

The third injection is only necessary because the 2 first injections are ineffective after 4-5 months

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Pfizer COVID19 injections have several effects. They have short term adverse effects increasing cardiovascular and other problems, and they have a short term protective effects after the 4-5 week initial adverse effect period. Longer term effects remain unknown to those unacquainted with the results of animal and 1st human experiments. Short term adverse effects include increased COVID19 infection rates and associated death rates. Data are from the Israeli Health Ministry dashboard.

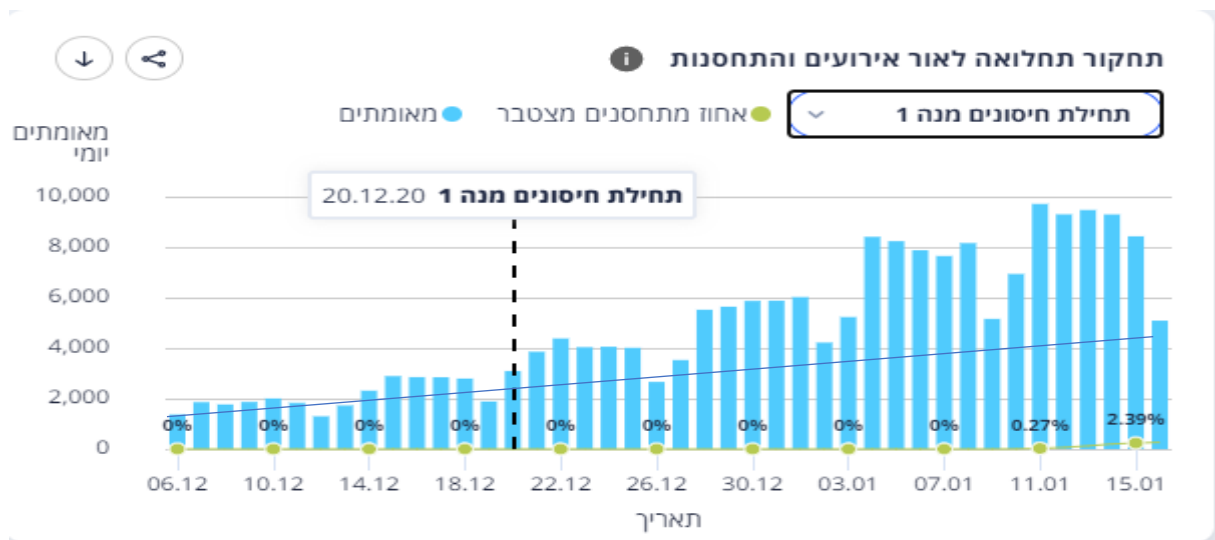


Figure 1. Daily confirmed Israeli COVID19 cases as a function of date, late 2020. Dashed vertical line indicates the start of the 1st dose rollout on December 20 2020. The continuous dark blue line approximates the case number trend extrapolated from daily cases during the month prior to 20XII2020, suggesting 1st doses increased infection rates. Data from [קורונה - לוח בקרה \(health.gov.il\)](http://health.gov.il).

This effect is even clearer after the 3d dose rollout on July 1st 2021, probably because May-June daily cases are naturally low.

