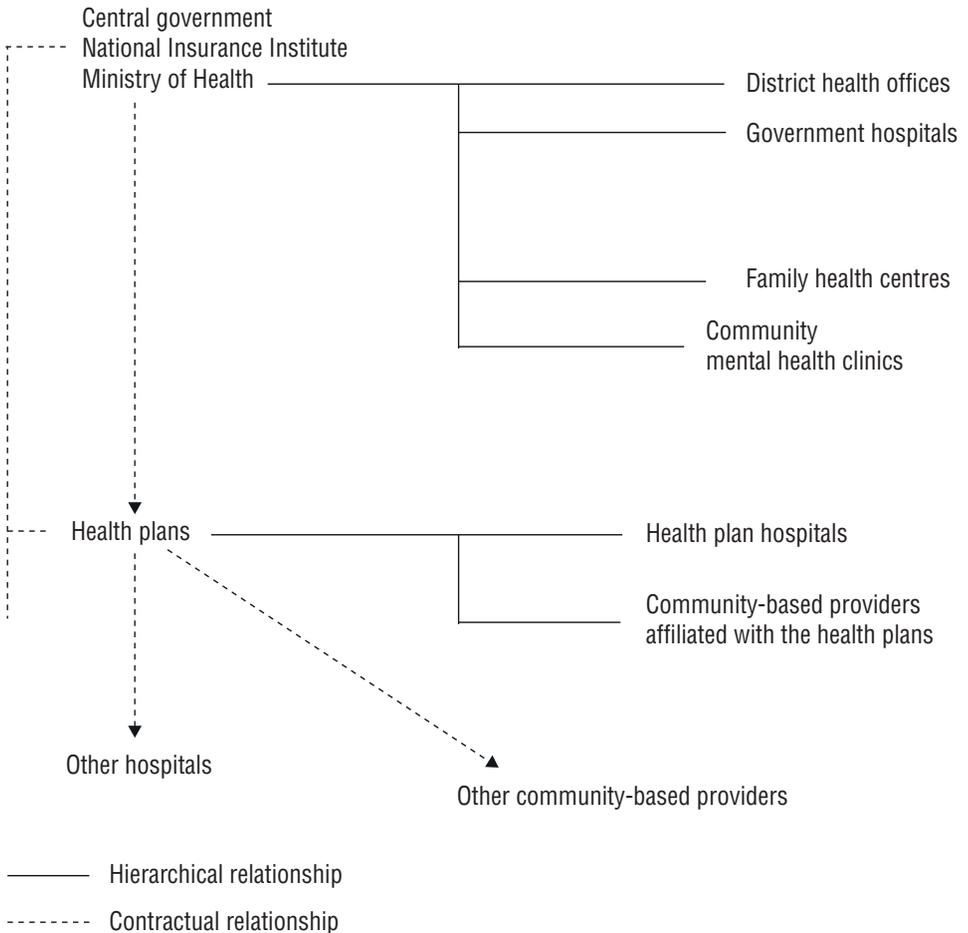
Israel has an NHI system that provides for universal coverage. Every citizen or permanent resident of Israel is free to choose from among the four competing, non-profit-making HPs. The HPs must provide their members with access to a benefits package that is specified in the NHI Law. The system is financed primarily via progressive taxation, and the government distributes the NHI funds among the HPs according to a capitation formula that takes into account the number of members in each plan and their age mix, gender and place of residence (centre/periphery). While public financing remains the primary source of health system resources, the share of private financing has been increasing in recent years.

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 HP operates another third of the beds, and the remainder are operated through a mix of non-profit-making and profit-making organizations.

The organization of the Israeli health system is shown in Fig. 2.1.

**Fig. 2.1**

Overview of the health system



## 2.2 Historical background

Health care services in Israel have been developed over the past century by voluntary (nongovernmental) HPs, originally called “sickness funds”, as well as by non-profit-making institutions, the government and the British Mandatory regime that existed prior to the establishment of the State of Israel in 1948. All four of Israel’s HPs were formally established in the period between 1920 and the early 1940s; some of them emerged from mergers of HPs established even earlier. Another important actor in the early years of the Israeli health care system was the Hadassah Medical Organization, which began in 1913 and started with well-baby clinics. 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 in buildings of British Army camps left over from the War of Independence in 1947–1948. (The 2009 Israel HiT covers the historical background of the health system; Rosen, Samuel & Merkur, 2009.)

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 HPs (non-profit-making mutual organizations).

As of 2014, four non-profit-making HPs operate in Israel: Clalit, Maccabi, Meuhedet and Leumit (Rosen, Samuel & Merkur, 2009).

The State is responsible for supervising, licensing and overall planning of health services. It also subsidizes some of the voluntary HPs and other bodies, as well as directly funding or providing some services not offered by the HPs, such as long-term hospitalization.

General hospitals, together with hospitals built by Clalit and voluntary and religion-based hospitals, provide services to the members of all the HPs 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 an ever-widening gap between the demand for care and the available resources of the health care system. Due to a number of other challenges since the 1980s, the Cabinet of the State of Israel in June 1988 established a State Commission of Inquiry into the functioning and efficiency of the health care system – the Netanyahu Commission. The recommendations of this Commission constituted a major watershed in the history of Israeli health policy. The Commission emphasized a large number of problems and proposed recommendations in a report (see Chapter 7 and Rosen, Samuel & Merkur, 2009).

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, failed because of opposition from health care workers' unions and the Histadrut (the national labour federation). 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 HPs, and there is full freedom of choice among HPs. The system is financed primarily via progressive taxation and the government distributes these funds among the HPs 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 is provided in Chapters 3 and 7.

In the decade or so following the introduction of NHI in 1995, there were few if any major top-down structural reforms in Israeli health care. Plans were developed to transfer several key services (mental health services, preventive maternal and child health services, and institutional LTC services) from the government to the HPs, but these were not implemented. As a result, some observers suggested that the NHI reform was followed by a period of policy stagnation and even regression. They argued that the equity-related advances introduced by NHI were eroded by the introduction of co-payments for pharmaceuticals and physician visits, as well as by the growth of supplemental insurance programmes. They noted that since the mid-1990s there has been an increase in the extent to which national health care expenditure is being financed privately – from 26% in 1995 to 39% in 2012 – and the concomitant decline in the role of government financing.

Others note that in the 1995–2010 period the health system went 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 created several significant new planning and regulatory units staffed by highly trained professionals, including units for health economics, supervision of HPs and regulation of the adoption of new technologies. Moreover, even though the Ministry of Health continued to own the government hospitals, the latter became far more autonomous than they had been previously. In parallel, the HPs invested heavily in information systems and quality improvement efforts, as discussed elsewhere in this report.

Since 2010, there has been a resurgence of large-scale health system changes driven, in large part, by the Ministry of Health. The NHI benefits package has been expanded to include dental care for children (section 5.12) and mental health services (section 6.1.2). The Ministry of Health has initiated a major national effort to monitor the quality of hospital care, and it has also mandated that the data on HP quality be disseminated on a comparative, plan-specific basis. As detailed in section 4.2, a series of major policy measures have been adopted to address Israel's serious nursing shortage and its impending physician shortage. Similarly, a multifaceted national programme for reducing health care disparities has been implemented (section 6.1.1). Finally, as described in section 6.2, in 2013 the Ministry of Health formed a blue ribbon panel (the Advisory Committee for Strengthening the Public Health, known as the "German Committee") to consider how the publicly financed system could best be strengthened in light of various threats posed by the growing private sector. In mid-2014 the panel released its recommendations and some of these are already being implemented.

## 2.3 Organization

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.

### 2.3.1 The Knesset

Israel is a parliamentary democracy and 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 (a loose network of Knesset members and nongovernmental organizations (NGOs) that seeks to advance legislation to promote equality and the well-being of low-income groups).

### 2.3.2 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 2013, there were 12 ministers of health, some from the smaller parties and some second-tier figures from the dominant parties.

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 expenditure.

In some cases, elected officials need to decide whether to introduce major health reforms via legislation (which can only be enacted by the Knesset) or via governmental administrative decrees. This was illustrated by the mental health insurance reform (see section 6.1.2), where, after numerous failed attempts to pass legislation enacting the reform, in 2012 the government gave up on the legislative route and introduced the reform via administrative decree.

### 2.3.3 The Ministry of Health

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 5.1);
- 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, HPs,<sup>4</sup> various stand-alone diagnostic facilities and so on;
- regulating the health care professions, with part of this function delegated to the Scientific Council of the Israel Medical Association (IMA), which works closely with the Ministry on issues surrounding physician licensing and other key matters; and

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<sup>4</sup> The Ministry of Health is involved in primary care in part through its regulation of the HPs 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.

- 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 10% of the chronic disease beds. In addition, it operates many of the nation's mother and child preventive health centres. This multiplicity of Ministry roles has long been recognized<sup>5</sup> as one of the problems of the Israeli health care system, and it is an issue that is discussed further in section 5.1.

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 diseases and women's health; these are appointed to advise the Director-General on both long-term goals and pressing issues requiring immediate policy response.

In the wake of the 2014 report of the German Committee (see section 6.2), steps were initiated to establish a government hospital authority, which would be separate from the Ministry of Health (although still reporting to the Minister of Health).

#### 2.3.4 Other key government bodies involved in health

***The Ministry of Finance.*** As noted above, 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 Capital Markets Division plays an important role in regulating the commercial insurance sector. Consequently, 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 and to limit the number of employed physicians.

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<sup>5</sup> 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 HPs concur with this assessment.

***The National Insurance Institute (NII).*** This collects the health tax that plays a major role in the financing of the NHI system (see Chapter 3 for further details).

***The Israel Defence Force (IDF).*** The Medical Corps of the IDF provides basic and emergency care for military personnel directly and purchases tertiary services from the civilian sector.

***The Israel Prison Service.*** This has its own system for providing medical services to prisoners.

### 2.3.5 Key nongovernmental actors

***HPs.*** HPs 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 HPs receive an annual capitation fee per member from the government. At the time of writing, there are four HPs and their market shares at the end of 2013 were as follows: Clalit, 52%; Maccabi, 25%; Meuhedet, 14%; and Leumit, 9%. The HPs are governed by boards of directors. In some HPs 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 in 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 (see section 3.7.2).

***Universities.*** Israel has seven research universities and numerous colleges, and they play a pivotal role in training health care professionals.

***Research centres.*** Centres such as the Myers-JDC-Brookdale (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. In the past decade, the two largest HPs have also established research institutes. The National Institute for Health Policy and Health Services Research 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 for further details).

### 2.3.6 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 section 2.9.5). However, throughout the history of the State of Israel, 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 and its separation from Clalit constituted central campaign issues for both main 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.<sup>6</sup> For many years, the Labor Party resisted efforts to eliminate the HP system in favour of a unitary, government-run NHI system. It also successfully fought for government subsidies of the Histadrut-affiliated HP. 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 HP. 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.

In recent years, while the political parties per se have not sought to advance particular health policy issues, the policy agendas of the ministers of health appear to have been influenced, at least in part, by their party affiliations. For example, the minister who served from 2013 to 2014 was particularly attuned to middle class concerns, which is not surprising as the middle class is the core constituency of her party. Similarly, the current minister appeared to be particularly attuned to the needs of his party’s core constituency – low income ultra-Orthodox Jews.

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<sup>6</sup> Since they are voluntary associations of citizens, political parties can be considered a form of citizen participation.

## 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 the states in the United States or the *länder* in Germany.

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 LTC and psychiatric care.

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

The Ministry of Health and its institutions have one set of regional structures and the HPs 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, LTC and mental health care. The Law stated that within a three-year transition period, these responsibilities would be transferred to the HPs. The original decision to transfer responsibility for personal preventive care (discussed in greater detail in section 5.1) was reversed by the Knesset in 1998 and it is only recently that the transfer of responsibility for mental health care has been implemented (section 6.1.2). A relatively recent effort by a health minister to similarly transfer responsibility for LTC did not succeed because of a mix of budgetary concerns and jurisdictional disputes (section 6.1.5).

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 because of opposition from the health care unions (see section 5.1). Instead, the government hospitals have been gradually given far more autonomy than they had in the past.

Until recently, efforts were under way to establish a government hospital authority, which would supervise all of the government's hospitals; the current plan calls for the authority to report to the Minister of Health but not to be part of the Ministry of Health, per se. However, this process has been halted in the wake of the change in government.

Most analysts interpret the NHI Law as increasing government control of the health care system. Previously, the HPs were largely unregulated. Now, the government has substantial regulatory powers regarding the benefits to be provided and to what extent to finance HP activity. Nevertheless, the HPs 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 HPs and institution of a unitary health insurance system run by the government. It is also evident that HPs have significantly less independence than they had prior to 1995.

The change in law enhanced the public's right to a defined benefits package and 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 HPs to the government); and
- some privatization, in the sense of transferring responsibilities for service provision (e.g. mental health care) from the government to the voluntary sector, as well as some expansion of government responsibility (e.g. dental care for children).

Questions remain as to the desirable extent of deconcentration, devolution, delegation and privatization in Israeli health care. There continue to be vigorous debate 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 Planning

In 2013, the Ministry of Health established a new Planning Directorate to lead and coordinate long-term planning of the health care workforce as well as hospital beds, medical equipment and other vital inputs. In these efforts, it works closely with other Ministry of Health divisions, as well as the Ministry of Finance, the Prime Minister's Office, the Council on Higher Education and all the major HPs and health care providers. Recent innovative efforts led by the new directorate include:

- creating sophisticated databases for workforce planning and policy analysis that integrate data from a wide variety of sources;
- developing a national plan for hospital beds through 2035, which is now being used as a basis for regional and hospital-specific plans;
- developing national strategies for reducing health disparities, including those related to problems faced by the geographic periphery;
- developing a plan for health insurance coverage and health care for migrant workers, and others who are not permanent residents; and
- approaching workforce issues in a comprehensive manner that takes into account the roles of Israeli universities in professional training, the availability of clinical training placements in field organizations and the expected influx of professionals from other countries.

Other planning efforts are led by other divisions of the Ministry of Health. For example, the Ministry of Health's Public Health Division takes the lead on setting national health targets and developing strategies for achieving them. Yet another Ministry of Health unit is responsible for preparedness for large-scale health emergencies or disasters (such as wars, epidemics); it works closely with the Ministry of Defence and the IDF.

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.

## 2.6 Intersectorality<sup>7</sup>

The Ministry of Health increasingly collaborates with other governmental and nongovernmental actors in order to address Israel's growing health challenges. In addition to other government ministries, this includes nongovernmental sectors from within health and beyond, such as academia, NGOs, industry and civil society. The following are examples of how the Ministry's intersectoral approach is manifest, as well as additional steps to increase intersectoral potential.

### **The National Programme to Promote Active, Healthy Lifestyle and its linked initiatives**

The National Programme to Promote Active, Healthy Lifestyle was launched in December 2011 by the government's Social and Economic Affairs Committee. The programme is led by the Ministries of Health, Education and Culture and Sport, and includes partnerships across government and within municipalities and civil society. Aims include improving eating habits and increasing physical activity in order to address obesity and chronic disease. The programme's primary strategies are fostering health-promoting environments in the settings that make up Israeli life, increasing access to information and providing incentives for organizations and municipalities to promote health.

Legislative initiatives, such as removing junk foods from schools, tax breaks for workplace purchases of healthy refreshments, easing of access to fitness clubs, banning junk food advertisements during children's TV and mandating front of package and restaurant calorie-labelling are all contingent upon joint leadership between the Ministry of Health and other ministries. Additional critical stakeholders who took part in the legislative process include the Israeli Union of Restaurateurs, national councils of family physicians and paediatricians and television networks. The Ministries of Health, Finance, Economy and Agriculture are currently working together to identify economic interventions to lower the cost of healthy foods and/or increase the cost of unhealthy foods.

Following decades of collaborative work with the Ministry of Health, the Ministry of Education has added health promotion of students to its permanent list of ministerial objectives, declaring that 2011–20 was "The Year of Active, Healthy Lifestyle." Schools appointed councils of health-promoting students. Since then, 250 schools have gained accreditation as health-promoting schools. Also in 2013, the Ministry of Education launched a programme to distribute fresh fruits and vegetables in schools, in partnership with the Ministries of Agriculture and Health.

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<sup>7</sup> This section was prepared in collaboration with Yannai Kranzler.

Fifteen municipalities are participating in the “Municipalities Promoting Active, Healthy Lifestyle” programme. In addition to creating opportunities for all to engage in active, healthy lifestyle, each municipality must create policy change at public institutions, community centres and schools. In parallel, the National Programme is strengthening Israel’s Healthy Cities Network, the foundation of which is an intersectoral approach to municipal health governance.

Also part of the National Programme to Promote Active, Healthy Lifestyle framework, NGO-led programmes include active transportation to school, edible gardens in nursery schools and providing bicycles and training to disadvantaged youth. The Ministry of Health is also (cautiously) working with the food industry to reduce salt content in processed foods and fortify flour for the Bedouin community, which suffers from malnutrition and high infant mortality. A joint effort with the National Programme for At-Risk Children, the Ministries of Health and Welfare as well as NGOs launched the “Health and Parenting for Small Children” initiative. Working together with nurses, teachers and parents, the programme utilizes nutrition as a platform for teaching healthy parenting skills.

The National Programme includes several examples of budget-sharing between ministries. Governance structures include an intergovernmental steering committee, and committees charged with workplace health promotion and identifying regulatory measures to encourage healthy eating. Budget commitments, mostly by the Ministry of Health, but with sums committed by the Ministries of Education, Culture and Sport, Finance and Agriculture, bind these ministries to work together to achieve the shared goal of active, healthy lifestyle. An evaluation committee, with representation from government and academia, ensures that evaluation meets current research standards and utilizes Israel’s leading health researchers, their students and the international networks of which they are a part.

The National Programme is increasingly driven by public engagement, and in 2013, launched its social marketing programme, primarily via social media and community-based social marketers. Their role is to coordinate programming with local stakeholders such as parents’ associations, city councils, religious leaders and other local organizations in order to boost programme effectiveness as well as to guide policy, catalyse advocacy, facilitate smoother implementation and management and deepen both monitoring and evaluation.

### **Other intersectoral initiatives**

While the National Programme represents the Ministry of Health’s most comprehensive intersectoral initiative, several additional examples of the Ministry’s work reflect the understanding of the interdependency between

sectors in ensuring population-wide health. One such effort is the focus on incorporating health impact assessment in urban planning and project development. So far, health impact assessment and similar reviews have been conducted in conjunction with the planning of the coal-fired power plant in Ashkelon, phosphate mining, industrial waste management in Ramat Chovav, railway expansion, wireless Internet in schools, water desalinization, and pesticide use. Together with the Environment and Health Fund, an international workshop on health impact assessment was conducted in 2011 with participants from a variety of sectors (health, environment, planning, economy). The case studies analysed included issues such transportation, industry and air pollution, urban planning and more.

A further example of intersectorality in the Ministry of Health is the development of national sustainability and well-being indicators, to complement GDP and gross national product as expressions of national success. In collaboration with the Ministry of Environmental Protection and the National Economic Council, the Ministry of Health is providing the health components of these indicators, with special emphasis on the social determinants of health. The Ministries of Health and Environmental Protection are also in the process of drafting a National Programme on Health and the Environment in order to address the health effects of environmental hazards, with a focus on vulnerable populations.

The High Food Council, a government-nominated structure led by the Ministries of Agriculture and Health, facilitates policy coherence between both ministries on matters related to the food chain.

Finally, one of the more innovative projects in the Ministry is the creation of a “Health impact bond”, a collaborative experiment with the Ministry of Finance aimed at enabling increased funding and outcome-oriented diabetes prevention among at-risk populations.

Ministry work is routinely informed by and alongside academia and NGOs. In recent years, the Ministry has set up formal structures to anchor the consultation process. “National Councils” now advise decision-making on Israel’s most pressing health challenges. The National Council on Health Promotion, for example, includes representatives from government ministries, academia, health maintenance organizations, and health, human rights and social justice organizations. The Ministry of Health recently launched an additional “roundtables” project to formalize ongoing communication with civil society and NGOs on issues including child safety, sustainability and sexual health.

While intersectorality has gained prominence as a vital policy-making strategy, the following steps have been identified in order to strengthen the Ministry of Health's intersectoral potential and to foster a cross-governmental policy-making system conducive to health.

***Cross-ministry committees.*** Ministry of Health representatives play highly technical roles in committees that address food imports, agriculture, urban planning and other policy challenges not explicitly defined as “health issues”. These memberships can be leveraged to promote health on broader level and to address determinants that enable health and health equity, such as access to services, community, environmental justice and fair housing.

***Knowledge translation.*** The Ministry could increase its focus on knowledge translation to ensure that health information is accessible to and disseminated to non-health sectors, and synthesized and framed according to their language and policy-making needs. In the opposite direction, members of the Ministry of Health must continue to step out of the “health box” to become acquainted with other policy-making environments in order to identify additional “win-win” situations between sectors and strengthen the networks that anchor intersectoral action for health.

The Ministry of Health continues its intersectoral path and is also researching both enablers of and barriers to intersectorality in order to maximize its ability to utilize the strengths of partners in and beyond government to foster equitable, population-wide health in Israel.

## 2.7 Health information management

### 2.7.1 Information systems

All HPs and the hospitals have sophisticated information systems that include electronic medical records, data on activity levels, services provided and quality of care (see section 4.1.4). 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 so that the data can be used to monitor and analyse overall national developments, including:

***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.

***Disease registries.*** These are maintained by the Israel Centre for Disease Control (ICDC) and other units of the Ministry of Health and cover such topics as cancer, trauma, low birth weight, diabetes and heart disease.

***National Hospitalization Database.*** This Ministry of Health database includes micro-level demographic, diagnostic and treatment data for almost all hospitalizations.

***Hospital activity data.*** The Ministry of Health has a system of monitoring and disseminating aggregate hospital activity data (at the level of the hospital and the department).

***Specific information systems on areas that benefit from government financial support.*** The Ministry of Health collects data on psychiatric hospitalizations, visits to emergency departments (EDs) and institutional LTC.

***Cause of death statistics.*** The Central Bureau of Statistics (CBS)/Ministry of Health have a system for monitoring and reporting causes of death.

***The National Quality Measures Programme.*** This collects information from the HPs on over 50 measures of the quality of community-based care (section 6.1.3).

***Deaths and other adverse events in hospitals.*** Data are collected by the Ministry of Health for reporting and investigation.

***Hospital-acquired infections.*** The Ministry of Health has an information system for monitoring and analysing infections in hospitals.

***Disease registry systems.*** The Ministry of Health has registries for a number of diseases including for cancer, tuberculosis and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS).

***Workforce registry systems.*** These cover physicians, nurses, dentists, pharmacists and others.

In addition, there are several important national population surveys that periodically collect nationwide data:

***The Health Survey.*** This is carried out by the CBS and the Ministry of Health and collect 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 2009.

***The CBS Family Expenditure Survey.*** This annual survey provides information on spending for many different categories of health care.

***The CBS Labor Force Survey.*** This ongoing survey always includes a set of questions regarding health and health care.

***The MJB's biannual survey into the public's perceptions of the level of services provided by the HPs.*** 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.

***ICDC surveys.*** Various surveys are carried out by the ICDC, including the KAP surveys, which look at knowledge, attitudes and practices related to health behaviours (ICDC, 2015); the MABAT series, which look at nutritional patterns in various age groups (ICDC, 2014); and the European Health Interview Surveys (ICDC, 2012), which collect information on health status and service utilization in a manner that is comparable to similar surveys carried out in various European countries.

## **2.7.2 Health technology assessment**

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 referred to as technologies) should be prioritized for inclusion in the benefits package. HPs, 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 HPs, 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:

- health problems and conditions that the new technology would address;
- extent to which the benefits package already includes treatments for those problems and conditions, and the efficacy of those treatments;
- number of patients whose care would be improved;
- extent of the improvement in terms of duration and quality of life;
- health risks associated with the new technology;
- number of units of the new technology that would be likely to be consumed if the new technology were to be adopted;
- projected unit price of the new technology;
- total cost to the system of adopting the new technology; and
- 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:

- background materials submitted by the person/organization that proposed the adoption of the new technology;
- recent scientific evidence from published articles, testimony and correspondence;
- analyses carried out by health technology assessment 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; and
- relevant data on consumption and pricing from the HPs, hospitals and other provider organizations.

The Ministry of Health staff employ a two-stage annual funding cycle. First, from a preliminary assessment of the added medical value, costs and benefits, and in light of the amount of new money available that year, they weed out those technologies that are not of sufficient promise to be discussed in the public commission. Second, they carry out in-depth analyses for those technologies

that have made it through the first phase. For each technology, a detailed analysis (typically 10–20 pages) is prepared. 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 2.1 indicates the number of new technologies considered and added to the benefits package in each funding cycle since 1999 (mostly new medications for cancer, heart disease, etc.).

**Table 2.1**

Number of technologies submitted and adopted, 2003–2015

Year	Submitted	Accepted
2015	>800	73
2014	>650	83
2013	>680	90
2012	613	77
2011	430	61
2010	420	80
2009	>400	87
2008	>500	93
2006–2007	400	75
2005	429	69
2004	–	0
2003	369	35

There is general consensus that the Ministry unit dealing with this process is understaffed relative to the number of health technology assessments they need to prepare (650–700 annually in recent years), the tight annual 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 unit makes use of relevant clinical trials, systematic reviews, and submissions from those proposing that the technology should be added to the benefits package, plus additional information on expected volume and/or price from national disease registries, HPs, hospitals and pharmaceutical companies.

In its 15 years of operation, the items approved by the public committee include both preventive as well as curative services, as well as those intended to extend life along with those intended primarily to improve the quality of life. The relative emphases given to these has varied over time.

The system has proven to be an effective one for national decision-making and has earned the support of the public, the relevant government ministries, the courts, and the key health care providers.

## 2.8 Regulation

### 2.8.1 Regulation and governance of third-party payers

#### HPs

The government regulates several aspects of the HPs 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. Second, the government provides the authorization necessary to operate an HP.

Furthermore, the capitation system that governs how the bulk of NHI funds are distributed among the HPs 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 HPs outside the capitation formula, such as the payments for “serious illnesses” and various safety net payments (see section 3.2).

The government also specifies the HPs’ financial reporting requirements and ensures that the HPs’ financial and operational activities are consistent with various legal requirements (e.g. limits on advertising expenditure).

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

Israel has a well-developed and highly effective national programme for monitoring the quality of care provided by the HPs in the community. The programme is run by an academic directorate, with funding coming from the Ministry of Health's National Health Council and the Israel National Institute of Health Policy and Research. All four HPs participate voluntarily in the programme and play an active role in all decisions related to indicator selection and specification, data collection, and dissemination of the findings. Approximately 50 primary care quality indicators are used and are related to process of care and intermediate outcomes. Detailed results for the country as a whole, as well as by HP, are made available to the general public on an annual basis.

The Ministry of Health also involves the general public as partners in the regulation of the HPs. As described in section 2.9.4, the Ministry of Health has an ombudsman's office which handles consumer complaints about the HPs; the complaints are addressed at both the individual and the systemic levels (Ministry of Health, 2013b). Moreover, as described in section 7.6, the Ministry of Health has recently set up a web site with extensive information on consumer rights related to both the NHI system and the supplemental insurance programmes (Brammli-Greenberg et al., 2014). This web site facilitates the capacity of consumers to demand that the HPs provide them with their rights.

In cases of financial irregularities or major deficits, the Ministry of Health can appoint an external comptroller for an HP. In extreme circumstances of financial or other irregularities, the Ministry of Health can even dismiss the chief executive officer of an HP and appoint a new one.

### **Commercial insurers**

The private health insurance packages offered by commercial insurance companies are regulated by the Ministry of Finance's Commissioner of Insurance, rather than by the Ministry of Health. Historically, the Commissioner's regulatory efforts have focused on the actuarial soundness of the policies, with relatively little attention to the broader implications of the policies for the health care system. Recently, the Commissioner has begun to involve the Ministry of Health more in its regulatory decisions and this is leading to consideration of a broader set of health system factors.

## **2.8.2 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 is major capital expenditure, 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 review. The Ministry of Health also issues periodic directives that address various dimensions of the quality of care in hospitals and HPs.

### **2.8.3 Regulation and planning of human resources**

The Ministry of Health sets the requirements for licensure as a physician, nurse or other health care profession and assesses whether individual applicants meet those requirements.

There are also requirements for physician specialty recognition (together with the IMA) through the jointly operated Scientific Council. 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 participation.

The Ministry of Health has recently set up a new department dedicated to long-term human resource planning.

### **2.8.4 Regulation and governance of pharmaceuticals**

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 pharmaceutical 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 (see also section 5.6).

#### **Quality monitoring**

The Ministry of Health licenses and monitors the quality of Israel's hospitals, outpatient surgery centres, dialysis centres, clinical laboratories and other key health care facilities. The licences granted to hospitals are valid for one to three 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 clinic the hospital is authorized to operate.

The Ministry of Health carries out periodic site inspections of hospitals and other health care facilities (irrespective of whether the facility is run by the Ministry or another provider).

The Ministry of Health has developed several 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, intensive care and transplants.

A few years ago, the Ministry of Health also embarked on a major initiative to monitor the quality of key processes of care within hospitals, with all hospitals required to report on five key indicators by the end of 2014. In mid-2015, the Ministry of Health released to the public a report with hospital-specific performance data.

A large and growing number of Israeli hospitals have been accredited by the Joint Commission International, with many additional hospitals currently under review.

## 2.9 Patient empowerment

This section covers such issues as patients' choices and rights and information on navigating the system.<sup>8</sup>

### 2.9.1 Patient information

When choosing among HPs, Israelis have available to them information on availability and accessibility of HP services, and patient satisfaction. More recently, comparative data on clinical dimensions of care have become publicly available. Additionally, a Ministry of Health web site provides detailed comparative data on what health care services are covered by the various commercial, supplemental and basic insurance programmes. A Ministry of Health-operated multilingual call centre is available to answer questions about insurance coverage and other aspects of health care.

All of the HPs operate both call centres (e.g. for scheduling appointments, providing coverage details) and extensive web sites (with searchable directories, coverage details, forms, etc.) to help guide their members through the health system.

Web sites established by various consumer organizations also provide important health care information, as well as web-based access to medical specialists and various peer-to-peer social networking opportunities. The largest, Camoni ("like me"), has over 100 000 unique visitors per month. Israel also has a Freedom of Information Act.

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<sup>8</sup> Ephraim Shapiro played the leading role in the preparation of this section.

There is a growing recognition in Israel of the need to make services more accessible to cultural and linguistic minorities and several initiatives have been instigated in this regard. For example, Ethiopian immigrants having access in some clinics and hospitals to employed facilitators/liasons, and there are Arab primary care providers (PCPs) in Arab villages. However, when it comes to specialty outpatient care and hospitals, significant cultural and linguistic barriers remain. The lack of professional translators results in an overreliance on family members or hospital employees who have not been trained in translation.

### 2.9.2 Patient choice

All Israelis are free to choose their HP and HPs must accept all applicants. In the past, transfers were limited to specific periods of the year, but anyone who has been in a plan for at least six months may transfer at any time. In practice, each year approximately 1.0–1.5% of the population switches plans and, interestingly, switching behaviour is relatively more common among lower-income individuals. New immigrants must choose a plan for the first time.

Interestingly, in a 2014 MJB Institute survey with 1540 participants (Brammli-Greenberg & Medina-Artom, 2015), 20% of adult respondents indicated that they had considered switching plans in the past year. Reasons for ultimately remaining in the plan were personal reasons (laziness/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. It is also important to keep in mind that the survey shows that the vast majority of the population (over 85%) are either satisfied or very satisfied with their plan.

Within plans, patients have a great deal of freedom in choosing their community-based physicians – both primary and specialist – 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 real choice in practice. Nevertheless, there are some specialties (e.g. child psychiatry) and regions (e.g. the Negev) where choice is more limited. 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.

HPs have the right to direct their patients to particular hospitals. With the growth of selective contracting between HPs 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. The German Commission (see section 6.2) has recently recommended that HPs be required to provide their members in need of hospitalization with a choice of at least three hospitals.

In general, patients in non-profit-making hospitals are not free to choose which hospital-based physician will treat them.<sup>9</sup> 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 (*SHARAP*), in which the patient can choose their physician for an additional fee (i.e. beyond the fee paid by the HP for the basic hospitalization). All of the supplemental and commercial insurance packages offer partial or total coverage for this additional fee and the private medical service programme has grown markedly since the mid-2000s. Similarly, in Israel's rapidly growing profit-making hospital sector, patients can choose their doctor, and with most of these fees being covered by supplemental and commercial insurers, more and more patients are electing to do so.

Although informed consent and a patient's right to information are regulated by Israeli law, little provision is made for shared decision-making and few organizations formally promote it; as a result, there are those who see potential for increased shared decision-making because of Israel's universal coverage and limited number of HPs (Miron-Shatz et al., 2012). However, others note that, when choosing among treatment options, responsibility for the final decision typically lies with patients, with doctors being responsible for providing information to inform patient choice; some doctors find fault with this policy since not all patients may be fully capable of making such choices.

### 2.9.3 Patient rights

The Patients' Rights Law, enacted in 1996, emphasizes that patients have rights above and beyond the right to health care alone. Also enshrined in the Law is the patient's right to review and transfer the information in her/his medical record.

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, moving

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<sup>9</sup> The German Committee considered recommending that *SHARAP* (private medical service) be allowed within all of Israel's non-profit-making hospitals, but ultimately decided not to do so.

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 and promotion of informed consent.

In 2008, the Law on Equal Rights for People with Disabilities (2005) 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. Although no comprehensive data regarding accessibility in health care facilities exist, a study finding that the vast majority of gynaecological clinics were not accessible for the disabled sparked an awareness campaign by several voluntary organizations. There are some preliminary indications that these efforts have worked to increase awareness of needs and to persuade the HPs to increase access.

### **2.9.4 Complaints procedures**

All major Israeli health care institutions (such as HPs and hospitals) are required to assign a designated person as 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, both clinical and administrative. Both the Ministry and the providers try to respond to the complaints at two levels: by trying to better meet the specific needs of the individual who submitted the complaint, and 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 that includes detailed information on the prevalence of complaints by provider and type of problem, as well as documenting the types of action carried out to address those complaints.

While all health care organizations have staff to handle complaints, people can still get lost in the system. Consequently, a national ombudsman has been appointed to address this issue and serve as a liaison between the individual and the system. The ombudsman can address both clinical/malpractice issues and patient financial rights/administrative issues; the ombudsman can enforce the withholding of funds from noncompliant HPs.

The Director-General of the Ministry of Health has recently encouraged the public to file complaints for any service that does not meet the standards of the NHI Law. In 2012, almost 4000 complaints were filed, of which approximately

25% were found to be justified (Ministry of Health, 2013b). It is unclear to what extent complaints are not filed even when patients have a right to do so. For example, advocates for those with mental health issues say that, as a practical matter, patients cannot complain while in psychiatric hospitals because the staff has de facto power over them.

With specific regard to hospital care, all Israeli hospitals are authorized by law to maintain two types of quality committee: a quality control committee to monitor and promote quality on an ongoing basis and a quality examination committee charged with examining specific untoward events. A 1995 Supreme Court ruling (Civil Appeal Request 1412/94) determined that patients and their families should be guaranteed access to the findings of the quality examination committees regarding their specific cases, but the IMA objected strongly to this and encouraged physicians to not cooperate. Over time, the extent of the IMA opposition has abated and the extent of physician cooperation has increased. The IMA continues to encourage physicians appearing before quality examination committees to bring a lawyer with them.

Hospitals are required to send reports to the Ministry of Health concerning all hospital deaths and unusual events in hospitals. The Unit for the Assessment of Reportable Deaths and Events reviews these reports and determines which cases require more in-depth investigation (which, in turn, could lead to disciplinary measures) and maintains a database encompassing all reports to identify systemic problems as a basis for system-wide interventions.

With regard to adverse drug reactions, the public is encouraged to report these directly to the Ministry of Health, although usually they discuss these 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.

### **2.9.5 Public 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 HPs, and Magen David Adom, and through participation on various government advisory bodies, such as the National Health Council.

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 to 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 HP 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.

The MJB carries out a biannual 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 HPs. In the first round of the survey, the comparable figure was 83% (1995); by the second round, it had risen to 91% (1997) (probably as a result of the introduction of NHI), and has remained high since then (89% in 2014). The survey also enquires about satisfaction with the health system as a whole, and here the percentage of “satisfied” or “very satisfied” individuals was 62% in 2014, which was down from 70% in 2012, but still slightly higher than the 58% 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 information 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 because of funding problems.

A variety of entities have undertaken initiatives to improve the patient experience. The government is working specifically to improve communication between geriatric patients and providers, with future projects directed at including patient experience in medical school curricula as well as at further surveys on patient satisfaction in hospitals and the community. An emphasis has also been placed on collecting data for measures that other OECD countries collect, such as re-admission rates, in order to facilitate cross-country comparisons.

Innovative nongovernmental initiatives include, for example, the Askme3 programme – an American patient education programme that has been implemented in Israel and encourages patients to ask doctors what is the medical problem, what do they need to do and why is it important.

Advanced technology call centres have also been developed for specific purposes such as patients with complex needs. For example, one HP and research institute have together created the first call centre in Israel for people with chronic diseases (and their caregivers), coordinating clinical and community support.

### **2.9.6 Patients and cross-border health care**

The detection and control of infectious diseases is a major focus of cross-border cooperation and is pursued through the Middle East Consortium for Infectious Disease Surveillance. Established in 2003, it was set up to improve detection and control of foodborne infectious diseases and facilitating data sharing and cross-border communication, but this infrastructure has proved invaluable for broaden surveillance of other serious emerging infections, such as avian influenza.

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. Israeli hospitals also treat patients from the Palestinian Authority in the West Bank and the Gaza strip. The vagaries of the security and diplomatic situation influence the number of these types of patient.

In recent years, Israel has emerged as a major medical tourism destination for patients from beyond the region. This is because Israel can offer many advantages, 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. A growing number of private companies are engaged in marketing Israeli hospital care abroad. The growth in medical tourism to Israel has sparked a major debate about its appropriate scope and how it should be regulated.

In parallel, a number of Israeli patients go to other countries voluntarily to seek care. This is especially true in the area of reproductive care.

Many migrant workers, who make up to 14% of the Israeli workforce, are not eligible to receive NHI, but employers are obliged by law to purchase private health coverage for non-resident workers. Undocumented migrants in particular may face individual, social and structural obstacles, leading them to avoid seeking medical care.

## 3. Financing

Israel has had a low and stable level of total expenditure on health (THE), both as a percentage of GDP and per capita in purchasing power parity (PPP). Israel's ability to maintain this relatively low level of total spending on health probably in part reflects its relatively young age distribution together with various structural features and policies that contribute to cost-containment. Those related to financing include the following.

1. Health care works within an NHI framework that is compulsory and universal. It is financed by a combination of earmarked health taxes and general government revenues. Both are progressive, in a way that high income and low-risk individuals subsidize low income and high-risk individuals. Moreover, due to the combination of earmarked and general government funding, when there are economic slowdowns and the health tax revenue decreases, the government can increase its share of funding so as not to decrease the NHI funding. On the other hand, there is always a constant predictable part of NHI funding that does not depend on year-to-year government decisions and priority settings.
2. There are effective mechanisms of risk sharing between the government and the main providers/purchasers of care, the four HPs, through:
  - (1) financing of HPs primarily via prospective payments based on a capitation formula with simple and objective risk adjusters;
  - (2) supplementary HP funding via retrospective payments based on performance and outlier costly diseases.
3. HPs work as managed care organizations with gatekeeping, and some cost sharing from insurees for visits to specialists and for medications. Most of the physicians working with HPs are paid via capitation and/or salary arrangements, thereby largely avoiding the cost-promoting effects of fee-for-service reimbursement.

4. HPs purchase inpatient care from hospitals through 50 differential per diem fees, and activity-based payments based on procedure-related groups (PRGs). The government publishes maximum-price lists for inpatient care and sets hospital revenue caps to contain hospitals' income increases. Moreover, due to their dominance, HPs are further able to obtain discounts from hospitals.

Along with the low and decreasing public expenditure on health (Table 3.1), there has been a constant and marked trend of increases in private spending. The VHI market is one of the biggest in OECD countries, with about 87% of Israel's adult population covered with VHI offered by the HPs (HP-VHI; called in Hebrew "supplemental insurance", see section 3.5.3) and 53% covered with commercial insurance. Household spending on VHI has increased markedly since the early 2000s. Out-of-pocket (OOP) expenditure is also high relative to other countries and has increased somewhat over time. There are large differences in household expenditure on health by income quintile, which indicate the existence of inequalities.

**Table 3.1**

Trends in health expenditure in country, 1995–2012, selected years

Expenditure	1995	2000	2005	2012
THE per capita (US\$ PPP)	1 435	1 765	1 829	2 304
THE (% of GDP)	7.7	7.6	7.9	7.3
THE, mean annual real growth rate <sup>a</sup>	5	4	3	4
THE, annual growth rate in real terms	n/a	6.7	2.2	4.1 <sup>b</sup>
Mean annual real growth rate in GDP <sup>c</sup>	6.5	8.7	4.9	3.4
Public expenditure on health (% of THE)	68.3	64.1	63.1	60.8
Private expenditure on health (% of THE)	31.7	35.9	36.9	39.2
Government health spending (% of total government spending)	2.0	2.0	0.6	0.5
Government health spending (% of GDP)	1.7	1.6	0.5	0.4
OOP payments (% of THE)	27.6	27.4	25.7	25.6 <sup>d</sup>
OOP payments (% of private expenditure on health)	87	76	70	65 <sup>d</sup>
VHI (% of THE)	4.1	8.5	11.2	13.6 <sup>d</sup>
VHI (% of private expenditure on health)	13	24	30	35 <sup>d</sup>

Sources: CBS, 2014d; OECD, 2015.

Notes: <sup>a</sup>Calculated as the mean of the annual growth rates in national currency units at 1995 GDP prices; <sup>b</sup>2011–2012; <sup>c</sup>Percentage of volume change each year compared with the previous one; <sup>d</sup>2013; n/a: Not available.

