

The Healthcare System in Israel: An Overview

Baruch Levi and Nadav Davidovitch

Introduction

The importance of the healthcare system to the resilience of Israeli society as well as its contribution to the well-being of the residents of Israel are unquestionable. Nevertheless, and despite the many complex challenges it faces, the Israeli healthcare system doesn't hold a prominent position on the country's agenda. Naturally, the healthcare system has been, and still is, at the forefront of the battle against the COVID-19 pandemic. This has brought about a certain change in the healthcare system's position. For now, the evening news broadcasts no longer open with reports on fears regarding the ability of the healthcare system to deal with the epidemic, and the current political and security situation once again is the focus of media and public attention.

COVID-19 is still with us, but it seems that the decline of the epidemic in 2022 has finally allowed the Ministry of Health and other stakeholders to turn to routine issues, issues that were on the healthcare system's agenda prior to the outbreak of the pandemic. These issues may have been pushed aside due to the state of emergency caused by the COVID-19 pandemic, but they certainly did not disappear and may have even intensified as a result. They include healthcare inequality, the shortage in medical, nursing, and other healthcare professional workforce, and the interrelationship between public and private healthcare. These and other issues will be the focus of this review.

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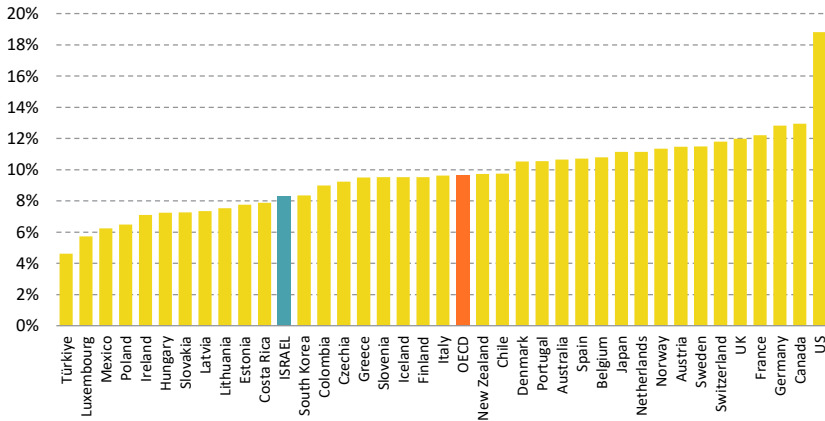
This review introduces the reader to the current data, trends, and developments in the healthcare system, overtime and as they compare to other developed countries. It is based on information available in databases, studies, reports, and policy documents of international organizations and national healthcare authorities, including the OECD, the World Health Organization (WHO), the Israeli Ministry of Health, and the Central Bureau of Statistics (CBS), as well as on reports issued by the State Comptroller and publications by stakeholders such as the Ministry of Finance, the healthcare insurance funds, the Israeli Medical Association, and other healthcare organizations involved in the formulation and regulation of healthcare policy in Israel.

It is impossible in the space allotted to cover the entire spectrum of existing data or analyze each policy step in detail. This paper will review from a bird's eye perspective some key indicators of expenditure on healthcare, infrastructure, personnel, and the health of the population, including lifestyle and risk factors such as smoking and obesity. We will also describe notable events and policy measures in the healthcare system that, if implemented, could change it in the long term. These include the reform in the work hours of medical residents, initiatives to restrain private healthcare, and more.

Healthcare expenditure

The COVID-19 pandemic has led to a sharp rise in healthcare expenditure indicators in Israel. In 2020, the year in which the COVID-19 pandemic broke out in Israel, healthcare expenditure constituted 8.3% of GDP, compared to 7.5% in 2019 — a sharp increase of about 10.6%. Nevertheless, compared to other countries, Israel remained in the bottom third of the OECD countries in this regard (Figure 1), as other countries also increased healthcare spending due to the COVID-19 pandemic. In 2020, the OECD average was 9.9%, an increase of about 10.2% relative to 8.8% in 2019, and so the gap between the average OECD country spending and Israel remained (OECD, 2022).

Figure 1. National healthcare expenditure as a percent of GDP in the OECD countries, 2020



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

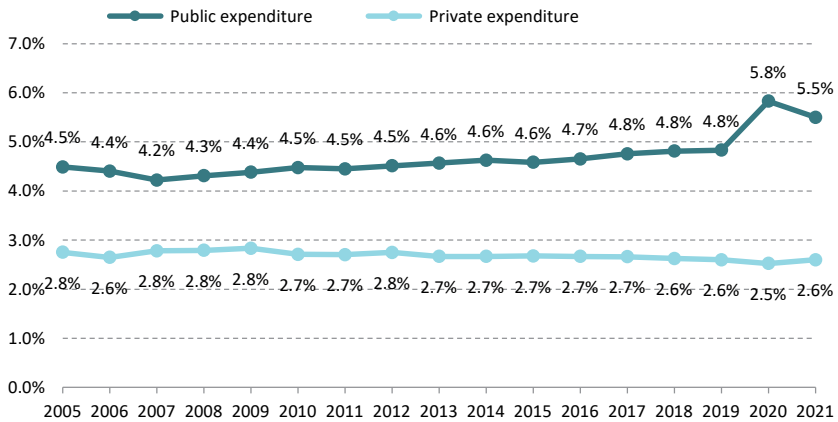
It should be noted that the increase in the rate of healthcare spending may have been due to two factors, which apparently occurred, to one degree or another, in most OECD countries during the time of the pandemic. There was an increase in the absolute spending on an array of healthcare services, from medical tests and medical equipment to the allocation of human resources, due the urgent need to deal with the pandemic. At the same time, there was restraint and even a contraction of GDP due to the considerable reduction in economic activity brought about by the pandemic due to lockdowns and restrictions imposed on economic activities in many countries, including Israel.

In 2021, the share of national expenditure on healthcare decreased compared to the previous year and stood at 8.1% of GDP. A slight decrease also occurred in the average of the OECD countries (9.7%), and the gap between OECD spending and Israeli expenditure remained.¹ In financial terms, the spending in 2021 was about NIS 126.9 billion, an increase of 8.6% in constant prices compared to 2020. Expenditure per capita, in constant prices, increased by 6.9% (CBS, 2022).

1 The comparison to 2021 should be treated with caution as only a minority of the OECD countries have published their data for this year. Therefore, most of the data in this review will refer to 2020, for which full reports were generally available from most countries.

Broken down by funding source (Figure 2), in 2021 the rate of private funding (without contributions from abroad) rose to 2.6% of GDP, compared to 2.5% in 2020. Up until 2019, the rate of public financing (the state budget and health tax), was stable and usually ranged between 4.5% and 4.8% of GDP. Following the COVID-19 pandemic outbreak, this rate rose to 5.8% in 2020. In 2021, it dropped to 5.5%. Therefore, in 2021 the share of private financing was about one-third of the national expenditure on healthcare, including contributions from abroad (1% of the spending on healthcare), compared to two-thirds public financing. For comparison, in 2020, the public healthcare spending accounted for 70% of the national expenditure. It seems that the decrease partially reflects the gradual return to normalcy following the lockdowns and the restrictions that mainly characterized 2020, and which led, among other things, to a decrease in the consumption of private healthcare services. Even though in that year there was a decrease in public medical activity, both in the community and in hospitals, at the same time resources were allocated to handle the pandemic, including additions of human resources, respiratory equipment, shielding equipment, test kits, laboratory activity, and more (CBS, 2021; 2022).

Figure 2. Public and private expenditure in Israel as a percent of GDP

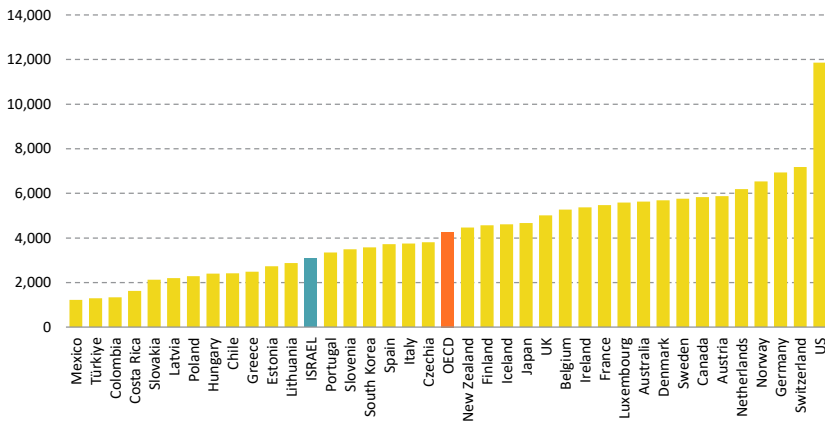


Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: CBS

In 2021, national expenditure on healthcare per capita in PPP terms (purchasing power parity) amounted to \$3,441. This spending is relatively low compared to most of the OECD countries for which the data was published (Figure 3), but it should be noted that the international comparison does not take into account differences in some of factors that affect spending, such as the healthcare system structure, the employment structure, and the age distribution in the population. Adjusting for Israel's young age composition, which is required due to its young population, slightly narrows the gap between Israel and most of the OECD countries, but does not change its relative position in the lower third of the OECD countries (Achdut et al., 2016).

Figure 3. Per capita national expenditure on healthcare in the OECD countries, 2020

Dollars, in PPP terms



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

Public expenditure per capita on healthcare in Israel is also relatively low and stands at about 65% of the OECD average (\$2,166 compared to \$3,346 per capita in PPP terms). This figure is a result of the relatively low share of public spending in the total national expenditure on healthcare (OECD, 2022).²

² There is a disparity between the expenditure data published by the CBS and the OECD data. This is due to a difference in the healthcare spending definitions between the two agencies.

