

~~The year 2020 will be remembered by-for the COVID-19 pandemic and its widespread worldwide huge effects on the global economy and human quality of life human, quality of life and economies. This-However, the year ended with a glimmer of hope when the FDA approved the use of COVID-19 vaccination among-for ages those 16 years and upolder. The vaccine campaign was a success, with the number of new infections declined-declining rapidly despite-even amidst the easing-cased of lockdown restrictions; in countries with a high rate of vaccinated population. In Israel, the vaccination campaign began in mid-December 2020 and by June 3<sup>rd</sup>, 2021, 59.35% of the population was fully vaccinated. The highest number of the 7-day moving average of new infections per day was 8,624 on January 17th, 2021. This number gradually declined as the percentage of vaccinated individuals increased, reaching just 15 new cases per day at the beginning of June 2021. Based on an Israeli nationwide observational study, vaccine effectiveness against symptomatic SARS-CoV-2 infection, COVID-19-related hospitalizations, and COVID-19-related deaths exceeded 96% across all age groups. In addition, a positive correlation between the vaccination rate and age was found: For 70 years and over the rate exceeds 95%, for 50-70 years it is approximately 90%, and for 20-40 years it is approximately 80%. However, due to the recent Delta variant, the weekly average of new cases increased to 450 at the beginning of July. This comes as the percentage of people who are vaccinated in Israel reached a plateau over the past two months, increasing only by 2.3% from 60.7% on April 1<sup>st</sup> 2021 to 63% on June 1<sup>st</sup> 2021 [4], [5], [6]. These factors together present a new challenge for health officials.~~

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Commented [DJ1]: This paragraph looked like introductory information (I assume your audience is Israeli?), so I moved it up. Your main point seems to be more about vaccination among adolescents and the challenges of vaccine hesitancy, so this information didn't quite fit below.

Commented [DJ2]: This may be redundant if you say "7-day moving average". Can you clarify your meaning here?

Commented [DJ3]: When?

~~Despite the success of vaccines, measures pertaining to unvaccinated adolescents both inside and outside of school are necessary, especially amidst new disease variants. Epidemiological data show that although susceptibility to COVID-19 and the severity of symptoms decrease with younger ages, the emergence of new disease variants, such as the Delta variant, has increased these risks [1], [2], [3]. In response, in May 2021, the FDA and CHMP approved the use of the COVID-19 vaccine to adolescents 12 years and older. Several other countries have also considered extending vaccine administration to adolescents between ages 12 to 16 years old, with the hope of increasing the vaccination rate to reach herd immunity. In this way, the pandemic can be more easily controlled, allowing the global economy to stabilize.~~

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~~However, limitation concerning unvaccinated population (mainly teenagers and children) activities both in school and outside are still needed. Epidemiological data show that the susceptibility and transmission of COVID 19 by children decrease as the child age decrease. children tend to develop asymptomatic disease, and present a more favorable outcome than adults. Although, recent emerge of new variants increase the children risk of disease transmission and the disease severity [1], [2], [3].~~

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~~On May 2021 the FDA and CHMP approved the use of the COVID 19 vaccine to teenagers ages 12 years and up. Some countries consider extending the vaccine population to children ages 12 to 16 years old. They expect that this step will contribute to the control of the pandemic, which is extremely important after the~~

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spread of the new pandemic variants. Increasing the vaccine rate will help reaching herd immunity and the recovery of the global economy. In order to imply such a strategy it is important to understand the parent's vaccine hesitancy regarding their children, since parents are usually the decision makers.

In Israel the vaccination campaign started on mid-December 2020 and by June 3th 2021 59.35 percent of the population were fully vaccinated. The highest level of 7-day moving average of new infections per day was 8,624 on January 17th 2021, this number gradually declines as the percentage of vaccines population increased and reached 15 new cases per day at the beginning of June 2021. Due to the delta variant the number of weekly average of new cases increased to 450 at the beginning of July. Based on Israel nationwide observational study, vaccine effectiveness against symptomatic SARS-CoV-2 infection, COVID-19 related hospitalization, and COVID-19 related death exceeded 96% across all age groups. There is a positive correlation between the vaccination rate and age: for 70 years and above the rate exceed 95%, for 50-70 years it is around 90% and for 20-40 years around 80%. The percentage of people who vaccinated in Israel reached a Plato over the previous two months, it (first vaccine) increased only by 2.3% from 60.7% in April 1<sup>st</sup> 2021 to 63% in June 1<sup>st</sup> 2021 [4], [5], [6]. This phenomenon exists in other countries as well and is probably caused by the vaccine hesitancy. In implementing such a policy aimed toward adolescents, it is important to understand parents' vaccine hesitancy which the Vaccine hesitancy is defined by the World Health Organization (WHO) defines as a as a delay in acceptance or refusal of vaccination despite the availability of vaccination services [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 casualcausal factors and develop appropriate strategies [8], [9]. With that said, because it is the parents who typically make the decision regarding vaccination for their children, grappling with vaccine hesitancy is arguably a major factor in policy success. Vaccine hesitancy is defined by the World Health Organization (WHO) as a delay in acceptance or refusal of vaccination despite the availability of vaccination services [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].

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2020 will be remembered for the COVID-19 pandemic and its widespread effects on the global economy and human quality of life. However, the year ended with a glimmer of hope when the FDA approved the use of COVID-19 vaccination for those 16 years and older. The vaccine campaign was a success, with the number of new infections declining rapidly even amidst eased lockdown restrictions in countries with a high rate of vaccination. In Israel, the vaccination campaign began in mid-December 2020 and by June 3<sup>rd</sup>, 2021, 59.35% of the population was fully vaccinated. The highest number of the 7-day moving average of new infections per day was 8,624 on January 17th, 2021. This number gradually declined as the percentage of vaccinated individuals increased, reaching just 15 new cases per day at the beginning of June 2021. Based on an Israeli nationwide observational study, vaccine effectiveness against symptomatic SARS-CoV-2 infection, COVID-19-related hospitalizations, and COVID-19-related deaths exceeded 96% across all age groups. In addition, a positive correlation between the vaccination rate and age was found: For 70 years and over the rate exceeds 95%, for 50-70 years it is approximately 90%, and for 20-40 years it is approximately 80%. However, due to the recent Delta variant, the weekly average of new cases increased to 450 at the beginning of July. This comes as the percentage of people who are vaccinated in Israel reached a plateau over the past two months, increasing only by 2.3% from 60.7% on April 1<sup>st</sup> 2021 to 63% on June 1<sup>st</sup> 2021 [4], [5], [6]. These factors together present a new challenge for health officials.

Despite the success of vaccines, measures pertaining to unvaccinated adolescents both inside and outside of school are necessary, especially amidst new disease variants. Epidemiological data show that although susceptibility to COVID-19 and the severity of symptoms decrease with younger ages, the emergence of new disease variants, such as the Delta variant, has increased these risks [1], [2], [3]. In response, in May 2021, the FDA and CHMP approved the use of the COVID-19 vaccine to adolescents 12 years and older. Several other countries have also considered extending vaccine administration to adolescents between ages 12 to 16 years old, with the hope of increasing the vaccination rate to reach herd immunity. In this way, the pandemic can be more easily controlled, allowing the global economy to stabilize.

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