

Health Policies and the Play out of the COVID-Vaccine in Israel

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This paper presents the play out of the COVID-19 in Israel, the unfolding health policy, and its effect on economics, public trust, and rate of vaccination. Policymakers aiming at a high vaccination coverage are called upon to support autonomous motivation of individuals to get vaccinated, through messages of autonomy and relatedness. Expectations that economic growth will be recouped through a high vaccine coverage will not be met, unless policy makers set a caring culture that helps shape a meaningful rationale for vaccination. Applying coercion, pressure, and external controls to enhance vaccination coverage may cause distrust in government and policymakers carrying potentially grave future consequences. Policymakers should use a measured approach to protect public health, with minimum infringement on citizens' rights, with transparent and culturally appropriate messaging on immunization to enhance vaccination acceptance while restoring trust in health policy makers.

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Israel has suffered from one of the highest morbidity rates in the world, perhaps the highest per capita, and its government was unsuccessful in reducing morbidity (Eyal, 2020). On March 15 a quarantine was enforced for 41 days which reduced the infection rate. By September 15, two weeks following the beginning of the school year, infection rates rose dramatically, and with them, surfaced fears of harm to the standard of medical care, a decrease in retention rates of medical staff, and an increase in the burden on the remaining medical staff in overflowing hospitals (Linder, 2020; 2020b). On September 18th a second quarantine was imposed for 21 days. In October, cities were designated by colors (red, orange, yellow, green), to indicate infection rates. A gradual return to activity began, but the government found it challenging to deal with pressure groups that called for an increase in the pace of deregulation (Efrati, 2020). Due to pressures from the ultra-Orthodox parties in the government, whose compliance with social distancing was poor, the fines for violators were not increased (Efrati, 2020). In November, the ultra-Orthodox parties stopped the plan to enforce a closure in cities designated as 'red' (Segal, 2020).

On December 20, 2020, Israel launched its COVID-19 vaccination

campaign, nine days after the Food and Drug Administration issued an Emergency Use Authorization for the use of the BNT162b2 (BioNTech/Pfizer) vaccine (Dagan *et al.*, 2021). The Israeli government viewed the COVID-19 vaccination as a vital, urgent response to the national health crisis. The economic and social costs of the pandemic were expected to be recouped through economic growth that the vaccine was projected to make possible. The COVID-19 vaccination was perceived as a critical mission justifying large-scale vaccine procurement deals with Pfizer and data-sharing with the company. Israel's small geographical area and population size, the availability of a relatively large number of vaccine doses, outreach efforts, experience in timely responses to large-scale national emergencies, and a public health system with only four health maintenance organizations with availability of community-based nursing, made procurement of the vaccine for the whole population more feasible than in other countries (WHO, 2020; Eidelman, Borow, Levi, Rayn-Aloni, 2021). Israel proceeded with an age-based criterion, prioritizing vaccines for individuals at high risk for severe COVID-19, individuals aged 60 years or older, residents of assisted-living facilities, health-care employees, and individuals with severe baseline comorbidities (WHO, 2020b). Once this priority population was covered, the campaign expanded to include individuals from the age of 55 and later, from 40 years and older. Within 2.5 weeks, 20% of Israelis had received their first dose. Afterwards, the pace slowed. It took an additional 4 weeks to increase from 20 to 40% and yet

another 6 weeks to increase from 40 to 60% (Rosen, Waitzberg, Israeli, Hartal, Davidovitch, 2021).

On January 21, 2021, adolescents aged 16-18 years were also prioritized for vaccination to enable their return to school. On January 28, 2021, the vaccination campaign expanded to those aged 35 and older. On February 4, 2021, all individuals aged 16 years and older became eligible to receive the vaccine. Uptake was lower among young adults, and two religious-cultural minority groups: ultra-Orthodox Jews and Israeli Muslim Arabs, whose vaccination increased slowly over time through immense reaching-out efforts (Green, Abdullah, Vered, Nitzan, 2021; Rosen *et al.*, 2021). The consensus that emerged was that the COVID-19 vaccination should not be compulsory, but positive and negative incentives (requiring legislation) will enhance vaccination acceptance (Rosen *et al.*, 2021). In the first quarter of 2021, Israel enhanced access to the vaccine to address a moderate vaccine hesitancy in its general population, and enhanced access in more intense pockets of vaccine hesitancy among young adults and religious-cultural minority groups (Rosen *et al.*, 2021). In three months 70% of the population was vaccinated. Physicians, workers in healthcare settings treating SARS-CoV-2 positive patients and people unemployed during the quarantines, and males, had higher rates of vaccine acceptance than that of the general population (Dror *et al.*, 2020). Israel was ahead of other OECD countries in terms of the share of the population that had received at least one vaccination (61%) and the share that had been fully vaccinated (55%). Among Israelis aged 16 and over, the

comparable figures were 81 and 74%, respectively (Rosen *et al.*, 2021). This effort positioned Israel as the country with the highest rate of vaccinated individuals per capita in the world for the abovementioned period. Vaccinations changed the dynamics of the pandemic with a larger and earlier decrease in cases and in hospitalizations among older individuals who were prioritized to receive the vaccines (Fini, 2020; Meng *et al.*, 2020; Worldometer, 2021).

Despite the broad vaccination coverage, a high rate of infection during the months of February and March, created public confusion regarding the effectiveness of the vaccine promoting vaccine hesitancy. It was clear that the impact on public health depends not only on the vaccine's effectiveness, but also on vaccine coverage, vaccine allocation among different population groups, and the rate of disease transmission through social mixing between different groups in the population (Stern, Markel, 2005). Although Israel has a public healthcare system and vaccinations were widely available for the entire population, there were still a million people (12%) who refused or hesitated to take the vaccine, behavioral intentions that were found to correlate with religious minorities and low socio-economic status (Shacham *et al.*, 2021).

