INTERNATIONAL LONG TERM CARE POLICY NETWORK

The impact of COVID-19 on people using and providing Long-Term Care in Israel

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1. Key points

- In Israel, as in most of the Western world, Long-Term Care is organized in a fragmented manner with several government bodies subordinate the LTC Facilities (LTCFs); this is likely to be one of the reasons for the slow response to COVID-19 in the LTFCs.

- The first COVID-19 patient in Israel was diagnosed on February 27th and since then the number of confirmed cases has risen to 15,782 (as of April 29th), with 120 in serious condition and 202 deaths. Of the deaths, 65 were LTC residents (32%).

- The outbreak in the Israeli LTCFs began in mid-March, sixteen days after the first patient was diagnosed in Israel.

- Only a month after the initial outbreak, following massive public criticism and a call for help from the LTCFs managements, the Israeli government appointed a national-level team to manage the COVID-19 outbreaks in the LTCFs.

- The national project called "Mothers and Fathers Shield" was initiated on April 12th, a week later, on April 20th, the project team published a national work plan which its main principals include:

    - Establishment of a single headquarters to coordinate government efforts;
    - Expanding the Home Front Command's role – to train LTCF staff in protection against COVID-19 infection and to provide assistance in disinfection.
    - Establishing COVID-19 patients care departments within each of the institutions.
    - Increasing the scope of COVID-19 testing in LTCFs, including those with no identified COVID-19 patients.
    - Managing the social distance of patients to mitigate loneliness.

- *Lessons learnt so far*

    - Covid-19 testing policy in LTCFs should be constantly updated and based on information and research that is collected and published on a daily basis. LTCFs, which are at high risk of infection, require a dynamic response and special attention to their needs.

    - In view of the fact that LTCF residents are especially vulnerable to pandemics such as COVID-19, and based on our experience so far, in the report we present a proposal of a three-step approach to controlling outbreaks in LTCFs.

2. Introduction

Israel has a relatively young population. The proportion of people aged 65 and over is only 11.7% as compared to an average of 17.2% in the OECD countries.[1] There are 640 long-term care facilities (LTCFs) in Israel, with about 70,000 residents. They are composed of geriatric institutions (170), nursing homes (290) and assisted living and supportive housing (180). Most are privately owned and funded.[2]

Most of long-term care (LTC) in Israel is provided to elderly people living at home and to residents of assisted housing facilities (in independent wards). At the beginning of 2020, 220,830 individuals (of retirement age) were eligible to receive publicly financed LTC services at home. The Israeli National Insurance Institute (NII) is responsible for LTC services in the community while the health plans (which in Israel are essentially managed care organizations) are responsible for the medical treatment of LTC patients.[3]

Providing complex nursing care is the responsibility of the health plans. Prior to the COVID-19 pandemic, there were 32 complex nursing care hospital wards, 20 rehabilitation geriatrics hospital wards and 15 geriatric internal hospital wards.[1]

In Israel, as in most of the Western world, LTC is organized in a fragmented manner. LTCFs are subordinate to three government bodies: the Ministry of Health (MoH), the Ministry of Welfare and Labour Affairs (MoWL) and the National Insurance Institute (NII) and this is likely one of the reasons for the slow response to COVID-19 in the LTFCs. Indeed, about a month after the COVID-19 outbreak in Israel, it was even suggested that responsibility for the elderly population in the LTCFs be transferred to the Home Front Command of the Israeli army, which had no previous experience in managing this type of event.

3. Impact of COVID19 on long-term care users and staff so far

3.1. Number of positive cases in population and deaths

The MoH publishes daily updates on COVID-19 cases and deaths. The first patient diagnosed with COVID-19 in Israel was a traveller returning from Italy. This occurred on February 27th and since then the number of confirmed case has risen to 15,782 (as of April 29th), with 120 in serious condition and 202 deaths.

[1] OECD (2020), Elderly population (indicator). doi: 10.1787/8d805ea1-en

[2] Elderly in Israel Statistical Yearbook available at: http://mashav.jdc.org.il/?CategoryID=233&ArticleID=162

[3] NII, 2020 “The Long-Term Care Insurance Program reform: A snapshot and trends", Directory of Research and Planning, National Insurance Institute of Israel

3.2. Rates of infection and mortality among long-term care users and staff

Of the 202 deaths so far, 65 were LTC residents (32%). Figure 1 presents the trend in total deaths due to COVID-19 in Israel during April 2020 and how many of them were LTCF residents.

