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TRENDS IN ISRAEL'S HEALTHCARE SYSTEM

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Trends in Israel's Healthcare System

Dov Chernichovsky and Eitan Regev*

Abstract

This chapter reviews developments in the Israeli healthcare system over the past year, and finds that the health status of the population, and particularly of the country's minorities, continues to improve, and that the population is reasonably satisfied with the system. However, the healthcare system continues to play a role in widening income gaps; it also continues to exhibit a loss of efficiency evident in the rise in healthcare costs that exceeded the rise in the consumer price index. These trends are related to an ongoing policy of substituting public funding with private funding of the system, and to promotion of private service-provision arrangements via supplemental insurance. Continued decline in the share of public funding of the health system is liable to further impair the public system's ability to address increases in need of a wealthier and fast-aging population – rather than reinforcing the system especially during a period of economic crisis and worsening income disparities, which are known health risk factors. In light of this, the chapter also discusses possible supplemental insurance arrangements that might improve the situation.

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Developments in Israel's healthcare system in 2013 were overshadowed by the change of government that took place during that year. A few reform initiatives of the previous government, mainly in the mental health sphere, are moving forward (see the chapter by Aviram, "The Law for Rehabilitation in the Community of Persons with Mental Disabilities" in this report). On other issues, however, such as long-term care, a freeze is in place.

In terms of general policy, one can hardly avoid observing the absence of any long-term policy addressing the system's fundamental problems – those relating to, on the one hand, widening disparities and growing demand and, on the other hand, a reduced supply of the personnel and infrastructures needed to meet these demands, particularly within the public healthcare system.

Within this overall context the chapter discusses the issue of supplementary insurance, with special attention to the blurring of boundaries between those healthcare services that are provided as part of the public entitlement and services provided in the framework of various privately funded packages.

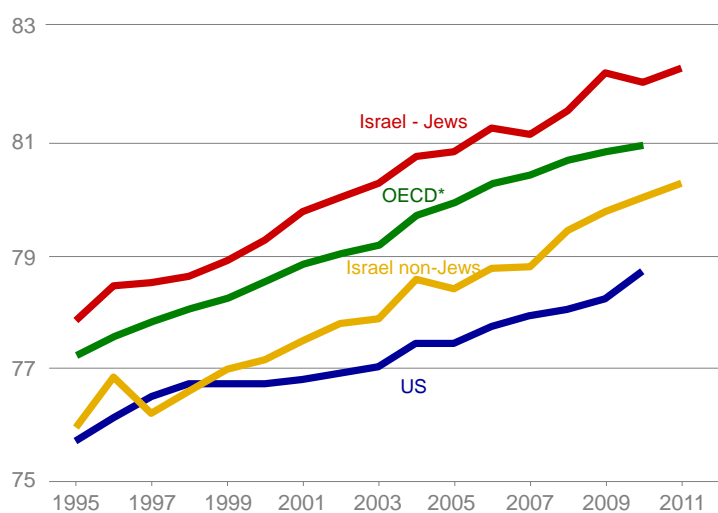
1. The System's Achievements

The achievements of Israel's healthcare system are measured in terms of two main perspectives: the population's health and satisfaction with health services. Several secondary principles that impact the main perspective are measured as well: equity, cost containment and sustainability, efficiency of services, and extent of choice.

The Population's Health Status: Life Expectancy and Infant Mortality

The Israeli population's consistent rise in life expectancy has continued, and Israel's showing in this area remains higher than that of the average of the developed OECD countries (Figure 1). The greatest relative improvement in life expectancy was shown by the non-Jewish population: from 80:0 in 2010 to 80.3 in 2011. The Jewish population also showed a rise in life expectancy, though slightly less: from 82.1 in 2010 to 82.3 in 2011.

Figure 1
Life expectancy at birth, 1995-2011



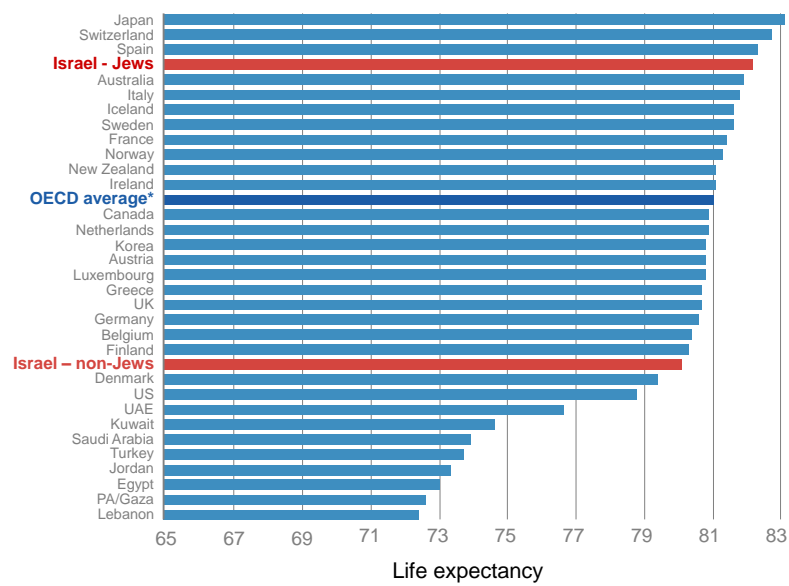
* Average of the 23 most developed OECD countries (excluding the U.S.)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

It is worth noting that the life expectancy of non-Jewish Israelis, by and large Arab Israelis, is higher than in the Arab and Muslim world – at least those in Israel’s vicinity (Figure 2). Nevertheless, it is still lower than that of the Jewish population and most Western countries. That is to say, this population’s improved life expectancy embodies a more general potential for improved Israeli life expectancies overall.

