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Abstract

School health services are an important and well-established part of the public health service in Israel, despite the numerous upheavals the service has experienced over the last thirty years. Today, after years of constant change when school health services in certain districts were nationalized, (that is, they became state-run), while others remained private, the status and the future of the service is less clear than ever.

The existing lack of clarity calls for a thorough public and professional discussion of the model for providing school health services. The goal of the current research and this paper is to examine how various relevant agents view the school health services, including issues of manpower, the role of the school nurse, the methods of assessment and measurement of the service's functioning, and with a view to the future, which models of school health services are desirable from each player's perspective. The analysis of what is happening on the ground and the policy alternatives are based on a series of interviews with decision makers and service providers, as well as written sources, including international surveys of school health services and government reports and documents.

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Three factors stand out as the main axes on which to focus the discussion of school health services in general, and specifically on the role of the school nurse, such as: challenges in service manpower, the integration of the school nurses within in the public health services, and methods for evaluating and measuring the service. The discussion of school health services has become especially important during the Covid-19 pandemic, with the need to integrate public health into the education system and the various challenges this has created, from vaccinations to promoting health during the pandemic. In any case, the fundamental problems of the school health services in Israel are, to a large degree, related to structural problems within the public health system as a whole, including the severe shortage of nurses on the national level. Improving school health services, whether in a privatized or nationalized format, is dependent first and foremost on solving these problems.

Background

School health services are one of the components of the public health service. They are provided to every student in Israel from Grades 1–9. They are financed by the Ministry of Health's budget and are under its responsibility (Ministry of Finance, 2021; Ministry of Health, 2020). The school health services for Grades 10–12 are financed by the Ministry of Education, which transfers the financing directly to the school administration (the local authority, the education network, or private parties; see Vurgan, 2007). This paper focuses on the school health services for Grades 1–9, which are under the responsibility of the Ministry of Health. This service includes two major functions: preventive medicine (vaccinations, developmental examinations, and screening tests) and health promotion (counseling and guidance for students, parents, and educational staff, identifying risk behaviors, and participation in school programs to encourage a healthy lifestyle).

The Ministry of Health defines the goal of the school health services as follows: "The school health service is intended to enable students to realize their full health potential, based on preventive medicine and promotion of health…" It also states that among the functions of the school health service staff are the evaluation of students' health needs, the identification of students at risk, and the initiation and implementation of programs to encourage a healthy lifestyle.[1]

1 See the Ministry of Health website. (English)

Since the 1980s, the school health services in Israel have undergone numerous upheavals. Currently, after years of constant change, the situation remains less clear than ever. In some districts, the service has been nationalized, that is, transferred to the direct operational responsibility of the Ministry of Health, while in others, it remains in private hands. Surprisingly, it may be that the current decentralized situation will continue, whether as part of wise decision making, as claimed by several of the interviewees for this study, or as the result of indecision or a lack of planning. Either way, there is a lack of clarity regarding future service provision — privatization or nationalization, indirect operation by a contractor or direct operation by the Ministry of Health, and variability in the service delivery format across districts or uniformity throughout the country. This lack of clarity calls for a focused public discussion of issues of privatization, nationalization, and the model for providing school health services.

The goal of the current research and this paper is to examine how the various agents view the school health services now including issues of manpower, the function of the school nurse, and the methods of evaluating and measuring the service. Looking forward, the question is which models of school health services are feasible from the perspective of the various players in the field. We hope this paper will contribute to the public debate on this issue and will shed light on the possible models for delivering this important service.

Privatization, nationalization, and outsourcing

Privatization is generally understood to be the transfer of a public asset or service provided by the State to the private market. Nonetheless, in many cases, privatization can be partial or limited. Transferring service provision from the State to a private entity — a commercial company or a non-profit organization — while the State remains responsible for the services as the supervisor of the contractor and for the financing of the services, is quite common worldwide, as it is in Israel. This practice is usually referred to as "outsourcing." Privatization by means of outsourcing can be defined as follows: "Partial privatization, in which the responsibility for the product or services usually remains with the state. Implementation is transferred by various methods to an external agent — a business entity or a non-profit organization" (Mandelkern & Sherman, 2015, p. 9).

In this paper, we attempt to transcend the common distinction — privatization versus nationalization — which seems to haunt public discussion of the school health services in Israel. We achieve this by highlighting the fundamental problems of this service and that, to a great extent, affect the whole public-private debate on health issues in Israel. As will be seen, if some of these fundamental problems are not resolved, the question of the most appropriate format for provision of this vital service will remain empty of meaning. For example, it makes no difference who delivers this service — whether it is the state, a contractor, or a completely private entity — if nurses are unwilling to join this field (public health). For this reason, we decided to present an analysis of the current status in the field, in addition to examining the policy alternatives based on the literature and on the statements of decision makers and service providers.

School health services worldwide

School health services began to develop in Europe and North America during the 19th century. Under the influence of the Enlightenment, they became part of the effort to improve society by means of a reorganization of social institutions. School health services were introduced at the same time that compulsory education was adopted. This was based on the understanding that checkups and other medical interventions at a young age provide immense benefit for individual health. France was the first country that required medical checkups in the schools in 1837, and it was followed by other countries in Europe and elsewhere (Baltag & Saewyc, 2017; Wold, 2001; Zaiger, 2000).

The school health service, in the sense of a service provided by a nurse located in the school, first appeared in England in 1892, to deal with student absences and the risk of epidemics, such as ringworm. The inclusion of education for preventive medicine as part of the school nurse's job spread throughout the US in the early 20th century. As a result of the success in New York, other American cities began to introduce school health services. In its early years, the service focused on medical checkups aimed at ensuring proper sanitary conditions and identifying infectious diseases and preventing their spread. However, quite quickly, the need for a more comprehensive approach to student health became apparent. Thus, schools began introducing examinations of eyes, ears, nose, throat, teeth and mouth, heart and lungs, the nervous system, the spine, and nutrition. These examinations were carried

out by a physician with the assistance of a nurse. The importance of health and preventive medicine were identified as worthy goals and, as a result, it was decided to include "health education" in the curriculum. At first, this involved a 3 to 5 minute talk by the nurse in the classroom on subjects such as personal hygiene and brushing teeth. These issues were soon included within the teachers' lesson plans. In the end, health education developed to where it became part of the curriculum with joint planning by the teacher and school nurse (Wold, 2001).

Currently, there are various versions of the school health services in at least 102 countries, about half of the countries in the world. Obviously, there have been many changes over the years in its format, including its structure, organization, and management (Baltag & Saewyc, 2017; Gardner, 2008; Leventhal & Amitai, 2008). As part of the effort to improve the service, the World Health Organization (WHO, European region) published a series of recommendations in 2014 which constitute a list of standards for school health services. The document outlines a general framework for the school health services, and seeks to provide appropriate answers to the health needs of the target population. The document asserts that cooperation between the country's ministries of Health and Education is essential to define the responsibilities of the school health services and the conditions of its delivery. It also states that the service must acquire all of the necessary facilities, equipment, manpower, and information systems necessary to achieve its goals. Furthermore, it emphasizes the importance of cooperation between the various entities, including caregivers, teachers, the school administration, the local authority, and parents, and the importance of training workers, as well as precisely defining the tasks and obligations of a high-quality service (WHO & EUSUHM, 2014).