Within three months, Israel has dropped in the international ranking of recovery from the epidemic. Antibodies of people who were vaccinated twice weakened but due to the government's decision to avoid enforcement of social distancing and maintain an open economy side-by-side to the COVID-19, an acute rise in the infection rate was evident (Doctors,

2021). Frictions developed between health policymakers and the government. Health authorities claimed that had the government approved the restrictions that health policymakers recommended, the morbidity situation might have been better (Doctors, 2021). Also, if reduction in congregations had been enforced, infection and morbidity rates would have been much lower. Health policymakers and the Ministry of Health did not demand closure of businesses and quarantine, but rather enforcement of social distancing due to the risk involved in the decision to keep the school system open (Doctors, 2021).

Tensions surfaced and became known to the public deepening distrust in both health authorities and the government. Despite a relatively high rate of vaccinations, Israel ranked in the end of September 2021, as 41st out of 53 countries and was viewed as a failure in dealing with the COVID-19 (Doctors, 2021).

The discovery of the weakening antibodies, brought about the Booster COVID-19 vaccine in July 2021, aiming to control morbidity. Vaccine compliance for the booster vaccine varies and is inconsistent. Although the government and health authorities issued a vaccine passport restricting the movement of those who are not vaccinated three times, in workplaces, restaurants, gatherings, fitness clubs etc., 48% of the population refuses the vaccine further reflecting distrust. Perhaps the new policy of ignoring recommendations of health policymakers, and "containing the morbidity" perpetuates distrust in the government. The policy of containing morbidity for the sake of maintaining an open economy, is viewed as an irrational, incon-

siderate, and, cruel to decent citizens who have accompanied the country since its inception and are now on their own fighting a virus in overflowing hospitals that are facing shortages in staff and equipment (Antabi, 2021). The government is perceived as abandoning its senior citizens leading to the highest morbidity, since the outbreak of the pandemic, preventable morbidity (Antabi, 2021). The morbidity is not changing the vaccination rate as expected (Doctors, 2021).

A high rate of vaccine skepticism was found among, parents, nurses, and medical staff not caring for SARS-CoV-2 positive patients who expressed concerns regarding the long-term safety of the rapidly developed vaccine (Dror *et al.*, 2020). Healthcare providers not treating COVID-19 positive patients appear to trust the COVID-19 vaccine less than does the general population, with a higher vaccine-hesitancy among nurses compared to physicians (Dror *et al.*, 2020). The main challenge that Israel is facing relating to the procurement of the Booster vaccine, is vaccine hesitancy and rejection, among young adults and parents, in the general population, and among the ultra-Orthodox Jews and Israeli Muslim Arabs. On October 1, 2021, 30% of Israelis in the age group of 60-69 reject the Booster vaccine, 44% of Israelis in the age group of 50-59 reject the Booster vaccine, 53% of Israelis ages 40-49 reject the Booster vaccine, and 66% of the age group 30-39 reject the Booster vaccine (Drukman, Yanko, 2021). These behavioral intentions towards the vaccine may be due to being more traditional and to confusion regarding vaccine effectiveness and safety. Also, among the already

vaccinated, hesitancy regarding the vaccine was found to result in negative psychiatric outcomes affecting public health (Palgi, Bergman, Ben-David, Bodner, 2021).

Israel's advantages underlying the availability of vaccines and the broad coverage, is insufficient to ensure adequate vaccine uptake (Rosen *et al.*, 2021). In the first two shots, imposing limitations on those who chose not to vaccinate motivated some people to get the vaccine (Saban, Myers, Shetrit, Wilf-Miron, 2021). Estimates that restrictions relating to the beginning of the school year in September 2021 will increase coverage for the vaccinations dissolved (Doctors, 2021). Successful control of COVID-19 requires widespread public culturally adapted educational campaigns regarding vaccine safety and efficacy (Gabay, Tarabieh, 2021). Policymakers should design those to enhance acceptance of the vaccine among religious minorities through calibrated community-based efforts between health professionals and minority leaderships (Gabay, Tarabieh, 2021). Instead, the freedom of movement for those lacking three vaccinations has been significantly restricted through vaccine passports in hope of policymakers that this policy will change the behavioral intentions towards acceptance of the vaccination. But reality may diminish these hopes. Studies show that one's motivation to get vaccinated is associated with one's psychological needs of autonomy, competence, and relatedness (Porat *et al.*, 2021). Furthermore, vaccine passports could have a negative effect if these needs are not satisfied and autonomy frustration emerges resulting in lower willingness to get vaccinated and in a shift from self-determi-

nation to external motivation (Palgi *et al.*, 2021). Thus, vaccine passports, as a control mechanism, may become detrimental to vaccination coverage, jeopardizing not only public health but also the economy.

Aiming at a high vaccination coverage, health Policymakers in the world are called upon to obtain coverage by supporting individuals' autonomous motivation to get vaccinated, through messages of autonomy and relatedness, enhancing scientific literacy, and setting a caring culture that shapes a meaningful rationale for vaccination, rather than applying coercion, pres-

sure, and external controls (Porat *et al.*, 2021). Otherwise, expectations that economic growth will be recouped through a high vaccination coverage will not be met, and distrust in government and in policymakers may deepen with potentially grave future consequences. Policymakers in the world should use a measured approach to protect public health, with minimum infringement on citizens' rights, transparency, and culturally appropriate messaging on immunization to restore trust and enhance vaccination acceptance (Gabay, Tarabeih, 2021; Saban *et al.*, 2021).

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