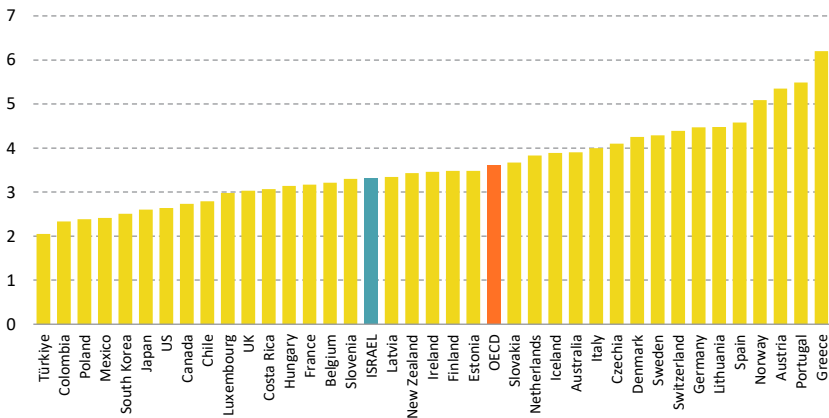
Even though public spending increased in 2020, due to the need to manage the COVID-19 pandemic, a similar increase occurred in other OECD countries, therefore Israel's relative position remained relatively low on this index as well.

Personnel and infrastructure of the healthcare system

Workforce

The share of active physicians in Israel in 2020 remained stable compared to the previous year and continued to stand at 3.3 doctors per 1,000 population, slightly lower than the OECD average of 3.6 doctors per 1,000 population (Figure 4) (OECD, 2022).

Figure 4. Number of active physicians per 1,000 population in the OECD countries, 2020

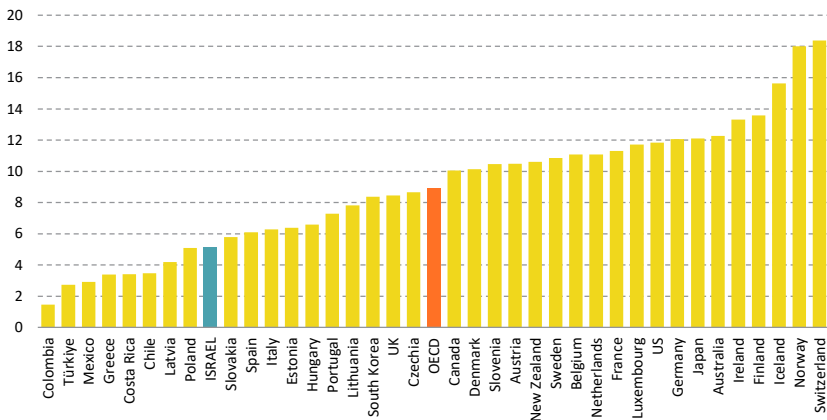


Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

The share of active nurses in Israel also remained stable, and in 2020 was 5.1 nurses per 1,000 population. This is a considerably lower than in the OECD countries, where the average is 8.9 nurses per 1,000 population (Figure 5) (OECD, 2022).

It is important to note that for both physicians and nurses, the share of older professionals in Israel is relatively high: 49% of active physicians are aged 55 or older — the second highest rate in the OECD (after Italy). The share of nurses in Israel over age 55 increased from 23% in 2000 to 39% in 2020 (Ministry of Health, 2021a; OECD, 2021). In the coming years, the healthcare system will face a challenge in finding qualified healthcare professionals. The Ministry of Health has invested a great deal in monitoring and analyzing trends as well as promoting the goal of training additional workforce, by increasing the number of medical and nursing students. And yet, most (about 60%) of the physicians applying for licenses each year took their medical training abroad. This is an improvement relative to the rate a decade ago of about 70%. This phenomenon is especially noticeable in the geographic periphery Israel. In the upcoming academic year, new job postings for medical students will open up in the North and the South as part of the Ilanot program, which aims to train physicians living in the periphery so that they will remain and practice in these areas. The program includes scholarships, a leadership program, and joint work with healthcare organizations and civil society in the periphery.

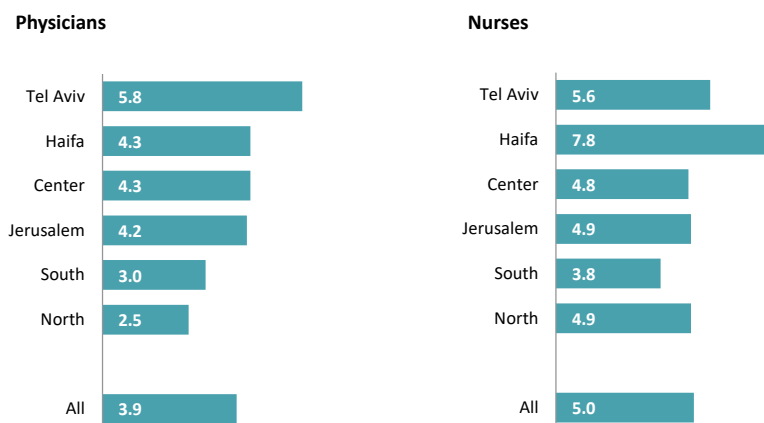
Figure 5. The number of active nurses per 1,000 population in the OECD countries, 2020



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

Apart from the national rate of physicians and nurses, their geographical dispersal is also important, in order to address gaps in accessibility and availability of healthcare services. Figure 6 clearly shows that the share of physicians and nurses in the center of Israel and in large cities is generally higher than their rate in the geographic periphery. For example, the share of physicians in the Tel Aviv district (which is the highest rate) is 2.3 times higher than their rate in the Northern district (which is the lowest), and the share of nurses in the Haifa district (the highest) is 2.05 times higher than their rate in the Southern district (the lowest) (Ministry of Health, 2021a).

Figure 6. Share of physicians and nurses per 1,000 population, by district, average for 2018–2020



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: Based on Ministry of Health, 2021a

It is important to note that the data on the geographic distribution of the physicians and nurses are based on findings of the CBS *Labor Force Survey* published in the Ministry of Health *Healthcare Professions Workforce* (2021a). Due to differences in definitions and methods of data collection, the number of active physicians according to the CBS (3.9 per 1,000 population) differs from the number reported to the OECD (3.3 per 1,000 population), which is based on cross-referencing data between the Israel Tax Authority and the Ministry of Health's physician license database. These differences may

sometimes be quite significant.³ For example, based on CBS data, between 2018 and 2020, the annual average number of active physicians was 35,500. At the same time, the figure indicated on Israel's reports to the OECD was about 29,600 (1.2 times more in the CBS data). In contrast to the reporting on physicians, Israel's reports to the OECD on nurses are based on data from the CBS. Therefore, there is no contradiction between the figures of nurses in the different sources.⁴

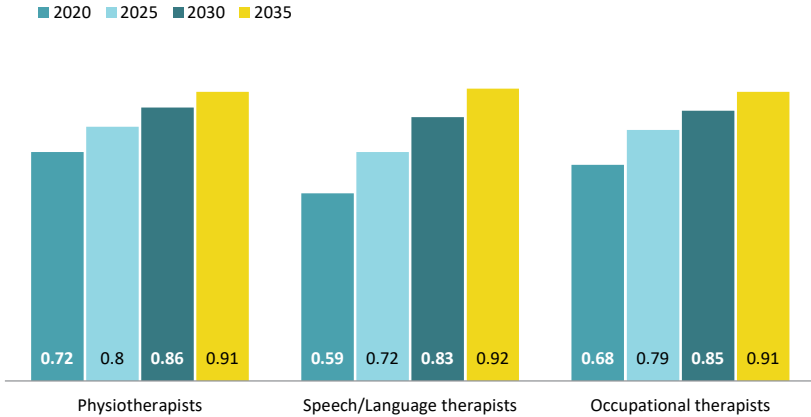
Like the geographic gap seen for physicians and nurses, there are also gaps in terms of other professional healthcare personnel, such as dentists, pharmacists, speech/language therapists, opticians, occupational therapists, and physiotherapists. For the most part, their rate in the Northern and Southern districts of Israel is the lowest relative to the other districts in Israel.

Indeed, workforce issues in Israel are not just in the medical and nursing areas. An inter-ministerial team that examined the situation of three healthcare professions — physiotherapy, speech/language therapy, and occupational therapy — found that, in the coming years, the gap between the demand for these services and the availability of trained healthcare professionals is expected to continue (Disparities in workforce in the healthcare professions, 2021). According to their findings, though, the number of professionals in relation to the population size is expected to increase (Figure 7). However, it should be taken into account that the relative share of population groups presenting the main demand for treatments by health professionals — older adults and children with disabilities — is also expected to increase. The increase in the proportion of healthcare professionals relative to the adult population (ages 65+) is expected to be rather moderate (Figure 8), and with regard to children with disabilities, this ratio is even expected to decrease (Figure 9), even though this is a population group in which the need for immediate, available care is critical in its impact on the child's continued development.

3 For more on the differences between the methods of measuring the number of physicians in Israel, see Levi and Borow, 2018.

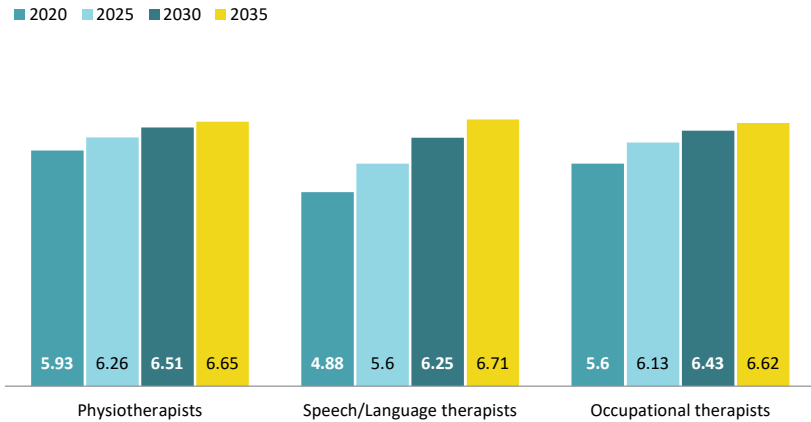
4 For further reading on definitions, sources, and methods of data collection of healthcare professionals by the OECD, see [OECD Health Statistics 2022: Definitions, Sources and Methods — Healthcare Resources](#).