Figure 1: COVID-19 deaths in Israel during April 2020

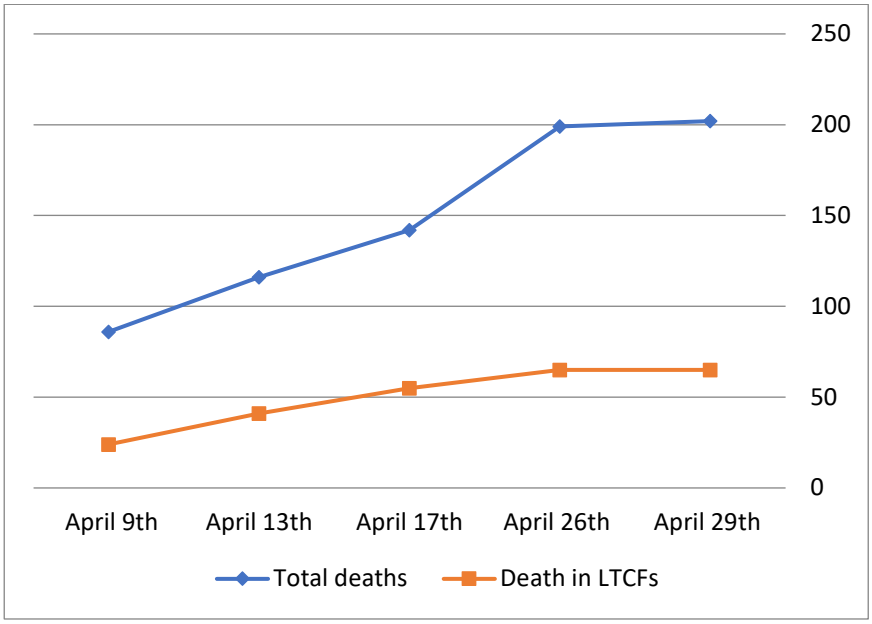

Figure 1 shows that the curve for deaths of LTCF residents flattened starting from mid-April. As of April 29th, there were 83 LTCFs with COVID-19-positive residents or staff (407 infected residents and 163 infected staff; Table 1).

Table 1: LTCFs with infected residents and staff

	Number of facilities	Number of infected patients	Number of infected staff
Nursing homes	54	313	116
Geriatric institutions	14	82	25
Assisted living and supportive housing	15	12	22
Total	83	407	163

Timeline of the spread of COVID-19 in the LTCFs

The medical literature in recent weeks has reported that LTCFs are high-risk settings for severe COVID-19 outcomes. Death rates from COVID-19 among LTCF residents are very high and

particularly in the nursing homes. As of mid-April 2020, the average age of patients in Israel who had officially died from COVID-19 was 82.

The outbreak in the LTCFs began in mid-March, sixteen days after the first patient was diagnosed in Israel. On March 15th, it was reported that a social worker on the staff of a sheltered housing facility in Jerusalem ("Migdal Nofim") was diagnosed with COVID-19 and this was followed by further cases in the same facility (from mid-March to mid-April). The virus subsequently appeared in LTCFs all over the country: in Jerusalem, Be'er-Sheva (in the South), Yavne'el (in the North) and at several places in central Israel.

One LTCF—the prestigious Mishan sheltered housing complex in the city of Be'er Sheva—received particular media attention. The outbreak there began on the third week of March when a resident of the facility's nursing care ward (Patient-1) felt ill. She was sent to a general hospital, was treated, and returned to the facility. Several days later, her condition deteriorated again, and at the same time another resident fell ill (Patient-2) and passed away on March 26. At this stage, Patient-1 was tested for COVID-19 and found to be positive. A Home Front Command unit that specializes in chemical weapon detoxification was then sent to disinfect the facility. A sample of residents and staff were tested, and the entire nursing care ward staff were put in quarantine since they had come into contact with Patient-2. In retrospect, it turned out that Patient-2 was also infected with the virus. Epidemiological investigation revealed that Patient-1 was infected by a general hospital nurse during her treatment. At that point, the ward began operating under strict quarantine conditions, and residents in the neighbouring assisted living facility were confined to their rooms.

By April 7th, 27 out of the 35 residents of the nursing care ward had tested positive for COVID-19 as well as 13 of the ward's staff and two residents of the independent living ward. Only on April 1st, after demonstrations by family members at the entrance to the facility and exposure in the press, the MoH approved SARS-CoV-2 testing for all the residents of the facility (both dependent and independent). Until then, the only treatment had been complete isolation of all independent residents. The quarantine on the facility was lifted only on April 11th. To date, 15 residents of the facility have died of COVID-19. None of the assisted living residents needed medical treatment although three tested positive for COVID-19.