Figure 2
Life expectancy at birth, 2010



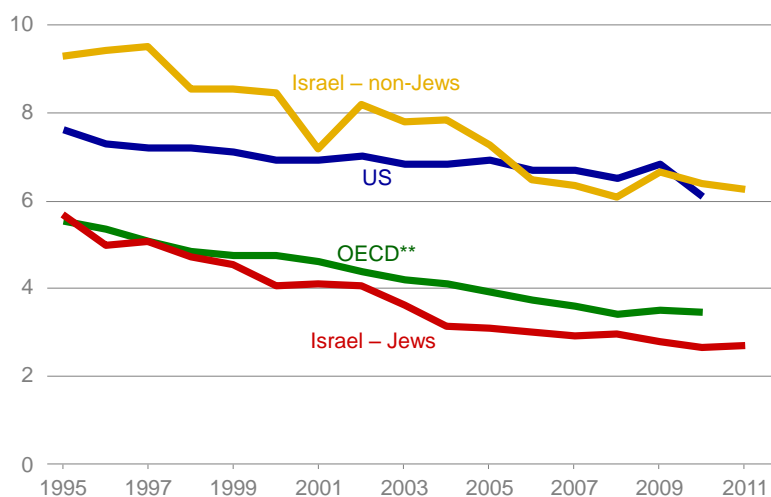
* Average of the 23 most developed OECD countries (excluding the U.S.)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

Most of the potential for improved life expectancy lies in the infant mortality rate. In this sphere a slight improvement was found within the non-Jewish population, while the Jewish population displayed no meaningful improvement – as might have been expected given the latter population's already-low infant mortality rate. However, the gaps between the sectors in this area are still large (Figure 3), and reducing them remains a major challenge for the healthcare system.

Figure 3
Infant mortality over time*, 1995-2011



* Infant mortality up until age 1 per 1,000 live births

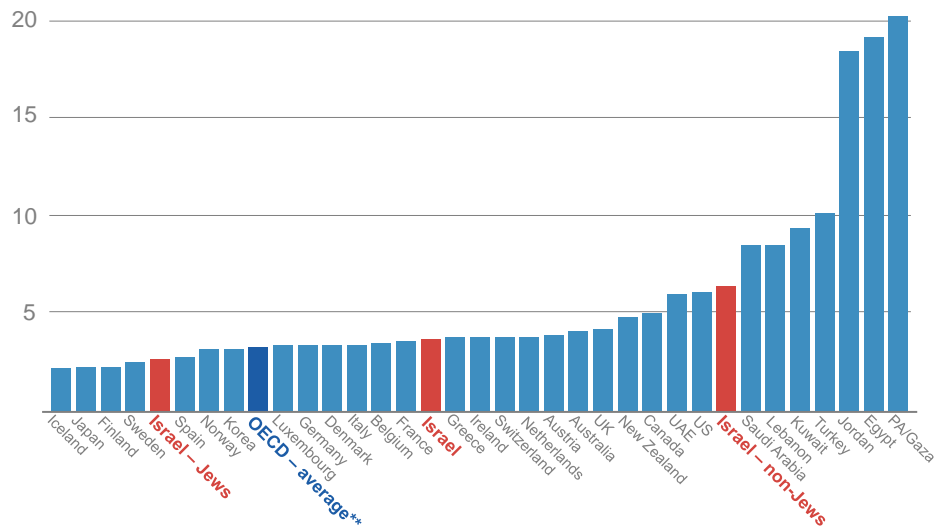
** Average of the 23 most developed OECD countries (excluding the U.S.)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

An international comparison of infant mortality rates shows that Israel continues to improve its standing (with regard to the population as a whole), and its rate is similar to the OECD average (Figure 4).

Figure 4
Infant mortality across countries*, 2010



* Infant mortality up until age 1 per 1,000 live births

** Average of the 23 most developed OECD countries (excluding the U.S.)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD, The World Bank

The Population's Satisfaction with the System

It is difficult to compare levels of satisfaction with the various parts of the healthcare system, due to a lack of comparable data. Surveys conducted in recent years by the Taub Center and by the Myers-JDC-Brookdale Institute (2012) found an improvement on most service-quality parameters that were assessed for the health funds. In general, the percentage of respondents who were satisfied or very satisfied with the healthcare system is relatively high (69 percent in 2009 and 63 percent in 2007). It should, nevertheless, be noted that levels of satisfaction with the healthcare system as a whole are lower than levels of satisfaction with the services provided by the health funds (in the community) – 90 percent of the respondents stated that they were satisfied or very satisfied with the health funds in general.

These findings are consistent with the fact that most services are provided in the community. Compared with hospitalization, service in the community is faster, lines are shorter, and the patient load is lighter. (One reason for this may be that, within the framework of community-based service, fewer patients are referred for treatments funded by supplemental insurance.)