Figure 7. Number of professionals per 1,000 population: physiotherapists, speech/language therapists, and occupational therapists



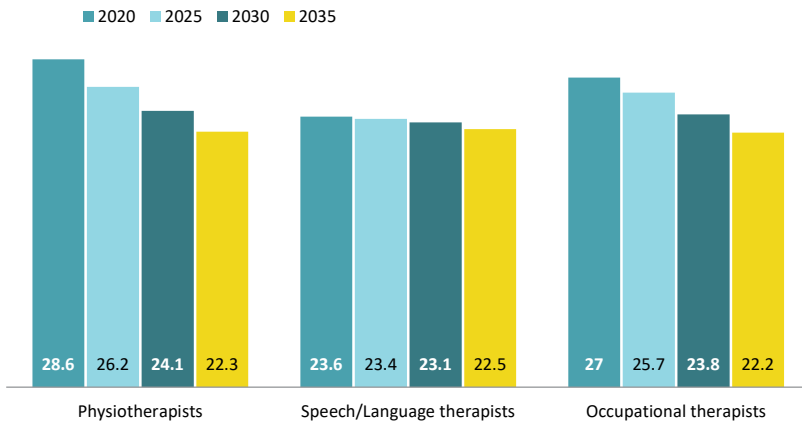
Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: Prime Minister's Office, 2022

Figure 8. Number of professionals per 1,000 population aged 65 and over: physiotherapists, speech/language therapists, and occupational therapists



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: Prime Minister's Office, 2022

Figure 9. Number of professionals per 1,000 children under age 18 served by the child development system: physiotherapists, speech/language therapists, and occupational therapists



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: Prime Minister's Office, 2022

According to Ministry of Health forecasts, in order to meet the clinical needs of the Israeli population, there is a need for an increase of 13%–23% every five years (2020–2035) in each of the above three professions (in terms of full-time positions). In light of these findings, the Ministry of Health has recommended government intervention to increase the healthcare labor force in these areas. Following this recommendation by the Ministry of Health, the 36th government of Israel took a series of steps, including the establishment of a special team for follow-up and implementation on the basis of the report's findings, the formulation of an incentive plan to encourage the employment of professionals in the public service, mapping of the clinical fields where healthcare professionals are currently active, and more (Prime Minister's Office, 2022).

As reported by the World Health Organization, Israel is not unique in its workforce challenges, disparities in accessibility to healthcare professionals, and the length of its waiting times for care. The report maps workforce in the healthcare systems in the European region. In view of the problems common to so many countries in this area, the World Health Organization recommended

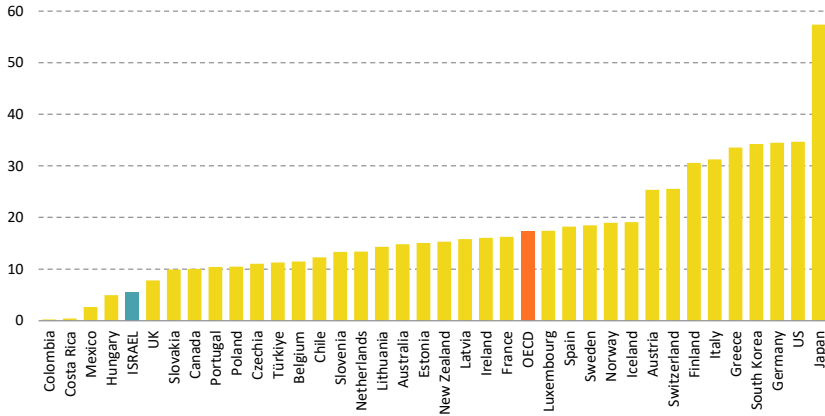
that countries take ten steps towards improving the workforce in their healthcare systems (WHO, 2022a):

1. Offer suitable workforce training appropriate to population needs and the healthcare system requirements;
2. Strengthen the continuous professional development of healthcare professionals to equip them with up-to-date knowledge and skills;
3. Expand the use of digital tools;
4. Develop strategies to attract and keep workforce in the periphery of the country;
5. Create working conditions that promote a good work-life balance;
6. Protect the health and mental well-being of healthcare system personnel;
7. Build up leadership capabilities for planning and regulation of workforce;
8. Strengthen the information systems infrastructure and improve the collection and analysis of information;
9. Increase public investment in training, development, and the protection of employees;
10. Optimize the use of resources in the healthcare system by developing innovative policy measures focusing on workforce.

Infrastructure

The number of MRI machines in Israel in 2020 was also very low relative to other countries: 5.5 machines per million population compared to 17.3 devices on average per million population in the OECD countries (Figure 10). This number is lower in only four other countries (Hungary, Mexico, Costa Rica, and Colombia). A comparable situation is observed regarding the number of CT machines. The figure in Israel is 9.9 machines per million population, whereas the average figure in the OECD countries is 27.4 machines per million population (OECD, 2022).

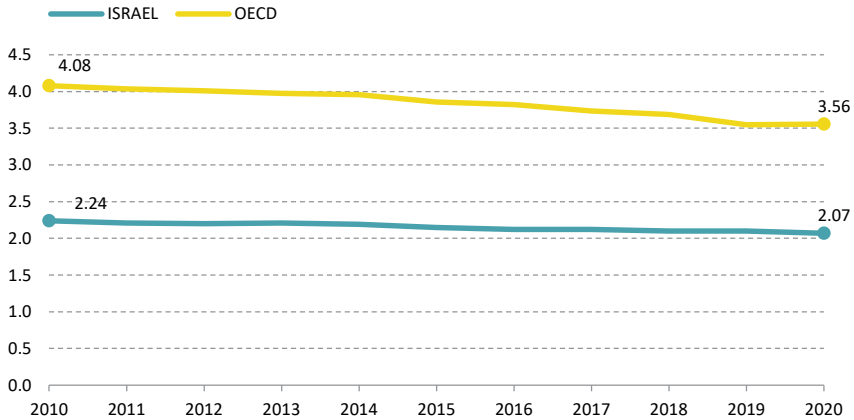
Figure 10. Number of MRI machines per million population in the OECD countries, 2020



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

In 2021, the number of beds for acute care hospital admissions in Israel (including psychiatric beds) was 2.07 beds per 1,000 population (Figure 11). A downward trend in the number of hospital beds per population continues. Although the absolute number of beds is generally on the rise, it is not sufficient to match the rate of population growth. This trend reflects the growing tendency implemented both in Israel and globally, to transfer the key part of medical treatments from hospital inpatient care to community-based care. Between 2010 and 2020, a similar trend was seen in the OECD countries as well. Thus, the trend of reducing hospitalization in Israel is in line with international trends. Nevertheless, the share of beds for acute hospital admissions in Israel is considerably lower than the average in the OECD countries. In 2020, the average number of general acute care hospital beds in the OECD countries was 1.72 times greater than in Israel (OECD, 2022).

Figure 11. Number of acute care hospital beds per 1,000 population in the OECD countries



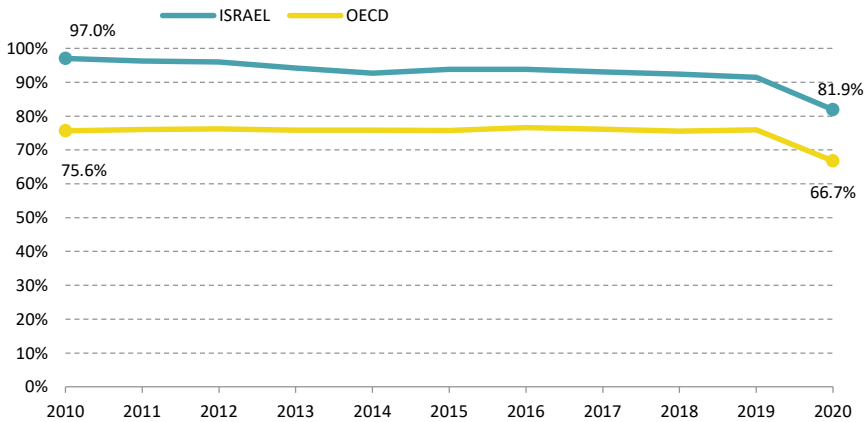
Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

Since the outbreak of the COVID-19 pandemic, dedicated wards have been added to manage the disease, and the number of hospital beds has been changing in response to needs and morbidity rates. These beds were not added onto the hospital's license, though, and their number is not reflected in official reports of the health authorities (Ministry of Health, 2022a).

Throughout the last decade, there has also been a decrease in the rate of long-term hospitalization beds in Israel: 2.9 beds per 1,000 population aged 65 and over in 2021, compared to 3.97 beds in 2010. The number of hospital beds for rehabilitation remained stable: in 2021, the number was 0.1 beds per 1,000 population (previous rates were 0.09 in 1995 and 0.1 in 2011) (Ministry of Health, 2022a).

In 2020, the occupancy rate in general hospital beds in Israel dropped to approximately 82%, compared to more than 90% throughout the previous decade (Figure 12). It seems that this could be attributed to the reduction in the hospital's activity during the pandemic, especially during its first months. A sharp decrease was also recorded in most OECD countries, and thus Israel remained at the top of the OECD ranking of occupancy rates second only to Canada (OECD, 2022).

Figure 12. Occupancy rates for general hospital admissions, Israel and the OECD average



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

In 2020, the average length of stay of general hospitalization patients in Israel was 4.6 days, as it was in the previous year. There has been a moderate and gradual decrease in this figure throughout the last decade (4.8 days in 2010). Only in Türkiye is the length of stay in general hospital admissions lower than in Israel (4.5 days on average), whereas the average length in the OECD countries is about 6.6 days (OECD, 2022).

Waiting times for consultations and treatment in the community and in hospitals

The Ministry of Health publishes waiting times for medical consultations in the community in selected specialties. The latest publication refers to the fourth quarter of 2021 and is comparable to data from 2019–2020 (Figure 13).⁵

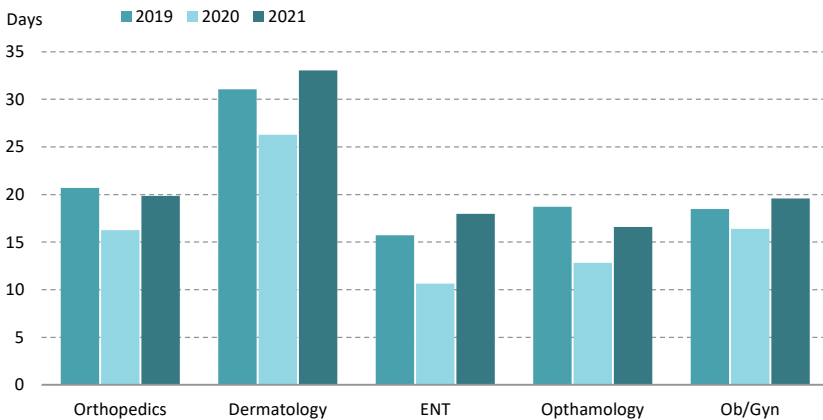
The data show that there are significant differences in waiting times for appointments depending on the medical specialty. The waiting times for dermatology consults are extremely high (over 30 days). The waiting times for other medical professionals range from 15 to 20 days on average.

