

## Ensuring food security during pandemics

### Lessons from the COVID-19 lockdown in Bihar



#### In brief

- The lockdown to contain COVID-19 was expected to threaten food security and lead to a deterioration of nutritional status, particularly of women and children.
- A two-part study of six districts in Bihar compared dietary practices of women and their youngest child between pre-lockdown and lockdown periods.
- It found a decline in dietary practices among women and that the dietary intake of children was very poor in both periods.
- Ownership of ration cards cushioned the adverse effect of lockdowns.
- Access to social safety measures varied across schemes. It was satisfactory for cash transfer to *Jan Dhan* accounts, and free rations to ration card holders. Cash transfers to ration card holders, coverage of the mid-day meal programme, and subsidised gas cylinders under *Ujjwala* scheme was less accessible.
- Political contacts played an important role in making these social security measures accessible.

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## Background

Measures to contain the transmission of COVID-19 were expected to have a major impact on food and nutrition security. The effects were anticipated to operate through the following channels (HLPE, 2020):

1. *Disruptions to food supply chains;*
2. *Loss of income and livelihoods, and consequent widening of inequality;*
3. *Break down of social protection programmes;*
4. *Altered food environment; and,*
5. *Rising food prices.*

*“Researchers opined that diet quality would be severely affected primarily through declining demand for vegetables, fruits, and animal-sourced foods.”*

At the start of the lockdowns in different countries, there were forecasts of unprecedented economic depression, deflation, large-scale unemployment, shrinking income, and an increase in poverty. Addressing the UN Security Council, David Beasley, head of the World Food Programme, warned that “We could be facing multiple famines of biblical proportions within a short few months” unless urgent action was taken to avoid the catastrophe (BBC, 2020). According to the World Food Programme, the number of people in low- and middle-income countries facing acute food insecurity would nearly double to 265 million by the end of 2020 (World Food Programme, 2020). Researchers opined that diet quality would be severely affected primarily through declining demand for vegetables, fruits, and animal-sourced foods. It would reduce the supply of essential micronutrients. Simultaneously, disruptions in value chains supplying perishable foods would aggravate the trend towards monotonous, nutrient-poor diets (D. Headey & Ruel, 2020). A Lancet study warned that children comprised a vulnerable section and faced the threat of increased malnutrition and wasting (Derek Headey et al., 2020).

## Objective and methodology

During January-March 2020, we were undertaking an IGC-funded survey on maternal and child health outcomes in six districts of rural Bihar. The survey had collected information on the socio-economic characteristics of women with children aged below 36 months, and also on the dietary practices of the women and her children. After the lockdown was withdrawn, we re-surveyed a sub-sample of these women in October-November 2020 over the telephone, seeking information on dietary practices during the lockdown. We sought information on the frequency of consumption of eight major food groups for women, and their youngest child:

1. Cereals and potatoes,
2. Nuts and pulses,
3. Milk and dairy products,
4. Eggs,
5. Fish and meat,
6. Dark green leafy vegetables,
7. Fruits that are yellow/orange inside, and
8. Other fruits and nuts.



If respondents, or their children, consumed at least four out of these eight food groups, we considered it to be a fulfilment of the Minimum Dietary Diversity norms. In addition, we also estimated how many food groups they consumed out of a possible eight (Dietary Score).

