

# Impact of the COVID-19 lockdown on household food security in rural Bihar



## In brief

- Based on a survey conducted in rural Bihar, this study aims to provide evidence on the impact of COVID-19 on food and nutrition security by focusing on rural vulnerable households.
- The study shows that food insecurity of rural Bihar's households increased significantly since the pandemic, and the severity of the impact felt when compared to the diverse marginal groups has been different.
- The study reports that since the lockdown period, the number of meals consumed by adult women and children per day was reduced from the usual 3 and more-than-3 meals norm. In contrast, there has been no change in the per day number of meals consumed by adult men.
- The study also documented the different impact of COVID-19 on the life and livelihoods of casual wage-dependent households and migrant households when compared to regular wage and salaried households.
- The findings of the study point to the public policy imperative to carry out direct cash transfer to beneficiaries' accounts in case of public safety net schemes where beneficiaries missed receiving food.

*This brief is based on research funded by the Bill & Melinda Gates Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.*

\* Faculties at Institute for Human Development, New Delhi

## Overview of the research

Given that the state of food security and nutrition in Bihar was already alarming before the outbreak of COVID-19, the pandemic's appearance has triggered an ongoing health crisis that has affected all walks of life. The health statistics, based on recent estimates, say that almost a half of the total number of under-five children in Bihar are stunted and/or underweight, and almost two-thirds of the children are anemic. Further, 60% of the women aged 15 to 49 years are anemic (NFHS4). These figures are expected to shoot as a result of the COVID-19 pandemic, with poor people living in remote areas, migrant and informal sector workers, pregnant and lactating women, and children likely to face the worst consequences.

This study<sup>1</sup> aims to provide direct evidence of COVID-19's distortionary effects on lives and livelihoods of people due to lockdown measures that impact the food and nutrition security of rural households, especially the socially and economically vulnerable and marginal sections of the rural population of Bihar. Specifically, the study seeks to analyse the following research questions:

1. To what extent such distortions have affected the food security of the rural household.
2. To what extent have such distortions affected different segments of the population, such as self-employed people in agricultural labour households, self-employed people in non-agricultural labour households, casual labour households, migrant households, and other vulnerable groups, like the scheduled caste, OBC-I, OBC-II, among others.
3. To gauge how effective are the public safety net programmes such as Public Distribution System (PDS), Integrated Child Development Services (ICDS), and Midday Meal Scheme in reaching beneficiaries during a pandemic.

The data has been collected from 944 households spread across three distinct regions of Bihar: North Bihar, Central Bihar, and South Bihar, with two districts from each region as the focus of the study. A telephone survey was conducted using retrospective method to collect information on the consumption of food groups before the pandemic and the current period based on the recall method (12 months, 7 days, and 24 hours). Further, the households surveyed were a part of a survey conducted by the Institute for Human Development, New Delhi, in 2016. As this study is a continuation of the earlier survey where a systematic sampling procedure was followed in selecting the respondents, any differences in the consumption behaviour in the two time periods can be attributed to the COVID-19 outbreak.

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1. This policy brief is based on the detailed study funded by IGC titled Food Security during Pandemic Times: Insights and Perspectives from Rural Bihar. However, the views, opinions and policy suggestions expressed in the brief belong solely to the authors and not necessarily to the IGC.

## Policy motivation for research

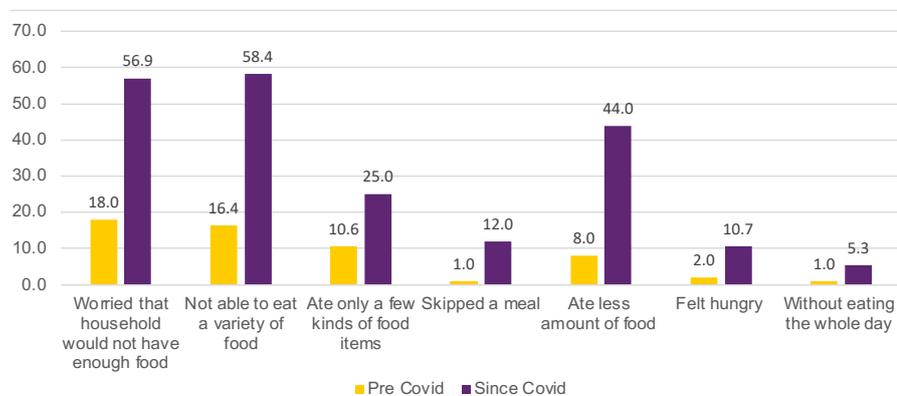
Research on the impact of the pandemic on household food consumption is important for policymakers for several reasons: firstly, it provides them with a realistic picture of the availability of and access to food by different groups of people as well as the functioning of various public programmes related to food; secondly, this information further enables the policymakers to realistically review the food distribution strategies and make suitable changes to the policies so that needs are met and society harmonised; thirdly, for purposes of contingency planning, the study shows that there is a need to strengthen the government policy to improve the access to food, nutrition, and essential services, particularly for the marginalised and the socially and economically vulnerable households during any economic shock. Besides, sustained intervention by the government is needed during health-related upheavals in economy to smoothen the availability and accessibility of food that will maintain proper dietary diversity among the households during the pandemic and later, including any aftershocks.