⁵ See the Ministry of Health website, [Waiting times for consulting medicine in the community](#).

Comparing 2021 and 2019, there has been a slight increase in waiting times for some specialties, while a decrease has been observed for others (to avoid any seasonal effect, the comparison refers to the fourth quarter of each year). In 2020, there was a decrease in waiting times for all specialties. This may be related to the decrease in demand for non-urgent healthcare services during the COVID-19 pandemic.

Figure 13. Average waiting times for medical consultations

Fourth quarter of every year



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: Ministry of Health

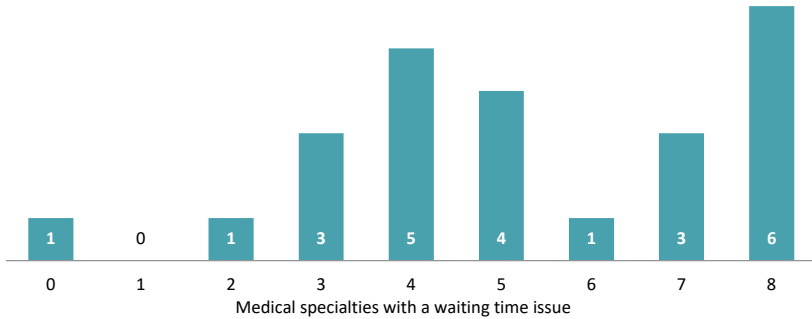
It should be noted that gaps can also be observed on a geographic basis. For example, in the fourth quarter of 2021, the waiting time for an orthopedic consultation in the community in the city of Be'er Sheva reached 55 days, compared to 15.9 days in Tel Aviv. It is interesting that sometimes the waiting times in the periphery are shorter than those in the center of Israel. For example, in the fourth quarter of 2021, the average waiting time for a dermatology appointment in Holon was 55.2 days, compared to 28.8 days in Akko. However, in general, it seems that the issue of long waiting times is evident mainly in the Negev region, and in some cases waiting times in the Southern Negev and the Jordan Rift Valley are not published at all due to the small number of physicians.⁶

6 See the Ministry of Health website, [Waiting times for consulting medicine in the community](#).

The issue of waiting times for medical consultations was part of a survey conducted on the subject (Laron et al., 2022): one in three (32%) of those who visit a specialist through their health fund reported that they waited over a month for an appointment. Particularly high waits for specialist appointments were noted in gastroenterology (51%), surgery (43%), and dermatology and venerology (42%). According to the survey, long waiting times for medical treatment are the main reason people forgo treatment: 35% of the survey respondents went without medical treatment due to the waiting times — an increase of 6 percentage points compared to the previous survey conducted in 2018 (29%).

With regard to waiting times in hospitals, although the OECD collects and publishes member country data on waiting times annually, the Ministry of Health in Israel does not publish these data on a regular basis. A research report published by the OECD (2020) relies mainly on a survey and the subjective assessment of senior officials in the healthcare system regarding the situation in their corresponding countries. In this survey, the executives were asked whether they consider the waiting times in the following eight different healthcare areas to be an issue that requires attention: elective surgeries, appointments for specialists, appointments for diagnosis, emergency rooms, primary medicine, cancer treatments, mental health, and cardiology treatments. In Israel, seven out of these eight areas (with the exception of cancer treatments) were considered to be in need of attention, i.e., there are waiting times issues in these areas. Only in six of the twenty-four comparison countries were all eight of the survey areas reported as having an issue with waiting times (Figure 14). Thus, according to the subjective assessment of senior officials in the Ministry of Health, in the absence of quantifiable data, waiting times for healthcare services in Israel are among the worst in the participating countries.

Figure 14. Distribution of countries by the number of medical specialties with a waiting time issue, 2020

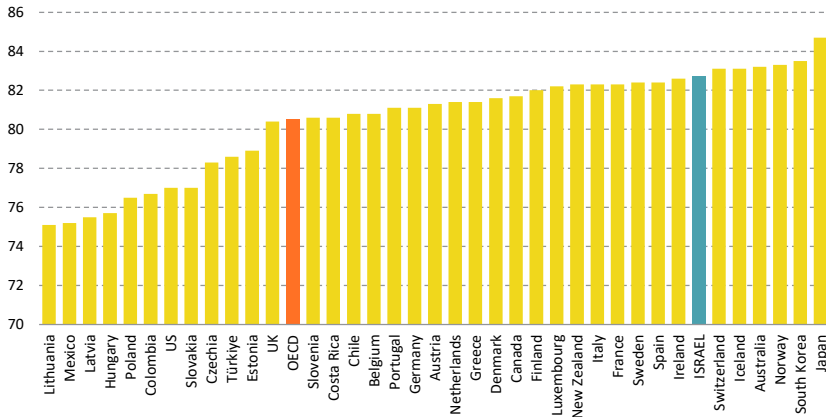


Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD, 2020

The government's plan to shorten waiting times in the public health system was meant to improve the situation with the help of a budget of about NIS 900 million. However, in the absence of consistent and transparent measurement, it is difficult to know if the plan achieved its goal. Steps that may shorten the waiting times for elective surgeries include not only the addition of resources, but also setting targets for maximum waiting times and ensuring them, expanding the hospital choice available to patients, encouraging competition between hospitals, and changing to an activity-based payment method so that hospitals are paid per surgery rather than per hospitalization days and in this way incentivizing increased outputs (Bowers & Chernichovsky, 2016).

Health status

The population of Israel is characterized by high life expectancy. As shown in Figure 15, in 2021, life expectancy at birth was 82.6 years (seventh place in the OECD ranking). As in all developed countries, women's life expectancy is higher than that of men (84.8 years compared to 80.6 years). Compared to members of the same gender in other countries, both Israeli women and men are at the top of the OECD's life expectancy ranking (OECD, 2022).

Figure 15. Life expectancy in the OECD countries, 2020

Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

As in many countries, life expectancy in Israel also declined in the course of the COVID-19 pandemic, although to a relatively moderate extent. Compared to 2019, in 2020, life expectancy in Israel decreased by 0.2 years (82.7 years in 2020 compared to 82.9 in 2019). At the same time, there was a decrease of 0.5 years on average in the OECD countries (80.5 years in 2020 compared to 81 years in 2019). The decline in life expectancy in Israel was almost halted in 2021 (82.6 years) compared to the year before it, despite a 73% increase in deaths from COVID-19. A possible explanation is that the increase in mortality from COVID-19 offset the continued decrease in mortality from other major causes of death (such as cancer and heart disease) that accompanied improvements in public healthcare and medical services over the last thirty years (Weinreb, 2022).

Mortality rates among population groups in Israel are not equal. A breakdown by sector and gender reveals that the life expectancy of Arab men in 2019 was the lowest (78.1 years) and the life expectancy of Jewish women was the highest (85.1 years). In between those two groups are Jewish men and Arab women, both having the same life expectancy (81.9 years). Compared to 2018, in 2019, the life expectancy of Arab men increased slightly while that of Arab women decreased. There was no change in the life expectancy of the Jewish population during this time period (Ministry of Health, 2021b).

Differences in life expectancy are also seen on the basis of place of residence. In the larger cities in Israel (with over 100,000 inhabitants), the highest life expectancy in 2017–2019 was found in Kfar Saba (84.8 years), and the lowest was in Be'er Sheva and Bat Yam (81.2 years in both). These data show that the term *periphery* not only is a reference to the geographic periphery but also to the social periphery, that is, the socioeconomic gaps that exist within areas. A comparison between the average life expectancy in 2017–2019 to the average in 2010–2012 shows that there has been an increase in life expectancy in all the localities surveyed, although at varying rates. The highest increase (1.6 years) was in Rehovot and Rishon LeZion, while in Be'er Sheva, which is characterized by the lowest life expectancy among the large cities, the lowest increase was recorded (0.5 years) (Ministry of Health, 2021b).

Mortality rates also reflect socioeconomic gaps between localities. Localities with high mortality rates are usually ones of a lower socioeconomic status, and primarily Arab. Localities with a moderate to high socioeconomic level enjoy lower mortality rates. These include some Arab localities, mainly those with a large Christian population. The mortality rates in the city of Modi'in Illit are unusual: they are relatively low despite the low socioeconomic status of its residents (Ministry of Health, 2021b). This supports the finding that health is not only affected by economic aspects, such as income and expenditure levels, but also by social aspects, such as belonging to a community as well as social and family safety nets, which characterize the Haredi (ultra-Orthodox Jewish) and religious sector.

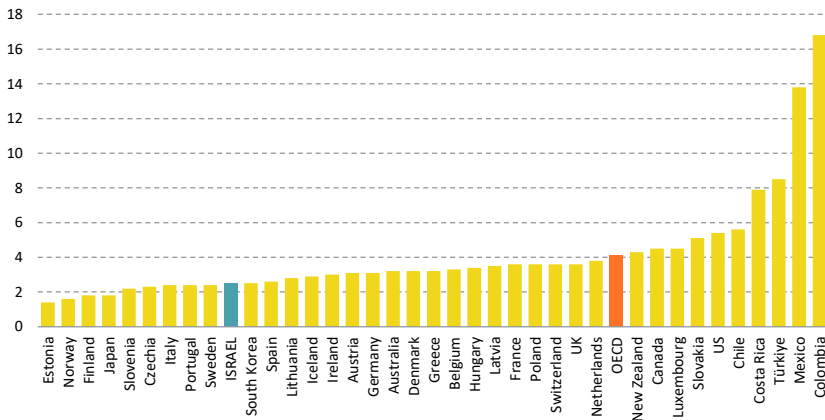
Another index in which Israel excels is *Healthy Life Expectancy* (HALE), in which Israel ranks sixth in the world. In 2019 (the most recent year for which data were published), the healthy life expectancy in Israel reached 72.4 years, an increase of about 4.6% from 2000 (69.2 years).⁷ This is a smaller increase than the increase in life expectancy in Israel (5.2%) over the same period. This means that the share of the healthy life expectancy out of the general life expectancy decreased by about half a percent between 2000 and 2019, from 87.8% to 87.3%.

