



# Chhattisgarh's public distribution system is delivering much-needed food to the poor. Surveys suggest a case for their expansion with the COVID-19 crisis.

*Findings from a statewide survey in April 2020*

Photo by Joseph Kiesecker

## Executive Summary

- The public distribution system is functioning well: nearly all PDS shops were open (99%), had adequate supplies (92–99% depending on the food item), and provided free allotments to citizens (99%).
- Private shops experienced limited food scarcity during the first month of lockdown.
- Cross-validation exercises, including a survey of Anganwadi workers and a survey of almost 4,000 women in Raipur district, corroborate online survey results.
- Expanding the reach of Chhattisgarh's PDS can help contain rural economic distress and potentially stabilize food prices.

## About the food shop survey

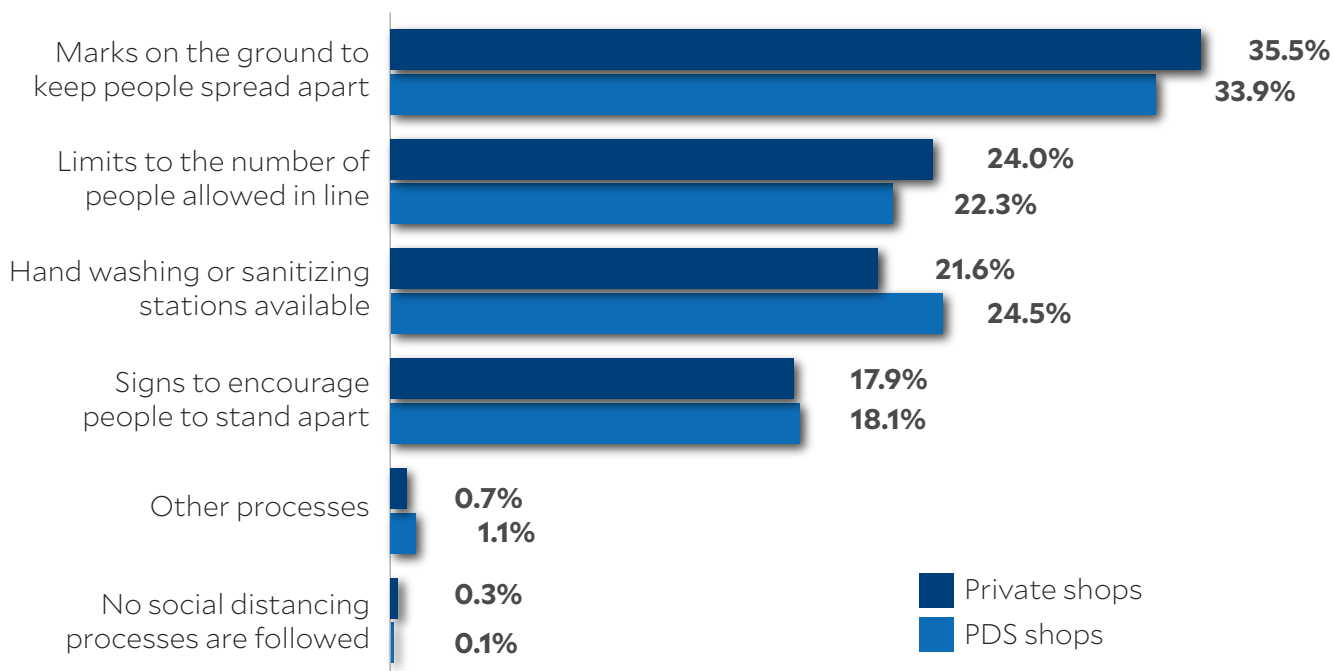
The Chhattisgarh government and researchers collaborated on a food availability survey across 20 districts from April 10th to April 18th, which covered 4,000 gram panchayats. The survey was administered by the Department of Food, Civil Supplies, and Consumer Protection in Chhattisgarh, and was completed by panchayat-level department secretaries, accountants, and officers.

**Response rate:** Our research team received data on 4,256 of the state's 12,129 PDS shops (35%) and 28,156 private shops across 3,955 gram panchayats (GPs) and 301 wards in 20 districts<sup>1</sup>. See appendix figure A1 for the survey completion rate<sup>2</sup> for each district. **Higher poverty districts had lower completion rates, suggesting a need for additional data collection in these districts.**

## Findings:

- **PDS and private shops are open:** Between April 1-15, 99% of PDS shops and 96% of private shops were open for an average of 6 hours per day.
- **Social distancing measures are followed in both PDS and private shops:** 99% of shops followed at least one standard social distancing practice (see Figure 1). The most common practice is placing marks on the ground to keep customers apart.
- **PDS shops rarely experienced food shortages:** 99% of PDS shops provided rice and 92% of PDS shops provided salt.
- **PDS shops are largely complying with the state's ration ordinances<sup>3</sup>:** Rice is free for 5 out of 6 ration card types (except APL ration cards). Only 1% of PDS shops (40 PDS shops) charge for rice.

