

Perspectives on Child Health and Wellbeing

Adithya Pradyumna and Kayur Mehta

COVID-19 in children

The coronavirus disease 2019 (COVID-19) pandemic has brought unparalleled challenges to the care of children and adolescents globally. India is currently second on the list of countries with highest case counts and third in terms of deaths. According to data from the Ministry of Health and Family Welfare, as on September 1, 2020, eight percent of the cases and one percent of deaths in India have occurred in children aged under 17 years. COVID-19 appears to be *milder* in children than in adults, which is quite atypical for a respiratory viral infection, commonly presenting as a self-limiting febrile upper respiratory illness. However, children are still at risk of developing severe illness and complications from COVID-19. These include respiratory failure, damage to the heart, kidneys, and multi-organ system failure, just like in adults. A minority of children can also experience a serious, post-infectious inflammatory syndrome, which is specific to children, difficult to treat and can be associated with long-term consequences. The overall mortality rate due to the disease is much lower in children compared to adults.

Contextualising the indirect impact

Relative to the direct impact of the disease, children, especially in developing countries, have been disproportionately affected by the indirect effects of the pandemic through a variety of mechanisms. Over 90 percent of countries have reported disruptions in routine health services to the WHO and pandemic-related service closures, warnings and public health measures have led to substantially reduced use of routine child healthcare services.

Children who have chronic underlying health conditions, like diabetes, epilepsy and HIV have been particularly impacted due to the lack of access to medication and follow-up services. Decades of progress achieved in reducing preventable child deaths may be rolled back

due to hindrances in access to vaccination services. There is a risk of re-emergence of several vaccine-preventable diseases due to the resultant decline in the level of herd immunity to diseases, for example, measles.

Consequences of schools closing

We first look at the importance of *anganwadis* and primary schooling for the health and development of children. These are places where crores of children routinely spend several hours of the day, improving their knowledge, gaining skills and socially engaging with other children. Importantly, children are also entitled to a healthy hot meal at school, ensuring supplementary nutrition to what they are already consuming at home. These very large programmes, which have been built and reformed over decades to contribute to better education and child development, have been severely impacted by the pandemic. Even during normal times, the *anganwadis* were utilised more in rural (59%) than in urban areas (40%), based on the National Family Health Survey conducted in 2016 (NFHS-4).

Despite significant progress in the nutritional status of India's children over recent decades, undernutrition continues to persist. The prevalence of stunting among children under the age of 5 years was estimated at 38 percent, and that of underweight at 36 percent in 2016 (NFHS-4). However, even before the pandemic struck, India was off course in meeting all the nutrition targets for 2025, including those for child undernutrition. Hence, COVID-19 comes as a huge setback to very important work on improving basic health determinants. Additionally, interruptions to deworming and iron-folic acid supplementation programmes may worsen the already alarming rate of anaemia, which was at 58 percent in 2016 (NFHS-4). The disruption of food supplementation may also have impacted pregnant and lactating women and, consequently, their babies and children yet to be born.

The routine of school provides a safe environment for vulnerable children. The meal and the security are incentives to send children to school, especially for the poorest families, allowing the parents to engage in wage-labour or other means of making ends meet without having to worry about the whereabouts of their children and their lunches. The hot meal is especially important for some children who may have no other means for a healthy meal, such as those of urban migrant workers, potentially also keeping them away from child labour. Several adolescent girls may have also been dependent on getting their sanitary napkins through the school health programmes and may have faced difficulties during the lockdown.

As of 2016, only 60 percent households had both soap and water for hand-washing. While efforts and campaigns to improve hand hygiene practices during the pandemic may have had some positive impact, there is a significant section of the population that lacks access to either water, soap or both, making them additionally vulnerable to contracting the virus.

Consequences of loss of livelihoods

Very importantly, the response measures in terms of the lockdowns have drastically impacted the livelihoods of millions of households dependent on

daily wages. This has manifested as a triple-strike for vulnerable children – their parents are out of work, the school is closed, and the family is struggling for food. In heart-breaking testimonies, some of the children, now working as ragpickers, interviewed by a journalist have wondered if they would even get back to school, clearly indicating the potentially massive impacts also on mental health. Children have also been pushed into other hazardous jobs such as construction and *beedi rolling*.