A broad survey carried out by the WHO asserts that there are several components common to most of the countries with a school health service, including responsibility of the authorities (the Ministry of Health and the local authorities), high levels of availability and accessibility as set out in the directives, alongside problems of access in some of the regions, a recognition of the need for reform — in most of the countries with a school health service, a desire for change (76%) was expressed: scarcity of medical and nursing manpower, and difficulty in providing suitable manpower training. In general, it appears that the school health services suffer from a low priority status among decision makers and politicians relative to their importance to public health

and preventive medicine. It was also found that in most countries, the service includes programs for health promotion, such as proper nutrition, prevention of drug and alcohol abuse, and sex education (the latter is not taught in a few countries, including Israel). The State of Israel, like Britain, Belgium, the Netherlands, Italy and others, belongs to the group of countries in which nurses are not located full-time in the schools but visit them according to a plan or schedule (Baltag & Levi, 2010). This stands in contrast to a different group of countries, including Austria, Denmark, Norway, and Sweden, in which nurses are to be found in the schools on a full-time basis.

Despite the many changes, it can be said that the existence of the school health services rests on the fundamental recognition that the school is the only institution in which children and youth are to be found most of the year and thereby facilitates easy access to students, and also, to a great extent, to their families. Hence, it bypasses the need to deal with difficulties of transportation, location, or limited accessibility to health services in the community. Thus, from a cost-benefit perspective, school health services are considered to have value, both for society and for the students. Moreover, since they are provided free of cost to students, school health services help to narrow gaps in health and reduce the use of community health services (Baltag & Saewyc, 2017).

As will be seen below, it appears that Israel and other countries share various challenges to the school health services, including a shortage of manpower, frequent changes in the model of operation, and the lack of uniform geographic service distribution. Moreover, it appears that the service in Israel suffers from a series of particular problems that are related to inherent basic issues of the local health system.

School health services in Israel: A short history of privatization and nationalization

School health services were brought to Israel in the early 20th century by the Hadassah Women's Organization. With the establishment of the State in 1948, the services were nationalized and their operation was handed over to the Ministry of Health. In the first decades, they were meant to include a nurse in every school, but that did not materialize; nurses were not to be found in every school nor in every sector. In the 1980s, the services were transferred to the responsibility of the local authorities and were operated on the basis of the Compulsory Education Law. Already at that stage, privatization led to major

upheavals when the local authorities published tenders for their operation through outsourcing (Joint Committee to Examine the Continued Operation of the Student Health Services, 2013; Leventhal & Amitai, 2008).

However, even after the approval of the National Health Insurance Law (1994), local authorities continued to provide school health services by means of outsourcing. In July 1997, the law was amended such that the Ministry of Health, rather than the Ministry of Education, became explicitly responsible for the service based on the National Health Insurance Law (Third Addendum). In subsequent years, the school health services were delivered by the Ministry of Health, although in practice they were delivered by the Association for Public Health. In the beginning, this meant direct or almost direct operation since, at that time, the Association for Public Health was an internal division of the Ministry of Health. However, after about a decade, it was decided to formally redefine the connection with the Association as an external non-profit organization. This meant that the Law of Compulsory Tenders (1992) now applied to this relationship. In 2007, the Association for Public Health became in practice a contractor providing school health services based on an outsourcing relationship (Gofin & Donchin, 2008; Joint Committee to Examine the Continued Operation of the Student Health Services, 2013).

Notwithstanding this decision, the nature of the relationship between the Ministry of Health and the Association for Public Health remained blurry. Only in 2009 was an official tender issued as part of the outsourcing model, which essentially transferred the responsibility for the services from the Ministry of Health to an external contractor. The Natali company won the tender, but legal battles delayed implementation. This led to the temporary cancellation of the tender and the issue of a new one. In 2012, there was a surprising development: the government partly withdrew from the privatization process, i.e., from outsourcing, and decided to partly renationalize the school health services, or, in other words, to directly operate the service in the Southern District and in the Ashkelon District.[2] According to government data for 2012, about 17% of the volume of school health services in Israel are provided in those districts, which account for more than half of Israel's area.[3] In the other

2 The division into districts presented here is according the district health bureaus of the public health services within the Ministry of Health. It is somewhat different from the division into districts used by the Central Bureau of Statistics.

3 These data were included in the response of the State to legal proceedings (civil appeal 7315/10, 6823/10). See Matan Health Services Ltd. and the Association for Public Health v. the Ministry of Health and Natali (Company for Urgent Health Services in Israel) Ltd., Supreme Court Verdict, February 28, 2011.

districts, the school health services were provided by means of an outsourcing tender, which was won by two companies: Natali and Femi-Premium.

The direct operation of the service in the Southern District began with intensive hiring of nurses from other parts of the country. This concerted effort led to a massive increase in the vaccination rate in the Bedouin sector. Thus, as a result of the transfer of the school health services to the direct responsibility of the Ministry of Health during the 2011/2012 school year, the vaccination rate for Tdap and HPV in Grade 8 in the Bedouin sectors increased from zero in the previous school year (2010/2011) to about 89%, and in the subsequent year to about 90% (Joint Committee to Examine the Continued Operation of the Student Health Services, 2013). It is worth noting, though, that the nurses who were hired came from within the government sector and from other districts and at their expense, rather than as an addition of nurses to the system.

From a budget perspective, privatization of the school health services through outsourcing and the nationalization that followed it in some districts did not reduce government expenditure. On the contrary, the process led to an increase in the operating budget — from NIS 50 million in 2007 to NIS 100 million in 2013. To this is added the operating budget of the first aid services, which is also currently provided by means of outsourcing, and whose operation was separated from the school health services in 2007 (Joint Committee to Examine the Continued Operation of the Student Health Services, 2013; Comptroller, 2010). In 2017, the budget of the school health services shot up to about NIS 132 million.[4]

In July 2015, an agreement was signed between Minister of Finance Moshe Kahlon and Chairman of the Histadrut (General Federation of Labour) Avi Nissenkorn regarding direct employment in the government sector. One of the clauses in the agreement included a promise to return the school health services to direct ministry operation. This meant that the partial process of nationalization would be expanded to the rest of the districts. However, the agreement was never implemented. In 2017, another partial nationalization took place which included the service in the Northern District; however, the remaining districts and the three largest cities (Jerusalem, Tel Aviv, and Haifa) continued to operate under the privatization model, with services provided

4 In the proposed 2017 budget, this amount is not broken down by district and therefore it is impossible to know which part is designated for the privatized districts and which for the nationalized districts.

by Natali and Femi-Premium. According to the Ministry of Health, since 2011, school health services in the Southern District, the Ashkelon District, and the Northern District have been operated directly by the Ministry. In the Haifa, Jerusalem, and Netanya districts, they are operated by Natali, and in Tel Aviv and the Center (apart from Netanya) by Femi-Premium. Note that some of the examinations that are part of the basket of services for Grades 1–9 in the Northern District are provided by Tipat Halav (mother and child wellness clinics), which also provides vaccinations for the Southern District (Ministry of Health, 2020).

Methodology

The research presented here is qualitative. Its conclusions were reached on the basis of a series of interviews with officials as well as by data from written sources. The interviewees were selected according to the method of expert sampling, that is, non-probabilistic sampling that relies primarily on the interviewees' familiarity with the research subject matter. Its advantages are primarily in the research of specific and unique topics. It involves relatively few participants, all of whom have comprehensive and in-depth knowledge of, in this case, the school health services (Frey, 2018). Expert sampling makes it possible to select the most appropriate individuals for the research on the basis of their knowledge, experience, and familiarity with the research topic. These individuals are able to provide important insights with respect to the roots of the problem, the possible solutions, or future trends.

