The year 2020 will be remembered for the coronavirus disease (COVID-19) pandemic and the harm inflicted by the same on human health, life quality, and the global economy. Nevertheless, this year ended with a glimmer of hope due to the US Food and Drug Administration (FDA) approving the administration of COVID-19 vaccines to individuals aged 16 years and older. The following vaccination campaign was a success, and the number of new infections in countries with high vaccinated population rates rapidly declined despite the lockdown easing. However, restrictions concerning the in- and outdoor activities of the unvaccinated population (mainly teenagers and children) are still needed.

Epidemiological data show that the susceptibility of children to COVID-19 and their ability to transmit this disease decrease with decreasing age, further suggesting that children tend to develop no symptoms and have a more favorable outcome than adults. Unluckily, the recently emerged new COVID-19 variants cause more severe symptoms in children and are more likely to be transmitted by the same [1], [2], [3].

In May 2021, the FDA and Committee for Medicinal Products for Human Use (CHMP) approved the administration of COVID-19 vaccines to individuals aged 12 years and older, making some countries consider the vaccination of 12- to 16-year-olds. Given the spread of new COVID-19 variants, this step is very important, as the resulting increase in the vaccination rate and the establishment of herd immunity facilitate pandemic control and help to recover the global economy. However, the successful implementation of this strategy requires a deep understanding of why parents (the typical decision-makers) may be reluctant to vaccinate their children.

In Israel, the vaccination campaign started in mid-December 2020, and a fully vaccinated population rate of 59.35% was achieved by June 3, 2021. The seven-day moving average of new infections per day was highest (8,624) on January 17, 2021 and declined to only 15 at the beginning of June 2021 with the increase in the vaccination rate. The emergence of the delta variant of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) resulted in the weekly average of new cases increasing to 450 at the beginning of July. Israel’s nationwide observational study showed that the effectiveness of the administered vaccine against symptomatic SARS-CoV-2 infection, COVID-19-related hospitalization, and COVID-19-related death exceeded 96% across all age groups. The vaccination rate was positively correlated with age and was determined as >95, ~ 90, and ~80% for age groups of ≥70, 50–70, and 20–40 years, respectively. Notably, the percentage of individuals who had received the first vaccine dose increased by only 2.3% between April 1, 2021 (60.7%) and June 1, 2021 (63%) [4], [5], [6]. This phenomenon was also observed in other countries and is thought to reflect vaccine hesitancy, which is defined by the World Health Organization (WHO) as the delay in vaccination acceptance or refusal despite the availability of vaccination services [7]. The causes of vaccine hesitancy vary by country and are vaccine-specific, which indicates the need to strengthen the capacity of national programs to identify local causal factors and develop appropriate strategies [8], [9].