



## **KSM - Maccabi's Research and Innovation Center, in collaboration with the KI Institute - continuing to monitor vaccinated members at Maccabi**

### **New analysis 28 days after the first vaccination dose**

Each day new conclusions about vaccine efficacy are published; these conclusions differ as they are based on different approaches for data analysis. In fact, vaccine efficacy can be reliably concluded solely under a controlled clinical study, as in the real world behavioral factors and environmental conditions cannot be controlled - that is, there is a mixture of biological effects and behavioral influences.

Therefore, deciding which population to analyze (and how) impacts the conclusions greatly. Questions such as: what are the specific characteristics of those choosing to be vaccinated early? Are these different than the rest of the population? Does the group behavior change after the first or second vaccine dose? Are vaccinated individuals less likely to be tested for COVID-19? Are they more careful? These questions affect our ability to draw conclusive insights and recommendations.

That is why we believe it is of great value to produce a dashboard of raw data, while explaining that the insights we derive from it are by no means irrefutable – these are interpretations. What we show are not statistical inferences of vaccine efficacy - but rather a status report.

Simultaneously, we are publishing scientific investigations in medical journals.

The data we show today refer to a population of 132,015 Maccabi members over the age of 60, who received the first dose of the vaccine between December 20th and December 29th.

Additionally, we included a reference graph depicting the number of newly confirmed Coronavirus infections in Israel, starting December 25<sup>th</sup> (the midpoint of our cohort). The purpose of this graph is to provide the public some information referring the general rate of infection in Israel within a similar, corresponding, time frame.

#### Graph description

These graphs are descriptive, and apart from a 7-day moving average, no other statistical method was implemented (a 7-day moving average refers to 3 days before to 3 days after a given day).

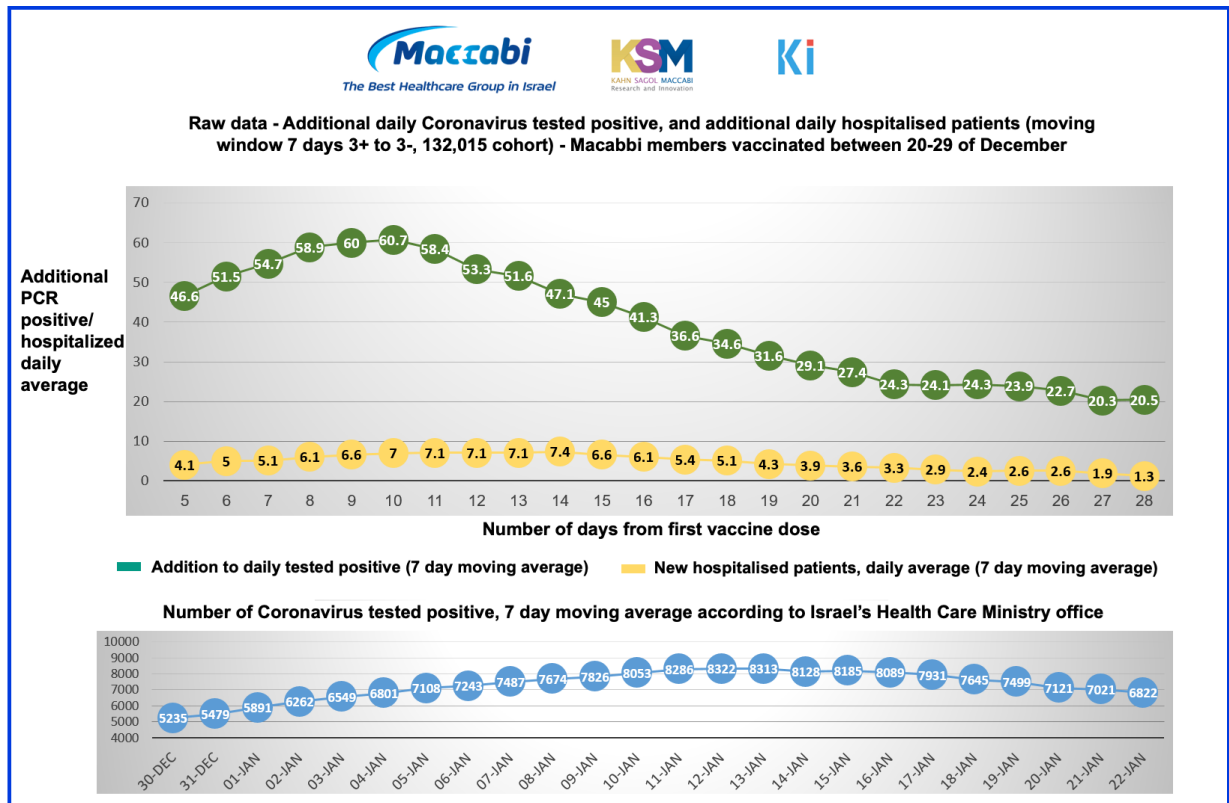
X axis represents the number of days from the first dose of the vaccine.

Y axis represents the average daily addition of confirmed Coronavirus infections (for the green graph) or hospitalizations (for the yellow graph).

Therefore, the **green graph** represents the daily amount of newly infected vaccinated members over the age of 60 out of 132,015 Maccabi members, who received the first dose of the vaccine between December 20th and December 29th.

The **yellow graph** - represents the daily amount of newly vaccinated hospitalized members over the age of 60 out of 132,015 Maccabi members, who received the first dose of the vaccine between December 20th and December 29th.

Note that a second dose of the vaccine is administered on day 21.



Our insight from the data

We can see that day 10 represents the peak of confirmed Coronavirus infections, whereas a slight decrease begins at day 11. Similarly, day 14 represents the peak of COVID-19 related hospitalizations.

A 55% decrease in the average daily infections is seen between the peak point and day 21. In a similar timeframe, a 14% increase in Coronavirus infections is seen in the general population.

An additional 25% decrease in the number of newly infected members is seen between days 21 and 28. A respective 18% decrease is seen in the general population.

The decrease in daily hospitalization numbers is more significant, though we draw attention to the fact that the numbers are small – and therefore must be cautiously interpreted. Compared to the peak number of newly vaccinated hospitalized patients on day 14, an 80% decrease is seen on days 27-28.

We will continue to provide updated data in the following weeks.

"Though the trend is encouraging, those vaccinated still need to be cautious," says Dr Tal Patalon, Head of KSM Research and Innovation Center. "We still do not have enough data about hospitalizations among vaccinated individuals – as well as their potential to infect – and not merely be infected."