For the purposes of the research, we held anonymous in-depth semi-structured interviews with 13 interviewees. They included central decision makers and officials in a variety of professions: nurses, current and past inspectors, physicians, Ministry of Health officials at various levels — starting with public health staff and employees in the district health divisions, and ending with officials in the ministerial offices and in the Ministry of Finance and the Ministry of Education — and academics. All of the interviews were conducted in 2017 and 2018. In 2021, a background discussion was held with a senior official in the Ministry of Education for the purpose of an update. The professional profiles of the interviewees — which maintains their anonymity — are summarized in the following table:

Table 1. Interviewee profiles

Characteristic	N=13
Gender	8 women, 5 men
Organizational affiliation	3 directors in the Ministry of Health, 6 former or current officials in the districts and bureaus of the Ministry of Health or the Ministry of Education, 2 officials in the Ministry of Finance, 1 nurse active in the National Association of Nurses, 1 health researcher in academia
Education/professional background	5 nurses, 4 physicians, 2 economists, 1 public health researcher, 1 senior official in the public sector

Source: Baruch Levi, Rami Adut, and Nadav Davidovitch, Taub Center

Most of the interviews lasted from 60–90 minutes; a few of them lasted about 40 minutes. The interview focused on the following questions: What is the opinion of the interviewee regarding the privatization of the school health services and what should be the future of the services? Should the school health services be nationalized and operated directly by the Ministry of Health or privatized and operated by a contractor? Is the decentralized model a good one, as in the current situation in which some of the districts are nationalized and others privatized? What should the school health services include — only vaccinations and general examinations or also developmental testing, monitoring, and health education? Should the school health services be medical in nature or educational? Should the service providers be nurses and do these nurses need to be part of the public health system (Tipat Halav) or should their work be carried out separately from it? If the school health services are considered to no longer be relevant, should their functions be transferred to other services and essentially canceled?

Most of the interviews were conducted individually with only one interviewee at a time and were moderated by one or two interviewers. All of them were recorded. Two researchers analyzed the recordings in order to identify significant patterns and perform a "bottom-up" thematic analysis (that is, inductively) (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). The patterns that were identified appear in the Findings section as categories and are accompanied by relevant quotes from the interviewees, each of whom was assigned a number. These are the original quotes except for a few cases in which small changes were made, such as the omission of names that were mentioned in the conversation, to maintain anonymity.

In addition to the interviews, the research also relied on written sources: articles and reports of the committees involved in this issue, reports by the State Comptroller, publications of the Ministry of Health, data of the OECD, and the Central Bureau of Statistics (CBS). Alongside the interviews, these sources provide a factual basis for the Findings section. This base includes data on the number and rates of students and nurses in Israel and other developed countries, and also performance indicators for the school health services, namely vaccinations, examinations, health education, and the like. The written sources also made it possible to integrate the information gathered from the interviewees with official data, such as the performance of the school health services according to indices of vaccination coverage, and even to expand on points that were raised in the interviews, such as the shortage of nurses and the inadequate scope of health education.

Findings

The information gained from the interviews can be divided into three main themes reflecting the opinions and positions of the interviewees on aspects of the school health services: manpower challenges, the separation of the school health services from the Tipat Halav service, and the assimilation of a quantitative approach to measuring performance. To the extent possible, the information from the interviewees was integrated into the written sources, such as publications of the Ministry of Health, the report of the Joint Committee to Examine the Continued Operation of the Student Health Services (2013), reports by the State Comptroller, and the OECD health database. These were supplemented by data and information from those sources.

Manpower challenges in the school health services

Many of the interviewees stated that the existing ratio of students to nurses in the schools makes it difficult to provide an adequate level of service. Thus, a senior nurse on the managerial level in the critical period in the late 2000s when the school health services underwent the first privatization process (in which the Association for Public Health, the operator of the services, became an external contractor) stated as follows:

> The Association for Public Health informed the Ministry of Health that it would provide economic management and that the nurses' work would be scrutinized on the level of work-minutes — how much time needs to be

> allocated per vaccination. The Ministry of Health very much wanted to go with privatization […]. To them this was economically worthwhile and an elegant solution […]. We — the district nurses — said that this move would dry up [the service] and that we could not take responsibility for the service […]. Now, the service is not functional […]. What happened in the field is that they dried us up. They continually removed positions […]. The students are increasing in number and the nurses are decreasing in number and we have reached 3,000 to 4,000 students per nurse. (*Interviewee 8*)

One of the nurses who was part of the first privatization process described her personal experience with the dynamics during that period:

> When privatization occurred in 2007, more and more nurses left the service and went to the hospitals, to the clinics [of the health funds], or they returned to Tipat Halav. We were left with practical nurses[5] and retirees. (*Interviewee 7*)

Another nurse, who had also moved up to a managerial position, described the situation created when the Ministry of Health decided to return to the direct operation of the services in the district in which she worked. The new situation illustrates the changes that occurred during the privatization period:

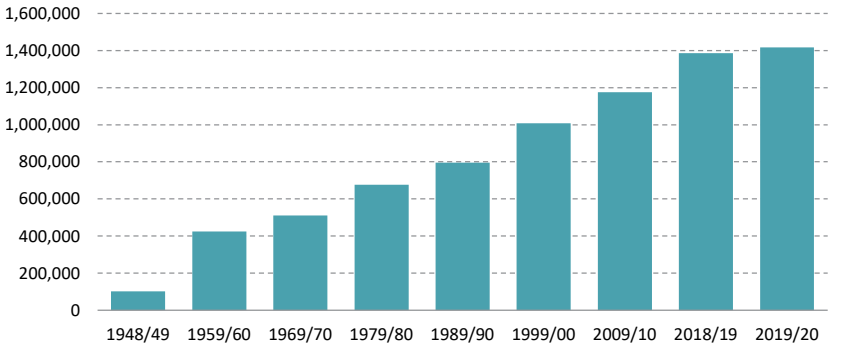
> Struggles in 2012 began with manpower. We had to estimate how many schools we had, how many nurses and which type of nurses [practical or registered]. […] I said, give me the standard ratio of nurses per number of students. The answer came from the district inspector that there is no standard ratio. Apparently, she inquired and that is the answer she received. In other words, we made do on our own with what there was. Manage on your own with 22 nurses. We are talking about nearly 300 schools, which is 76,000 students [between 3,500 and 4,000 students per nurse]. Out of the 22 nurses, there are about 18 or 19 practical nurses. A practical nurse can vaccinate, but she doesn't have the knowledge of a registered nurse. If I want professional and high-quality service, I can't make do with practical [nurses]. I need a registered nurse with a broad base of knowledge. (*Interviewee 9*)

5 A practical nurse has non-academic training and is permitted to perform basic care tasks on patients. All of the activities are carried out on the instructions and under the direct supervision of a registered nurse. A registered nurse has recognized academic training (at least a bachelor's degree) and is authorized to carry out a large variety of activities according to their professional training. For further details on the position of a practical nurse, see Ministry of Health, 2017.

The quotes from interviewees 7, 8, and 9, who worked in the Southern District during that period, are in line with the report of the Joint Committee to Examine the Continued Operation of the Student Health Services, according to which the ratio of nurses to students dropped drastically — from 1:1,600 between 1997 and 2003 to 1:5,000 beginning in 2010 (Joint Committee to Examine the Continued Operation of the Student Health Services, 2013). It is important to note that the nurse-to-student ratio began to drop during the period when the Association for Public Health operated the school health services and even before the relationship between it and the Ministry of Health officially became one of outsourcing. The aforementioned ratio between students and nurses is a reflection of the chronic shortage in public health nurses, which was reported by the State Comptroller (2014) in the analysis of Tipat Halav nurses. The Comptroller wrote that their number is below the threshold determined by the Ministry of Health in most of the districts. It is clear that this shortage will have a direct effect on the school health service nurses, since they are considered to be a sub-specialization in public health.[6]

The ratio is, of course, determined not only by the number of nurses but also by the number of students in Grades 1–9, which has grown by 400,000 in recent years (and 14-fold since the establishment of the State), primarily due to natural increase (Figure 1).