On the one hand, the low and stable THE has been a source of pride for the Israeli health care system. On the other hand, the increasing growth of private expenditure has raised serious concerns about a shortage of resources in the public system and rising inequalities; these, in turn, could pose risks to access

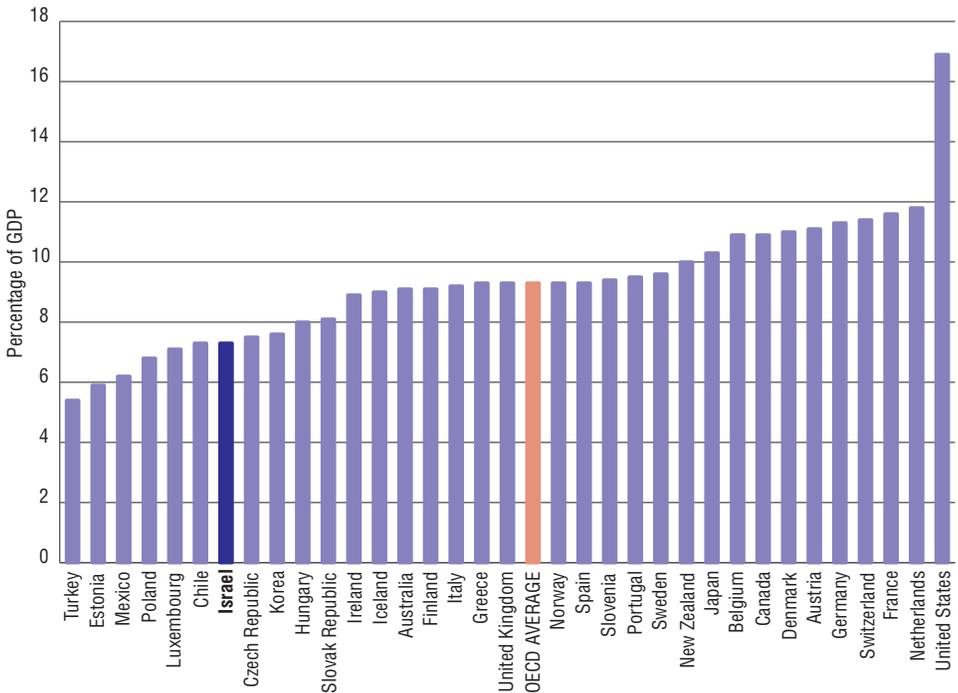
to services and the population's health. It is not clear whether the Israeli system is an adequately funded system that can provide good care through a very high level of efficiency or whether it has steadily been eroding its resources up to an unwanted point.

### 3.1 Health expenditure

In 2013, Israel spent around NIS 70 billion (€14 billion in 2014 prices<sup>10</sup>) on health care, amounting to 7.6% of GDP (CBS, 2014a,d). As shown in Figs. 3.1 and 3.2, the proportion of Israel's GDP devoted to health is low, relative to the OECD and EU averages. In 2012, Israel spent US\$ 2334 (PPP) per capita on health care, and this too is low compared with countries in the WHO European Region countries (Fig. 3.3).

**Fig. 3.1**

Health expenditure as a percentage of GDP in OECD countries, 2012 (or nearest year)

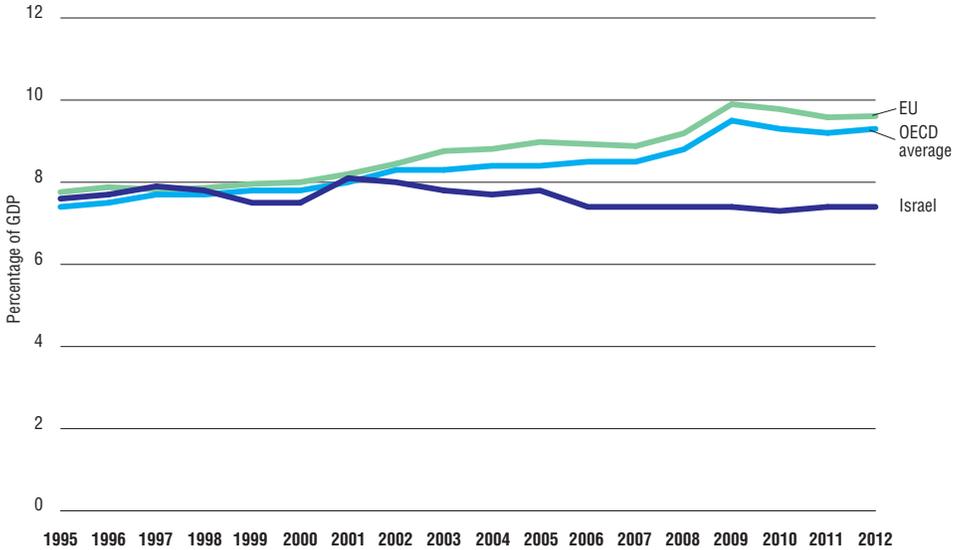


Source: OECD, 2015.

<sup>10</sup> The average exchange rate for 2014 used is 1 NIS = €0.20 (Bank of Israel, 2015).

**Fig. 3.2**

Trends in health expenditure as a percentage of GDP in Israel and as the EU and OECD averages, 1995–2012



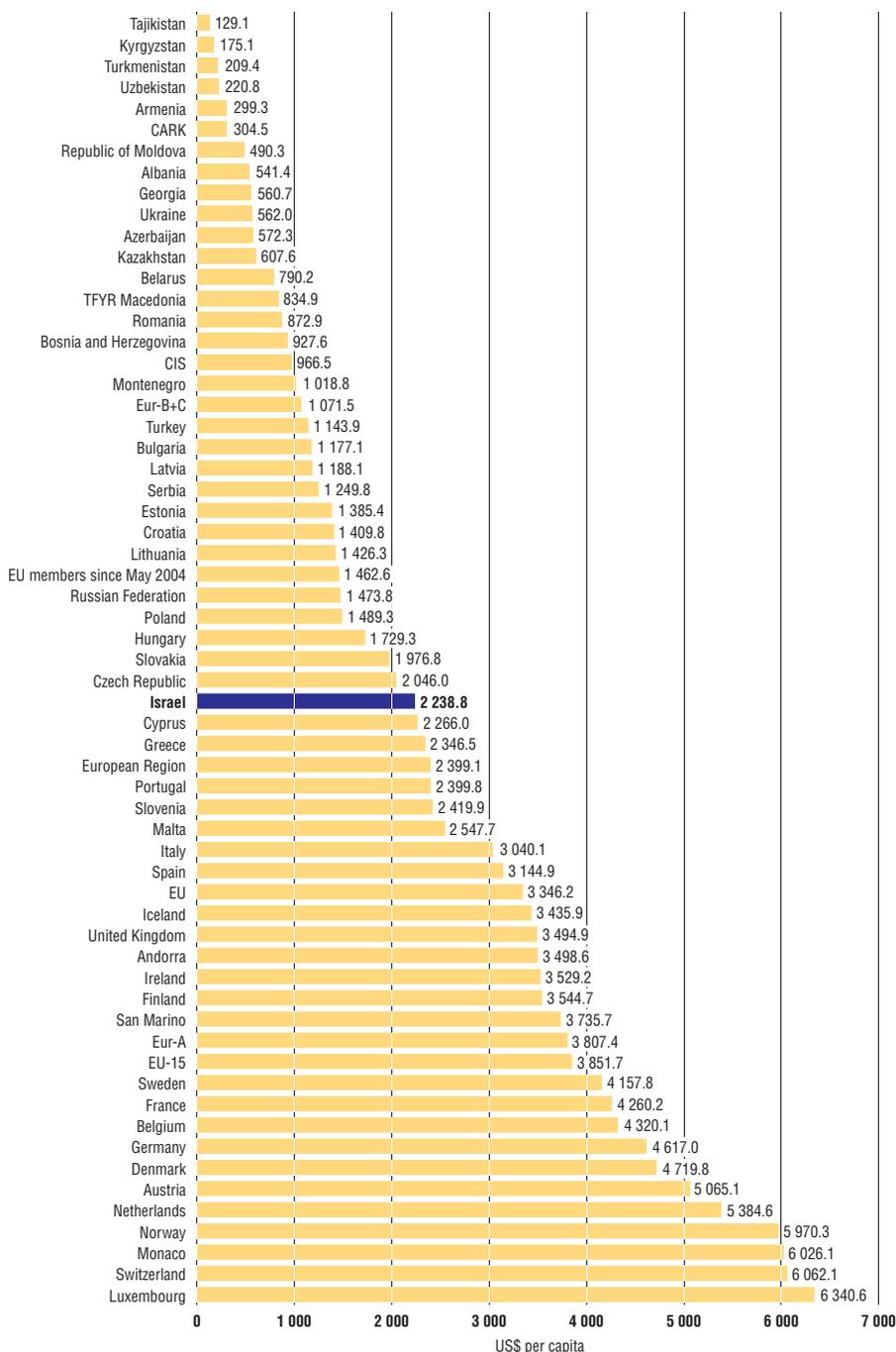
Sources: OECD, 2015; WHO Regional Office for Europe, 2015.

Israel's relatively low levels of health care spending may be partly because of the country's relatively young population. Yet, even after adjusting for age, the proportion of GDP allocated to health in Israel is still less than the OECD average (93% of the OECD average, compared with 81% before the adjustment). Similarly, age-adjustment increases Israel's per capita expenditure in PPP from 63% to 73% of the OECD average. Other factors contributing to Israel's relatively low levels of spending on health include its relatively high level of defence spending and interest payments for the public debt (Shmueli & Israeli, 2013; Ministry of Health, 2014a).

The public share of health care financing in Israel has declined steadily since the early 2000s. At 60%, it is currently one of the lowest among OECD countries (where the average is 72%) (Fig. 3.4). The Israel–OECD gap in public expenditure on health, both in share and per capita terms, is even bigger than the gap for THE (Bank of Israel, 2013). Here, too, high levels of defence spending and interest payments are playing an important role (Shmueli & Israeli, 2013).

**Fig. 3.3**

Health expenditure per capita (US\$ PPP) in the WHO European Region, 2012

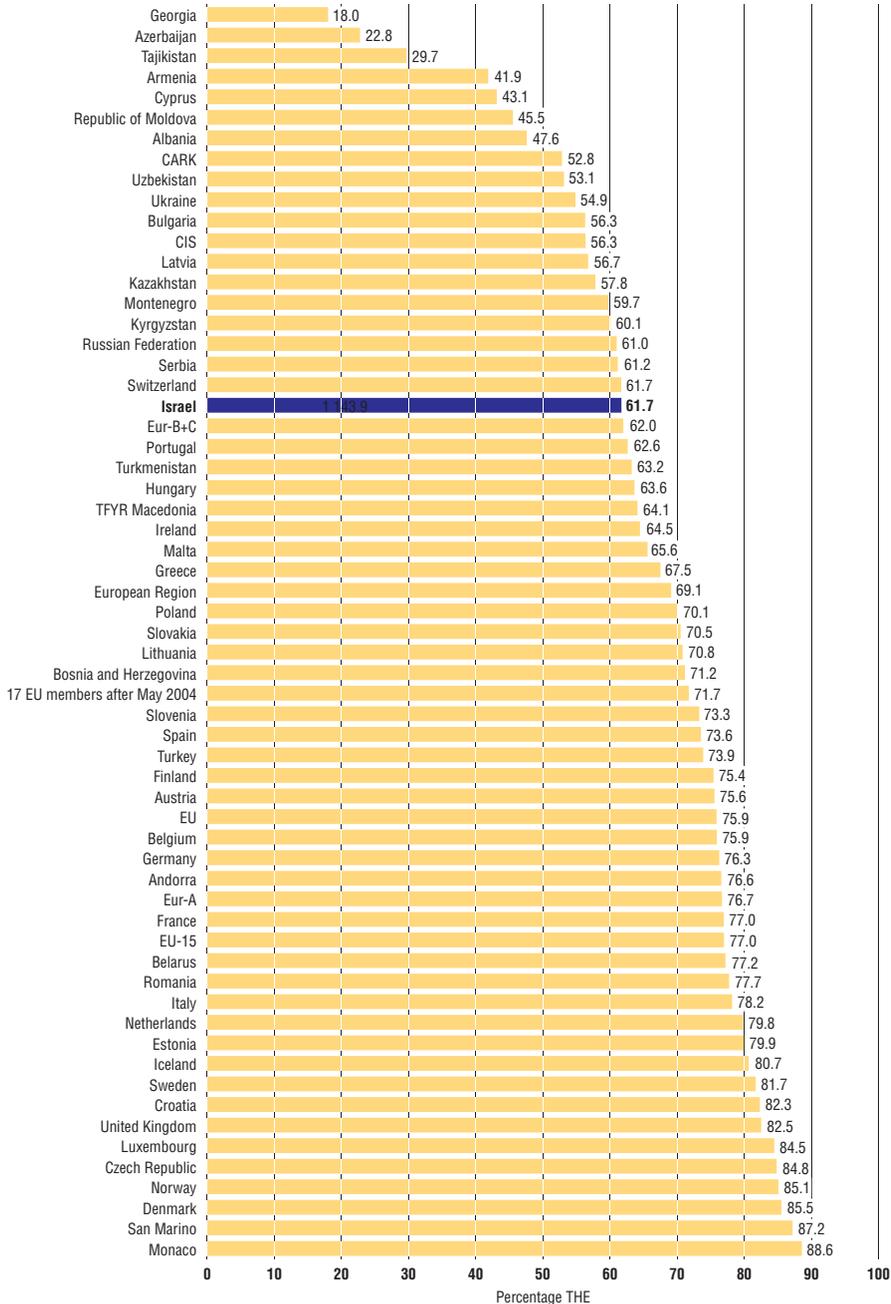


Source: WHO Regional Office for Europe, 2015.

Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States; EUR-A,B,C: Regions as in the WHO list of Member States, last available year; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

**Fig. 3.4**

Health expenditure from public sources as a percentage of THE in the WHO European Region, 2012



Source: WHO Regional Office for Europe, 2015.

Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States; EUR-A,B,C: Regions as in the WHO list of Member States, last available year; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

By 2013, the private share of health care financing had increased to 41%. The increase in the level of private health care financing is primarily through a sharp increase in spending on VHI premiums (see Table 3.4, below).

Public health expenditure by service programme for 2012 is presented in Table 3.2.

The distribution of current expenditure by operating sector in 2012 was (CBS, 2015):

- government and local authorities: 6%
- HPs: 33%
- other non-profit-making institutions: 5%
- market producers (includes hospitals operated by the government, the HPs and other non-profit-making entities): 56%.

Over time, the share of public clinics and preventive care has increased and the shares of hospitals and research have declined (Table 3.3).

**Table 3.2**

Public health expenditure by service programme, 2012

	Percentage public expenditure on health <sup>a</sup>	Percentage THE <sup>b</sup>
Health administration	2.2	4.4
Education and training	n/a	n/a
Health research and development	n/a	1.2
Public health and prevention	0.3	0.4
<i>Medical services:</i>		
Inpatient care (general hospitals, hospitals for psychiatric and chronic care)	47.1	32.7
Outpatient/ambulatory physician services	38.3	36.6
Outpatient/ambulatory dental services	0.2	7.7
Ancillary services	n/a	n/a
Home or domiciliary health services	n/a	n/a
Mental health	n/a	n/a
Supply of medicines, medical supplies and medical equipment	10.4	13.8
Fixed capital formation, total	1.9	3.1

Source: CBS, 2015b.

Notes: <sup>a</sup>Includes financing through the government, local authorities and HPs; <sup>b</sup>Includes financing through the government, local authorities, HPs, private financing and donations from abroad; n/a: Not available.

**Table 3.3**

Public health expenditure on health by service input, five latest available years

Service input	Public health expenditure (%)				
	2006	2007	2008	2009	2010
Medicines and medical supplies purchased by households	4	4	4	4	4
Private physicians	5	5	5	5	5
Dental care	8	9	9	8	8
Hospitals and research	37	35	35	35	35
Public clinics and preventive medicine	44	46	45	46	46
Government administration	2	1	1	2	2

Source: CBS, 2014d.

### 3.2 Sources of revenue and financial flows

The Israeli NHI covers all citizens and permanent residents. It provides access to a broad benefits package (also called the “health basket”). Four competing HPs are responsible for providing the health basket benefits to their members.

The health budget tends to be fairly stable from one year to the next. However, in 2015, the health budget was increased substantially (Ministry of Finance, 2015; Rosen & Merkur, 2015).

Each year, the government determines the level at which the NHI system will be funded. It is based on the previous year’s budget adjusted for demographic growth, technological developments, and a price index. Yet, it seems that these adjustments are not enough and recent studies show that the “real value” of the NHI budget has eroded since the enactment of the NHI law (Shmueli, Achdut & Sabag-Endeweld, 2008; Arieli, Horev & Keidar, 2012). The NHI budget per capita (adjusted for changes in the official health cost index) was essentially the same in 2013 as it was in 1995. If the additional funds received for additions to the benefits package (which of course also had concomitant additional costs) are deducted, then the per capita budget in 2013 was 12% lower than it was in 1995 (Ministry of Health, 2014a). The two main reasons for this erosion are the inadequate adjustment for the health cost index and the combination of demographic growth and population ageing:

**Adjustment for the health cost index.** The NHI budget is adjusted every year for the health cost index, which is supposed to adjust for the prices of inputs. In 2014, it was composed of indices for various inputs (i.e. the consumers price index, the average wage of health care providers and the average wage of

public servants) but did not explicitly reflect hospital costs (such as the per diem rate). As inpatient care represents 40% of the NHI budget, this component is important to the health cost index.

**Demographic growth and population ageing.** Neither of these has been fully reflected in the NHI budget adjustment. This has created pressures on the capacity of HPs to fund ongoing operating expenses, although to date it has not yet compromised their ability to maintain their capital stock. According to the report of the German Committee (see section 6.2), the demographic adjuster grew by 31% between 1995 and 2013, while the number of insured grew by 45% and the number of age-standardized persons grew by 57% (Ministry of Health, 2014a).

In May 2013, the government decided to increase the demographic adjuster from 1.2% in 2013 to 1.6% up to 2016. However, this has still been insufficient to maintain the per capita purchasing power, as it does not adjust for real population growth (1.9% in 2014) and ageing and does not compensate for erosion in earlier years. If no further improvement is made, in the medium and long term, the NHI budget erosion will cause pressures on fixed expenses too, as new infrastructure will be needed.

The erosion of the NHI budget, on the one hand, and the increase in the scope of the VHI market, on the other hand (section 3.5) led HPs to encourage their insured to use their supplemental insurance to obtain health care services, including services that formed part of the NHI benefits package. In this way, expenditure by the HPs decreased while their income remained the same. This trend contributed to the constant increase in the private financing share of the THE (Table 3.4) (Ministry of Health, 2014a).

**Table 3.4**

Sources of revenue as a percentage of THE according to source of revenue, 1990–2013

Sources of revenue	1990	1995	2000	2005	2008	2009	2010	2011	2012	2013
General government expenditure	21	23	37	36	34	36	36	35	35	35
Earmarked taxes or social insurance contributions	26	43	25	25	26	25	26	26	25	24
<b>Total public financing</b>	<b>47</b>	<b>66</b>	<b>62</b>	<b>61</b>	<b>60</b>	<b>61</b>	<b>61</b>	<b>60</b>	<b>59</b>	<b>59</b>
OOP payments	n/a	28	28	26	25	25	24	25	26	27
VHI	n/a	4	8	11	13	13	13	14	14	13
Other (i.e. donations from abroad)	7	3	2	2	2	2	2	2	2	2
<b>Total private financing</b>	<b>54</b>	<b>34</b>	<b>38</b>	<b>39</b>	<b>40</b>	<b>39</b>	<b>39</b>	<b>40</b>	<b>41</b>	<b>41</b>

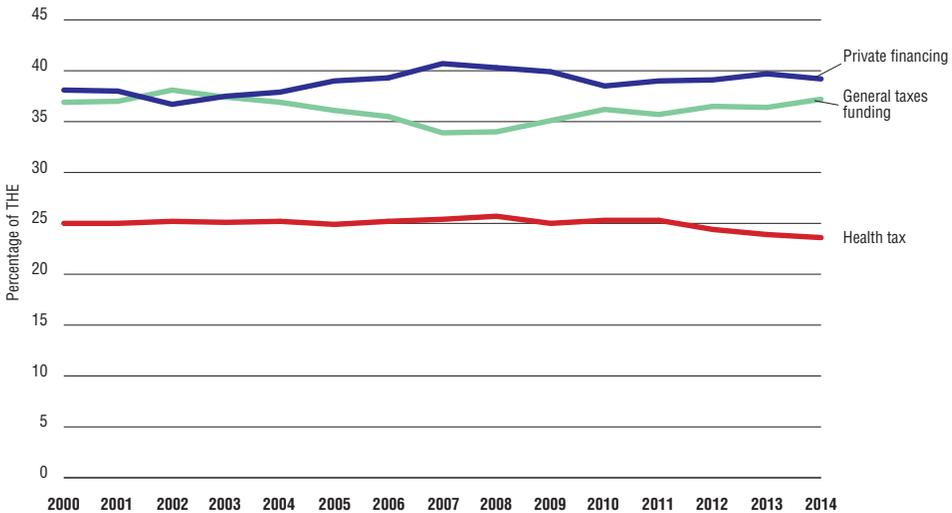
Source: CBS, 2014d.

Note: n/a: Not available.

The budget for the NHI benefits package (officially known as “the cost of the benefits package”) is distributed among the HPs mainly prospectively (as described in section 3.3.3). Fig. 3.5 illustrates the trends in health expenditure in Israel by financing source (Fig. 3.5a) and according to source of revenue (Fig. 3.5b).

**Fig. 3.5a**

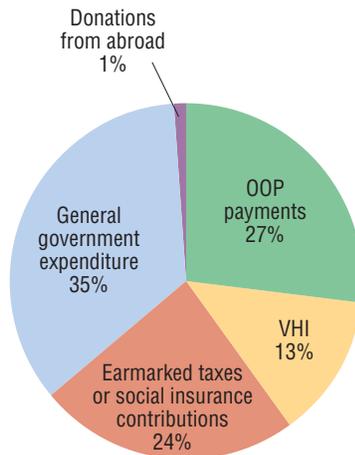
Total expenditure on health by financing sector (%), 2000–2014



Source: CBS., 2014d.

**Fig. 3.5b**

National expenditure on health by financing sector, 2013



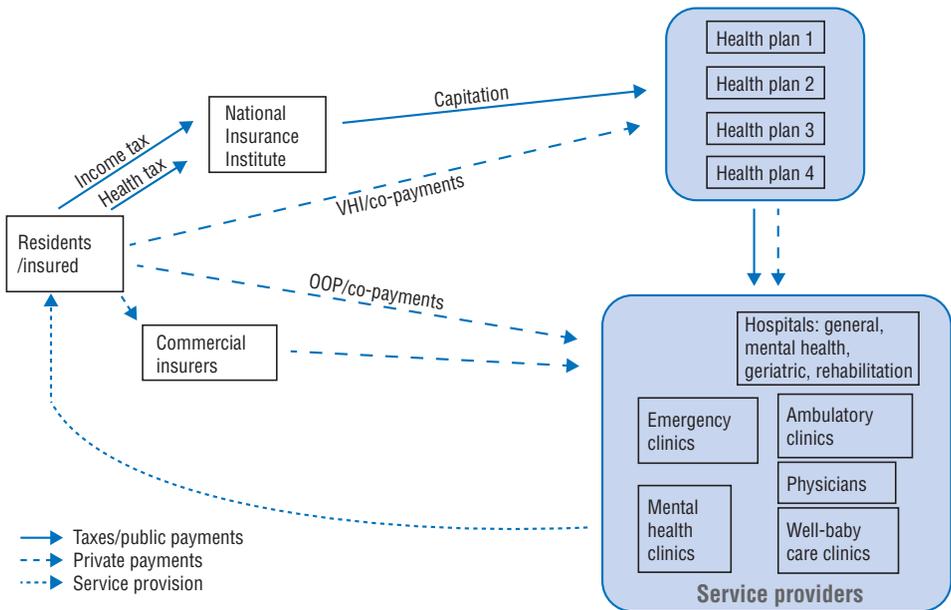
Source: CBS, 2014d.

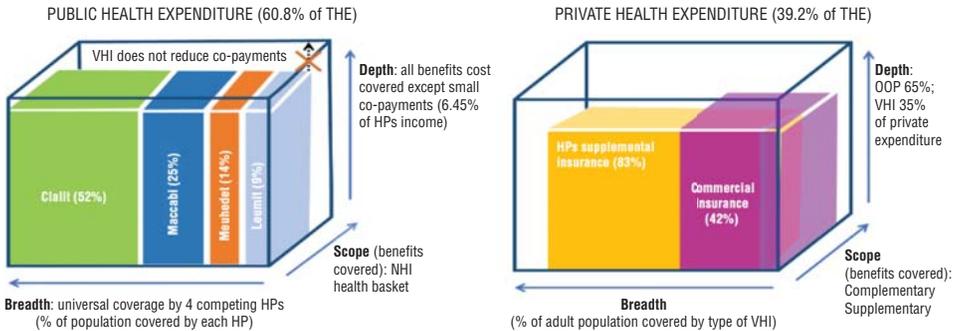
Services outside the NHI system are financed via VHI, and direct OOP payments. The VHI market in Israel offers two products: supplemental insurance provided by the HPs and commercial insurance provided by profit-making commercial insurance companies. VHI does not cover or reduce co-payments in the public system. (For more details on the VHI market, see section 3.5.)

### 3.3 Overview of the statutory financing system

The Israeli health care system is financed by public sources (the NHI) and private sources (VHI and OOP) (Fig. 3.6). The financing system can be characterized by its breadth (population covered), scope (benefits covered) and depth (cost coverage). This section describes each of these dimensions of funding. Fig. 3.7 illustrates the public and private health financing systems according to these three dimensions.

**Fig. 3.6**  
Financial flows



**Fig. 3.7****The Israeli health insurance market**

Source: Brammli-Greenberg et al., 2014.

### 3.3.1 Coverage

#### Breadth of coverage

Since 1995, all permanent residents of Israel have been entitled to a benefits package specified in the NHI Law (see below). They are free to choose among four competing, non-profit-making HPs, which must accept all applicants. Residents are allowed to switch between plans any time, up to twice a year. No resident can opt out of the NHI system.

Public NHI financing comes from two sources: the health tax and general tax revenue. The health tax is the NHI premium, which functions as an earmarked payroll tax collected by the NII. All permanent residents above age 18 must pay a health tax. The health tax is 3% of the wage for employees earning up to 60% of the average wage,<sup>11</sup> and 5% of the wage for those earning above it. The self-employed pay the same rates from their total income, and retired people pay the same rates from their pensions. Married women who do not have paid work are exempt from paying the health tax. Students and the unemployed must pay 5% of their income or cash transfers (e.g. unemployment benefits, income support, NII allowances or scholarships). Those who have no income pay a minimum rate of NIS 103 (about €20) (NII, 2014a). Soldiers in their regular compulsory service receive health care through the IDF's Medical Corps, rather than through NHI; therefore, they do not pay the health tax. Income above five times the national wage is not taxed for NHI purposes. 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.

<sup>11</sup> In 2014, the average wage for Israeli employees was approximately NIS 9000 (€850) (NII, 2014).

Populations excluded from the NHI include undocumented migrants, temporary residents, foreign workers and tourists. (For more details on the coverage of non-resident populations, see section 5.14.)

### **Scope of coverage**

The NHI Law stipulates a standard benefits package, the health basket, which all residents are entitled to receive from their HPs. In setting out the details of the initial benefits package in 1995, the Knesset essentially adopted that of Clalit, the largest HP. Since then, all HPs are legally mandated to provide the same benefits package, which is specified and periodically changed by the government.

The health basket includes, for example, physician services, hospitalization, medication, diagnostic examination and in vitro fertilization treatment. New services recently included are dental care for children (introduced in 2010) and mental health care (starting in mid-2015). Institutional LTC, preventive care, dental care for adults, contraception and alternative medicine are not included in the package at the time of writing (mid-2015).

Mother and baby preventive care is funded by the Ministry of Health and provided by the Ministry of Health, the municipalities and HPs. The Ministry of Health provides needs-based assistance for institutional LTC. The remaining non-NHI care can be purchased privately either through VHI or OOP payments.

The health basket is an explicit list of services to be provided, and in many cases it also specifies quantities and conditions. In 2014, the Ministry of Health launched a web site that lists all the benefits provided by the NHI. It contains up-to-date information on key aspects of health insurance (public and voluntary). The idea was to empower insurees with knowledge and awareness of their rights and eligibility to benefits, so they can demand them from the HPs. If refused, they can refer the case to the regulatory body, the Ministry of Health. This policy instrument addresses market failures related to information asymmetry and can potentially improve competition among the HPs and within the VHI market (Brammli-Greenberg et al., 2014).

In 1997, Israel established a formal priority-setting process for the addition of new services to the benefits package (no technology is excluded from 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. The Ministry of Health solicits recommendations from the HPs, pharmaceutical companies, the IMA, patient organizations and other groups for new technologies to be given priority for inclusion in the benefits package.

The Medical and Infrastructure Technologies Administration at the Ministry of Health performs technology assessments on the recommendations received, mainly regarding the medical effectiveness and safety of the technology. Based on the technology assessment, a technology forum, comprising technology specialists at the Ministry of Health, the Director-General, and representatives of the legal office at the Ministry of Health, rates the technologies according to a priority list. Technologies considered worth including undergo a costing procedure by a subcommission in which representatives of the Ministry of Health, Ministry of Finance and HPs participate. The costing also considers epidemiological patterns and predicts the overall cost of the technology for the NHI based on the number of people who would benefit from it. Finally, based on the technology assessments and their costing, a public committee (the Basket Committee) – made up of HP representatives, Ministry of Health, Ministry of Finance, IMA, experts in health economics and health policy, and public figures from outside the health care system – recommends which new technologies should be adopted. Final decisions as to what will be included are made by the Minister of Health (2010a).

An interesting development is that, in the beginning of the NHI era, most additions to the health 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 and even to preventive services. The Basket Committee process is also becoming more transparent, with greater public and media access and coverage.

### **Depth of coverage**

Emergency, primary and inpatient care are provided free of charge. Secondary care, such as visits to specialists and diagnostic examinations, requires small co-payments of about NIS 25 (€). Co-payments for drugs are generally 10% of the price with a minimum of NIS 15 (about €). There are also small co-payments for rehabilitation care and paramedical care such as physiotherapy and speech therapy. Discounts and spending caps are provided for the chronically ill, the elderly and families. Co-payments and other user charges constitute 6.5% of HPs' income (Ministry of Health, 2014g).

The HPs submit co-payment plans for approval by the Ministry of Health and the Finance Committee of the Knesset. Consequently, there are differences in co-payments among the HPs.

### **Non-National health insurance financing**

Services not included in the NHI benefits package and not generally provided by the HPs include LTC and dental care for adults. Non-NHI financing also covers investment in hospital construction and equipment, and medical research. LTC is financed via a mix of revenue sources, including households (through private insurance and OOP payments) and a number of agencies, including the NII, government ministries and HPs. Households pay OOP for the following services: private surgery and laboratory tests, visits to private physicians, complementary and alternative medicine (CAM), private nurses and ambulances, private psychological and psychiatric visits, and private dental care.

#### **3.3.2 Collection**

Table 3.3 presents information on the main sources of financing for the health care system as a whole. Before NHI, individuals paid their health insurance premiums directly to the HPs on a voluntary basis. HP premiums were subsequently replaced by the health tax (a payroll tax). Today, NHI funds are collected primarily via payroll and general tax revenues. The health tax is earmarked for health and is collected by the NII, which then transfers it to the Ministry of Health. By 2012, the health tax accounted for 24.5% of total health care financing. The NHI is also financed by general tax revenues transferred by the Ministry of Finance to the Ministry of Health (34.6% of THE). General tax revenue is derived from a mix of progressive taxes such as income tax and regressive taxes such as value-added tax and customs levies. 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.

#### **3.3.3 Pooling of funds**

##### **Allocating from collection agencies to pooling agencies**

The NII plays a central role in pooling funds for the NHI system. It is the NII that collects the health tax and receives the government's funds for NHI and distributes that funding among the four HPs. As noted in section 3.3.1, the system is financed according to ability to pay (i.e. via the health tax and general revenue, which is, in turn, based mainly on progressive income tax). The monies are distributed to the HPs largely based on needs. Thus, because of the pooling function of the NII, an HP's income is in principle a function of the needs of its members, rather than of the incomes of its members.

### **Allocating resources to purchasers**

The distribution of NHI funds, per the officially recognized cost of the benefits package, to the HPs by the NII is carried out to cover physical health and mental health.

### **Physical health**

The main core is distributed according to a prospective capitation formula (which accounts for around 88.3% of HP income in 2014). The formula reflects each HPs share in the market (number of standardized persons enrolled) and three risk adjusters: age, gender and place of residence (in the periphery). The capitation formula is reviewed periodically by the “capitation committee”, which consists of representatives of the Ministry of Health and Ministry of Finance. Capitation weights are reviewed every three years and are set as a function of three expenditure categories (ambulatory care, pharmaceuticals and inpatient care), based on the previous year’s average use of each capitation group.

Small co-payments for pharmaceuticals, specialist physician visits and certain diagnostic tests also play a role in financing the NHI system (6.5% of the HPs’ income in 2014). In addition, HPs receive retrospective payments (5.3% of their income in 2014) from the Ministry of Health for enrollees with any of five “severe diseases; for example, in 2014, the diseases were thalassaemia, Gaucher disease, kidney dysfunction, haemophilia and cancer (Ministry of Health, 2015c).

Besides the NHI budget, HPs can receive special financial support from the government at the end of each year. The size of these payments is determined primarily by the extent to which the HPs meet various fiscal responsibility and efficiency targets. These targets are set by the Ministry of Health every three years, in accordance with key policy objectives. For example, in 2013–2014, the objectives included providing preventive care and oral health for children without co-payments, preventing hospital readmissions, promoting healthy lifestyles, tackling geographic and social disparities in health, and providing care for chronic obstructive pulmonary disease (Ministry of Health, 2014g).

Until 2010, the capitation formula’s sole risk adjuster was “age”. There were concerns that, because it only included that one risk adjuster, the Israeli formula did not do enough to prevent risk selection (van de Ven et al., 2003, 2007). Besides the change in 2010 (the addition of gender and place of residence), there have been various proposals to add additional parameters such as socioeconomic status, health status and disability status. These proposals

have not been implemented to date because of a mix of concerns related to, for example, data availability and reliability, potential adverse incentives and change in the balance of the current pooling of funds.

Recent studies still identify inefficiency and point to the pooling of funds for HPs, which might lead to incentives for selection of low-risk individuals by HPs (Shmueli, 2011; Achdut et al., 2012; Brammli-Greenberg et al., in press). Although the capitation formula was improved in 2010, there is not enough evidence that the additional risk adjusters have sufficiently improved the pooling of funds (Brammli-Greenberg, Waitzberg & Glazer, in press). Moreover, evidence is still lacking to evaluate whether the funds allocated to improve health care provision in the periphery (through the new risk adjuster in the capitation formula) have achieved their purpose, and many analysts believe that they were insufficient in magnitude.

### **Mental health**

From June 2015, as part of the mental health reform, HPs receive an additional budget of about €360 million from the Ministry of Health to provide mental health services. This additional budget is approximately the amount the Ministry of Health spent on mental health before the reform. HPs will be responsible for providing (or contracting with private providers for) individual or group psychotherapy and psychiatric care in the community and will purchase inpatient care from hospitals (previously the Ministry of Health paid for psychiatric inpatient care in general or in psychiatric hospitals). In mid-2015, it was still not finalized exactly how the mental health budget would be distributed among HPs from 2016 onwards.

From June 2015, the budget would be distributed separately for inpatient and outpatient care. The inpatient care budget would be distributed according to the HP's share in hospitalization days before the reform, with adjustments for projected changes based on trends from 2006 to 2013. Funding for outpatient care would be distributed among the HPs through a basic capitation formula with age as the sole risk adjuster (with two groups: children up to 18 years old and adults over 18 years). The current formula assumes that, each year, 2% of the children will utilize mental health care (with 12 visits on average), and that 4% of the adults will utilize mental health care (with nine visits on average) (Tabibian-Mizrahi, 2006, 2007). In future, outpatient mental health care might be included in the general capitation formula as an additional expenditure category.

### 3.3.4 Purchasing and purchaser–provider relations

#### Purchasing hospitals services

In recent years, contracting has become a very significant feature of relations between hospitals and HPs. In government and independent non-profit-making hospitals, almost all sales of services to the HPs are governed by such contracts. Contracts play a much more marginal role for the Clalit hospital system, as a large portion of its sales are to Clalit regional management.

The contracts build upon the official government reimbursement prices and mechanisms (see section 3.7) as benchmarks. Typically, in return for guaranteeing a minimum revenue stream, the HPs are given an additional price discount.

The HPs have significant market power in their negotiations with 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 expenditure is fixed, rendering them particularly vulnerable to the threat of sharp reductions in volume.

There is no law in Israel that forbids HPs 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. To limit the extent of the channelling, the Ministry of Health has recently decided that each HP will have to pay to each hospital 95% of what they paid to them in the previous year, even if the HP reduces consumption at a certain hospital by more than 5% (Ministry of Health, 2014a). Further steps are under consideration (see section 6.2).

#### Purchasing ambulatory services

In Israel, HPs provide most of the ambulatory services in house. However, they do purchase some services (from either hospitals or independent community-based facilities), particularly in the imaging field for the particularly expensive technologies. In addition, they also purchase services from independent physicians – to some extent for primary care but more so for specialist care.

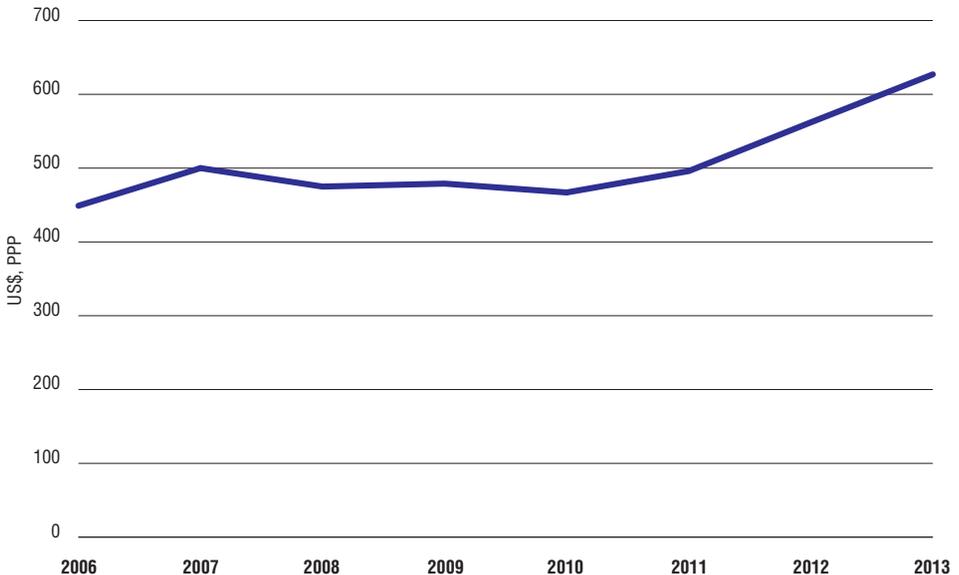
Regarding mental health services, the HPs have been developing multispecialty community mental health clinics since 2012, at the urging of the Ministry of Health. HPs will also purchase mental health services from government and public community clinics (the main providers before the reform), and from independent professionals such as psychologists, psychiatrists and other mental health caregivers.

### 3.4 Out-of-pocket payments

In 2013, households financed 40.5% of THE, from which 26% was OOP payments (while the remaining 13% was premiums paid for VHI). OOP expenditure represents a high share of THE in Israel compared with other OECD countries (26% and 19%, respectively) (CBS, 2015; OECD, 2015). The rate of OOP expenditure as a percentage of THE in Israel has been relatively stable since the mid-1990s although it has been increasing in per capita terms (Fig. 3.8). OOP expenditure per capita in Israel in 2013 was similar to the OECD average (US\$ 627 and 601 PPP, respectively).

**Fig. 3.8**

Out-of-pocket payments/capita, US\$ purchasing power parity, 2006–2013



Source: OECD, 2015.

Survey data from 2012 indicated that health care represented about 5.5% of household expenditure. In that year, households spent about €180 per month on health care, of which 35% was for private health insurance premiums, 25% for dental care, 16% for medications, 5% for glasses and 19% for other services. There were large differences in household expenditure on health by income quintile: while the lowest quintile spent approximately €90 per month, the highest quintile spent about €300, which represent 4.5% and 6.3% of each quintile's total household expenditure, respectively (Horev & Keidar, 2014).

There are two types of OOP payment: cost-sharing (user charges) for services included in the NHI benefits package and payment for services not included in the NHI benefits package. These are considered in turn.

### 3.4.1 Cost-sharing (user charges)

In 1998, the Knesset authorized all the HPs to charge their members for visits to specialists and community-based diagnostic centres. The HPs were also authorized to substantially raise 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 co-payments were part of an effort to alleviate the HPs' financial deficits; 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 HPs are regulated by the Ministry of Health, and co-payments constituted 6.5% of HPs' income in 2014 (Table 3.5 summarizes the cost-sharing mechanisms and protection for vulnerable populations). The cost-sharing (either co-payments or coinsurance described below) cannot be covered by the VHI.

**Co-payments for visits to specialist physicians** in the community are structured as follows. There is a flat-rate charge (about €) for the first visit in any quarter; repeat visits within the quarter to the same specialist are not subject to co-payments. Elderly welfare recipients (aged 65 years and over) and children receiving disability payments are exempt from co-payments for all visits; people afflicted with end-stage renal disease, cancer, HIV/AIDS, Gaucher disease, thalassaemia or tuberculosis 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. Developmental care (e.g. speech therapy, occupational therapy, physiotherapy, and mental health care) is exempt from co-payments for children whose parents receive income support from the NII. In 2014, the ceiling for households was about €50 (the ceiling is not a function of family size) and about €75 for individual patients with chronic conditions (Ministry of Health, 2014b).

Key changes in co-payment requirements since 2010 include:

- oral health care for children up to 12 years was added to the health basket, with co-payments of about € per visit;
- co-payments for visits to well-baby clinics (preventive care for children) were abolished;

**Table 3.5**

## User charges for health services

Health service	Type of user charge in place	Exemptions and/or reduced rates	Cap on OOP spending
GP visit	None		
Primary care visit	None		
Specialist physician visit	Co-payment (~€5 for the first visit in each quarter)	Elderly welfare recipients, children receiving disability payments and people afflicted with severe diseases are exempt from co-payments for all visits	Quarterly ceiling on total co-payments at the household level (~€50), which is 50% lower for elderly people
Inpatient stay	None		
Oral health for children up to 12 years	Co-payment (~€5 for the first visit in each quarter)		
Patent drugs	Co-insurance (15% of the purchase price)	50% of discount to chronically ill who are elderly or receive welfare payments and for holocaust survivors	Quarterly ceiling of €65 for chronically ill
Generic drugs	Co-insurance (10% of the purchase price)	50% of discount to chronically ill who are elderly or receive welfare payments and for holocaust survivors	Quarterly ceiling of €65 for chronically ill
Services for chronically ill (includes drugs and visits to specialists)	Diverse types of cost sharing		Monthly ceiling (about €75) for individual chronically ill patients; for chronically ill aged 65+ the ceiling is €35

Source: Office of the Deputy Director-General for Regulation of the Health Plans, 2014.

