



Photo: Arcscapes | Shutterstock.com

SUPPLY AND DEMAND FOR MATERNAL AND CHILD HEALTH SERVICES DURING A PANDEMIC: EVIDENCE FROM ICDS WORKERS IN ODISHA

SUMMARY

Using surveys with workers at the frontline of India's flagship public early childhood development program before and after the institution of the Covid-19 lockdown, researchers studied how the pandemic and subsequent lockdown affected demand and supply for maternal and child health services in the state of Odisha. They find that the lockdown led to extended closures of early childhood development centres and in turn affected the provision of preschool education. They also found that frontline workers worked for longer hours, and performed additional Covid-19 related duties which partially took up time ordinarily allocated to the provision of early childhood development services.

CONTEXT

The Integrated Child Development Scheme (ICDS) is the government's primary vehicle to promote early childhood development in India. ICDS workers provide preschool education and supplementary nutrition services. They also undertake home visits to check on the health of pregnant and lactating mothers and children under the age of six. The state of Odisha has 73,200 operational ICDS centres catering to the needs of roughly 32 lakh children under the age of six as well as 6.5 lakh pregnant and lactating mothers¹.

In March 2020, the Indian government instituted a nation-wide lockdown in order to prevent the spread of Covid-19. It was one of the most stringent Covid-19 lockdowns in the world² and marked the closure of several essential services including ICDS centres. Researchers Manisha Shah (UCLA) and

Saravana Ravindran (NUS) used surveys with ICDS workers before and after the pandemic in three districts in Odisha to understand the impacts of the pandemic and subsequent lockdown measures on the supply and demand for maternal and child health services.

DATA COLLECTION

The research team initially surveyed 6,003 workers from the Baleshwar, Dhenkanal and Ganjam districts in April 2018. A follow up survey was carried out between December 2020 and April 2021, after ICDS *centres* were closed due to the Covid-19 pandemic. The follow up survey was conducted with roughly eighty percent of the original sample, and included additional interviews with 1,172 ICDS workers who had not been interviewed before, with a total sample size of 5,159 workers. This sample accounts for roughly half the universe of ICDS workers active in these three districts.

¹ Ministry of Women and Child Development 2021

² Hale et al. 2021

Both survey rounds collected information on the provision of core ICDS services, and the household income, working hours, and time allocation of ICDS workers. To understand how lockdown restrictions and provision of services progressed over the course of the year, the survey asked workers to describe working conditions at three-month intervals, i.e. in February, May and November 2020. The post-pandemic follow-up additionally recorded details of any Covid-19 related services provided by ICDS workers. Two focus group discussions were later conducted in July 2021 with six ICDS workers—two from each district - to bolster insights from the survey.

RESULTS

The Covid-19 lockdown led to extended closures of *anganwadi* centres.

Anganwadi centres were shut down in Odisha in March 2020 as per government directives. More than three-fourth of the surveyed workers reported that other offices had opened, and that movement of individuals and vehicles had normalized by November 2020. However, *anganwadi* centres stayed shut for another three months. Even in the areas where the stringency of the lockdown restrictions was the lowest, only two percent of workers reported uninterrupted operation of *anganwadi* centres in November 2020.

Preschool education was the most affected core ICDS service.

As of May 2020, 36 percent fewer ICDS workers were providing preschool services as compared to pre-pandemic numbers. The frequency of preschool instruction was also

lower- most workers reported conducting weekly sessions in place of the daily sessions pre-pandemic. This was partly due to the closure of the *Anganwadi* centres as there were too many children to reach using home visits. Areas where lockdown restrictions were most stringent, experienced the sharpest contraction in the number of workers providing preschool instruction. Although more workers had begun to provide preschool instruction in August 2020, fifteen percent of workers had still not returned to preschool instruction by November 2020. Moreover, many parents were not keen on ICDS workers spending time in their house due to the fear of Covid-19 infections. In February 2020, 400 ICDS workers reported that more parents were expressing demand for preschool services for their children than workers could provide but in May 2020, this excess demand fell to zero and remained depressed until November 2020.

On the other hand, the provision of take-home rations increased by thirty percent in May 2020 and remained higher than pre-pandemic levels throughout 2020. This is consistent with the government's focus on food distribution initiatives during the pandemic to combat food insecurity faced by households, particularly daily wage earners. There were no significant changes in the provision of other core ICDS services such as height and weight monitoring, vaccinations, and home visits.

Rates of severe malnutrition grew pre-pandemic, but stayed constant (for girls) or declined (for boys) post Covid-19.

ICDS workers track the weight of child beneficiaries against growth charts to assess

levels of malnutrition³. Based on ICDS workers' records, even before the pandemic, the percentage of severely malnourished girls doubled from 0.23 percent in April 2018 to 0.45 percent in February 2020 and remained roughly at this level throughout 2020. Boys started at a higher base of 0.40 percent in 2018, but only exhibited a 0.06 percentage point increase in February 2020. Rates of severe malnutrition for boys declined over 2020 and approached their 2018 levels. Rates of moderate malnutrition exhibited smaller changes relative to severe malnutrition between 2018 and 2020. After the pandemic, in line with the observations for severe malnutrition, there is also a slight decrease in moderate malnutrition.