Israel is also characterized by low rates of infant mortality, which have been steadily declining over the years (the infant mortality rate is lower in only nine of the other OECD countries) (Figure 16). In 2020, infant mortality in Israel stood at 2.5 deaths per 1,000 live births, compared to an average of 4.1 in the

7 See WHO, [The Global Health Observatory](#).

other OECD countries (OECD, 2022). These data are particularly impressive considering the high fertility rates in Israel, the low rates of prenatal testing among Haredi women, and the high rates of consanguineal marriages in Arab society in Israel.

Figure 16. Infant mortality per 1,000 live births in the OECD countries, 2020



Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: OECD

Here, too, there are considerable gaps among population groups. Among Jews and others, infant mortality rates are 2.3 deaths per 1,000 live births, while the rate is 5.4 deaths per 1,000 live births in the Arab population. Disparities were also found on the basis of geographic districts. These are particularly notable when comparing Tel Aviv and other Central districts (1.9 and 2 deaths per 1,000 live births, respectively) and the Southern district (5 deaths per 1,000 live births including the South's Bedouin population, where the figure reaches about 9 deaths per 1,000 live births). In all districts, the general trend over the last decade is a decrease in infant mortality, although fluctuations (both increases and decreases) in infant mortality have been observed in some of the years in certain districts (Ministry of Health, 2021b).

In a breakdown by sector within districts, the differences between Jews and others and Arabs are also clear. For example, although the infant mortality rate among Jews in the Southern district (3 deaths per 1,000 live births) is 1.8 times higher than the death rate among Jews in the Central district

(1.7 deaths per 1,000 live births), the death rate among Arabs in the Southern district (9.2 deaths per 1,000 live births) is 3.1 greater than the corresponding rate among Jews in the same district. A similar picture is obtained in the other districts (Ministry of Health, 2021b).

Lifestyle and risk behavior

As of 2020, the smoking rate in the adult population (ages 21 and over) in Israel is 20.1%. The share of male smokers is higher than the share of women smokers (25.6% versus 14.8%). Smoking is more prevalent among Arabs than among Jews (24.4% compared to 19.1%, respectively). The smoking rate in Israel, among both men and women, is slightly higher than the OECD average, although international comparisons of smoking habits should be treated with caution due to methodological differences among countries in definitions and data collection. Comparing data collected in Israel over the years is not a simple task due to changes in research methods over the years. In any case, according to Ministry of Health data, in the last five years the smoking rate among adults in Israel has remained constant at around 20%–21%, following a decline in smoking rates beginning in the early 1970s and a moderation in the rate since 2010. A survey conducted by the Ministry of Health shows that the COVID-19 pandemic has had a negative effect on the smoking habits of Israelis: 26.8% of the interviewees in the survey who were smokers reported that since the beginning of the pandemic they smoke even more and they reported an average increase of thirteen cigarettes per day.⁸

Between 1998 and 2019 there is a noticeable downward trend in the share of teenagers reporting that they have tried smoking cigarettes or hookah. According to a Ministry of Health report on smoking in Israel in 2020, 15% of teenagers reported that they had tried smoking cigarettes, and 25% reported that they had tried smoking a hookah. However, an international study on risk-taking behavior among teenagers (WHO-HBSC) ranks Israel sixth highest with regards to the rate of cigarette smoking among students, with 6% of students reporting smoking cigarettes at least once a week. What is more, including electronic cigarettes increases the smoking rate among teenagers. About a quarter of teenagers reported using electronic cigarettes, which they regarded as less harmful than *regular* cigarettes. According to these data,

8 See the Ministry of Health website, [The Report of the Minister of Health on Smoking in Israel](#) for the years 2018, 2019, and 2020 (in Hebrew).

it seems that there has been a change in the mix of smoking products, and electronic cigarettes and pre-packed tobacco cigarettes (*rolled* cigarettes) form a prominent part in the teenage experience of smoking.

In 2018, the smoking rate among Israeli army recruits was 28% for men and 18% for women. Like the 2017 data, the average smoker smoked ten cigarettes per day for men and nine cigarettes per day for women.

Unlike cigarette consumption, alcohol consumption in Israel is one of the lowest in the OECD countries (it is only lower in Türkiye). In 2019, the average alcohol consumption among those aged fifteen and over was 3.1 liters per capita per year compared to 8.4 liters on average in the OECD countries (2.7 times higher). However, it should be noted that in recent decades alcohol consumption in Israel is on a gradual upward trend (an increase of approximately 72% in per capita consumption since 1990) (OECD, 2022).

The rate of overweight adults in the population in Israel is just under 65%, a figure that ranks Israel third in Europe. More men are overweight than women. Israel also stands out for the share of people who are considered obese, which is about 25% of the adult population (sixth place in Europe).⁹ Unfortunately, the situation among children and teenagers is not much better. For these age groups as well, Israel is found at the top of the list of countries whose residents suffer from overweight and obesity: about 40% and about 15% respectively among 5–9-year-olds; about 30% and about 10% respectively among 10–19-year-olds (WHO, 2022b).

A report published by the World Health Organization states that overweight and obesity are among the main causes of chronic illness and disability. Overweight and obesity were also found to be associated with excess morbidity and mortality from COVID-19. The World Health Organization also emphasizes that these have increased to epidemic proportions around the world due to unhealthy diets and a lack of sufficient physical activity. The result is also an increase in healthcare expenses. In view of these findings, the organization recommends taking a series of steps to change food consumption habits such as labeling products, emphasizing their nutritional values and influencing their prices (for example, discounting healthy foods and making unhealthy foods more expensive).

9 These rates have been calculated following standardization by age, which takes into account the different age structure of the population in each country.

The World Health Organization further recommends increasing public awareness of the importance of a healthy diet and promoting urban planning that encourages physical activity (WHO, 2022b).

Overweight and obesity are also associated with the prevalence of diabetes. According to the World Health Organization, as of 2019, the prevalence of diabetes in Israel is approximately 6.2%, compared to 5.5% on average in the European Union countries. Since the year 2000, the prevalence of diabetes in Israel has increased by about 94% (at that time the rate of diabetes patients was 3.2% of the population). The prevalence of diabetes among adults in the age range of 20–79 reaches about 8.5%. It should be taken into account that these data are not standardized by age. That is, even though the population of Israel is younger, the prevalence of diabetes (type 2) in Israel which increases with age is higher than in European countries. According to data from the World Health Organization, which standardizes death rates from diabetes per 100,000 population, the death rate from diabetes in Israel in 2018 was 4.3 deaths per 100,000, compared to 2.5 on average in the European Union (1.7 times higher). Although the prevalence of diabetes in the population is on the rise, the rate of mortality from diabetes since the late 1990s has been trending downward, both in Israel and in the EU countries.¹⁰

Another risk to public health which does not receive proper attention is the increased exposure to air pollution. The population of Israel is exposed both to high concentrations of nitrogen oxides, originating from vehicle emissions, industry, and electricity production, and to respirable particles, found at levels of up to 94% above the target value set by the World Health Organization.¹¹ The majority of exposure to pollution is in densely populated urban areas (Levy et al., 2019). Air pollution can cause a host of diseases, such as lung and heart diseases and cancer. According to the data by the Ministry of Environmental Protection, in recent years there has been some decline in the concentration of respirable particles in most regions in Israel (and even more so in 2020, probably due to the decrease in economic activity during the COVID-19 lockdown periods). Nevertheless, abnormal concentrations were still recorded in various locations, particularly in the Tel Aviv-Yafo area. High concentrations of respirable dust particles were measured in the Sharon region, Gush Dan,

10 See the World Health Organization website, [European Region, European Health for All database](#).

11 Tiny particles that are carried in the air, some of which are of natural origin (such as desert dust) and some are man-made (pollution from transportation, industry, etc.).

and the coastal plain to its east, in Haifa, and in the northern valleys. In these areas there is a relatively high density of emissions from vehicles and from industry and power plants (Ministry of Environmental Protection, 2022).

Another indicator in which Israel does not stand out favorably is *self-assessment of health*. According to OECD data, only 74% of Israelis report good or particularly good health. Israel ranks fifteenth among OECD countries. In addition, in only nine countries did respondents report poor health at higher rates than in Israel (11% of respondents), even though Israel's population is younger relative to the OECD countries (data were not standardized by age) (OECD, 2021). It can be claimed that this statistic serves as a *warning sign* for Israel, as health measurement mostly focuses on mortality and survival indicators, in which Israel excels. However, health is a complex concept with many layers which are difficult to quantify. Various aspects of health relate to quality of life and to personal and social well-being, and subjective feelings may indicate an illness that is not being properly treated or a general feeling of dissatisfaction with a physical or mental state of health.

