

Delhi NCR Coronavirus Telephone Survey- Round 4

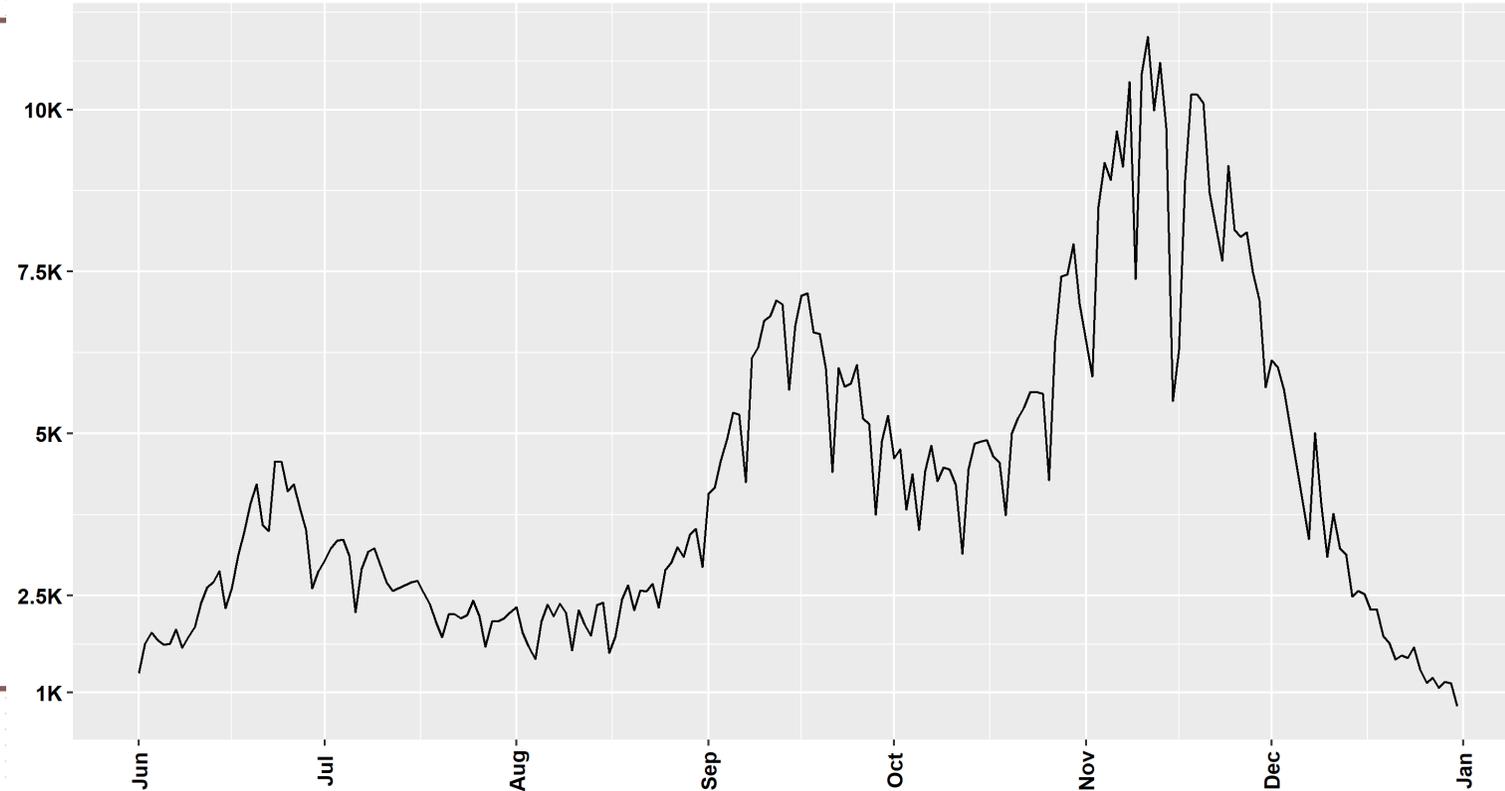
Dec 23, 2020 - Jan 4, 2021

Preliminary Findings

NCAER National Data Innovation Centre

January 20, 2021

New cases of COVID-19 in Delhi NCR. Includes data from Delhi as well as districts from other parts of NCR.
Daily data: from 2020-06-01 to 2020-12-31 from 31 districts of NCR