Figure 1. Number of students in Grades 1–9, 1948–2020



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

6 According to the investigation we carried out, the updated ratio between nurses and students has not been published for several years — not for the privatized districts nor for the nationalized districts.

The problem of a low ratio is naturally related to the shortage of positions and the difficulty in filling them. This is primarily seen in the nationalized districts. At the beginning of the renationalization process in the Southern District, the Ministry of Finance budgeted the positions in the district at the level that prevailed during the period of privatization and even raised salaries due to the difficulty in hiring nurses in the public health sector in general and specifically in the Southern District. The prioritization of the Southern District at the beginning of the nationalization was mentioned by several of the interviewees, including those from the Budget Bureau in the Ministry of Finance; nonetheless, note that this priority status was set initially and for a limited period only. In the summer of 2017, when the interviews were held, doubt was expressed regarding the question of whether the Ministry of Finance would be prepared to continue providing preferential salary conditions to school nurses in the Southern District when it is clear that there is a problem in filling approximately 20 positions in the school health services.

Another claim voiced by senior Ministry of Health officials in the interviews was that the positions budgeted in the nationalized districts should have gradually increased in number, relative to the population or according to a fixed and automatic mechanism, as in the case of the budget mechanism for contractors. It appears that this mechanism was not copied, nor was another mechanism for adding positions suggested. Thus, the Southern District is returning to a shortage of nursing positions relative to the number of students, in addition to the difficulty in filling existing positions, due to the low supply of nurses and the low prestige of the position.

Another problem mentioned during some of the interviews involves the harm to nurses' employment conditions, that is, their lack of job security. Thus, for example, in 2009, when the school health services tender was about to be issued, dozens of nurses were laid off. The National Association of Nurses submitted a petition to the Labor Court that the firings were a sign of a lack of job security and that they were intended to exploit the State Budget for the benefit of the service operator, i.e., the Association for Public Health (Yasur Beit-Or, 2009).

One of the interviewees, a senior nurse, placed the lack of job security at the top of the agenda for nurses employed by contractors. The problem, she claimed, began earlier, during the period when the Association for Public Health was the operator as an external agent:[7]

7 In 2005, for example, 730 nurses in the school health services received letters of dismissal (Yasur Beit-Or, 2005).

> During this period, starting in 2007, the nurses were neglected by the Association for Public Health. The management was unprofessional and uncaring. The Association was already not what it once was. Formally, the connection with the nurses was severed. During this period, the nurses would receive a letter of dismissal every year and they would be rehired in September. We went to the Labor Court over this. (*Interviewee 1*)

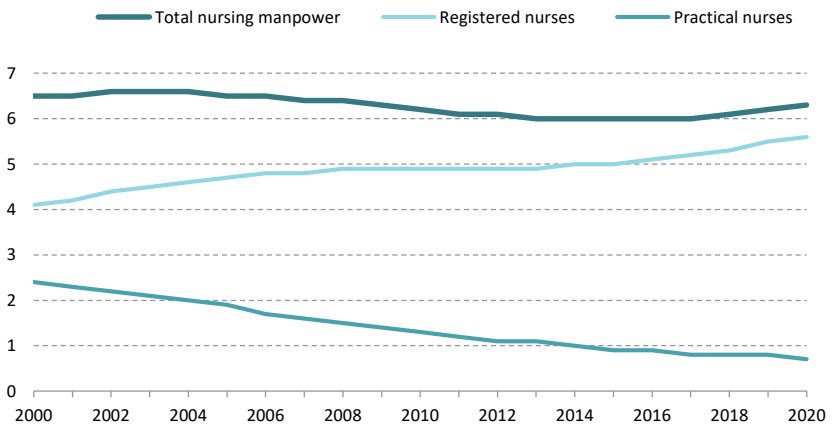
It appears that the complaints about poor working conditions under the contractors have diminished in recent years. The representatives of the National Association of Nurses lodged a complaint in 2016 about working conditions in the nationalized districts, and particularly in the Southern District.[8] Some of the interviewees in fact noted that the budget of the school health services had increased, even after the privatization decision, as mentioned above. At the same time, they added that, for them, there was no question that the budget must increase and the original budget during the period of the state-provided model (1997–2006) was too low. Apparently, the budgeting question is directly related to the question of budgeted positions in both the nationalized districts and the privatized districts.

At this point, the main issue that characterizes the Israeli health system should be noted, namely the chronic shortage of nurses on the national level. This phenomenon has a major impact on the functioning of the school health services, beyond any addition to the budget or decision on which operating model to adopt.

The Ministry of Health and the Ministry of Finance have worked over the years to reduce the general shortage in nurses. In 2020, 3,614 new licenses were granted to nursing graduates, which is 3.9 times the number in 2010 (Ministry of Health, 2021). However, due to the structural problems in nursing manpower in Israel, it is doubtful whether there has been any fundamental change in supply and demand on the ground. Indeed, despite the impressive growth in the number of licenses, the rate of nurses per capita has fallen in the past two decades (Figure 2). Although the rate of registered nurses per capita has risen over the years, that of practical nurses has fallen to the point that they have almost disappeared from the health system. We will return to this point later on.

8 See the statement by Ilana Cohen, the Chair of the National Association of Nurses, at the conference that took place in Jerusalem at the Van Leer Institute on July 19, 2016.

Figure 2. Number of nurses up to the age of 67 per 1,000 population, 2000–2020

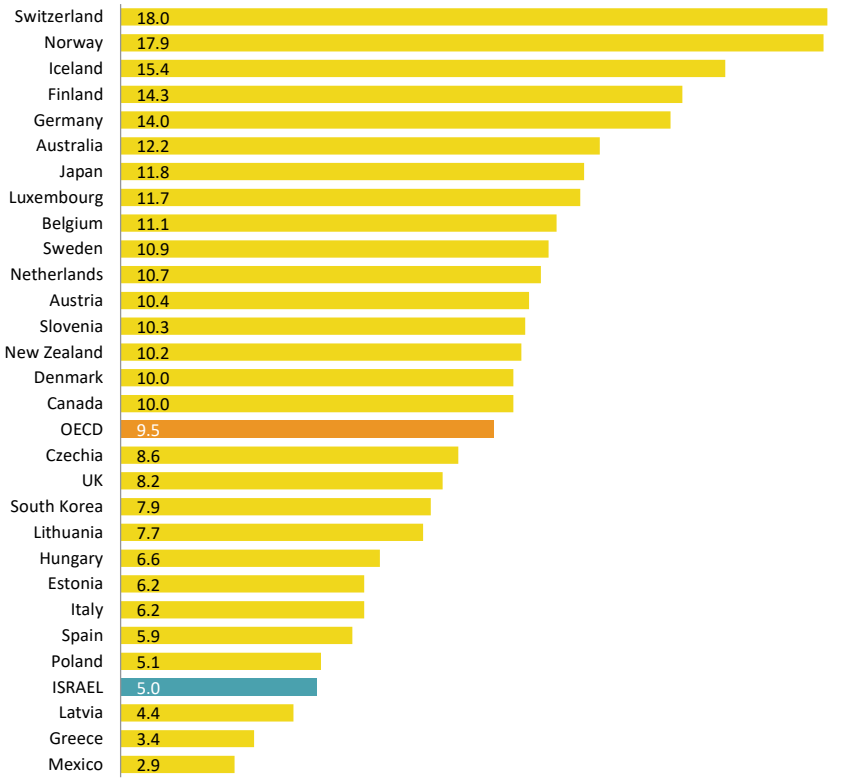


Source: Baruch Levi, Rami Adut, and Nadav Davidovitch, Taub Center | Data: Ministry of Health, 2021

A further distinction should be made between nurses who are certified and those actually employed as nurses, i.e., active nurses. There were 45,400 active working nurses in Israel in 2020 and they constitute 77% of the total number of nurses up to age 67 and 61% of the total number of nurses (Ministry of Health, 2021). According to OECD data, the per capita rate of nurses in Israel is only about 5 working nurses per 1,000 population, in contrast to an average of 9.5 in the OECD countries (OECD, 2021).[9]

9 The countries appearing in Figure 3 have the same definition of a working nurse as Israel, i.e., nurses actually working as nurses. The weighted average for all of the OECD countries is 8.8 nurses per 1,000 population, although this figure includes countries with different definitions of working nurses. For example, the definition can include nurses in the health system in managerial or research positions, only nurses in the hospitals or all registered nurses who are working as nurses.