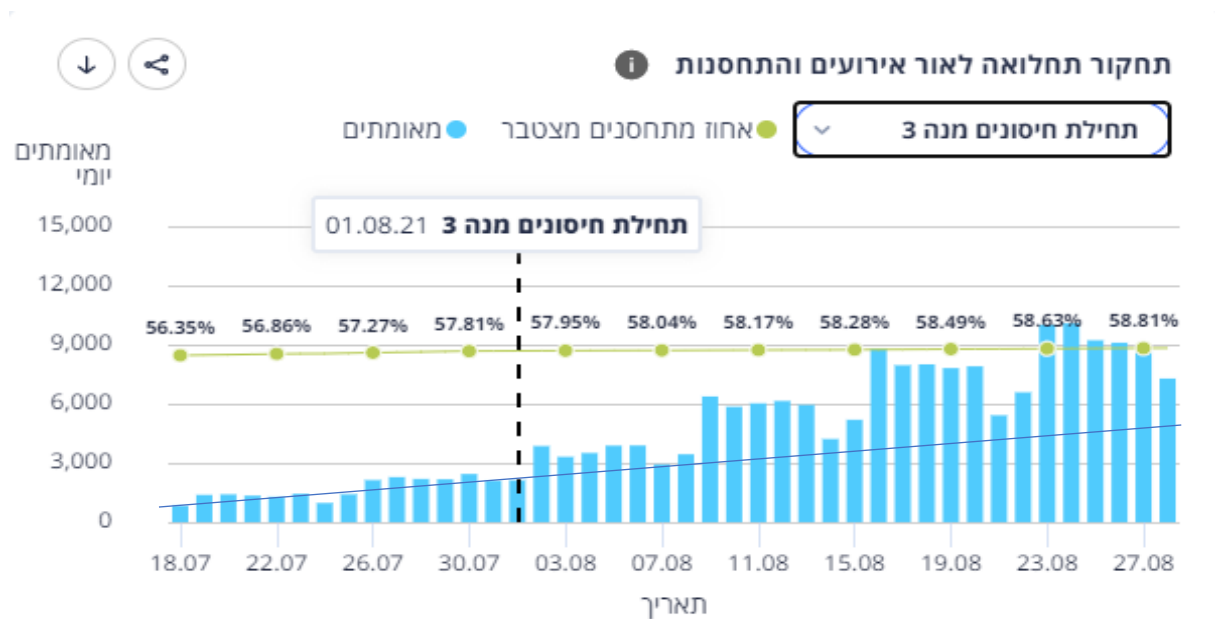


Figure 2. Daily confirmed Israeli COVID19 cases as a function of date, summer 2021. Dashed vertical line indicates the start of the 3d dose rollout on July 1st 2021. The continuous dark blue line

approximates the case number trend extrapolated from daily cases during the month prior to 1VII2021, suggesting 3d doses increased infection rates. Data from health.gov.il - [קורונה - לוח בקרה](#).

This is also confirmed by Israeli daily COVID19 deaths after 3d dose rollout, Figure 3.

