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Contents lists available at ScienceDirect

# Vaccine

journal homepage: www.elsevier.com/locate/vaccine

# One size does not fit all: Lessons from Israel's Covid-19 vaccination drive and hesitancy

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The intricate balance between preserving individual rights and securing public health has generated discords in Israeli society throughout the COVID-19 pandemic, from mask requirement via social distancing to recent mass vaccination. It is expected to resurge if Israel reimposes restrictions on unvaccinated citizens. Here we focus on how the Israeli experience presents novel information and novel ways forward regarding the on-going negotiation of vaccination hesitancy (VH). 5.12 million Israelis (out of 9.3 million) have been fully vaccinated as of May 26, 2021 [1]. Beginning its national inoculation drive in late December 2020 with people aged >60, by February 2021 the Israeli Ministry of Health (MoH) has called upon everybody aged over 16 to get their shot. Factors contributing to this successful rollout are high uptake, the small size of the country, efficient and universal community-based public health care services, and Israel's experience with emergency situations. In addition, Israel's prime minister has made the vaccination drive a centerpiece of his bid for reelection in March 2021, personally negotiating deals and securing ample delivery of vaccination doses. Israel's inoculation drive has received praise compared with the slower and "piecemeal" way vaccines are being delivered in the U.S. and Europe.

While Israel's vaccination drive had achieved a great deal – both in absolute terms and relative to other countries – it has also demonstrated markedly lower than average vaccine uptake in Arab and ultra-orthodox Jewish (Haredi) localities, as well as increasing VH in social networks. Global surveys on COVID-19 VH found that as many as 38% of the respondents in some western countries hypothetically prefer to wait and see, usually due to safety concerns [2]. Three real-world lessons concerning VH have been demonstrated by the Israeli experience. **First**, VH characterizes socially excluded minority groups. Data collected [1] in January 2021, following the first three weeks of vaccinating people aged >60 years old against COVID-19, showed that 42, 48, and 72 per cent, respectively, were vaccinated in Arab and Haredi localities and among the Israeli public in general. In Feb 11, 2021, there were only 6% unvaccinated people >60 years old in the Israeli public, in contrast to 30 and 36% in the Haredi and Arab groups, respectively [3]. While both the Arab and Haredi communities present high COVID-19 morbidity rates, their lower vaccine uptake could be explained by non-reported recovery from COVID-19, and from reduced access to health services. **Second**, VH is not an either/or decision. It ranges from hesitancy that hinges on rational calculation, to anti-vaccination ideological objection. **Third**, VH thrives on social media that often lead to polarization since online users receive and select information adhering to their system of beliefs [4].

### 1. Examples of COVID-19-related grassroots dissent and VH

The Israeli case shows how VH is connected to social discords around gaps in public health communication. Because of science communicators' cultural and epistemological biases, their efforts often tend to address and benefit specific (e.g., affluent, collegeeducated, non-disabled) audiences [5]. For example, a disparity emerged between the official message of social distancing guidelines and the Haredi value of keeping religious institutions of education open. This led to recurrent Haredi deviations from imposed policies. Similarly, pilgrimaging, weddings, and tribal public reconciliations are important Arab social activities that reflect religious and social norms which continued in the face of social distancing restrictions. The lower COVID-19 vaccination rate among these two socially excluded minorities reflects mistrust that was aggravated by the COVID-19 situation. Preliminary data drawn from interviews conducted by the 4th author with Arab-Israeli respondents show that COVID-19 VH is fueled by perceptions of conspiracy as well as views of the possible health risks of the new vaccine. Additional explanations given by Arab respondents regarding VH included reduced access to health services in peripheral localities and lower utilization of the digital platforms designed to schedule vaccination appointments. VH is also prevalent in the social media of Jewish immigrants from the former Soviet Union, where mistrust in the government has been common, including mistrust in

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https://doi.org/10.1016/j.vaccine.2021.06.004 0264-410X/© 2021 Elsevier Ltd. All rights reserved.



Commentary





free-of-charge public services, like the COVID-19 vaccination in Israel [3]. Arabs and former Soviet Union Citizens are over-represented in the professional health sector, highlighting the specific characteristics of the COVID-19 situation that are linked to their VH.

