2020 will be remembered for the COVID-19 pandemic and its profound worldwide effects on human health, quality of life, and economics. The year ended with a glimmer of hope when the United States Food and Drug Administration (FDA) approved the use of COVID-19 vaccines for people over the age of 16. The vaccine campaign was a success, and the number of new infections declined rapidly in countries with highly vaccinated populations, despite the easing of lockdown restrictions. However, limitations in terms of the activities of unvaccinated teenagers and children, both in and out of school, remain necessary.

Epidemiological data show that the susceptibility to and transmission of COVID 19 by children decrease as age decreases. Furthermore, children tend to develop the disease asymptomatically and present more favourable outcomes than adults. However, the recent emergence of new variants has increased the risk of transmission by children, as well as the severity of their symptoms [1,2,3].

In May 2021, the FDA and the Committee for Medicinal Products for Human Use approved the use of the COVID-19 vaccine for teenagers aged 12 years and up. Accordingly, the governments of some countries are considering extending vaccination to children aged 12 to 16 years old. They expect that this will help control the pandemic, which is extremely important considering the potential spread of new variants. Increasing vaccination rates will help to establish herd immunity and promote recovery of the global economy. However, in order to implement such a strategy, it is important to understand certain parents’ hesitancy to vaccinate their children.

In Israel, the vaccination campaign started in mid-December 2020, and by June 3th 2021, 59.35% of the population was fully vaccinated. The highest 7-day moving average of new infections per day was 8,624 on January 17th 2021. This gradually declined as the vaccinated population increased, falling to 15 new cases per day at the beginning of June 2021. However, due to the Delta variant, the weekly average of new cases increased to 450 at the beginning of July.

Based on a nationwide observational study conducted in Israel, vaccine effectiveness against symptomatic SARS-CoV-2 infection, COVID-19-related hospitalization, and COVID-19-related death exceeded 96% across all age groups. Furthermore, a positive correlation between vaccination rate and age was identified: for 70 years and above the rate exceed 95%, for 50–70 years it was ~90%, and for 20–40 years it was ~80%.

The percentage of vaccinated people in Israel had reached a plateau over the preceding two months, in which the first-vaccination rate had increased by only 2.3% (from 60.7% on April 1st 2021 to 63% in June 1st 2021) [4,5,6].This phenomenon, which was most likely caused by vaccine hesitancy, was also observed in other countries.

Vaccine hesitancy is defined by the World Health Organization as delayed acceptance or conscious rejection of vaccination, despite its availability [7]. The causes of vaccine hesitancy vary by country and are vaccine specific, indicating a need to strengthen the capacity of national programs to identify local casual factors and develop appropriate strategies [8,9].