Figure 3. Number of active nurses per 1,000 population in OECD countries, 2019 (or the closest year for which there are data)



Source: Baruch Levi, Rami Adut, and Nadav Davidovitch, Taub Center | OECD, 2021

The report of the committee established by the Ministry of Health a decade ago to examine the issue of medical and nursing manpower in Israel attributed the shortage in nursing manpower to the cessation of training of practical nurses and the academization of the nursing profession (Committee for Planning Medical and Nursing Human Resources in Israel, 2010). This shortage exists across the country and in every part of the profession; however, several of the interviewees stated that it is worsening in the Southern District. Evidence of this is the rate of nurses employed in the Southern District: 3.8 per 1,000 population, which is the lowest in Israel and only 76% of the national average (Ministry of Health, 2021).

Further evidence of the shortage in low-prestige specializations, including school health, can be found in the data on graduates of nursing courses. According to Ministry of Health data, the preventive medicine course, which includes the area of public health, is the only advanced course in which there was an absolute drop in graduates between 2000 and 2020 and one of the only ones in which the per capita rate declined during this period.

Severing the connection between school health services and Tipat Halav

In the government model of operation which was in place between 1997 and 2006, the nurse employed directly by the school health services was part of the local public health staff, i.e., the nurse was an integral part of the staff of the Tipat Halav clinic. It was quite common for a nurse to work a few days a week in the school and a few days in the Tipat Halav clinic. The integration of the two services was, according to the interviewees, professionally beneficial to the school health services, since the Tipat Halav clinics and the district inspectors supervising them initiated and operated professional training for the nurses. The separation of the nurses in the school health services from the Tipat Halav clinics created a feeling of being cut off among those nurses who decided to make the transition. One of the interviewees described this as follows:

> In 2007, the Association for Public Health received a tender exemption. All of the nurses employed by the Association in the school health services left the clinics and their connection to the clinics was severed. The Association for Public Health changed the nurses' format of employment. The Association became a contractor and essentially the nurses became subcontractors. The connection with the Tipat Halav clinics and with the district bureaus was lost. (*Interviewee 1*)

According to two of the interviewees who were employed in the Ashkelon District, the school health services returned fully to the format that existed during the period of the state-run model. In other words, the nurses were again working as part of the Tipat Halav staff and were again present in the school. However, in most of the districts, there is currently a different working model: in both the nationalized Southern and Northern districts and the privatized Center District, the nurse is part of the school staff, but is not at the school every day. When vaccinations or examinations are required, the nurse comes to their assigned school. They are part of a pool of nurses which makes

it possible to provide additional manpower when and where it is needed. The nurse is not assigned to a specific school on a specific day on a permanent basis.

This is a type of hybrid model between the nationalized model in which the nurse is part of the staff in a specific school (and is expected to be present there), and the pooling model (which is characteristic of privatization), in which the nurse is not part of any specific school. Therefore, the nurse is not present in a specific school on a daily basis but rather can be sent from the pool to any school according to demand. This method of operating apparently began during the period in which the school health services were run by the Association for Public Health, about at the same time as the Association became an external non-profit organization and its relationship with the Ministry of Health became one of contractual outsourcing, somewhere around 2006. This hybrid model is still in place in the privatized districts and a version of it is also employed in the Southern District, which has been nationalized since 2012. This method, according to one of the interviewees, was adopted primarily in the Southern District in view of the severe shortage of manpower there and the need to deal with a difficult situation that had developed during privatization, particularly in the Bedouin sector.

In this context, it should be noted that there are other processes occurring in the public health domain which are not related directly to the school health services, but nonetheless have an impact on it. This includes the conclusions reached by the Committee to Recommend a Desirable Model of Operating Tipat Halav Clinics (2017) and the approval of the Early Childhood Council Law (2017). In theory, the issue of the Tipat Halav clinics and the Early Childhood Council is not relevant to this research since, by definition, the school health services are provided to children of school age. Nonetheless, according to a position expressed by the interviewees, the school health services and the Tipat Halav clinics should be under the same roof. In other words, they should be manned by the same pool of nurses. It is worth emphasizing that this is not just an idea or a concept but is the reality in the Ashkelon District. Essentially, this is the reality that existed during the period when the school health services were operated directly by the State or by the Association for Public Health on behalf of the State.

Another trend that was mentioned in the interviews is the joint initiative by the Ministry of Health and the Ministry of Education called “Healthy Is Possible: Schools Promoting Health.” The goal of the initiative is to encourage a more

active and healthy lifestyle among children and youth both in school and in the community, with the school as a framework for providing reliable and up-to-date information on health issues and creating ties and partnerships between families, communities, sectors, and physical and social environments.[10] This initiative raises the question of how to integrate the school health services within the effort to advance health in the school and in the community and the place of the nurse in that effort. This will be discussed in detail in the Discussion section.

A quantitative approach to measuring the performance of the school health services

According to one of the interviewees who served in a senior position in the Ministry of Health, the question of the nurse to student ratio has lost its importance. He did not even know what the current ratio is for the students under his responsibility. According to him, it is the monitoring of the service's performance and the supervision over it that should be the center of attention, rather than the quantity of manpower. This opinion was shared by interviewees from the Ministry of Finance who made the claim that educational activity does not allow for precise quantitative monitoring. Educational activity includes knowledge and skills in areas such as prevention of smoking and drug and alcohol addiction, proper nutrition and physical activity, dental health, and personal hygiene.[11]

In the interviews, senior decision makers in the Ministry of Health expressed relative satisfaction with the performance of the contractors and a feeling of confidence in their ability to control the contractor's activities:

> How you construct incentives is what determines how they operate. When the incentive was a tender over price, they indeed came with a minimum number of nurses in a model of a patrol unit […]. This service was abandoned in the last tender, in 2011, a tender that was in my opinion a good example if you are already providing services privately. I do think that this should be provided by the State on the conceptual level, as an ideal, on the level of the profession for the sake of argument; but they decided that service would be provided by a contractor. This is a good example of how you organize this because the tender was not over money […]. It is not a

10 See Healthy Is Possible — the National Program for an Active and Health Life. (Hebrew)

11 See the websites of Natali (English) and Femi-Premium (Hebrew).

> bad model. If you are already going for privatization of a social service, then this is the model […]. They [Femi-Premium] are performing very well in the school health services. They do a good job of meeting the requirements of the tender and the conditions. You realize your vision by determining the budget allocation, the prioritization, and the need for manpower. You decide. You don't let them decide. And then they compete over quality […]. With respect to the ratio of nurses to students, it is something like 1 to 2,400–2,500, something like that. It is relatively reasonable, because I know how I built it.
>
> [Interviewer: But in Europe the recommendation is a ratio of about 1 to 1,000.]
>
> The question is what are the data. Perhaps they provide much more. We went from the bottom up. The result is 1 to…we went from the bottom up, starting from the activities. On the basis of the professional recommendations […]. In any case, we included this "soft" time which I don't know how to measure. Our term for this was the "extra mile," that is the extra mile of the service. That a nurse will have time for that. (*Interviewee 11*)