The mitigation phase of the campaign to control the pandemic include a variety of social distancing measures adopted during March, with new measures introduced almost on a daily basis (for further details, see Waitzberg et al. (2020)). There were also specific and more stringent measures taken in the ultra-Orthodox city of Bnei Brak, which affected some LTFCs.

During March, cities with a predominantly ultra-Orthodox population became foci of the COVID-19 outbreak. After some delay, the government implemented special measures adapted to the population in these cities. As of April 1st, the MoH announced tight restrictions on movement (which came close to being a full curfew), in an attempt to stop the contagion in the city. Despite this, by April 14th, there were four LTCFs in the city that reported a high number of infected residents.

On March 31st, an independent resident of one of the LTCFs in Bnei Brak went for routine dialysis treatment in a general hospital. Due to the patient's suspicious cough, he was tested for COVID-

19. The positive result was received by the MoH which then notified the head of the facility. Residents of the facility's independent wards were tested on April 9th; 22 were positive, most of them asymptomatic. The poor management of the outbreak in this facility illustrates the fragmented responsibility for the Israeli LTFC system. This particular facility is under the supervision of two ministries: its four nursing care wards are under the supervision of the MoH while its two geriatric wards for independent residents are under the supervision of the MoWL.

On April 13th, a month after the initial outbreak, an emergency discussion in the Israeli parliament revealed that there were 35 LTCFs with 270 people with COVID-19 infections and that there had been 35 deaths in those facilities (which at that time accounted for about 35% of the total COVID-19 deaths in the country).

4. Long-term care policy and practice measures

4.1. Care homes (including supported living, residential and nursing homes, skilled nursing facilities)

4.1.1. Prevention and management of COVID19 infections

On March 10th, the MoWL issued a directive regarding visits to residential care homes and sheltered housing facilities.[4] The directive stated that visits must take place outside of the facility and only those who are not under self-quarantine orders or do not live with someone who is self-quarantined in the same household may visit. In an interview, the chairman of the LTCF association rhetorically asked why the MoWL rules are stricter than those of the MoH, which at the time permitted first-degree relatives to enter the facilities and only prohibited those who had recently travelled abroad.[5] The contradictory instructions created a measure of confusion among the staff of the LTCFs and among family members of the residents.

Another contradiction came to light in the testing policy for LTCF workers and residents. At the beginning of the pandemic, the testing policy did not include specific criteria for the residents and staff of infected institutions. This was rectified following a massive public outcry, which included media coverage and demonstrations by family members. On March 30th, the testing criteria were updated (Update no. 13) to include residents and staff in *high-risk institutions* (including LTCFs) who showed symptoms.[6] Nine days later, on April 9th, the criteria were again updated to enable the testing of *all* residents of LTCFs who showed symptoms, not only those in high-risk institutions. Furthermore, under the new criteria, if a resident or staff member is

[4] MoWL (2020), Preparations by the welfare services - Coping with the Corona Virus - COVID-19 - Directive No. 3 (2020-003).
[5] https://www.calcalist.co.il/local/articles/0,7340,L-3800102,00.html
[6] A 38°C fever or a respiratory symptom such as a cough, difficulty in breathing, etc.

diagnosed with COVID-19, all the individuals in the relevant ward are to be tested 3 times, even if they show no symptoms.[7]

Coordination of efforts and decisions in the LTCF sector

The authorities that are responsible for the LTCFs are scattered among several ministries, which impedes the efficient management of the pandemic. The severe outcomes of the COVID-19 outbreak in the LTCFs led to massive public criticism, as well as a "cry for help" by the LTCF managements. The LTCF association submitted an Urgent Petition to the Israeli Supreme Court at the beginning of April with two main demands: to increase COVID-19 testing for residents and staff in all LTCFs and the allocation of an emergency budget to LTFCs for the purchase of protective gear and for the recruitment of new staff and the preservation of existing staff.[8]

Although the petition was rejected by the Supreme Court, it was followed by a government decision to appoint a national-level team to manage the COVID-19 outbreak in the LTCFs. As a result, on April 12th a national project called "Mothers and Fathers Shield" was initiated under the leadership of Prof. Ronny Gamzu, who is a physician and the General Manager of TLV Sourasky Medical Center (herein: the project team). On April 20th, the project team published a national work plan which included the following goals:[9]

1. To establish a single headquarters to coordinate government efforts.
2. Expanding the Home Front Command's role – to train LTCF staff in protection against COVID-19 infection and to provide assistance in disinfection.
3. Establishing COVID-19 patient care departments within each of the institutions.
4. Increasing the scope of COVID-19 testing in LTCFs, including those with no identified COVID-19 cases.
5. Prohibiting staff members from working in more than one LTCF.
6. A single family member will be allowed to visit residents only in special cases approved by the facility management and subject to the social distancing directives. Assistance to strengthen resilience will be provided to residents by technological means.