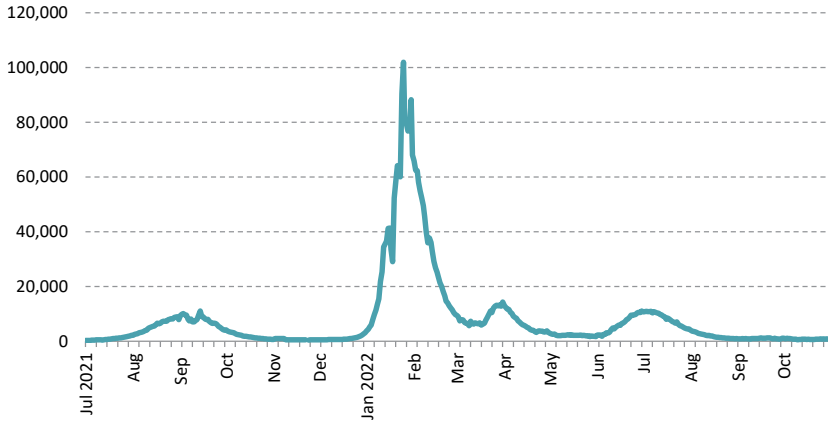
COVID-19 pandemic

The winter of 2021–2022 brought about the greatest morbidity wave that Israel has known since the outbreak of the pandemic. In January 2022, this wave reached a peak of approximately 100,000 new confirmed cases per day, which is higher than any other time period (Figure 17).¹² In January, the number of daily deaths from COVID-19 also reached a peak of more than 70 deaths per day, which was more than double the daily mortality peak, recorded in January 2021 (see Figure 18). In February 2022, the morbidity wave began to fade, but the smaller waves of pandemic re-emerged throughout 2022 signaling that the pandemic has not completely disappeared from our world, and that the danger of a renewed outbreak still exists.¹³

12 Additionally, on January 5, 2022, the Ministry of Health began acknowledging individuals who have been tested and found positive for COVID-19 using a supervised (institutional) antigen test as *confirmed*, without the need for a PCR test. This has contributed to the increase in the number of confirmed cases. See the Ministry of Health website, [Coronavirus in Israel – General Snapshot](#).

13 See [Our World in Data – COVID-19](#).

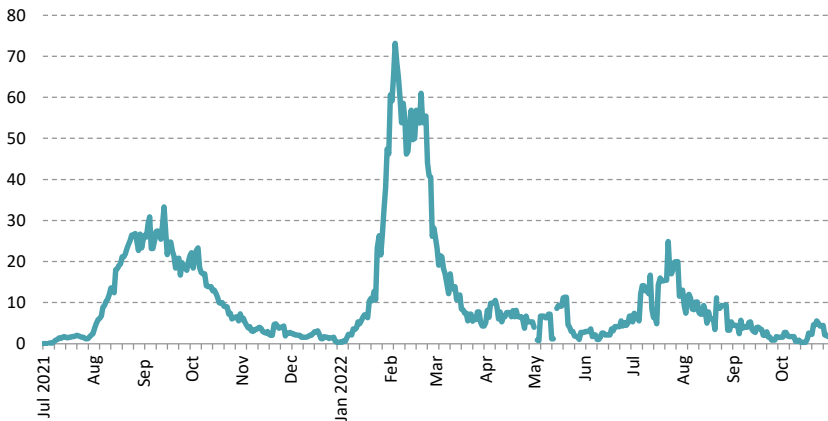
Figure 17. COVID-19 morbidity incidence in Israel: daily number of new confirmed cases, 7-day moving average, July 2021 to October 2022



Note: Due to the limited number of tests that can be performed in the population, the number of confirmed cases is lower than the actual number.

Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: [Our World in Data — COVID-19](#)

Figure 18. COVID-19 related mortality in Israel: daily number of deaths, 7-day moving average, July 2021 to October 2022



Note: Due to the challenges surrounding cause of death, it is possible that the number of deaths does not properly reflect the number of COVID-19-related deaths.

Source: Baruch Levi and Nadav Davidovitch, Taub Center | Data: [Our World in Data — COVID-19](#)

The decline of the pandemic also marks a trend change in COVID-19 vaccination rates. Within a period of one year, from the beginning of the vaccination campaign in December 2020 until January 2022, approximately 72% of Israel's population was vaccinated. Since then, vaccinations in the population have stopped almost completely, and between February and September 2022, only about 0.3% of the Israeli population was vaccinated.¹⁴ Among children, vaccination rates are particularly low, both in absolute terms and relative to other countries. As the winter approaches (2022–2023), vaccinations for the Omicron variant will also be available to the public (a bivalent vaccine which also includes the original virus).

In September 2022, army exercises were held under the leadership of Alon Headquarters of the Home Front Command in cooperation with the Ministry of Health with invitations to all the government ministries and other organizations involved in emergency services with the aim of discussing possible scenarios for the upcoming winter. The solution offered by the *health in every policy* approach, which also deals with social, economic, and other perspectives, has put infrastructure in place to deal with an event in which a new and more virulent strain of the coronavirus erupts, combined with the winter influenza morbidity, as well as other respiratory diseases and places a substantial and heavy burden on the healthcare system and other systems such as schools and work places.

With the decline of the pandemic, most of the restrictions imposed to prevent infection have been lifted throughout the year, such as the requirement from students to present a test with a negative COVID-19 test result upon entering educational institutions, the ban on social gatherings, and the masking requirement both outdoors and in closed spaces. Restrictions imposed on entering Israel were eased as well. In May 2022, the requirement to self-isolate, which was one of the most prominent symbols of the COVID-19 era, was eliminated for those who were in close contact with a person confirmed for the virus, for those living with a confirmed person in the same household, and for those who accompany a person in isolation. Currently, the requirement to self-isolate applies only to those who have been confirmed for COVID-19 or who have received individual instructions by the health system to enter isolation (for example, individuals who work in an institution where there is a high-risk population who have been in close contact with a person

14 This refers to those who have been vaccinated with at least one dose of the vaccine.

confirmed with COVID-19).¹⁵ In fact, the *normalization* of the coronavirus and transition to a *new normal* era means that we have many tools at our disposal to deal with the virus, but they must be used wisely and above all in a way that will strengthen the healthcare system in a sustainable way and provide a broad response not only to the coronavirus. On the other hand, the effects of the COVID-19 pandemic — lockdowns, school closures, long-term side effects (*long COVID*) and more — require a holistic solution and it may take many more years to recover from these effects.

Initiatives to plan medical workforce in the public healthcare system and to restrain private healthcare

Planning of medical workforce is by nature a subject that occupies many healthcare systems, around the world and in Israel. Its enormous importance to the functioning of healthcare systems keeps this subject at the top of the agenda, especially in the face of demographic pressures, economic hardships, and organizational and professional challenges. Therefore, policy makers are forced to find creative and innovative solutions to ongoing problems such as a lack of caregivers and the unequal geographic distribution of the workforce. When planning workforce, the interaction between the public healthcare system and the private healthcare system must also be taken into account. When attempting to direct personnel to the public system, the mutual effects of these systems must be considered, especially in view of the dominance of the private healthcare market in Israel. In recent years, workforce planning initiatives have also included initiatives to restrain private medicine.

The waning of the COVID-19 pandemic in 2022 has allowed the healthcare system to once again take up the tasks of policy planning and reorganization. Indeed, the year 2022 especially stands out for the burst of policy initiatives in the area of healthcare services. The most notable move is the attempt to

15 See the Ministry of Health website, [Corona Information Center](#).

implement a plan for shortening continuous working hours in hospitals.¹⁶ It is joined by other measures which have received less media attention which if implemented, have the potential to make real changes in the healthcare system in Israel, especially with regard to the work of doctors in the private sector. The main points of these initiatives are in the following discussion.

Shortening the hours of continuous work for medical residents in hospitals

Shortening the hours of continuous work for medical residents is an issue that has long been on the public agenda. Along with a desire to improve their quality of life, those in favor of shortening the rotation shifts express concerns about the issues that surround long work hours: quality of care and patient safety due to errors in judgment and a decrease in the ability to deliver high-quality care due to fatigue and poor concentration following long hours of work without proper rest. Opponents of shortening the length of shifts emphasize the fear that the quality of care and the patient safety might be harmed by the lack of continuity of care in *handoffs* (shift changes) between care providers. Added to this concern is that physicians will be less well trained with a reduction in hours spent in the hospital (Linder, 2020; Recommendations of the High Committee, 2021).

In 2011, as the collective agreement for physicians was about to be signed, a protest by medical residents ignited where they demanded a shortening of their rotation shifts. This demand was not met, and despite continual discussions within the healthcare system, no agreement was reached. The demand to shorten the number of continuous working hours resumed in full force with the outbreak of the COVID-19 pandemic. During the first wave of the epidemic in March 2020, hospitals moved to 12-hour shifts followed by

16 *Shortening the length of shifts for medical residents* is an inaccurate term that has taken root in the public and media discourse for a move designed to shorten the number of continuous working hours in hospitals and not the actual length of shifts. It should be noted that the length of weekday shift defined in the collective agreements between doctors and employers is 16 working hours from 16:00 until 08:00 the next day. In the proposed outline, the shift itself will not be shortened, but a doctor will not perform the usual eight-hour morning shift before or after the shift, and thus the duration of continuous working hours will be shortened from 24 (and another two hours of shift transfer, i.e., *overlap* to 16 hours. It is also worth mentioning that some of the shifts are performed by specialists and not only medical residents, therefore it is a shortening of the continuous working hours in hospitals in general and not only those of medical residents.

24 hours off. The purpose was to reduce staff exposure to COVID-19 patients in the wards (DoctorsOnly, 2020). The decision initially raised concerns about reduced wages with shorter shifts and fewer overtime hours, but soon this concern was replaced by a call to adopt the new work-format and end the long shifts which were customary prior to the COVID-19 period (the number of continuous working hours of a medical resident is currently 26 hours, consisting of 8 hours of *regular* work in the morning and afternoon plus an additional 16-hour shift, until 8 am the following morning, plus an additional two hours or so for changing shifts). In the protests held by the medical residents, they called for shorter shifts and regarded the move imposed on the healthcare system due to the pandemic, as a successful *natural experiment*, illustrating that the time for a change in their work schedules has come (Linder, 2020).

Following the COVID-19 pandemic and against the background of these protests, the debate on the issue was rekindled, and it prompted the Israeli Medical Association (IMA) to establish a special committee, designed to examine changes in the work patterns of physicians in hospitals (Recommendations of the High Committee, 2021). In June 2021, the committee recommended a fundamental and far-reaching change and stated that the traditional approach of a uniform shift length for all specialties is not the best solution, since each specialty has unique characteristics that may dictate different work styles. In light of the position of the unions, which were aided by surveys among medical residents, the committee recommended determining the work schedule in each specialty according to its needs, and proposed models that differed on elements such as hours of continuous work, hours of rest, number of shifts, and so on. The committee also recommended additional allocations for administrative staff and physician assistants to improve the working conditions of physicians in the hospitals and in the community.

