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**FINANCING AND WORK FORCE ISSUES  
IN ISRAEL'S HEALTHCARE SYSTEM**

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**מגמות מימון וכוח אדם במערכת הבריאות**

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# Financing and Work Force Issues in Israel's Healthcare System

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Dov Chernichovsky and Eitan Regev\*

## *Abstract*

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*This chapter will discuss two structural problems in the healthcare system: the continued downward trend in the share of public funding for the system and the ongoing decline in the supply of the physician work force relative to the population, with particular emphasis on the aging of the physician population. Both of these problems pose a risk to Israel's good performance with regard to its population's health. In contrast to the trends in the healthcare systems of other developed countries, including the United States, there is a continuing shift towards greater private funding in the Israeli healthcare system. This trend widens the disparities in access to health services and widens overall gaps between income groups. These changes in the healthcare system are the result not only of the diminishing share of public funding, but are also due to the fact that a large portion of private financing occurs via out-of-pocket expenditure. Although some 80 percent of the population has supplemental insurance in Israel, this insurance does not contribute sufficiently to reducing direct out-of-pocket expenditure, unlike in other countries where the private insurance system is more developed. The aging of the physician population is another issue. While it is beneficial that older physicians bring with them greater experience to the healthcare system, considering the overall decline in the number of physicians relative to the population in Israel, this trend could lead to a further drop in the supply of practicing physicians.*

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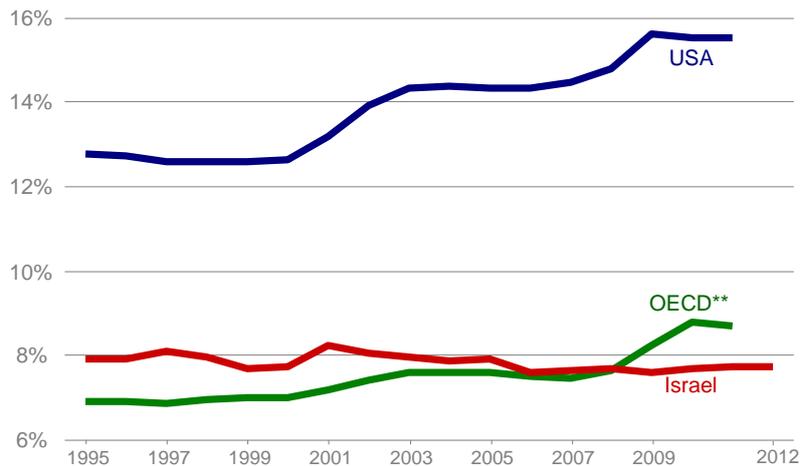
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## 1. National Expenditure on Healthcare Services and the Composition of the System's Funding

### Total Expenditure on Healthcare Services

The national expenditure on healthcare services in Israel, including public and private spending, was NIS 73.8 billion in 2012, which is 7.7 percent of GDP (Figure 1). Even when taking into account the differences in each country's age distribution (Israel has a relatively low rate of elderly in the population – only 10 percent compared to 16 percent in Western Europe and the United States), Israel's healthcare spending is at a low level compared to other developed countries with national health insurance systems.

Figure 1  
National healthcare expenditure\*  
as percent of GDP, 1995-2012



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

\*\* Average for 23 OECD countries (excluding USA)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

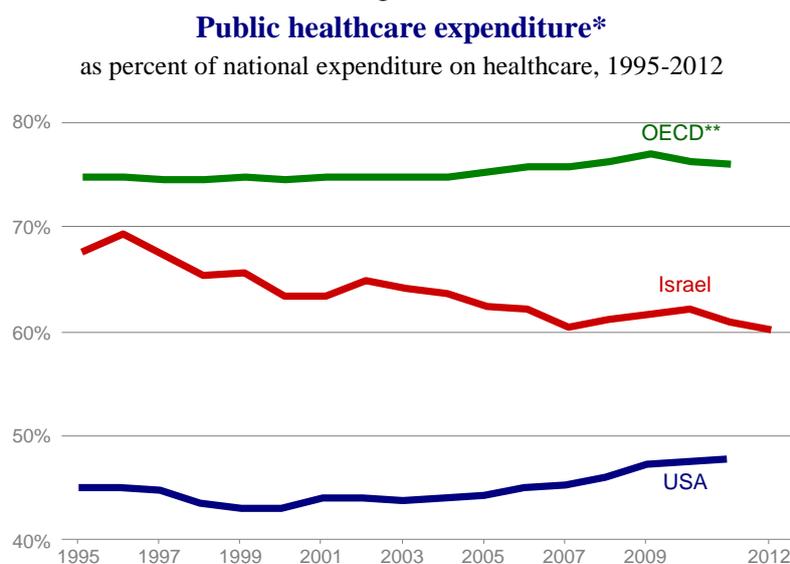
Data: Central Bureau of Statistics, OECD