Interviewees also claimed that you can't continue to use the outdated and "romantic" idea of a school nurse and that the changes undergone by the service were the outcome of a reality that rests on operational measurement, alongside "softer" measures of education and promotion of health:

> The ideological weight that is attributed to this question is somewhat exaggerated. Perhaps this is too narrow a viewpoint, but in the end I want to receive high-quality service over time. They have an operational dimension (vaccinations, hearing tests, etc.), they have a softer dimension — health promotion. There is something here that needs to be understood. There is the romantic, nostalgic idea of a school nurse which is no longer relevant to how we manage the service. We don't have the ability. We don't have 5,000 public health nurses for 5,000 schools in the State of Israel. It is very difficult to increase the number of nurses. There is a severe shortage of nurses. I have limited manpower positions, which is a far more binding constraint. And if I need to argue with the Ministry of Finance every time for additional positions… (*Interviewee 11*)

Another interviewee expressed a willingness to accept the decentralized situation as it is, based on outcome, as reflected in the service's performance indices:

> I don't think [that the situation is confused]. In my view, there are currently three or four models for operation that are all consistent with the geographic-demographic operational variation across districts and it works well in each of them […]. In examining outcomes, I look at the indices. I see that overall, everyone is producing good results. There were a lot of childhood diseases in this service, I have to say, but both Femi-Premium and Natali are at least working according to the spirit of the agreements or the collective contracts. At my level, the service is currently at a reasonable equilibrium. There is variation, that is true, but it is healthy variation. It also creates a bit of competitive tension. It is good for us that Femi-Premium and Natali are concerned that one day we will take this away from them. (*Interviewee 12*)

Indeed, from the perspective that judges the school health services strictly on quantitative standards, i.e., vaccination rates and number of examinations, the reported performance levels appear to be impressive in the majority of cases. The strengthening of a norm that sees the most important test of the nurses' work not as health promotion or the long-term effect of their presence in the school as part of the educational staff, but rather by their quantifiable work in the delivery of vaccinations and examinations is apparent in the relevant reports. Thus, for example, the final report of the school health services for the 2018/2019 school year does not mention the nurse's presence in the school. It includes a number of tables that present coverage for the various vaccinations and the number of screening tests and developmental examinations performed but allocates only one table to health education.

As shown in Table 2, the routine vaccination coverage is very high in all of the districts and quite uniform, whether the school health services are provided by the school health services or by Natali and Femi-Premium, which are external contractors. In most of the districts, the rate of vaccination is 97–98%. Only in one district — the nationalized Southern District — is the rate somewhat less (95%).

Table 2. MMRV vaccination coverage, Grade 1, 2018/2019 school year

District/Contractor	Student vaccination rate
National	97.8
Health districts	97.2
Ashkelon	98.4
South	95.1
North	98.1
Natali	98.0
Haifa	97.7
Jerusalem	98.0
Netanya	98.6
Femi-Premium	98.1
Center	98.1
Tel Aviv	98.1

Source: Baruch Levi, Rami Adut, and Nadav Davidovitch, Taub Center | Ministry of Health, 2019

The picture is similar in the case of the Tdap IPV vaccination for Grade 2 and the Tdap vaccination for Grade 8 (where the difference between the Southern District and the national average is larger: 86% vs 95%). The situation is also similar with respect to screening tests (development, vision, and hearing): high rates of coverage (national average of 91–98%) with negligible differences between districts, apart from the nationalized districts — the Southern District (about 65% coverage in developmental examinations) and the Ashkelon District (about 81% coverage in vision tests).

There are more extreme differences between districts in the area of health education. The basket of school health services includes one lesson on health education per year for each class. However, it appears that in some of the districts even this low level of activity is not being fully delivered (Table 3). The coverage in health education is low on the national level relative to vaccinations and examinations, and moreover, there are large differences between districts.

Table 3. Coverage for health education, 2018/2019 school year, percent

District/ Contractor	Grade									Total
	1	2	3	4	5	6	7	8	9	
National	82.2	78.9	77.4	75.5	73.6	74.4	77.5	74.9	62.4	75.5
Health districts	52.8	42.5	37.0	32.7	29.9	31.9	46.4	38.1	22.6	37.3
Ashkelon	67.7	48.5	32.8	22.7	17.9	22.8	38.7	36.0	6.3	33.6
South	25.4	13.9	12.2	11.8	0.3	0.9	20.0	12.7	2.8	11.4
North	64.9	57.9	53.7	48.8	49.7	52.7	64.0	53.2	38.1	53.7
Natali	96.9	96.9	96.9	96.6	96.0	96.7	96.2	95.5	94.1	96.3
Haifa	95.9	95.1	95.8	95.6	95.7	96.1	96.6	95.1	93.1	95.5
Jerusalem	97.6	97.6	97.5	97.1	96.4	96.9	95.9	96.1	95.3	96.8
Netanya	96.9	97.9	97.3	97.2	95.0	97.3	96.5	94.4	91.6	96.2
Femi-Premium	95.2	95.5	95.8	95.6	94.6	93.7	89.9	91.4	72.6	92.2
Center	95.6	95.9	96.3	96.2	95.4	94.3	88.4	90.5	74.6	92.6
Tel Aviv	94.4	94.8	94.8	94.5	93.2	92.7	92.4	93.0	69.2	91.5

Source: Baruch Levi, Rami Adut, and Nadav Davidovitch, Taub Center | Data: Ministry of Health, 2019

The table shows that the Southern and Ashkelon districts are prominent in their low levels of health education coverage: 33.6% and 11.4% respectively, as opposed to the national average of 75.5%. The figures are particularly low in the Southern District, and it appears that this activity is almost non-existent in Grades 5 and 6. Also, in the Northern District, the rate of coverage is relatively low. These three districts share two important characteristics: they are in the geographical periphery and they receive school health services directly from the State. In contrast, in the privatized districts, which include the large metropolitan centers, there is a high rate of coverage, ranging from 91%–97%.

The attempt to clarify the performance data in educational activity in the Southern District — activities such as classes in health education which is not directly medically-related and cannot be easily measured — did not yield clear responses. It appears that out of necessity — in view of the difficulties that characterize this district — emphasis is placed on vaccinations and screening tests, and that the method of operation is mobility and regional deployment. Nonetheless, the interviews indicated that it does seem that nurses are assigned to a fixed group of schools.

The contractors operating in the rest of the districts reported higher rates of coverage in health education, but this provides no indication of the lessons'

content, their goals and their quality, since the Ministry of Health report focuses only on the quantitative data. One of the interviewees, a senior official in the Ministry of Health, emphasized that the "soft" educational components appear in the terms of the tender and they also apply in the nationalized districts. At the same time, he also recognized that health education gets secondary status relative to the centrality of vaccinations and examinations, which can be quantified.

Table 4 describes the various approaches that emerged from the interviews with regard to the optimal model for operating the school health services according to the aspects presented above.