## **Dietary changes of women and children in rural Bihar**

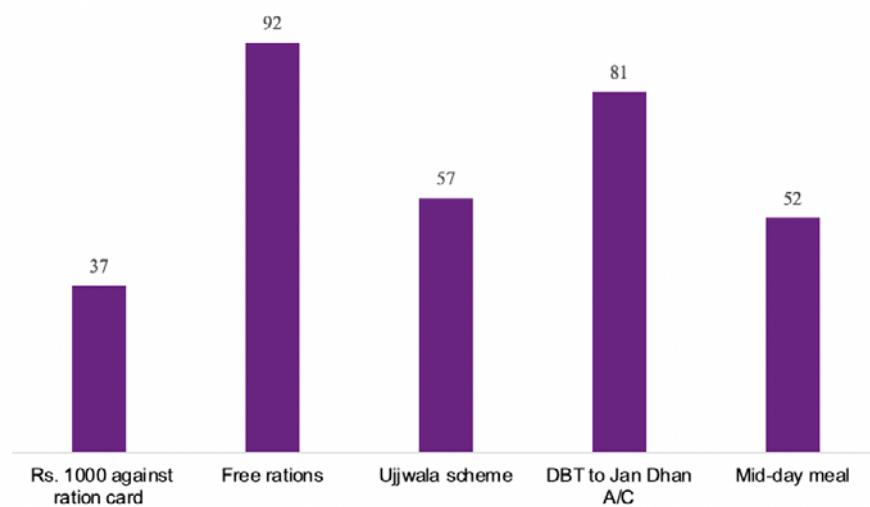
The mean Dietary Score of women declined from 5.65 to 5.20 (out of a maximum of 8); simultaneously, the percentage of women complying with Minimum Dietary Diversity norms has declined by about 11 percentage points from 94%. Analysis by sub-groups reveal that both Dietary Score and Minimum Dietary Diversity has declined most among households with low asset holdings, and among H-FCs (Hindu-Forward Castes) and H-OBCs (Hindu-Other Backward castes); compliance with Minimum Dietary Diversity norms has also declined substantially among women with no education. Analysis by specific food groups reveals that increased consumption of cereals and pulses substituted for declining consumption of non-vegetarian items, dark green leafy vegetables, and other fruits and nuts.

The baseline survey revealed that the dietary intake of children was low, with only one out of three complying with Minimum Dietary Diversity norms. The average number of food groups consumed out of eight food groups is also low (2.89). Both have improved marginally over the study period. Cereals, pulses, and milk and dairy products are the main items consumed by children. The increase in nutritional status, however, is possibly due to the children growing older and being weaning away from breast milk. Considering age group-wise changes in Dietary Score and Minimum Dietary Diversity, we find that both have declined among children aged 25-36 months.

## Social security measures

Access of households to social security schemes was high. About 92% of households obtained free rations, while 81% benefitted from cash transfer under the *Jan Dhan* scheme.<sup>1</sup> About half of the eligible households received subsidised LPG cylinders under the *Pradhan Mantri Ujjwala Yojana*, and food items or cash transfers under the mid-day meal scheme. On an average, respondents benefitted from four of the five schemes whose coverage was studied. The quantum of coverage under the schemes was also adequate; for instance, households received two subsidised LPG cylinders on an average, while free rations were obtained for about five months.

Figure 1: Percentage of eligible households receiving benefits



However, contacts with the local *Pradhan*, or with the local party in power played an important role in determining access to social safety measures. For instance, households with connections to the *Pradhan* were able to access four schemes on an average, in contrast to an average of three schemes for other households. This is expected, given that State elections were expected in October-November. A lower proportion of households with political contacts reported a decline in financial fortunes, vis-à-vis families without such contacts; a higher proportion of respondents with political contacts, on the other hand, expected an improvement in financial status in the near future.

1. However, only one out of two eligible households received the promised transfer of Rs. 1,500.

## Lessons from the lockdown

Despite some concerning findings, our study indicates that the overall effect of lockdown on dietary practices of women and children in rural Bihar, while serious, was not as disastrous as portrayed in similar studies. However, our study identifies some important lessons for policymakers:

1. Making sure that coverage of nutritional support programmes targeting women and children are not affected during pandemics;
2. Promoting healthy dietary practices among women and children through awareness programmes;
3. Making sure that school-based nutrition programmes are not affected;
4. Relief measures should comprise a combination of food transfer (which will ensure minimum calorie consumption) and cash transfer (which will add variety to the staple diet);
5. Creating a resilient agricultural sector through an appropriate investment strategy;
6. Providing an adequate supply of food by preventing disruptions of the supply chains and ensuring that agri-product markets are functioning; and,
7. Rising above narrow sectarianism, and ensuring inclusive access to social welfare schemes.

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