The national project's main goal is to stop the spread of the COVID-19 virus among the elderly residents of LTCFs. The recommendations were published on April 20th and the project team issue daily detailed directives to the LTCF managers and other relevant bodies.

Prevention of COVID-19 infection

The project team has recognized that the main sources of infection are the LTCF staff and visitors to the LTCFs. Accordingly, the following instructions were issued:

- Anyone entering the institution must wear a mask.
- Maintenance of a high level of self-hygiene.
- Frequent cleaning and disinfection of surfaces and medical equipment.

[7] Sample testing is to be decided on by the regional physician. The first of the tests is to be carried out on diagnosis of the first patient, and two more after 5 and 10 days.

[8] The petition was submitted on April 7th by the LTCF association and several LTCFs.

[9] The full report is available at: https://govextra.gov.il/media/16435/elderly-care-covid19.pdf

- Measuring temperatures before entering the facility. Individuals with a temperature of over 38˚ Celsius are not to be permitted entry.
- Staff members who are ill should stay at home.
- Only the minimum staff necessary should be present in the facility at any given time.
- Staff members should not work in more than one facility (to whatever extent possible).
- Communal dining rooms should not be used.
- No social activities.

Controlling spread once the virus has entered a facility
In order to stop COVID-19 spread following an initial infection in an LTFC, the project team has suggested a strict quarantine on the facility and increased testing.

After the initial COVID-19 outbreaks in LTCFs, the Home Front Command assisted institutions in controlling visitors' access to the facilities; the disinfection of contaminated facilities; the delivery of food and equipment; training and guidance on protected behavior; and overall assistance during the outbreak.

The Magen David Adom organization (MDA), which is the national Emergency Medical System (EMS) organization, was given responsibility for collecting swabs for COVID-19 testing from individuals who have developed symptoms, who have returned from infected countries, or have been in contact with a diagnosed individual. During the mitigation phase, starting from March 17th, several “drive-through” test stations were launched to serve self-isolated individuals who reported symptoms of COVID-19.

Starting from April 15th, certain categories of samples from LTCFs were given priority in the testing process on the recommendation of the project team, as follows:
1. Diagnosed COVID-19 patients.
2. An LFTC in which a staff member or resident has been in contact with a diagnosed individual.
3. An LFTC in a high-risk area or staff members who live in high-risk areas.

Related Issues
As part of the outbreak’s management, the LTCFs are required to report on their stocks of COVID-19-related medical equipment and material. The project team has also made projections for the quantities of equipment and material that will be needed in order to handle infected patients.

The understanding that the pandemic is not just a passing event, the massive amount of information needed in the effort to deal the COVID-19 virus and the large and growing body of directives (related to both medical treatment and the management of spread) led to the creation of a call center for LTCF managers and staff on April 21st. The call center will be staffed around the clock by two medical professionals and two individuals in charge of resolving management issues. All calls will be documented and will be reported to the project managers.

4.1.2. Managing staff availability and well-being

Due to shortage of staff in many LTCFs, the project team approved an immediate hiring campaign. This included: nurses, nursing students, unemployed doctors and other relevant professionals who could be trained quickly. The staff are working in 12-hour shifts. Each staff member has a defined shift and switching shifts is not permitted, in order to prevent the spread of the virus between shifts. It is important to mention that the number of practicing doctors and nurses per 1000 population in Israel is below the OECD average, thus exacerbating the situation[10]. In cases of emergency, the MoH will send a special team for a period of 7-14 days to facilities that are suffering from a particularly acute shortage of staff.

4.1.3. Ensuring access to healthcare (including palliative care) for infected residents

Special efforts are being made to maintain the health of the LTCF residents who are now in strict social isolation, including residents who have been diagnosed with COVID-19 and nonetheless have remained in the facility. This includes ensuring a full range of health services:

- Management of chronic illnesses; ensuring proper medical care and access to treatment for acute medical problems;
- Providing preservative rehabilitation treatments, whether physical or virtual and whether individually or in groups, in order to maintain physical, sensory and cognitive functioning, and to provide emotional support on a continuous basis;
- Maintain a reliable supply of rehabilitation and mobility devices and any other equipment required, based on the recommendation of the relevant professionals.