Table 4. The school health services — potential models (based on the interviews)

Model	Method	Service delivery	The nurse's place in the service	Integration with the public health services (Tipat Halav)
1	Outsourcing the entire service	Delivery by means of a contractor that is an outside company	The nurse is part of the staff in a specific school but is not present on a full-time basis	No connection between the school health services and the public health service (Tipat Halav)
2	Decentralized service: outsourcing or government operation	Delivery model is determined in each district separately, according to the situation in the district and the decision of the district physician	The nurse is part of the staff in a specific school but is not present on a full-time basis	In privatized districts, the nurse works alone, without any connection to the Tipat Halav services
3	Schools Promoting Health	The method of service delivery has not yet been decided	The nurse is responsible only for health education and prevention, alongside the educational staff, and has the ultimate authority in these matters in the school. Vaccinations and examinations are conducted in the community and not in the school	The issue of integration in this model has not yet been decided
4	Nationalized and uniform national service	State-operated model. Nurses return to working as government employees	There is no consensus as to the full-time presence of the nurses in the school	The nurses are an integral part of the Tipat Halav clinic, as was the case in the past
5	School health services in the local authorities	They are the nurses' employers and the Ministry of Health provides professional guidance	The nurse coordinates the local and school programs	The nurse is not part of the Tipat Halav staff, but receives support and guidance from the district health bureau

Source: Baruch Levi, Rami Adut, and Nadav Davidovitch, Taub Center

Discussion

The international review presented earlier showed that school health services in Israel share characteristics with other developed countries that offer such services. First, in many countries, there is a long tradition of school health services and their importance is almost unquestioned in the eyes of the professional community, academia, and state authorities. It is organized and delivered in a variety of ways from the legal, regulatory, and professional perspectives. As in the case of Israel, the service in other countries suffers from a shortage of nurses, difficulty in providing the nurses in the service with proper training, a lack of clarity in the definition of the nurse's function, low priority on the political level, and inequality and a lack of uniformity in format between regions of the country. Moreover, in many countries the winds of privatization are blowing, along with a recognition of the importance of school health services as a public service. Israel is not unique from this aspect either.

Nonetheless, it appears that relative to many other countries, the school health services in Israel tend to be limited. Thus, for example, Israel belongs to the group of countries in which the nurse is usually not present in the school on a full-time basis and the service does not include sex education, unlike in most countries. Furthermore, it is unclear to what extent educational activity in the areas of health promotion and prevention takes place, if at all, which is in contrast to many other countries where it is a fundamental component of the school health services. Finally, the rate of active nurses in Israel is among the lowest among the developed countries. This is the core of the manpower problem in the school health services in Israel, as in other sectors of the health system.

These findings are in line with the claims made in the interviews and in the documents we examined. Together, they paint a worrying picture with regard to the current and future situation of the school health services in Israel: a shortage in manpower, difficultly in filling positions, and a neglect of the "soft" components of the service which cannot be measured. These problems are closely related to the professional separation in most districts between the school nurses and the Tipat Halav clinics and to the diminishing attractiveness of being a school nurse to those in the profession. These factors are both the cause and the outcome, forming a vicious cycle. Thus, the unattractiveness of being a school nurse is one of the main factors underlying the difficulty in filling positions, and at the same time, it is also the outcome of the professional alienation of the school nurse. All this is connected to the fundamental problem of the health system, namely the severe shortage of nurses on the national level, a problem that casts its shadow over the entire school health services.

This factor ties into the trend towards academization of the nursing profession (and the canceling of the practical nursing position), as well as with efforts to raise the profession's prestige. In other words, efforts to raise the status of the profession actually increase the shortage of nurses who have the potential to fill these positions, again due to its low prestige when considering the overall supply of new nurses. Bearing this in mind, service models that limit the job role also serve to limit professional advancement opportunities or give the feeling of a monotonous job. All of this serves to contribute to the low internal demand for the job and the shortage of nurses who are interested in working in the field.

It is reasonable to assume that the upheavals experienced by the school health services, including the indecisiveness and accompanying uncertainty, have also contributed in the long run to the decline in its status, against the background of the general shortage in nurses and the academization of the profession. Moreover, the lack of a uniform operating model on the national level undermines the possibility of maintaining a coherent approach to school health in particular and public health in general. It is unclear, for example, why some schools benefit from the full-time presence of a nurse while others do not. Similarly, it is hard to find any professional or organizational logic in the differences between districts that are operating under the same state-operated model and between districts that are operating under the same outsourcing model.

One of the concerns that emerges from the research is that the current situation of the school health services, which to a large extent emerged from fairly random and chaotic circumstances, will become a kind of default over time — a compromise that is the outcome of continuous disagreements between stakeholders and opposing worldviews. The inability to decide and the resulting fatigue will generate ex post facto justifications for the existence of a decentralized model, in which the provision of school health services in each district is, at least in theory, modified to fit the local conditions.

At this point, it is worth emphasizing that the involvement of a private entity in the provision of a specific service based on collaboration with a government authority is a widely-accepted practice in health systems worldwide, including in Israel. Public-private partnerships can produce great benefit. For example, as part of the response to the Covid-19 pandemic, the Ministry of Health engaged a private company to monitor the virus in the sewer system.

Obviously, in order for such partnerships to succeed, they must meet criteria of governance, transparency, and fairness (Tille et al., 2021). This is also true in the case of school health services.

Policy makers find it difficult to provide a suitable solution to the challenges facing the school health services, and first and foremost the decline in its prestige and the shortage in manpower. As proof, even after the Ministry of Finance approved additional positions for nurses in the Southern District, they were not filled until the salary offer was raised significantly. It is difficult to say whether in the long run an increase in salary will be able to compensate for the lack of professional attractiveness and there may be a need to think of creative solutions that are not based on financial prioritization alone. From this perspective, whether the school health services return to the state-operated model or are fully privatized, the fundamental problems will remain. Therefore, it would be worthwhile initiating a public and professional discussion that takes into account the different conceptual approaches to economic and social life, such as privatization versus nationalization, or a market approach vs a welfare state approach. However, a more practical approach is needed, both to the fundamental problems of the school health services, and to a large extent to those of the public health system as a whole.

To this end, it is worthwhile comparing the models proposed in the summary table in the Findings section, in all their various aspects. First, it appears that the positions expressed in the interviews were derived to a great extent from the interviewees' socioeconomic worldviews. Thus, for example, Model 1 relies on outsourcing and the quantitative measurement of vaccinations and examinations as the main yardstick for assessing the quality of the service. It appears that these measurements reflect to a large extent the economic outlook prevalent in the Ministry of Finance. In contrast, Models 4 and 5 favor voluntary entities with a social welfare orientation. They support uniform nationalization of the school health services in all districts or its transfer to the responsibility of the local authorities. Models 2 and 3, which are favored primarily by the Ministry of Health and the Ministry of Education, are somewhere in the middle in that they propose a decentralized format of operation or a format in which the method of delivery is not uniform.

Although the model of Schools Promoting Health (Model 3) includes a genuine recognition of the importance of health education, it is in fact this model that can, in the long run, lead to the elimination of the function of the school nurse, since the function of health education can be carried out by the

school's pedagogic staff while the clinical functions would be transferred to the community. From this perspective, the model of Schools Promoting Health further limits the role of the school nurse. It may be that from the perspective of long-term planning of school health services, the primary decision makers will feel that this is an optimal outcome, but in that case, they will have to deal with the consequences of their decision with respect to the nature of the nurse's role in the school.

A similar distinction can be made with respect to the local authority model (Model 5). According to this model, the school health services would be centralized in the hands of the school nurse; however, it is not clear that a nurse would be needed to fulfill this function if community medicine is responsible for examinations and vaccinations. Thus, the adoption of the local authority model may make the function of the school nurse superfluous and lead to its becoming obsolete in the long run. Note that at this time, this is a hypothetical scenario and no attempt has been made to adopt this model.

The multiplicity of viewpoints regarding the optimal model for the school health services is one of the main findings of this research. The lack of consensus is primarily reflected in the way that each of the players views the optimal way to organize the school health services — starting from outsourcing and a decentralized format and ending with the handing over of responsibility to the local authority, or nationalization and operation by the state. In contrast, the interviewees expressed relatively similar views as to the importance of the school nurse's function as a fixed part of the school's pedagogical staff. The differences in opinion that we found were primarily with regard to the function of the school nurse and the desirable evaluation indices for the service's quality. Should the school nurse focus on vaccinations and examinations or perhaps greater emphasis should be placed on health education and disease prevention? Clearly, the method used to measure and evaluate the school health services will be based on the role of the school nurse.

