

The Fix

Analysis

Vaccine doubters' strange fixation with Israel



By Aaron Blake

Staff writer

July 22, 2021 at 9:51 a.m. EDT



People line up to receive a coronavirus vaccine at a mobile vaccination center in Israel earlier this month. (Ammar Awad/Reuters)

People line up to receive a coronavirus vaccine at a mobile vaccination center in Israel earlier this month. (Ammar Awad/Reuters)

From the start of the worldwide coronavirus vaccination campaign, the anti-vaccine movement and vaccine skeptics picked an unfortunate case study: Israel. The country shot to the lead of the pack with an aggressive vaccination campaign, but its results weren't as instantaneous as these critics suggested they should have been. Cases in Israel kept rising for a little while! So they pitched Israel as [evidence that maybe the vaccines didn't really work that well](#).

But then the vaccination effort actually took hold. Israel dropped from a high of around 10,000 new daily cases in January to a seven-day average of as low as 10 last month. It

began [logging some days with zero deaths in April](#), and has recorded about 100 confirmed deaths in the last three months. If there is one country that reinforced the efficacy of the vaccines, it became Israel. And if there was one country that epitomized the sloppiness of the anti-vaccine movement, it, too, was Israel. But old habits apparently die hard. A vaccine skeptic community that often focuses on unverified data, innuendo and false and misleading comparisons is suddenly pointing to Israel again. The reason: The country is suddenly seeing an uptick in cases, and [most of them are among vaccinated people](#).

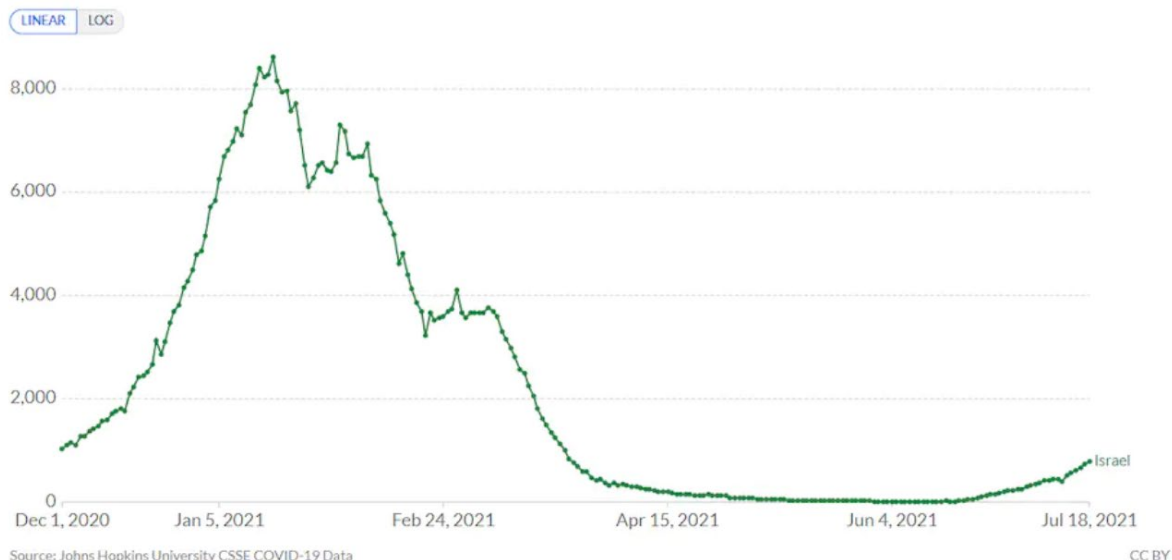
Over the last week, charts have abounded on social media bearing out this latter fact. A prominent vaccine skeptic who appears often on Fox News went so far as to claim Israel's data showed something amounting to a "complete vaccine failure on every level."