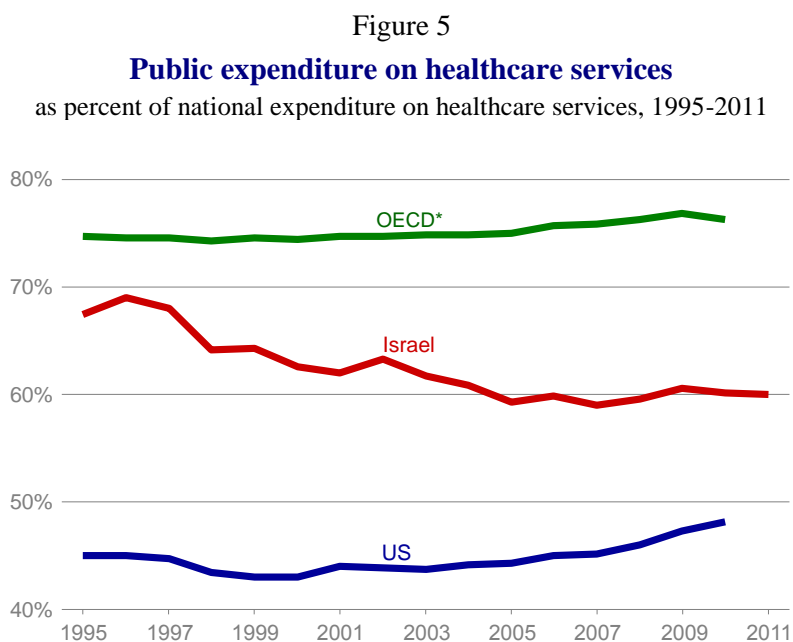
Bramli-Greenberg et al. (2011) find relatively high levels of satisfaction with the healthcare system among Arab Israelis (85 percent) and the elderly (76 percent). These groups are characterized by a socioeconomic profile that is lower than the overall population average; satisfaction with the healthcare system provides a positive indication that they are receiving service at an appropriate level. At the same time, however, the finding may indicate that these groups are more dependent on the public healthcare system, given the high cost of private alternatives, meaning that they are unable to compare the care provided by the private system with that provided by the public system – and may thus be unaware of the potential for a different level of care.

The Healthcare System's Medium-Term Socioeconomic Objectives

The system's medium-term objectives, reflecting its underlying principles, relate to equity, cost containment and sustainability, service-provision efficiency, and extent of choice. In addition to their functional aspects in improving the population's health and satisfaction with care, these principles also have intrinsic value, particularly with regard to equity and extent of choice.

Equity. Equity here relates to two issues: (a) the progressivity of healthcare financing, which aids in reducing income disparities by protecting household incomes from unexpectedly high health service expenditures; and (b) improved access to healthcare, especially in terms of weakening the link between access to care and the ability to pay for it. Failings in both of these spheres ultimately result in health gaps between populations of differing economic levels, and this is happening in Israel as well, especially since growing income disparities in themselves are health risk factors (Chernichovsky and Chinitz, 2013).

Progressivity is expressed primarily in the share of public funding in the system, given the dominant share of the progressive income tax underlying this funding. The share of public funding in Israel's total national health expenditure has had a downward trend: in 2011 public funding accounted for 60.0 percent of the total expenditure, compared with 67.4 percent when the healthcare system reform was instituted in 1995, 76.3 percent in the OECD countries, and 48.2 percent in the United States. When one compares Israel with the United States and the other OECD countries, one finds that the trend in recent years in the U.S. and the OECD countries has been opposite to that of Israel: they have shown a rise in the share of public funding as a percentage of the national health expenditure (Figure 5).



* Average of the 23 most developed OECD countries (excluding the U.S.)

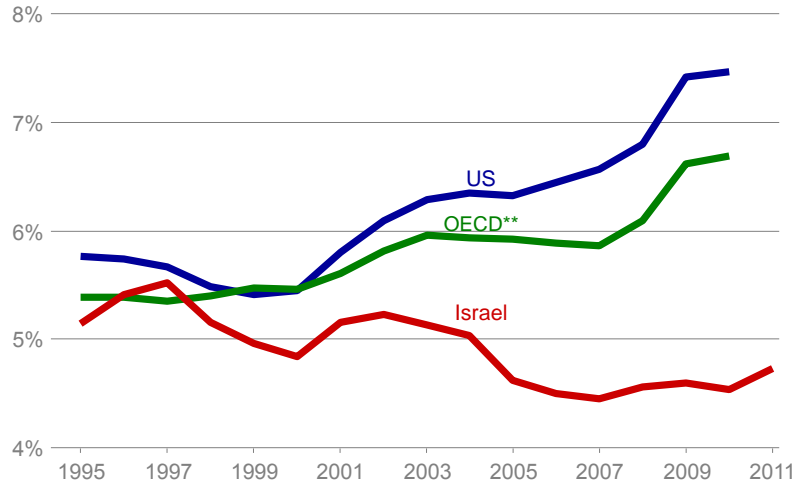
Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

The declining share of public funding of the system that, as noted, is peculiar to Israel, stands out all the more sharply when public funding is measured as a proportion of the GDP.¹ As may be seen in Figure 6, the share of public healthcare funding in Israel's GDP has declined, and despite a modest rise in 2011, it remains low relative to all of the countries with which Israel is identified politically and economically – even after adjustments for the age factor in other countries.

¹ It is worth noting that the expenditure's percentage of GDP represents the healthcare expenditure per capita compared with the economy's production capability.

Figure 6
Public expenditure on healthcare services
 as percent of GDP*, 1995-2011



* Adjusted for standardized person in Israeli risk adjustment terms (old capitation method) as percent of regular GDP