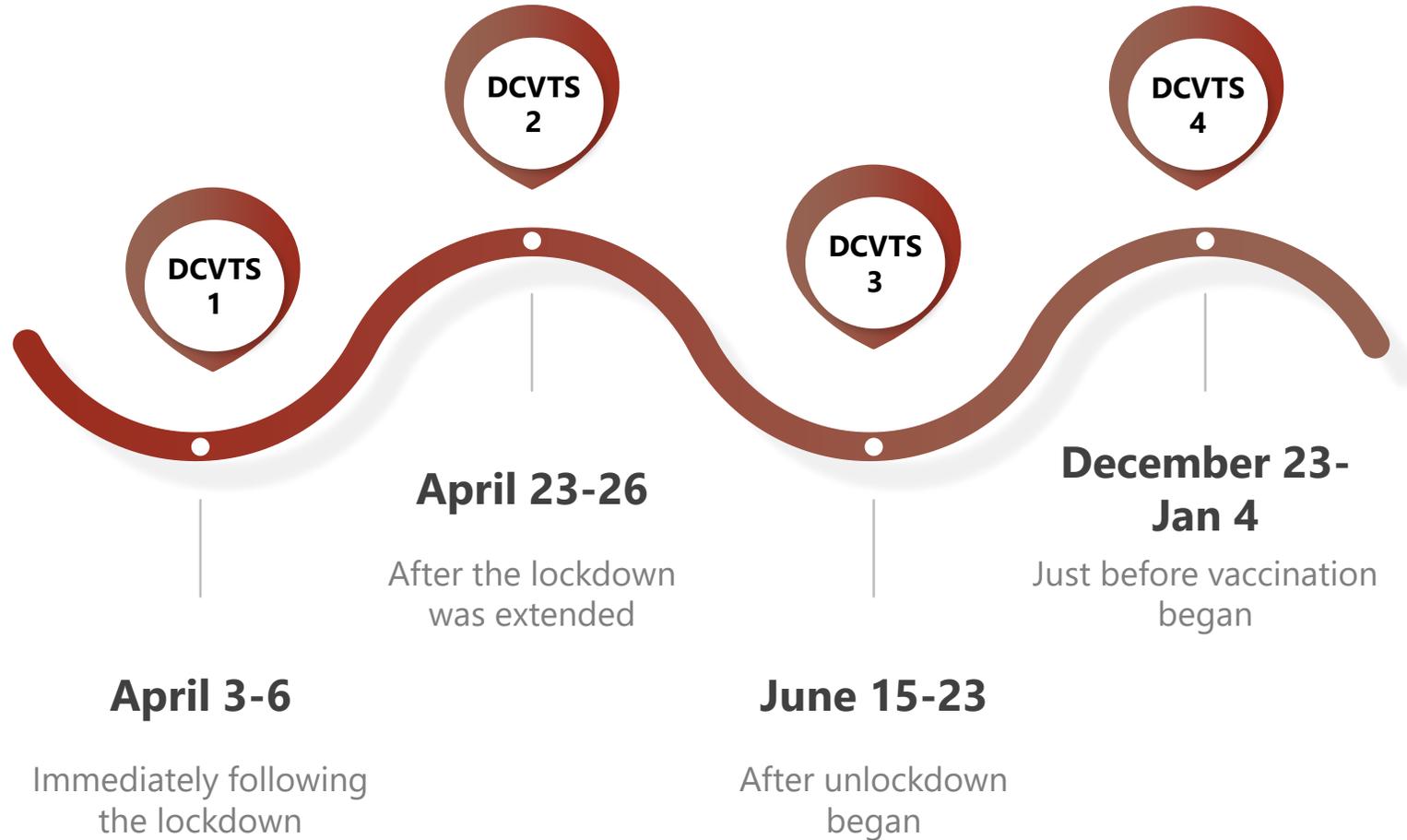


Data source: <https://www.covid19india.org/>. District-level cases data were used.