Israel's level of national healthcare expenditure relative to Israel's GDP is lower than the average expenditure in the 23 most developed countries in the OECD, which stands at 8.7 percent of GDP. Furthermore, Israel demonstrates a relatively consistent trend of a diminishing share of healthcare expenditure in contrast to the developed OECD countries and the United States, which continues to stand out as an exception with its high level of health spending relative to its GDP at 15.5 percent.

### *The Composition of National Expenditure for Healthcare*

In Israel, the downward trend in the share of public financing out of total healthcare expenditure continues (Figure 2). In 2012, public financing represented 60.1 percent of all healthcare expenditure, compared to 61.0 percent in 2011. This share is low compared to the average share of public financing in the 23 most developed countries in the OECD, which is 76.1 percent (excluding the U.S., whose share is 47.8 percent).

Figure 2



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

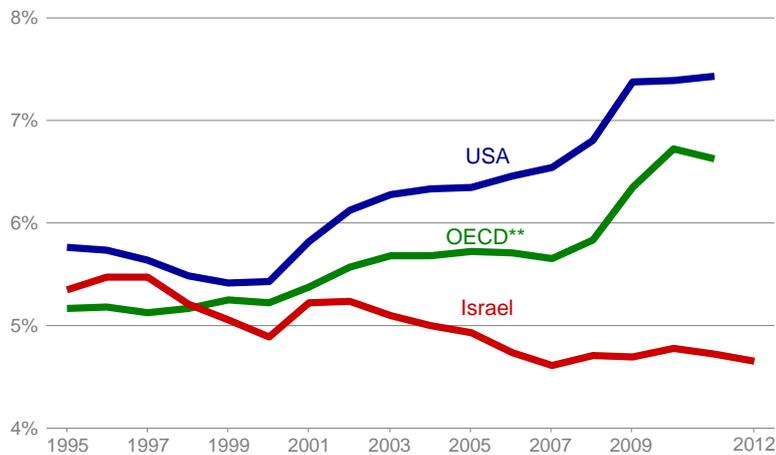
\*\* Average for 23 OECD countries (excluding USA)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

The drop in the share of public financing for healthcare is especially evident when measuring healthcare expenditure as a percent of GDP. As Figure 3 shows, the publicly financed share of healthcare expenditure in relation to GDP has been dropping over the years in Israel and remains low compared to the U.S. and to the OECD average, even after adjusting for the different age distributions in these countries. This means that relative to its resources, Israel devotes a very low share of its economic output to the public financing of healthcare relative to the OECD average and the United States.

Figure 3  
**Public healthcare expenditure\***  
 as percent of GDP, 1995-2012



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

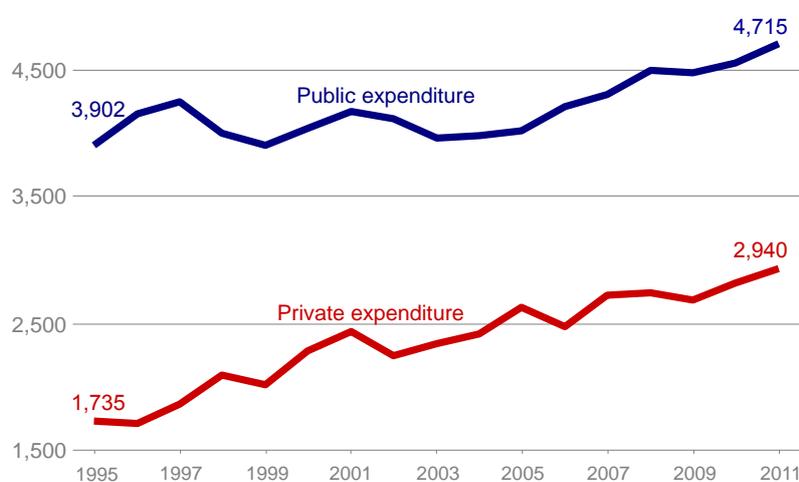
\*\* Average for 23 OECD countries (excluding USA)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