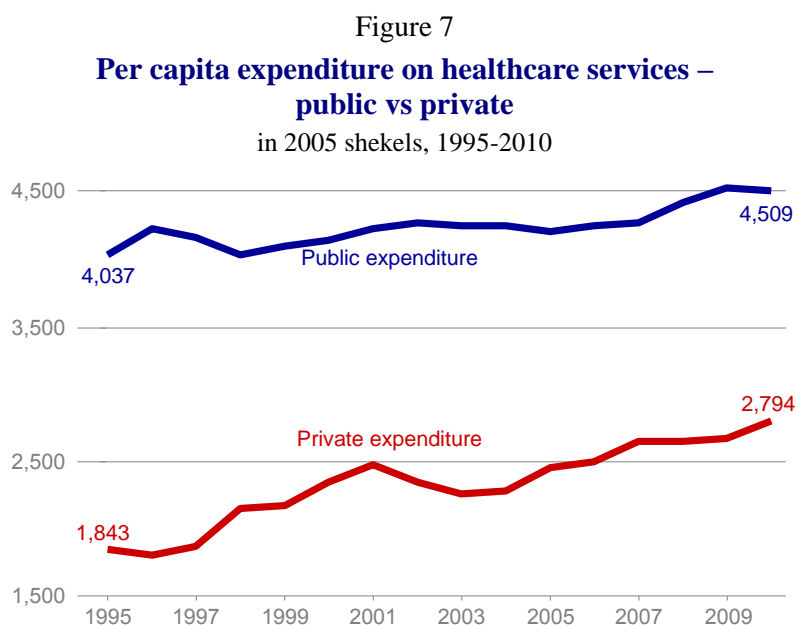
** Average of the 23 most developed OECD countries (excluding the U.S.)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: OECD

In terms of healthcare expenditure per capita, during the period 1995-2010 Israel's public expenditure grew by just 11.7 percent: from NIS 4,037 to NIS 4,509 (2005 prices) and was characterized by a high degree of fluctuation – point-specific budgetary increases followed by long periods of gradual erosion. Major budgetary increases were authorized only once every few years, usually in response to crises arising from these periods of budgetary erosion. At the same time,

private per capita expenditure grew steadily during the same period, for a total of 51.6 percent: from NIS 1,843 to NIS 2,794 (Figure 7).



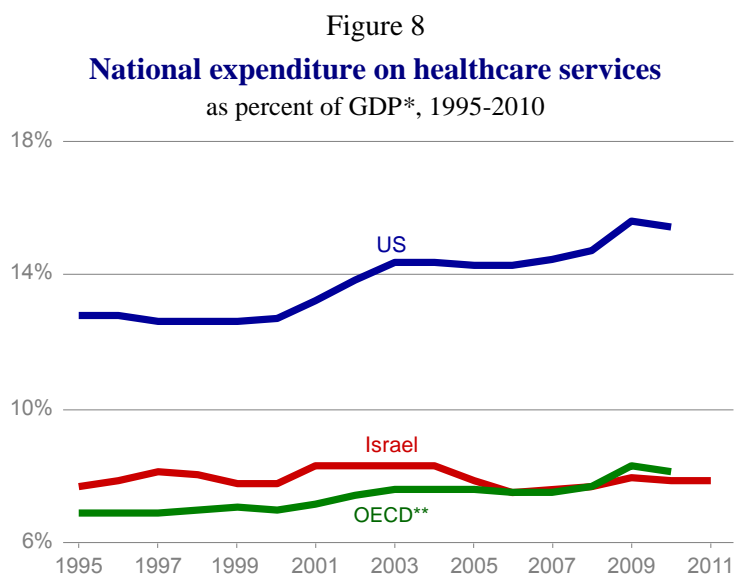
Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: OECD

The regressive nature of Israeli healthcare financing is reflected in household budgets: the increase in private funding of healthcare translates into a worsening disposable-income distribution situation (after payments for health care) and deeper poverty among sectors that were already poor. It also results in less accessibility to services among these groups, due both to a decline in their ability to pay the rising prices and to a lack of availability of healthcare services (Navon and Chernichovsky, 2012).

Ultimately the large gaps in access to healthcare, and the role played by private funding in widening these gaps, are liable also to increase health-status polarization between Israel's stronger and weaker populations – and, thereby, to limit the potential for improving the mean health level of the overall Israeli population.

Cost containment and sustainability. Israel's national healthcare expenditure – including both public and private expenditure – was NIS 67.4 billion in 2011, accounting for 7.9 percent of GDP. Taking into account the differing age distributions of the countries compared (the percentage of young people in Israel's population is relatively high), Israel has a low rate of expenditure relative to other Western countries – placing Israel below the average of the OECD's 23 most developed countries (8.1 percent) – except for the U.S., which continues to deviate with its high rate of health expenditure as a percentage of GDP: 15.5 percent (Figure 8).



* Adjusted for standardized person in Israeli risk adjustment terms (old capitation method) as percent of regular GDP

** Average of the 23 most developed OECD countries (excluding the U.S.)

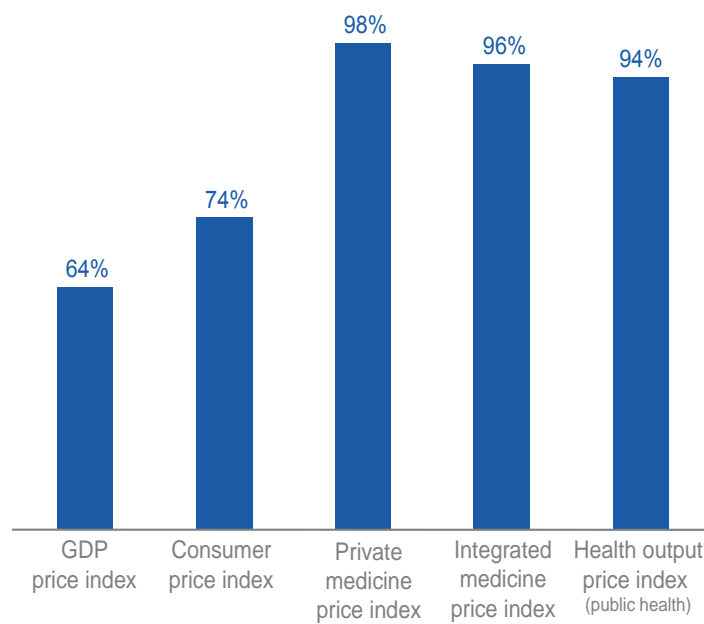
Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

In 2011, there was a slight rise in Israel's rate of national expenditure on healthcare. However, due to a decline in public expenditure relative to GDP, the total nominal healthcare expenditure as a proportion of GDP remained the same. This is not the situation when real expenditures which are determined in terms of the change in healthcare cost relative to the change in the GDP price index are examined. In this context, Israel's healthcare system is losing its ability to contain the increase in healthcare expenditure due to inflation relative to the cost of services.