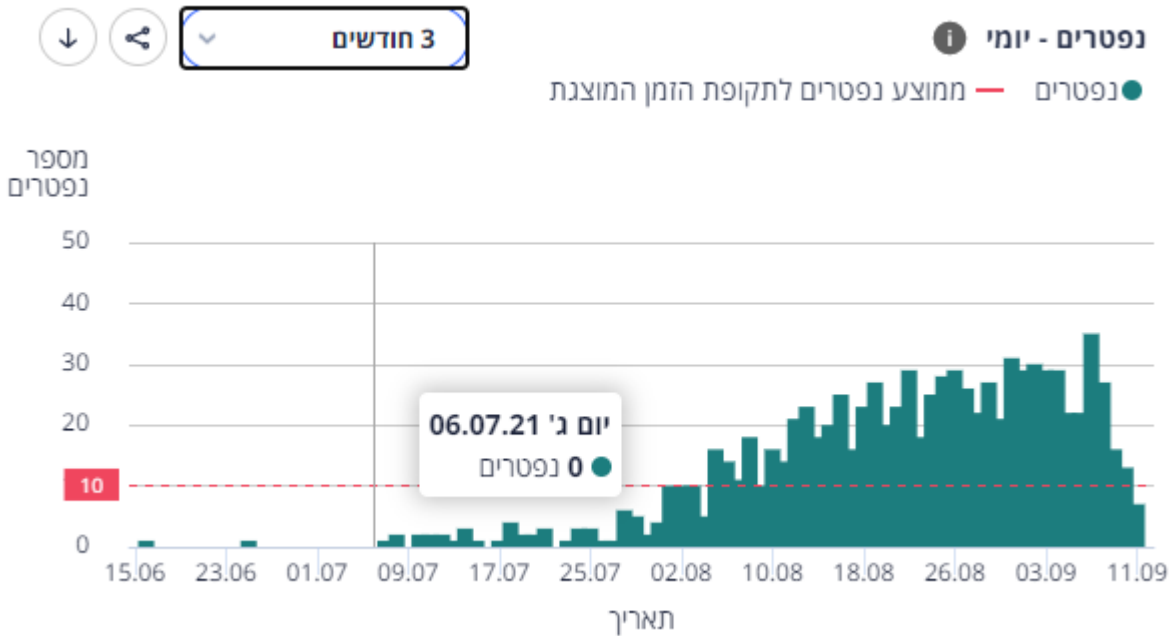


Figure 3. Daily Israeli COVID19 deaths as a function of date. Daily COVID19 deaths were nearly 0 for May-June, and start shortly after initiating 3d dose injections on 1VII2021. Data from [קורונה - לוח בקרה](http://health.gov.il) (health.gov.il).

Overall, daily COVID19 cases skyrocket after July 2021, as compared to the same date in 2020.

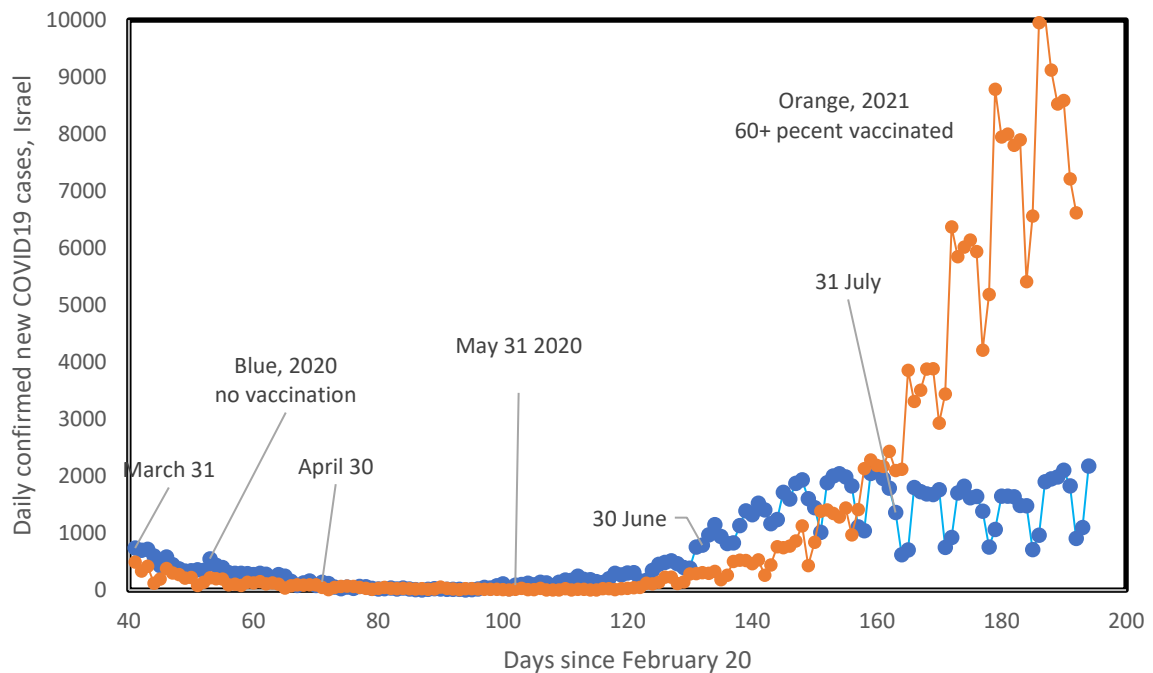


Figure 4. Daily Israeli COVID19 cases (2021, orange; 2020 blue) vs days since February 20 of that year.