- fertility and in vitro fertilization treatments are also made subject to co-payments (at about €40 per treatment); and
- mental health services provided in HP clinics would require quarterly co-payments of about €5 per patient but patients wishing to choose their therapist outside the clinics may do so from a list of independent professionals with agreements, and pay co-payments for each visit; the co-payments rates for individual psychotherapy are about €1 for the first visit and €8 for each of the following visits, and about €13 per visit for group psychotherapy.

**Coinsurance for pharmaceuticals** is 15% of the purchase price for patent drugs and 10% for generic drugs, subject to a minimum co-payment of around €3 per item purchased (Ministry of Health, 2014g). For the chronically ill, there is a quarterly ceiling of approximately €65, varying according to HP. Those older than 65 years who receive income support benefit from a 50% reduction in pharmaceutical coinsurance, while those older than 75 years benefit from a 10%

reduction; veterans of the armed forces receive a 75% discount, and Holocaust survivors are exempt from coinsurance (Office of the Deputy Director-General for Regulation of the Health Plans, 2014).

There is evidence to suggest that co-payments have created financial barriers to access, particularly for people with low incomes (Gross, Brammli-Greenberg & Matzliach, 2007). In 2014, 11% of the adult population refrained from taking medicines or visiting physicians within the NHI because of co-payments or coinsurances. The rates were higher among chronically ill (17%) and the lowest income quintile (20%). Nevertheless, the recent financial protection measures, such as discounts and caps for vulnerable populations, have benefited the population and the rates of people refraining taking medicines or visiting physicians is lower than it was a decade earlier (Brammli-Greenberg & Medina-Artom, 2015). User charges cannot be covered by VHI.

### 3.4.2 Direct payments

Another important type of OOP payment is for services not in the NHI and also not provided by the Ministry of Health. Some of these services, such as care in private hospitals (whether inpatient or outpatient), are usually purchased privately. Other services and products that are primarily paid for privately include optical care, dental care for adults, medical equipment, some prostheses and LTC. While these services are sometimes covered – in whole or in part – by VHI, OOP payments also plays a significant role in their financing.

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. 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's non-profit-making hospitals. Private services are illegal in public hospitals. This is primarily for equity considerations; the sentiment is that, at least in public facilities, all patients should receive the same level of care irrespective of their ability to pay. There have been many public debates on whether private practice should be allowed in public hospitals. The last one was in 2014 within the "Commission to Strengthen the Public Health System in Israel", which decided that private practice would remain forbidden in public hospitals (see section 6.1).

Most government hospitals have established “health trusts”. These are distinct legal entities that 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 OOP payments or commercial VHI. Rather, the trusts’ revenue comes primarily from the sale to the HPs of surgical and outpatient clinic services carried out during late afternoon, evening and night hours.

### 3.4.3 Informal payments

There are indications that, despite the existence of universal health insurance coverage and widespread VHI coverage, there continues to be various forms of informal payment in Israel. These include giving cash to particular physicians and making gifts to a hospital ward. The objectives appear to include expressing appreciation with no expectation of future tangible benefit, securing the services of a particular physician in a situation where otherwise a physician would be randomly assigned and getting more time and personal attention from the clinical staff in general. In Israel, long-standing personal connections are also used to secure preferential treatment (Flic & Cohen, 2015).

## 3.5 Voluntary health insurance

### 3.5.1 Market role and size

Over and above the NHI, two forms of VHI are available in Israel: supplementary insurance, offered by the HPs to all of their own beneficiaries (HP-VHI); and commercial insurance offered by commercial insurance companies to individuals or groups. Even though the Israeli NHI benefits package is broad compared with that in other OECD countries, Israel’s VHI market is still one of the largest. In 2014, 87% of Israel’s adult population had HP-VHI, and 53% had commercial insurance (Brammli-Greenberg & Medina-Artom, 2015). In 2010, this was higher than in all other OECD countries except for France and the Netherlands (OECD data for 2010).

The share of the Israeli population covered with VHI has been growing rapidly since the early 2000s, and it is the fastest growing component of private health care spending. Between 2002 and 2011, household spending on supplemental insurance increased by 70% and on commercial insurance by 90% (Ministry of Finance, 2012; Ministry of Health, 2012). The payments

for premiums of both supplemental and commercial health insurance increased by more than 100% from 2005 to 2013, compared with an increase of 18% in other insurance sectors. The Israeli per capita expenditure on private insurance in 2005–2012 skyrocketed by 111%, much faster than the average of 39% in OECD countries.

According to the Ministry of Health, the VHI market is not achieving the goal of financing health care privately while reducing OOP payments: household expenditure on health care has not changed since the early 2000s except for the sharp increase in spending on VHI premiums (Ministry of Health, 2012). Along with the increase in the number of VHI policyholders in recent decades, Israel witnessed an expansion of dual coverage: in 2014 50% of the adult population owned the two types of VHI, up from 5% in 1995 and 30% in 2005 (Brammli-Greenberg & Medina-Artom, 2015; Brammli-Greenberg, Waitzberg & Gross, 2016). It is worth noting that all the VHI owners are also covered by NHI. Multiple and dual coverage may be contributing to increases in THE, including in private spending (Brammli-Greenberg & Waitzberg, 2014). The Ministry of Health has included among its strategic goals restraining the growth in VHI ownership, and strengthening the public system.

One of the possible reasons for the high demand for VHI in Israel is the low trust and confidence in the public health care system. In 2014, about 50% of the adult population (aged 22 years or more) reported that they were confident or very confident that they would receive the best and most effective treatment. Only 40% reported that they were confident they would be able to afford the treatment needed. In these two measures, Israel had the lowest score of all 11 countries in the 2010 Commonwealth Fund survey. This could be due, in part, to differences in terminology between the surveys, with the United States survey (and perhaps the surveys in other countries) asking about confidence in the system's ability to meet their needs, and the Israeli survey using a Hebrew term that has connotations of both confidence and certainty (Brammli-Greenberg & Medina-Artom, 2015).

Another reason for the broad VHI coverage is that it is used by insurees to “jump queues”, both for elective surgery and for specialist consultation in the community. Insurees can receive faster access to elective surgery in private hospitals and can visit specialists in their private clinics – both financed by their VHI. This is instead of waiting for the public services provided by HPs under the NHI law.

### 3.5.2 Market structure

In 2014, 87% of the adult population had HP-VHI, and 53% had commercial insurance (Brammli-Greenberg & Medina-Artom, 2015). Residents can only purchase HP-VHI from their HP. There is some variation in coverage rates among HPs ranging from 91% in Maccabi and 86% in Clalit to 77% in Leumit and Mieuhedet (in 2014) (Brammli-Greenberg & Medina-Artom, 2015). HP-VHI is considered by the insured as part of the public health care system, and coverage is high among almost all the population, including among vulnerable population groups apart from Arabs: 92% among the chronically ill, 90% among older people, 85% among immigrants from the former USSR, 81% among the lowest income quintile and only 54% among Israel's Arab citizens (Brammli-Greenberg & Medina-Artom, 2015; Brammli-Greenberg, Waitzberg & Gross, 2016).

Commercial VHI offers individual and group policies. Commercial cover is offered mainly by five insurers, who account for 97% of commercial premiums. There are two types of buyer in the commercial market: people who buy their policies directly from an insurer for a risk-rated premium based on age, gender and pre-existing conditions (for whom enrolment is dependent on medical underwriting); and organizations (e.g. employers, labour unions) who purchase group policies for their members for a community-rated premium, reflecting the risk level of the group. Group premiums are lower than individual premiums for the same level of coverage, and usually less profitable.

The demographic profile of people with commercial VHI differs somewhat from that of those with HP-VHI, in that they tend to have higher incomes and better health (Brammli-Greenberg, Waitzberg & Gross, 2016). In the commercial market for VHI, limitations not related to price (e.g. 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, 2001).

### 3.5.3 Market conduct

#### **Health Plan Voluntary Health Insurance**

Voluntary health insurance offered by the health plans (HP-VHI), called in Hebrew “supplemental insurance”, plays several roles in the health system. It can provide: (a) complementary services (that are not included in the NHI benefits package) such as adult dental care or alternative medicine; (b) supplementary services that are covered by NHI, but only to a limited

extent (e.g. IVF and physiotherapy); or (c) reimbursement for care purchased in the private sector that provide enhanced choice of provider, faster access or improved facilities (Brammli-Greenberg, Waitzberg & Gross, 2016). It does not include “substitutive” insurance for people excluded from the NHI system or coverage for user charges and co-payments in the public system.

Since the mid-1990s, there has been a substantial increase in the range of services covered by HP-VHI. Whereas initially these packages focused on services that were nonmedical (e.g. recuperative care), the newer services include many that are definitely medical in nature (such as advanced oncological and prenatal tests).

HP-VHI is a standard package of supplemental insurance offered by each HP to all of its policyholders, with relatively low fees that are determined solely by age (and not influenced by health status). No policyholder can be denied coverage, and HPs are prohibited from excluding pre-existing conditions. HP-VHI packages and rates must be approved by the Ministry of Health.

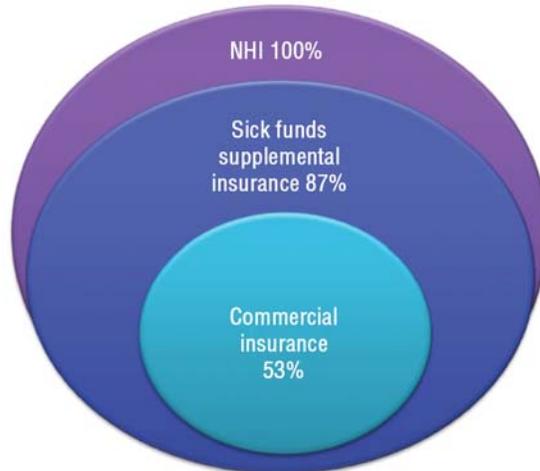
Since 2007, all HPs have developed a second layer of VHI coverage with extended coverage such as organ transplantation abroad and more genetic testing during pregnancy, which they have marketed for an additional premium. One of the HPs even created a third layer in 2013, which included aesthetic procedures, dental care and physical activity promotion. However, it later had to cancel its first layer in order to remain with two layers, as in all other the HP (Brammli-Greenberg, Waitzberg & Gross, 2016).

### **Commercial voluntary health insurance**

Commercial insurance is not considered part of the publicly funded health system. It is offered by private insurers who are free to insure any medical service but who can offer cash benefits only. Commercial plans cover dental care and catastrophic events (such as transplants, operations abroad and LTC), as well as financial compensation for services in the private sector. Many of the policies also cover medications not covered in the NHI benefits package. They usually offer higher indemnity payments and greater choice of provider than HP-VHI. Consequently, commercial VHI has become an additional layer of insurance rather than an alternative to supplemental insurance, resulting in less direct competition between the two parts of the market (Fig. 3.9) (Brammli-Greenberg & Gross, 2003).

**Fig. 3.9**

Health insurance market and layers among insured adults (aged >22 years; self-reported), 2014



Source: Brammli-Greenberg, Waitzberg & Gross, 2016.

### Lifesaving medications

Currently only commercial VHI can cover life-saving medications that are not in the NHI benefits package. HPs attempted to include these medications in their policies in 2007. Adding these benefits in the supplemental coverage put the HP in direct competition with commercial insurers, particularly as they can offer coverage more cheaply than commercial insurers. However, in 2008 the Ministry of Health and the Knesset prohibited HPs from doing so on the grounds that it would lead to inequality in access to health care (for those who do not own VHI) and would weaken the public pressure to add new medications to the NHI benefits package. The Ministry of Finance also feared that the change would increase total spending on health (Gross & Brammli-Greenberg, 2004). This debate was brought back onto the public agenda in 2014 (see section 6.2), and the Ministry of Health is currently considering allowing HPs to include coverage for life-saving medications in their VHI.

### 3.5.4 Public policy

The Ministry of Health regulates HP-VHI, while the Insurance Commissioner at the Ministry of Finance regulates commercial VHI. In mid-2015, the government's policy is to allow both HPs and private insurers to offer VHI,

with the proviso that the HPs do not offer LTC insurance.<sup>12</sup> In addition, the HPs must operate supplementary VHI under separate financial accounts and may not use NHI public funds to cross-subsidize supplementary VHI.

In practice, however, in some years the HPs have used profits from supplementary VHI to help to offset deficits in the NHI-related part of their activity. Lately, the HP-VHI has been perceived, and used more intensively, as a competitive tool by HPs seeking to attract low-risk and low-cost insured. They started offering benefits that are particularly attractive to young and healthy people, as well as large and young families. These included vaccinations for travellers (e.g. for tropical diseases), pregnancy diagnostic examinations, optical services for children and diagnostic examinations for child development, such as for attention deficit hyperactivity disorder. By offering such benefits, the HPs hope to earn more from supplemental premiums, and to increase the plan's enrolment of young families, thus to earn more governmental funds from the NHI capitation formula (Brammli-Greenberg, Waitzberg & Gross, 2016).

### **Addressing dual coverage**

One of the reasons for the dual coverage phenomenon is information asymmetry: Israelis lack knowledge about the coverage they are entitled to in each type of insurance, and about how to realize their benefits. Another factor may be that a significant portion of the Israeli public is not confident that their needs will be met if they become seriously ill (Brammli-Greenberg & Medina-Artom, 2015). This problem is reflected in the limited utilization of services covered both by NHI and VHI. However, sometimes VHI divert (profitable) services from the public to the private system (Brammli-Greenberg et al., 2014).

The phenomenon of dual coverage 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 commercial insurers to also offer policies that add to, rather than duplicate, the coverage available via the HP-VHI packages.

In order to tackle the lack of information, the Ministry of Health launched a web site in 2014 that gives access to transparent information about the coverage of the NHI and VHI benefits packages (see section 2.9). The idea is to empower insurees with knowledge and awareness of their rights and eligibility to benefits so they can demand them from the HPs and/or private insurers; if refused, they can refer the case to the supervisor (the Ministry of Health). This policy

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<sup>12</sup> The HPs may market LTC insurance policies offered by the private insurers but cannot serve as the insurer for these policies.

instrument addresses market failures related to information asymmetry and can potentially improve competition among the HPs and within the VHI market (Brammli-Greenberg et al., 2014).

In view of the increasing dual coverage, the Insurance Commissioner is currently consolidating a series of changes in commercial VHI in order to combine the commercial VHI market with the HP-VHI market. In 2014, the Insurance Commissioner expanded the allowable commercial insurance coverage to include, apart from surgery, also consultations with specialist physicians, alternative treatments, choice of surgeon (by covering the surgeon's fee in private hospitals) and other costs of private surgery. The change aimed to increase the competition of commercial VHI with HP-VHI, since these services were already provided by the latter. The Insurance Commissioner also created a "standard" policy with uniform coverage, including new technologies, and uniform premiums by age group. The main coverage is private operations, which is the main reason that people buy VHI in Israel. The premiums and co-payments can vary only based on individual risk, gender and health condition (Ministry of Finance, 2014, 2016). In the future, this standard policy will be marketed also by HPs. The intention is to offer low-risk people a cheaper policy with unique basic coverage and thereby increase competition in the VHI market both among commercial insurance companies and between these companies and HPs. The standard policy also increases transparency in the VHI market and makes it easier for consumers to make comparisons among insurers. With greater competition and the same types of coverage, insurees might be able to make wiser choices of type of insurance and might give up dual coverage.

## **3.6 Other financing**

### **3.6.1 Parallel health systems**

Virtually all the health care services provided to soldiers are financed via the budget of the IDF and the Ministry of Defence. The IDF's Medical Corps is responsible for all medical care provided to all soldiers, in peace and in wartime, on and off the battlefield, whether they are conscripts (doing their two to three 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.

Between 2011 and 2014 there was a pilot “Aviv Project” (Spring Project) that allowed soldiers from the bases not located on the front lines to receive health care from the HP where they were enrolled before becoming soldiers. The objective was to privatize part of the services in response to the shortage of physicians in the Medical Corps. Soldiers were allowed to receive primary, secondary and emergency care from their previous HPs and doctors. Dental, mental health and public health care were still provided by the Medical Corps. The project was suspended by the Ministry of Defence and Ministry of Health in 2014 because of concerns that HP physicians were too lenient about giving sick leave to soldiers (Maccabi Healthcare, 2015). There were also complaints that soldiers on the front lines were receiving lower quality health care (from the Medical Corps) than soldiers based in the rear (who received care from their HPs) (Cohen, 2014; Refuah, 2014).

### **3.6.2 External sources of funds**

The health care system benefits from two sources of external funding. First, there are major donations from individuals (mostly Jews) residing in other countries, primarily the United States and western Europe, along with donations from Israeli philanthropists. These often play an important role in funding capital expenditure for new buildings, renovations and the acquisition of major equipment. In 2012, donations represented 2% of THE (CBS, 2015). Second, research grants from foreign governments and pharmaceutical firms are key in the financing of clinical and preclinical research.

### **3.6.3 Other sources of financing**

#### **Financing of LTC**

Institutional LTC 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. Several years ago, the Ministry of Health proposed to add institutional LTC to the NHI benefits package, but the effort was not successful.

Community-based LTC is financed in part by the government through the Community Long-term Care Insurance (CLTCI) Law, which is administered through the NII. This primarily finances assistance with activities of daily living for the elderly living in the community. 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.

In 2014, 54% of adults (aged over 22 years) in Israel reported having some form of LTC insurance, a rate that is quite high by international standards (Brammli-Greenberg & Medina-Artom, 2015). The ownership of LTC insurance might even be higher than the reported rate, as some of the insurees are not aware of their ownership (Waitzberg & Brammli-Greenberg, 2012). 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. Therefore, in many cases, even when the person in need has LTC insurance, his/her family members ultimately become involved in the financing and provision of LTC services.

Currently, a significant share of LTC insurance is provided by group policies that the HPs have negotiated with commercial insurers for their members. This is a unique Israeli solution to the lack of public LTC insurance.

### **Dental health for adults**

Dental health for adults and children older than 12 years is not included in the NHI benefits package and is financed privately either through direct OOP payments, or by VHI.

## **3.7 Payment mechanisms**

### **3.7.1 Payment for health services<sup>13</sup>**

This section discusses in turn payment for health services in general hospitals, psychiatric hospitals or psychiatric wards in general hospitals, public mental health clinics in the community, public health services, dental care and pharmaceutical care (Table 3.6).

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<sup>13</sup> Vadim Perman and Boaz Aricha contributed important information and insights for this chapter.

**Table 3.6**

## Provider payment mechanisms

Providers/ payers	Ministry of Health	HPs	Other ministries	Private/voluntary health insurers	Cost-sharing
GPs		Salary + capitation		FFS	
Ambulatory specialists		Salary + capitation		FFS	yes
Other ambulatory provision	FFS	FFS		FFS	yes
Acute hospitals		PD + PRG + FFS	PD + PRG + FFS (Ministry of Defence)	FFS (private hospitals only)	
Other hospitals		PD + FFS	PD + FFS	FFS	
Hospital outpatient		FFS		FFS	yes
Dentists		Salary + FFS (children <12 years)	FFS		
Pharmacies		FFS		FFS	yes
Public health services	Salary	Salary		FFS	
Social care	Salary (for inpatient)	Salary (CLTCI, via NHI for community care)	FFS	yes	

Notes: FFS – Fee-for-service, PRG – Procedure-related groups, C – capitation.

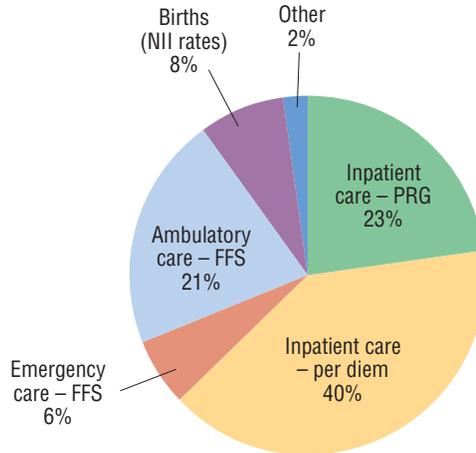
**General hospitals**

Approximately 80% of general hospital revenue comes from sales of services to HPs. Other sources of revenue include the IDF Medical Corps, private insurers, the NII, the Ministry of Health and OOP payments. This section focuses on revenue from the sale of services to the HPs and on arrangements in what are referred to in Israel as “public hospitals”, comprising both government and non-profit-making hospitals (these include Clalit HP hospitals, non-profit-making “mission” hospitals, and other such as the Hadassah Medical Organization).

Since the enactment of the NHI Law in 1995, public hospitals in Israel are reimbursed for inpatient care primarily by per diem fees and secondarily by case payments. Ambulatory care in hospitals is paid on a FFS basis (Fig. 3.10). Maximum price lists for public and non-profit-making hospitals are mandated by law and set by the government through a joint Ministry of Health and Ministry of Finance Pricing Committee. Government hospitals are subsidized by the government retrospectively.

**Fig. 3.10**

Distribution of gross income for governmental hospitals by type of service provided and type of reimbursement, 2012



Source: Ministry of Health, 2014c.

Until 2010, Ministry of Health price lists were not based on a methodical costing process. Per diem and FFS rates were set about three decades earlier based on the historical expenditure of certain hospitals. Since then, rates had been updated for inflation, but no major recalculations were undertaken despite significant changes in cost structure from technical and medical advances. Consequently, some activities were underpaid and others overpaid. The gaps between costs and prices create a series of inefficiencies caused by the influence of economic considerations on medical decisions.

In order to tackle these inefficiencies, the Ministry of Health concluded that it was important to narrow the gap between costs and prices through two changes: building a consistent costing and pricing mechanism and substituting the per diem payments with payments based on activity. The Ministry of Health thus initiated a hospital payment reform (the PRG reform), which consisted of gradually costing hospital activities and setting differential pricing for inpatient care per procedure. Once the price for a specific procedure has been set, the per diem payment is replaced by the PRG. This process has been an ongoing incremental reform that started in 2002 and has been enhanced since 2010 by the Ministry of Health. In 2015, there were over 280 PRGs, which account for half of the procedures. The plan is to adjust the PRG for case mix and severity of illness in the future (Brammli-Greenberg et al., in press).

***The Fee-for-service charge list in outpatient care.*** A FFS charge list established by the government regulates payment for hospital outpatient care in ambulatory clinics and EDs. The list includes 1500 rates for ambulatory care and about 65 rates for day hospitalizations. The day hospitalization component has been increasing as technologies improve and allow procedures to be performed with no need of overnight stays. Payment for outpatient department services accounts for approximately 20% of hospital revenue; emergency care accounts for an additional 6% (Fig. 3.10).

***The per diem rate.*** Two thirds of inpatient admissions are reimbursed on a per diem basis; they account for half of the interventions performed. In 2015, there were about 50 per diem rates, which differ according to the department (e.g. intensive care units are higher than the standard rate, while geriatric and mental health units are lower) and period of hospitalization (the first three days are more costly than the fourth and so on). In a few specific cases, there are different rates by age (e.g. intensive care for children younger than 4 years).

***Case payments, Procedure-Related Groups.*** During the 1990s, differential case payments were established for about 30 types of admission. The defining characteristic of the case is the principal procedure carried out (rather than the diagnosis, as is the case in countries using a diagnosis-related group systems). Since 2010, the range of conditions for which case payments have been established (as an alternative to per diem reimbursement) has significantly increased. In mid-2015, case payments accounted for approximately 23% of total hospitals revenues, and 33% of hospital inpatient revenues (Brammli-Greenberg et al., in press).

### **The revenue cap**

A significant proportion of a hospital's expenditure is fixed and does not vary according to the volume of hospital activity. The prices HPs pay for services purchased from hospitals reflect "average prices", which include fixed costs and are, therefore, higher than the marginal cost of the service purchased. A payment scheme that relied solely on these average prices would have created incentives for hospitals to increase volume (either hospitalization days or procedures), which would have led to increases in HP expenditure on hospitalization services, increases in public expenditure on health, and might even have led to moral hazard. In order to remove this incentive, a hospital revenue cap was established in 1997, and the rules of the capping regime are modified every three years. The capping system's goal has been to eliminate incentives for hospitals to overprovide inpatient care, and to constrain growth in expenditure, particularly that related to hospital services.

A revenue cap is set by the government for each hospital vis-à-vis each HP; since 2014, this is not published publicly. It is a function of the previous year's HP's consumption in each hospital plus an adjustment to reflect projected demographic growth, hospital bed growth, and price change (in particular, the Ministry of Health's PRG price list and per diem rates).<sup>14</sup>

The model set in 2013 for the years 2014–2016 is innovative in relation to previous ones in that it sets a minimum for the total amount that each HP will pay each hospital each year (95% of the previous year's consumption by the HP). This is done to financially protect the hospitals. In addition, the current capping system has three steps, each with different payment rates and incentives. HPs that purchase services beyond the cap pay the cap plus a percentage of the price of those services purchased beyond the cap.<sup>15</sup>

### **Individual agreements set between hospitals and health plans**

HPs and hospitals also are allowed to negotiate alternative reimbursement contracts, which, if both sides agree, can take the place of the official cap. This is intended to allow greater flexibility and risk sharing among players. Since the early 2000s, HPs have set individual arrangements with more than 80% of hospitals, in which the hospitals provided bigger discounts than the capping mechanism. The individual contracts provide discounts that vary among HPs and among hospitals.

By virtue of its role as the owner of the government hospitals, the Ministry of Health reviews and approves all contracts with the government hospitals. Until recently, the Ministry did not play a significant regulatory role in determining the nature of contracts signed by other hospitals. It was felt that this would not be appropriate, since the Ministry, as the owner of its own hospitals, is also competing with those other hospitals. However, in recent years, the Ministry of Health has been more active in this regard.

### **Additional considerations**

Despite the reimbursement mechanisms, the Ministry of Health subsidizes retrospectively almost all public hospitals. Subsidies have more than doubled in the last decade (from around €75 million in 2006 to €170 million in 2012) (Ministry of Health, 2014c). Nevertheless, both public and non-profit-making hospitals have faced growing deficits in recent years. The extreme case of this

<sup>14</sup> The cap set for 2014–2016 was the gross spending in the previous year (i.e. disregarding individual discounts given by each hospital to each HP under individual agreements), added to 0.8% for demographic growth, 0.6% for hospital bed growth, and increases in Ministry of Health's list prices for the coming year.

<sup>15</sup> From the cap (100%) up to 102%, HPs pay the cap plus 70% of the price of the services; from 102% to 112% of the cap HPs pay no more than 33% of the price; above 112% of the cap HPs pay up to 65% of the price.

was the near-bankruptcy of the private non-profit-making Hadassah Medical Center in 2014. The hospital did not break-up because the Ministry of Health provided massive financial aid and increased the cap ceiling.

### **Psychiatric hospitals or psychiatric wards in general hospitals**

From the mental health reform in June 2015, HPs purchase psychiatric services from psychiatric and general hospitals. Payments for the services are based mainly on per diem fees. Similar to other hospital services, prices are set by the Ministry of Health. In addition, similar to other hospitals services, the government sets maximum revenues caps for each hospital for each HP (Levi, 2013). There are two main differences between the physical health and the mental health cap: (1) there is no required minimum of payment from HPs for mental health service, in order to encourage HPs to divert care from mental health hospitals to the community; and (2) there are two cap ceilings that contain the increase of expenditure on mental health inpatient care by eliminating any incentives for hospitals to increase volumes beyond those prior the mental health reform.

In addition, HPs and hospitals are allowed to make further arrangements instead, or in addition to, the capping mechanism, similar to the discounts that hospitals provide the HPs for the services of general hospitals.

### **Public mental health clinics in the community**

Until June 2015, the Ministry of Health provided and funded directly mental health services through its own clinics. Since that date, HPs are the providers and purchasers of mental health services and can purchase these services from the Ministry of Health-operated community clinics, which provide outpatient psychosocial services such as psychotherapy, group therapy, mental health rehabilitation (post hospitalization), social work, and pharmacological management and follow up (Ministry of Health, 2015b). For each patient, the HP will pay the mental health clinic for two initial “diagnostic” visits. Then HPs will pay prospectively for the treatment itself according to a treatment plan set by the clinic, which is a function of the diagnosis. There will be different treatment rates based on (1) age (children and adults), (2) average length of treatment (short or long term), and (3) type of treatment (individual or group).

### **Public health services**

In Israel, the main public health service that is included in the NHI benefits package is the preventive care clinics for early childhood and pregnant women (*Tipat Halav*). There are about 1000 such clinics, many of which are owned by the Ministry of Health. HPs also own some of the clinics, mainly in towns and rural areas, as do several municipalities, such as Jerusalem and Tel Aviv.

The Ministry of Health provides preventive care directly through its own clinics and purchases services from municipality and HP clinics. The Ministry of Health reimburses municipalities for 70% of their expenditure. For HP clinics, the Ministry of Health provides vaccines free of charge and partially reimburses them retrospectively (based on pay for performance) for services provided.

### **Dental care**

Since 2010, dental care for children up to 12 years of age is provided within the NHI health basket. HPs are reimbursed prospectively for this type of service based on the number of children under 12 years of age in each HP. This capitation payment for paediatric dental care is separate from the main NHI capitation payment.

### **Pharmaceutical care**

As pharmaceuticals are a part of the NHI benefits package, the HPs receive funding for them via the main capitation formula. They also charge coinsurance from insurees (see section 3.4). HPs purchase pharmaceuticals directly from manufacturers. Each HP negotiates prices vis-à-vis each manufacturer.

## **3.7.2 Paying health workers**

### **Payment of physicians**

In Israel, most physicians work as salaried employees of the HPs or the non-private hospitals; many others work as independent contractors for these institutions. A collective bargaining agreement between the IMA and the major employers governs the payment terms for employed physicians in those institutions. Physicians working independently are not covered by the agreement and instead are engaged via individual contracts.

### **Community-based services**

In Clalit, the PCPs who are employees are paid on a monthly salary basis plus a capitation fee for each patient on the PCP's roster beyond the norm (which reflects the number of patients, their age and their health status); this is referred to in Israeli as passive capitation as it does not depend on whether the member visited the PCP. Independent PCPs are paid on a straight capitation basis. Specialists are paid on an active capitation basis (i.e. a set amount for each patient who visits during a quarter-year, irrespective of the number of visits) plus FFS payments for various procedures (according to a set fee schedule) up to a quarterly ceiling.

In Maccabi, the majority of physician (over 80%) are independent contractors. Both PCPs and specialists are paid on an active capitation basis plus FFS for various procedures, with the FFS component being a large share of compensation for the specialists.

In Leumit, the employed PCPs are paid on a passive capitation basis (i.e. irrespective of whether patients visited during the most recent quarter-year). Specialists and the relatively small number of Independent PCPs are paid on active capitation basis, as were employed PCPs until recently.

Meuhedet uses a mix of these reimbursement systems.

### **Hospital services**

In the government and non-profit-making hospitals, physicians generally work on a salaried basis, and for most such hospitals the terms are specified in the collective bargaining agreement. Salary levels are primarily a function of role (resident, board-certified specialist, department chair, etc.) and years of work experience.

In addition, some physicians (usually surgeons) in Ministry of Health hospitals are given the opportunity to work beyond the standard working hours for premium pay, which can be either in the form of an hourly rate or a per procedure rate. In the Clalit hospitals, there is a similar arrangement. In the Hadassah hospitals, physicians can also receive additional FFS payments for treating patients enrolled in the private medical service programme (see section 3.4.2).

In Assuta, a network of private hospitals owned by Maccabi, surgeons are not paid through the hospital but are typically paid on a FFS basis by patients' private insurance programmes. Assuta pays other physicians, such as radiologists and anaesthetists, on either a salaried or FFS basis. Similar arrangements are in place in many of the other profit-making hospitals.

### **Physician pay levels**

According to OECD health database, Israeli physicians' annual salaries have risen significantly in recent years (OECD, 2015). For example, for board-certified specialists employed by the Ministry of Health or Clalit, annual salaries have increased by approximately 50% (in dollar exchange rate terms) between 2010 and 2014. This rate of increase was unusual among the countries for which data are available.

The OECD data also suggest that Israeli specialists are currently reasonably well-paid in comparison with their counterparts in most OECD countries, both in dollar terms and relative to the average wage in the country. However, any international comparisons of income levels should be treated with great caution because of differences in measurement methodology and differences in tax rates (which in Israel are relatively high).

### **The new financial incentives**

In 2011, major new financial incentives were put in place to encourage physicians to live and work in the periphery and to pursue careers in distressed specialties.

The agreement provided for an immediate 10% addition to the ongoing monthly salaries of residents working in the periphery, with the size of the addition increasing to 25% by 2013. Similarly, in the case of board-certified physicians, who are not hospital directors or deputy directors, the agreement provided for an immediate increase of 8%, growing to 17% by 2013.

The agreement also awarded one-time payments to all physicians who begin working in the periphery; the size of these payments is NIS 500 000 (about €25 000) in the case of distressed specialties and NIS 300 000 (about €75 000) in other specialties. Initially, the payments are awarded as interest-free loans, but if the physician remains in the periphery for a specified number of years, the loans are transformed into grants that do not have to be repaid. To put the size of these payments into perspective, it is worth noting that the average annual income of Israeli physicians is approximately NIS 300 000 (about €75 000) and the median is approximately NIS 240 000 (about €60 000).

Physicians working in distressed specialties (such as anaesthesiology), irrespective of where they work, also received substantial bonuses; some observers believe that these bonuses have reduced somewhat the power of the incentives created for working in the periphery.

The number of physicians applying for the bonuses has been substantially greater than originally anticipated, creating substantial budgetary pressure. As a result, by the end of 2014 the allocated budget of about NIS 700 million that had been planned to last until 2019 had been exhausted.

At the beginning of 2015, the Ministry of Finance agreed to allocate an extra NIS 75 million (about €18 million) for bonuses for residents only, for one more year. This sum is considerably lower than what had been spent per year in previous years. In accordance, the number of distressed specialties receiving a bonus has been reduced, and residents working in the periphery will not receive a bonus unless working in a distressed specialty (in which case their bonus will

be higher than that of their colleagues working in the centre). The size of the payments will be decided in 2016, contingent on the number of residents who will be eligible for the bonuses.

## 4. Physical and human resources

Israel is characterized by a low bed-to-population ratio, an extremely low average length of stay in hospital, a mid to high rate of admissions per 1000 population, and a high (compared with the OECD average) occupancy rate in acute care hospitals. The low bed-to-population ratio is the result of deliberate government policy to shift as much care as possible to community settings and to contain costs. The bed-to-population ratio is higher in the centre of Israel than in the periphery. Most of the beds are operated either by the government or by Clalit. The Ministry of Health has gone through an extensive process to assess the need for additional beds, which found a serious need for expansion, particularly in the periphery. In mid-2015, the implementation of a national bed expansion plan was under way, including the establishment of two new hospitals in the southern periphery.

As of 2014, Israel had relatively few computed tomography (CT) and MRI units on a population basis, but these devices were being used intensively; in 2015 a major government initiative was launched to increase the availability of these diagnostic devices. Regardless of the potential purchaser, many types of medical equipment require Ministry of Health approval.

In 2014, the Ministry of Health launched a national health information exchange for sharing clinical patient data across all general hospitals, HPs and additional providers.

Historically, Israel had a very high physician-to-population ratio but this ratio has seen a marked decline. By 2012, Israel's rate and the OECD average converged, and at that time the rate for Israel was projected to decline even further. Recently, several concrete steps were taken to expand the overall supply of physicians, the number of newly licensed physicians has reached a record high, and Israel's rate has not fallen below the OECD average.

The nurse-to-population ratio has been decreasing and is lower than the average for the 15 Member States of the European Union (EU) before May 2004 (EU-15). Recently, several policy measures have been undertaken to increase the supply of nurses, which are beginning to prove successful.

Since the early 2000s, the dentist-to-population ratio has declined, but it is still slightly above the EU-15 average. In contrast, the pharmacist-to-population ratio has increased markedly and is now similar to the EU-15 average.

## 4.1 Physical resources

### 4.1.1 Capital stock and investments

In 2013, Israel had 45 general (acute) hospitals, with approximately 15 300 beds; 13 psychiatric hospitals, with approximately 3500 beds; 28 chronic disease hospitals and 287 nursing facilities, with approximately 25 000 beds (Table 4.1). This section focuses on general hospitals.

**Table 4.1**

Overview of hospitals in Israel, 2013

	Total hospitals	General (acute) hospitals	Psychiatric hospitals	Chronic disease hospitals	Rehabilitation
Institutions	373	45	12	314	2
Beds	44 627	15 340	3 425	24 799	703
Beds per 1 000 population	5.44	1.89	0.42	3.05	0.09

Source: Ministry of Health, 2014d.

Almost half of all acute hospital beds (47%) in Israel are located in hospitals owned and operated by the government. Another 30% of the acute beds can be found in hospitals owned and operated by Clalit. Approximately 3% 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, several of the private hospitals (the Assuta chain) are owned by the Maccabi HP as a profit-making subsidiary, and another private hospital (Herzliya Medical Center) is partly owned by the Clalit HP.

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 45 general hospitals, six have been recognized as supraregional hospitals and they tend to have the greatest concentration of research and training activities, as well as being centres for complicated and expensive treatments.

While the number of beds in private hospitals is fairly stable, the leading private hospitals have recently undergone serious modernization and upgrading of their facilities, supporting their capacity to increase the range and number of operations they are able to perform. In these private hospitals, care is covered via a mix of OOP payments, commercial insurance and supplemental insurance. Patients are able to exercise a great deal of choice with regard to the surgeon, the anaesthetist 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.

#### **4.1.2 Infrastructure**

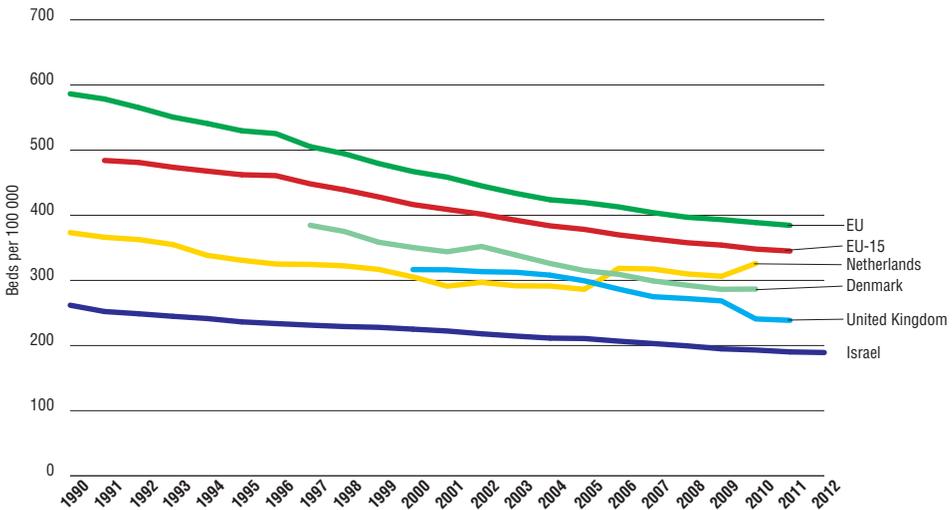
Israel’s 45 acute hospitals are spread throughout the country. In 2012, the overall general care bed-to-population ratio was 1.9 per 1000 population. As in other countries, the bed-to-population ratio is higher in the centre of the country than in the periphery, ranging from 1.4 in the southern region to 2.6 in the Haifa region. Even so, 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 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 with other OECD countries and the EU and EU-15 averages, Israel is characterized by a low bed-to-population ratio (Fig. 4.1), an extremely low average length of stay (Fig. 4.2), a mid-to-high rate of admissions per 1000 population, and a high occupancy rate (Fig. 4.3). The low bed-to-population ratio is the result of deliberate government policy based on the view that care should be provided in community settings when it is possible to do so and on the assumption that the greater the number of beds, the larger the hospital’s share of total health resources. There is also recognition that Israel’s relatively young population and its well-developed community services make it possible to

maintain a relatively low bed-to-population ratio. Budget constraints have also played an important role. Interestingly, there is a growing discrepancy between the official number of beds, and the number of beds actually in operation.

**Fig. 4.1**

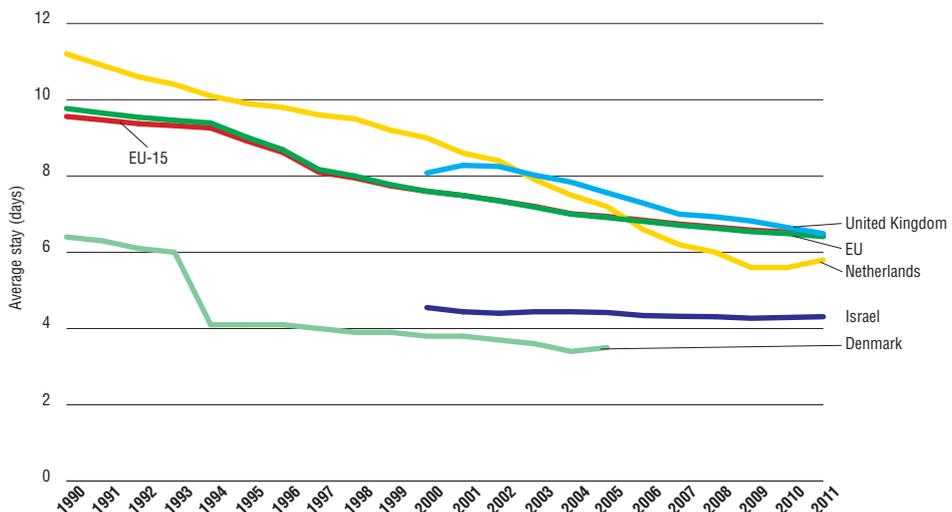
Acute care hospital beds per 100 000 population, 1990–2012



Source: WHO Regional Office for Europe, 2015.