This situation is reflected in the trend towards increasing per capita private spending on healthcare. Public expenditure per capita has grown by only 20.8 percent cumulatively from 1995 to 2011: from NIS 3,902 to NIS 4,715 (in 2005 prices) – an average increase of 1.2 percent per year. Meanwhile, private per capita spending during these years grew by 69.5 percent: from NIS 1,735 to NIS 2,940 – an annual average growth rate of 3.4 percent (Figure 4).

Figure 4  
**Per capita healthcare expenditure – public versus private**  
 in 2005 shekels, 1995-2012



Source: Dov Chernichovsky and Eitan Regev, Taub Center

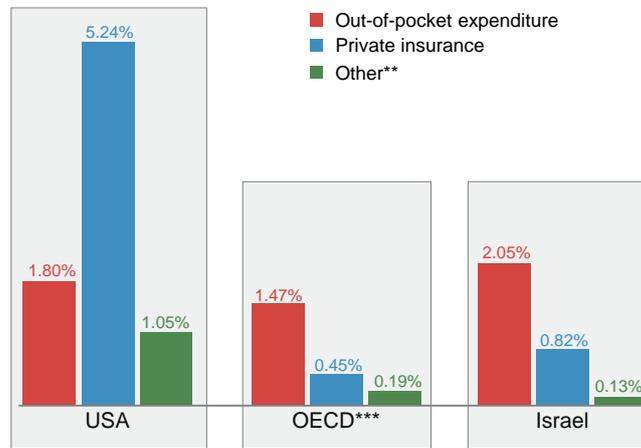
Data: Central Bureau of Statistics, OECD

These figures have an impact on household budgets: they lead to an increase in the regressivity of healthcare financing, contribute to a widening of gaps in income distribution, and reduce the security of household budgets with regards to medical expenditures while increasing disparities in access to healthcare services (Chernichovsky and Navon, 2012).

### *The Composition of Private Expenditure for Healthcare*

Figure 5 presents the distribution of private financing for medical services as a share of GDP. In Israel, the total expenditure for private financing is 3 percent of GDP. Expenditure on private insurance is 0.82 percent of GDP, compared to only 0.45 percent of GDP in the OECD and 5.24 percent in the United States. Direct out-of-pocket expenditure in Israel is much higher, at 2.05 percent of GDP, as compared to 1.47 percent in the OECD and 1.80 percent in the United States.

Figure 5  
**Distribution of private healthcare expenditure\***  
 as percent of GDP, 2011



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

\*\* Other: includes not-for-profit organizations that contribute to households (not including health funds); corporations (that do not supply health insurance)

\*\*\*Average for 20 OECD countries (excluding USA)

Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

These figures indicate that the importance of private insurance in Israel, as compared to public insurance, is greater than in the OECD, but less than in the United States. On this issue, Israel falls in between the OECD and the United States, due to the relative decline in public financing and public insurance expenditure. With regards to the burden on household budgets, Israel is in a less favorable situation since the share of direct out-of-pocket expenditure in Israel is higher than in both the OECD countries and the United States.

## ***2. The Demographic Distribution of the Physician Population***

The sharp decline in the physician work force in Israel (relative to its population) is the result of a fundamental structural problem in the system, and the consequences of this decline are worsening as demand increases. This increase partially stems from the aging of the general population, but also from the change in the structure of demand: as the demand for privately-financed healthcare is allowed and encouraged to increase, it leads to an increase in overall demand for healthcare services (Chernichovsky and Regev, 2013).

As previous research has shown, there has been a sharp decline in the number of physicians per 1,000 people in Israel while other countries have experienced a rise (Chernichovsky and Regev, 2013). A demographic analysis of the composition of the physician population by age and gender indicates an even more acute problem than that indicated by the raw data alone.