In October 2021, the Minister of Economy Orna Barbivai published an amendment to the General Labor Directive outlining permissible weekly work hours, overtime, and rest in medical establishments and institutions for the care of the elderly and children. The permit, which was drawn up in coordination with Minister of Health Nitzan Horowitz, established for the first time that the working day of physicians will be limited to 16 hours, and if needed, it can be extended to 18 hours. It was also determined that the directive will be implemented gradually. The first phase of its implementation was planned to begin on March 31, 2022, in ten hospitals in the periphery, for medical specialties other than surgery or intensive care. It was also determined

that the working hours for intensive care and anesthesia will be shortened no later than March 31, 2023. Finally, the directive states that a five-year plan will be drawn up to gradually shorten the working hours of physicians in hospitals around the country, and that the number of monthly shifts per physician will not exceed six (Ministry of Health, 2022b).

Following the amendment to the General Directive, the Minister of Health appointed a professional team to plan and implement the move to shorten the rotation shifts of physicians. The team, led by the Deputy Director General of the Ministry of Health, Dr. Sefi Mendelovich, included representatives of the Ministries of Health, Economy and Industry, and Finance, representatives of the IMA and of the hospitals, as well as experts and specialists in various medical professions. The team was assigned the task of planning an outline for the implementation of the shortening of rotation shifts, as required by the amendment to the General Directive, while weighing all the relevant aspects, including the quality of treatment and safety, the training quality of medical residents, the well-being of the doctors, and their working conditions. The team was also tasked with examining additional solutions that would lighten the workload during the shifts, including through the support of physician assistants and administrative support teams (Ministry of Health, 2022b).

While preparing the interim recommendations for the implementation of the first phase, deep differences of opinion emerged among the team members regarding the feasibility of shortening shifts to 16 hours, and in particular, meeting the deadline set for the start of implementation. Some of the committee members believed that, in light of the expected additions to the labor force in the coming years as the result of steps taken to increase the number of medical students in Israel, it was possible to implement the reform. Those who opposed the reforms, particularly representatives of the Ministry of Finance and the IMA, claim that the implementation of this program is not currently feasible given the expected shortage of medical workforce. Their claim of a shortage is based on two main reasons: we are currently seeing the final decline in the positive effect of immigrant physicians from the former Soviet Union as these physicians reach retirement age; and the implementation of the reform by Prof. Yatziv, which disqualifies potential physicians who have studied at various schools in Eastern Europe due to their lower standards of training, which accounts for about one-quarter of returning physicians (Israeli Medical Association, undated; Ministry of Finance, undated).

To reinforce their claim, they stated that the share of medical school graduates from those Eastern European schools which will no longer be accepted is particularly large in the periphery, where the reform is expected to begin.

Another controversy that casts doubt on the implementation of the outline is the issue of wages: the Ministry of Finance Commissioner for Wages argued that the wages of medical residents who work according to the new outline should be reduced in relation to the reduction in their work hours (Ministry of Finance, 2022a). The organization Mirsham, which is at the front of the fight to shorten the working hours for residents, strongly opposes this move (DoctorsOnly, 2022).

Additional concerns that have arisen around the question of implementing the new outline reflect a number of concerns: that there will be a deterioration in residents' well-being following the increase in weekend shifts that will be required; that training quality will be impacted due to fewer morning shifts according to the outline; and a fear of the widening of the gap in the share of physicians choosing to train in the center and the periphery, as residents will be drawn to the large and powerful medical institutions in the country's center at the expense of those in the periphery as the new format is rolled out.¹⁷

Eventually, in March 2022, the team's interim report was published with the signatures of only ten out of the twenty-five team members — all of whom were representatives of the Ministries of Health and Economy and Industry and of various medical institutions. None of the Ministry of Finance and the IMA representatives were among the signatories (Ministry of Health, 2022b). The latter two submitted their reservations to the report, in which they noted the expected shortage of medical personnel, the dispute over wages, and the fears of lowering the quality of training. Nevertheless, both the Ministry of Finance and the IMA emphasized that, in principle, they support shortening the number of continuous work hours (Israeli Medical Association, undated; Ministry of Finance, undated).

The main recommendations of the interim report are as follows. (1) Shortening rotation shifts in ten hospitals in the periphery as of March 31, 2022, as required by the amendment of the General Directive. For each specialty, the shift will be shortened gradually, in accordance with the medical institution capacity and the training needs in the internal medicine wards, the emergency medicine wards, geriatrics, neurology, imaging, psychiatry,

17 In this context, see the statements by the Israeli Medical Association Chair, Prof. Zion Hagay, on the [Israeli Medical Association website](#).

oncology, rehabilitation, nephrology, hematology, and pediatrics; (2) Gradually changing the work method in emergency medicine wards throughout the country, transitioning to working in shifts (for example, two 12-hour shifts or three 8-hour shifts per day); and (3) Enhanced promotion and assimilation of the role of the physician assistant, including the completion of the legislation required to establish this role and the opening of an academic course for a master's degree in this profession (Ministry of Health, 2022b).

Following the publication of these recommendations, Clalit Health Services petitioned the Supreme Court against the implementation of the outline, on the grounds that its implementation would harm the healthcare system. The Supreme Court rejected the petition, but following it, the implementation date was postponed by a month to allow the parties to reach agreements regarding the desired outline. However, an agreement was not reached. Against the background of the dissolution of the government in Israel and the dispersal of the Knesset, and under the guidance of the Attorney General of Israel, the implementation of the clause for shortening medical residents' rotation shifts has been postponed until September 2023 (Zvi, 2022). Following this postponement, Mirsham members took drastic protest steps, including the submission of letters of resignation in hospitals across the country and starting a hunger strike (Gaz, 2022). At the same time, the parties continued trying to reach an understanding regarding the drafting of the amendment to the General Directive, such as permitting doctors who wish to work on long shifts during weekends to do so and limiting the number of monthly shifts worked by residents.

Recently, there was another twist in the plot. Prime Minister Yair Lapid ordered immediate preparations to shorten the work hours of residents in the country's periphery, and even ordered the Ministry of Finance to transfer NIS 66 million to hospitals in these areas for the purpose of implementing the outline, with the aim of completing the process by September 2023. Following this, Mirsham announced the withdrawal of the two hundred resignation letters submitted by medical residents and they returned to work (Efrati, 2022). Nevertheless, it seems that the prevailing dispute between those in the healthcare system on the very feasibility of implementing the plan remains the same, especially with regard to the medical workforce and the issue of wages. Therefore, for now, it is not clear how things will develop, especially against the background of the prevailing political uncertainty in Israel.

The Gamzu Committee

The Committee for Long-Term Planning of the Physician Workforce in Israel (Gamzu Committee, 2022) published its recommendations in January 2022. The committee dealt with the challenges in the field of medical and nursing workforce in light of the expected increase in demand for healthcare services. Four main issues were covered: long-term planning for the training of physicians, geographic dispersal of physicians, planning and distribution of physicians among medical specialties, and long-term planning of the nursing system. The committee recommendations are detailed here.

In the field of planning physician training, the committee recommended, among other things, increasing the number of licenses granted to 2,000 licenses per year by 2035 (compared to 1,721 in 2020). At the same time, they recommended increasing the share of Israeli medical school graduates out of the total number of licenses to 60%, by expanding the training of medical students in Israel. It was also recommended to promote measures to encourage students currently studying abroad to return to Israel, as well as to encourage and subsidize the immigration of young specialists to Israel.

With regard to geographic dispersion, the committee emphasized the importance of reducing the existing gaps in the number of hospital beds and physicians between the center and the periphery, and in particular, the Negev and the Galilee districts. They recommended launching the Ministry of Health's Ilanot program, which aims to widen and strengthen the medical workforce in those two areas. The committee also recommended giving incentives to outstanding physicians, including medical residents, with the aim of attracting them to the Negev and the Galilee (*The Stars Model*).

On the subject of planning and distribution of physicians among medical specialties, the committee recommended a series of regulatory measures aimed at strengthening the Ministry of Health's ability to plan the distribution of medical specialists between the various medical disciplines, in accordance with predicted needs. Among other things, this would be achieved through several actions: establishing a Ministry of Health database, which is to include data on medical residents at any given time; forecasting the needs of the healthcare system for the coming years; setting annual national goals for the number of new residents in each specialty by the Minister of Health; and, later on, setting regional indicators up to the hospital level.

In the field of long-term planning of the nursing system, the committee recommended, among other things, an increase in the number of nurses in Israel to 7 nurses per 1,000 population by 2027, compared to about 5 today; to gradually increase the number of nursing students in Israel while expanding the current study courses; and to set a target of 60% for nurses with a degree above the basic qualification level by 2027.

The committee did not specify the *price tag* for these recommendations, but it is clear that the proposed increase in workforce, the expansion of the study courses, the funding of the incentives, and the regulatory intervention measures will require a significant budgetary increase, which depends to a large extent on the approval of the Ministry of Finance. Beyond that, such extensive changes in medical training will require the agreement and cooperation of the universities and other agencies involved in physician training. Additionally, there will no doubt be objections by the IMA to some of these recommendations, especially those regarding regulation of the medical workforce through central planning of resident quotas for the various medical specialties, as well as the recommendation to increase the involvement of the Ministry of Health in the planning of medical residencies which are currently legally managed by the IMA's Scientific Council.

The Ilanot program

In October 2022, the Ministry of Health, in collaboration with the Faculty of Health Sciences at Ben-Gurion University in the Negev and the Azrieli Faculty of Medicine of Bar-Ilan University in Safed, opened the first-year cohort of the Ilanot program of medical cadets in the Negev and the Galilee. This program joins the network of programs for leadership in public service in Israel — *Cadets for Israel* — with the aim of building a future generation of medical leadership in Israel.

The goal of the Ilanot program is to quantitatively increase the medical workforce in the Negev and the Galilee, and to strengthen it qualitatively through the creation of outstanding medical leadership. The program includes full funding of tuition fees, a subsistence stipend, external academic support including training in medical management, personal and professional support by seniors in the healthcare system, and close support during the internship period. The first cohort of graduates will include up to thirty cadets in the Negev and up to thirty cadets in the Galilee, all selected after a strict selection process. Participation in the program is conditional on a commitment to work

as a physician in the Negev or the Galilee for seven years after completing studies and to live in the Negev or the North (including the Galilee) throughout the study period.¹⁸

Integration of immigrant physicians

The inter-ministerial committee for regulating the employment of immigrants, encouraging immigration, and removing barriers to the immigration of medical teams is currently considering this problem. This committee was established by Government Resolution 499 of October 2021 to encourage the immigration and remove barriers to the employment of immigrants in the medical professions, in view of the growing need for physicians and healthcare professionals in the healthcare system (Prime Minister's Office, 2021).