Figure 1: Shops following social distancing procedures



<sup>1</sup> According to the Department of Food, Civil Supplies and Consumer Protection in Chhattisgarh, there are 12,129 PDS shops (10,876 in rural areas, 1,253 in urban areas).

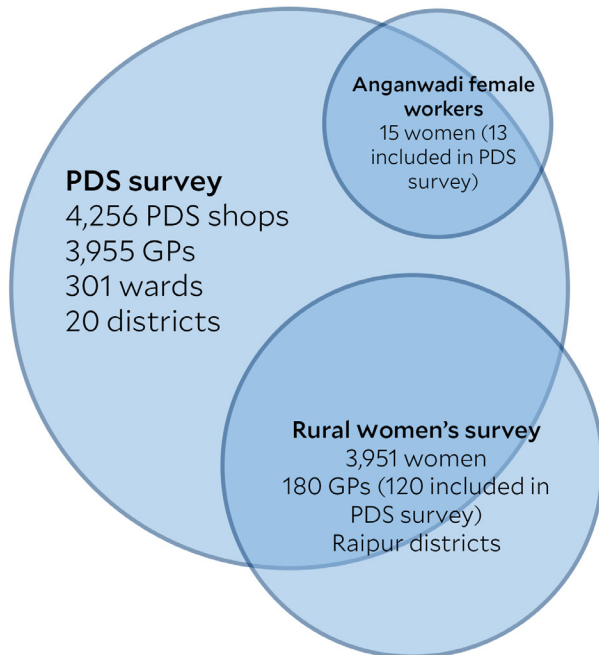
<sup>2</sup> <http://documents.worldbank.org/curated/en/166551468194958356/pdf/105848-BRI-P157572-PUBLIC-Chhattisgarh-Poverty.pdf>

<sup>3</sup> We explore whether PDS shops provide free rice, with quantities varying by ration card status, and free salt, as announced on March 24 (<http://gad.cg.gov.in/cgcorona/Circulars/2000088.pdf>)

## Cross-validation: Chhattisgarhi women's surveys

We used two surveys of Chhattisgarhi women to partially cross-validate local official responses.

**Figure 2:** Distribution of Survey Participants



### Anganwadi female workers:

We conducted qualitative interviews with 15 Anganwadi workers (AWWs) in 15 gram panchayats in 5 districts. Of these, 13 were already covered in our PDS survey.

- All AWWs reported PDS shops have enough food stock. The two districts where AWWs replied but PDS surveys were not completed stated similar PDS availability but lower access to fruits and vegetables.
- 27% of AWWs reported that while households were eating more rice and dal than

prior to the lockdown, people were not replacing green vegetables with cheaper vegetables.

- 21% of AWWs observed the following health-related issues in the community: feeling weak, loss of appetite, weight loss, and feeling increasingly irritated.

### Rural women's survey:

We conducted a phone survey with 3,951 women in 180 GPs in Raipur district<sup>4</sup>. 120 of these 180 GPs were already covered in our PDS survey.

- 95% of respondents reported receiving rations from the PDS shop. 98% report that free rice was available in their PDS.
- 34% of households are eating less or worry that they will run out of food.

### Administrative PDS data<sup>5</sup>

We obtained administrative data from the Department of Food, Civil Supplies and Consumer Protection in Chhattisgarh. The data cover the period from April 2019 to March 2020 for all the PDS shops in the state. For each PDS shop in the time period, the data show allotment (how much the PDS is supposed to receive), receiving (how much it actually received), and distribution (how much was lifted by beneficiaries) for four food items: chana, salt, rice, and sugar. We also obtained the percentage of rice lifted for April and May 2020.

On average, 93% of ration card holders retrieved the allotted rice for April and May 2020. In March 2020, 98% of all of the rice that was allotted for PDS shops in the state was distributed to beneficiaries<sup>6</sup>. Still, 74 PDS

<sup>4</sup> This sample is part of an on-going research study of a mobile-phone based information system for women that the research team has been conducting in Raipur district since 2018.

<sup>5</sup> We limit analysis to the 11,990 PDS digitized PDS shops, which account for 97.5% of all PDS shops in the state.