## Key research questions and findings

### Impact of COVID-19 outbreak on household food security

Households' food security worsened in the post-COVID-19 period compared to 2016. As shown in Figure 1, the percentage of households worried about having inadequate food has drastically increased, whereas food dietary diversity has reduced in 2021 when compared to 2016. Further, the proportion of households skipping meals or taking reduced quantity of food or feeling hungry has risen since the pandemic. Overall, there has been a 12 percentage points increase in the severity of food insecurity in the COVID-19 period compared to food insecurity felt in the normal period.

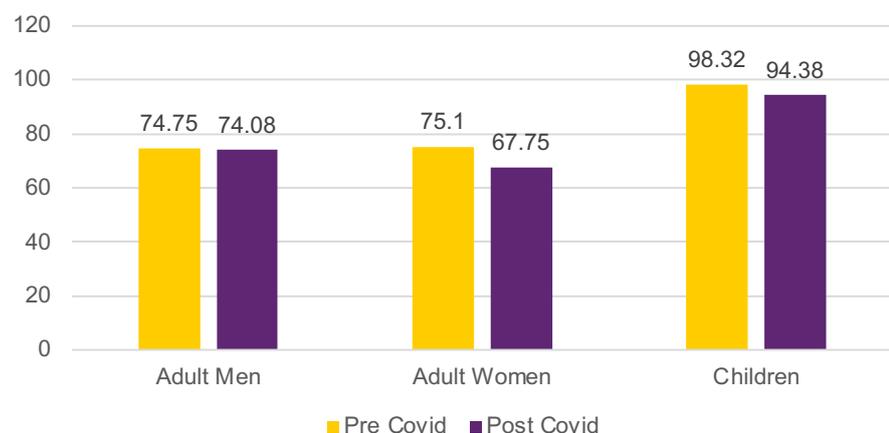
Figure 1: Food security situation before and since COVID-19 (in %)



## Impact of COVID-19 on vulnerable households

- COVID-19 has affected the food security of the casual wage-dependent households and migrant households significantly when compared to regular salaried households. The percentage of severely food insecure households has been 26 percentage points higher among casual wage-dependent households' vis-à-vis regular salaried households and the gap is 11 percentage points wider where food insecure migrant households are concerned.
- In terms of Household Dietary Diversity Score (HDDS), the percentage of households having consumed more than 6 food groups per day is 12 percentage points lower among casual wage households vis-à-vis the salaried households; and this gap is 10 percentage points lower where maintaining dietary diversity norms among the migrant households is concerned.
- There is a wider gap in dietary diversity between marginalised households and better off households. A substantial section of the households belonging to OBC-II category is falling on the margin or below normal dietary diversity requirements.
- The number of meals consumed by adult women and children has also been adversely affected since the pandemic (Figure 2). The percentage of women and children consuming 3 and more-than-3 meals per day has reduced by 7 and 4 percentage points respectively since the COVID-19 period compared to the pre-COVID-19 period. On the other hand, the number of meals consumed by adult males has remained the same during both periods. A reduction in income due to job loss or livelihood disruption is likely to have negatively impacted food habits of women and children in the household.

**Figure 2: Number of 3 and more meals consumed pre and since COVID-19 (in %)**



## Effectiveness of government programmes

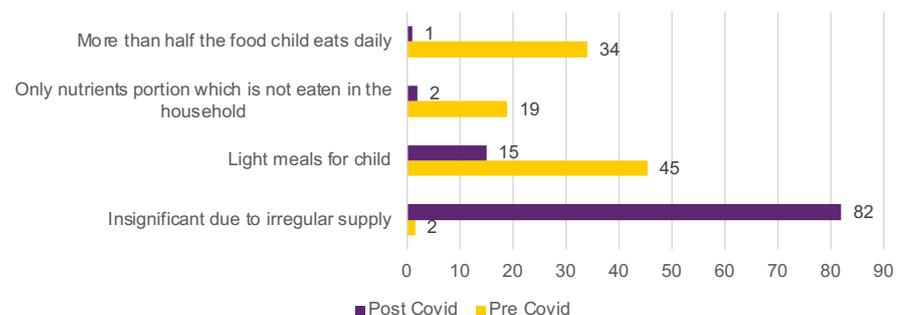
Public Distribution System (PDS) plays a major role in terms of maintaining household food security. One of the relief measures announced by the Government of India included free provision of an additional ration of 5 kg of wheat or rice per person, and one kg of pulses per household per month to all ration card holders under the PDS. However, around one fifth of the households remained excluded as they did not have a ration card, reflecting that the benefits failed to reach downstream targets from a fault in the upstream.