**Fig. 4.2**

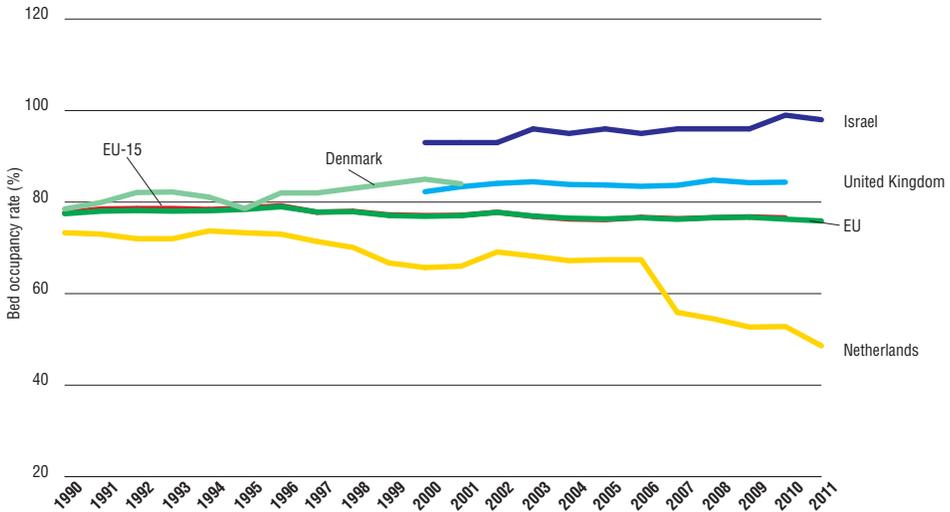
Average length of stay, acute care hospitals only, 1990–2012



Source: WHO Regional Office for Europe, 2015.

**Fig. 4.3**

Bed occupancy rate, acute care hospitals only, 1990–2012



Source: WHO Regional Office for Europe, 2015.

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 and implementation is under way.

Until recently, no new acute care hospitals had been established in Israel for many years. This is beginning to change. A major new hospital is being built in Ashdod, which will be in part public and in part private. In addition, the government has recently decided to establish a new (second) hospital in Beersheba, in the country's Southern District.

In recent decades, the average length of stay has declined dramatically, from 6.8 days in 1980 to 4.0 days in 2012, and has been relative stable since 1997. Similarly, the discharge rate increased dramatically from its 1980 level of 145 per 1000 population to 177 in 1995, and stabilized thereafter, with a level of 163 in 2012. The number of acute care hospital beds per 1000 population continues to decline and in 2012 it was below 1.9 per 1000 (Fig. 4.1 and Table 4.2). 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. The volume of day care and ambulatory surgery has increased dramatically since the mid-1990s.

**Table 4.2**

Trends in acute hospitals, 1980–2012

	1980	1985	1990	1995	2000	2005	2010	2012
Beds (per 1 000 population)	2.95	2.83	2.53	2.33	2.23	2.09	1.91	1.88
Discharge rate (per 1 000 population)	145	148	157	177	175	173	172	162
Patient days (per 1 000 population)	991	911	834	815	761	728	685	662
Average stay (days)	6.8	6.1	5.3	4.5	4.3	4.2	3.9	4.0
Bed occupancy rate (%)	0.90	0.90	0.88	0.95	0.93	0.96	0.98	0.96

Source: Ministry of Health, 2014d.

Since the outbreak of the intifada in September 2000, and even more so in the wake of more recent rocket and missile attacks on civilian population centres emanating from Gaza and Lebanon, hospitals have had to mobilize to care for the casualties, including victims of shock, which requires an increase in both medical and psychiatric services. Because other threats to the population persist, hospitals continue to prepare for a range of potential emergency situations. This includes staff training, the development of protected facilities and a broad range of additional measures.

#### 4.1.3 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 provider or a profit-making provider. The devices requiring approval are CT, MRI and positron emission tomography 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, Sheffer & Vaknin, 2008).

With regard to CT scanners, Israel had 9.2 devices per million population in 2012, which is relatively low by international standards, but which is markedly higher than 6.2 reported in the 2009 Israel HiT (Rosen, Samuel & Merkur, 2009). While it is about mid-way between the rates for the United Kingdom (8.1 per million) and the Netherlands (10.9), it is much lower than the

rates for the United States (over 40 per million) and Denmark (approximately 30 per million). The OECD average is approximately 20 per million (2012). Note, however, that the CT units in Israel are used particularly intensively, so that it has about 15 000 scans per year compared with about 7300 for the OECD countries on average.

With respect to MRI devices, Israel had only 3.0 units per million-population in 2012, well below the comparable figures for the United States (34.5), the Netherlands (11.8), and even the United Kingdom (6.8). The OECD average is 14.0. Here too, utilization in Israel is particularly intensive, with 9200 scans per year compared with about 5300 for the OECD countries on average.

#### 4.1.4 Information technology<sup>16</sup>

In 2014, the Ministry of Health launched a national health information exchange for sharing clinical patient data across all of Israel's general hospitals, its four HPs and additional health care providers. This provides Israeli clinicians with the world's first national data exchange programme, 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. Citizens can utilize the "opt-out" feature if they do not wish for their data to be accessible.

Additional significant developments over the last few years have been in the mobile and videoconference arenas. All of the health funds provide extensive mobile applications, striving to emulate what they already offer in a web setting. Services include booking appointments with all clinicians, specialists, dieticians and therapists; accessing full laboratory results and laboratory history going back over 10 years, and ordering recurring prescriptions and medications with their complete history. Patients can view relevant imaging, can request confirmation and make payment for procedures carried out at other providers, and can check their vaccination history. Another major improvement has been the secure e-mail connection to PCPs, thereby eliminating unnecessary visits for routine items or to ask a question. In summary, patients are able to initiate end-to-end health care-related interaction cycles, both clinical (e.g. e-visits and e-prescriptions) and administrative (e.g. billing), through a secure, personal health account.

Clalit has implemented a highly popular "doctor online" video conferencing service that connects patients with "on-call" paediatricians backed up by the children's hospital. With over 4 million members, there have been half

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<sup>16</sup> This section was prepared in collaboration with Phillip Libman.

a million web site accesses (i.e. visits) in a typical month, with 40% via the cellular application. A 100 000 appointments are booked online per year. A new initiative allows for doctors to send out relevant health care materials by e-mail in conjunction with a patients' visit, and this has reached a million e-mailings per year. New data-mining initiatives have been used, for example to identify hospital patients who are most at risk for re-hospitalization, and this initiative has reportedly lowered re-admissions.

Macabi has greatly expanded its videoconferencing services for patients needing chronic care, especially those served by relatively small clinics in the periphery. Services offered include wound care for diabetics, who are looked after by a dedicated local nurse with specific instruction from the specialist. Other areas covered include endocrinology, dieticians and hypertension. There is a mobile application for pregnancy that is linked to the patient's clinical data, allowing for greater connectivity and follow-up and immediacy with the patient's status. A new rules-based system issues relevant alerts based on a patient's age and health status for preventative medicine initiatives, such as faecal occult blood testing.

Of Macabi's over 2 million members, 85% are registered on their Internet site with well over 10% using it monthly. Maccabi has also set up an internal messaging and video conferencing system for its physicians, allowing for greater and timely communication and consultations. Also significant has been Maccabi's MOMA project, to provide sophisticated and ongoing care at a distance for members living at home with multiple and/or complex chronic conditions.

The Ministry of Health's NAMER project, one of the largest hospital administration information systems projects in Israel, has continued to extend its reach in 10 general hospitals. It provides admissions/transfers/discharge data, billing, ward management, patient acceptance and discharge capabilities. In addition, it is tied into a picture archiving and communication systems, operating rooms, laboratory and local hospitals/electronic medical records and has a module for multicasualty incidents. The biggest advance has been in the implementation of a clinical electronic medical record system, which has been implemented in eight hospitals and in 80 wards, resulting in "pen-less" wards. The system enjoys a unique backup system which ensures that, should a disaster occur and the hospital's generator and disaster-recovery system are down or inaccessible, each ward can continue to operate for four hours on its own power.

The Clalit Research Institute has developed innovative approaches to using clinical and other data (big data) in daily patient care, focusing on new models of preventive care that were widely adopted at Clalit.<sup>17</sup>

Israel's achievements in the health information technology area are due in part to its highly organized system of health care and in part to its position as an international centre for high-technology start-ups.

## 4.2 Human resources

This section presents trend and comparative data for a variety of health professions. The trend data rely primarily on Israeli sources, which relate to licensed professionals up to age 65 (as in Table 4.4), while the comparative data rely primarily on Health for All data (WHO Regional Office for Europe, 2015) regarding employed professionals (as in Table 4.3). Naturally, there are differences between these two variables, as not all licensed professionals under age 65 are employed, and some licensed professionals continue to work beyond age 65.

### 4.2.1 Health workforce trends

Tables 4.3 and 4.4 summarize the changes in the health worker-to-population ratios since the 1980s.

**Table 4.3**

Health workers in Israel per 100 000 population, 2000–2012 (employed professionals)

	2000	2005	2010	2012
Physicians	344.51	321.78	332.30	
Physicians, medical group of specialties			85.88	85.43
General practitioners			25.37	25.52
Nurses	566.32	544.36	491.90	
Midwives	23.07	21.04	20.99	22.00
Dentists	79.50	81.28	83.52	
Pharmacists	63.60	64.93	75.20	

Source: WHO Regional Office for Europe, 2015 (at April 2014).

Note: n/a: Not available.

<sup>17</sup> The Institute was designated in 2014 as the WHO Collaborating Centre for Non-Communicable Disease Research Prevention and Control, and is involved in various planning efforts mainly in the WHO European Region.

**Table 4.4**

Licensed health professionals up to 65 years of age per 1000 population, 1980–2013

	1980	1990	2000	2005	2010	2013
Physicians	2.28	2.71	3.44	3.40	3.25	3.11
Physicians, medical group of specialties	0.74	1.19	1.50	1.67	1.77	1.73
General practitioners	1.54	1.52	1.94	1.73	1.48	1.38
Nurses, all	n/a	n/a	6.49	6.43	6.08	5.79
Nurses, registered	n/a	n/a	4.09	4.61	4.81	4.80
Midwives	n/a	n/a	n/a	n/a	n/a	n/a
Dentists	0.49	0.90	1.05	1.03	1.02	1.00
Pharmacists	0.36	0.44	0.58	0.66	0.78	0.80

Source: Ministry of Health, 2014i.

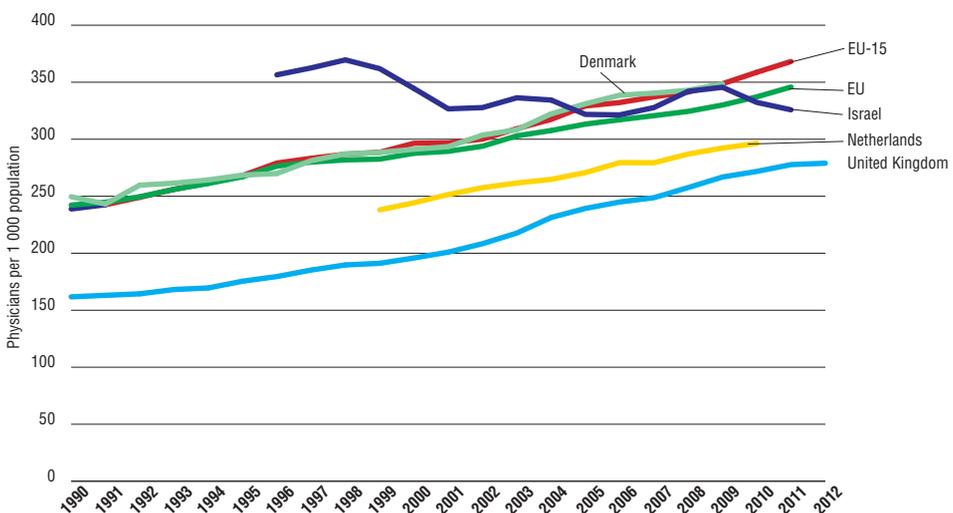
Notes: <sup>a</sup>Up to 65 years of age; n/a: Not available.

### Physicians

The physician-to-population ratio has been relatively stable during the 1990s at 3.6–3.7 physicians up to age 65 per 1000 population, followed by a gradual decline to 3.3 per 1000 in 2012 (Fig. 4.4). 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. There is substantial variation in the practising physicians-to-population ratio across regions; it ranges from 2.2 per 1000 in the north of the country to 4.4 in Tel Aviv.

**Fig. 4.4**

Physicians per 1000 population in Israel and selected countries, 1990–2012



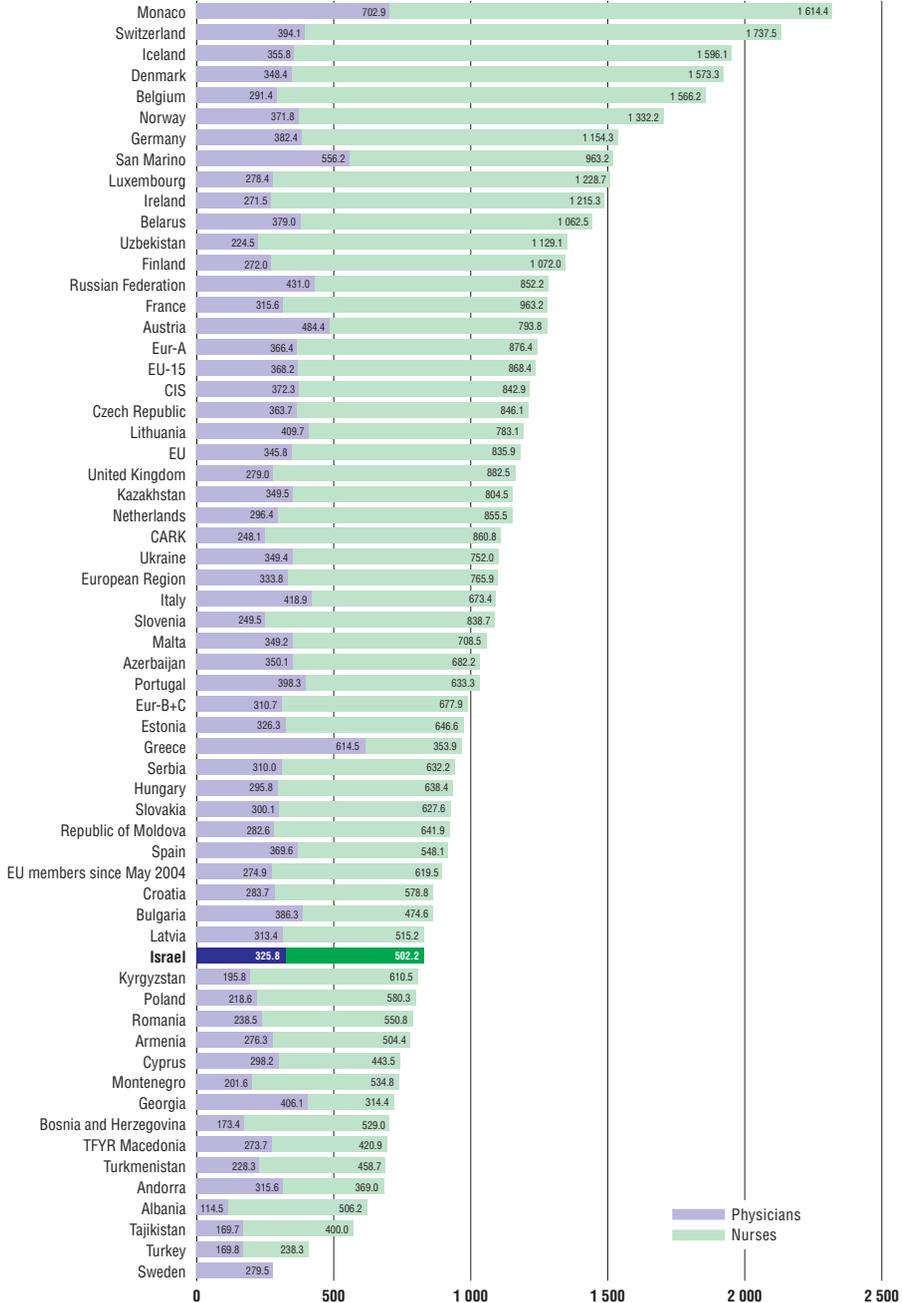
Source: WHO Regional Office for Europe, 2015.

Until recently, Israel had one of the highest physician-to-population ratios in the world; even in 2006, it was still approximately 20% higher than the OECD average. After 2006, while the ratio continued to decline in Israel, it continued to increase in most OECD countries. By 2012, Israel's rate (3.30) and the OECD average (3.25) had essentially converged. When compared with EU-15 countries the physician-to-population ratio is somewhat low (Fig. 4.5); it has been trending downward in Israel, while it has been increasing among EU-15 countries. Recently, Israel has taken several concrete steps to expand the overall supply of physicians and to channel more physicians into peripheral regions and distressed specialties (see section 6.1.4). In 2014, the number of newly licensed physicians reached a record high, and Israel's rate has not fallen below the OECD average.

With regards to specialist numbers, a Ministry of Health-appointed committee of experts found severe shortages of physicians in 2010 in the following specialties: anaesthesiology and critical care, neonatal care, child psychiatry, child development/neurology, geriatrics and physical/rehabilitation medicine. It also projected future shortages in the following specialties: pathology, internal medicine, family medicine and general surgery.

**Fig. 4.5**

Number of physicians and nurses per 100 000 population in the WHO European Region, 2012



Source: WHO Regional Office for Europe, 2015.

Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States; EUR-A,B,C: Regions as in the WHO list of Member States, last available year; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

## Nurses<sup>18</sup>

The nurse-to-population ratio is declining. In 2013, the ratio of nurses under age 65 to population declined to 5.79 per 1000 population, compared to 5.85 in 2012 and 6.43 in 2005 – a decline of 10%. At the end of 2013, the ratio of state-registered nurses (RNs) under 65 years of age was 4.80 per 1000 population, an increase of 4% from 2005. The percentage of RNs among all nurses in Israel below 65 years of age is on the increase – 83% at the end of 2013 compared with 63% at the end of 2000.

In 2012, the number of new nursing licences began to increase for the first time in a decade, following the intensive recruitment of nursing students and the awarding of grants. It is expected that the results of these efforts will continue to be evident in the coming years.

The percentage of young nurses has declined in the past decade. At the end of 2013, 40% were under 45 years, compared with about 48% in 2005; 39% were aged 45–64 years (38% in 2005), and 21% were over 65 years (14% in 2005). The percentage of male nurses is rising: 11.3% of the RN workforce were men in 2013, compared with 9.6% in 2005.

According to the CBS's Labor Force Survey (CBS, 2015c), in 2012, 38 000 nurses were employed in the civilian sector in Israel – 4.8 per 1000 population – compared with 5.3 in 2005. The rate of employed nurses is low in the Southern District (3.3 per 1000 population) and Northern District (3.9) compared with the Haifa District (7.1), the Tel Aviv District (5.8), the Jerusalem District (4.7) and the Central District (4.6) (averages for 2009–2011). Three quarters of all nurses are employed in hospitals and one quarter in the community. This rate has been stable for the past two decades.

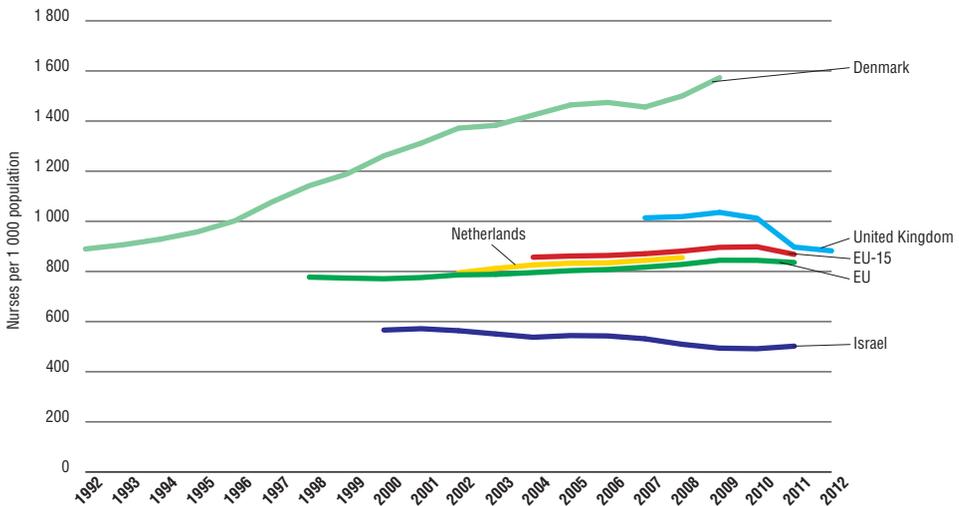
The nurse-to-population ratio in Israel is lower than the average for EU-15 countries (Fig. 4.5) and has been decreasing in recent years (Fig. 4.6). Several policy measures have been undertaken recently to increase the supply of nurses, including the expansion of accelerated nursing degree programmes for people with bachelor's degrees in other fields.

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<sup>18</sup> This section and others about nurses was prepared in consultation with Shoshana Riba and Ruth Rotstein.

**Fig. 4.6**

Nurses per 1000 population in Israel and selected countries, 1990–2012



Source: WHO Regional Office for Europe, 2015.

## Dentists

The ratio of dentists (up to age 65) to the population has declined somewhat since the early 2000s, with the number of working age dentists per 1000 dropping from 1.12 in 2000 to 1.00 in 2013. Approximately 40% of working-age dentists are women.

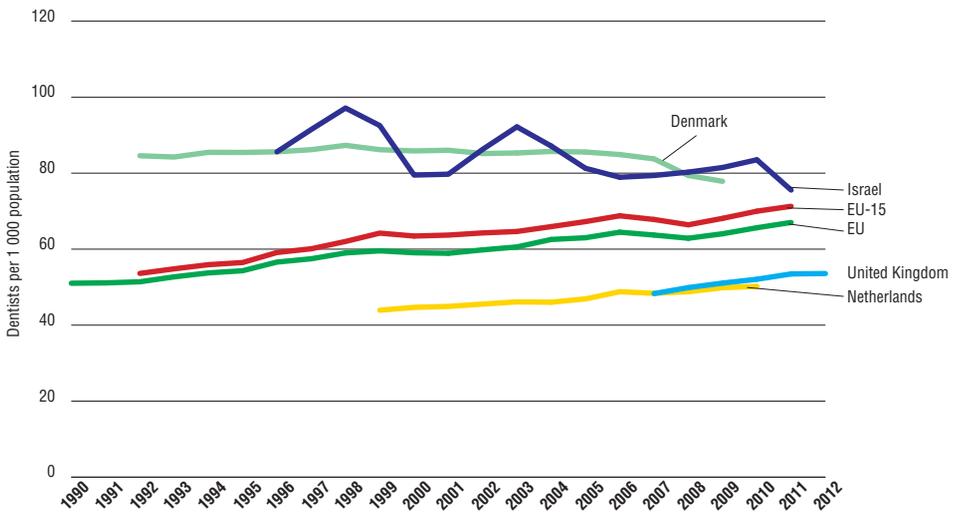
At the end of 2013, 9% of all working age dentists were specialists in Israel and 30% of these were women. The three largest groups of dental specialities are prosthodontics (19% of all specialists); orthodontics (18%); and oral and maxillofacial surgery (16%). Recognition as a specialist is granted by the Scientific Council of the Israeli Dental Association. Other dental professionals include dental hygienists (whose numbers are increasing), dental assistants and dental laboratory technicians.

The vast majority of dentists in Israel work in private clinics or in group practices (Nefesh B'Nefesh 2008). Some dentists work in school dental services and are paid by the local municipality. The army employs dentists and conducts periodic dental examinations and a wide range of free treatments 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).

Fig. 4.7 presents trend data on the dentist-to-population ratio 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. The dentist-to-population ratio in Israel is slightly above the average for EU-15 countries. That gap has been narrowing over time, primarily through an upward trend among EU-15 countries.

**Fig. 4.7**

Dentists per 1000 population in Israel and selected countries, 1990–2012



Source: WHO Regional Office for Europe, 2015.

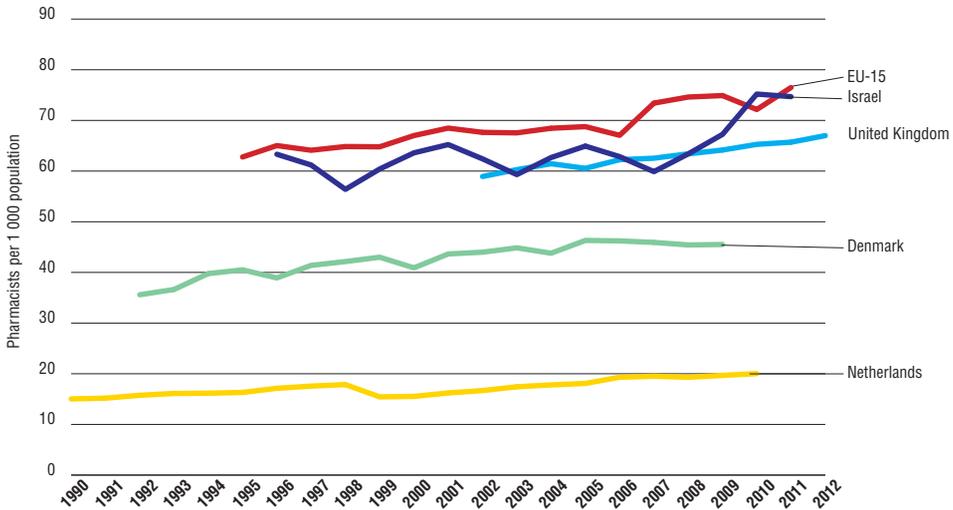
**Pharmacists**

The ratio of pharmacists (up to age 65) to 1000 population has grown from 0.61 in 2000 to 0.80 in 2013. The percentage of pharmacists below the age of 45 years has been growing since the mid-1990s. At the end of 2013, Israel had approximately 8000 licensed pharmacists, of whom 57% were under the age of 45 and approximately 15% were over 65 years. At the end of 2013, 58% of the pharmacists in Israel were women. Pharmacist’s scope of practice is expanding (see section 5.6).

Fig. 4.8 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. Israel’s pharmacist-to-population ratio is similar to that of the average for EU-15 countries, after increasing markedly in recent years.

**Fig. 4.8**

Pharmacists per 1000 population in Israel and selected countries, 1990–2012



Source: WHO Regional Office for Europe, 2015.

### Other health workers

In 2008, the Knesset passed laws regulating the work of physical, occupational and communication therapists; dietitians/nutritionists; clinical criminologists; chiropractors; podiatrists and surgical podiatrists.

**Physiotherapists.** There are about 0.5 physiotherapists up to age 65 per 1000 population in Israel. Numbers are increasing and in 2013 the ratio was 1.6 times that in 2000. Many physiotherapists are employed in private frameworks, such as health care institutes, community centres, businesses and factories, sports teams and therapeutic swimming pools. Over 2000 physiotherapists are employed in all the health funds, of them some 1500 in Clalit. Around 700 are employed in general, rehabilitative and geriatric hospitals. The number of physiotherapists per 1000 population is similar to the rate in other Western countries.

**Nutritionists.** There are about 0.19 nutritionists up to age 65 per 1000 population. Again numbers are rising and in 2013 there was 1.4 times the ratio in 2000. This ratio It does not differ substantially from the situation in other Western countries.

**Speech therapists.** There are about 0.35 speech therapists up to age 65 per 1000 population; the 2013 ratio was 2.1 times that in 2000.

**Occupational therapists.** There are about 0.42 occupational therapists up to age 65 per 1000 population; the 2013 ratio was 1.6 times that in 2000. In recent years, the demand for occupational therapy has grown, following its expansion into a variety of newer areas such as respiratory rehabilitation wards, subacute wards for young people, palliative care wards and national burn centres.

**Psychologists.** The number of psychologists is increasing. At the end of 2013, there were 1.16 psychologists up to age 65 per 1000 population (compared with 0.87 at the end of 2000); 73% are women. About a quarter (23%) of all psychologists are certified to work as instructors. In 2013, 54% of all psychologists were specialists and their number is rising. Specializations in psychology include clinical (57%), educational (27.7%), social–occupational–organizational (4.2%), rehabilitative (4.2%), developmental (4%) and medical (3%).

**CAM practitioners.** The estimated workforce in CAM in Israel is more than 20 000 practitioners who have completed a systematic training programme. Overall, half of all alternative treatments make use of traditional Chinese medicine, while the others use different methodologies. Some caregivers in Chinese medicine, in both the public and private sectors, are conventional physicians but many others are not.

**Other accredited professions.** These includes medical laboratory workers (0.8 per 1000 population), clinical geneticists (0.012) and optometrists (0.189).

In 2012, the Ministry of Health prepared projections of needs for several health professions. For physiotherapists, dieticians, speech therapists and occupational therapists, it appears that, overall, the supply is expected to increase substantially in the coming years and that there is no need to significantly expand training. However, in general, the availability of health professionals relative to the size of the population is lower in the north and south than in the centre of the country. Furthermore, some of these professions have seen movement from the public to the private sector, because of better income opportunities. The projections show that nationally there is no shortage but it is recommended that more attention be paid to certain geographical regions that have experienced difficulty in recruiting some types of health professional.

Further information on these health care professionals appears in the sections below and also in sections 2.5 and 2.8.3.

### 4.2.2 Professional mobility of health workers

At the end of 2013, graduates from Israel constituted 41% of all physicians up to age 65 (up from 37% in 2006); other substantial groups were from eastern Europe (40%), western Europe and North America (15%), and Asia/Africa (3%). In 2013, there were 1011 new licences given, with the following distribution of place of graduation: Israel 41%; eastern Europe 34%; western Europe 10%; Asia/Africa 10%; and United States 4%.

About half of all working-age dentists are immigrants. In addition, many Israeli-born dentists travelled abroad for training, so that only 29% of all working-age dentists were trained in Israel, with 49% trained in eastern Europe, 8% in western Europe, 7% in the United States, and 7% in Africa/Asia in 2013.

Among licensed pharmacists up to age 65, 53% were trained in Israel, 19% in Asian or African countries, 17% in eastern Europe, 8% in western Europe and 3% in the United States. Since the early 2000s, there has been a major increase in the number of Israelis who go abroad to study pharmacy and then return to practise in Israel. Many of them are Israeli Arabs who study pharmacy in neighbouring Arab countries (particularly Jordan, Egypt and Syria).

Most (76%) psychologists up to age 65 were trained in Israel, with 12% trained in the United States, 5% in western Europe, 5% in eastern Europe and 2% in Asia/Africa.

### 4.2.3 Training of health workers

#### Physicians

Israeli medical schools currently offer several pathways to a doctor of medicine degree. The most common pathway entails 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 that pathway does not require a bachelor's degree. Another pathway is open to university graduates (with a bachelor of science degree) who have done significant coursework in the basic sciences, and it entails only four years of study in medical school. A third pathway is available to students who completed basic science studies in a medical school outside of Israel. These students can receive their medical degrees after completing an additional three years of clinical studies in an Israeli medical school. The distribution of students between the three pathways is currently approximately 80%, 15% and 5%, respectively.

Most students enter medical school after completing their compulsory army service (two years for women and three years for men) or other voluntary assignments (i.e. a period of a “National Service”).<sup>19</sup> A small number of students who have signed on to serve as physicians in the army after completing their medical studies can begin those studies immediately after high school.

Israel has a well-developed system of specialty training, with residencies lasting 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 examinations 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 places are funded by the hospitals out of their regular operating revenues; there is sometimes special government funding for a certain number of places, for example in the effort to encourage employment of immigrant physicians in the early/mid-1990s. Israel also has a well-developed system of subspecialty training and fellowships. Many promising Israeli physicians pursue fellowship training abroad, typically in the United States or Europe.

In recent years, 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. This effort has had some success in family medicine training programmes, but significant barriers to change remain in other specialties.

### **Nurses**

By the end of 2015, all nursing studies will be to a bachelor of science in nursing and will be carried out under the auspices of universities and colleges. This is expected to include 2800–2900 students.

The government is acting vigorously to increase the number of nurses being trained. Over five years, the number of nursing students has doubled with 2850 students beginning their studies in 2014 compared with 1692 in 2010. However, this is still not enough to reach the nurse-to-population ratio declared in government policy.

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<sup>19</sup> Israelis exempt from military service can begin their medical studies immediately after graduation from high school.

The number of RNs under 65 years who have graduated from advanced courses is increasing, from 39% in 2005 to 43% in 2013. At the end of 2013, 16 869 RNs under 65 years had completed advanced courses: 2.1 per 1000 population.

The advanced courses are intended for RNs with academic degrees who are interested in working in specialized areas such as emergency medicine, intensive care, nephrology or operating rooms. In order to provide high levels of professional care in these units, the RNs are required to undertake additional training. The advanced courses last approximately one year, at the end of which the nurses receive a diploma and this is recorded in their file in the official registry of nurses.

All the universities and several of the colleges offer master's degree programmes in such areas as nursing, health care management, epidemiology, occupational medicine and gerontology. It is estimated that the number of nurses with master's degrees is in the thousands and 300–400 nurses hold academic doctorates (PhDs).

### **Dentists**

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

### **Pharmacists**

In 2013, 167 new licences were granted to pharmacists, of whom 56 had trained in Israel. In previous years the numbers were significantly higher: 300 overall of whom over 150 had been trained in Israel.

### **Other health workers**

**Physiotherapists.** Physiotherapy studies last four years and graduates receive a bachelor's degree in physiotherapy. In recent years, the average number of diploma recipients was a little over 200 a year.

**Nutritionists.** Nutrition studies last three years with an internship of up to six months (in hospitals and/or in the community). On average, 260 nutritionists graduate and receive a diploma each year.

**Speech therapists.** Speech therapy studies last three and a half years, including supervised practical period, and lead to a bachelor's degree. These studies are currently available in two universities and five colleges. Every year, about 200 new graduates enter the system.

**Occupational therapists.** Occupational therapy studies last four years and lead to a bachelor's degree. Three universities provide an option of doctorate study, which last three and a half years. Every year, some 225 new occupational therapists enter the market.

**Psychologists.** To work as a clinical psychologist, the requirements are a master's degree in psychology in a clinical area, which usually takes two years, and a four-year half-time internship (partly in hospital and partly in a community setting). In recent years, approximately 550 new licences were granted to psychologists, of which approximately 400 were granted to those trained in Israel.

**CAM practitioners.** There are nearly 100 CAM training programmes, including brief courses (several months long) by private individuals and institutional schools of varying quality. None of them gives an academic degree in this area. Some meet international standards and are accompanied by a strict supervision mechanism, while others are unsupervised. Training at some of the bigger schools entails 3000 hours of study over four years.

#### 4.2.4 Career paths for physicians

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

#### 4.2.5 Career paths for nurses

As part of the transformation of the nursing profession to an academic profession with broad authority, the academic level of those entering the profession is rising and the wish and potential to develop a career is growing. Israel offers nurses three main career paths: clinical, academic and management.

**Clinical.** Professional development is in the context of direct care of a patient at various levels, from specialist in-service training in selected units such as intensive care, emergency medicine, oncology, through to the status of specialist nurse with the authority to provide independent treatment for a variety of clinical problems experienced by the patient in the nurse's care.

**Academic.** The basic academic training pathway for nurses requires the development of academic staff within the training institutions. This is a teaching and research pathway for nurses, from a master's degree to an academic doctorate in nursing and through to the status of professors, as required by each academic institution.

**Management.** The management pathway allows for the development of a hierarchical management scale in nursing, from nurses in charge of their unit through to the head nurse at a medical institution. In recent years, many positions have opened up in the field of health system management. For several years, these positions have been open to nurses with an advanced degrees, master's degree or higher. These positions include quality assurance, responsibility for the service, risk management, spokesperson, internal audit and so on.

## 5. Provision of services

**T**he Ministry of Health provides national leadership in a broad range of public health domains including food safety, control of communicable diseases, screening, health promotion, environmental health and epidemiologic monitoring. Its key partners include HPs, municipalities and the Ministries of Education, Sport and Culture, Finance, and Environment.

Primary care is provided almost exclusively by HPs via salaried physicians (and other professionals) working in clinics owned by the HPs, and independent physicians with whom they contract.

HPs are also the predominant source of specialized ambulatory care, which is mostly provided in community settings. Hospital outpatient departments are also an important, albeit secondary, source of such care. In contrast, the hospitals are the main providers of emergency care, with a relatively small but growing role for community-based providers (such as evening service centres sponsored by HPs and independent urgent care centres).

Israelis have access to a secure, safe and stable supply of a wide range of pharmaceuticals. HPs have community pharmacies of their own, but they also have arrangements with independent pharmacists, and the rapidly growing pharmacy chains, to bill them for pharmaceuticals dispensed to their members. Israel also has a large, successful and growing pharmaceutical industry, with an emphasis on generic pharmaceuticals.

In the LTC area, Israel has a well-developed system of day-care centres for the elderly, a growing system of supportive neighbourhoods, legislation that provides for government financing of non-professional home care, and a relatively high level of LTC insurance coverage. However, the LTC system suffers from fragmentation and other ills.

Palliative and hospice services are covered as part of the NHI benefits package. However, there are no governmental guidelines on when, how and to what extent HPs are required to provide these services. Hospital- and community-based palliative and hospice services exist, but they are less well developed than optimal.

Responsibility for the provision of publicly financed mental health care (not including substance abuse care) was shifted in mid-2015 from the government to HPs. The government continues to operate most of the psychiatric hospitals and a network of community clinics as well as a comprehensive programme of rehabilitation services for the chronically mentally ill. The private sector is also a major provider of community-based mental health services.

Dental care, particularly for adults, is predominantly provided by the private sector by independent dentists, but HP chains and commercial chains are also significant providers. In the wake of the 2010 expansion of NHI to include dental care for children, this is increasingly being provided by HPs and financed by the government. The government also provides financial support for school dental services and limited programmes of dental care for poor people.

The use of complementary and alternative medicine (CAM) has grown markedly in Israel in recent decades. Moreover, mainstream health care providers – including hospitals, HPs and physicians – are increasingly involved in provision of CAM.

People living in Israel who do not have formal residency status are not covered by Israel's NHI Law. However, a variety of special arrangements have been put in place by the government and the HPs to facilitate the financing and provision of care for foreign workers, children who lack residency status and others.

## 5.1 Public health

The Ministry of Health operates the Public Health Service with national headquarters that, in turn, operates regional and district offices and a variety of field units.<sup>20</sup> These units are staffed by career public health physicians, public health nurses, environmental engineers and other public health-related professionals. Several Israeli universities have programmes in place for the training of public health personnel. Five of Israel's seven universities offer

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<sup>20</sup> This section was prepared by Nadav Davidovitch in collaboration with Itamar Grotto.

master's of public health programmes and recently a new undergraduate public health programme was established at the Ashkelon Academic College. The Israeli Public Health Physicians Association is responsible for developing the standards and syllabus for training of public health physicians, in collaboration with the Israeli public health services and the schools of public health.

### **Environmental health**

For decades, the Ministry of Health has had a department of environmental health. An important structural change took place in 1988 when certain responsibilities were reassigned to the newly formed Ministry of Environmental Protection. That Ministry assumed the lead responsibility for controlling noise levels, air pollution, radiation, and waste collection and disposal. The Ministry of Health remained the lead agency for food safety, ensuring water quality and regulating water recycling efforts and the use of pesticides in agriculture. Coordination efforts between the two ministries were not always effective after this 1988 structural change. However, since the mid-2000s, communication and coordination between the two ministries has improved and currently they are working together to formulate and implement a comprehensive national environmental health policy.

An important change in recent years was the opening of a department for environmental epidemiology within the Ministry of Health's Public Health Service, in addition to the long-existing Department of Environment and Health. The new department is part of the larger epidemiology division that had traditionally a strong focus on infectious diseases.

Water shortage used to be one of the most crucial environmental problems facing Israel, exacerbated by the deteriorating quality of water resources under demographic, industrial and agricultural pressures. The establishment of large water desalination facilities helped to solve this problem in coordination with the Ministry of Health. Issues such as adding magnesium into desalinated water to prevent health risks are among the new challenges for policy-makers. Recently new water quality standards were adopted with one of the consequences being the decision to stop water fluoridation, a mandatory measure that had been employed in Israel. Currently that decision is being challenged in the Supreme Court by several professional associations (public health and paediatrics) as well as by some municipalities.

The main sources of air pollution in Israel are energy production, transportation and industry. Dense vehicle traffic is a major cause of air pollution, especially in the heavily populated urban centres of Tel Aviv, Jerusalem and Haifa. The relatively new Air Act presents the option to declare

regions as endangering public health, thus demanding the development of a regional plan to reduce air pollution. Until now no such region has been declared, although several deliberations were held within the advisory committee for the environmental epidemiology department.

The establishment of the Environment and Health Fund in 2007 helped to improve the funding for environmental health research, for example to fund scholarships for postdoctoral study abroad and international workshops in various subjects such as exposure science and health impact assessment.

### **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 HPs, hospitals, community clinicians and laboratories.

The national immunization schedule for children (until 6 years of age) is implemented by a network of mother and child health centres (*Tipat Halav*; “drop of milk” in Hebrew) that are operated by the Ministry of Health, the HPs and a couple of municipalities.<sup>21</sup> They are primarily staffed by public health nurses, with a relatively 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. Immunizations after the age of 6 years are given by the school health services and immunizations for adults are given by the HPs.

After the enactment of the NHI Law, the introduction of new vaccines to the national programme has been slow. For many years, the committee responsible for additions to the NHI benefits package did not consider new vaccines. This created the situation that Israel, which for many years had been among the most advanced countries in its immunization schedule, fell behind and several new immunizations were not included in the national publicly funded immunization scheme. Although some of these new immunizations were included in supplementary insurance packages offered by the HPs, the co-payments involved and the fact that they were not offered in the mother and child health centres created a problematic situation of partial coverage and health disparities. In 2008, a scheme to gradually include the new immunizations was adopted by the Ministry of Health, and in the last few years new vaccines have also been discussed by the Basket Committee. The current immunization scheme in

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<sup>21</sup> The family health centres were started by Hadassah in 1912, then further developed during the British Mandate and focused on services for mothers and children.

2015 is robust and comparable to those of other developed countries, including immunizations against rotavirus, human papilloma virus, pneumococcal infection, and the combined vaccine for measles, mumps and rubella.

Vaccination coverage in Israel is high, with approximately 92–94% coverage among infants. The vaccination programme is updated regularly, with input from an epidemiological advisory committee. Until recently, vaccination coverage in Israel compared favourably with other developed countries, both in terms of the range of vaccines provided free of charge and the proportion of the population inoculated.

The Ministry of Health's district and regional offices support and monitor the front-line efforts of the mother and child 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. An 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 made.

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 small non-profit-making organization, a move that was criticized and proved to be detrimental, especially in the south of Israel where there are communities of low socioeconomic status such as the Bedouins.

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.

Typically, the Ministry of Health covers the cost of public information campaigns for adult vaccination, while the HPs provide vaccines and are responsible for service delivery at patient level, with some vaccines provided free of charge and others at subsidized prices. For many years, 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 was 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. While some improvement has taken place since 2004, especially in the response to avian influenza, following the division between the West Bank and Gaza, cooperation has been challenging.