<sup>6</sup> At the time of writing this report, the equivalent April and May 2020 data were not yet available.

shops did not lift any rice in March. Half of the shops with zero lifting were located in Surajpur (13 shops) and Baloda Bazar districts (23 shops).

Overall, PDS is working well. But certain parts of the state experience problems with getting food to beneficiaries.

A dynamic dashboard showing data for district-level monthly allotment, receiving, and distribution of chana, rice, salt, and sugar, and the percent of PDS shops that distributed zero rice can be found [here](#).

## Looking Ahead: The Need to Expand PDS

All reports for rural India suggest continued economic distress in the coming summer months, especially as roughly 200,000 migrant workers are expected to return to Chhattisgarh this summer.

Despite a well-functioning PDS system, the survey of Raipur women indicates that **food insecurity remains a primary worry for households.**

**In addition, current rations and cash transfers to Jan Dhan accounts cannot fully meet caloric needs of the poor** (see table 2). Survey data collected earlier in 2019 suggest a poor Chhatisgarhi household spends approximately Rs. 2,800 per month on food<sup>7</sup>. Data collected from this survey on the price of goods in private shops suggest free rations only help households cover anywhere from Rs. 440 to Rs. 932 of monthly food expenditure, depending on PDS allotment. While monthly Rs. 500 Jan Dhan cash transfers help, without a way to earn other income, the poorest households will still need more food or money to meet basic needs. Moreover, 51% of women in our citizen survey report not receiving the JDY transfers.

**Table 1:** Availability of rice and sugar, and food security under Raipur Women Survey and PDS Survey

	Abhanpur		Arang		Raipur		Tilda		Total	
	Raipur Women Survey	PDS Survey	Raipur Women Survey	PDS Survey	Raipur Women Survey	PDS Survey	Raipur Women Survey	PDS Survey	Raipur Women Survey	PDS Survey
% reported rice available	99	97	100	99	99	95	100	100	100	99
available for free	98.5	96.88	98.32	96.64	97.91	95	97.25	98.88	98.05	97.14
available for a price	1.5	3.13	1.68	3.36	2.09	5	2.75	1.12	1.95	2.86
% reported sugar available	98	97	98	95	83	90	96	98	94	95
available for free	1.12	0	1.54	5.04	2.51	2.5	2.54	6.74	1.86	4.64
available for a price	98.82	100	98.46	94.96	97.49	97.5	97.46	93.26	98.14	6.74
Worried food will run out or have to cut the amount of food eaten *	21		18		20		21		20	
<b>Observations</b>	<b>534</b>	<b>32</b>	<b>716</b>	<b>119</b>	<b>479</b>	<b>40</b>	<b>472</b>	<b>89</b>	<b>2201</b>	<b>280</b>

7

<http://wp.lancs.ac.uk/laarg/files/2018/06/NSS-Food-Consumption-WP.pdf>

The research team conducted a study in 2019 with poor rural households in the district of Raipur and found very similar estimates of monthly household food expenditures. We assume the average Chhatisgarhi family has 4.5 members, as indicated by Census data.

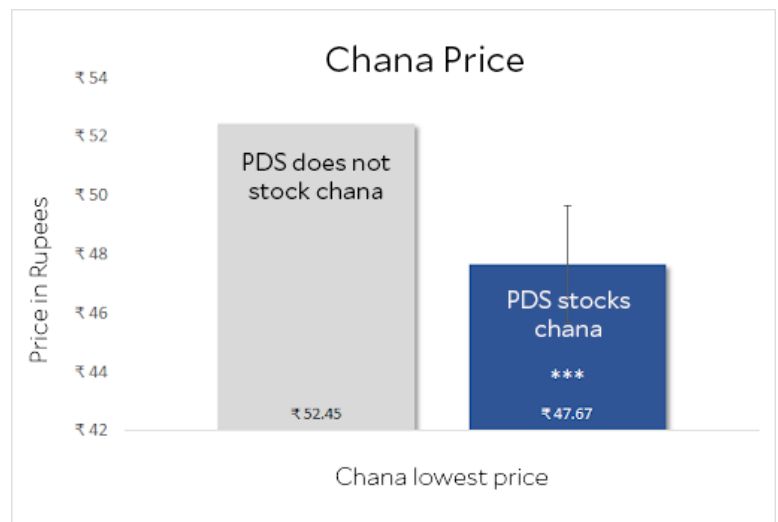
**Table 2:** Food expenditure estimates

Entitlement Group	Free rice provided, April - June 2020 (Kgs)	Free chana provided, April - June 2020 (Kgs)	Value of free rations (rice @ 22/kg, chana @ 52/kg) (Rs.)	Cost of basic household food needs per month (Rs.)	Remaining cost to meet basic food needs per month (Rs.)
No ration card	20	0	440	2,250	1,810
Antyodaya OR Priority card holders	40	1	932	2,250	1,318
Above Poverty Line (APL) card holders	35	0	770	2,250	1,480