Additional (and demographically varied) hotspots on the VH spectrum include websites and social media platforms (Facebook, Twitter, etc.), whose activity increases during times of diminished physical contact. At the same time, social media can portray provaccination deliberations and impact. Since January 2021, Facebook took down at the requests of the Israeli Ministry of Justice several groups containing tens of thousands of members that disseminated what the Israeli government called "deliberately mendacious content designed to mislead about coronavirus vaccines" [6]. Nevertheless, many websites and their related Facebook and google groups keep communicating about COVID-19 vaccination. Some of these social media groups convey calculative hesitancy. e.g., "Talking about Vaccinations" Facebook group where women discuss concerns regarding untested long-term hormonal side effects in women, especially adolescents, in the context of posted accounts of menstrual bleeding and irregularities following COVID-19 vaccination. Other Israeli Facebook groups convey critical VH based on what they discuss as lack of transparency in pharma-government relations (www.hisunim.org.il), while other groups promote alternative VH as well as members-only "nature parties" during lockdowns to "free the soul" and "get back to life."

## 2. Lessons for public health communication

Most studies agree that "one-size-fits-all" communication strategies are inefficient [7]. However, this has yet to be realized in the design and implementation of public health communication. Public health officials often still approach VH in a straightforward way as if all we need to do is educate people about why vaccination is a good idea. The Israeli experience illustrates how there is more nuance to VH, including complacency (e.g., posts explaining why Covid-19 is "influenza with public relations"), inconvenience (e.g., difficulty of access to vaccination in peripheral locations), lack of confidence (ranging from conspiracy theories to safety issues), as well as rational calculation of pros and cons (e.g., seeing the potential side effects of the vaccine as more alarming than the potential risks of COVID-19). Deviance often occurs when communication is not inclusive. It is known that minorities, lower income, and less educated individuals are both disproportionally more susceptible to COVID-19 and have lower vaccine acceptance, thus requiring special attention [8]. The Israeli experience shows that while this is true, COVID-19 VH also exists in groups with higher income and education.

The Israeli MoH is recently doing commendable efforts in tailoring its health communication to various groups, but during most of 2020 this has been limited and fragmentary. For example, so-called 'tailored measures' were taken during the Passover and Ramadan periods of intensive religious social activities in the Jewish and Muslim communities. However, these measures included tighter mobility and gathering restrictions as well as a special one-time child allowance of ~\$125. While such measures were described as culturally tailored [9], their attempt to combine differential restrictions (rather than communication) with a general population one-time payment has been shown to fail, as social discord and lower vaccine uptake persisted in these groups. A truly 'tailored response' requires on-going engagement of community leaders, local healthcare professionals and social media responses, with people-centered and dialogue-based communication combining compelling stories and group-relevant (rather than general) risk statistics. A successful tailored culture-based intervention was demonstrated in increasing the rate of mammography screening by Arab women in Israel [10]. Those guiding and implementing such communication must engage the perspectives of the groups and communities they are trying to reach. The effective messages are coming from grassroots sources on social media: Twitter explanations by doctors and compelling stories on Facebook about the illness and its dangers. Social media have become the communication tool that no one national call to action could probably ever be, and should be used to communicate the benefits of vaccination while respecting people's choices.

#### **Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### References

- Ministry of Health COVID-19 Data (Hebrew); 2021. https://datadashboard. health.gov.il/COVID-19/.
- [2] Neumann-Böhme S, Varghese NE, Sabat I, Barros PP, Brouwer W, van Exel J, et al. Once we have it, will we use it? A European survey on willingness to be vaccinated against COVID-19. Eur J Health Econ 2020;2020(21):977–82.
- [3] Linder, R. Three Israeli groups worry about the vaccine. The Marker, Feb 11, 2021 (Hebrew). https://www.themarker.com/coronavirus/.premium-MAGAZINE-1.9528700?lts=1613838976059.
- [4] Schmidt AL, Zollo F, Scala A, Betsch C, Quattrociocchi W. Polarization of the Vaccination debate on Facebook. Vaccine 2018;36:3606–12.
- [5] Dawson E. Equity, exclusion, and everyday science learning: the experiences of minoritised groups. London: Routledge; 2019.
- [6] Bendel, N. Facebook removing groups disseminating false info on COVID-19 vaccinations. Haaretz, 20-12. 2020 (Hebrew). https://www.haaretz.co.il/news/ law/1.9385912.
- [7] Betsch C, Böhm R, Chapman GB. Using behavioral insights to increase vaccination policy effectiveness. PIBBS 2015;2(1):61–73.
- [8] Lin C, Tu P, Beitsch LM. Confidence and receptivity for COVID-19 vaccines. Vaccines 2021;9:16. <u>https://doi.org/10.3390/vaccines9010016</u>.
- [9] Waitzberg R et al. Israel's response to the COVID-19 pandemic: tailoring measures for vulnerable cultural minority populations. Int J Equity Health 2020;2020(19):71.
- [10] Cohen M, Azaiza F. Increasing breast examinations among Arab women using a tailored culture-based intervention. Behav Med 2010;36(3):92–9.