As may be seen in Figure 9, the composite healthcare price index rose by 96 percent and the private healthcare price index rose by 94 percent from 1995 to 2011, while the GDP price index rose by only 64 percent. What this means is that in terms of the services available healthcare's share of the GDP declined to a degree beyond that indicated by the percentages in the figure.

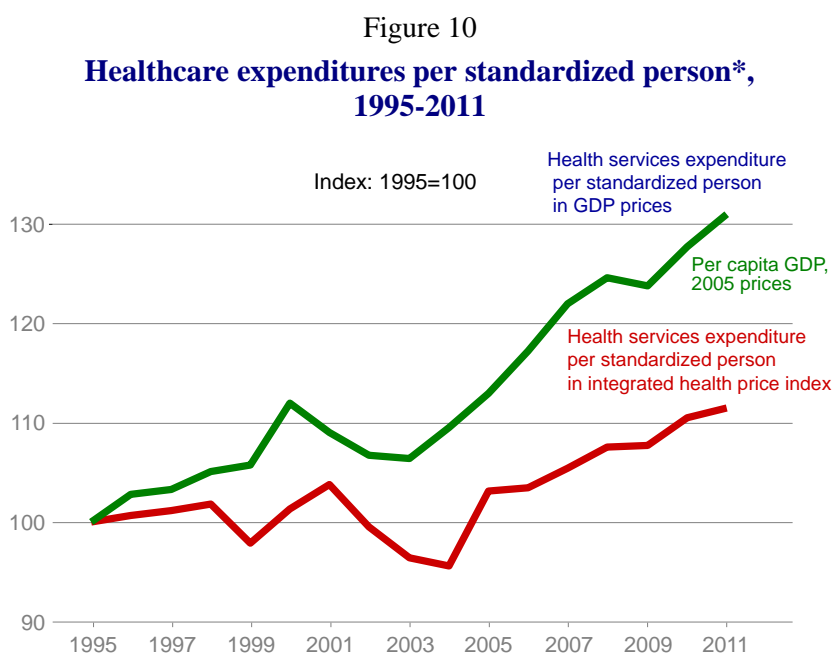
Figure 9
Changes in the price indices, 1995-2011



Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, Ministry of Health

The ramifications of the rise in prices may be seen in Figure 10. Since 1995 there has been a real increase of just 11.6 percent in healthcare purchasing power parity per standardized person in Israel – despite the fact that the real GDP per capita rose by 33 percent during the same period.



* Adjusted for standardized person in Israeli risk adjustment terms (old capitation method) through 2010

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics

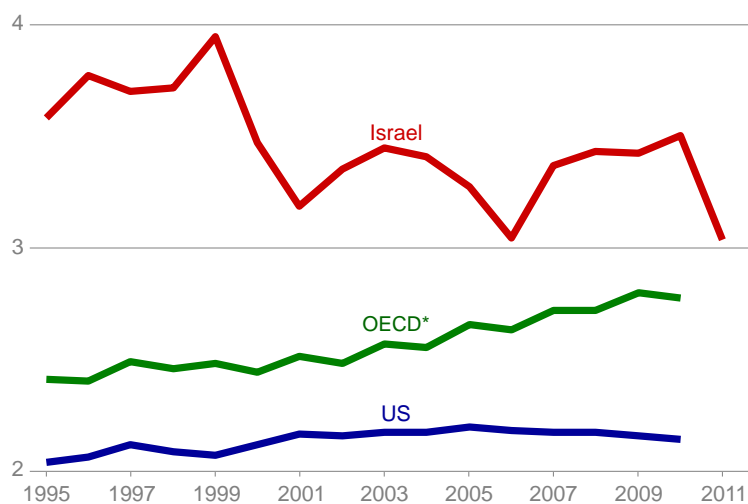
2. Structural Issues and the Lack of a Long-Term Policy

A lack of long-term planning and strategy in Israel's healthcare system is reflected in relatively little investment in both manpower and infrastructure, despite the fact that an aging population and rising income levels are expected to bring about a rise in demand for medical services. The growing gap between demand and supply is leading to a rise in demands within the privately funded system and to inflated service prices. These trends have worsened in light of the diversion of supplemental insurance funds to private healthcare.

Supply of physicians. Over the years, Israel has enjoyed a high physician-to-population ratio compared with other developed countries and the United States. A significant increase in this ratio occurred during the early 1990s due to the large number of physicians who came to Israel in the great wave of immigration from the former Soviet Union.

However, by the late 1990s, a downward trend could already be discerned in Israel's physician-to-population ratio, and the gap narrowed between Israel and the OECD countries (per thousand people). As a result of this trend, Israel's ratio of physicians per thousand people has declined to 3.0 versus 3.4 in the OECD countries and 2.4 in the United States (Figure 11). In this context, it is important to note, however, a lack of age-adjusted population data; when Israel's high proportion of young people compared with the OECD countries is taken into account, Israel's situation is actually better than that indicated by the figures.