A cardiologist on Fox News pointed to Israel's data while claiming "the delta variant really is not ... protected at all by the vaccines," and said, "There is no reason right now — [no clinical reason to go get vaccinated](#)." And vaccine skeptics have misleadingly promoted a quote from Israeli Prime Minister Naftali Bennett in which he said, "[We do not know exactly to what degree the vaccine helps, but it is significantly less](#)," while ignoring that he was [specifically comparing the delta variant](#) to others, not making a broad point about vaccines failing.

The reality, as it often is with such claims, is quite different from how it's being pitched. While cases are indeed rising significantly in Israel because of the more vaccine-resistant delta variant, that's from a very low baseline. The country remains at a fraction of its former case numbers. The seven-day average is at about 800 new daily cases, or less than one-tenth of the January peak.

Daily new confirmed COVID-19 cases

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Israel coronavirus cases (Aaron Blake/Our World in Data)

Israel coronavirus cases (Aaron Blake/Our World in Data)

It's true that most new cases are coming from the vaccinated community, but that's in large part because of how relatively big that community is in Israel. The latest numbers show that 85 percent of Israeli adults are vaccinated, meaning there are more than five times as many of them as unvaccinated people.

Epidemiologist Katelyn Jetelina last week [explained this misleading use of data](#), which is known as a [base rate fallacy](#) — or base rate bias in epidemiology:

The more vaccinated a population, the more we'll hear of the vaccinated getting infected. For example, say there's a community that's 100% vaccinated. If there's transmission, we know breakthrough cases will happen. So, by definition, 100% of outbreak cases will be among the vaccinated. It will just be 100% out of a smaller number.

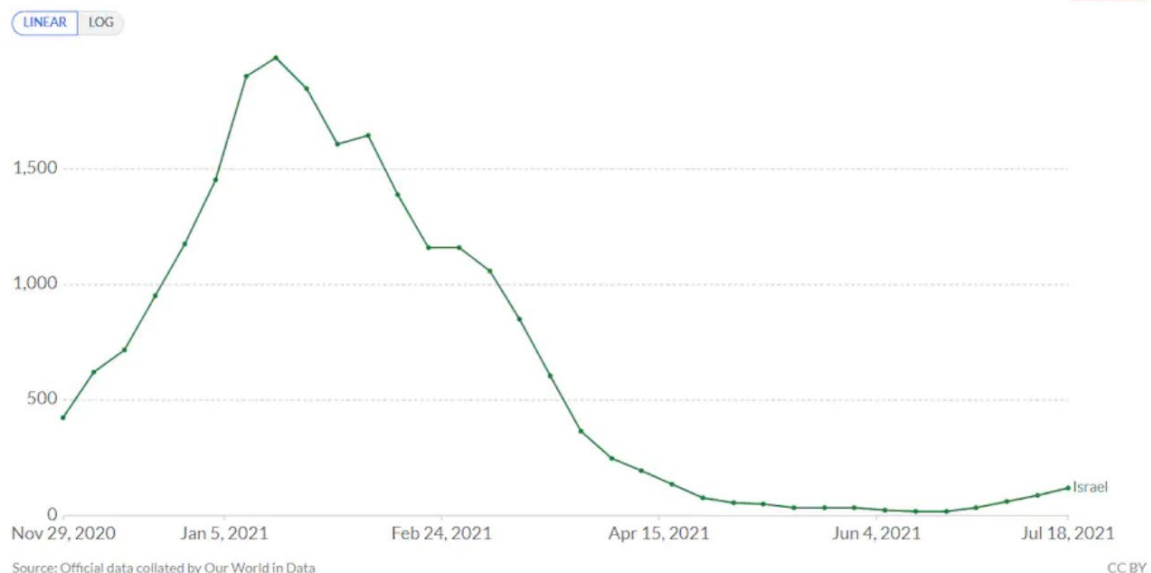
Cue Israel. They are one of the global leaders in vaccinations; 85% of Israeli adults are vaccinated. So, say we have the following scenario:

...
With an infection rate among the vaccinated of 2% and infection rate of 13% among the unvaccinated, this would give us an efficacy rate of 85%.

The most important numbers to consider, though, are not the overall case rates, but rather the serious cases. And those, too, remain extremely low — even lower than the case rates, relatively speaking.