The Ministry of Health has developed a detailed pandemic preparedness plan that relates to the key elements of surveillance, hospital and laboratory preparedness, stockpiling and distribution of antiviral drugs, 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 2013, the discovery of poliovirus in Israeli sewage led the Israeli Government to institute a polio vaccination campaign in Israel, a highly unusual occurrence in a developed country. The campaign included a risk communication component that used both traditional media and social media. One of the main issues in public and professional discussion was the possibility of reintroducing the oral live “trivalent vaccine” (Sabin vaccine), which had been discontinued in 2004 in Israel as in other developed countries. The response was followed closely by WHO, with whom the Israeli authorities consulted intensively. This case is very relevant to other countries that moved to inactivated poliovirus vaccine only, and more broadly for final global eradication efforts (Kopel, Kaliner & Grotto, 2014).

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 (including ongoing reporting of surveillance data from the HPs for early identification of outbreaks).

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 2015 over 50 cities were participating. The Network has been very important for the larger health promotion initiatives led by the Ministry of Health, including the National Programme to Promote Active and Healthy Lifestyle together with the Ministry of Education and the Ministry of Culture and Sport. Recently, following large cuts in the overall national budget, the programme has suffered from major cuts.

### **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 mother and child health centres. The latter also offer prenatal screening services, but many women prefer obstetricians, many of whom provide care through the HPs while others practise privately.

Mother and child health centres are the primary source of screening for problems in child development and for vision and hearing problems. They also screen children pre-school before this function is taken over by schools. The HPs 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 HPs through VHI. Others, such as screening for breast and colorectal cancers, are carried out by the HPs as part of the NHI benefits package. At the time of writing, screening programmes for these cancers are implemented 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 Promotion, 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

HPs 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 their web sites, newsletters and other printed materials. However, currently the “health promotion basket”, unlike the health basket for mainly clinical treatments, is not part of the NHI Law and there is no clear definition of what should be included in promotion and prevention programmes.

As mentioned, a National Programme to Promote Active and Healthy Lifestyle was initiated by several government ministries, yet its viability has been compromised by recent budget cuts.

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 in Rosen, Samuel & Merkur, 2009.)

Health promotion efforts within the HPs face a challenge in terms of engaging physicians to be active in the area of health promotion. However, the National Quality Measures Programme, which includes many measures related to primary and secondary prevention, is helping to increase the rates of performance of these activities by PCPs.

### **Recent developments and key issues**

A key issue relates to the funding level for public health services. By mid-2015, only 1.2% of total health expenditure was 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.

Other recent activities in the public health field include the establishment of a new coalition, “The Public Health Forum” led by the Israeli Public Health Physicians Association (part of the IMA) in order to promote a public health reform. This includes legislation towards a new public health act<sup>22</sup> with a focus both on structural changes (such as creating a public health agency at the Prime Minister’s Office) and ensuring the necessary budget and adequate personnel for addressing Israeli public health needs.

The Israeli Public Health Physicians Association is also working on developing a public health ethics code, in cooperation with other public health, medical and nonmedical organizations.

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<sup>22</sup> The current one is based on an outmoded law from 1940, enacted during the British Mandate with many amendments.

At the forefront of the Ministry's efforts is the nationwide system of mother and child 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 HPs. In recent years, a group of researchers at Ben Gurion University along with the Ministry of Health's Public Health Services conducted a study funded by the Israeli National Institute for Health Policy Research to promote a National Quality Measures Programme for the mother and child centres. The recent full computerization of these centres has made the time ripe for such a move.

## 5.2 Patient pathways<sup>23</sup>

A typical pathway through the Israeli health system is described using a patient with a hip problem needing a hip replacement as an example.

All Israelis are insured in one of four HPs. When facing a medical problem, patients will usually begin by contacting their family physician, who is acquainted with them and their medical history. Patients can choose any family physician working in their HP and there is no co-payment for such a visit.

In the case of a hip problem, the family physician might refer the patient for imaging, for which the patient will pay a small co-payment; this will be performed in one of the HP facilities, or a private facility with which the HP has an agreement. The family physician would then refer the patient to an orthopaedic specialist for further evaluation. Alternatively, the patient can go directly to a community-based orthopaedic specialist without referral. In both cases, the patient would pay a minimal co-payment for the visit to the orthopaedic specialist.

The orthopaedic specialist will refer the patient to hospital for surgery if necessary. If the patient stays within the mainstream publicly financed system, the HP will cover all costs of the operation. Patients have some choice regarding the hospital they will be treated in, depending on the agreements their health fund has with different hospitals. However, they cannot choose the specific doctor who will operate on them.

Some patients who have supplementary or commercial health insurance will decide to use their private insurance to finance care outside the mainstream publicly financed system. They might choose to do so for several reasons,

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<sup>23</sup> This section was prepared in collaboration with Yael Ashkenazi.

including the ability to choose a particular surgeon, get more time and attention from the surgeon, shorten the waiting time, or secure better amenities for the hospital stay. In most parts of the country, this would entail going to a profit-making hospital, although in Jerusalem the non-profit-making hospitals also offer private medical services.

Following surgery, the patient will stay at the hospital for as long as is necessary before being released either to home or to a rehabilitation hospital depending on factors such as the patient's condition, the support available at home and the availability of rehabilitation beds.

Upon release from hospital, the patient will be given a discharge summary detailing further treatment (such as physiotherapy) or medications needed. The patient will then return to the family physician with this letter; the family physician will refer the patient to any treatment needed and provide a prescription for the medications, which the patient can buy at a pharmacy. For both the treatments and the medication, the patient will be required to pay a co-payment.

After surgery, the patient might need special equipment such as walking aids. Patients can rent this equipment at a minimal cost from one of several NGOs who work with the Ministry of Health.

### 5.3 Primary/ambulatory care

Primary care is highly accessible in Israel.<sup>24</sup> The cost of primary care visits is fully covered by NHI, and co-payments are limited to specialist visits. There are approximately 7000 PCPs working with the HPs throughout the country. In a 2014 national survey of the general population (Brammli-Greenberg & Medina-Artom, 2015), 91% reported being “satisfied” or “very satisfied” with the professionalism of their PCP; and 92% reported being “satisfied” or “very satisfied” with the interpersonal skills and behaviour of the PCP.

Israel has a well-developed system for monitoring the clinical quality of primary care (Rosen et al., 2011a; Jaffe et al., 2012; OECD, 2012a). The HPs have made use of the data generated by this monitoring system to make significant quality improvements rapidly (Rosen et al., 2011b). The OECD (2012a) cites the organization of physicians and other PCPs into teams as a key factor facilitating quality improvement. Others have emphasized the pivotal role of

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<sup>24</sup> This section was prepared in consultation with Ishay Lev, Hava Tabenkin, Eyal Jacobsen and Shlomo Vinker.

the HPs as organized systems of care and learning, as well as for the alignment of incentives between physicians and HPs (Rosen et al., 2011b). Another key factor has been the virtually universal availability of high-quality, computerized medical records. The public release, in recent years, of comparative quality data across HPs has given the plans a further, competitive, incentive to invest in quality improvement.

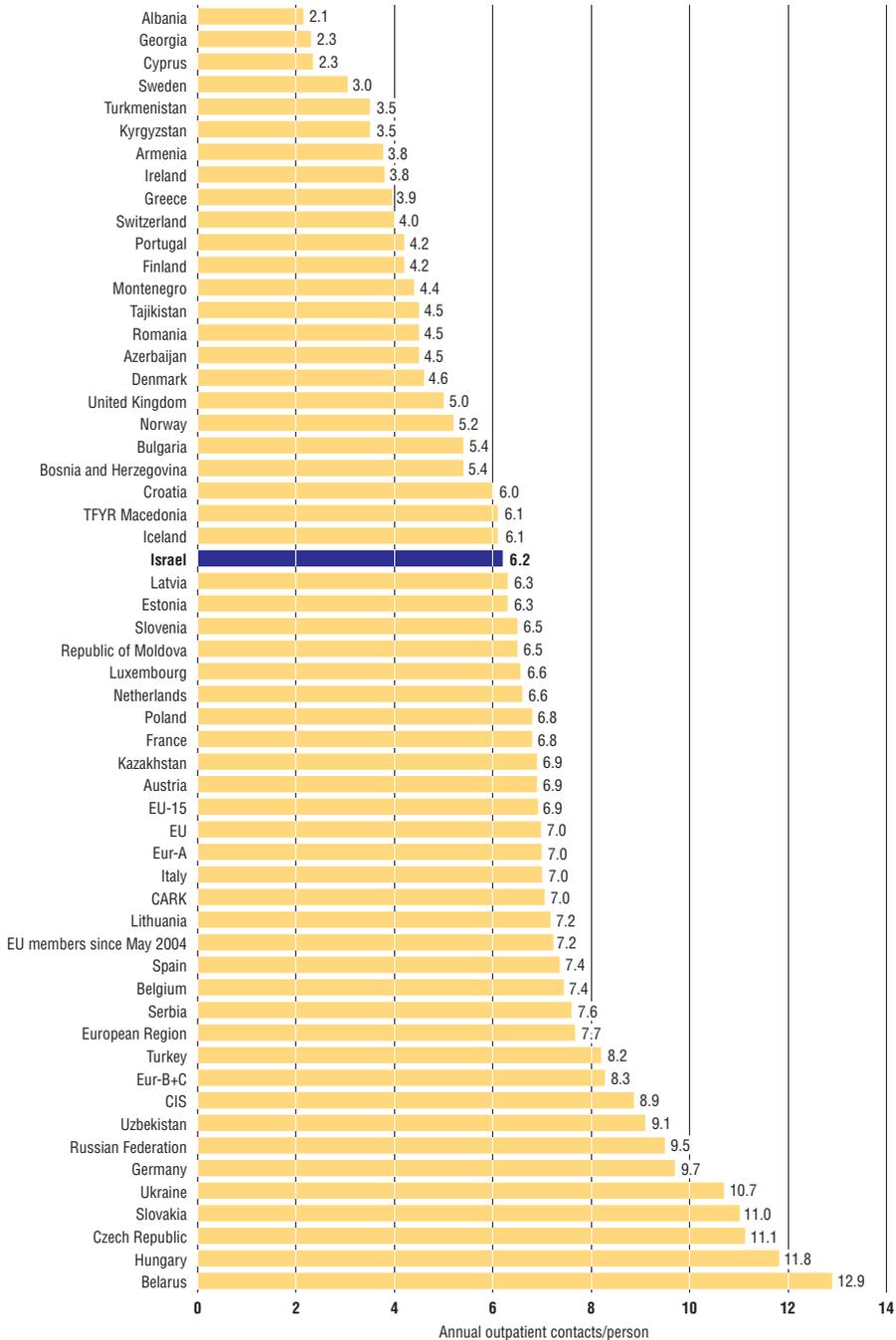
The HPs regularly monitor, and compare, quality performance across regions, subregions, clinics and – in some plans – also between individual physicians. They also work closely with the regions, clinics and physicians on performance improvement.

In a 2010 survey of PCPs, the vast majority of respondents (87% of 605 respondents) felt that the monitoring of quality was important and two thirds (66%) felt that the feedback and subsequent remedial interventions improved medical care to a great extent (Nissanholtz-Ganot & Rosen, 2012). Almost three quarters (71%) supported continuation of the programme in an unqualified manner. However, many physicians also reported that various problems had emerged to a great or very great extent: a heavier workload (65%), overcompetitiveness (60%), excessive managerial pressure (48%) and distraction from other clinical issues (35%). The steps being taken to address these issues include controlling the pace with which new quality indicators are introduced and increasing the extent to which nurses are involved in improving performance as measured by the indicators.

In the 1970s and 1980s, Israel had one of the world's highest rates of visits to physicians per 1000 population (visits to PCPs and specialists, with visits to PCPs accounting for the major share), partly because patients' medical and psychosocial needs were not being adequately addressed, resulting in repeat visits (Shuval 1988; Sax 2001). However, rates have fallen since then, and in 2012 the annual number of outpatient contacts per person in Israel (6.2) was below the EU average of 7.0 (Fig. 5.1). At least within Clalit, Israel's largest HP, a very high percentage of members visit their PCP at least once per year (Rosen et al., 2014) and they tend to stay with the same PCP over time (Dreiherr et al., 2012).

**Fig. 5.1**

Outpatient contacts per person per year in WHO European Region, 2012



Source: WHO Regional Office for Europe, 2015.

Notes: CARIC: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States; EUR-A,B,C: Regions as in the WHO list of Member States, last available year; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

### 5.3.1 The employment structure for primary care physicians

The government does not make NHI funds directly available to individual physicians; all NHI funds are channelled through the HPs. Any PCP who finds employment with an HP, either as a salaried employee or as a contracted independent physician, can accept patients under the NHI framework.<sup>25</sup> The HPs exercise discretion regarding the PCPs with whom they want to work, in which regions they want them to work, and whether they want to work with them on a salaried or independent physician basis.

Any licensed physician can work as a PCP in the private sector. Only a very small number of patients visit private PCPs and pay for their services as OOP expenditure (generally speaking, the HPs do not allow their physicians to see HP patients privately).

The vast majority of Clalit members receive primary care from salaried physicians at clinics owned and operated by Clalit. Patients are free to choose their PCP and can switch as often as they want. Some Clalit members receive their primary care from independent physicians operating their own facilities. Most of the independent physicians in Clalit work in solo practices, although there are some group practices. Officially, any Clalit member can choose to enrol with an independent physician of his/her choosing, but this opportunity is often limited by the number of independent physicians working near the member's home, and their willingness to take on additional patients.

Leumit members also predominantly receive primary health care from salaried physicians, although the share receiving care from independent physicians is increasing. The two other HPs (Maccabi and Meuhedet) engage some PCPs in facilities owned and operated by the HPs, but a clear majority of PCPs work as independent physicians. Most of these independent physicians will accept patients from different HPs. Both group and individual practices exist (most group practices consist only of PCPs, but some contract with subspecialists to provide services within their facility). In the smaller HPs, patients are free to switch PCPs quarterly, although few patients avail themselves of this option.

In Clalit, each patient is registered with a particular PCP who acts as his/her personal physician. In Leumit, each patient is associated with a particular clinic but not a particular physician. In Maccabi and Meuhedet, there is no norm of associating patients with a particular PCP or clinic; even so, most patients

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<sup>25</sup> Salaried employment is the dominant form in Clalit, while independent physician arrangements are the dominant form in some of the smaller HPs.

receive the bulk of their care from one PCP. Moreover, in all but the largest HP, Clalit, there is a process under way of associating each patient with a particular physician for purposes of accountability for the quality of care.

As the independent physicians (in all the plans) are paid on a capitation basis (either active or passive), they have an incentive to increase the size of their patient rosters. There is a concern among government regulators that, in some cases, this has led to overly large rosters, which jeopardize the quality of care.

The salaried PCPs tend to work with only one HP, while many of the independent physicians work with several plans.

### **5.3.2 The role of nurses in primary care**

Nurses play an extensive role in the primary care provided via the HPs in such areas as preventive health care, counselling, triaging of urgent cases, home care, chronic disease management and the handling of clinical paperwork related to the patients' eligibility for various social benefits.

Another mechanism through which nurses are playing an increasingly important role is the call centres operated by each of the four HPs. 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.

### **5.3.3 The primary care practitioner specialty mix**

As of the end of 2012, approximately 38% of PCPs who worked with adults were general practitioners – that is, non-specialist graduates of medical schools – and 43% were board-certified specialists in family medicine. Other specialties, such as internal medicine, accounted for the other 19% (Nissanholtz-Ganot & Rosen, 2012).

During the 1980s and 1990s, 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 at that time. The general – but by no means unanimous – consensus is that paediatrics and internal medicine training (and not just family practice 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 and most of the paediatric PCPs work in group practices.

### 5.3.4 Primary care practitioners and gatekeeping

In all the HPs, visits to hospital-based specialists require prior authorization, either from a PCP or a community-based specialist. In the smaller HPs, members have unrestricted 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 five areas – ear, nose and throat; dermatology; orthopaedics; ophthalmology; and gynaecology – but access to other specialists is contingent upon referral from a PCP.

### 5.3.5 Recent developments in primary care and key challenges

Technological developments are having a major impact on primary care. HP members are increasingly making use of online consultations on such topics as chronic disease self-care, after-hours primary care and how to respond to troubling symptoms in children. Many members maintain an online personal health record, which includes automatic reminders for health care. These are accessed by members either via their personal computers or, increasingly, via their smart phones. Prescriptions are increasingly being renewed digitally by physicians and sent directly to the relevant pharmacy (thus removing both the face-to-face meeting with the physician and attendance at the clinic). Progress is being made in facilitating asynchronous, distal communication between PCPs and patients, particularly through the use of e-mail. Health information exchanges are increasingly alerting PCPs when their patients are admitted to, or discharged from, hospitals and providing information about the care in the hospital that is vital for after-care in the community.

The HPs are continuing to shape primary care provision in their ongoing search for efficiency. They are merging smaller clinics and encouraging teamwork between PCPs and other health care professionals. Some HPs are setting limits (or at least guidelines) on how much time PCPs can spend with each patient, and focusing the PCPs' time on direct patient care in the clinics (as opposed to activities such as staff meetings or home visits). They are also providing PCPs with after-hours back-up by specialized units.

Broader forces are also affecting primary care. Societal changes, backed by various legislative initiatives, are empowering patients and making care more patient centred. In addition, the government has added various health promotion and disease prevention services to the NHI benefits package, and PCPs are being called upon to play a role in such areas as smoking cessation and weight reduction. Moreover, increased attention to chronic conditions and

their management has put the PCPs in a position where they are increasingly expected to manage (or at least be mindful of) their patients' use of secondary and tertiary services.

Key challenges currently facing primary care, as discussed in the recent German Committee report (see section 6.2), include:

- a projected shortage of PCPs as growing numbers reach retirement age and relatively few young physicians are entering the field (OECD, 2012b);
- insufficient time to spend with each patient, which limits the PCP's ability to coordinate care and go beyond the most pressing health issues; and
- the need to expand the PCPs' capacities to engage in health promotion, deal with an ageing population and address mental health needs.

## 5.4 Specialized ambulatory care/inpatient care (secondary care)<sup>26</sup>

### Board-certified specialists

In 2012, Israel had approximately 17 900 board-certified specialists, 13 900 of whom were below the age of 65. As in other countries, the proportion of specialists among all licensed Israeli physicians below the age of 65 years is increasing rapidly, reaching 54% by 2012. Of course, not all board-certified specialists engage in secondary care. In 2012, among board-certified specialists up to the age of 65 years, there were approximately 1650 working as family physicians (12%) – almost all of whom work in primary care – as well as approximately 2700 internists (19%) and 2050 paediatricians (15%), many of whom worked at least part-time in primary care. There are no definitive figures on the number of Israeli physicians engaged in secondary care.

### The location of specialist care

While all Israeli hospitals operate outpatient clinics, most specialized ambulatory care has traditionally been provided in community-based settings, and in recent decades there has been a further shift towards the community. There are several reasons for this shift. First, the HPs felt that they often lost control of treatment plans and expenditure when their patients were cared for at hospital outpatient clinics. Second, the HPs 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

<sup>26</sup> This section was prepared in consultation with Eyal Jacobson and Avi Porath.

hospital to the community setting. There has also been a shift in the location of emergency services. The HPs have developed community-based emergency centres as well as emergency home visit services as alternatives to hospital EDs (Taragin, Milman & Greenstein 2000; Greenstein & Tiaragin, 2001).

A 2012 survey found that only 10% of adults and about 33% of children who visited a specialist using public financing did so in a hospital setting (Brammli-Greenberg Waitzberg & Guberman, 2015).

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 HPs, have proposed to provide these services free of charge as part of an overall package.

The expansion of community-based specialist care involves facilities owned and operated by both the HPs 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 this will enhance hospital–community communication, continuity of care, the quality of community-based specialist care and health care system efficiency. 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; this concern is particularly great with regard to physicians who also work privately.

### **The nature of community-based specialist care**

All of the HPs 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 HP, although Clalit also works with independent specialists. Conversely, in the other HPs the majority of the specialists are independent individuals working in their own facilities, but the HPs also use some employed and independent specialists in plan-owned facilities.

Cooperation and communication between community-based specialists and PCPs are reasonably good. In Clalit, the PCPs function as gatekeepers to the less common specialties and – to some extent – as care integrators for all types of care. In the other HPs, gatekeeping and integrating roles are less prevalent.

More cooperation and communication problems occur between the hospitals and the HPs. The hospitals are unhappy with the HPs' efforts to shift more care to community settings and to increase monitoring and control. The HPs

do not like what they perceive as the tendency of hospitals to overtreat patients, repeating tests already carried out in the community and not providing the HPs 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 2012, among people who visited a specialist in the preceding three months, 45% reported waiting one week or less, 16% waited one to two weeks and 36% waited more than two weeks (Brammli-Greenberg & Medina-Artom, 2015).

The average waiting time for a specialist physician in the community (publicly funded) is 3.2 weeks (median of 2 weeks). Yet, there are wide differences in waiting times among the various specialties. For example, the mean waiting time for common specialties (e.g. orthopaedics, ophthalmology, dermatology, otorhinolaryngology and gynaecology) is two weeks compared with four weeks for less common specialties. The gap is even wider in the periphery and in small localities. The specialties with relatively long waiting times are rheumatology, vascular surgery, haematology, endocrinology and plastic surgery (Brammli-Greenberg, Waitzberg & Guberman, 2015).

Sometimes, when a patient realizes that the waiting time to see a specialist within the NHI basic insurance framework would be what he or she perceives to be too long, the patient will obtain specialist care via the “second opinion” clause of his/her supplementary insurance package. This happens despite the fact that this is not really a second opinion.

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 et al. (2008) found that community-based specialists saw an average of 34 patients per working day. The number of patients whom specialists saw in a 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 allocated 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 HP.

### **Specialist care in 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 to 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 department heads and their 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 4, 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.

The 2011 collective bargaining agreement between the IMA and the major employers introduced major financial incentives for physicians to pursue residencies in a range of distressed specialties. The initial indications are that these incentives are proving effective.

### 5.4.1 Day care

The data summarized here on inpatient institutions and day-care units in Israel are derived from Haklai (2014). At the end of 2013, Israel had approximately 1600 registered day hospitalization beds. About two thirds of them were in general hospitals, one fifth were in psychiatric hospitals, and one tenth were in hospitals for chronic diseases. In recent years, the number of such beds in general hospitals has been increasing slowly, while it has been stable in the other settings. The day hospitalization beds are highly concentrated in the centre of the country.

Day hospitalization is defined as “a diagnostic and/or therapeutic framework without overnight stays which includes admissions, discharge, as well as diagnostic, therapeutic and hotel capacities”. General day hospitalization handles internal medicine, paediatrics and gynaecology. There are also specialized units for surgical oncology, psychiatric care and geriatric day care.

The HPs also operate various community-based care centres that provide some, but not all, of the services provided in a day hospitalization framework (e.g. provision of intravenous fluids and medications).<sup>27</sup> In 2013, there were also 444 day-care beds for mental health care, with two thirds of them in psychiatric hospitals and a third in general hospitals. There were also five community-based mental health day-care units.

The psychiatric day-care units provide crisis care for patients referred directly from the community. In contrast, psychiatric hospitalization units are for patients who have been recently discharged from a psychiatric hospital and are intended to help the patient to transition gradually to functioning within the community.

Israel also has a network of day-care centres for the elderly, which have a social rather than a medical orientation (see section 5.8). There are also various community-based day-care services with a rehabilitation focus (see section 5.7).

## 5.5 Emergency care

Israel has a system of emergency care delivery that arises from its routine needs and from the needs of national disaster preparedness.<sup>28</sup> The country's routine needs are addressed primarily from fixed locations: hospital-based EDs,

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<sup>27</sup> There are a few examples of community-based care centres (such as Clalit's Linn Center in Haifa) with a much more diverse set of day services.

<sup>28</sup> This section was prepared in consultation with Eyal Jacobson.

independent urgent care centres and evening/weekend care centres sponsored by the HPs. Official ambulance carriers and private carriers deliver Israel's prehospital point-of-care service.

The National Emergency Committee supervises Israel's activities relating to disaster planning (or disaster training/care), wartime and other national emergencies. Training to deal with disasters and research into the community impact of natural and manmade disasters is performed by the Ministry of Health's Division of Emergency and Disaster Management and 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, gynaecological and general medical care. They also compete with the stand-alone urgent care centres in the care of ambulatory patients with 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, mostly in major urban centres) deliver primary care and have advanced life support 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 imaging and laboratory services.

In recent years, the Ministry of Health has encouraged the development of night-time emergency centres in several small towns and rural areas in the geographic periphery where travel times to hospital EDs can be problematic. These centres are typically run by private providers and serve all four HPs, with the financing coming from the HPs, the local authority and the Ministry of Health.

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

Magen David Adom delivers advanced and basic life support 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 advanced life support 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, FFS home care. Other private ambulance services cater to specific sectors of the Israeli population (e.g. the ultra-religious) and usually limit their level of care to basic life support.

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 range of advanced and basic life support services.

### **Affiliation and issues of human resources**

Hospital-based emergency care is delivered in EDs of hospitals; six hospitals have received the designation of national trauma centres. Physicians and nurses staff the EDs. In Israel, emergency medicine was recognized as a board-certified specialty in 1999. However, the number of Israeli physicians who are board certified in this field continues to be small because of the ongoing shortage of residency training places. Most of the board-certified physicians working in the EDs are still certified in other fields, such as internal medicine, general surgery and orthopaedics. Some of them work predominantly in the ED (typically during the day shift), while others work there on a part-time basis (typically evening and night shifts) “on loan” from their departments. The EDs also employ residents in emergency medicine and a small, but growing, number of board-certified emergency physicians.

The ED nursing staff are dedicated exclusively to emergency care. Some of the nurses have obtained the six months’ training in advanced emergency care.

The HPs are required to provide access to care 24 hours a day, and not just during the daytime hours when their regular community clinics operate. Accordingly, in some areas they have opened their own “emergicentres” and in others they outsource this care to private providers. The emergicentres vary in the range of services offered, with some limited to basic physician and nurse care and others having imaging and laboratory services as well.

The HPs are also required to provide home care services outside the usual clinic hours of operation. They usually do this via outsourcing to private provider groups.

Urgent care centres (private) and HP night and weekend/holiday-care centres are staffed by emergency paediatricians and family medicine-trained physicians, physicians with some postgraduate training and by post-internship practitioners (some awaiting their specialty training). The nurses are licensed RNs. Urgent care centres often deliver radiology, laboratory and specialty medical services as well (e.g. Terem in Jerusalem).

Paramedics, emergency medical technicians, physicians and volunteers staff ambulance services. They offer a variety of services. The Supreme Health Authority, established by the Emergency National Council, is composed of government staff, IDF (Home Front Command), Magen David Adom and hospital representatives.

### **Reimbursement issues**

Employees of the EDs are in the employ of their respective hospitals. The hospitals typically receive payment for the services delivered either from the HPs or from the consumer as a private payment. However, they cannot condition the provision of emergency care on payment. In practice many undocumented residents, who lack insurance, receive uncompensated care.

Urgent care centres are private enterprises. They often have special billing agreements in association with the major HPs. The evening/weekend care services of the HPs are staffed and paid for by the HPs themselves, with a small additional charge falling upon members availing themselves of these services. The private providers working with the HPs on an outsourcing basis also charge co-payments.

Ambulance reimbursement in the Magen David Adom is made by the HP, 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 subspecialty, requiring 2.5 years of training after an initial residency period, or as a basic specialty also requiring about 2.5 years of training. The RNs specializing in emergency care must complete a six-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 Magen David Adom. There is a university-based programme conferring a bachelor's degree after three years at Ben Gurion University. A special programme added to the four-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.

Israel recently created a new, legally recognized, role of emergency medicine physician assistant. The role is open to licensed paramedics who receive additional training, with the first such training course scheduled to begin in 2015.

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 medicine training programmes contain the essential elements of disaster protocol and organization according to how this relates to their individual function(s).

Advanced (master's degree) disaster programmes are available across three sites:

- Haifa University: a programme with an emphasis on geographic aspects of disaster planning;
- Tel Aviv University: a programme emphasizing the logistical support aspects of disaster preparation; and
- 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 that are dispatched to sites of natural disasters around the world (e.g. tsunami in Asia, earthquake in Turkey). Ben Gurion University and the Jordanian Red Crescent Society have collaborated on a joint programme to train paramedics.

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

### **Future prospects**

A special committee appointed by Ministry of Health to examine the advancement of quality care in EDs recently completed its report (Ministry of Health, 2014h). Its recommendations included:

- updating staffing requirements for EDs
- increasingly basing staffing of EDs on emergency physicians
- developing ED triage systems
- deploying physician assistants
- further computerization in EDs
- monitoring quality of ED care
- limiting the time taken from a decision to hospitalize until its implementation.

## 5.6 Pharmaceutical care

Israelis have access to a secure, safe and stable supply of a wide range of pharmaceuticals.<sup>29</sup> In 2013, expenditure on pharmaceuticals and disposable medical supplies accounted for approximately 20% of total HP expenditure. Outlays on pharmaceuticals also accounted for 14% of total household spending on health care.

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 companies, it is important to keep in mind that most manufacturing companies focus primarily on generic pharmaceuticals. The vast majority of patented medications dispensed 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 HPs 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.

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<sup>29</sup> This section was prepared in consultation with Eli Marom.

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 Ministry of Health guidelines. The Ministry of Health has recently established regulations regarding disease awareness campaigns so that consumers can be empowered with information about the availability of new treatments in a manner that does not involve the promotion of a particular commercial product.

Apart from commercial homeopathic preparations, no CAM products are regulated. Mail order or remote ordering (including Internet procurement) are permitted, according to defined guidelines.

Under NHI, HP members must make a co-payment for pharmaceuticals (see sections 3.1 and 3.4.1). Most community-based pharmaceutical use is provided under NHI and is, therefore, financed primarily by the HPs and secondarily through co-payments. In addition, individuals purchase pharmaceuticals without contributions from their HPs, especially for over-the-counter medications. 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. This is done using reference pricing (the “Dutch model”), in which a maximum price is set based on the average price for the item in seven European countries (Germany, Belgium, France, the United Kingdom, Spain, Portugal and Hungary). These prices serve as ceilings only and are relevant primarily in the case of private purchases by individuals. All the HPs 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 HPs highlight these types of medication in various circulars or lists of recommended pharmaceuticals; in some cases, very expensive patented alternatives can be prescribed, provided special permission is obtained from the management of the HPs.

Many of the HPs’ clinical protocols developed to reduce costs and improve the quality of care are related to pharmaceutical use. Some HPs 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 HPs’ central offices, based on computerized systems, to register the HPs’ 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 1900 pharmacies in Israel: 40% are operated by HPs (usually in clinics owned by the HPs) or hospitals; 45% are private (independent) pharmacies; and 15% are part of large-chain pharmacies.

All four HPs 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 HP 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 stabilization. Some of the HPs have also begun to expand their in-house pharmacy networks.

Most pharmacists are salaried employees. In HP pharmacies, they sometimes receive bonuses that 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. There are also efforts under way to expand the deployment of clinical pharmacists as integral parts of the clinical care teams – both in hospitals and in community settings.

In 2014, Israel authorized pharmacists to renew drug prescriptions for chronic diseases (see section 5.6.1).

Israeli hospitals are a major locus for large, multisite international clinical trials. This is believed to reflect the high level of medical care provided and the reputation for careful adherence to study protocols. Efforts are under way to streamline the process of clinical trial approvals.

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 regulation of the pharmaceutical sector has undergone several important changes. In part, these involve adapting practices that are prevalent in the EU. For example, in the area of pharmacovigilance, all

pharmaceutical distributors in Israel are now required to collect, and share with the Ministry of Health, postmarketing data on the side-effects of their drugs, both in Israel and in other countries. In addition, instead of having the Ministry of Health certify the quality of each batch of product, pharmaceutical manufacturers do it themselves by appointing an internal qualified person who then reports on the results to the Ministry of Health.

Efforts to encourage the use of generic pharmaceuticals continue apace, including generic substitution by pharmacists. Moreover, regulations have recently been put in place to govern the use of biosimilars, in the interest of controlling costs while minimizing the risks to safety and quality.

The Ministry of Health has also:

- established a new system for identifying and tracking medication shortages, which encompasses both short- and long-term problems;
- published regulations that allow organizations to disseminate information to the general public about the types of treatment available for various diseases, while prohibiting the mention of specific commercial products; and
- published regulations on how pharmaceutical companies and others are allowed to encourage compliance among consumers who have been prescribed medications.

### 5.6.1 Pharmacists' expanded role

On 3 March 2014, the Knesset's Health Committee approved a new regulation that extended the authority of pharmacists and allowed them to renew prescriptions for continued medication (Knesset, 2014).<sup>30</sup> Its intention was to reduce the workload of physicians renewing drug prescriptions and to streamline the treatment process for consumers.

According to the regulation, licensed pharmacists with at least five years of experience, after undergoing special training, will be able to renew certain prescriptions for the treatment of chronic disease that were initially prescribed by a physician. The regulation gives pharmacists more authority but also limits and determines their autonomy in this new practice. The pharmacist will have the authority to ascertain whether there were significant changes in the patient's condition during the period of the drug intake, or whether there were any side-effects that require reconsideration before renewing the

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<sup>30</sup> This section was prepared in consultation with Eli Marom and Tal Morgenstien.

prescription. The pharmacist is authorized to renew prescriptions but only after enquiring regarding the patient's current medical condition, comorbidities and additional medication being taken. In addition, the prescription renewal will be for a period not exceeding six months from the initial prescription given by the attending physician and the patient will continue to be under medical supervision (Efrati, 2014).

The prescriptions can be renewed for almost all medications; the main exception is for medications that are addictive.

The regulations explicitly relate to concerns about patient privacy. Pharmacists are required to maintain strict privacy and patients will be required to sign a letter of consent annually authorizing the pharmacist to review their medical records. This consent may be cancelled at any time. In addition, HPs interested in allowing their insured to benefit from the new service can provide access to medical information (for those patients who provided their consent) not only for their own pharmacies but also for hundreds of private pharmacies with which they have contractual arrangements. The impact of the new regulations will depend, in part, on the extent to which the HPs will provide pharmacies with access to their members' medical records.

The approved regulation is part of a broader set of recent and planned regulations promoted by the Ministry of Health to relieve pressures and workload for physicians and to increase autonomy for pharmacists. The Ministry plans not only to expand the list of drugs that can be renewed by pharmacists but also to increase pharmacists' authority to prescribe specific drugs independently.

## 5.7 Rehabilitation/intermediate care

Rehabilitation is included in the NHI benefits package and responsibility for its provision, therefore, lies with the HPs.<sup>31</sup> Rehabilitation services are provided in the general hospitals, in designated rehabilitation hospitals, in geriatric medical centres and in the community. Outpatient services include clinics for child development and rehabilitation, clinics for general rehabilitation and day-care rehabilitation. All these services are provided in community facilities of the HPs. All rehabilitation services incur a co-payment. The co-payment for inpatient services is approximately NIS 1000 (€235) per month, and for community clinics it is approximately NIS 30 (€7) for three months.

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<sup>31</sup> This section was written by Netta Bentur.

In mid-2014, there were 732 general rehabilitation beds in Israel. Of these, 37% were in two big rehabilitation centres, 35% in 10 rehabilitation wards in general hospitals and 28% in six geriatric rehabilitation centres. Approximately one third (31%) of the beds were for neurological rehabilitation, 25% for people comatose for an extended period, 18% for general rehabilitation, 13% for children and 13% for orthopaedic rehabilitation (Haklai, 2014).

About 35% of these beds were owned by the government, 37% by Clalit, and 28% by profit-making or other non-profit-making providers.

The general rehabilitation bed rate per 1000 population was 0.09 in mid-2014, compared with 0.14 at the end of 2006 and 0.10 in 2000. Between 2006 and 2009 there was a temporary growth in the number of beds, which was attributable to beds for people who were comatose for an extended period of time. The definition/target of these beds was then changed from rehabilitation beds to complex-supportive beds. Since the end of 2009, there has been a decrease of 9% in the number of general rehabilitation beds per 1000 population. Although the rate of general rehabilitation beds has remained steady for more than a decade, when taking into account the ageing population, there is a notable decrease in capacity relative to potential needs.

About 70% of the general rehabilitation beds are concentrated in the central region of the country with fewer beds in other regions, especially in the southern and northern regions.

The overall bed occupancy rate in 2014 was 100%. Average length of stay was 44 days, although it has been decreasing steadily since the early 1990s. Stays in hospitals specializing in chronic diseases are longer, on average, than stays in rehabilitation hospitals (Ministry of Health, 2006).

The four HPs operate rehabilitation clinics within the community, offering specialist physicians and 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 rehabilitation specialist, and this incurs a co-payment. The clinics provide neurological and orthopaedic rehabilitation services, as well as child development services. Many clinics contain the latest equipment and are operated by licensed professionals who remain abreast of the changes within their fields. Clalit operates several day-care rehabilitation centres, which is equivalent to 72 beds. To a limited extent, the HPs also provide rehabilitation services in the home, through their medical home-care services as well as pioneering work in tele-rehabilitation.

The Ministry of Health participates in the cost of purchasing some rehabilitation equipment and provides a limited number of devices to the population, such as walkers and vision aids, without requiring 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.

In 2014, there were approximately 7625 rehabilitation professionals in Israel up to age 65: 122 physician specialists in physical medicine and rehabilitation (0.915 per 1000), 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 15 schools for rehabilitation professions. Most of them operate within faculties of medicine and health at the country's four large universities and a few of them in colleges. Nevertheless, there is a significant shortage of rehabilitation professionals both in hospitals and within community-care settings; the shortage is particularly striking in geriatric rehabilitation services and in psychiatric hospitals.

### **5.7.1 Critical issues facing rehabilitation**

There is a continuing shortage of specialist physicians in rehabilitation. In addition, although there is no longer a shortage of physical and occupational therapists, the relatively low salary of these skilled professionals is an incentive for leaving the field and/or the public sector. The salaries are low compared with those of other trained professionals in the health care system, such as nursing personnel or radiography technicians. Moreover, the high wages paid to rehabilitation professionals in the private sector, where compensation is awarded on a FFS basis, also provide an incentive to leave public sector jobs.

Because of a shortage of outpatient rehabilitation clinics, many patients have to wait months for treatment. Consequently, the clinics often have two parallel queues: one for acute cases, consisting primarily of younger people after a road or work accident and traumatic orthopaedic needs, and the other for patients with chronic problems, consisting primarily of older adults who suffer from back pain or neurological diseases such as a stroke or Parkinson's disease, or even those with deconditioning (physiological changes following a period of inactivity such as bedrest, with functional losses in such areas as musculoskeletal system or mental status and loss of ability to accomplish activities of daily living). However, because of the constant pressure on these clinics, treatment of patients in the latter group is often 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 to improve their functioning and, in some cases, even to postpone the need for nursing care.

## 5.8 Long-term care

The system of health and welfare services for the elderly with disabilities in Israel has been developed enormously in the past decades.<sup>32</sup> In particular, accelerated improvements in home care and other community services has occurred, 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.

The vast majority of elderly people live or are cared for at home, with only 3.5% residing in any kind of institutional setting (with some 2.5% in a skilled nursing home). Even among the disabled elderly, nearly 80% still live in the community because of the extensive care provided by families and the development of formal services (some quite innovative) intended to reinforce this social support and to help families to cope with the burden of care.

### **The Community Long-term Care Insurance Law (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, the Knesset had completed the enactment of the CLTCI Law, and full implementation began in 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 membership to a 24/7 emergency call 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). Since March 2009, those who receive the highest two levels of benefits, and employ an Israeli home-care worker (as opposed to a foreign worker) are eligible for an additional three to four hours of care weekly. 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

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<sup>32</sup> This section was prepared by Jenny Brodsky.

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 semiprofessional 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 a tremendous increase in 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, expenditure for community services was limited, representing only 17% of public funds for LTC. However, by 1994 (six years after the Law's implementation), public funds for community care grew to constitute half of public funding for LTC. 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 18% of the total elderly population (approximately 160 000 elderly people in 2013) (NII, 2014a).

### **Day-care centres**

In addition to some 1400 social clubs that provide a framework for activities and facilitate interpersonal contact and socialization for the elderly population who are in good health, a network of day-care centres for the disabled elderly has been developed. Day-care centres contribute significantly 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 175 centres serves approximately 15 500 elderly individuals, 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, etc.). 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 consequently 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; and
- social activities.

The elderly pay a fee to join the programme, which is subsidized by the Ministry of Social Affairs for those with low incomes. In 2015, there were more than 230 supportive neighbourhood programmes across Israel, serving some 48 000 elderly people (about 6% of the country's elderly population).

### **Other services in the community**

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

- tele-health services, provided by the HPs, for the frail elderly;
- social workers, with approximately 400 social workers across the country caring for the elderly population in the municipalities, providing features such as consultation, case management and supportive care;
- home repairs and adaptations;
- sheltered workshops;
- medical equipment and devices for functionally disabled people, primarily by Yad Sara, a voluntary organization;

- information and counselling centres; and
- home visits by volunteers.

### **Institutional long-term care**

While the acute and rehabilitative aspects of care are highly socialized, in terms of institutional LTC, the Israeli system is more analogous to the American Medicaid programme. Unlike the system operating in the acute and rehabilitative care sector, institutional LTC is not covered by the universal mechanism. Patients are categorized according to (one of) five levels of dependency for institutional placement. Institutions are regulated by two ministries: the Ministry of Health (institutions for the skilled nursing of the elderly) and the Ministry of Social Affairs and Social Services (institutions for the semi-independent and frail elderly).

As is the case in the American system, families who 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 (approximately US\$ 2900 per month, or €2700), more than two thirds of families turn to the Ministry of Health for a subsidy (which can cover up to the entire cost of care). Co-payments are applied according to income in 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.

### **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, and the ageing of the elderly population itself, has led to a substantial rise in the need for LTC 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 through 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. “Aging 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) have joined 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 caused by 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, socioemotional support, provision of respite options and financial support.

In addition, there is serious concern about the lack of professional and non-professional personnel to care for the growing number of elderly. Already there is a shortage of doctors and nurses, as well as home caregivers. Government ministries are working on ways to make the system more efficient and provide the incentives needed to ensure nursing personnel.

Another policy issue that continues to be a major concern in the system is fragmentation between health and social services, as well as among LTC 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 the levels of both policy-making and service provision. Reforms and innovative programmes to better integrate among the different components of the system are now in the agendas of the health and social ministries.