### ***The Age Composition of Physicians in Israel***

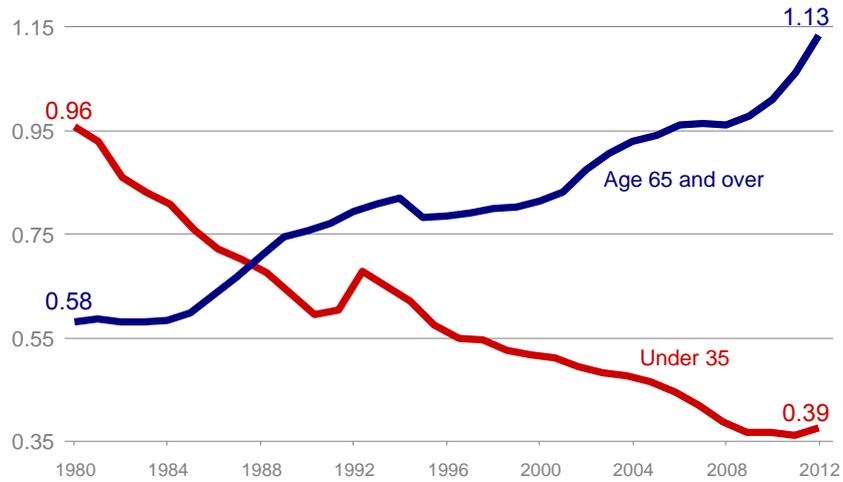
As of 2012, about 35,000 certified physicians were registered in Israel (some are not practicing).<sup>1</sup> Over the last three decades, there has been a

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<sup>1</sup> The data presented in Figure 6 refers only to practicing physicians.

60 percent drop in the share of young physicians (under 35) in the population: in 1980 there were 0.96 young physicians per 1,000 people, compared to 0.39 today. Meanwhile, there was a 95 percent rise in the share of older physicians (aged 65 and up) in the population, from 0.58 per 1,000 people in 1980 to 1.13 in 2012 (Figure 6).

Figure 6  
**Certified physicians per 1,000 population**  
 by age groups: under 35; 65 and over, 1980-2012

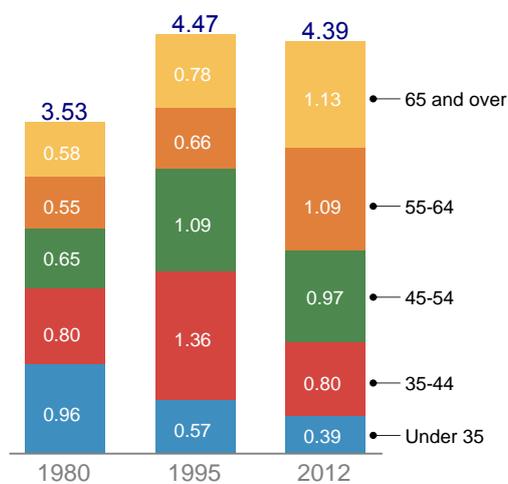


Source: Dov Chernichovsky and Eitan Regev, Taub Center  
 Data: Central Bureau of Statistics, OECD

The share of physicians aged 35-44 in the population rose from 0.80 physicians per 1,000 people in 1980 to 1.36 in 1995. That rise is a result of the influx of physicians who immigrated to Israel from the former Soviet Union in the early 1990s. However, in recent years, the share of physicians in that age group has fallen again, returning to a share of 0.80 physicians per 1,000 people in 2012. Meanwhile, the share of physicians aged 55 and over rose from 1.44 physicians per 1,000 people in 1995 to 1.44 in 2012.

2.22 in 2012 (Figure 7). This data indicates that the generation of immigrants, who comprised the majority of Israeli physicians for the last two decades, is approaching retirement age, and not enough young physicians have entered the system to replace them. In fact, compared to both 1980 and 1995, there has been a sharp decline in recent years in the supply of physicians aged 44 and under in the population.