In this context, the final report of the Ministry of Health on the school health services brings up an interesting point that has not received sufficient attention (Report of the Joint Committee to Examine the Continued Operation of the Student Health Services, 2013). Essentially, the report provides an indication of how the Ministry evaluates "quality." It can be concluded that the focus on quantitative measurement has become the cornerstone for evaluating the performance of the school health services. Apart from describing the gaps between the districts, the report reveals how decision

makers view the main function of the school health services and how they evaluate its performance. The report provides almost no indicators for the "soft" components of the service, because quantifying and evaluating them by measurement of this type is almost impossible. Therefore, the report does not provide any information on the content of nurses' training, about the degree of cooperation between nurses and the pedagogical staff, the quality of the classes devoted to health education and prevention, and the degree to which the lessons achieve their goal. Essentially, we do not know anything about the educational goals that have been set — if any were — and to what extent the students have internalized the messages and insights conveyed, whether they have influenced student behavior, and whether student health has improved as a result.

This report is consistent with the findings of the mapping of positions with regard to the school health services that was presented previously, in that it reflects the positions of the two main ministries — namely the Ministry of Health and the Ministry of Finance — which are responsible for regulating the service, including the way it is financed and operated. Overall, the report reflects the thinking of the state — in Israel and worldwide — with regard to social services, and public services in general since the 1980s. In addition to constraints on the state budget, recent decades have seen a multiplicity of attempts to measure the performance of the bureaucracy and to require that bureaucrats be accountable, set objectives as well as increase their administrative flexibility. These efforts have formed the basis of administrative reforms carried out in many policy domains. These initiatives were in the vanguard of efforts by Western countries to introduce market norms into the public sector in order to achieve a more efficient delivery of services. This doctrine, or philosophy of government, has been referred to as New Public Management (NPM). It brings together a huge mix of ideas, initiatives, and programs in order to streamline and improve the efficiency of the public sector in a variety of areas that are under the responsibility of the state (Pollitt & Bouckaert, 2004).

The school health service is a clear example of the attempt to adopt this approach in Israel. At the same time, it also embodies the huge challenge that policy makers face in implementing it, namely the difficulty in copying the measurement of performance from the business sector to the public sector, especially in the case of social services. The measurement of profit, revenue, expenditure, inputs, and outputs is not equivalent to measuring "social value,"

which is "produced" by service providers in the public sector. This does not mean that it is impossible to evaluate the social contribution of health education programs. On the contrary, that is desirable and even essential. However, it is very difficult — and perhaps impossible — to accomplish this by the simplistic measurement of "inputs" and "outputs," such as the number of nurses relative to the population and the coverage of health education lessons in the classroom. Thus, measurement often focuses on "what is measurable" rather than "what needs to be measured," even if the most accessible indices are not necessarily those that best reflect the goals of the school health services or its performance.

It is worth noting that according to the Ministry of Health report, health education coverage in the privatized districts usually exceeds that in the nationalized districts, and there are no prominent differences in vaccination coverage and screening tests across districts. It is, in fact, the district that is provided with school health services by the State — the Southern District — which in some cases lags behind the others. Despite this, it appears that the situation is not necessarily connected to the identity of the service provider — namely, the state or an external contractor — but has more to do with the specific characteristics of the district, including its size, the dispersion of its population, its socioeconomic status, and the neglect and social marginalization of parts of the population living in it (in this case, Bedouin), alongside the shortage in nursing positions in the school health services and the difficulty in filling them in this district. These findings may be an indication that, at the end of the day, the issue of which operating model to use is secondary in importance to the question of which worldview shapes the character of the school health services. Policy makers view it as a system of inputs and outputs that can be quantitatively measured, whether it is privatized or nationalized, and it is this approach that determines its character and functioning. According to this perspective, models that are closer to a business approach, such as the outsourcing model, may have an advantage.

Based on this, it is also easier to understand the loss of prestige in the school health services and the profession of school nurse, alongside the undermining of the nurse's image as an educator. According to this view, the nurse is nothing but a worker on a production line whose output is measured by the number of vaccinations and examinations "produced." The nurse's presence as an educational figure promoting the health of the students is perceived as non-essential and perhaps even undesirable, in view of the burden it imposes

organizationally and financially (the budget cost of manpower). This view of the nurse's function, which is presented in a negative light in the report of the Joint Committee to Examine the Continued Operation of the Student Health Services (2013), is accepted with enthusiasm among senior officials in the Ministry of Finance and the Ministry of Health, which view the emphasis on the quantitative aspect of the nurse's work as the principal means of measuring it and improving its efficiency.

It is worth noting parenthetically that although this study does not examine the functioning of the school health services during the period of the Covid-19 pandemic (a topic worthy of a separate paper), since the interviews were carried out about two years previously, it is nonetheless easy to understand why the service played only a marginal role in responding to the pandemic. The marginal role of the school health services is even more evident in view of the centrality of the professional and public debate over the place of the education system during the pandemic, and in particular the situation and behavior of students, both inside and outside the schools. It appears, therefore, that this is another indication of the school health services' weakness and, attention should also be devoted to its ability to cope with pandemics regardless of any changes that are made in the format of its operations.

Conclusion

The lack of consistency in government policy toward the school health services, the constant changes in its structure, and the lack of uniformity in its operating methods on the national level have led to the current lack of clarity with regard to its optimal operating model. It can be said that over the years, there has been an increasing "balkanization" of the school health services, the result of poor long-term planning. The current situation, which is the result of a combination of circumstances, constraints, and the push-and-pull of opposing forces, is liable to become permanent without having any professional or scientific justification.

The multiplicity of opinions on this issue and their opposition to one another, as seen in the findings of this study, call for an open and in-depth public and professional discussion of the future of the school health services, including a definition of the school nurse's role, the status of the profession, working conditions, the service's ability to attract manpower, the gaps in service between districts, and the appropriate methods to evaluate and

measure the services provided. These parameters do not require a choice of service model — privatization or nationalization — but rather an informed discussion of each of the possibilities presented in this paper, as well as hybrid solutions that can combine components from several models. Whatever the case, any model that is decided on must provide a solution to the fundamental problems that plague the health system in Israel, namely the general shortage of nurses, which is experienced by the public health system, and in particular the school health services, in view of the trends toward academization and the lack of prospects and professional interest in the school health services. The aforementioned is able to explain, among other things, the marginal role of the school health services in responding to the Covid-19 pandemic, even though issues related to the education system were — and continue to be — at the center of the professional and public discussion during the entire pandemic period.

Finally, one can view the history of the school health services as a specific case study of a broader question: the future of the welfare state, in view of the increasing dominance of market ideology. There are two aspects to this issue. First, which model of operation is most desirable for service provision — the government as a provider or outsourcing of the service? Second, the case of the school health services points to the tendency among policy makers to copy the measurement of performance from the business sector to the public sector, although at the same time it also demonstrates the difficulty in doing so, since the measurement of input and outputs, as it is carried out in manufacturing and commerce, is not equivalent to measuring the "social value" of health and social welfare services. Standing in opposition to the ideology of free market values is the view that advocates the continued operation of well-established social services, such as school health services and public health services, in general, by the state, as an expression of its social welfare character. Currently, it appears that the struggle between these two worldviews is far from decided in Israel, as is the case in other policy domains. When confronting the Covid-19 pandemic and the numerous health challenges it poses to the education system, it seems that this issue is currently more important than ever.

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