



Letter to Editor

## Do we need to vaccinate every child against COVID-19?

Rajalakshmi Mahendran<sup>1</sup> 

<sup>1</sup>Department of Community Medicine, Sri Manakula Vinayagar Medical College and Hospital, Puducherry, India.



**\*Corresponding author:**

Rajalakshmi Mahendran,  
Department of Community  
Medicine, Sri Manakula  
Vinayagar Medical College and  
Hospital, Puducherry, India.

[dr Rajalakshmi Mahe@gmail.com](mailto:dr Rajalakshmi Mahe@gmail.com)

Received: 12 October 2023

Accepted: 12 March 2024

Epub Ahead of Print: 12 April 2024

Published:

**DOI**

10.25259/GJHSR\_79\_2023

**Quick Response Code:**



Dear Editor,

Major impacts of a pandemic are morbidity and mortality among adults. However, COVID-19 in children is highly risky. Children can also be a source of COVID-19 spread to parents and caregivers.<sup>[1]</sup> During first, second, and third wave of COVID-19 in India, children were also affected but mostly did not require hospital admissions since they had mild-to-moderate respiratory symptoms. Children who required hospital admissions and intensive care unit care had various comorbidities such as malignancy. Risk factors for pediatric COVID-19 cases were close contact with a SARS-CoV-2-positive family member, a history of travel, and living in endemic areas. Now, persons more than 18 years were vaccinated which includes their family members, relatives, and schoolteachers. Those vaccinated individuals also can transmit the disease to other individuals. However, those non-vaccinated are at higher risk of contracting the disease than vaccinated. Now, the children are at higher risk of getting COVID-19 from their parents or other family members since they are the only group of individuals who remained non-vaccinated. Hence, vaccination is very much needed for all children.

### REASONS TO CHOOSE VACCINATION

Three reasons why all children need to be vaccinated against COVID-19. First one is herd immunity can only be reached in India after vaccinating all the children since less than half (45%) of Indian population were children and young adults.<sup>[2]</sup> The second reason is, in the present strain of COVID virus, children affected were very less in number, this could be due to less number of ACE inhibitor in pediatric population and also very less affinity of SARS-COV-2 towards ACE receptors. Now, all the age groups were getting vaccinated except the children. So the virus will get mutated and the new strain of virus with repeated mutation can attack even very less ACE inhibitor with more affinity. The third reason is since it is a novel virus so it finds some or the other way to infect all age groups, so it is better to go for vaccination rather than to get infected. Getting vaccination will also allow children to start doing things that they might not have been able to do due to the pandemic, including not wearing a mask or social distancing in any setting except where required by a rule or law.<sup>[3,4]</sup>

### REASONS FOR NOT VACCINATING CHILDREN AGAINST COVID

The reason for not vaccinating children against COVID is they get relatively little benefit from it. One of the few good things about this pandemic is children are very rarely seriously affected by this infection. It is estimated that fewer than two out of every million children died with COVID during the pandemic. Only those at very high risk of exposure and serious outcomes which could

include older children with severe disabilities in residential care are recommended to be vaccinated.

## RISK VERSUS BENEFIT

Now vaccines have been determined to be safe for adults, and they are being studied in children. The World Health Organization's Strategic Advisory Group of Experts (SAGE) had said that the Pfizer/BioNTech vaccine is suitable for use by people aged 12 years and above. Children aged between 12 and 15 who are at higher risk of severe COVID-19 may be offered this vaccine alongside other priority groups for vaccination. Benefits of vaccination are more than the risk to the children.

## BENEFITS FROM VACCINATING CHILDREN

The approach of vaccinating children is already used for diseases such as flu in the United Kingdom. This activity was done to protect their grandparents each year. The same came to be done for COVID vaccines that could help contribute to herd immunity.

## SAFETY AND EFFECTIVENESS OF COVID VACCINATION

The U.S. Food and Drug Administration (FDA) has given the Pfizer-BioNTech COVID-19 vaccine emergency use authorization for children ages 12 through 15. The FDA first gave this vaccine emergency use authorization for people aged 16 and older in late 2020. Research has shown that the Pfizer-BioNTech COVID-19 vaccine is 100% effective in preventing the COVID-19 virus in children ages 12 through 15. The effectiveness of vaccine is determined by a study in US where half of the children in the study group were given Pfizer-BioNTech COVID-19 vaccine and the other half were given placebo.

After the second dose, no cases of COVID-19 were reported in the study group and in the control group, there were cases reported.

## POSSIBLE SIDE EFFECTS OF COVID VACCINATION

The side effects which children experienced were pain where the shot was given, fatigue, headache, chills, muscle pain, fever, and joint pain. The symptoms were similar to the adults and adolescent age group.

## SHORT-TERM COMPLICATIONS AFTER VACCINATION

There were cases reported on myocarditis and pericarditis after COVID vaccination among children. The studies are going on to investigate whether there is any relationship to

COVID-19 vaccination. The symptoms due to myocarditis and pericarditis resolved after receiving medication and rest. Some of the symptoms to watch and needs intervention after vaccination includes chest pain, shortness of breath, feeling of fast breathing, and fluttering or pounding heart.

## LONG-TERM COMPLICATIONS AFTER VACCINATION

Since COVID-19 vaccine trial started in the middle of 2020. It is not yet clear if the vaccines will have long-term effects. However, vaccines rarely cause long-term effects.

## CONCLUSION

It is better to go for vaccination than infected.

### Ethical approval

Institutional Review Board approval is not required.

### Declaration of patient consent

Patient's consent not required as there are no patients in this study.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The author confirms that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

## REFERENCES

1. Age structure and marital status-census of India. Available from: [https://censusindia.gov.in/census\\_and\\_you/age\\_structure\\_and\\_marital\\_status.aspx](https://censusindia.gov.in/census_and_you/age_structure_and_marital_status.aspx) [Last accessed on 2021 Aug 02].
2. Alsohime F, Temsah MH, Al-Nemri AM, Somily AM, Al-Subaie SA. COVID-19 infection prevalence in pediatric population: Etiology, clinical presentation, and outcome. *J Infect Public Health* 2020;13:1791-6.
3. Hillis SD, Unwin HJ, Chen Y, Cluver L, Sherr L, Goldman PS, *et al.* Global minimum estimates of children affected by COVID-19-associated orphanhood and deaths of caregivers: A modelling study. *Lancet* 2021;398:391-402.
4. Leidman E, Duca LM, Omura JD, Proia K, Stephens JW,

Sauber-Schatz EK. Covid-19 trends among persons aged 0-24 years-United States, March 1-December 12, 2020. MMWR Morb Mortal Wkly Rep 2021;70:88-94.

**How to cite this article:** Mahendran R. Do we need to vaccinate every child against COVID-19? Glob J Health Sci Res. doi: 10.25259/GJHSR\_79\_2023