In comparison to children from more affluent families, those from poorer families have inadequate access to computers, internet and electricity, and are, therefore, facing tougher challenges in continuing their education. The impacts may be even worse for female children with the scarce educational resources available being allocated to the male children. With more and more children being out of school, reports of child abuse, neglect, exploitation and domestic violence are on the rise, potentially compromising the mental health and wellbeing of children. There is also a possibility of children having lost both parents to COVID-19, leaving them extremely vulnerable. Overall, the costs of the pandemic are intangible and heavy on individual children, families and the nation. And so, despite not being the face of the pandemic, children are at risk of being among its greatest victims.

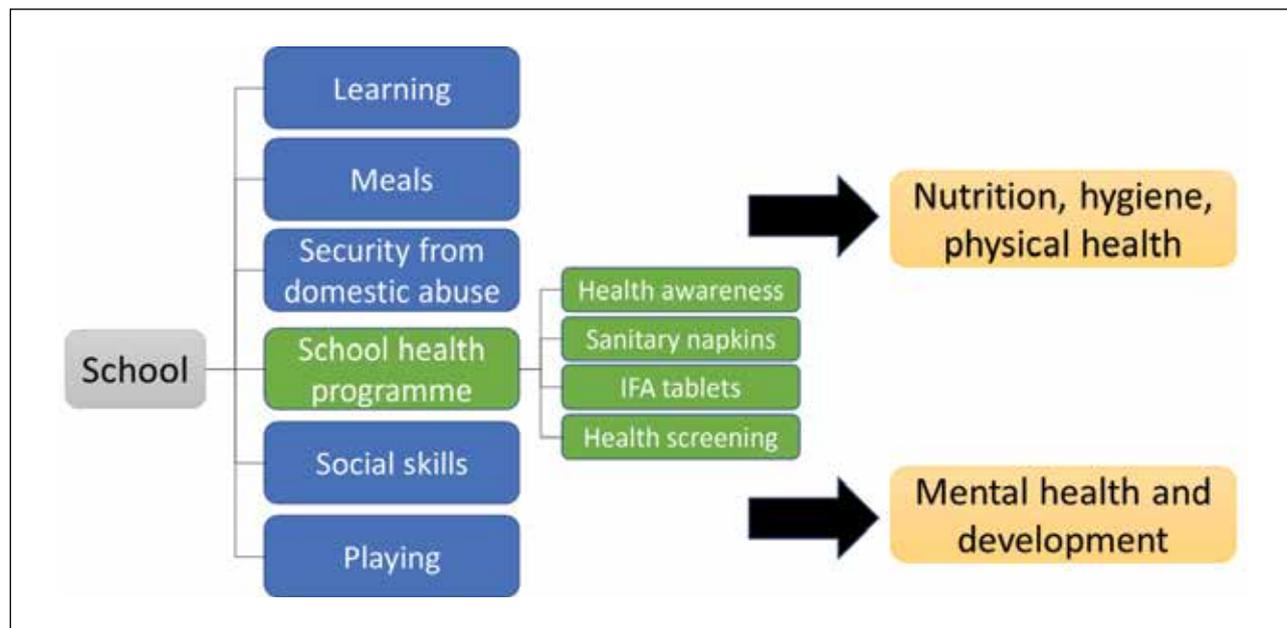


Figure 1. How schools contribute to the health of children (source: authors); IFA: iron and folic acid