Vaccination statuses and numbers of infections, severe and fatal cases

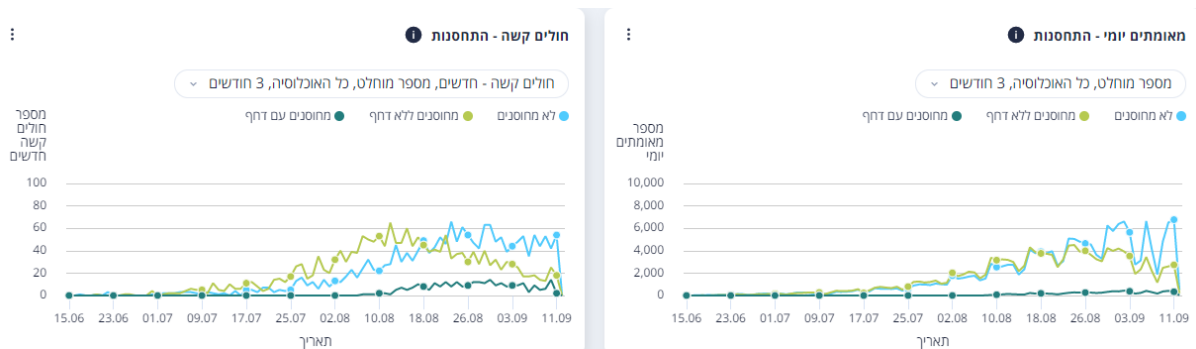


Figure 5. The right panel shows daily confirmed Israeli COVID19 cases as a function of date. The left panel are numbers of severe cases. Data for the last 3 months, accessed 12IX2021 for the whole population.

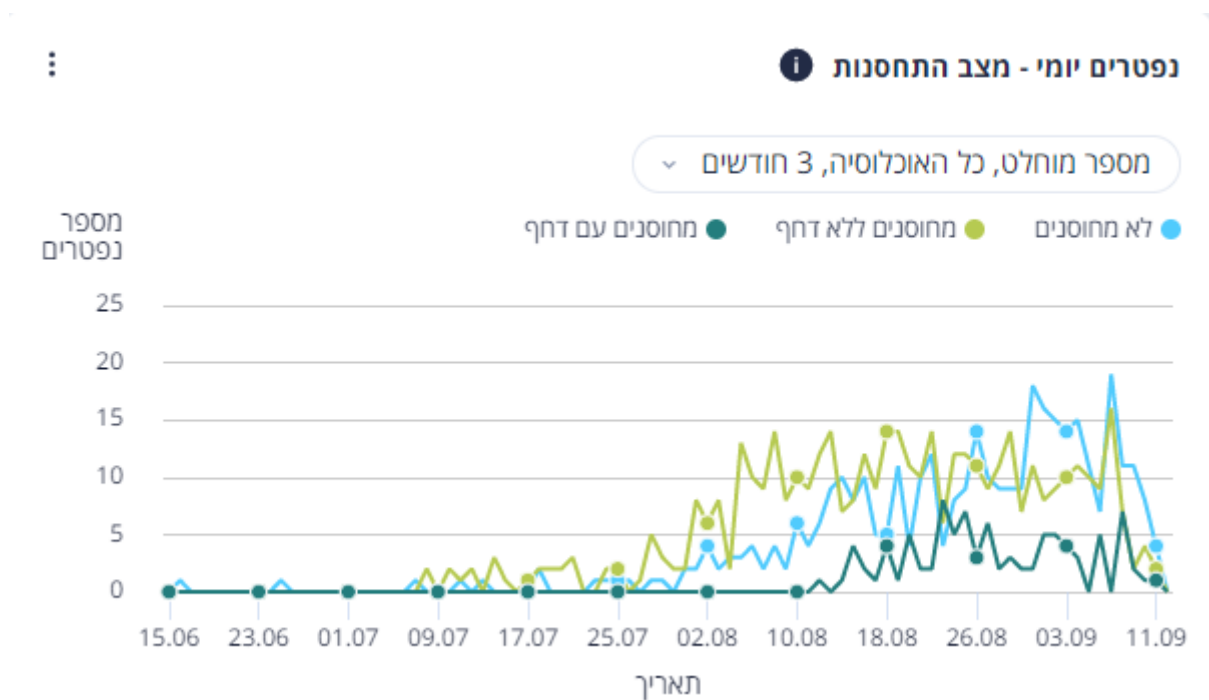


Figure 6. COVID19 deaths vs date for the last 3 months, according to vaccination status (blue, unvaccinated; light green, 2 doses; dark green, 3 doses).