Figure 7  
**Certified physicians per 1,000 population**  
 by age groups, 1980, 1995 and 2012



Source: Dov Chernichovsky and Eitan Regev, Taub Center  
 Data: Central Bureau of Statistics, OECD

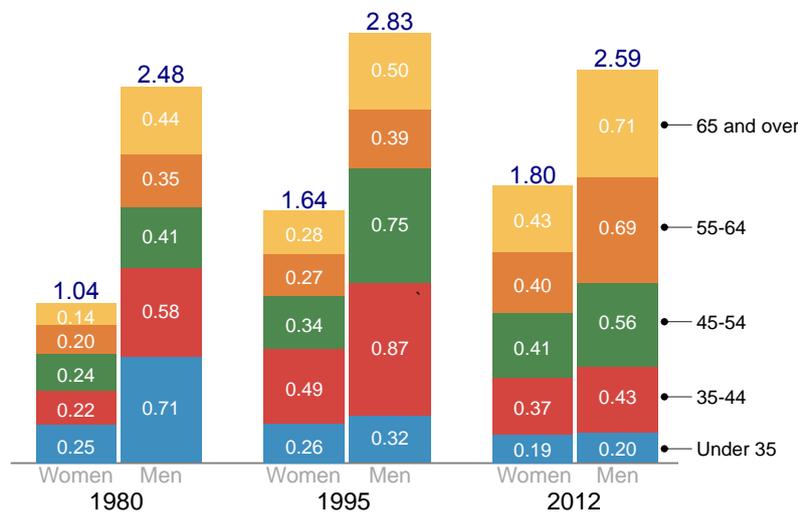
### *The Gender Distribution of Physicians*

Alongside the changes in the age structure of physicians in Israel, there have been changes in the gender distribution over the years. Between the years 1980 and 2012, the share of female physicians in the population almost doubled, from 1.04 per 1,000 people to 1.80 (Figure 8). During that period there was relative stability in the number of male physicians per capita. It is noteworthy that the rise in the share of women in the physician work force somewhat moderated the aging of that population in recent years.

Figure 8

#### **Certified physicians per 1,000 population**

by gender and age group, 1980, 1995 and 2012



Source: Dov Chernichovsky and Eitan Regev, Taub Center

Data: Central Bureau of Statistics, OECD

The aging of the physician population has an important qualitative dimension: older physicians bring with them more experience. Furthermore, the greater equality between the sexes in the system is

certainly encouraging. However, considering the demographic composition of the physician work force in Israel, the challenge facing the system is more serious than the raw numbers show, and the findings in this area cast a harsher light on the neglect in the planning of the physician work force in Israel.

The entry of young physicians into the system is important on several levels. From the qualitative aspect, it is worth noting that a young work force is innovative and its knowledge base is current. This is an essential element in modern medicine, given the rapid pace of development, and is also of significance given that there is no ongoing testing to ensure that physicians stay up-to-date in their field. Furthermore, the economic aspect cannot be ignored either: inasmuch as it is justified, older physicians cost the system more because they generally receive higher salaries.

The most important aspect of the decline in the number of young physicians compared to the population is a reduction in the effective work force. The number of retiring physicians is growing at a relatively rapid pace, especially among male physicians. The relative rise in the share of elderly physicians, like the share of women, is likely to be manifested not only in a reduction in the number of practicing physicians but also by a drop in the labor force participation levels of the remaining physicians, since young physicians, especially interns, tend to work longer hours than older physicians.

There is no doubt that the efforts made in recent years to increase physician training programs, including the new medical school in Safed and the recruitment of medical students and physicians from abroad, are steps in the right direction. Considering the lack of planning for the future and insufficient preparation in the past, though, Israel is facing a drop in the effective supply of physician work force. Even if in the near future there is rapid entry of young physicians into the system at the end of their training, Israel can expect a period of some 20 years in which it will experience a low supply of physicians aged 40-60 – the most productive age group, in terms of experience and work productivity.

### ***3. Conclusion***

The privatization process of the Israeli healthcare system continues, contrary to the trend in the OECD countries and the United States. The reduction in the share of public financing, along with the fact that private financing comes mainly from out-of-pocket expenditure and not from private insurance, leads to a continued widening of the disparities in access to health services and increases inequality between income deciles in general.

As for the demographic composition of the physician population, two significant changes have occurred: an increase in the share of women out of the total physician population, and a drop in the share of young physicians. Despite the advantages of more experienced physicians, the aging of the physician population could have severe implications for the effective physician labor force, and Israel might experience a significant shortage of middle-aged physicians. Furthermore, the shortage in the physician work force will be felt even more strongly as the trend of increased demand grows, partly as an outcome of the increase in the share of private financing of the healthcare system.

## *References*

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### *Hebrew*

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