Figure 11
Physicians per 1,000 standardized persons, 1995-2011



* Average of the 23 most developed OECD countries (excluding the U.S.)

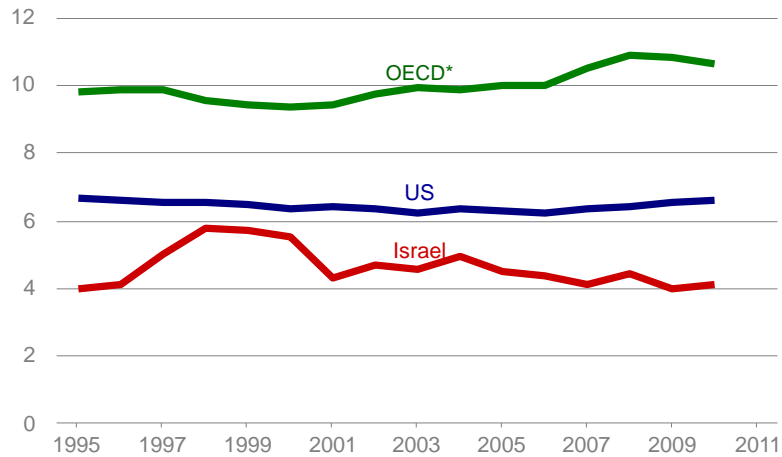
Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

The reason for this trend can be seen in Figure 12, which presents the number of newly-licensed physicians per year in Israel, the United States, and selected OECD countries.

Moreover, in recent years, Israel's ratio of medical school graduates has been 4 per hundred thousand people, compared with 5 graduates per hundred thousand people in the United States and 11 graduates in the OECD. This trend is worrisome, and is now the main factor behind the drop in Israel's physician-to-population ratio.

Figure 12
Medical school graduates per year
 per 100,000 population, 1995-2010



* Average of the 23 most developed OECD countries (excluding the U.S.)

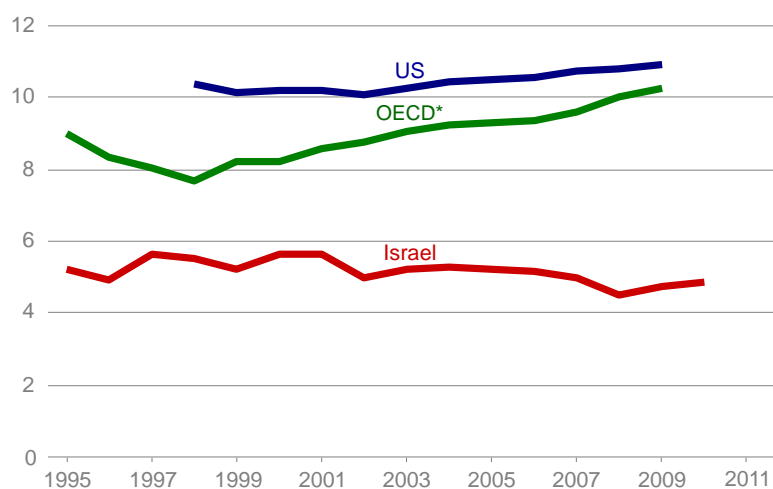
Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

The data do not, of course, reflect relative shortages in specific medical specialties or in the distribution of Israeli physicians between public and private healthcare or between Israel's geographic center and the periphery. It is well known, however, that physician manpower, particularly specialists, are being siphoned out of the public system and into the private market, and that the relative shortage of physicians in the public system is worsening, especially in terms of specialists. As noted, at the core of the process lies the replacement of public funding with supplemental insurance, which creates ever-greater demand outside of the public system.

Nursing manpower. The situation with regard to nursing manpower is even more troubling than that of physicians. In contrast to an upward trend in the ratio of nurses per thousand population seen in recent years by the United States and the rest of the developed OECD countries, Israel has shown an opposite trend: the ratio of nurses per thousand population declined throughout the past decade. In 2011, Israel had only 4.9 nurses per thousand people, versus 10.3 in the OECD, and 11.0 in the United States (Figure 13). In other words, the Western-country nurses-per-thousand-people ratio is over twice that of the Israeli ratio – and is trending upward relative to the Israeli rate.

Figure 13
Nurses per 1,000 population, 1995-2010



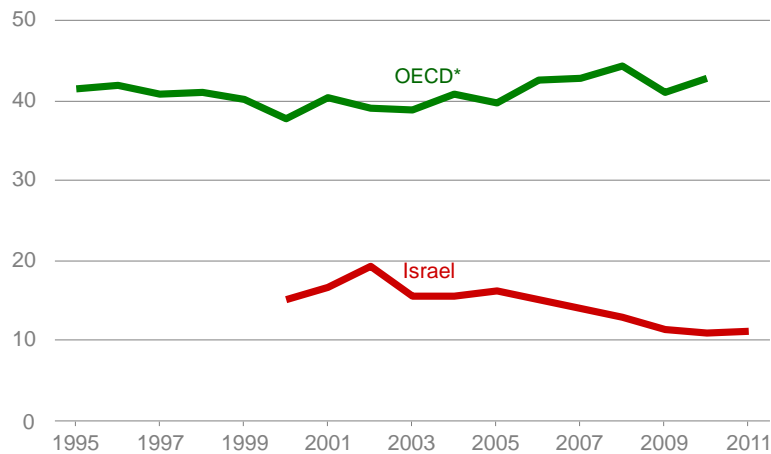
* Average of the 23 most developed OECD countries (excluding the U.S.)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

As is the case with physicians, the decline in the nurse-to-population ratio stems from an ongoing decline in the annual graduation rate of new nurses (Figure 14). In 2011, Israel's annual qualified nurse graduation rate (per thousand population) was only 11.2, compared with 42.8 in the OECD (nearly four times the Israeli figure). No less troubling is the fact that, during the past decade alone, Israel's annual graduation rate for nurses dropped by 43 percent. This decline is rooted in two main, mutually reinforcing factors – wages that do not constitute an adequate incentive for prospective new nurses, and an excessive workload due to the nursing manpower shortage. These factors have made the profession less attractive and have been a major catalyst for the worrisome trend (Nirel et al., 2010).