A resident that is suspected of being infected is meant to be tested immediately and put into quarantine until the test results come back. In order to ensure the abovementioned range of health services for residents under quarantine, the facilities have opened special and separate departments for the treatment of COVID-19 patients. Patients in these dedicated departments are taken care of by staff with personal protective equipment (PPE). Patients in more serious medical condition are transferred to the COVID-19 wards in the general hospitals.

5. Lessons learnt so far

5.1. Short-term calls for action

Undoubtedly, the testing policy in LTCFs is the next big challenge in the current pandemic. For example, the issue of whether to test asymptomatic individuals is currently being debated in Israel. On April 19th, it was reported that the MoH is considering limiting COVID-19 testing in LTCFs to only symptomatic residents who have been in contact with confirmed Corona patients.[11]

[10] Health at a Glance 2019, OECD Indicators, https://www.oecd.org/health/health-systems/health-at-a-glance-19991312.htm

[11] https://www.kan.org.il/Item/?itemId=69816

The rationale behind this discussion, which implies a rollback of testing policy, is the high number of *false positive* results in the testing of asymptomatic residents in the Beit Hadar nursing home in Ashdod, which resulted in those patients being transferred unnecessarily to designated COVID-19 wards. When it became clear that the results were in fact negative, they had to stay in quarantine for two weeks due to their exposure to actual COVID-19 patients. *False positives* in themselves are not considered to be a major problem; nonetheless, this is something that should be avoided in order that only actual COVID-19 patients are put into the designated departments. On the other hand, there is evidence that transmission of the COVID-19 can be rapid in LTCFs and that asymptomatic residents can contribute to transmission.[12]

Testing policy in LTCFs should be constantly updated and based on information and research that is collected and published on a daily basis. LTCFs, which are at high risk of infection, require a dynamic response and special attention to their needs.

5.2. Longer term implications for future pandemics

In view of the fact that LTCF residents are especially vulnerable to pandemics such as COVID-19, and based on our experience so far, we are proposing a three-step approach to controlling outbreaks in LTCFs.

The main goal of this approach is to minimize morbidity and mortality among LTCF residents during a pandemic, whether resulting from the pandemic itself, from other illnesses or from neglect and loneliness. As demonstrated in the discussion above, initial contamination can come from three sources: visitors, staff members and LTCF residents. The approach outlines the actions to be taken according to three phases: the first phase in which a pandemic is first reported; the second phase in which there is an outbreak in the country or region in which the LTCF is located; and the third phase in which an infection is reported in the LTCF itself.

First phase – Actions should include ensuring a sufficient inventory of protective equipment; appointing emergency outbreak teams; reducing traffic into and out of the facility; monitoring the vital signs of residents and staff; and preparing evacuation areas to be used while a department is being disinfected.

Second phase – Actions should focus on the medical staff, the general staff and residents:

- Vital signs of the medical staff should be monitored on a daily basis, and protective gear, including facemasks and gloves, should be used at all times. Work should be carried out in “capsules”, where each capsule has its own staff and its own residents and with no switching being allowed between capsules. Staff members should not be allowed to work at more than one facility. There should be frequent testing of staff members to whatever extent possible.

[12] Arons, M, M et al. 2020,” Presymptomatic SARS-CoV-2 Infections and Transmission in a Skilled Nursing Facility”, *NEJM*

- Vital signs of the general staff should be monitored on a daily basis and they should use protective gear in any contact with residents. In general, contact with residents should be minimized and activities such as delivery of supplies and waste removal should be carried out while residents are in their rooms. Meals should be delivered to the departments and then served only by each capsule's staff. Residents should not be present when their rooms are being cleaned.
- Group activities for the residents should be minimized. If possible, residents should wear protective masks. Any resident leaving the facility should be isolated in a single room for 14 days upon his/her return, and any contact with them should be with full protective gear until infection has been ruled out.

Third phase – On the infection of a staff member or resident, all the relevant health authorities must be notified. All residents and staff members should be tested and anyone exposed to the infected individual should be isolated until infection is ruled out. Any work in the infected ward must be performed using full protective gear, and vital signs should be frequently monitored. The ward should be properly disinfected and an epidemiological investigation should be carried out immediately in order to identify and isolate anyone who came in contact with the infected individual. Medical staff should continue working in capsules and the general staff should minimize their contact with the residents. If possible, all residents should be isolated in single rooms. If that is not possible, there should be no switching of roommates. Residents showing symptoms should be evacuated to a dedicated zone (whether in a separate ward in the facility or in a general hospital).