The purpose of this committee is to formulate a placement program for immigrants in the medical and nursing professions, while working in cooperation with the various healthcare agencies, and to promote effective employment solutions in the medical and nursing professions. Among the measures discussed by the committee: easing the bureaucratic processes for licensing prior to immigration; streamlining the recognition procedures for medical specialties; examining the ease of submitting documents of medical training abroad, including establishing a platform for submitting application documents for licensing in Israel in different languages (Hilaie, 2021).

The restraint of private healthcare: Arrangements Law 2023

The Ministry of Finance draft economic plan for 2023 (the Arrangements Law) included extensive reference to the healthcare system, and in particular to the private healthcare system (Ministry of Finance, 2022b). The dissolution of the government and the Knesset in June 2022 stopped the progress of a draft economic plan which was to be brought before the Knesset for a vote. It is likely that the bureaucratic and parliamentary processes related to this will be renewed with the election of the new Knesset and the formation of a new government.

It appears from the draft plan that the Ministry of Finance intends to continue with the policy line it implemented over the past decade of emphasizing the restraint of private healthcare, while trying to incentivize physicians to practice in the public sector. By employing certain controls set in legislation and regulation, the Ministry of Finance seeks to regulate the medical workforce

18 See the Ministry of Health website, [Ilanot — Medical Cadets](#).

and reduce the share of private healthcare in the system. These are detailed in the draft economic plan, and the following are the main points:

- Reducing insurance duplication between supplementary healthcare insurances through the health funds (*shaban*) and commercial health insurances; establishing regulations regarding reimbursement of insurance holders of both supplementary and commercial insurance plans.
- Expansion of the arrangement-reimbursement reform. In the Arrangements Law 2015–2016, it was established that a financial refund will no longer be given to patients for surgeries performed through supplemental or commercial insurance. The health funds and insurance companies will pay directly for the surgery, according to the arrangement with the physician or the medical institution (meaning the cancellation of the reimbursement route). It is now proposed to expand the settlement mechanism of the supplementary and commercial insurance plans to include consultations, where payments are still made through the reimbursement route.
- A levy on income from supplementary and commercial insurances. It is proposed to impose a levy of 35% on the activities of commercial insurance companies and 15% on those of the supplementary healthcare services of the health funds. Additionally, the insurance companies and the health funds will be required to report the price paid to surgical teams and the medical facility for private surgeries. This report will be obligatory also for health institutions that perform private surgeries that are not funded by supplementary healthcare insurances of the health funds or commercial insurance of private insurance companies.
- Preventing the increase of premiums in the supplementary healthcare insurance resulting from the imposition of the levies. In addition, it is proposed to exclude non-medical services from the supplementary healthcare insurance plans, thus protecting the current premium rates.
- Shortening waiting times for procedures and appointments in the public healthcare system. It is proposed to allocate a total of NIS 250 million for a comprehensive program designed to shorten waiting times for surgeries and consultations.

The purpose of these measures is to reduce the national expenditure on health by restraining private healthcare, which currently forms a significant part of it. Furthermore, according to the Ministry of Finance, restraining private healthcare will reduce the negative effects it has on public healthcare, including: the drain of workforce into private healthcare due to higher wages; the skimming of the *cream* from public to private healthcare, that is, the transfer of profitable medical activity to private medicine while leaving more complex and less profitable cases in public medicine; and referring patients from the public system to the private system.

Once discussions of the economic plan are resumed, strong opposition to these clauses should be expected from the stakeholders, especially the commercial insurance companies and the IMA. The Ministry of Finance regards the restraint of private healthcare as a way of strengthening the public healthcare system by reducing the negative effects. However, the opponents claim that the private market is the *pressure valve* that prevents the collapse of the public healthcare system and that it offers a response to the rising demand for healthcare services, outside of the public healthcare system, which suffers from a lack of resources and infrastructure. They also claim that a reduction in private healthcare services with no significant, simultaneous expansion of the public system will, first and foremost, harm patients. The economic and organizational debates regarding the nature of the healthcare system are often accompanied by a value debate regarding the individual's right to freedom of choice and the state's commitment to equality as well as differences of opinion regarding the freedom of physicians and occupational choice. For many years, disputes between the parties regarding the state's efforts to restrain private healthcare have been ongoing, and it is not expected that they will be resolved in the foreseeable future either.

The Ash Committee

In March 2022, the Minister of Health appointed the Independent Committee to Strengthen Healthcare Services in Israel and Regulate the Private Healthcare System, headed by the Director General of the Ministry of Health Prof. Nachman Ash. The committee was established to examine the key issues and the challenges faced by the healthcare system in Israel, with an emphasis on the bilateral effects between the private and public healthcare systems, as well as to recommend policy measures to improve the efficiency and quality of the healthcare system (Ministry of Health, 2021c). The committee members

are representatives of the Ministries of Health, Economy and Industry, and the Ministry of Finance, representatives of the Israeli Medical Association, academics, and public figures. In view of the current political instability, it is difficult to assess if and when the committee will publish its conclusions and what their impact will be.

Supervision of fees of privately financed surgeries

In July 2022, the Prices Committee, functioning as part of the Law for Price-Controlled Consumer Products (1996), recommended to the Minister of Health and the Minister of Finance that privately financed surgeries will be subjected to the highest level of supervision, that is, one that prohibits price changes without a permit. This will increase the level of supervision on private surgeries, which were previously under an obligation only to report prices and profitability (Ministry of Health, 2022d).

The committee believes that in light of the current financial data and the highly centralized nature of the private surgery market by the service providers, there is justification for raising the supervisory level. The committee further believes that there are failures in the healthcare market that make it difficult to reach a competitive equilibrium without regulatory intervention. These arise from patient risk-aversion, asymmetry in information, and a rigid demand for surgeries. Patients' willingness to pay for surgery when they are in physical and mental distress does not necessarily reflect the optimal and fair price of the surgery were it to be determined in a calm and stress-free negotiation.

Furthermore, the failures of the private healthcare market have a negative effect on the public healthcare system. They create wage gaps that cannot be bridged between physicians in private practice and those employed in the public system. These disparities cause wage pressures in the public system, while at the same time the private institutions benefit from treating profitable patients at the expense of the public system.

The committee proposes that price determination be done by one of the following methods:

- Pricing from below: collecting data from those in the field, about the costs involved in privately financed surgeries, and weighing them in order to determine an average price, similar to what is done today for publicly financed surgeries.

- Pricing based on the public price list: in accordance with the findings, a mechanism will be established to allow the conversion prices listed in the Ministry of Health's tariff for publicly funded surgeries to the price of privately financed surgeries.

It can be assumed that this plan will arouse strong opposition from stakeholders, primarily private health institutions and surgeons working in the private healthcare market. The Israeli Independent Doctors' Organization (Artzi) has already called for the reform to be halted and alleged a hijacking by the Ministry of Finance, taking advantage of the absence of a sitting Knesset (Filut, 2022).

Summary

As a result of the COVID-19 pandemic, there has been a sharp increase in the measures of healthcare spending in Israel, as in most developed countries. As a result, expenditure on healthcare in Israel remains low compared to international figures. Israel's infrastructure and human resources in relation to its population is also relatively small. Nevertheless, Israel has achieved impressive achievements in the areas of mortality prevention and life expectancy, including a healthy life expectancy. This phenomenon is sometimes referred to as Israel's *health paradox*. It seems that this phenomenon was preserved throughout the COVID-19 period as well.

Nevertheless, one must be careful not to rely excessively on these data, for several reasons. First, it is difficult to learn about the functioning of the healthcare system by looking at mortality and life expectancy data, since these are affected by a variety of variables, among them socioeconomic, environmental, and personal risk factors. Second, achievements such as high life expectancy are not indicative of the current state of the healthcare system but rather an expression of past investments (Chernichovsky, 2018). It is difficult to determine whether by having relatively low healthcare expenditure, the system will be able to continue its good performance long term, compared to other parts of the world. On the one hand, efficiency components of the healthcare system should not be ignored, since, to a certain extent, they allow it to restrain the spending on healthcare (Chernichovsky, 2018). On the other hand, the increase in chronic morbidity and the aging of the population must be considered, partly due to the increase in life expectancy. Thus, today's

healthcare system may be a victim of its own past success (Chernichovsky, 2019). The increase in life expectancy emphasizes the importance of the quality of life and not just its length. This increase forces the healthcare system, like other social systems, to also take into account needs related to physical and mental well-being and physical functioning. In this context, it should be noted that Israel also excels in healthy life expectancy. However, as the life expectancy increases it is higher than the rate of healthy life expectancy, which may have consequences both on the health needs of the population, especially in the elderly, and on expenditure, infrastructure, and workforce.

Finally, mortality and life expectancy indicators are not the all-important elements in health measurement. A series of health indicators should serve as a warning sign for policy makers. For example, the moderation in the decrease in the smoking rate, and the further increase in smoking due to the COVID-19 pandemic, and the rapidly increasing rate of adults and children suffering from overweight and obesity are issues that are alarming. Added to this is the growing danger to public health from exposure to air pollution. The prevalence of diabetes in Israel is on the rise and is high compared to other developed countries. At the same time, the Israelis' subjective health self-assessment is relatively low. In addition, there are wide-ranging and persistent disparities in health indicators and in accessibility to healthcare services, both between the center and the periphery and between population groups, as well as lengthy waiting times for consultations and procedures.

It must be remembered that apart from expenditure indicators, the functioning of the system depends to a great extent on its organizational methods. At this point, developments occurred in 2022 that should not be taken lightly including a stream of initiatives led by the Ministry of Health aimed at solving various problems related to medical workforce, such as the long rotation shifts of medical residents, and restraining private spending on healthcare, which contributes to inflation in medical prices. These initiatives have mostly been blocked or slowed down due to the current political crisis but will most likely be renewed with the establishment of the new government and will lead to serious struggles between the various players in the healthcare system over their nature and implementation.

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