Israel is averaging about 120 weekly hospital admissions, which is down from a peak of nearly 2,000 in January. So while cases are less than one-tenth of what they were then, hospitalizations are about one-sixteenth. And admissions to the intensive care unit are about one-twentieth, according to data collected [by the University of Oxford](#).


Weekly new hospital admissions for COVID-19




Hospitalization rate in Israel (Aaron Blake/Our World in Data)

Hospitalization rate in Israel (Aaron Blake/Our World in Data)

The “percent of cases that turn critically ill is now 1.6%, compared to 4% at a similar stage in the 3rd wave when there were no vaccines,” tweeted Eran Segal, a computational biologist at the Weizmann Institute of Science and government adviser.



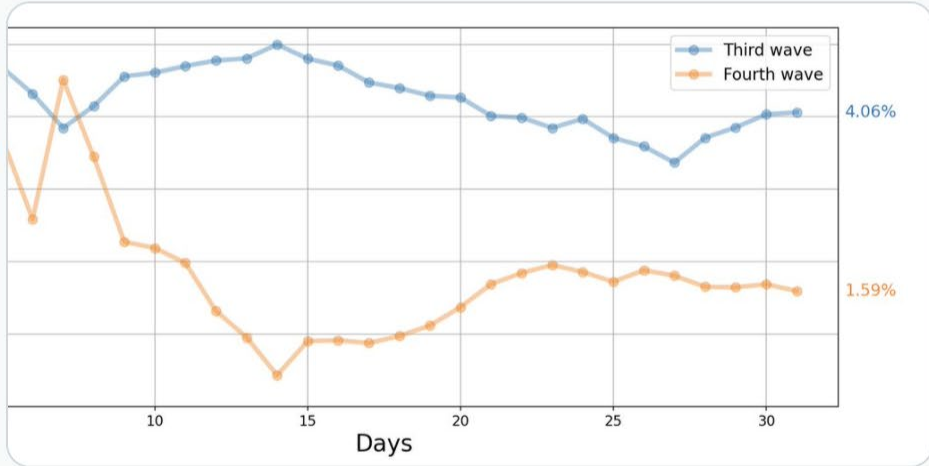
Eran Segal
@segal_eran



Israel: Evidence for vaccine effectiveness against Delta


Percent of cases that turn critically ill is now 1.6%, compared to 4% at a similar stage in the 3rd wave when there were no vaccines



Important implication: >>>



Days	Third wave (%)	Fourth wave (%)
0	4.06	4.06
5	4.06	4.06
10	4.06	4.06
15	4.06	1.59
20	4.06	1.59
25	4.06	1.59
30	4.06	1.59

2:25 PM · Jul 16, 2021

[Read the full conversation on Twitter](#)

 667  See the latest COVID-19 information on Twitter

[Read 54 replies](#)

All told, Israeli government data show the Pfizer vaccine is indeed significantly less effective at preventing [coronavirus](#) cases of the delta variant (64 percent) than it was for previous variants (95 percent). It's also significantly less effective at preventing symptomatic cases (64 percent vs. 97 percent). But it performs much more similarly

when it comes to [preventing serious cases and hospitalization \(93 percent vs. 97.5 percent\)](#).

In other words, the delta variant means the virus will probably continue to spread, even among vaccinated people and even in a strongly vaccinated country such as Israel, because the vaccines don't protect from transmission or symptomatic cases nearly as well. But that doesn't mean the vaccines don't work, especially when it comes to preventing the worst of the disease.

And beyond that, just because a variant emerges that renders the vaccines less effective doesn't mean those vaccines weren't effective in the first place; it means this is a fast-changing pandemic that will require nimble scientists. Israel is as good an example of vaccine efficacy as just about anywhere in the world.

The data will continue to shift there, as it will elsewhere, and conclusions about the efficacy of the vaccine will be adjusted accordingly. But if you're getting your vaccine information from someone who holds up Israel as an example of the failures of the vaccine, based upon this cherry-picked data, you might want to start looking elsewhere for it.