## 5.9 Services for informal carers

Informal care refers to the provision of unpaid care, typically by a family member, to an individual who requires help with activities of daily living.<sup>33</sup> Examples of individuals with such needs could include 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 above (Brodsky et al., 2004; Wertman et al., 2005). It is estimated that 30% of adults (aged 20 and older) provide informal care; among individuals aged 45–64 years this rises to 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 (CBS, 2008), for example:

- activities of daily living (e.g. washing and dressing): 43%;
- instrumental activities of daily living (household management, such as preparing meals and shopping): 25%;
- errands outside the home (e.g. going to the bank and post office, purchasing medications and accompanying the patient to medical treatment settings): 71%; and
- social support: 86%.

A significant number of primary caregivers (between half and two thirds, depending on the population) 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 (e.g. that caregiving leaves the caregivers little time for themselves or their family). Over 90% of caregivers report emotional stress (e.g. that caregiving increases tension in the caregiver's own home, or that the relative's condition worries and upsets the caregiver).

Furthermore, 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

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<sup>33</sup> This section was written by Jenny Brodsky.

increases to more than 66% among caregivers who have not yet reached retirement age. A considerable proportion of caregivers who are employed (19%) report losing working days during the past month (CBS, 2006).

In general, there are two ways to alleviate the burden on family caregivers:

- provide formal services for the elderly and those with disabilities (e.g. a home caregiver, a day-care centre); and/or
- provide services to caregivers (such as monetary or emotional support).

Section 5.8 provides a description of the main formal services provided to those in need of LTC. 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 situations 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 an elderly person's well-being and welfare, and formal services as supplementary. Moreover, in Israel, family members are legally obligated towards their elderly relatives; it is one of the few countries in which the obligation of children towards their elderly parents is anchored in law. Not only is an elderly person entitled to demand subsistence payments from his or her 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 or her family to provide care. However, the government does demand that families fulfil their legal obligation to finance the residence of an elderly relative in an LTC institution.

The legal rights of family caregivers centre on finances and employment. Four laws govern caregiving by a relative:

- an individual is entitled to miss workdays because of the illness of a parent or spouse, these being considered as “sick days”;
- an individual is entitled to compensation from her/his employer if the individual has to resign because of a relative's poor health;

- an individual is granted a tax exemption if he or she is helping to finance a parent's placement in an institution; and
- an individual is entitled to an income supplement without undergoing an employment test if she or 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 new initiatives have been taken by governmental entities such as the NII and by several non-profit-making organizations. These are developing “information and referral” services and developing support groups over the country.

## 5.10 Palliative care

Palliative and hospice services are covered as part of the NHI benefits package.<sup>34</sup> However, there are no governmental guidelines on when, how and to what extent the HPs are required to provide these services. In Israel, there is an awareness of individual rights regarding end-of-life decisions, but there are also cultural concerns that impede its development into reality and policy. For many Jews in Israel, the concept of “sanctity of life” (*kedushat hakhayim*) is a central tenet (Glick, 1997). However, the community is pluralistic and substantial segments of public and health professionals reject this outlook and would prefer end-of-life practices found in other countries. This situation is further complicated by a lack of widespread familiarity with palliative care precepts among many health care professionals and the public.

### Legislation

The Dying Patient Act, adopted in 2005, attempts to allow patients to end their lives with dignity while respecting cultural reluctance to withdraw treatment and offering practical solutions that respect the wishes of patients and families. The Act supported the right of terminally ill patients with a life expectancy of less than six months to formulate advanced directives that may include the forgoing of treatment and the withdrawal of ventilator support (Steinberg & Sprung, 2006). However, implementation of the Act is only getting under way now, about 10 years after the legislation was passed.

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<sup>34</sup> This section was written by Netta Bentur.

In addition, in 2009, the Director-General of the Ministry of Health issued a directive specifying standards for the development and provision of palliative care services by hospitals or HPs. The directive defines the target population for palliative care services as patients with considerable physical and emotional distress. It defines minimal standards for a palliative care service, which must include a physician, a nurse, a psychologist and a social worker. The document also details credentials required and hours of availability (State of Israel, 2009).

### **Service provision**

As of 2015, about half of the general hospitals in Israel provide consultative or inpatient palliative care services. Three hospitals have well-developed palliative care services, including consultation services, ambulatory palliative care, inpatient palliative care and close coordination with community resources for home care. Services at others hospitals are typically limited to either a part-time palliative care consultant physician or a palliative care nurse. Some of them supply palliative services only to the oncology department and some supply consultation to all hospital departments. Nevertheless, most of the cancer centres in Israel do not have any designated physicians responsible for palliative care services. There is clearly a need to develop these services further.

There are two inpatient hospices in Israel – in Jerusalem and Tel Aviv – which have been allotted a total of about 41 beds. Additionally, a few hospitals belonging to Christian missionary organizations take in end-of-life patients who cannot be at home or for whom there is no hospice in their vicinity. They offer dedicated care, but the staff's palliative training is very limited.

Israel has about 10 home-hospice units, most of which are operated by Clalit. They rely on multiple sources of financing, including Clalit's budget, the sale of services to other HPs and (mainly) philanthropic contributions. There is no steady supply of funds to these units, making their existence precarious and impeding their ability to expand their activities. There is also one privately owned home-hospice organization which accepts patients, on an outsourcing basis from the four national HPs. It currently has only about 200 patients nationwide, but it is growing.

In addition, Israel's four HPs operate home medical care units in all of their districts that provide medical, nursing and rehabilitative home care. These units treat housebound individuals, mostly elderly, who suffer from a variety of chronic and functional disabilities. The units supply palliative care for patients with metastatic cancer and neurological and degenerative diseases. However, they almost never provide palliative care for dying patients with dementia.

Moreover, the staff are typically available only during normal working hours. Although some are on call by telephone until evening, with some exceptions they are not generally available to provide services in the evening and at night.

The palliative care credentials of the members of these teams are very varied, and some have no formal training in palliative care. However, many home care units employ oncology or palliative care nurses on their staff who are available by telephone 24 hours a day. For the most part, these nurses guide other community health care providers in coping with complex situations and sometimes care directly for dying patients. They play a central role in coordinating hospital and community services, developing and implementing oncology and palliative projects in their district, training medical personnel and overseeing this type of care in their district (Bentur, Resnizky & Shnoor, 2005).

Although a large proportion of the residents of LTC institutions suffer from multiple symptoms at the end of life, overall many of these institutions still abide by conservative treatment methods. Nonetheless, they are beginning to adopt palliative and geriatric approaches and to integrate them into their routines. For example, more attention is being given to symptom management (e.g. by prescribing antidepressants) and pain reduction (e.g. by increasing the use of opiates). More attention is also being given to coordination of expectations with the families.

Overall, opioid availability and accessibility for patients with cancer is good. For these patients, medications covered by the benefit package, including all opioids, are dispensed at no cost. Most opioids are widely available in community pharmacies and patients need not present themselves to special pharmacies. However, the regulations regarding opioid prescription and dispensing make no provision for emergency physician prescriptions by telephone or fax, or emergency prescriptions by nurses or by pharmacists (Bentur, Emanuel & Cherney, 2012).

In Israel, although hospital- and community-based palliative and hospice services exist, they are less well developed than optimal. It is estimated they serve less than 10–15% of those who could benefit from them, but there are no robust statistics on how many people are referred to palliative care. Lack of resources for palliative care is a substantial problem, and Ministry of Health policy initiatives for the development and provision of new palliative care services and training, without allocation of any new resources, may not produce substantial change. This concern is especially grave given the extreme limitation of resources already allotted to the health care sector, which is struggling to address other core elements of its mandate; however, because of

the lack of services and the misconceptions that abound regarding palliative care, referral is probably very low. The development of grassroot programmes plus the existing infrastructure of primary home care, professional organization and focal areas of expertise provide excellent substrata for the development of palliative care in Israel. Inadequate resource allocation, lack of educational guidelines at all levels of medical and paramedical training and difficulties in facilitating the development of human resources with credentials in palliative care are among the key factors that continue to thwart the development of palliative care in Israel.

### **Education and training**

Palliative medicine was finally approved in 2013 as a new subspecialty for physicians (requiring another specialization first, which is usually internal or family medicine) after over 10 years of resistance from the Scientific Council of the IMA. The palliative medicine training programme lasts 24 months. It is expected that the new specialization will substantially increase awareness among the public of their entitlement to good palliative care, just as the recognition of pain medicine as a specialty was achieved in 2010.

The nursing division of Israel's Ministry of Health recognized palliative care as a subspecialty in 2012. Currently, there are over 35 palliative care nurse specialists across Israel and their duties range from coordinating palliative care programmes to personally administering care. All nurse training programmes in oncology and chronic diseases have incorporated palliative care into their curriculum.

Today, the curricula of education and training programmes for health professionals, both undergraduate and postgraduate, provide very little formal training in palliative care. Issues relating to suffering and terminal illness have been included in the curricula of medical and nursing schools only as part of general topics such as ethical issues or pain management. Israeli medical schools include very limited training in palliative care. The family medicine residency training programmes include an elective in palliative education. There is also a National Palliative Care Training Programme (INPACT) for postgraduate education, which includes approximately 40 hours of training, as well as a variety of enrichment and continuing medical education courses (Shvartzman et al., 2011).

## 5.11 Mental health care

The current mental health care system is described here.<sup>35</sup> However, it is in the midst of a major reform effort, which is described in more detail in section 6.1.2.

### 5.11.1 Providers and financing

The data in this section draws heavily on the Public Summary Report of the Ministry of Health (2013a). In 2012, Israel had 3467 psychiatric beds: 0.43 beds per 1000 population. About half these beds are for short-term psychiatric care and half are for psychiatric LTC. Approximately 10% of all psychiatric beds were in psychiatric wards in general hospitals and they accounted for approximately 15% of psychiatric admissions. The proportion of psychiatric beds in general hospitals is lower than in most developed 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 13 psychiatric hospitals, of which eight are government owned, three are privately owned and two are owned by HPs. In addition, there are 12 psychiatric departments in general hospitals and one in the prison system. The government and HP psychiatric hospitals treat a mix of long-term and short-term patients, while the private psychiatric hospitals treat long-term patients almost exclusively.

The number of beds has declined dramatically from 2000, when there were 5619 beds. The share of private (for profit) beds has declined from 25% to 6% from 2000 to 2012.

In 2012, government hospitals accounted for approximately 82% of the beds, admissions and patient days in psychiatric hospitals (Haklai et al., 2014). The rest of the beds are in hospitals owned by non-profit-making groups. The Ministry of Health finances mental health 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 May 2015, there were approximately 120 public mental health clinics (including outpatient clinics in psychiatric hospitals). About half of these were established by the HPs in the 2012–2015 period with financial support from the government, as part of the mobilization for mental

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<sup>35</sup> This section was prepared in collaboration with Hadar Samuel.

health insurance reform (see section 6.1.2). Among the clinics that had been established prior to 2012, the vast majority are operated by the Ministry of Health, while others are operated by Clalit.

The Israeli component of the World Mental Health Survey 2003–2004 ((Levinson et al., 2007a) found that the prevalence of common psychiatric disorders and the rate of care seeking were within the ranges found in other developed countries. Even so, only half of the respondents who met the criteria for a psychiatric disorder actually sought care for that disorder (Levinson et al., 2007b).

In a 2013 MJB survey of the general adult population (Elroy et al, forthcoming), 18% of 2,246 respondents indicated that they had experienced mental distress over the past year that was difficult to cope with alone. From among that group, 23% did not seek any assistance, 31% sought assistance from informal sources (such as friends and family members), approximately 36% sought assistance from professionals and 10% sought care from non-professional formal sources. 40% of those who sought assistance from professionals did so within the framework of their HPs: 21% turned to their PCPs; and 19% sought help from HP-affiliated mental health specialists. Another 27% of all those who sought care from professionals turned to a government clinic, while 30% turned to private practitioners.

The Mental Patients' Treatment Act 1991 empowered the district psychiatrists employed by the Ministry of Health to order compulsory psychiatric examination or psychiatric inpatient and outpatient care. The courts can also order psychiatric admissions. In 2011, approximately 30% 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 Addiction 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. Israel has three centres for drug abuse and mental disorders comorbidity, which cared for approximately 400 patients in 2014. Israel also had 14 methadone maintenance centres, which together cared for approximately 4000 opiate addicts in the year 2014, plus eight inpatient care units for drug addicts, with a total of approximately 140 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.

There is a growing recognition of the 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 section of the population, but these, too, fall far short of need.

### 5.11.2 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 per 1000 population has been reduced, from 1.48 in 1990 to 0.76 in 2005 and to 0.43 in 2012. 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 496 in 1990 to 204 in 2005 and 155 in 2012 (Ministry of Health, 2014d). There has also been a shift in the composition of psychiatric hospitalizations, from long-term to short-term admissions and to 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 2012, approximately 16 000 people used one or more of 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, although the community-based service network has expanded, it continues to fall short of need, as approximately 70 000 Israelis receive disability allowances in conjunction with a mental health disability.

Rehabilitation has been given a significant push recently, with the passing of the Community-Based Rehabilitation of the Mentally Disabled Act in 2000 and a subsequent increase in government funding.<sup>36</sup> 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

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<sup>36</sup> 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.

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, these services are being used by less than a quarter of persons receiving mental health-related disability allowances. 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 5.9). 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.

## 5.12 Dental care

When Israel adopted NHI in 1995, dental care was not included in the benefits package, except for maxillofacial surgery for trauma and oncology, and dental care for oncology patients.<sup>37</sup> The 1990 Netanyahu Commission had recommended that services provided under 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.

The situation concerning children changed in 2010, when the NHI benefits package was extended to include preventive and preservative dental care for children up to age 8. The age limit was later extended to 12. Care is provided by the four HPs, with preventive services free and preservative services provided with small co-payments (Rosen, 2012). In 2013, the MJB Institute and the Ministry of Health completed a survey that provides extensive data on the extent of use of these services by different population groups and on the remaining barriers to care among children. The survey found that 45% of children aged 2–12 years used the publicly funded services (Ashkenazi et al., 2015).

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<sup>37</sup> This section was prepared in collaboration with Yael Ashkenazi and Shlomo P. Zusman.

The government plays a growing role in the provision of dental services. The Ministry of Health provides financing to local authorities offering oral preventive services in schools. Until 2009, only 25% of municipalities offered school dental services (Machnes & Carmeli, 2009); these services were financed jointly by the municipality, the Ministry of Health and parents. Since 2010, the government has been fully funding the school dental service, which expanded in 2012 to 80% of the municipalities. The Ministry of Social Welfare subsidizes dental care costs for indigent people, though to a much lesser extent.

Although access to dental care for children up to age 12 has been secured, serious concerns remain regarding take up of access to care for this age group, particularly for vulnerable populations. Dental treatment for specific groups of patients with congenital syndromes compete with other new medical technologies to be added to the NHI. Because of budget limitations, only a few of these groups receive publicly funded services. Budget limitations have also prevented the introduction of two other measures that have been considered in recent years to improve access to dental care: extension of dental coverage for children up to age 18 and 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.

In 2002, a national survey of 12-year-old children showed improvement in dental health, with an average decayed/missing/filled teeth level of 1.66 compared with 2.99 in a similar survey in 1989. Moreover, 46% were caries free (ICDC, 2008). No national survey has been carried out since.

In 2011, dental care expenditure accounted for about 8% of THE (CBS, 2014d), almost all of it in the form of direct OOP payments. Approximately 10% of the population has VHI from commercial insurers covering dental care (see section 3.5). In addition, approximately 80% of Israelis have VHI from their HPs (Ministry of Health, 2013a) that provides substantial discounts for a set of dental services, which has been substantially enlarged in recent years. In 2011, the average household spent NIS 193 (about €40) per month on dental care, which accounted for 25% of household spending on health, not including the health tax (CBS, 2014c). Among households in the lowest income deciles, average spending on dental care was only NIS 82 (about €17) per month, 58% below the national average (CBS, 2012), and spending on dental VHI was negligible, despite the greater-than-average prevalence of dental problems in this group.

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 HPs have also expanded their own chains of dental care clinics; services provided by these clinics are paid through either OOP or VHI payments. In 2007, independent private dentists accounted for approximately 66% of dental care provision, while the HPs accounted for 9% and commercial chains accounted for 20%.

Licensing of dentists is the responsibility of the Ministry of Health. In 2012, Israel had 10 448 licensed dentists: 1.31 per 1000 population, which is among the highest in the world. This was also significantly (64%) higher than the 1989 figure of 0.94, primarily the result of immigration of over 1200 dentists from countries of the former USSR in the early 1990s. There were also 4065 licensed dental technicians and 2027 registered dental hygienists, whose tasks are centred on dental health education and prevention of dental illnesses.

Another important government role was promoting fluoridation of the water supply. Israel's fluoridation programme began in the late 1970s. In 2010, approximately 70% of the population benefited from having fluoride in the water. However, the issue of water fluoridation has been the subject of much debate in recent years, and in August 2014 fluoridation was stopped.

### 5.13 Complementary and alternative medicine

Major changes in the status and influence of CAM have occurred in Israel since the early 1990s.<sup>38</sup> These changes are similar to those seen in other developed countries and reflect growing disillusionment with the technology and bureaucracy of biomedicine, increased questioning of its excessive invasiveness, heightened consumer awareness of iatrogenic effects of modern medicine, growth in expectations for quality services, and widespread demystification that has led to considerable erosion of confidence in modern medicine (Clavarino & Yates, 1995; Rees & Wieil, 2001).

In Israel, a 1976 law provides that only those holding a recognized medical licence may practise medicine. The IMA deplors the unscientific and unproved basis of “alternative” medicine, the absence of acceptable training by its practitioners and its potential dangers to “un-knowing” patients. At the same time, it acknowledges the possible usefulness of certain forms of alternative medicine (e.g. acupuncture, chiropractic, podiatry), provided these

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<sup>38</sup> This section was written by Judith T. Shual.

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 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; Averbuch-Smetannikov, 2010; Shuval & Averbuch, 2012a,b).

Approximately 25% of children who visited a CAM practitioner had been referred by a physician (Ben Aryeh et al., 2011).

Over 20 forms of CAM are in widespread use in Israel. In 2011, there were 13 000 CAM practitioners in Israel, about 7000 in full-time practice. CAM is taught in a large variety of programmes; over 45 000 persons have studied in such courses varying in length from a few months to four full years. These programmes differ considerably as to the level and quality of teaching, with no institutionalized form of supervision or control.

The proportion of the adult population that consulted with a CAM practitioner during the previous year has increased from 6.1% (1993) to 9.8% (2000) to 12.2% (2007), with 2.7 million total visits in 2009 (CBS, 2010b). Relatively large increases have been observed in women, people who are younger and people with more years of schooling, higher economic status or residing in large cities. Between 1993 and 2011, non-conventional medicine in Israel grew from an infant industry into a mainstream health commodity (Shmueli & Sihual, 2004; CBS, 2010b; Shmueli, Igudin & Shuval, 2010).

The 1995 NHI Law sought to reduce costs and encourage competition among the hospitals and among the four HPs (Chinitz & Rosen, 1993). 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 to expand their services and augment their income by attracting growing numbers of consumers who were willing to pay for CAM services. As a result, there has been a growth in the establishment of community clinics dedicated to CAM under the auspices of major segments of the publicly supported biomedical system.

In 1991, an outpatient clinic for CAM was established in the Tel Aviv area (Assaf Ha'rofe), followed by similar clinics under the auspices of one third of the public hospitals and in extensive networks by three HPs in the major urban areas (Shuval & Mizrachi, 2004; Shuval & Averbuch, 2012a,b). In most cases,

these clinics are headed by a physician who has also trained in one of the CAM specialties. The physician is responsible for an initial interview with all new patients and their referral to the desired CAM practitioner.

CAM practitioners are generally employed on a part-time basis at community clinics and many also maintain their own private clinics elsewhere. No practitioner has a regular appointment to the hospital or clinic staff and all work on the basis of ad hoc contracts. Patients pay on a FFS basis; however, this fee is reduced for 75% of the population who carry supplementary health care insurance to cover services not included in the universal set of health care entitlements (Brammli-Greenberg & Gross, 2003; Shuval & Mizrachi, 2004; Keidar & Horev, 2010).

Hospitalized patients are also exposed to CAM. While in 2000, CAM practitioners were thinly spread in a number of the public hospitals in numerous departments, by 2011 the CAM presence inside Israeli hospitals had increased. Many hospitals are inspired by American examples on which they seek to model their services, especially in the field of oncology (Sloan Kettering, Dana Farber, Anderson) to assist in alleviating the side-effects of radiological treatments and chemotherapy, reduce tension, lessen pain and strengthen coping strategies.

In 2010, an experimental programme was started utilizing CAM before and after surgery. In order to gain legitimacy, the experiment is defined as a research project: all the CAM procedures are meticulously monitored (in the patient's biomedical clinical record), including the patient's response to treatment. While the operating theatre itself remains closed to CAM, the boundaries of its surrounding territory in which critical pre- and postsurgical procedures occur have been re-contoured to admit CAM practitioners (Shuval & Averbuch, 2012a).

## 5.14 Health services for specific populations<sup>39</sup>

Persons living in Israel who do not have formal residency status are not covered by Israel's NHI Law. Foreign workers are one such group. It is estimated that at the end of 2014 Israel had approximately 75 000 legal foreign workers (i.e. those with valid work visas) and an additional 15 000 foreign workers living in Israel without such visas. The Foreign Workers Law requires employers to provide health care insurance to both these groups. The coverage provided must be the same as that provided by NHI, with the exception of treatment abroad,

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<sup>39</sup> This section was prepared in collaboration with Tuvia Horev.

certain mental health services and LTC services. The NII provides coverage for the care of foreign workers injured on the job, just as it does in the case of Israeli workers.

Another significant category consists of those from the Palestinian Authority or Arab countries who are living in Israel in the framework of a law governing family reunification; there are about 8000 such people. They are entitled to receive care through the HPs; their benefits package is similar to NHI with the main exception being treatment abroad.

Children living in Israel who lack residency status can be registered with one of the HPs (Meuhedet), with the parents or guardians required to pay the insurance premiums. Approximately half of these children have been registered. The coverage is similar to NHI, with exclusions of treatment abroad and (in the case of children born outside of Israel) treatment for conditions that existed when the child arrived in Israel.

The government makes several services available to all people in Israel irrespective of their legal status. These include emergency care, preventive mother and child health services and treatment for tuberculosis, HIV/AIDS and other sexually transmitted infections.

All of the HPs sell health insurance coverage to non-residents and those who purchase it become members of the HP and receive most of the services in the public health basket.

A special clinic in the Tel Aviv area, run in the context of cooperation between the Ministry of Health, the municipality and various non-profit-making organizations, provides various health care services to non-residents who lack health insurance.



## 6. Principal health reforms

**I**n recent years, the intensity of reform efforts in Israeli health care has been greater than at any time since the passage of NHI in 1995. Many of these efforts have been, or are in the process of, being implemented. Others have not been realized, at least as yet.

The Ministry of Health and the health care system more broadly are in the midst of a major, multipronged effort to reduce health inequalities. The effort is based, in part, on the understanding that, as in other countries with universal health insurance programmes, inequalities persist despite universal coverage. In Israel, the growth of private insurance and private care provision, and the erosion of public funding relative to needs, further underscores the need to address health equity issues. Major components of the effort include enhancing financial access to services, strengthening the publicly funded health system, constraining the growth of the private system, enhancing the availability of services and key professionals in the periphery, addressing the unique needs of various linguistic and cultural minorities, promoting interministerial and intersectoral cooperation and disseminating information about health care disparities.

In July 2015, mental health services were added to the set of services that the HPs must provide to their members within the framework of NHI. As such, mental health care services became a carefully specified, legally guaranteed right of all Israeli citizens with the government specifying the set of mental health services that the HPs must provide to their members.

For over a decade, Israel has had an extensive and successful programme for monitoring quality of care in the community. In recent years, that programme has undergone several important developments. In addition, the Ministry of Health has launched an extensive programme to monitor quality in hospitals, including publication of comparative data on sensitive issues such as waiting times.

Since the mid-2000s, several significant steps have been taken to increase the overall supply of physicians. Two key measures include the establishment of a new medical school in the Galilee (Israel's northern region) and the expansion of class sizes in all existing medical schools. The number of new medical licences issued has doubled in less than 10 years.

Israel's LTC system is seriously fragmented. Ministry of Health planners, and many independent analysts, took the view that this fragmentation was resulting in service gaps, duplication, inefficient incentives and inadequate investment in prevention and rehabilitation. In 2011, the Ministry of Health put forward a detailed plan for a major reform of the LTC system. The plan was not adopted at the time, but it is now being reconsidered by the government.

In June 2014, Israel's Advisory Committee for Strengthening the Public Health System issued a report proposing the most comprehensive reform to Israel's health care system since the introduction of NHI. However, because of the recent change in government, it is unclear which, if any, of the committee's recommendations will be moved forward.

## 6.1 Analysis of recent reforms

This chapter describes Israel's recent reform efforts related to equity enhancement, mental health care, quality monitoring/improvement and the projected physician shortage. Other recent reforms have been described briefly in previous chapters. These include the launching of an intersectoral Health for All effort (section 2.6), the expansion of NHI to include paediatric dental care (section 5.12), enhanced regulation of the private insurance sector (section 3.5), the recent efforts to establish a hospital authority (halted in the wake of the change in government) and an overhaul of the hospital pricing system (section 3.7).

### 6.1.1 Reducing inequalities in health and health care

Awareness of the existence of health inequalities despite the universal health insurance programme has generated major multifaceted efforts to reduce this problem. The growth of private insurance and private care and the erosion of public funding relative to needs have added to issues of health equity.

In 2008, in one of the earlier countrywide efforts, Clalit HP (which insures a majority of the national low socioeconomic status groups) introduced disparity reduction as one of its organizational key strategic goals. The population

identified as in need of particular attention and focused interventions included 400 000 of its members in community clinics serving lower socioeconomic populations (in all geographic localities throughout the country). In the wake of these interventions, disparities between this disadvantaged population and the general population in the most hard-to-change health care quality measures were reduced by over 63% in three years, and these reductions were maintained even when the focus was shifted to other populations (Balicer et al., 2015). Data also suggest diminishing disparities in health outcomes in the 400 000 members targeted through this programme.

Since 2010, the Ministry of Health has included disparity reduction among the pillars of its overall strategic vision. It has developed a multiyear plan for advancing this objective and established a distinct unit dedicated to this issue (see also Waitzberg & Rosen, 2014).

One major initiative has been to enhance financial access to services, particularly for vulnerable populations and those with low incomes. This has involved expanding the NHI benefits package to include such vital services as dental care and mental health care, eliminating co-payments for mother and child preventive care, and reducing the burden of co-payments for pharmaceuticals and various NHI-financed services for vulnerable populations, such as the elderly and the chronically ill (see section 3.4).

A second major initiative has been to strengthen the publicly financed health system (which tends to be relatively equitable) and to constrain the growth of the private system (which tends to enlarge disparities). Indeed, this was the focus of a major blue ribbon panel (the German Committee, described in section 6.2). One of the Committee's recommendations that has already been adopted was to increase the level of funding of the public system – both for generic uses and for targeted uses, such as reducing waiting times.

A third major initiative has been to enhance the availability of services and key professionals in the periphery. In recent years, the Ministry of Health has invested substantial financial resources in increasing the periphery's supply of hospital beds, advanced medical devices, specialized hospital units and free-standing emergency centres.

In addition to providing direct funding, the Ministry of Health is also using financial incentives to encourage other health system actors to give greater attention to the periphery. For example, a “peripherality” parameter was added to the HP capitation formula and the HPs were also offered (and received) special (conditional) payments if they undertook specific initiatives to improve care in the periphery (see section 3.3.3).

In addition, there are now major financial incentives for physicians to relocate to the periphery.<sup>40</sup> Moreover, Israel established a new medical school in the Galilee in 2011 as part of an effort to enhance the quantity and quality of physicians in the region.

A fourth major initiative has been to better address the unique needs of various linguistic and cultural minorities. Efforts in this area include establishing a national call centre for translations needed in patient–clinician encounters, establishing cultural responsiveness requirements for all health care providers, developing cultural responsiveness training materials and programmes for health care professionals and launching targeted interventions, such as the National Programme to Reduce Infant Mortality among the Bedouin (Belmaker, 2010).

A fifth initiative involves promoting interministerial and intersectoral cooperation (beyond the usual health system actors) to address the social determinants of health. Relevant efforts include cooperation with the Ministries of Education and of Sport to promote healthy lifestyles, participating in a multiministerial effort to develop strategies for reducing poverty and its effects, and involving a broad range of civil society representatives in roundtable discussions of ways to reduce health disparities.

A sixth initiative involves the creation, analysis and dissemination of information about health care disparities. As part of this effort, the Ministry of Health has promoted transparency regarding interregional and inter-institutional differences in quality of care, waiting times and other key parameters. It has encouraged the Gertner Institute to establish a knowledge centre on inequalities that is collating data from a variety of sources to track and analyse inequality trends over time. The Ministry also encourages efforts at the MJB Institute and other universities and research centres to carry out in-depth studies related to inequalities.

The Ministry of Health is not the only health system actor working to reduce health inequalities. Each of the four HPs has a well-considered disparity reduction plan as well as a professional who has been designated to coordinate the HP's activities in this area. In recent years, the HPs have been able to document important achievements in reducing disparities when it comes to quality of care and other key areas.

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<sup>40</sup> These were instituted in the framework of the latest contract between the IMA, the government and other major health care employers.

Israel's hospitals are also giving increased attention to health care disparities. For example, they have been responsive to the Ministry of Health directive on cultural responsiveness by developing translation services, pursuing staff diversification and training, and so on.

### 6.1.2 Mental health reform

Israel's NHI Law, adopted in 1995, stipulated that the legal responsibility for the provision of mental health care should be transferred from the government to the HPs within three years. Shortly after that, the planned transfer was officially put on hold. Subsequently, several attempts were made to pass the legislation needed to effect the transfer, but these were all unsuccessful.

Accordingly, Israel's mental health system continued to function separately from its physical health system in terms of financing, planning, organization and practice setting. The government was responsible for the provision of mental health care, while the country's HPs were responsible for physical health care.

In April 2012, the Israeli cabinet decided to move ahead with the transfer on the basis of a cabinet decision, rather than via legislation. The cabinet stipulated that the implementation of this decision would be gradual, and would be spread over a three-year period.

The transfer of responsibility is often referred to as the “mental health insurance” reform (conceived as part of broader mental health reforms that included efforts to reduce the number of inpatient beds and to develop community-based rehabilitation services; see section 5.11). In July 2015, mental health services were added to the set of services that the HPs must provide to their members within the framework of NHI. As such, mental health care became a legally guaranteed right of all Israeli citizens, rather than a service where availability is highly dependent on available budgets. The government specified the set of mental health services that must be provided and substantially increased the level of HP funding to cover the costs expected to be incurred by the HPs because of the new responsibility (see section 3.3.3).

The main objectives of the reform include:

- better linkage between physical and mental care;
- increased availability of mental health services;
- increased efficiency (through care provision by Israel's highly effective HPs, within a capitation-based, managed care environment);

- a reduction in stigma associated with mental health and mental health care;
- a reduction in mental health hospitalization through the development of new modalities of intermediate care;
- to enable the Ministry of Health to focus on its regulatory role, rather than on service provision; and
- to create the incentives and the flexibility to develop new types of intensive community-based services that could substitute for inpatient care.

At the same time, various concerns have arisen with regard to the reform, including:

- overmedicalization of mental health care;
- insufficient linkages with the education and social welfare systems;
- insufficient attention to the needs of the chronically mental ill; and
- underfinancing, which could lead to waiting times and insufficient service levels for vulnerable populations.

It is important to note that even before the 2012 decision, the HPs had all acquired substantial experience in the provision of ambulatory mental health care, with the extent and duration of that experience varying across HPs. A 2013 national survey found that, among adults who had received care for a mental health issue over the preceding year (from either a PCP or a mental health professional), 40% had sought help via their HP; if attention was restricted to care from a HP-affiliated mental health professional, the corresponding figure was 19% (I Elroy, B Rosen & I Elmakias, unpublished data).

In all the HPs, psychiatric care and mental health care provided by PCPs has been free of charge, while psychotherapy has generally been provided on a cost-sharing basis. In Maccabi, psychotherapy has been made available to all members, while in the other HPs it has been made available only to members with supplemental insurance coverage. In the three smaller HPs, psychotherapy has been provided predominantly via independent practitioners working on a contracted basis, while Clalit has used a mix of independent practitioners and salaried practitioners (working in Clalit mental health clinics).

During the three-year transition period, the government encouraged (and financed) the HPs (particularly the smaller HPs) to set up multispecialty mental health clinics in regions that had previously lacked such clinics. The

government felt that these types of clinic are vital to the care of the seriously mentally ill, and that the HPs needed to upgrade their capacity to deal with this population.

Since the early 2000s, the HPs have invested substantially in preparing for the new responsibilities in mental health care. For example, even before the 2012 decision they invested in upgrading the capacities of their PCPs to identify and respond to mental health needs. Since the 2012 decision, they have also expanded the number of mental health practitioners with whom they work.

The government has prepared intensively for the reform. For example, it developed a set of reporting requirements for the HPs regarding their mental health services and established rules regarding the financial interface between the HPs and the governmental psychiatric clinics.

Several key issues were resolved only in the months prior to the launch date. These include final decisions about the amount of additional funding to be provided to the HPs as a group, and the formula for the division of those new funds among the HPs.

### **6.1.3 Quality monitoring and improvement**

Since the early 2000s, Israel has had an extensive and successful programme for monitoring quality of care in the community (OECD, 2012a). In recent years, that programme has undergone several important developments. In addition, the Ministry of Health has launched an extensive programme to monitor quality in hospitals, and initial efforts are also under way to begin monitoring continuity of care between hospital and community settings.

#### **Quality monitoring in the community**

The National Programme for Quality Indicators in Community Healthcare monitors the performance of the HPs on approximately 50 quality indicators, most of which relate to primary care. The measure set is expanded and refined on an ongoing basis. Most of the measures relate to health care processes, with a focus on processes that have been shown to have a significant effect on important health care outcomes.

The programme's core team consists of senior faculty from the Hebrew University. Representatives of the four HPs are full partners in the project; they initially participated in the project on a fully voluntary basis. Recently the data reporting aspect of cooperation became mandatory, but even today the extent of cooperation far exceeds the legal requirements. The programme

operates under the auspices of the National Institute for Health Policy and Health Services Research and it is funded by the government NHI Law via the National Health Council.

Over the years, there has been substantial and steady performance improvements on most of these measures (Rosen et al., 2011a; Jaffe et al., 2012). These improvements appear to reflect, at least in part, a broad range of initiatives undertaken by the HPs and front-line quality improvement efforts by their clinicians (Rosen et al., 2011b).

An important development took place in 2014 when, for the first time, the National Programme for Quality Indicators in Community Healthcare published the performance data by HP. Previously, the project's public reports did not distinguish among the HPs. The change was made primarily as a result of court ruling in the wake of a suit filed by an NGO dedicated to transparency in public services. Prior to the publication of the plan-specific data there were concerns that it might undermine the voluntary cooperation among the HPs, but these concerns have not materialized.

### **Quality monitoring in the hospitals**

For many years, the Ministry of Health has carried out a series of in-depth studies of selected hospital care outcomes and related processes. These studies relied on data extracted from medical files and covered outcomes such as hospital-acquired infections, bleeding and readmissions for operations such as craniotomies, femur fractures and appendectomies. These in-depth studies facilitated the analysis of the causes of problems, identified remedial action and documented quality improvements.

However, a broad set of quality measures for hospitals was developed in Israel later than for the community. Indeed, an OECD review of quality in Israeli health care (OECD, 2012a) noted that “In contrast to primary care, too little is known about the quality of care delivered in hospitals”. However, since then major progress has been made.

In 2013, the Ministry of Health launched a major new initiative to develop a system for monitoring quality in Israeli hospitals. All public and non-profit-making general hospitals are required to participate. The system initially included five process quality measures, with an additional five to be added each year. The initial focus was on the general acute care hospitals but the system is also being expanded to the psychiatric and LTC hospitals. In mid-2015, the Ministry of Health published its first report with hospital-specific data on quality of care.

The hospital quality monitoring system was, to some extent, inspired by the success of the community system, and drew important lessons from it. It also built upon initial efforts within Clalit, Israel's largest health care provider, to develop quality measures for its own hospital network.

Common elements of monitoring systems in hospitals and in the community include:

- use of indicators that have a strong evidence base showing that the care process leads to improved outcomes;
- focus on indicators of importance to the health system;
- implementation of the measure has little or no chance of inducing unintended adverse consequences;
- significant investment in ensuring consistency of definitions and data collection methods across participating organizations;
- coordination with relevant panels of clinical experts; and
- reliance on data from providers' electronic health records.

At the same time, the hospital monitoring system differs from the community system in several key ways, including that it:

- relies on patient-level data reported by the hospitals (whereas the community system relies on aggregate data from the HPs);
- is being run directly by the Ministry of Health (whereas the community system is being run by a university-based team); and
- mandates participation by all hospitals (whereas participation by the HPs in the community system is voluntary).

### **Hospital–community continuity**

In Israel, as in other countries, ensuring continuity of care between hospitals and community-based providers has emerged as one of the most important, and dynamic, areas for monitoring and improvement. The Israeli Society for Quality in Health Care, in conjunction with the National Programme for Quality Indicators in Community Healthcare and the Ministry of Health's National Programme for Quality Indicators, has taken up this issue as one of its main areas of activity for the years ahead. The initiative requires all of the relevant players to work together. The development of a national health information exchange (discussed in section 4.1.4) is expected to contribute to improved continuity between hospitals and community-based providers and may also facilitate the development of relevant quality indicators.

### 6.1.4 Addressing the projected physician shortage

In the late 1990s, a past chairman of Israel's Council for Higher Education (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 became part of the collective consciousness of health policy-makers as Israelis had always viewed their health system as being characterized by a physician surplus. Moreover, the projections of a shortage were based on a series of assumptions and pen-and-paper calculations, while data showed that 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 per 1000 population by 2020), unless corrective actions were taken. They were helped in this realization by studies carried out independently by the Council for Higher Education and the Ministry of Health (Rosen, 2008) and by the work of a 2010 Ministry of Health committee tasked with estimating future needs for physicians and nurses (Ministry of Health, 2010b). Moreover, Israel was already beginning to experience shortages in certain specialties, such as internal medicine and anaesthesiology. Some observers believed that relatively low physician wages 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 (particularly in the high-technology sector).

Accordingly, since the mid-2000s, several significant steps have been taken to increase the overall supply of physicians. One key measure was the establishment of a new medical school in the Galilee (Israel's northern region). Until the new school's establishment, Israel had only four medical schools, and no new medical schools had been opened since 1974. The new medical school opened in autumn 2011 and is part of Bar Ilan University. It was set up in the Galilee to contribute to the improvement of the health care services in that peripheral region, as well as to contribute more broadly to the region's economic and social development.

Another key measure has been the expansion of class sizes in all existing medical schools. With government encouragement and financial support, the number of students admitted annually to Israel's four long-standing medical schools increased from approximately 400 in 2005 to over 600 in 2012 and to almost 700 in 2014. To do so, the medical schools had to expand their core

faculty as well as the number of affiliated training sites – mostly in hospitals but lately in the community as well. Part of the expansion has been achieved by developing shorter programmes than the traditional six-year medical programme: four-year programmes for students with a first degree in the sciences and three-year programmes for returning Israelis who had completed the first half of their training in a medical school abroad.

As a result of these measures, and an increase in the number of Israelis returning to Israel after pursuing medical studies abroad, the number of new medical licences issued has doubled in less than 10 years.

As discussed in section 6.2, the German Committee also developed several strategies to increase the supply of physicians, especially in those specialties facing shortages:

- encouraging Israeli physicians working or studying overseas to return to Israel by easing the examinations for licence to physicians who studied abroad;
- allowing physicians to continue working after the retirement age mandated by law, even part-time; and
- shortening the duration of medical school and specialty training to increase the supply of physicians.

The first of these has already been implemented; the other two are pending.

In addition to expanding the physician supply, Israeli policy-makers are expanding the roles of other health care professionals in ways that can reduce the burden on physicians. Key examples include:

- training nurses for expanded roles in such areas as geriatrics, intensive care units and operating rooms;
- establishing a new profession of physician assistants, with a special emphasis on emergency care; and
- authorizing specially trained pharmacists with at least five years of experience to renew certain prescriptions for the treatment of chronic disease that were initially prescribed by a physician.

### 6.1.5 The attempt to add institutional long-term care to the NHI benefits package

As described in section 5.8, Israel's LTC system is seriously fragmented. Ministry of Health planners and many independent analysts took the view that this fragmentation was resulting in service gaps, duplication, inefficient incentives and inadequate investment in prevention and rehabilitation. In 2011, the Ministry of Health put forward a detailed plan for a major, three-phase reform of the LTC system. The reform sought to situate overall responsibility for LTC with the HPs, within the framework of NHI. In the first phase, the NII was expected to increase the benefit levels for community-based LTC services and the HPs were expected to assume professional oversight of those services. In the second phase, the legislature was expected to add institutional LTC to the set of NHI benefits for which the HPs are responsible, with the HPs also serving as the budget holders for institutional LTC. In the third phase, the HPs were expected to assume financial responsibility for community-based services as well. The reform also sought to increase the level of government financing for LTC – both in institutional and community settings.

The reform plan had several objectives, including increasing efficiency by having a single government agency (Ministry of Health) and a single set of insurer/providers (the HPs) responsible for all the aspects of LTC. The proposed integration would have provided incentives for the HPs to place those in need of LTC in the most cost-effective setting. In addition, the reform sought to reduce the financial and care burden on the families of people needing LTC.

By mid-2015, the reform plan had not been adopted and implemented. The Ministry of Finance raised concerns about the Israeli Government's capacity to absorb the additional budgetary obligations. The NII and the Ministry of Social Welfare (whose roles in LTC would have been reduced by the proposed reform) voiced concerns about the potential for overmedicalization of LTC. As a result of resistance from these and other groups, the reform effort has been put on hold since 2013.

Another consideration in putting the initiative on hold was the realization that the HPs were in the process of assuming responsibility of mental health services. There was a concern that the HPs could be overwhelmed if their scope was expanded in two different directions simultaneously.

The underlying problems that motivated the 2011 reform effort still prevail. Accordingly, many health policy analysts expect that at some point in the years ahead the Ministry of Health will put forward a new effort for LTC reform. It remains to be seen what form any such proposal would take and whether it would ultimately be adopted.

## 6.2 Future developments

The Advisory Committee for Strengthening the Public Health System was appointed in mid-2013 by Minister of Health Yael German, who also chaired the Committee (hence, it is known as the “German Committee”). In June 2014, the Committee issued a report proposing the most significant reform to Israel’s health care system since the introduction of NHI in 1995 (Advisory Committee for Strengthening the Public Health System, 2014). However, because of the recent change in government, it is very unclear which, if any, of the Committee’s recommendations will move ahead.