The right panel in Figure 5 shows parallel dynamics of infections in those unvaccinated and those after 2 injections in July. Numbers with 3 injections are too low to be comparable at that time. Numbers of severe and fatal cases increase first in those with 2 doses. Slower increases occur in the unvaccinated with an approximate 1-week delay. Hence, severe infections started in those with 2 injections. The latter contaminated the unvaccinated, as shown by the 1-week time delay. Higher daily rates among the unvaccinated in the last past weeks reflect this delay. These will also soon decrease as observed for those with two doses.

Biases might influence case numbers. For example, the few cases among those with a single dose are not reported. These might be inflated with the unvaccinated, or not. It is also important to remember that infection risks increase within the first weeks after an injection (Figures 1 and 2). However, these new cases, which are probably caused by the injection, are counted as unvaccinated after the 1st injection, or (presumably) with 2 injections for those occurring shortly after the 3d injection. In addition, it is likely that a bias favouring testing the unvaccinated exist, while a bias against testing the vaccinated occurs.

More severe and fatal cases among the vaccinated

Figure 7 plots the daily difference between percentages of severe cases among the all vaccinated cases, summing 2nd and 3^d injections, and daily percentages of severe cases among all unvaccinated cases. Values above 0 mean that percentages of severe cases are greater among vaccinated than unvaccinated cases. Hence, after contracting COVID19, risks of severe cases are greater among the vaccinated than the unvaccinated. Patterns for 2 and 3 injections are overall similar.