Figure 14
Nursing graduates per year
 per 100,000 population, 1995-2011



* Average of the 23 most developed OECD countries (excluding the U.S.)

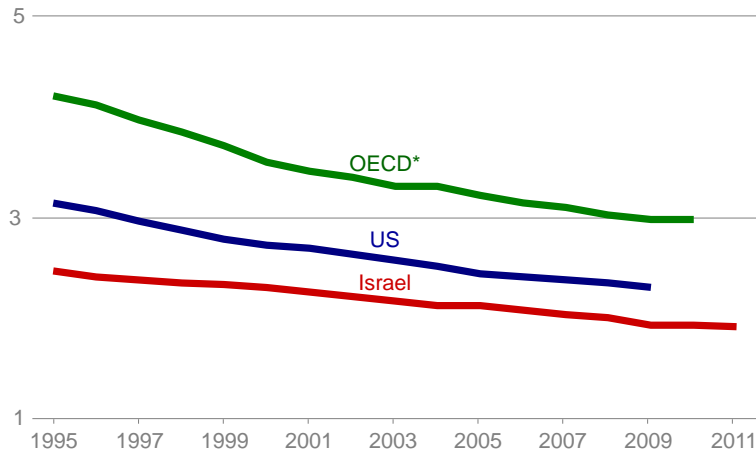
Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

As noted, these trends have resulted in a serious manpower crisis especially in the publicly-funded system that is reflected in heavy nursing workloads and long, exhausting shifts. Moreover, due to the declining rate at which new nurses are earning their qualifications, the average age of Israeli nurses has risen substantially: half are now 45 or over. That is, today's nurses are both older than in the past, and carry heavier workloads. It is, therefore, not surprising that a nurses' strike was declared in late 2012, aimed at improving Israeli nurses' wage conditions. The strike ended after a month-long struggle with the signing of a new wage agreement featuring significant increases. It is to be hoped that this will be sufficient to increase the rate at which new nurses enter the field (Nirel et al., 2010).

Infrastructure – hospital beds. Concurrently with the worsening manpower situation, Israel's healthcare system also experienced a trend toward the erosion of other resources. The 2011 ratio of inpatient beds per thousand standard people continued to decline, and remained significantly lower than the ratio in the OECD's most developed countries and the United States: just 1.91 beds per thousand people in Israel, versus 2.30 beds in the U.S., and 2.98 beds in the OECD countries (Figure 15).

Figure 15
General hospital beds
 per 1,000 standardized persons, 1995-2011



* Adjusted for standardized person in Israeli risk adjustment terms (old capitation method)

** Average of the 23 most developed OECD countries (excluding the U.S.)

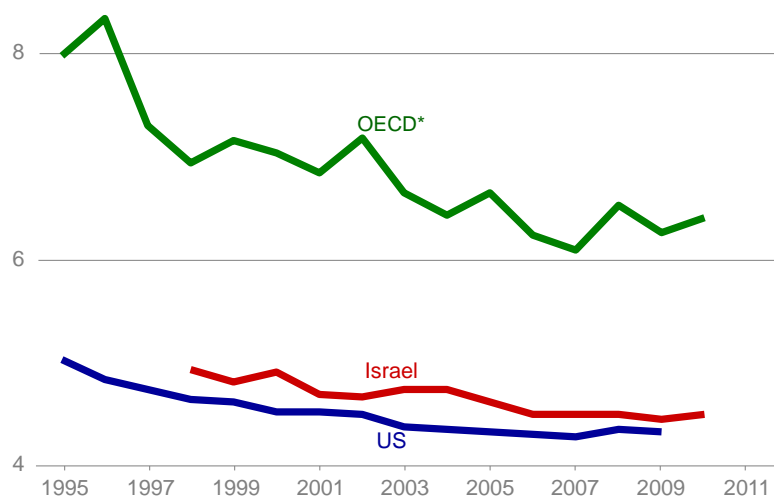
Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

The downward trend of recent decades in general of acute care inpatient bed numbers, observed in the United States and the rest of the developed OECD countries as well, appears primarily to reflect technological developments that have led to a decline in the mean number of hospitalization days per capita. However, while the OECD's mean number of hospitalization days (per standardized person) is 6.4, and that of the United States is 4.3, the Israeli figure is 4.5 days (Figure 16). This suggests that when the number of hospital beds relative to the population is taken into account, Israel is slightly more efficient than the OECD and

the United States in how its inpatient bed numbers per capita are utilized in terms of hospitalization days. This, along with relatively large manpower numbers, aid the Israeli system in compensating, to some degree, for its inpatient bed shortage, and in maintaining its performance level.