### Background

The German Committee was formed against the background of major concerns about Israel’s health care system, including:

- a decline in the resources available to the publicly financed system;
- growing deficits in the public hospitals;
- an increase in the use of private health insurance and private health care to supplement (or substitute for) public care;
- the perceived movement of senior physicians and resources from the public to the private system; and
- erosion of the general public’s confidence in the system.

There was a growing concern that these trends had led, or were leading to, a situation in which Israeli citizens in need of health care in general, and hospital care in particular, could not count on the publicly financed system to provide them with high-quality, geographically accessible and timely care.

The Committee consisted of experts from the Ministry of Health, the Ministry of Finance, the Prime Minister’s Office, the Bank of Israel, the IMA and academia, as well as representatives of the general public. It worked intensively for a full year, with hundreds of hours of work in both plenary meetings and the meetings of three subcommittees (medical tourism, private insurance and the government hospital system). The Committee heard testimony

from a wide range of health system leaders, including chief executive officers of the four HPs and of leading hospitals, and health policy experts from Israel and abroad. In addition, the Committee intensively mined existing databases and newly created ones for input into the decision-making process.

### **The reform's objectives, recommendations and avenues of operation**

The main overall objective of the reform proposed by the German Committee appears to be to ensure that all Israeli citizens can receive consistently high-quality care (particularly with regard to hospital care) within the publicly financed care system. An additional objective (not elaborated upon here) was to strengthen the public and non-profit-making hospitals.

The reform seeks to achieve its main overall objective through three major avenues:

1. A substantial increase in the financial resources available to the public system
2. The introduction of a broad range of structural and organizational changes in the public system to enhance its efficiency and responsiveness, preserve equity, and enhance the general public's confidence in it
3. The adoption of measures intended to constrain the growth of private insurance and private hospitals.

The key Committee policy recommendations for each of these avenues are outlined. Some of the measures proposed relate to more than one initiative but, for ease of presentation, each measure is presented in conjunction with only one of the three avenues, and footnotes are used to highlight links with additional avenues. Overall, the measures listed in these three groups are intended to directly move resources from the private to the public system and to ensure that private insurers and providers do not have unfair advantages over their public counterpart in their competition for patients, funding and physicians.

#### ***1. Increase in financial resources available to the public system***

The main measures proposed include the following:

*Changes to HP core funding levels.* An immediate increase should occur in the health system's core funding (which is distributed among the HPs) by about 2%. Future levels of core funding should be linked to an annual demographic index so that it automatically grows as the population grows.<sup>41</sup>

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<sup>41</sup> This will prevent, or at least greatly reduce, the troubling rate of erosion of health care resources that has characterized the first two decades of NHI (since 1995). Note, however, that the automatic adjustments do not include an adjustment for population ageing.

*Ongoing direct support for hospitals.* An additional NIS 700 million (about €62 million) per year should be allocated from the government's general revenues for distribution among the government and non-profit-making hospitals; this should be in conjunction with efforts to reduce waiting times and other structural/organizational changes (as detailed below).

*Funds to support measures to reduce hospital waiting times.* A one-time injection of NIS 300 million (about €70 million) was proposed to develop the infrastructure needed to reduce hospital waiting times.

As noted below, some of the measures designed to constrain the private sector are also expected to increase public sector revenues.

## **2. Structural and organizational changes**

The main structural and organizational changes proposed include the following.

*Quality of care and waiting times.* Existing efforts to improve quality of care would be strengthened, including the reduction of waiting times, in accord with new standards that would be established. One key component involves developing Ministry of Health databases on quality and waiting times for purposes of monitoring and supervision. Comparative data will also be made available to the public. Giving patients more information and more choice will, it is hoped, reduce waiting times for treatment and improve quality of care.

*Quality of service.* Efforts to improve the patient experience should include training staff in relevant skills, providing patients with more information, using new technologies to improve scheduling and reminder systems, and so on.

*Full-time employment for senior physicians.* Giving senior physicians in public hospitals substantial financial and structural incentives to become full-time employees of the hospitals ("full timers") should reduce the common practice in which doctors leave the public hospitals to work in private clinics in the afternoons and would, thus, significantly expand the time available to treat patients and perform surgery in public hospitals.<sup>42</sup>

*Hospital choice.* Requiring that HPs offer patients who need hospital care a choice from among at least three hospitals should enhance hospital responsiveness to aspects of care that are valued more by consumers than by HPs.<sup>43</sup> It is also expected to increase hospital revenues by reducing the HPs' power in price negotiations.

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<sup>42</sup> This would also be expected to reduce waiting times.

<sup>43</sup> This would contrast with the current situation, where HPs sometimes direct patients to a particular hospital, with no room for choice.

*Hospital authority.* Establishing a government hospital authority to manage all of the Ministry of Health's hospitals should free up the time of the Ministry of Health leadership for policy-making and overall system monitoring, and reduce potential conflicts of interest.

*Reimbursement reform.* Refining and modernizing the system of hospital reimbursement to better reflect differences in case mix is intended to reduce the incentive and capacity of private hospitals to “cream-skim” and to provide public hospitals with a fairer level of reimbursement for complex cases.

*Case management.* Encouraging family physicians to act as case managers would allow them to oversee and coordinate care for their patients.

These and the other structural and organizational changes recommended by the German Committee are intended to enhance the efficiency and responsiveness of the public system. If publicized effectively, they could also contribute to another Committee objective – increasing the general public's level of confidence in the publicly financed system.

One of the most important Committee recommendations related to a potential organizational and financial change that was considered, but ultimately not adopted. “SHARAP”, in which patients in public hospitals are allowed to choose their physician in return for a privately funded fee,<sup>44</sup> will not be permitted in hospitals owned by the governmental and non-profit-making hospitals (aside from those in Jerusalem, which have long-standing SHARAP programmes).

### ***3. Measures to constrain the growth of private insurance and private hospitals***

A number of measures were suggested to constrain the growth of private hospitals and private insurers.

*Standardized policies.* Requiring all private insurers (both in the HPs and in the commercial insurance companies) to include, among their offerings, a standardized policy for choice of hospital physicians should reduce costly duplicate insurance coverage, enhance competition, restrain premium levels and improve efficiency.<sup>45</sup>

*Medical tourism.* Regulations governing medical tourism, in which foreigners come to Israel to obtain medical care and pay generously for such care, should be tightened to ensure that, in the Israeli context of shortages of both hospital

<sup>44</sup> Officially, Sharap is not supposed to entitle patients to jump the queue. However, there is some evidence that waiting times for Sharap patients are markedly shorter than for other patients.

<sup>45</sup> Israelis wishing to purchase additional health insurance beyond the universal basket of services would then be able to choose from a more simplified and clearer array of options, with greater competition among providers.

beds and physicians, the care for tourists does not come at the expense of care for Israelis. In addition, a portion of the income from medical tourism should be used to support the public health care system.<sup>46</sup>

*Surcharges and cross-subsidies.* A surcharge should be collected on services provided by private hospitals and transferred to the public hospital system. These transfers would support public hospitals' efforts to reduce waiting times and increase the availability of physicians in the afternoon hours. The surcharge is envisioned as compensating for the private hospitals' tendency to "cream-skim" and to rely on physicians whose training costs were borne by the public sector (along with other externalities).

*Incentives for private insurance use.* HPs' incentives to promote the use of private insurance when their members require hospital care should be reduced or eliminated.

### **An additional objective: strengthening Israel's public and non-profit-making hospitals**

The German Committee also wanted to strengthen the public and non-profit-making hospitals. In recent years, these hospitals have been squeezed financially and operationally from several directions, including:

- the basic pricing system has not reflected full costs;
- the HPs have used their market power to negotiate deep discounts;
- the annual revenue caps set by the Ministry of Health have become increasingly restrictive;
- the private hospitals have been drawing away many of the more lucrative types of cases; and
- the private hospitals have been attracting some of the public hospitals' most senior physicians (particularly surgeons) for private work in the afternoons.

Many leaders of the Israeli health system consider the well-being of the public and non-profit-making hospitals to be vital for ensuring the provision of high-quality care for all Israelis (via the NHI's basic benefits package), as well as for the training of the next generation of health care professionals.

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<sup>46</sup> Hence, the medical tourism recommendations also relate to the first avenue, increasing the financial resources available to the public system. They are also intended to enhance Israel's international standing in health care and beyond.

The key measures proposed by the German Committee to promote the well-being of the public hospitals naturally overlap with the set of measures recommended to promote its main objective (ensuring that all Israeli citizens can receive consistently high-quality care within the publicly financed care system). Those with a direct impact on the revenues of the public hospitals include the planned injection of new funds directly from the government, the transfer of the surcharges to be levied on the private hospitals and the provision for continued operation of medical tourism. Additional measures expected to contribute to the well-being of the public hospitals include the incentives for physicians to work full-time in the public hospitals, the requirement that HPs offer patients a choice of hospitals, the introduction of case mix adjusters to the hospital reimbursement system and the reduction of the incentives for the HPs to channel their patients to private hospitals.

As noted, the German Committee also considered, but ultimately rejected, SHARAP. The adoption of SHARAP would probably have contributed substantially to the financial health of some of the public hospitals.

### **Conclusions**

Whether or not the measures recommended would be sufficient to ensure that all Israeli citizens can receive consistently high-quality care within the publicly financed system, and to strengthen the public and non-profit-making hospitals, probably will depend a great deal on the extent to which, and how, they are implemented. Moreover, two of the Committee's members wrote a minority report (Glazer & Kendall, 2014) in which they argued that even if fully implemented the set of recommendations endorsed by the majority would not be sufficient to achieve the Committee's stated goals.

In either case, the 2015 change in government has put a big question mark on which recommendations, if any, will be adopted by the new government and implemented. Clearly, it will be important to monitor progress – both of implementation and of impacts.

## 7. Assessment of the health system

Israel's NHI Law, which calls for a system of national insurance based on the principles of justice, equality and mutual aid, continues to be an inspiration and moral compass for Israel's health care system. However, Israel's record of achievements regarding financial protection and equity in financing are complicated and mixed. Israelis have universal health care coverage with a broad benefits package. Although the NHI system is financed predominantly via progressive taxation, approximately 40% of THE is financed privately.

National surveys show that three quarters of patients are satisfied with their hospital care and that almost all Israelis are satisfied or very satisfied with their HPs overall (~90%). Interestingly, fewer Israelis felt that way about the health system overall (~60%).

Access to PCPs is excellent, both in terms of travel times and waiting times. Waiting times for community-based specialists are also good overall, although waits for advanced specialties are somewhat longer in the periphery. However, approximately 10% of Israelis report that someone in the family had foregone medicines or health care over the previous year. Waiting times for publicly financed operations are highly variable and are problematic for some types of operation.

Life expectancy is higher and mortality lower than the OECD average, but Israel ranks in the mid-range among European countries for amenable mortality. Israel's standing relative to the OECD average is mixed with regard to avoidable hospitalizations and in-hospital mortality rates, while it out-performs on several key safety measures. Despite this, Israel's rate of hospital-acquired infections is higher than in many other developed countries.

The quality of the primary care provided by the HPs has been found to be good both in comparison with United States plans and from a broader international perspective.

Overall, the Israeli health care system appears to be quite efficient. Compared with other developed countries, its expenditure on health is relatively low, while achievements in population health and the quality of primary care are significant.

Israeli health care has a history and culture that champion disease prevention and primary care and also has tight regulatory controls for the supply of both hospital beds and advanced medical equipment. Allocative efficiency is promoted by having HPs as the main budget holders and organizers of care, thus requiring them to balance cost control and quality/service imperatives.

Concurrently, there are several features of the system that appear to limit its ability to channel resources where they could have the greatest benefit. For example, the growth of public health care financing is much more tightly controlled than the growth of private financing, despite the recognition that a shekel of public funds is likely to yield more benefit than a shekel of private funds. Moreover, the most tightly controlled budgets are those for services provided by the Ministry of Health itself, despite the vital nature of those services (public health, LTC, etc.) The lack of clarity regarding who is responsible for certain services (i.e. health promotion) also leads to missed opportunities. Finally, the multiple roles of the Ministry of Health as regulator, provider and funder creates conflicts of interests (or at least perceived conflicts of interests) that may be creating various barriers to efficiency.

Israeli health care also has a number of features which promote its capacity to secure high levels of output per unit of input. These include: a system of regulated competition among HPs, a strong system of health professional education and training, a high degree of alignment between the incentives of the HPs and those of the professionals whom they employ, and a well-developed system of electronic health records.

At the same time, there are some significant barriers to technical efficiency, including: an outdated hospital pricing system, a capitation formula that does not adequately take into account differences in health status, and bureaucratic barriers that limit the hours during which operating theatres are in use.

In recent years, the Ministry of Health has made transparency one of its main goals and it has made major strides in increasing the public's access to comparative data on quality, finances, and patient satisfaction. These advances in transparency have also facilitated greater accountability – both to the government and to the general public.

## 7.1 Stated objectives of the health system

Israel's NHI Law, adopted in 1995, calls for a system of national insurance based on the principles of justice, equality and mutual aid. Several years ago, the Ministry of Health began to publish more specific, annual sets of strategic objectives, called its "Pillars of Fire". The set of objectives as of October 2014 were:

1. Strengthen the public attributes of the health system
2. Reduce health inequality
3. Prioritize public health
4. Enhance quality in health and medical services
5. Align infrastructure to future health needs
6. Strengthen the role of the Ministry of Health as regulator and insurer
7. Promote national health informatics and e-health.

The relevant statements on the Ministry of Health web site, as of April 2015, were as follows (Ministry of Health, 2015a):

### **The Ministry's vision**

Upholding the basic right to health and health promotion for the entire Israeli population, through a medical system striving for the utmost excellence and egalitarianism, while respecting the values of human and social dignity.

### **Goals**

#### *Quality*

Improvement of the diagnostic, therapeutic, rehabilitative and preventive medical services, by setting quality indices and implementing them through a system of incentives, supervision and enforcement.

#### *Reducing Social Gaps*

Reducing health gaps between different societal groups.

#### *Community-Facing*

Strengthening the network of community health services, through preference and emphasis on preventive services, health promotion and rehabilitation within the community.

#### *Efficiency*

Ensuring an optimum level of medical and health services, through prioritizing according to budgetary constraints.

*Research*

Promotion of medical research.

*Promotion of Health and Prevention*

Promotion of health-friendly lifestyles, emphasizing personal and community responsibility.

*Public and Individual Participation*

Promotion of an involved, erudite public on health matters and fostering an atmosphere conducive to its inclusion in the determination and implementation of health policy.

*Organizational Changes*

Amplification of the ministry's function as a ministry responsible for the entire health system, separation of the ministry from its role as a service provider.

*Mental Health*

Inclusion of mental health in a comprehensive conception of health.

*Geriatrics*

Promotion of health services for senior citizens through emphasis on home and community treatment.

## 7.2 Financial protection and equity in financing

The story regarding financial protection and equity is complicated and mixed. On the one hand, Israel has universal health care coverage, and all Israelis have a legal right to a broad benefits package. Moreover, the NHI system is financed predominantly via progressive taxation. In recent years, several steps have been taken to make the financing of NHI even more progressive: the ceiling on income liable to the NHI tax was increased; more protections from the burden of co-payments have been put in place for various vulnerable populations; and the capitation formula was updated to include “residence in the periphery” as a risk adjuster. Moreover, in recent years the scope of NHI has been increasing to include mental health care and dental care for children. In addition, since 2010 one of the Ministry of Health's strategic objectives has been to narrow inequalities.

On the other hand, the following facts persist.

- Approximately 40% of THE is financed privately. Moreover, this rate is among the highest in the OECD countries, and it is growing (OECD, 2015).

- Private health care is financed regressively, with those in the lower income deciles spending a substantially greater proportion of their income than others on privately financed care. For example, in 2011 that figure was 17% for the lowest decile compared with 4% for the highest decile and 6% overall (CBS, 2013b).
- At the same time, the highest income decile spends on average four times more than the lowest decile on privately financed care (CBS, 2013b); it presumably also receives four times as much privately financed care.
- In 2014, 11% of Israelis reported foregoing a prescription drug or health care service because of cost, at least once during the previous year. In 2012, 25% of Israelis indicated that health care expenditure (including both private spending and the health tax) constituted a financial burden to a great or very great extent (Brammli-Greenberg & Medina-Artom, 2015).
- In 2012, 60% indicated a lack of confidence that, if they became seriously ill, they would be able to afford the necessary care (Brammli-Greenberg & Medina-Artom, 2015). That may be one of the main reasons why a relatively large, and still growing, percentage of Israelis have purchased VHI.
- Several key services, such as dental care for adults and LTC, remain outside the scope of NHI.

In light of all the above, it is difficult to give a simple summary statement about the extent to which the Israeli health system provides a good level of financial protection. Much depends on an assessment of the extent to which the benefits provided through privately financed care are vital for health and well-being. Many Israelis appear to think that they are, and they may well be correct, but more research is needed before that perception can be either confirmed or denied.

### **7.3 User experience and equity of access to health care**

In 2014, the Ministry of Health carried out a national survey of patients in general hospitals, the first such survey in over two decades: 75% of respondents indicated that they were satisfied with the hospital care overall and over 80% were satisfied with the care received from both the physicians and the nurses. A lower rate of satisfaction (73%) was found for receipt of information and explanations (Ekke-Zohar et al., 2015)

Over the two decades since the launch of NHI, the MJB Institute has been carrying out a biannual survey of the public's experience with the health care system, with a particular focus on services provided by the HPs. In 2014, 89% of Israelis were satisfied or very satisfied with their HPs overall, and 61% felt that way about the health system overall; 55% of respondents indicated that they were able to see a specialist within two weeks (Brammli-Greenberg & Medina-Artom, 2015). However, 37% of respondents in the survey were unable to choose their providers for specialized services (such as hospital care), 22% experienced difficulties in securing HP authorizations for such services, and 18% experienced difficulty in accessing care in the evening or on weekends and holidays. In terms of not accessing care, 9% reported foregoing medical care because of distance for themselves or a family member over the past year and 12% reported having foregone care because of the waiting time involved. The financial burden of paying for health care was great or very great for 25%.

In another MJB Institute survey from 2012, patients reported good access to secondary care in the community (non-urgent), with average waiting times of three weeks to see a specialist. There are wide variations among specialties and place of residence. Patients living in the periphery waited longer to see a non-common specialist than patients in the centre; in the periphery: 56% waited more than a month compared with 38% in the centre. In general, half of the patients were satisfied with their waiting times and said they were "reasonable". Those who said that they were not reasonable would have preferred to wait no more than one and a half weeks (Brammli-Greenberg, Waitzberg & Guberman, 2015).

In its report on the 2009 survey, the MJB Institute team included an in-depth analysis of the survey findings for various vulnerable populations: low income persons, Arabs, immigrants from the former USSR, the elderly and the seriously ill (Brammli-Greenberg & Medina-Artom, 2015). Not surprisingly, the financial burden and the likelihood of foregoing services are generally somewhat greater than average for most of these groups. The situation regarding satisfaction is complex, varying by aspect of care and population group. Moreover, it is important to keep in mind that satisfaction is affected by the interplay of expectations and experience, and expectations may well be below average for some of the vulnerable populations.

In recent years, there have been important improvements in several of the survey findings for some of the vulnerable populations. For example, several years ago the survey pointed to low mammography rates among the Arab

population in some of the HPs, and this was subsequently corroborated by data from the national quality indicators programme. The HPs then undertook intensive remedial action and the next round of the survey found a significant improvement in the mammography rates. Similarly, the 2014 survey found substantial improvements in peripheral regions along a variety of indicators, which was consistent with recent governmental and HP initiatives to improve services in those areas.

## **7.4 Health outcomes, health service outcomes and quality of care**

### **7.4.1 Population health**

As indicated in Table 7.1 in Israel, life expectancy is higher than the OECD average and the mortality rate is lower than that average. On these measures, Israel ranks among the highest for men and slightly above the average for women among OECD countries (OECD, 2013).

However, when it comes to amenable mortality, Israel ranks in the mid-range among European countries (Gay et al., 2011; Goldberger & Haklai, 2012). The decrease in amenable mortality in Israel over time is also less than that in many other Western countries.

Table 7.1 also indicates that Israel outperforms the OECD average regarding maternal mortality, infant mortality and survival rates for various types of cancer (breast, cervical and colorectal). Israel's vaccination rates for measles and DPT (diphtheria, tetanus and pertussis) (for children) are similar to the OECD average, while its vaccination rate for influenza among the elderly is markedly above the OECD average.

As in other countries, Israel has significant differences in life expectancy, mortality and amenable mortality across income groups, ethnic and nationality groups, and regions (Averbuch & Avni, 2014; see also sections 1.4 and 8.2 in Rosen, Samuel & Merkur, 2009). Generally speaking, the magnitudes of these gaps have not changed substantially in recent years.

**Table 7.1**  
Selected health and health services outcomes<sup>a</sup>

	Israel	OECD countries
Life expectancy (years)	81.8	80.1
Mortality rate (per 100 000 population)	707.7	813.2
Maternal mortality (per 100 000 live births)	1.2	6.7
Infant mortality (per 1000 live births)	3.5	4.1
<i>Five-year survival rates:<sup>b</sup></i>		
Breast cancer	86.2	84.2
Cervical cancer	71.4	66.0
Colorectal cancer	67.1	62.0
<i>Vaccination rate (%):</i>		
Measles (children)	96.0	94.4
DPT (diphtheria, pertussis, tetanus; children)	94.0	96.0
Influenza (elderly)	61.0	50.2
<i>Avoidable hospital admission rate (%):</i>		
Asthma	61.4	45.8
Chronic obstructive pulmonary disease	229.2	203.0
Congestive heart failure	258.5	238.9
Diabetes related <sup>c</sup>	93.4	164.4
<i>In hospital mortality rates (%) for admissions following:</i>		
Acute myocardial infarction	7.1	7.9
Haemorrhagic stroke	24.7	22.6
Ischaemic stroke	6.3	8.5
<i>Safety indicators (%):</i>		
Foreign body left in during surgical procedure	1.6	5.0
Postoperative pulmonary embolism or deep vein thrombosis	409.1	603.5
Postoperative sepsis	97.6	783.5
Obstetric trauma for vaginal laceration, vaginal delivery with instrument	1.3	6.0
Obstetric trauma for vaginal laceration, vaginal delivery without instrument	0.3	1.6

Sources: OECD, 2012b, 2013.

Notes: <sup>a</sup>Data from 2010 or 2011, unless otherwise indicated; <sup>b</sup>Data for the OECD average are for 2006–2011 or nearest available years, data for Israel are for 2004–2009; <sup>c</sup>Includes admissions related to short-term complications, long-term complications or uncontrolled diabetes without complications.

## 7.4.2 Health service outcomes and quality of care

Israel's relative standing with regard to avoidable hospitalizations is mixed; its rate is well below the OECD average for complications of diabetes but somewhat above the OECD average for asthma, chronic obstructive pulmonary disease and congestive heart failure.

In-hospital mortality rates in Israel are similar to the OECD average for the three conditions on which comparative data are available, with Israel somewhat above the OECD average for haemorrhagic stroke, and somewhat below it for ischaemic stroke.

Israel outperforms the OECD average on all the safety issues included in Table 7.1, in some cases markedly so. However, Israel's rate of hospital-acquired infections is higher than in many other developed countries (OECD, 2015), although additional work is needed to assess the reliability, completeness and consistency of reporting on the various safety indicators.

More and more Israeli hospitals are undergoing the Joint Commission's accreditation processes, which might contribute to significant improvements in quality of care and safety. In addition, the Ministry of Health has recently begun to increase the intensity with which it monitors and promotes the quality of hospital care.

The quality of the primary care provided by the HPs has been found to be good in comparison with similar plans in the United States (Rosen et al., 2011b) and also on a broader international perspective (Jaffe et al., 2012; OECD, 2012a). Moreover, Israeli HPs have demonstrated a capacity for rapid, and ongoing, quality improvements in primary care. Various structural characteristics of the health system (discussed in section 5.3), combined with a highly professional national quality monitoring effort and vigorous quality improvement initiatives on the part of the HPs, have apparently played significant roles in these achievements. Strategic, well-targeted, HP efforts have also contributed greatly to the narrowing of quality gaps between key population groups (Balicer et al., 2011, 2015; Rosen 2011b; Wilf-Miron et al., 2010).

To date, use of patient-reported outcome measures has been quite limited in Israel.

## 7.5 Health system efficiency

Compared with other developed countries, the Israeli expenditure on health is relatively low (whether measured in per capita terms or as a percentage of GDP). Nonetheless, it appears to be efficient and its achievements in population health are impressive. In addition, with regard to community-based care (and particularly primary care), Israel appears to do relatively well on a broad range of measures of user experience and quality of care.

As indicated in sections 7.3 and 7.4, the availability and accessibility of services is generally good for community-based services in general, and for primary care services in particular. However, a not negligible proportion of the population reports barriers to access related to distance, waiting time or costs, with the barriers probably more substantial for specialty care and pharmaceuticals than for primary care. The barriers tend to be more substantial in the periphery and for those with low incomes.

Waiting times appear to be more problematic when it comes to non-emergency hospital care. Important questions also remain about the quality of care and the patient experience in hospital settings, as Israel is only just beginning to collect systematic data on these issues.

In addition, as noted in section 7.2, the situation regarding financial protection is complex – not so much because of lack of data but because of questions about how available data should be interpreted.

It is known, from both survey data and consumer behaviour, that many Israelis want and expect more from their health system than what they perceive to be provided at present by the publicly financed system. In light of that, many analysts believe that the level of public funding for the health system should be increased. Others point out that, while that might be desirable, it may prove difficult to free up all of the necessary resources in light of Israel's relatively high defence expenditure and debt financing costs.

Accordingly, almost all Israeli health policy analysts feel that it is important to seek ways to enhance system efficiency. This section summarizes key factors contributing to Israel's current level of efficiency as well as key barriers to further efficiency. Readers are referred to section 6.2 for a review of several recent proposals aimed at increasing system efficiency.

### **7.5.1 Allocative efficiency**

Israeli health care has a number of features that promote the targeting of health care resources on the types of service likely to yield significant gains in terms of health and well-being. These include:

- a history and culture of disease prevention and primary care that are embedded in a set of organizations and policies;
- using the HPs as the system's main budget holders and its main organizers of care supports allocative efficiency in that the HPs are organizations that need to balance cost control and quality/service imperatives in order to survive;

- gatekeeping roles for the HPs and their PCPs;
- tight regulatory controls on the supply of hospital beds, advanced medical equipment and other very expensive health care inputs;
- revenue caps on hospitals, along with governmental control of hospital prices;
- a highly structured and highly professional process for determining which new medications and other technologies will be added to the NHI benefits package, subject to a budget constraint;
- relatively limited reliance on FFS payments, both for professionals (such as physicians) and for organizations (such as hospitals and HPs);
- risk sharing between the government and the HPs through a combination of prospective and retrospective payment schemes; and
- the absence of co-payments for vital services, such as well-baby care and primary care.

At the same time, there are several features of the system that appear to limit its ability to channel resources where they could have the greatest benefit. For example, the growth of public health care financing is much more tightly controlled than the growth of private financing, despite the recognition that a shekel of public funds is likely to yield more benefit than a shekel of private funds. Moreover, the most tightly controlled budgets are those for services provided by the Ministry of Health itself (e.g. public health, LTC), despite the vital nature of those services. The lack of clarity regarding who is responsible for certain services (such as health promotion) also leads to missed opportunities. Finally, the multiple roles of the Ministry of Health as regulator, provider and funder creates conflicts of interests (or at least perceived conflicts of interests) that may be creating various barriers to efficiency.

### 7.5.2 Technical efficiency

Israeli health care also has a number of features which promote its capacity to secure high levels of output per unit of input. These include:

- a system of regulated competition among HPs;
- a strong system of health professional education and training;
- a high degree of alignment between the incentives (and values) of the HPs and those of the professionals whom they employ;
- well-developed electronic health records and a growing capacity to share relevant health information across settings and organizations;

- well-developed systems for monitoring HP financing, quality and user experience, along with the emergence of analogous systems for hospital care;
- a collective bargaining system that enables the Ministry of Finance and the major employers to constrain the rate of increase in physician wage levels;
- a tradition of strong uptake of generic pharmaceuticals and other strategies for controlling pharmaceutical expenditure; and
- cost-sharing mechanisms for secondary care and medications, with protections for vulnerable populations.

Some of the indicators of the success of these measures include Israel's low average length of hospital stay along with a high bed occupancy rate and quick access to most community-based services.

At the same time, there are some significant barriers to technical efficiency, including:

- an improving, but still outdated hospital pricing system;
- a capitation formula that does not adequately take into account differences in health status;
- bureaucratic and other barriers that limit the hours during which operating theatres are in use;
- fragmentation of responsibility, in such areas as LTC and mental health care; and
- various linguistic and cultural barriers to care

In short, the Israeli health care system has functioned well with relatively few resources, which may indicate a good level of efficiency overall. However, there continue to be various pockets of inefficiency, and various barriers to efficiency improvement, which should be addressed.

## 7.6 Transparency and accountability

In recent years, the Ministry of Health has made transparency one of its main goals. The notion behind this is that insurees/patients/citizens have a right to information about their health, health care and health care rights, as well as the quality of care provision. The provision of information is seen as making

it easier for consumers to make informed choices and receive better care. Consequently, there is a belief that providing such information is good for the population and for the health system.

This objective has been advanced through a number of initiatives, several of which have been mentioned in earlier chapters. They include:

- establishment of a web site with extensive information on consumer rights related to both the NHI system and the supplemental insurance programmes (Brammli-Greenberg et al., 2014);
- publication of data from the National Programme for Quality Indicators in Community Healthcare for each HP;
- collection of data on hospital quality, with the intention of publishing the findings by hospital in the near future;
- surveys of patient experiences in general hospitals, with the results published by hospital; and
- publication of hospital-specific waiting times.

These new initiatives come on top of several long-standing initiatives to share key data with the public, such as publication of the HPs' financial statements and publication, by HP, of key findings from the MJB Institute's biannual consumer survey on satisfaction with plan services and access to service (Almog et al., in press).

Health policy development processes are also characterized by a good deal of transparency and the involvement of a broad range of interested parties. The National Health Council, which is a statutory body charged with advising the Minister of Health on major policy issues, includes representatives of the government, the HPs, the hospitals, professional associations and the general public. Similarly, the committee that recommends priorities for additions to the NHI benefits package includes representatives of a broad set of institutions and of the general public. The subcommittees dealing with the capitation formula and with hospital pricing include members of the HPs, the Ministry of Finance, the Ministry of Health and (in the latter case) the hospitals as well. Moreover, proposals for major policy changes, such as extending NHI to include dental care for children, are given substantial time for consideration and refinement; typically there are quite a few public forums in which such proposals are presented and debated, along with vigorous commentary in the mass media. When policy changes require legislation, the extent of public discussion – and involvement of elected representatives – is often particularly great.

Accountability is also given substantial attention in Israeli health care, proceeding along several tracks. The Ministry of Health plays a major role in ensuring that health care providers meet various quality and financial standards (Rosen, Israeli & Shortell, 2012). The public is also involved in promoting market accountability through competition among hospitals and among HPs. The performance of the Ministry of Health is also held up to public scrutiny by the media, the Knesset, other health system actors and independent researchers and analysts. Another key component is the involvement of international organizations, such as WHO, the European Observatory on Health Systems and Policies, and the OECD; for example, the Ministry of Health recently commissioned an OECD review of quality in Israeli health care that has been both informative and influential. Finally, every few years the government or the Ministry of Health has appointed a blue ribbon panel of one sort or another to assess the health system's performance and to recommend reforms.

## 8. Conclusions

**T**he Israeli health care system has demonstrated a remarkable capacity to innovate, improve, establish goals, be tenacious and prioritize – all of which have enabled it to achieve good health outcomes with limited resources. In the years ahead, Israel must find ways to draw on these capacities to address the major challenges now facing its health care system.

Israel has been a pioneer of successful innovations in such areas as electronic health records, telemedicine, the financing and provision of community-based LTC services and systemic response to large-scale health care emergencies. Newer pioneering innovations, whose degree of success is as yet unknown, include the establishment of a national health information exchange, public dissemination of detailed web-based information on health rights, the use of predictive modelling in clinical practice and the integration of physical and mental health within a managed care framework.

Israel's capacity to improve has been highlighted by its documented, and rapid, improvements in quality of care in the community. Evidence-based information systems have played a vital role but also crucial has been the commitment of the HPs to improve the health of their members, the HPs' capacity to translate strategy into action and their close working relationships with their professionals.

The recently introduced mental health reform highlights the system's capacity for tenacity, resource mobilization and flexibility. While numerous attempts to implement the reform (spread over two decades) did not succeed, its supporters did not give up; in 2015, they ultimately succeeded in changing the nature of Israeli mental health care while bringing substantial new resources into the system. They did so in part by taking seriously concerns raised by opponents and improving the reform plan.

Israel's internationally recognized process for prioritizing new technologies – which twins rigorous information with political sensitivity – is perhaps the most prominent example of the country's ability to make tough choices, and to do so wisely. Another important example has been the channelling of resources to community-based services while constraining the growth of hospital capacity.

One of the greatest current challenges for Israeli health care is its growing reliance on private financing. As described in Chapters 3 and 6, the ongoing shift from public to private financing has troubling implications for both equity and efficiency.

Why are more and more Israelis signing up for private health insurance? There does not appear to be a full answer, but motivating factors appear to include concerns that the mainstream, publicly financed system will not give them access to all necessary medical services, will require them to wait inordinately for covered services, will not be sufficiently patient centred and will entrust their operations to surgeons who are not sufficiently experienced or sufficiently talented.

To address these concerns, Israeli health care would do well to draw on the strategies and demonstrated capacities noted above. Taking the waiting time challenge as an example, policy-makers should consider including the following in their response to the challenge:

- a commitment at the policy level to shortening waiting times, combined with the mobilization of the necessary financial resources and tenacity in implementing the necessary changes;
- prioritization by deciding which types of operation usually need to be carried out quickly and which are usually less urgent;
- specification of clear goals and standards for waiting times;
- effective communication to the public of the rationale for waiting time priorities and provision of trustworthy information about what constitutes a reasonable waiting time;
- creation of systems for the ongoing monitoring of hospital-specific and operation-specific waiting times (an effort already under way), and the sharing of that information with the public;
- development of innovative mechanisms, at the hospital and departmental level, for reducing waiting times; and
- creation of close collaboration between hospitals and the relevant health care professions through the development of a shared vision, alignment of incentives and joint problem solving at the field level.

Parallel measures should also be considered in addressing the public's concerns about the comprehensiveness of the NHI benefits package, the extent to which publicly financed care is patient centred and the qualifications of surgeons in publicly financed operations. Doing so could greatly strengthen Israel's publicly financed health care system and enable it to continue to provide high-quality, equitable and accessible care to all of Israel's citizens.



## 9. Appendices

### 9.1 References

- Achdut L et al. (2012). *Review of the capitation formula: adding socio-economic variables as potential risk* [Hebrew]. (<http://www.israelhpr.org.il/advertising/837.htm>, accessed 10 December 2015).
- Advisory Committee for Strengthening the Public Health System (2014). *Report* [Hebrew]. Jerusalem, Ministry of Health (<http://health.gov.il/Services/Committee/German/Pages/default.aspx>, accessed 10 December 2015).
- Almog Y, Habib J, Rosen B (in press). Accountability and shared measurement in health care: examples from Israel in public accountability and healthcare governance. In: Mattei P, ed. *Public management reforms between austerity and democracy*. London, Palgrave McMillan.
- Arieli A, Horev T, Keidar N (2012). *National Health Insurance Law: statistical data from 1995–2011* [Hebrew]. Jerusalem, Ministry of Health ([http://www.health.gov.il/PublicationsFiles/stat\\_LB1995\\_2011.pdf](http://www.health.gov.il/PublicationsFiles/stat_LB1995_2011.pdf), accessed 10 December 2015).
- Ashkenazi Y et al. (2015). *Patterns of utilization and experiences of children in dental care following the reform in dental care in Israel*. Jerusalem, Myers-JDC-Brookdale.
- Averbuch E, Avni S (2014). *Inequality in health and the efforts to address it* [Hebrew]. Jerusalem, Ministry of Health.
- Averbuch-Smetannikov E (2010). *Boundary-spanning physicians: the liaison of bio-medical and alternative medicine* [Hebrew; thesis]. Jerusalem, Hebrew University of Jerusalem.
- Aviram U, Rosenne H (1998). Mental health policy and services in Israel: the planned reform following enactment of the National Health Insurance Law. *Society and Welfare*, 18:161–190.
- Balicer RD et al. (2007). Multifocal avian influenza (H5N1) outbreak. *Emerging Infectious Diseases*, 13:1601–1603.
- Balicer RD et al. (2011). Reducing health disparities: strategy planning and implementation in Israel's largest health care organization. *Health Services Research*, 46(4):1281–1299.
- Balicer RD et al. (2015). Sustained reduction in health disparities achieved through targeted quality improvement: one-year follow-up on a three-year intervention. *Health Services Research*, doi: 10.1111/1475-6773.12300 [Epub ahead of print].
- Bank of Israel (2013). *Health expenditure in Israel: demographic factors and cost structure, cross national comparison* [Hebrew]. Jerusalem, Bank of Israel (<http://www.boi.org.il/Research/DocLib3/8-135.pdf>, accessed 10 December 2015).
- Bank of Israel (2015). *Exchange rates*. Jerusalem, Bank of Israel (<http://www.boi.org.il/markets/exchangerates/pages/default.aspx>, accessed 10 December 2015).

- Barnea T et al. (2000). *Israeli–Palestinian cooperation in the health field, 1994–1998*. Jerusalem, Myers-JDC-Brookdale Institute.
- Belmaker I (2010). *The program to decrease the rates of infant mortality in the Bedouins in southern Israel*. Beer-Sheva, Ministry of Health Regional Health Office, Southern Region.
- Ben-Arye E et al. (2011). Integrative pediatric care: parents' attitudes toward communication of physicians and CAM practitioners. *Pediatrics*, 127:e84–e95.
- Bentur N, Resnizky S, Shnoor Y (2005). *Palliative and hospice services in Israel* [Hebrew; executive abstract in English]. Jerusalem, Myers-JDC-Brookdale Institute.
- Bentur N, Emanuel LL, Cherney N (2012). Progress in palliative care in Israel: comparative mapping and next steps. *Israel Journal of Health Policy Research*, 1:9 (<http://www.ijhpr.org/content/1/1/9>, accessed 10 December 2015).
- Bornstein N (2014). Stroke: the extent of the problem and unmet needs. *Annual Meeting of the Israeli Neurological Association* (<http://2013.icimeeting.com/wp-content/uploads/2014/01/1610-Bornstein-Natan-I.pdf>, accessed 10 December 2015).
- Brammli-Greenberg S, Gross R (2003). *The private insurance market in Israel 2001* [Hebrew]. Jerusalem, Myers-JDC-Brookdale Institute [RR-403-03].
- Brammli-Greenberg S, Medina-Artom T (2015). *Public opinion on the level of service and performance of the healthcare system in 2014 and comparison with 2012*. Jerusalem, Myers-JDC-Brookdale Institute (<http://brookdale.jdc.org.il/?CategoryID=192&ArticleID=375>, accessed 10 December 2015).
- Brammli-Greenberg S, Waitzberg R (2014). The integration of private funding and services in the public health system and the implications for quality of the service. *30th Annual Conference of the Israel Economic Association, Tel Aviv 20 May 2014* [Hebrew].
- Brammli-Greenberg S et al. (2014). Low-budget policy tool to empower Israeli insured to demand their rights in the healthcare system. *Health Policy*, 118(3):279–284.
- Brammli-Greenberg S, Waitzberg R, Guberman D (2015). *Waiting times for (non-urgent) ambulatory services from patients' perspective* [Hebrew]. Jerusalem, Myers-JDC-Brookdale Institute.
- Brammli-Greenberg S, Waitzberg R, Gross R (2016). Integrating private insurance into the Israeli health system: an attempt to reconcile conflicting values. In: Thomson SE, Mossialos E, eds. *Private health insurance and medical savings accounts: history, politics, performance*. Cambridge, Cambridge University Press; in press.
- Brammli-Greenberg S, Waitzberg R, Glazer, K (in press). *Evaluation of mechanisms for distributing funds among the health plans for healthcare and long-term care services, and proposal of complementary mechanisms*. Jerusalem, Myers-JDC-Brookdale Institute.
- Brammli-Greenberg S et al. (in press). *How Israel reimburses hospitals based on activity: the procedure-related group (PRG) incremental reform*. Paris, Organisation for Economic Co-operation and Development.
- Brodsky J et al. (2004). *Recipients of long-term care insurance benefits: characteristics, formal and informal assistance patterns and unmet needs*. Jerusalem, Myers-JDC-Brookdale Institute & National Insurance Institute.
- CBS (2006). *National health survey 2003/2004: selected findings*. Jerusalem, Central Bureau of Statistics.
- CBS (2008). *The 2006 social survey*. Jerusalem, Central Bureau of Statistics.
- CBS (2010a). *National health survey 2009: selected findings*. Jerusalem, Central Bureau of Statistics. ([http://www.cbs.gov.il/reader/cw\\_usr\\_view\\_SHTML?ID=584](http://www.cbs.gov.il/reader/cw_usr_view_SHTML?ID=584), accessed 10 December 2015).