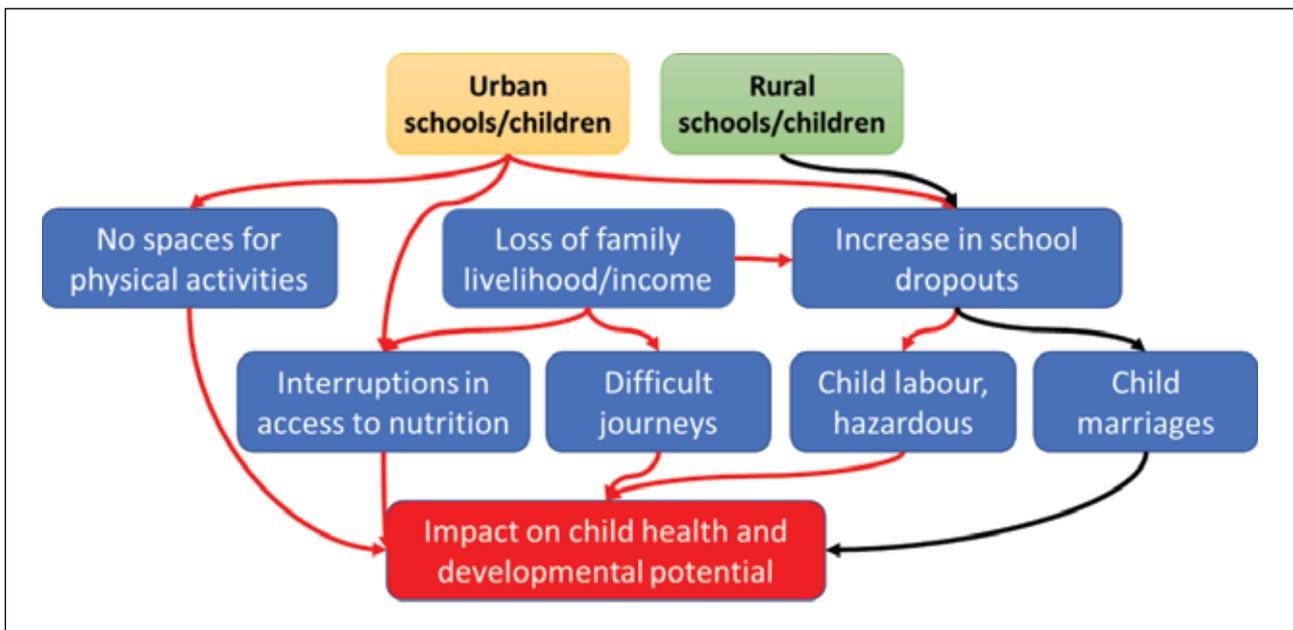


Figure 2. Potential impact pathways for disruption of child health due to the pandemic; pathways in black are important to both urban and rural children, red arrows are more relevant to urban children (source: authors)

Mitigating the impacts and protecting child health

While several children have already suffered severe impacts from the disruption of normal life, efforts are being made by governments, health and social workers, as also the voluntary sector to understand and mitigate further impacts. Policies have been put into place to support the increased supply of food to eligible families and continue the Mid-Day Meal scheme, which has faced mixed success until now due to tight lockdown measures earlier and infections among staff members, especially in urban areas. Such interventions to improve nutrition access are critical for lessening the effects and risks of COVID-19.

Good nutrition is a prerequisite for the overall physical, immunological and cognitive development of children. While there is no evidence so far that particular foods or food supplements can protect against COVID-19, it is well known that certain micronutrients, including vitamins A, D, C, E, B6, and B12, folate, zinc, iron, copper, and selenium contribute to a well-functioning immune system. Common signs of nutritional deficiencies include weakness, weight loss, irritability, poor concentration, diarrhoea, skin changes, poor night vision, shortness of breath, frequent infections amongst several others. At an individual level, it is important that parents ensure that their children eat well-balanced meals. A healthy diet entails consuming well-balanced, diversified, nutritious foods, including grains, legumes, fruits, vegetables and animal source foods.

As alluded to earlier, a vast majority of India's children depend on the midday meals provided by their schools; however, primary schools and *anganwadis* are yet to reopen, and it is unclear when that might happen. Under such circumstances, alternate strategies to ensure continuity of nutrition provision such as catering systems, take-home rations, voucher transfers or cash-based transfers, all with standard infection control safeguards, could be further explored. Strengthening primary care and sustaining community-based interventions to promote maternal and child health, such as home visits during and after pregnancy, micronutrient supplementation and immunisation programmes would also be crucial in alleviating the downstream effects of the pandemic on children's physical health. Further, disease transmission control efforts per se need to be strengthened as winter approaches, when virus transmission peaks. More stringent social distancing measures and the use of masks are highly recommended.

In certain vulnerable areas, make-shift arrangements were made for children to be able to access education and supplementary food. States, such as Kerala, that have managed this well are those that already had strong governmental educational services and better child health indicators. Areas with the worst indicators, including urban slums,

are of great concern. Volunteers in urban areas have set-up makeshift schools for children to help continue their education. Although such measures may not be sustainable, these may have prevented some children from dropping out. Civil society organisations have also mobilised their resources during this critical time to improve access to food and essential medical services. Some have suggested that young children going to primary schools are far less likely to spread the virus, and hence, there may be a case to open their schools before those of the older children. There is a need for a deeper discussion on school reopening in a timely and safe manner.