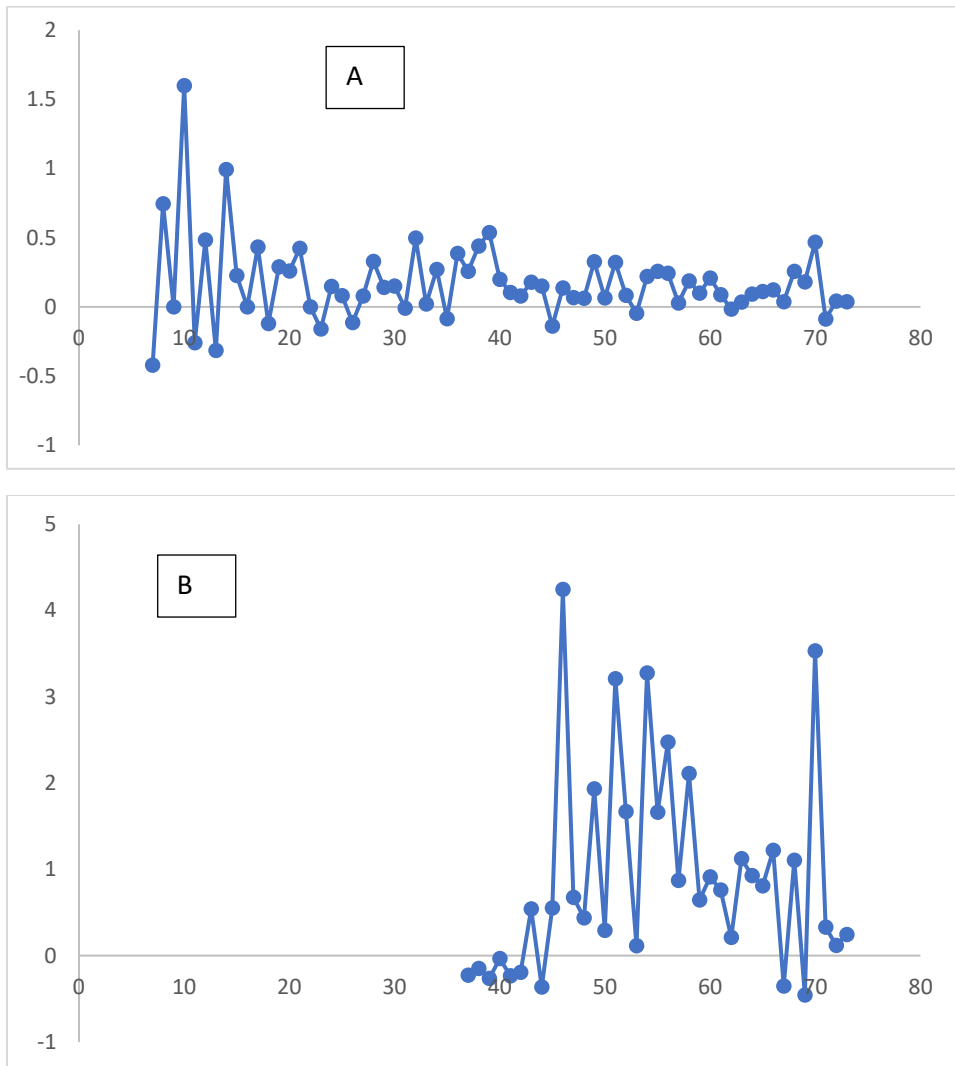


Figure 7. Daily difference between percentages of severe cases among the vaccinated and daily percentages of severe cases among all unvaccinated cases, (A) summing 2nd and 3^d injections, (B) only after 3^d injection. Values above 0 mean that percentages of severe cases are greater among vaccinated than unvaccinated cases.

Figure 8 plots the difference between percentages of deaths among the all vaccinated cases, summing 2nd and 3^d injections, and daily percentages of deaths among all unvaccinated cases. Values above 0 mean that percentages of deaths are greater among vaccinated than unvaccinated cases. Hence, after contracting COVID19, risks of dying might be greater among the vaccinated than the unvaccinated. Patterns for 2nd and 3^d injections are overall similar.

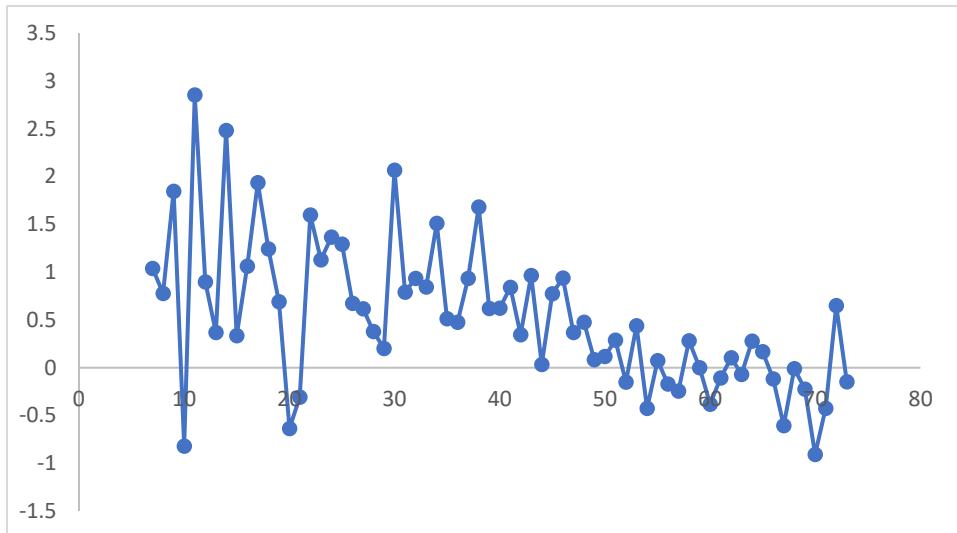


Figure 8. Daily difference between percentages of deaths among the all vaccinated cases, summing 2nd and 3^d injections, and daily percentages of deaths among all unvaccinated cases. Values above 0 mean that percentages of deaths are greater among vaccinated than unvaccinated cases.

Figure 9 plots the difference between percentages of deaths among the severe vaccinated cases, summing 2nd and 3^d injections, and daily percentages of deaths among severe unvaccinated cases. Values above 0 mean that percentages of deaths are greater among severe vaccinated than severe unvaccinated cases. Hence, after contracting COVID19, risks of dying might be greater among the severe vaccinated than the severe unvaccinated cases.

