מועצת החרום הציבורית **למשבר הקורונה**
The Israeli Public Emergency Council for the **Covid19 Crisis**
مجلس الطوارئ العام **لأزمة كورونا**

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Position Paper

The Science and the Ethics Regarding the Risk Posed by Non-Vaccinated Individuals

Data from Israel and around the world attest to the effectiveness of the Pfizer vaccine in preventing serious illness and death [1, 2]. It seems that the vaccine not only reduces the risk of developing a serious illness requiring hospitalization among those who have contracted the virus, but also improves the rate of recovery and reduces the risk of requiring ventilation [3, 4]. These data highlight the significant protection against COVID19 that the vaccine provides to at-risk populations.

Nevertheless, a question arises as to the impact of unvaccinated persons on vaccinated persons: whether, if at all, unvaccinated persons put vaccinated persons at risk, either directly (through contagion) or indirectly (by prolonging the pandemic or by being a burden on the healthcare system).

The scientific aspects

a. A. **The rate of vaccinated individuals among individuals with verified COVID19 cases is close to and even identical to their relative proportion in the population** [5, 6], even when sorted by age group, and even though the regulations of the Ministry of Health encourage a large number of tests among the unvaccinated [7].

b. A number of studies and publications [8-10], as well as official documents from the U.S. Centers for Disease Control [11] and from Public Health England [12], show that the **viral load in vaccinated and unvaccinated individuals is similar**. Since viral load is the most significant factor in the ability to infect, it seems that there are no significant differences in the chances of infecting others between vaccinated and unvaccinated [13]. Beyond that, it seems that even vaccinated persons can be super-spreaders who infect many other people, among them other vaccinated persons [10, 14, 15].

c. Studies show that the rate of transmission of asymptomatic persons is 20 times lower than that of symptomatic patients (who are tested and isolated anyway, regardless of their vaccination status), so that the likelihood of an asymptomatic healthy person who does not know that they carry the virus to infect another person is significantly lower than 1% [16]. Considering the rate of verified cases in the population, the chance of being infected from a random encounter (as opposed to contact with household members) is about 1 in tens of thousands (the product of the percentage of contagious patients in the population [6] and the rate of asymptomatic contagion [16]).
These findings show that despite the apparent effectiveness in protecting against severe illness, **the effectiveness of the vaccination in preventing transmission and contagion is not significant and may even be negligible**.
From here it follows that an unvaccinated individual is **not fundamentally different when it comes to the direct risk to transmit the virus compared to a vaccinated individual**.

d. Countries with the highest vaccination rates, up to 80-90% of the population, still experience significant epidemic waves. Iceland, for example, where 81% of the total population have been vaccinated (compared to 67% in Israel), is currently experiencing the highest wave of morbidity it has experienced since the onset of the pandemic [17]. To illustrate, **in order to reach Iceland's vaccination level, Israel would have to vaccinate another 1.4 million citizens**, well over the million of currently unvaccinated citizens (and even then, as mentioned, a new wave of the pandemic could not be prevented.)
These data show that the vaccination of the remaining population will not prevent the next wave, as it seems that these waves continue to occur despite high rates of vaccination. Therefore, unvaccinated persons **are not what causes the pandemic to continue**, nor do they endanger the vaccinated in that aspect. In fact, it seems that the hope of eradicating COVID19 by achieving "herd immunity" through vaccination of a high-enough percentage of the population has been proven to be unrealistic.

e. At the time of writing this, COVID19 hospital beds make up about 3% of hospital beds in Israel [6], and about 30% of patients in critical condition are unvaccinated [6]. In addition, the **lion's share of those**

who have not been vaccinated are young persons [6], whose likelihood of creating excessive burdens on the system are extremely low. The number of unvaccinated individuals in Israel is significantly lower than one million, as this population includes many who cannot or should not get vaccinated:

1. "Hidden" recovered patients (according to serological studies [18], the number of recovered patients seems to be significantly higher than what has been previously estimated.)
2. Citizens who are unable to receive the vaccine due to medical reasons.
3. Population groups about whom there are fundamental questions regarding the need to vaccinate—namely children and youth, about whose vaccination there are reservations in a number of countries such as Germany and England.
4. Citizens who do not reside in Israel.

Therefore, given the combination of a lower-than-reported number of "unvaccinated individuals" and good protection factors, **the indirect risk of overload or "collapse" of hospitals is extremely low**.

There is no scientific evidence whatsoever supporting the claim that non-vaccinated individuals are risking the public's health in any way more than vaccinated people or that their lack of being vaccinated is a factor thar facilitates the continuation of the pandemic or that causes a threat of collapse to the healthcare system. **Vaccination should be treated as a primary means for providing <u>personal protection</u>** against severe illness or death, especially for persons at high risk.

Again, it should be emphasized that even in the face of the risk of contagion, from vaccinated or from non-vaccinated individuals, the vaccinated individuals have their own umbrella of protection, which continues to protect them from **severe illness** regardless of the person who transmitted the virus to them.

<u>The ethical aspects</u>

Unfortunately, despite the clear scientific data indicating a lack of increased risk caused by those who have chosen to not be vaccinated, there has been an aggressive public discourse in Israel in recent weeks, with the blatant encouragement of public personalities [20] and elected officials [21, 22], blaming unvaccinated individuals as a group perpetuating the pandemic and endangering others, calling for them to be "labelled" and segregated and even for taking harsh measures against them, including the proposed confinement of law-abiding civilians to their homes, depriving children of education or even financial penalties.