- CBS (2010b). *Statistical yearbook of Israel, 2010*. Jerusalem, Central Bureau of Statistics.
- CBS (2012). *Statistical abstract of Israel 2012. Monthly consumption expenditure*. Jerusalem, Central Bureau of Statistics. ([http://www.cbs.gov.il/publications13/1517/pdf/t02\\_02.pdf](http://www.cbs.gov.il/publications13/1517/pdf/t02_02.pdf), accessed 10 December 2015).
- CBS (2013a). *Cause of death database*. Jerusalem, Central Bureau of Statistics.
- CBS (2013b). Household expenditure survey. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/?Mival=cw\\_usr\\_view\\_SHTML&ID=404](http://www.cbs.gov.il/reader/?Mival=cw_usr_view_SHTML&ID=404), accessed 10 December 2015).
- CBS (2013c). *Statistical abstract of Israel No. 64. Table 2.24: population and density per sq km in localities numbering 5000 residents and more on 31 XII 2013*. Jerusalem, Central Bureau of Statistics
- CBS (2014a). *Media release: In 2013, the national expenditure on health increased to 7.6% of GDP*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/newhodaot/hodaa\\_template.html?hodaa=201408220](http://www.cbs.gov.il/reader/newhodaot/hodaa_template.html?hodaa=201408220), accessed 10 December 2015).
- CBS (2014b). *Mortality and life expectancy*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/cw\\_usr\\_view\\_SHTML?ID=591](http://www.cbs.gov.il/reader/cw_usr_view_SHTML?ID=591), accessed 10 December 2015).
- CBS (2014c). *Statistical abstract of Israel: household expenditure survey*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnaton/templ\\_shnaton.html?num\\_tab=st05\\_26&CYear=2014](http://www.cbs.gov.il/reader/shnaton/templ_shnaton.html?num_tab=st05_26&CYear=2014), accessed 10 December 2015).
- CBS (2014d). *Statistical abstract of Israel: national expenditure on health*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnatonnew\\_site.htm](http://www.cbs.gov.il/reader/shnatonnew_site.htm), accessed 12 March 2015).
- CBS (2014e). *Statistical abstract of Israel No. 65. Section 2: population*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnaton/shnatone\\_new.htm?CYear=2014&Vol=65&CSubject=2](http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm?CYear=2014&Vol=65&CSubject=2), accessed 10 December 2015).
- CBS (2014f). *Statistical abstract of Israel No. 65. Table 2.2: population by religion*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnaton/shnatone\\_new.htm?CYear=2014&Vol=65&CSubject=2](http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm?CYear=2014&Vol=65&CSubject=2), accessed 10 December 2015).
- CBS (2014g). *Statistical abstract of Israel No. 65. Table 2.12: sources of population growth*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnaton/templ\\_shnaton\\_e.html?num\\_tab=st02\\_12&CYear=2013](http://www.cbs.gov.il/reader/shnaton/templ_shnaton_e.html?num_tab=st02_12&CYear=2013), accessed 10 December 2015).
- CBS (2014h). *Statistical abstract of Israel No. 65. Table 2.26: internal migration between localities, by district and population group*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnaton/templ\\_shnaton\\_e.html?num\\_tab=st02\\_26&CYear=2013](http://www.cbs.gov.il/reader/shnaton/templ_shnaton_e.html?num_tab=st02_26&CYear=2013), accessed 10 December 2015).
- CBS (2014i). *Statistical abstract of Israel No. 65. Table 3.29: mortality rates, by cause*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/shnaton65/st03\\_29x.pdf](http://www.cbs.gov.il/shnaton65/st03_29x.pdf), accessed 10 December 2015).
- CBS (2015a). *Statistical abstract of Israel*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnatonnew\\_site.htm](http://www.cbs.gov.il/reader/shnatonnew_site.htm), accessed 10 December 2015).
- CBS (2015b). *Statistical abstract of Israel No. 65. Table 6.4: national expenditure on health, by financing sector and type of service*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/reader/shnaton/templ\\_shnaton\\_e.html?num\\_tab=st06\\_04&CYear=2015](http://www.cbs.gov.il/reader/shnaton/templ_shnaton_e.html?num_tab=st06_04&CYear=2015), accessed 10 December 2015).
- CBS (2015c). *The 2012 labor force survey*. Jerusalem, Central Bureau of Statistics ([http://www.cbs.gov.il/webpub/pub/text\\_page.html?publ=68&CYear=2012&CMonth=1](http://www.cbs.gov.il/webpub/pub/text_page.html?publ=68&CYear=2012&CMonth=1), accessed 10 December 2015).

- Chen S (1998). Alternative medicine in Israel. *Yediot Aharonot*, 16/1/98 [Hebrew daily newspaper].
- Chinitz D, Israeli A (1999). Rationing: how and why? *Journal of the Israel Medical Association*, 1(3):210–214.
- Chinitz D, Rosen B (1993). *Between two markets: competition among hospitals in Israel* [Hebrew]. Jerusalem, Myers-JDC-Brookdale Institute.
- Chinitz D et al. (1998). The second phase of priority setting. Israel's basic basket of health services: the importance of being explicitly implicit. *British Medical Journal*, 317(7164):1005–1007.
- CIA (2015). *The world factbook: Israel*. Washington, DC, Central Intelligence Agency (<https://www.cia.gov/library/publications/the-world-factbook/geos/is.html>, accessed 10 December 2015).
- Civil Appeal Request 1412/94. Hadassah versus Gilad. Court Ruling 49(2) 516.
- Clavarino A, Yates P (1995). Fear, faith or rational choice: understanding the use of alternative therapies. In: Lupton G, Najman J, eds. *Sociology of health and illness: Australian readings*, 2nd edn. Melbourne, Macmillan:252–275.
- Cohen G (2014). Instead of the health plans: the soldiers are returning to the military health care clinics [Hebrew]. *Haaretz*, March 19 [Hebrew language newspaper] (<http://www.haaretz.co.il/news/politics/1.2274501>, accessed 10 December 2015).
- Donchin M et al. (2006). Implementation of the healthy cities' principles and strategies: an evaluation of the Israel Healthy Cities network. *Health Promotion International*, 21:266–273.
- Dreier J et al. (2012). The association between continuity of care in the community and health outcomes: a population-based study. *Israel Journal of Health Policy Research*, 1:21.
- Efrati I (2014). The Health Committee has given its approval: pharmacists will now be able to dispense prescriptions for chronic care. *Ha'aretz* March 4 [Hebrew language newspaper] (<http://www.haaretz.co.il/news/health/premium-1.2259738>, accessed 10 December 2015).
- Ekke-Zohar A, Greenbaum-Arison A, Binder-Bachrach I (2015). *Patient experience survey in general hospital inpatient wards* [Hebrew]. Jerusalem, Ministry of Health.
- Filc D, Cohen N (2014). Blurring the boundaries between public and private health care services as an alternative explanation for the emergence of black medicine: the Israeli case. *Health Economics, Policy and Law*, 10:293–310.
- Gay JG et al. (2011). *Mortality amenable to health care in 31 OECD countries: estimates and methodological Issues*. Paris, Organisation for Economic Co-operation and Development [OECD Health Working Paper 55].
- Glazer J, Kendall E (2014). *The Advisory Committee for Strengthening the Public Health System (German Committee): minority report* [Hebrew]. Jerusalem, Ministry of Health (<http://health.gov.il/Services/Committee/German/Pages/default.aspx>, accessed 10 December 2015).
- Glick SM (1997). Unlimited human autonomy: a cultural bias? *New England Journal of Medicine*, 336:954–956.
- Goldberger N, Haklai Z (2012). Mortality rates in Israel from causes amenable to health care, regional and international comparison. *Israel Journal of Health Policy Research*, 1:41.
- Goldenberg I (2014). *Acute coronary syndrome Israeli survey (ACSIS) 2013: overview*. (<http://his-files.com/pdf/ilan.pdf>, accessed 10 December 2015).
- Greenstein M, Taragin M (2001). *Night services: a new sick fund service mandated by the National Health Insurance Law*. [Hebrew]. Jerusalem, Myers-JDC-Brookdale Institute.

- Gross R, Brammli-Greenberg S (2004). Evaluating the effect of regulatory prohibitions against risk selection by health status on supplemental insurance ownership in Israel. *Social Science and Medicine*, 58.9 (2004): 1609-1622.
- Gross R, Brammli-Greenberg S, Matzliach R (2007). *Public opinion on the level of service and performance of the health care system ten years after the introduction of National Health Insurance* [Hebrew]. Jerusalem, Myers-JDC-Brookdale Institute (<http://brookdale.jdc.org.il/?CategoryID=192&ArticleID=69>, accessed 21 May 2015).
- Guttman N et al. (2008). What should be given a priority: costly medications for relatively few people or inexpensive ones for many? The Health Parliament public consultation initiative in Israel. *Health Expectations*, 2008, 11:177-188.
- Haklai Z (2014). *Inpatient institutions and day care units in Israel: 2013* [Hebrew]. Jerusalem, Ministry of Health.
- Horev T, Keidar N (2014). *National Health Insurance Law: statistical data file* [Hebrew]. ([http://www.health.gov.il/publicationsfiles/stat1995\\_2013.pdf](http://www.health.gov.il/publicationsfiles/stat1995_2013.pdf), accessed 10 December 2015).
- ICDC (2008). *Health status in Israel 2005, ages 0–17*. Jerusalem, Ministry of Health [Publication 306].
- ICDC (2012). *Israel national health interview survey (INHIS-2) 2007–2010: selected findings*. Jerusalem, Ministry of Health [Publication 331].
- ICDC (2014). *MABAT COHORT national health and nutrition cohort survey, ages 35–74*. Jerusalem, Ministry of Health.
- ICDC (2015). *Health knowledge attitude and practice in Israel 2011*. Jerusalem, Ministry of Health.
- IMA (1997). Letter to the members [Hebrew]. *Bulletin of the Israel Medical Association*, 59:9–12.
- Jaffe DH et al. (2012). Community healthcare in Israel: quality indicators 2007–2009. *Israel Journal of Health Policy Research*, 1:3.
- Keidar N, Horev N (2010). *National Health Insurance Act: statistical data for the period 1995–2009*. Jerusalem, Israel Ministry of Health.
- Knesset (2014). *The regulation governing pharmacists (dispensing of prescriptions by pharmacists with a personal authorization)* [Hebrew]. Jerusalem, Knesset Research and Information Centre (<http://main.knesset.gov.il/Activity/committees/Labor/RegulationApproved/health100314.pdf>, accessed 10 December 2015).
- Kokia E, Siegal N, Shemer J (2008). The physician manager: building a clinical leadership in community medicine: the Maccabi Healthcare Services (MHS) model [Hebrew]. *Harefuah*, 147:445–448, 476.
- Kopel E, Kaliner E, Grotto I (2014). Lessons from a public health emergency: importation of wild poliovirus to Israel. *New England Journal of Medicine*, 371:981–983.
- Leventhal A et al. (2006). Regional collaboration in the Middle East to deal with H5N1 avian flu. *British Medical Journal*, 333(7573):856–858.
- Levi S (2013). *Description of the regulation offered at the proposal of Arrangements Bill for the purchase of mental health services between HPs and hospitals and clinics* [Hebrew]. Jerusalem, Knesset Research and Information Centre (<http://www.knesset.gov.il/mmm/data/pdf/m03277.pdf>, accessed 10 December 2015). 15 March 2015).
- Levinson D et al. (2007a). Prevalence of mood and anxiety disorders in the community: results from the Israel National Health Survey. *Israel Journal of Psychiatry and Related Sciences*, 44:94.

- Levinson D et al. (2007b). Twelve-month service utilization rates for mental health reasons: data from the Israel National Health Survey. *Israel Journal of Psychiatry and Related Sciences*, 44:114–125.
- Maccabi Healthcare (2015). Our healthcare system: the physician at the heart of the medical system. Jerusalem, Maccabi Healthcare (<http://www.maccabi4u.co.il/1781-he/Maccabi.aspx>, accessed 10 December 2015).
- Machnes Y, Carmeli A (2009). The provision of oral care by local government authorities in Israel: policy issues and empirical evidence. *Health Policy* 89:107–114.
- Ministry of Finance (2012). *Annual report of the Commissioner of the Capital Market, Insurance and Savings* [Hebrew]. Jerusalem, Ministry of Finance (<http://www.anet.co.il/anetfiles/files/6199.pdf>, accessed 14 April 2015).
- Ministry of Finance (2014). *Insurance Commissioner directive number 107–2014*. Jerusalem, Ministry of Finance (<http://mof.gov.il/hon/documents/הקיקהו-הרדסה/insurance/memos/t2014-107.pdf>, accessed 2 March 2015) (in Hebrew).
- Ministry of Finance (2015). *National budget proposed for 2015* [Hebrew]. Jerusalem, Ministry of Finance. ([http://mof.gov.il/BudgetSite/statebudget/BUDGET2015/Documents/MainBudgetFull\\_2015.pdf](http://mof.gov.il/BudgetSite/statebudget/BUDGET2015/Documents/MainBudgetFull_2015.pdf), accessed 10 December 2015).
- Ministry of Finance (2016) *Insurance Commissioner regulation on health insurance policies*. Jerusalem, Ministry of Finance. Issued on the 25.1.2016. Available at: [http://mof.gov.il/hon/documents/הקיקהו-הרדסה/insurance/memos/h\\_hozermeuhad\\_briut\\_6-3.pdf](http://mof.gov.il/hon/documents/הקיקהו-הרדסה/insurance/memos/h_hozermeuhad_briut_6-3.pdf) (accessed 17 February 2016) (in Hebrew)
- Ministry of Health (2006). *Hospital facilities and trends in hospital admissions in Israel, 2005* [Hebrew]. Jerusalem, Ministry of Health.
- Ministry of Health (2010a). *Procedure for updating the benefits package* [Hebrew]. Jerusalem, Ministry of Health ([http://www.health.gov.il/hozer/sal\\_noal181010.pdf](http://www.health.gov.il/hozer/sal_noal181010.pdf), accessed 10 December 2015).
- Ministry of Health (2010b). *Report of the Committee for the Planning of the Medical and Nursing Workforce*. Jerusalem, Ministry of Health ([http://www.health.gov.il/PublicationsFiles/mp\\_june2010.pdf](http://www.health.gov.il/PublicationsFiles/mp_june2010.pdf), accessed 14 December 2015).
- Ministry of Health (2012). *Issues on policy and regulation of private health insurance* [Hebrew]. Jerusalem, Ministry of Health ([http://www.health.gov.il/PublicationsFiles/281112\\_11122012.pdf](http://www.health.gov.il/PublicationsFiles/281112_11122012.pdf), accessed 10 December 2015).
- Ministry of Health (2013a). *Public summary report about the supplemental services programs of the health plans: 2012*. Jerusalem, Ministry of Health, Division for the Regulation of Health Plans and Supplementary Services.
- Ministry of Health (2013b). The report of the Ombudsman for the NHI Law: report 9 for the years 2011–2012. Jerusalem, Ministry of Health.
- Ministry of Health (2014a). *Committee for strengthening the public healthcare final report* [Hebrew]. Jerusalem, Ministry of Health (<http://www.health.gov.il/PublicationsFiles/publichealth2014.pdf>, accessed 10 December 2015).
- Ministry of Health (2014b). *Directive of Health Plans Supervision Department*. Jerusalem, Ministry of Health ([http://www.health.gov.il/hozer/sbn05\\_2014.pdf](http://www.health.gov.il/hozer/sbn05_2014.pdf), accessed 10 December 2015).
- Ministry of Health (2014c). *Financial report 2012 for the governmental general medical centres* [Hebrew]. Jerusalem, Ministry of Health ([http://www.health.gov.il/PublicationsFiles/finance2012\\_feb2014.pdf](http://www.health.gov.il/PublicationsFiles/finance2012_feb2014.pdf), accessed 10 December 2015).

- Ministry of Health (2014d). *Inpatient institutions and day care units in Israel 2012* [Hebrew]. Jerusalem, Ministry of Health ([http://www.health.gov.il/UnitsOffice/HD/info/Pages/Inpatient\\_Institutions.aspx](http://www.health.gov.il/UnitsOffice/HD/info/Pages/Inpatient_Institutions.aspx), accessed 10 December 2015).
- Ministry of Health (2014e). *Minister of Health's annual report on smoking in Israel, 2013*. Jerusalem, Ministry of Health, Department of Maternal, Child and Adolescent Health.
- Ministry of Health (2014f). *National report of infant mortality and perinatal mortality in Israel, 2008–2011*. Jerusalem, Ministry of Health, Department of Mother, Child and Adolescent Health.
- Ministry of Health (2014g). *Summary report on health plans activities in 2013* [Hebrew]. Jerusalem, Ministry of Health (<http://www.health.gov.il/PublicationsFiles/dochHashvaatui2013.pdf>, accessed 10 December 2015).
- Ministry of Health (2014h). *The Committee for the Advancement of Emergency Medicine in Israel*. Jerusalem, Ministry of Health.
- Ministry of Health (2014i). *The workforce in the health professions 2013*. Jerusalem, Ministry of Health.
- Ministry of Health (2015a). *About the ministry*. Jerusalem, Ministry of Health (<http://www.health.gov.il/English/About/Pages/default.aspx>, accessed 10 December 2015).
- Ministry of Health (2015b). *Catalogue of ambulatory services* [Hebrew]. Jerusalem, Ministry of Health (<http://www.health.gov.il/PublicationsFiles/mtl-amb-catalog.pdf>, accessed 10 December 2015).
- Ministry of Health (2015c). *Summary report on health plans activities in 2013* [Hebrew]. Jerusalem, Ministry of Health (<http://www.health.gov.il/PublicationsFiles/dochhashavut2014.pdf>, accessed 10 December 2015).
- Miron-Shatz T et al. (2012). Shared decision-making in Israel: status, barriers, and recommendations. *Israel Journal of Health Policy Research*, 1:5.
- Murray CJ et al. for the GBD 2013 DALYs and HALE Collaborators (2015). Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990–2013: quantifying the epidemiological transition. *Lancet*, 386:2145–2191 (<http://www.sciencedirect.com/science/article/pii/S014067361561340X>, accessed 10 December 2015).
- Nefesh B'Nefesh (2015). *Aliyapedia: "dentists"*. Jerusalem, Nefesh B'Nefesh (<http://www.nbn.org.il/aliyahpedia/employment-israel/degrees-licensing/dentistry/>, accessed 10 December 2015).
- NII (2014a). *Annual report* [Hebrew]. Jerusalem, National Insurance Institute.
- NII (2014b). *General information: average wage under article 1.2 of National Insurance Law* [Hebrew]. Jerusalem, National Insurance Institute (<http://www.btl.gov.il/English%20Homepage/Mediniyut/GeneralInformation/Pages/AverageWage.aspx>, accessed 10 December 2015).
- Nirel N et al. (2008). *Medical specialties in crisis: an exploratory study*. Jerusalem, Myers-JDC-Brookdale Institute (RR-510-08).
- Nissanholtz-Ganot R, Rosen B, for the Quality Monitoring Study Group (2012). Monitoring quality in Israeli primary care: the primary care physicians' perspective. *Israel Journal of Health Policy Research*, 1:26.

- OECD (2012a). *OECD reviews of health care quality: Israel 2012: raising standards*. Paris, Organisation for Economic Co-operation and Development ([http://www.oecd-ilibrary.org/social-issues-migration-health/oecd-reviews-of-health-care-quality-israel-2012\\_9789264029941-en](http://www.oecd-ilibrary.org/social-issues-migration-health/oecd-reviews-of-health-care-quality-israel-2012_9789264029941-en), accessed 10 December 2015).
- OECD (2012b). *Statistical extracts, 2012*. Paris, Organisation for Economic Co-operation and Development ([http://stats.oecd.org/Index.aspx?DatasetCode=HEALTH\\_STAT](http://stats.oecd.org/Index.aspx?DatasetCode=HEALTH_STAT), accessed 10 December 2015).
- OECD (2013). *Health at a glance: OECD indicators*. Paris, Organisation for Economic Co-operation and Development (<http://www.health.gov.il/PublicationsFiles/HealthataGlance2013.pdf>, accessed 10 December 2015).
- OECD (2015). *Health statistics 2015: frequently requested data*. Paris, Organisation for Economic Co-operation and Development (<http://www.oecd.org/health/health-data.htm>, accessed 10 December 2015).
- Office of the Deputy Director-General for Regulation of the Health Plans (2014). *Price updates for health care services and medications for 2014* [Hebrew]. Jerusalem, Directorate-General for Regulation of the Health Plans ([http://www.health.gov.il/hozer/sbn05\\_2014.pdf](http://www.health.gov.il/hozer/sbn05_2014.pdf), accessed 10 December 2015).
- Rees L, Weil A (2001). Integrated medicine. *British Medical Journal*, 322:119–120.
- Refuah (2014). *Common questions in anticipation of the transfer* [Hebrew]. (<http://www.refua.atal.idf.il/1780-he/Refuah.aspx>, accessed 10 December 2015).
- Rosen B (2008). Addressing a projected shortage of physicians. *Health Policy Monitor*, 11.
- Rosen B (2012). *Health Systems and Policy Monitor: Israel. Health policy update: inclusion of dental care for children in NHI*. Copenhagen, WHO Regional Office for Europe for the European Observatory on Health Systems and Policies (<http://www.hspm.org/countries/israel25062012/countrypage.aspx>, accessed 10 December 2015).
- Rosen B, Merkur S (2015). *Health Systems and Policy Monitor: Israel. Health policy update: 2015 health budget includes new adjustments and funds*. Copenhagen, WHO Regional Office for Europe for the European Observatory on Health Systems and Policies (<http://www.hspm.org/countries/israel25062012/countrypage.aspx>, accessed 10 December 2015).
- Rosen B, Samuel H, Merkur S (2009). Israel: health system review. *Health Systems in Transition*, 11(2): 1–226.
- Rosen B et al. (2011a). Adherence to standards of care by health maintenance organizations in Israel and the USA. *International Journal for Quality in Health Care*, 23:15.
- Rosen B et al. (2011b). What the United States could learn from Israel about improving the quality of health care. *Health Affairs*, 30:764–772.
- Rosen B, Israeli A, Shortell S, eds. (2012). *Accountability and responsibility in health care: issues in addressing an emerging global challenges*. Hackensack, NJ, World Scientific and National Institute for Health Policy.
- Rosen D et al. (2014). Low rate of non-attenders to primary care providers in Israel: a retrospective longitudinal study. *Israel Journal of Health Policy Research*, 3:15.
- Sax P (2001). Changes in drug economy in Israel's health maintenance organizations in the wake of the National Health Insurance Law. *Israel Medical Association Journal*, 3:605–609.
- Shani S et al. (2000). Setting priorities for the adoption of health technologies on a national level: the Israeli experience. *Health Policy*, 54:169–185.
- Shemer J, Abadi-Korek I, Seifan A (2005). Medical technology management: bridging the gap between theory and practice. *Israel Medical Association Journal*, 7:211–215.

- Shmueli A (1998). Supplemental health insurance ownership in Israel: an empirical analysis and some implications. *Social Science and Medicine*, 46:821–829.
- Shmueli A (2001). The effect of health on acute care supplemental insurance ownership: an empirical analysis. *Health Economics*, 10:341–350.
- Shmueli A (2011). Switching sickness funds in Israel: adverse selection or risk selection? Some insights from the analysis of the relative costs of switchers. *Health Policy*, 102:247–254.
- Shmueli A, Israeli A (2013). Adjusting health expenditure for military spending and interest payment: Israel and the OECD countries. *Israel Journal of Health Policy Research*, 2:5.
- Shmueli A, Shuval JT (2004). Use of complementary and alternative medicine in Israel: 2000 vs 1993. *Israel Medical Association Journal*, 5:3–8.
- Shmueli A, Achdut L, Sabag-Endeweld M (2008). Financing the package of services during the first decade of the National Health Insurance Law in Israel: trends and issues. *Health Policy*, 87:273–284.
- Shmueli A, Igudin I, Shuval JT (2010). CAM use in Israel: 1993, 2000 and 2007. *European Journal of Public Health*, 6:47–49.
- Shuval JT (1988). *Medical manpower in Israel: political policies and constraints*. Jerusalem, Hebrew University and Myers-JDC-Brookdale Institute.
- Shuval JT (2006). Nurses in alternative health care: integrating medical paradigms. *Social Science and Medicine*, 63:1784–795.
- Shuval JT, Averbuch E (2012a). *Alternative and bio medicine in Israel: boundaries and bridges*. Brighton, UK, Academic Studies Press.
- Shuval JT, Averbuch E (2012b). Complementary and alternative health care in Israel. *Israel Journal of Health Policy Research*, 1:7.
- Shuval JT, Gross S (2008). Midwives practice CAM: feminism in the delivery room. *Complementary and Alternative Practice Review*, 13:46–62.
- Shuval JT, Mizrahi N (2004). Changing boundaries: modes of co-existence of alternative and bio-medicine. *Qualitative Health Research*, 14:675–690.
- Shvartzman P et al. (2011). Constructing a post-graduate palliative care curriculum: the Israeli National Palliative Care Training (INPACT) experience. *Journal of Palliative Care*, 27:238–342.
- State of Israel (2009). *Ministry of Health: Circular of the General Administration, No. 30/09 Issue: operation of palliative care services (hospice) in the community, general hospitals and nursing institutions* [Hebrew]. Jerusalem, Ministry of Health.
- Steinberg A, Sprung CL (2006). The dying patient: new Israeli legislation. *Intensive Care Medicine*, 32:1234–1237.
- Tabibian-Mizrahi M (2006). *The mental health reform: highlights of the agreement between the Ministry of Health and the Ministry of Finance* [Hebrew]. Jerusalem, Knesset Research and Information Centre (<http://www.knesset.gov.il/mmm/data/pdf/m01615.pdf>, accessed 10 December 2015).
- Tabibian-Mizrahi M (2007). *The mental health reform: main issues for discussion* [Hebrew]. Jerusalem, Knesset Research and Information Centre ([http://www.google.co.il/url?sa=t&ct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0CCoQFjAC&url=http%3A%2F%2Fwww.knesset.gov.il%2Fcommittees%2Fheb%2Fmaterial%2Fdata%2Favoda2007-12-11-06.doc&ei=hnAGVYDuLsz8UJ\\_kgKAH&usq=AFQjCNFq1L-vWr9U4adRXKUUawbx7Oiocw&bvm=bv.88198703,d.d24](http://www.google.co.il/url?sa=t&ct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0CCoQFjAC&url=http%3A%2F%2Fwww.knesset.gov.il%2Fcommittees%2Fheb%2Fmaterial%2Fdata%2Favoda2007-12-11-06.doc&ei=hnAGVYDuLsz8UJ_kgKAH&usq=AFQjCNFq1L-vWr9U4adRXKUUawbx7Oiocw&bvm=bv.88198703,d.d24), accessed 10 December 2015).

- Tal O, Sheffer N, Vaknin S (2008). Parameters for allocation of expensive medical devices (EMD) as a national regulatory mechanism [Hebrew]. *Harefuah*, 147:359–362, 372.
- Taragin M, Milman U, Greenstein M (2000). *After-hours use of urgent care services: who uses them and why?* Jerusalem, Myers-JDC-Brookdale Institute.
- UNICEF (2015). *Levels and trends in child mortality, 2015*. New York, United Nations Children's Fund ([http://www.unicef.org/media/files/IGME\\_report\\_2015\\_child\\_mortality\\_final.pdf](http://www.unicef.org/media/files/IGME_report_2015_child_mortality_final.pdf), accessed 10 December 2015).
- van de Ven WP et al. (2003). Risk adjustment and risk selection on the sickness fund insurance market in five European countries. *Health Policy*, 65:75–98.
- van de Ven WP et al. (2007). Risk adjustment and risk selection in Europe: 6 years later. *Health Policy*, 83:162–179.
- Waitzberg R, Brammli-Greenberg S (2012). Lessons from the spread of long-term care insurance in Israel. *5th International Jerusalem Conference on Health Policy, Jerusalem, June, 2012*.
- Waitzberg R, Rosen B (2014). *Health Systems and Policy Monitor: Israel. Health policy update: tackling health inequalities*. Copenhagen, WHO Regional Office for Europe for the European Observatory on Health Systems and Policies (<http://www.hspm.org/countries/israel25062012/countrypage.aspx>, accessed 10 December 2015).
- Wertman E et al. (2005). Elderly people with dementia: prevalence, identification of unmet needs and priorities in the development of services. Jerusalem, Myers-JDC-Brookdale Institute.
- Wilf-Miron R et al. (2010). Organisational efforts to improve quality while reducing healthcare disparities: the case of breast cancer screening among Arab women in Israel. *Quality and Safety in Health Care*, 19:e36.
- World Bank (2015). World development indicators [online database]. Washington, DC, World Bank (<http://data.worldbank.org/products/wdi>, accessed 7 December 2015).
- WHO Regional Office for Europe (2015). Health for all database [online/offline database]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/hfadb>, accessed 7 December 2015).

## 9.2 Useful web sites

Central Bureau of Statistics:

[http://www.cbs.gov.il/reader/cw\\_usr\\_view\\_Folder?ID=141](http://www.cbs.gov.il/reader/cw_usr_view_Folder?ID=141)

Gertner Institute:

<http://www.gertnerinst.org.il/e/>

Health Systems and Policy Monitor – Israel country page:

<http://www.hspm.org/countries/israel25062012/countrypage.aspx>

Israel Journal of Health Policy Research:

[www.ijhpr.org](http://www.ijhpr.org)

Israel National Institute for Health Policy:

<http://www.israelhpr.org.il/e/>

Ministry of Health:

<http://www.health.gov.il/English/Pages/HomePage.aspx>

OECD – Health at a Glance:

[http://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2013\\_health\\_glance-2013-en](http://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2013_health_glance-2013-en)

Smokler Center for Health Policy Research:

<http://brookdale.jdc.org.il/?CategoryID=177>

### 9.3 Further reading

- Adini B et al. (2012). Decision to evacuate a hospital during an emergency: the safe way or the leader's way? *Journal of Public Health Policy*, 33:257–268.
- Admi H et al. (2015). From research to reality: minimizing the effects of hospitalization on older adults. *Rambam Maimonides Medical Journal*, 6:e0017.
- Aiken LH, McHugh MD (2014). Is nursing shortage in Israel inevitable? *Israel Journal of Health Policy Research*, 3:10.
- Arbelle JE et al. (2014). Multiple chronic disorders: health care system's modern challenge in the Maccabi Healthcare system. *Israel Journal of Health Policy Research*, 3:29.
- Ashkenazi T, Lavee J, Mor E (2015). Organ donation in Israel: achievements and challenges. *Transplantation*, 99:265–266.
- Asiskovitch S (2013). The long-term care insurance program in Israel: solidarity with the elderly in a changing society. *Israel Journal of Health Policy Research*, 2:3.
- Aviram A et al. (2014). The effect of a policy change on late termination of pregnancy in Israel. *International Journal of Gynaecology and Obstetrics*, 125:141–143.
- Baron-Epel O et al. (2012). Challenges for the smoking ban in Israeli pubs and bars: analysis guided by the behavioral ecological model. *Israel Journal of Health Policy Research*, 1:28.
- Bentur N, Emanuel LL, Cherney N (2012). Progress in palliative care in Israel: comparative mapping and next steps. *Israel Journal of Health Policy Research*, 1:9.
- Bentur N et al. (2014). Coping strategies for existential and spiritual suffering in Israeli patients with advanced cancer. *Israel Journal of Health Policy Research*, 3:21.
- Bentur N et al. (2014). Quality of end-of-life care for cancer patients: does home hospice care matter? *American Journal of Managed Care*, 20:988–992.
- Bisharat B, Bowirrat A (2015). Challenges faced by Arab women who are interested in becoming physicians. *Israel Journal of Health Policy Research*, 4:30.
- Bitterman H, Vinker S (2014). Extending the boundaries of family medicine to perform manual procedures. *Israel Journal of Health Policy Research*, 3:35.
- Bodas M et al. (2015). Assessment of emergency preparedness of households in Israel for war: current status. *Disaster Medicine and Public Health Preparedness*, 9:382–390.

- Borow M, Levi B, Glekin M (2013). Regulatory tasks of national medical associations: international comparison and the Israeli case. *Israel Journal of Health Policy Research*, 2:8.
- Bronfman S et al. (2015). Assigning Israeli medical graduates to internships. *Israel Journal of Health Policy Research*, 4:6.
- Catan G et al. (2015). The impact of eHealth and mHealth on doctor behavior and patient involvement: an Israeli and Portuguese comparative approach. *Studies in Health Technology and Informatics*, 210:813–817.
- Chernichovsky D (2009). Not “socialized medicine”: an Israeli view of health care reform. *New England Journal of Medicine*, 361:e46.
- Chernichovsky D (2013). Reforms are needed to increase public funding and curb demand for private care in Israel’s health system. *Health Affairs (Project Hope)*, 32:724–733.
- Chernichovsky D et al. (2010). Long-term care in Israel: challenges and reform options. *Health Policy*, 96:217–225.
- Chinitz D (2014). Governing the allocation of scarce resources: is health care no longer a special case? *Israel Journal of Health Policy Research*, 3:23.
- Chinitz D, Israeli A (2010). Priority setting in Israel. Trade-offs have to be made everywhere. *British Medical Journal*, 341:c6827.
- Chinitz D, Meislin R, Alster-Grau I (2009). Values, institutions and shifting policy paradigms: expansion of the Israeli national health insurance basket of services. *Health Policy*, 90:37–44.
- Cohen Y et al. (2013). Establishing and sustaining a biorepository network in Israel: challenges and progress. *Biopreservation and Biobanking*, 11:331–338.
- Davidovitch N et al. (2013). Immigrating to a universal health care system: utilization of hospital services by immigrants in Israel. *Health and Place*, 20:13–18.
- Ellen ME et al. (2014). Health systems and policy research evidence in health policy making in Israel: what are researchers’ practices in transferring knowledge to policy makers? *Health Research Policy and Systems*, 12:67.
- Factor R, Kang M (2014). Priority setting in health care as portrayed in South Korean and Israeli newspapers. *Health Policy*, 114:226–235.
- Filc D et al. (2014). Is socioeconomic status associated with utilization of health care services in a single-payer universal health care system? *International Journal for Equity in Health*, 13:115.
- Gerber A, Topaz MM (2014). Promoting meaningful use of health information technology in Israel: ministry of health vision. *Studies in Health Technology and Informatics*, 201:108–115.
- Ginsberg GM, Geva H (2014). The burden of smoking in Israel: attributable mortality and costs (2014). *Israel Journal of Health Policy Research*, 3:28.
- Goldman S et al. (2015). The contribution of the Israeli trauma system to the survival of road traffic casualties. *Traffic Injury Prevention*, 16:368–373.
- Haklai Z et al. (2013). Female physicians: trends and likely impacts on healthcare in Israel. *Israel Journal of Health Policy Research*, 2:37.
- Hornik-Lurie T, Zilber N, Lerner Y (2012). Trends in the use of rehabilitation services in the community by people with mental disabilities in Israel; the factors involved. *Israel Journal of Health Policy Research*, 1:24.
- Huppert JD (2014). Maximizing the potential of psychology for the Israeli mental health reform. *Israel Journal of Health Policy Research*, 3:39.

- Jacob T, Parag A (2015). Equality, accessibility, and availability of physical therapy services in Israel: perception of national directors. *Health Policy*, 119:990–997.
- Kaplan G, Baron-Epel O (2015). Personal needs versus national needs: public attitudes regarding health care priorities at the personal and national levels. *Israel Journal of Health Policy Research*, 4:15.
- Karpati T et al. (2014). Towards a subsiding diabetes epidemic: trends from a large population-based study in Israel. *Population Health Metrics*, 12:32.
- Kertcher C (2014). Grassroots medical peace building: training Palestinian physicians in Israel. *Medicine, Conflict, and Survival*, 30:190–212.
- Keshet Y, Popper-Giveon A, Liberman I (2015). Intersectionality and underrepresentation among health care workforce: the case of Arab physicians in Israel. *Israel Journal of Health Policy Research*, 4:18.
- Kranzler Y et al. (2013). A health in all policies approach to promote active, healthy lifestyle in Israel. *Israel Journal of Health Policy Research*, 2:16.
- Leiter G (2014). What Israeli policy can teach us about elective sex selection. *Israel Journal of Health Policy Research*, 3:42.
- Levi B, Borow M, Glekin M (2014). Participation of national medical associations in quality improvement activities: international comparison and the Israeli case. *Israel Journal of Health Policy Research*, 3:14.
- Levinson D, Lerner Y (2013). Hospitalization of patients with schizophrenic and affective disorders in Israel in the aftermath of the structural and rehabilitation reforms. *Israel Journal of Health Policy Research*, 2:29.
- Levin-Zamir D et al. (2015). The use of focus groups as a basis for planning and implementing culturally appropriate health promotion among people with diabetes in the Arab community. *Global health promotion*, pii: 1757975914548200 [Epub ahead of print].
- Levy M, Rizansky Nir A (2014). The pricing of breakthrough drugs: theory and policy implications. *PLoS One*, 9:e113894.
- Meydan C et al. (2015). Managing the increasing shortage of acute care hospital beds in Israel. *Journal of Evaluation in Clinical Practice*, 21:79–84.
- Mezer E et al. (2015). Trends in the incidence and causes of severe visual impairment and blindness in children from Israel. *Journal of AAPOS*, 19:260–265.e1.
- Moor I et al. (2015). Trends in social inequalities in adolescent health complaints from 1994 to 2010 in Europe, North America and Israel: the HBSC study. *European Journal of Public Health*, 25(suppl 2):57–60.
- Mor Z et al. (2015). Health status, behavior, and care of lesbian and bisexual women in Israel. *Journal of Sexual Medicine*, 12:1249–1256.
- Nirel N, Samuel H (2014). Work practices and the provision of mental-health care on the verge of reform: a national survey of Israeli psychiatrists and psychologists. *Israel Journal of Health Policy Research*, 3:25.
- Nirel N et al. (2012). Registered nurses in Israel: workforce employment characteristics and projected supply. *Israel Journal of Health Policy Research*, 1:11.
- Peleg R, Nazarenko E (2012). Providing cell phone numbers and e-mail addresses to patients: the patient's perspective, a cross sectional study. *Israel Journal of Health Policy Research*, 1:32.

- Pessach N et al. (2014). The Israeli National Committee for Sex Selection by Pre-implantation Genetic Diagnosis: a novel approach (2005–2011). *Israel Journal of Health Policy Research*, 3:33.
- Roe D et al. (2015). Implementing routine outcome measurement in psychiatric rehabilitation services in Israel. *International Review of Psychiatry*, 27:345–353.
- Rosen LJ, Peled-Raz M (2015). Tobacco policy in Israel: 1948–2014 and beyond. *Israel Journal of Health Policy Research*, 4:12.
- Rosen LJ et al. (2013). Do health policy advisors know what the public wants? An empirical comparison of how health policy advisors assess public preferences regarding smoke-free air, and what the public actually prefers. *Israel Journal of Health Policy Research*, 2:20.
- Roth AE, Shorrer RI (2015). The redesign of the medical intern assignment mechanism in Israel. *Israel Journal of Health Policy Research*, 4:11.
- Saltman RB (2015). Health sector solidarity: a core European value but with broadly varying content. *Israel Journal of Health Policy Research*, 4:5.
- Sax P (2014). The shaping of pharmaceutical governance: the Israeli case. *Israel Journal of Health Policy Research*, 3:16.
- Sax P, Shmueli A (2010). Impact of pharmaceutical regulation and policies on health system performance goals in Israel. *Advances in Health Economics and Health Services Research*, 22:77–101.
- Shahrabani S et al. (2015). The use of dental services for children: implications of the 2010 dental reform in Israel. *Health Policy*, 119:117–126.
- Shani S, Yahalom Z (2013). Legal and regulatory aspects of orphan drugs. *Pediatric Endocrinology Reviews*, 11(suppl 1):110–115.
- Shani M et al. (2014). Structured nursing follow-up: does it help in diabetes care? *Israel Journal of Health Policy Research*, 3:27.
- Shenhar G et al. (2015). The impact of a national earthquake campaign on public preparedness: 2011 campaign in Israel as a case study. *Disaster Medicine and Public Health Preparedness*, 9:138–144.
- Shmueli A (2015). On the calculation of the Israeli risk adjustment rates. *European Journal of Health Economics*, 16:271–277.
- Shmueli A, Nissan-Engelcin E (2013). Local availability of physicians' services as a tool for implicit risk selection. *Social Science and Medicine*, 84:53–60.
- Shmueli A et al. (2010). Health care costs during the last 12 months of life in Israel: estimation and implications for risk-adjustment. *International Journal of Health Care Finance and Economics*, 10:257–273.
- Shmueli A et al. (2015). Managed care in four managed competition OECD health systems. *Health Policy*, 119:860–873.
- Shuval JT, Averbuch E (2012). Complementary and alternative health care in Israel. *Israel Journal of Health Policy Research*, 1:7.
- Siciliani L (2014). Inequalities in waiting times by socioeconomic status. *Israel Journal of Health Policy Research*, 3:38.
- Siegel G (2014). Making the case for directed organ donation to registered donors in Israel. *Israel Journal of Health Policy Research*, 3:1.
- Simonstein F et al. (2014). Assisted reproduction policies in Israel: a retrospective analysis of in vitro fertilization–embryo transfer. *Fertility and Sterility*, 102:1301–1306.

- Sperling D (2014). Needs, expectations and public knowledge concerning services outside the medical basket: a lesson from Israel. *Health Policy*, 117:247–256.
- Toren O et al. (2014). Examining professional boundaries between nurses and physicians in neonatal intensive care units. *Israel Journal of Health Policy Research*, 3:43.
- Velan B et al. (2013). Analysis of public responses to preparedness policies: the cases of H1N1 influenza vaccination and gas mask distribution. *Israel Journal of Health Policy Research*, 2:11.
- Weil LG, Nun GB, McKee M (2013). Recent physician strike in Israel: a health system under stress? *Israel Journal of Health Policy Research*, 2:33.
- Werner P, Friedland RP, Inzelberg R (2015). Alzheimer's disease and the elderly in Israel: are we paying enough attention to the topic in the Arab population? *American Journal of Alzheimers Disease and Other Dementias*, 30:448–453.
- Yamin D et al. (2014). Role of intervention programs to increase influenza vaccination in Israel. *Israel Journal of Health Policy Research*, 3:13.
- Zalmanovitch Y, Vashdi DR (2014). The relationship between socio-economic factors and responsiveness gaps in primary, preventative and health promotion services. *Health Expectation*, 18:2638–2650.
- Zimmerman DR (2013). Community-based urgent care in Israel and worldwide. *Israel Journal of Health Policy Research*, 2:38.
- Zisberg A et al. (2015). Hospital-associated functional decline: the role of hospitalization processes beyond individual risk factors. *Journal of the American Geriatrics Society*, 63:55–62.
- Zucker I et al. (2013). Regional gaps in the provision of inpatient rehabilitation services for the elderly in Israel: results of a national survey. *Israel Journal of Health Policy Research*, 2:27.

## 9.4 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory's research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. 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/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010>.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over

1200 indicators for the 34 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 WHO Regional Office for Europe for the purpose of monitoring Health in 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 summer 2013 edition, the Health for All database started to take account of the enlarged EU of 28 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 consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers are paid.
4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which information technology systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.

5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.
6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process (see the following section).
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (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.

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

## 9.5 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

## 9.6 About the authors

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- 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;
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Uzbekistan (2001<sup>g</sup>, 2007<sup>g</sup>, 2014)  
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### Key

All HiTs are available in English.  
When noted, they are also available in other languages:

<sup>a</sup> Albanian

<sup>b</sup> Bulgarian

<sup>c</sup> French

<sup>d</sup> Georgian

<sup>e</sup> German

<sup>f</sup> Romanian

<sup>g</sup> Russian

<sup>h</sup> Spanish

<sup>i</sup> Turkish

<sup>j</sup> Estonian

<sup>k</sup> Polish



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HiTs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.