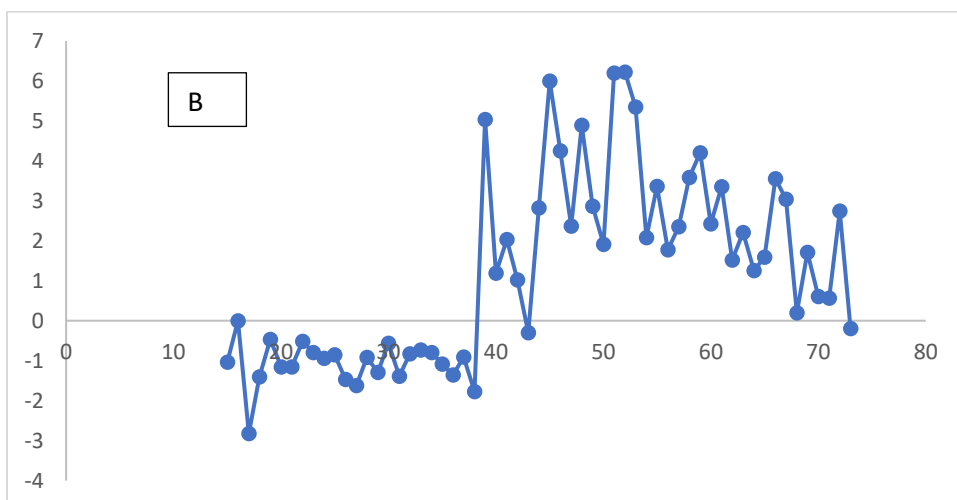
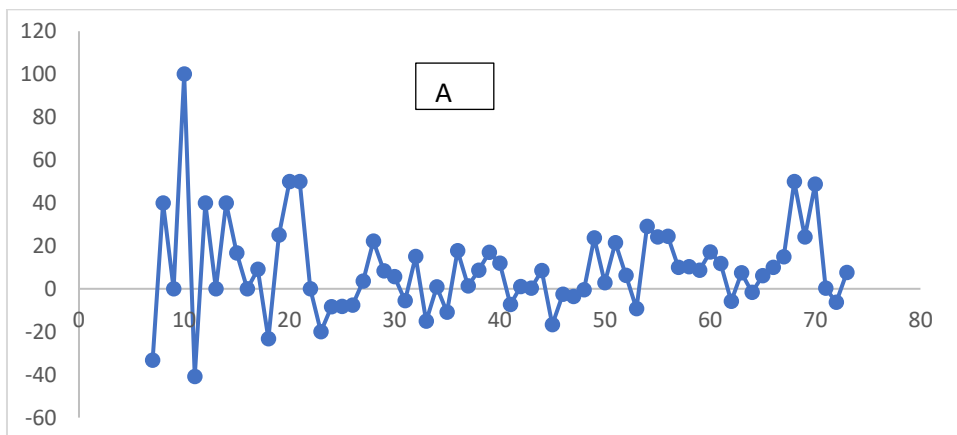


Figure 9. Daily difference between percentages of deaths among the severe vaccinated cases, and daily percentages of deaths among severe unvaccinated cases, (A) summing 2nd and 3a injections, (B) only after 3d injection. Values above 0 mean that percentages of deaths are greater among severe vaccinated than severe unvaccinated cases.

Patterns in Figures 7-9 suggest that statements that vaccinations prevent serious and fatal cases are incorrect. The alternative is that numbers of COVID19 cases among the vaccinated are under-evaluated because of negative testing biases.

Death rates among the unvaccinated, as they stand since July 7, are $363/167003 = 0.002174$, meaning 2.17 unvaccinated COVID19 deaths per mil. For the sum of those with 2nd and 3d doses, there are $535/149747 = 0.003573$, meaning 3.57 vaccinated COVID19 deaths per mil. The apparent increase in deaths rates among the vaccinated is by a factor of 1.644.

If testing biases underestimate vaccinated cases, in order to reach the same death rate among the vaccinated than the unvaccinated, one would need to multiply vaccinated cases by that factor, hence, correcting for this putative underestimation bias by the 1.644 factor would mean that there should actually be 246134 vaccinated cases.

Hence, there are two possibilities. First, case numbers are comparable among vaccinated and unvaccinated because there is no testing bias according to vaccination status, and death rates are 1.644 times greater among vaccinated than unvaccinated COVID19 cases. This fits with the data as presented on the Israel Health Ministry dashboard. The alternative is that death rates are the same, meaning that COVID19 cases among the vaccinated are underestimated by a factor of 1.644. None of these alternatives favours injections.