That discourse, in addition to lacking scientific or factual basis, is ethically, morally and socially flawed, and also has inherent immediate and long-term risks to public health and to the social fabric in Israel.

First, the unrestrained attack and incitement against a citizenry that includes children and law-abiding young persons **stands in unprecedented ethical contradiction to the fundamental values of medicine** regarding freedom of choice in anything concerning medical treatments, and might lead to a dangerous and slippery slope. Physicians are well acquainted with cases in which patients who, immediately following hospitalization due to respiratory exacerbation of chronic lung disease, go out to smoke, or who continue to gain weight after a heart attack, or who do not get the seasonal flu vaccine (about 80% of the public) even though they have significant risk factors. The mission of the healthcare system is to serve the public, and it must not exercise any consideration that would restrict individual liberty with regard to any matter.

Second, the accumulated experience over decades in public-health management has shown that coercion and threats do not serve as a motivating factor for fostering healthy behaviours, and that **public-health policy is effective only when it is based on education and dialogue**. Aggressive discourse might result in the loss of trust of significant sectors of the public, and lead to lowering the rates of other routine vaccinations that are of crucial importance.

And third, the implicit message that emerges from the existing discourse, suggesting that unvaccinated people, unlike vaccinated people, pose a risk to others, is actually most dangerous to the vaccinated persons themselves, as it **fosters the illusion that vaccination protects against contagion**, and thus encourages careless behaviors of vaccinated persons in public spaces shared with high-risk populations.

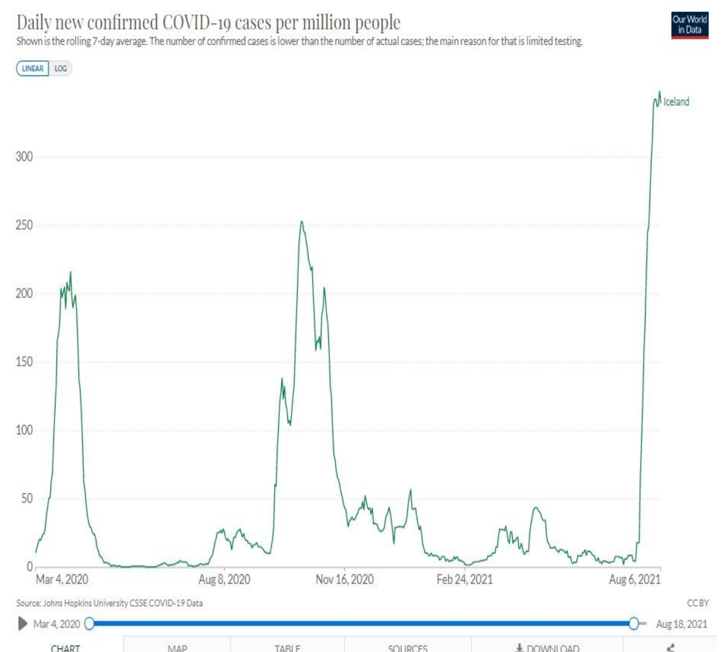
Medicine is not only a science; it is also intertwined into the social, ethical and moral fabric. The aforementioned discourse that has been taking place carries tremendous ethical significance. The cries against those who have not yet been vaccinated sometimes amount to incitement and encouragement of physical violence. We should be able to expect that in the twenty-first century, the ugly phenomena that accompanied pandemics in the middle ages, such as blaming minorities for the spread of the illness, shall be avoided.

In a democracy, in whose core are human dignity and human rights, there is no room for calls and incitement of this kind. **The right of society to protection prevails over the right of the individual to freedom only when there is a real danger** (as is done in the case of violent psychotic patients, or in the very different case of prisoners). **It is wrong to restrict a person's liberty due to a remote potential risk** (for example, the case of an AIDS patient, a person returning from a country with a high rate of tuberculosis or tropical diseases, or, to give a very different example, a released prisoner with a high chance of reoffending).

Summary

We call for continued effort to persuade and make information accessible to members of the elderly population or those who are at high risk but have not yet been vaccinated with the first two doses—and for engaging in that effort while using the accepted and proper tools of medicine: transparency, dialogue on even terms, and respect for the patients, their culture and their beliefs. We are opposed to any attempt to exert pressure through "benefits" or sanctions imposed on unvaccinated individuals, especially among young people or children, who are not at high risk of COVID19 and for whom the safety of the vaccine is still under examination—all in the light of evidence indicating absence of higher risk caused by non-vaccinated individuals. **The choice of whether to get vaccinated should remain in the hands of every person, according to their understanding and values**.

We urge the government **to immediately call for an end to the aforementioned aggressive discourse** while giving explanations to the public that are scientific and accessible that highlight that individuals who have not yet been vaccinated **are not a factor that perpetuates the pandemic and endangers the public**. The government must prepare for the long-term engagement with COVID19 as an endemic phenomenon, and strengthen the healthcare system in hospitals and in the community to succeed in this task.



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Professor of Medical Sciences, head of Medical Laboratory Sciences at Zefat Academic College. Managed the R&D division in Carmel Hospital, Director of Haifa and Western Galilee Central Laboratories in Clalit Health Services, founded and managed numerous clinical laboratories, including the central lab of Clalit, the Corona lab in the Northern region, and the designated corona lab at Ben Gurion airport.

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* The opinions expressed are the individual opinions of the members, and do not necessarily represent the opinions of the institutions in which they are affiliated with.