The pandemic may have also severely impacted the mental health of children. Subtle signs of poor emotional and mental wellbeing could include mood swings, behavioural changes, loss of interest in activities previously enjoyed, difficulty in sleeping, problems with memory and concentration. This is a time when both parents and children are under stress, especially those facing livelihood loss and forced migration. While parents face their own challenges, efforts need to be made towards the children’s mental wellbeing by listening to them, acknowledging their difficulties,

clarifying their doubts, reassuring them, generating hope and providing emotional support in resolving issues. Exposure to media should be limited so that children are not excessively exposed to pandemic-related information.

Setting a daily routine that incorporates academic work, chores, play, interaction with friends over the phone/other forms of technology and exercise/yoga, as well as family-time would go a long way in the overall wellbeing of children during these stressful times. It has further been suggested that returning to a structured learning programme can also help improve mental health outcomes. Multiple channels have been engaged by the government for the continuity of children’s education – web portals, mobile apps, TV channels, radio, and podcasts – through platforms such as *Diksha*, *Swayam Prabha* TV channels, *e-Pathshala* and the National Repository of Open Educational Resources. However, many of these may be difficult to access for the most vulnerable families, who may require external support to cope. There are also ongoing efforts to provide textbooks to all school-going children at their homes, even in the remotest parts of India. Such efforts that consider the needs of the most marginalised need to be focussed on.

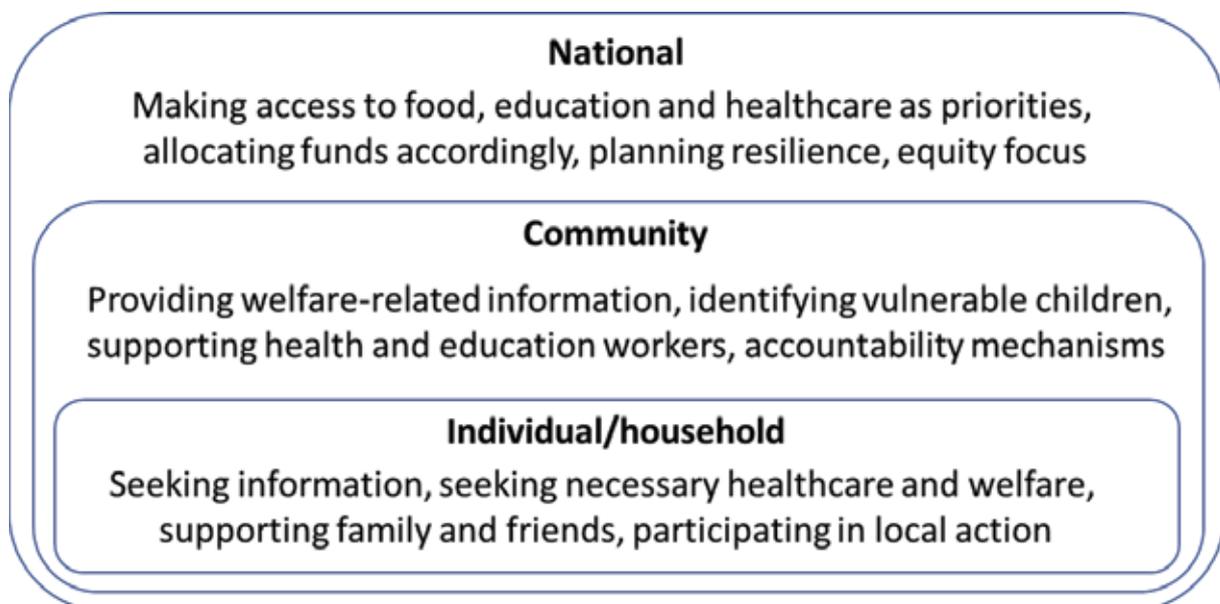


Figure 3. Actions at various levels to protect child health during the pandemic (source: authors)

Keeping in mind the slowing down of the pandemic, improved awareness among people, and adaptation of health systems to the situation, we may not have severe national-level lockdowns in future. However, continued awareness and practice regarding personal protection and better

preparedness from health systems (aside from the benefits that a future vaccine may provide), are paramount so that these devastating disruptions do not occur again, at least at this scale. It is also very important that resilience of educational, food welfare and health systems are regularly

assessed and strengthened; these systems need to adapt quickly to disruptions as they are critical to health and wellbeing. Accountability mechanisms through partnerships between local people and the government should also be strengthened. This is essential both for rural and urban areas with special emphasis on healthcare in urban areas.