Almost all ICDS workers report involvement in Covid-19 related services.

In May 2020, almost all ICDS workers reported that they were a part of Covid-19 related awareness campaigns and community surveillance activities. Roughly sixty percent of workers also reported working on government support programs, especially in areas where lockdown restrictions were strictest. Over the course of 2020, workers also became increasingly involved in duties related to curbing child marriage, which had become more frequent following the institution of the Covid-19 lockdown⁴. In November 2020, 65 percent of workers surveyed reported working on such assignments.

³ Malnutrition levels are assessed using a weight-for-age z-score (WAZ). The WAZ score indicates a child's body weight for their age and sex relative to the reference population. A child is considered to be severely malnourished if they have a WAZ below -3 as compared to

ICDS workers spent more hours working, but time spent on Covid-19 related duties reduced the time they had available to provide core ICDS services.

ICDS workers reported working for 43 hours per week in May 2020 as compared to 35 hours per week in February 2020 (an increase of 23 percent), in part due to an increase in hours spent on COVID-19 related tasks. However, the increase in time spent on COVID-19 related duties crowded out time spent on ICDS-related activities, particularly the provision of preschool services. ICDS workers continued to receive their regular payment throughout lockdown but their household incomes fell by twelve percent on average from INR 18,350 (USD 256) in February to INR 16,100 (USD 225) in May 2020. Workers' household incomes grew gradually as the year progressed but had not reverted back to their pre-pandemic levels. Workers were not compensated additionally for any Covid-19 related duties performed.

Surveyed workers reported that fear of side effects was a key reason for non-take up of Covid-19 vaccines.

Based on conversations with adults in their area, sixty percent of surveyed workers reported that fear of side effects was the key reason for vaccine hesitancy. More than twenty percent of workers also noted that those who did not get the vaccine doubted the vaccine's efficacy or believed that since others were getting the vaccine, the herd immunity

the median WHO standards, and a child is considered to be moderately malnourished if their WAZ is between -2 and -3.

⁴ Sahu 2020

generated would be sufficient to protect them. However, workers also reported that vaccine hesitancy in their area had declined during the second wave of Covid-19 infections, with demand far outstripping supply by May 2021.

POLICY INSIGHTS



Introducing learning activities in small groups during home visits could help address the gaps in preschool education services.

Preschool education services were interrupted by the pandemic both due to supply-side constraints and parents' fear of the risk of COVID-19 infection if their children were to play and interact with other children. Furthermore, a transition to online delivery of preschool activities is difficult in many rural communities owing to poor internet infrastructure and digital literacy. Focus group discussions in July 2021 revealed that many children are forgetting what they have learned in the absence of regular preschool activities. Including preschool activities in small groups (restrictions permitting) during home visits and in centres (once permissible) could address the gap in preschool education due to the pandemic.



Targeting of take-home rations could help address severe malnutrition.

Rates of severe malnutrition have almost doubled for girls from 2018 to 2020. Targeting take-home rations to households with severely malnourished children, particularly girls, could help address severe malnutrition. Since parents may choose to distribute the rations unevenly within the household, ICDS workers could also stress the importance of addressing malnutrition of girls during their discussions with parents.



Paying ICDS workers for additional Covid-19 related services rendered could prevent crowding out of core ICDS tasks.

ICDS workers in Odisha have played a frontline role in the fight against Covid-19, working longer hours and performing Covid-19 related duties. Without an increase in compensation. However, workers may reallocate time towards such duties at the expense of their core ICDS functions. A raise, even if temporary, could compensate them for the additional duties and prevent the crowding-out of core ICDS tasks.

REFERENCES

1. Hale, Thomas, Noam Angrist, Rafael Goldszmidt, Beatriz Kira, Anna Petherick, Toby Phillips, and Samuel Webster et al. 2021. "A Global Panel Database Of Pandemic Policies (Oxford Covid-19 Government Response Tracker)". *Nature Human Behaviour* 5 (4): 529-538. doi:10.1038/s41562-021-01079-8.

2. Ministry of Women and Child Development. 2021. "*Anganwadi Centres, Beneficiaries and Funds Released Under the Scheme*".
<https://pib.gov.in/PressReleasePage.aspx?PRID=1776876>.
3. Sahu, Priya Ranjan. 2022. "*Child Marriages Were On The Decline In Odisha. Then, The Covid-19 Pandemic Struck*". Scroll.In, 2020. <https://scroll.in/article/978174/child-marriages-were-on-the-decline-in-odisha-then-the-covid-19-pandemic-struck>.
4. Shah, Manisha, and Saravana Ravindran. 2021. "Final Catch Substantive Report For "Supply And Demand For Maternal And Child Health Services During A Pandemic: Evidence From ICDS Workers In Odisha"