PDS ration supports the households in a much better way to mitigate the food shortage during the pandemic (Figure 3). Almost one fourth of the respondents feel PDS rations support more than 3 weeks of requirements whereas only 1% opined in support of the same during the normal period. However, the study also revealed that all the eligible households did not receive complete ration. Also, households having received free complete ration as part of the relief measure stated that they did not receive full quota of regular PDS ration.

The role of ICDS in providing child nutritional supplement got disturbed due to the disruption in the functioning of the Anganwadi Centres (AWC) during the pandemic. According to study respondents, almost half of the eligible households did not receive the supplementary food or Take Home Ration (THR). Further, among the households who received THR on schedule, one-fourth of them received it rarely, approximately one-fifth of them received sometimes, and only 8% reported receiving THR regularly or most of the times. About four-fifths of the eligible beneficiaries were quoted as saying that supplementary nutrition supports an insignificant portion of food intake every day due to the irregular supply of THR.

There is also improvement in the hygiene practices since the COVID-19 due to much effort expended on this practice by the local communities for creating awareness related to WASH.

**Figure 3: THR supports for child nutrition (%)**



## Policy recommendations

### 1. *A need for cash transfers to beneficiaries of ICDS/MDM/School*

The children belonging to the vulnerable groups have been hit hard on the food security front due to non-availability of midday meals in schools and AWCs. As a contingency plan, it was opined by the catalysts and respondents that direct cash should be remitted to the parents of the children for them to tide over food insecurity by securing minimum food and nutrition requirement.

### 2. *A need to increase manpower at AWCs for routine work*

The Anganwadi Workers (AWWs) as well as the ASHA workers have been given the additional burden of work of COVID-19 related responsibilities with the result that their usual work duties, particularly, related to various health and nutrition-related work were hampered severely. As a first option, during the discussion, it was opined that extra manpower should be generated, particularly, from the village or the nearby villages, who can be a helping hand to the AWW in such a situation.

### 3. *A need for creating more employment opportunities that revive the economy and indirectly ensure food security*

During such pandemic times, the need to generate more employment opportunities from schemes like MGNREGA is important, particularly, for the state like Bihar which is a large hub consisting of outmigrant workers.

### 4. *A need for increasing financial inclusion opportunities under PMJDY and improving last mile connectivity*

Travel restrictions, as well as lack of information, are the major reasons for several women in the households having been unable to access the cash relief under PMJDY. Thus, there is the unmet need again, in such a pandemic situation, for some government officials to visit the villages and facilitate the beneficiaries in withdrawing the money transferred to their account.

### 5. *A need to stopgap the leaks in PMGKY through vigilance committee*

It was also reported by some households that they could not access their regular PDS. In some cases, the PDS dealers did not give them rations by justifying lower-than-usual supply from the government and, in other cases, most vulnerable households could not manage to arrange money to purchase the minimum rations. There should be a vigilance committee frequently visiting the ration shops to understand lacunas in the system and help the beneficiaries tide over troubles in securing rations.

6. *A need to provide PDS benefit to migrant workers in case of lack of identification/ documentation proof through certification by elected representatives or any government official*

The government should provide regular PDS ration to the migrant households despite their inability to produce the necessary documents. The village political or government representatives can certify migrant households as valid village residents to help them in securing regular PDS benefit.

7. *A need for the government to plan for nutrition programmes*

Programmes like ‘nutrition bar’ being implemented in Kerala may help cater to the nutrition deficiency (iron, calcium and protein) among underweight children.

8. *A need to develop kitchen garden for a regular supply of vegetables for household consumption*

In the long term, “kitchen gardens” among rural households should be encouraged for sustainable supply of vegetables. This model has succeeded in some parts of India<sup>2</sup>. In developing the “kitchen garden”, the SHGs, as well as the AWWs, can be a part of the initiative. Also, the NGOs can play a major role in the developing “kitchen gardens”.

2. Soumi Kundu (2017), Jharkhand kitchen gardens add nutrition to food basket, Villagesquare, downloaded from <https://www.villagesquare.in/2017/10/06/jharkhand-kitchen-gardens-add-nutrition-food-basket/>