The celebrated Japanese author Haruki Murakami once wrote, *'You won't even be sure, in fact,*

whether the storm is really over. But one thing is certain. When you come out of the storm you won't be the same person who walked in. That's what this storm's all about.' The current pandemic is far from being over and has already exposed several vulnerabilities of critical systems and services. While fighting the fires, it is also important that lessons are carried forward to minimise the impact on the overall health and wellbeing of children.

Sources

- Gettleman, J., Raj, S., 2020. As Covid-19 Closes Schools, the World's Children Go to Work. The New York Times. URL <https://www.nytimes.com/2020/09/27/world/asia/covid-19-india-children-school-education-labor.html> (accessed 10.23.20).
- Government of India, 2018. Operational Guidelines on School Health Programme under Ayushman Bharat. New Delhi: Government of India.
- Harris, B., Griffiths, F., Fayehun, F., Rizvi, N., Bakibinga, P., Ahmed, S.A.K.S., 2020. COVID-19: how lockdowns affected health access in African and Asian slums [WWW Document]. The Conversation. URL <http://theconversation.com/covid-19-how-lockdowns-affected-health-access-in-african-and-asian-slums-147600> (accessed 10.23.20).
- Hoang A, Chorath K, Moreira A, Evans M, Burmeister-Morton F, Burmeister F, Naqvi R, Petershack M, Moreira A. COVID-19 in 7780 pediatric patients: A systematic review. EClinicalMedicine. 2020 Jun 26;24:100433.
- IIPS, ICF, 2017. National Family Health Survey (NFHS-4), 2015-16: India. International Institute for Population Sciences, Mumbai.
- Lakshman, A., 2020. Children are getting Covid sitting at home, reopening schools can help them & the community. The Print. URL <https://theprint.in/opinion/children-are-getting-covid-sitting-at-home-reopening-schools-can-help-them-the-community/493706/> (accessed 10.22.20).
- Liu CH, Doan SN. Psychosocial Stress Contagion in Children and Families During the COVID-19 Pandemic. Clin Pediatr (Phila). 2020 Sep;59(9-10):853-855.
- Ministry of Health and Family Welfare, Government of India. Available at <https://www.mohfw.gov.in/>. (Accessed 10.26.20).
- Modi, S., Postaria, R., 2020. How COVID-19 deepens the digital education divide in India [WWW Document]. World Economic Forum. URL <https://www.weforum.org/agenda/2020/10/how-covid-19-deepens-the-digital-education-divide-in-india/> (accessed 10.22.20).
- Puranam, E., 2020. Coronavirus forces millions of Indian children to miss school [WWW Document]. Al Jazeera. URL <https://www.aljazeera.com/news/2020/8/13/coronavirus-forces-millions-of-indian-children-to-miss-school> (accessed 10.22.20).
- Upadhyay, A., 2020. How Are The Children In India Receiving Their Mid-Day Meals Amid The COVID-19 Pandemic? NDTV. URL <https://swachhindia.ndtv.com/how-are-the-children-in-india-receiving-their-mid-day-meals-amid-the-covid-19-pandemic-47940/> (accessed 10.23.20).



Adithya Pradyumna is faculty member at Azim Premji University. He is a graduate of medicine (MBBS), public health (MSc), and epidemiology (PhD). Over the past 12 years, he has been associated with civil society, healthcare and academic institutions, and has worked in the area of community environmental health in India. He may be contacted at adithya.pradyumna@apu.edu.in



Kayur Mehta is a paediatric infectious diseases specialist and public health researcher. After completing his MBBS, he worked and trained in paediatrics (in Nepal), and in infectious diseases (in Canada). He received training in Epidemiology at McGill University, Canada. Currently, he is Assistant Scientist at the International Vaccine Access Center, Johns Hopkins Bloomberg School of Public Health, United States and is involved with the Maternal and Child Health Center, India. He is also involved in the vaccine rollout evaluation studies in India. He can be contacted at kmehta6@jhu.edu