Figure 16
Average length of hospital stay in days, 1995-2010
 per standardized person



* Average of the 23 most developed OECD countries (excluding the U.S.)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

3. Supplemental Insurance in Israel: Ideas for Organizing the System Along the Dutch and British Models

Supplemental insurance is a major structural issue within the Israeli healthcare system given the diversion of the funds obtained from this insurance – which are public in character – to the funding of medical care provided by privately-owned institutions. The consequences of this situation are discussed at length in earlier Taub Center reports, as well as in the present chapter. The issue was also the main topic of a conference held by the Taub Center in February 2013, with the participation of international experts and senior figures in Israel's Ministry of Health. This portion of the present chapter is based, among other things, on the presentations of an expert from the United Kingdom, Mr. Mark Bassett, and an expert from the Netherlands, Professor Wynand van de Ven. Both conclude that the way in which Israel defines its basic healthcare basket is not adequate in terms of clarifying resident rights, and that the system lacks the information and competitiveness needed to safeguard rights where the basic basket is concerned.

In this section several main points are covered with the aim of presenting the issue from the broadest possible perspective. In order to do this, Israeli supplemental insurance will be compared, not with specifics, but rather with the general approaches to supplemental insurance that prevail in the Dutch and British healthcare systems. The main focus of these approaches is not the party offering the services covered by private insurance, but rather the question of how the citizen can exercise his rights in the most effective and intelligent manner.

At the heart of Bassett and van de Ven's criticism of Israeli supplemental insurance lies the argument that this kind of insurance is insufficiently regulated, and that it therefore leads to a blurring of boundaries between entitlements included in the basic basket of services and entitlements conferred by the supplemental basket. Beyond the regressive manner in which supplemental insurance is funded, this

blurring of boundaries is causing a rise in inequity both in terms of access to the basic basket and in terms of declining service efficiency, reflected in inflation – as demonstrated in the discussion above.

Supplemental Insurance: General Background

Supplemental insurance aims to achieve two interdependent objectives. Firstly, it is meant to provide the population with freedom of choice that the publicly-funded system cannot offer. Secondly, it aims to reduce the pressure to fund services through the public budget.

Resident rights. From the service-recipient's viewpoint, the main issue with supplemental health insurance is a prevailing lack of clarity regarding the possibility of maximizing one's rights within the basic insurance framework, before paying for supplemental insurance. The lack of clarity enables both insurers and service providers to often fund, via supplemental insurance, services that, on the face of it, ought to be funded via general taxation and the health tax.

The Netherlands found a solution to this problem in the framework of a personal insurance policy between insurer and citizen – for basic insurance as well. The policy sets forth in detail the citizen's rights with regard to each type of insurance – basic and supplemental (should the citizen choose the latter).

The policy's main features regarding the basic service package must be set forth clearly and address the following points:

1. Types of diagnosis and treatment to which the citizen is entitled through each of the two insurance formats.
2. Minimum standards for treatment provision, especially with regard to maximum waiting times for care.
3. Designation of the service provider who is required to provide service (in order to prevent situations where the same provider offers the same service via both private and public funding).

4. Quality of care criteria.
5. Criteria regarding legal responsibility for care.

In addition, criteria must be defined in a number of areas relating to supplemental insurance so as to establish the coverage obligation framework and the group premium that characterizes this form of insurance:

1. Develop a clear and unambiguous list of the diagnoses and treatments covered by supplemental insurance.
2. Develop a list of authorized service providers.
3. Set maximum care prices and co-payments, if needed.

Although the Dutch solution to the problem of supplemental insurance constitutes a revolution in practical terms, it is not revolutionary in terms of its overall outlook. From this point of view there can be no doubt of its suitability for Israel as well.

Increasing competition. The Israeli system is based on managed competition among four health funds (Israeli health funds are similar to HMOs) and suppliers. In this context the small number of Israeli health funds should be noted, which places the market's degree of competitiveness in question while casting doubt on the wisdom of maintaining a health-funds-based system (rather than a single fund along the lines of the U.K.'s National Health Service). Against this background one should remember that the Netanyahu Commission recommended raising the number of health funds to eight, in order to increase competition for service provision in Israel.

Increasing competition by adding health funds to the system, so as to bring the health fund-population ratio closer to that of the Netherlands²,

² In the Netherlands there are 40 health funds serving a population of 17 million people. There is no research pointing to economies of scale for health funds on the Israeli order of magnitude, but if economies of scale should be found on the orders of magnitude for the Israeli funds – particularly *Clalit* Health

might aid in motivating the health funds to improve the basic service basket as well as any supplemental baskets offered.

Information. Information is a basic condition of fair and effective managed competition. Governmental activity aimed at disseminating clear and accessible information on resident rights and quality of care, especially with regard to the basic healthcare basket and the health funds' performance in providing it, is essential in enabling residents to make informed choices – to select health funds that assure optimal service provision to their members, especially regarding those services that are part of the entitlement.

Services, the largest of the funds – then it would be worth considering a single national health fund, i.e., a national health service consistent with the British model.

References

English

Navon, Guy and Dov Chernichovsky (2012), *Private Expenditure on Healthcare, Income Distribution, and Poverty in Israel*, Discussion Paper No. 2012.12, Research Department, Bank of Israel.

OECD, Data Base, stats.oecd.org.

Taub Center for Social Policy Studies in Israel, "The Social Survey," in Yaakov Kop (ed.), *Israel's Social Services*, various years.

Hebrew

Bramli-Greenberg, Shuli, Revital Gross, Yifat Yair, Eyal Akiva (2011), *Public Opinion on the Level of Service and Performance of the Healthcare System in 2009 and in Comparison with Previous Years*, Research Report, Myers-JDC-Brookdale Institute.

Chernichovsky, Dov and David Chinitz (2013), "Cutbacks are paid for in health," *Haaretz*, August 19.

Nirel, Nurit, Yifat Yair, Hadar Samuel, Shoshana Riba, Sima Reicher, Orly Toren (2010), *Registered Nurses in Israel: Workforce Supply – Patterns and Trends*, Research Report, Myers-JDC-Brookdale Institute.