### Recommendations:

- **Make food items available in PDS shops to stabilize prices in private shops** (see Figure 3). Prices for chana in private shops in panchayats where PDS shops also stock chana are Rs. 5 lower than panchayats where PDS shops do not stock chana (10% reduction). This result holds even if we only look at prices within districts where chana is traditionally eaten (like Bastar). However, chana is not widely available in PDS shops in the state. For example, Bemetra, Durg, Mungeli, and Raipur districts did not distribute chana in any PDS shops.
- **Explore sending pulses and edible oil at fixed prices through PDS for the next several months.** This step could help households easily meet a wider array of nutritional needs while protecting against temporary price inflation of basic goods.
- **Assess why some shops report 0% lifting.** While the total number of shops that report zero lifting is low in March, it represents a 12-fold increase when compared to the average number of 0-lifting shops

**Figure 3:** Chana price in panchayats where PDS do vs. do not stock chana



in the previous 3 months.

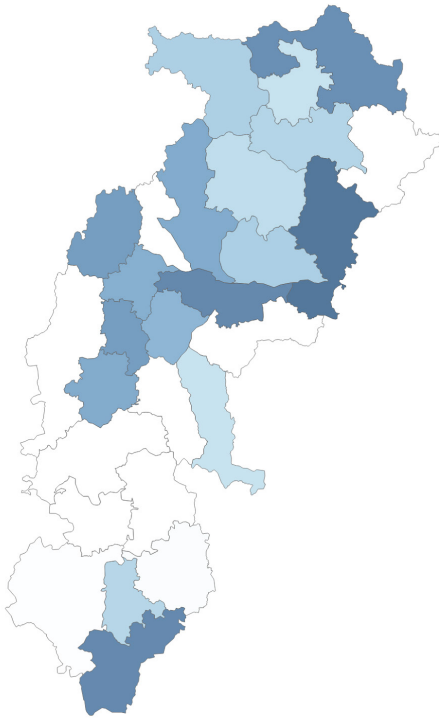
- **Shift remaining manual entry PDS shops to the digitized system to get a more accurate representation of food insecurity.** Data were not available for 319 manual-entry PDS shops, 95% of which are located in Bijapur, Narayanpur, and Sukma districts, poorer districts affected by left wing extremism (See Figure A2). These PDS shops did not respond to the PDS survey conducted by the research team, so the picture of food insecurity may be

more obscured in places that are most affected.

- **PDS shops should actively monitor shortages and respond with increased rations in areas with high rates of food insecurity.**

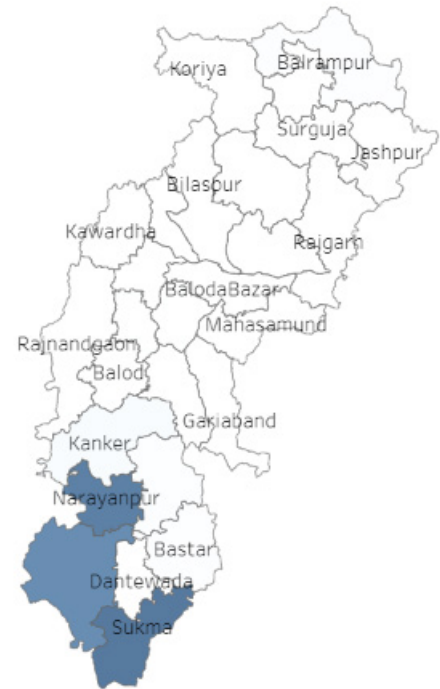
## Appendix

**Figure A1:** Survey completion rate heatmap



Notes: the darker the blue, the higher the survey completion rate. Link to tableau: [click here](#)

**Figure A2:** % PDS shops that are not digitized



Notes: the darker the blue, the higher the survey completion rate. Link to tableau: [click here](#).

### Authors:

Giorgia Barboni, Aashima Goyal, Rohini Pande, Natalia Rigol, Simone Schaner, Abhishek Sharma, Charity Troyer Moore, Tanya Vaidya, Hongdi Zhao

Yale *Economic Growth Center*

Yale MACMILLAN CENTER