Delhi NCR Coronavirus Telephone Survey: round 4

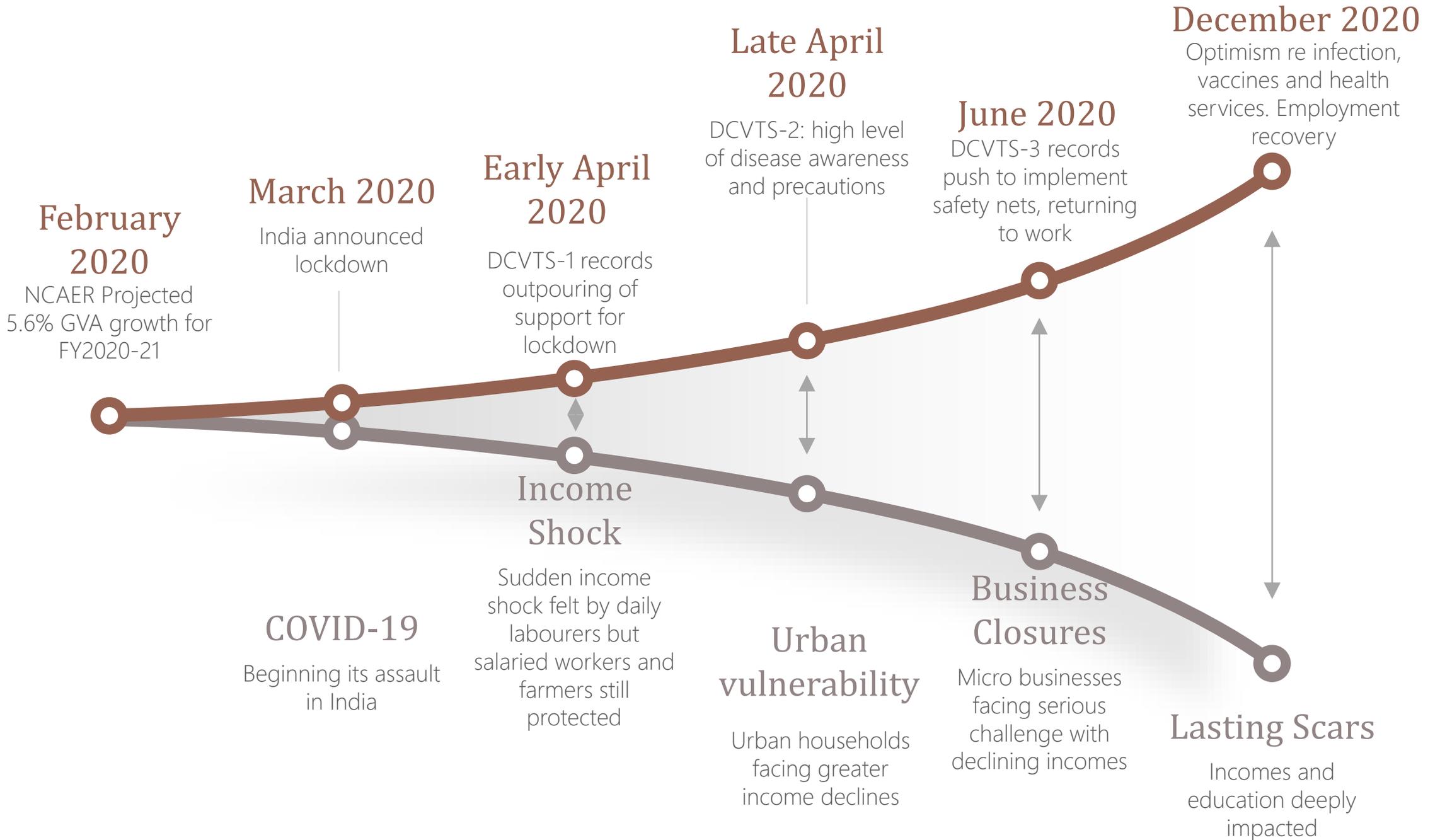
- DCVTS-4 was conducted by 32 interviewers over a period of ten days, Dec 23, 2020- Jan 04, 2021.
- The survey was implemented using SurveyCTO CATI software- interviewers downloaded the android app in their smart phones and they worked from home
- It resurveyed randomly selected households contacted in the earlier rounds of DCVTS
- Completed interviews of **3,168 rural and urban households (61% response rate)** from the Delhi NCR
- Our target population Delhi NCR includes Delhi as well as rural and urban areas from selected districts of Haryana, Rajasthan, and Uttar Pradesh

DCVTS Timeline



Recovery and Vulnerability

DIVERGENT PATHS IN THE WAKE OF CORONAVIRUS
PANDEMIC



DCVTS-4 SURVEY AND SAMPLE CHARACTERISTICS

Response rates in DCVTS-4

Disposition codes	DCVTS-3		DCVTS-4	
	n	%	n	%
Complete IW	3,466	66.0	3,168	61.2
Refusal	252	4.8	407	7.9
Other incomplete IW [#]	150	2.9	233	4.5
Non-Contact*	1380	26.3	1,366	26.4
Total attempted phone numbers	5,248	100	5,174	100

[#]Other incomplete IW includes 74 cases of *out of sample* (currently not living in Delhi NCR). Those 74 HHs have been excluded while calculating response rate.

*Non-contact can happen due to various reasons: wrong phone number, number out of service, phone switched off, incoming facility not available in the number called, phone rang but no one answered.

- DCVTS-4 response rate is lower compared to the earlier 3 rounds- *conducting telephone surveys during lockdown was much easier*
- Median IW length of completed interviews is **14.2 min** (14.6 in rural and 13.7 in urban areas)
- Median call duration is **12.3 min** (12.7 in rural and 11.8 in urban)
- Respondents often wanted to rush through relative to earlier rounds- *number of IWs completed within 8 minutes threshold is higher in DCVTS-4*

DCVTS-4 sample characteristics (HH): comparison with DMAS baseline face to face survey

- Most of the distributions match quite well
- **Urban level attrition** is higher in DCVTS-4 compared to Delhi Metropolitan Area Study (DMAS) baseline
- No direct question in DMAS to estimate the distribution of **primary source of income** as we captured all sources of income of a household
- Not easy to capture **caste data** on telephone

Household characteristics	DCVTS-4		DMAS baseline	
	n	%	n	%
Total	3,168	100	5,253	100
Delhi	669	21.1	1233	23.5
Haryana	1,021	32.2	1,736	33.1
Rajasthan	592	18.7	900	17.1
Uttar Pradesh	886	28.0	1384	26.4
Area of residence				
Rural	1,742	55.0	2,639	50.2
Urban	1,426	45.0	2,614	49.8
Religion				
Hindu	2,751	86.8	4,517	86.0
Muslim	349	11.1	625	11.9
Other	68	2.1	111	2.1
Caste				
General	1,095	34.6	1,887	35.9
OBC	1,070	33.8	1,970	37.5
SC	685	21.6	1296	24.7
Other (includes Don't know)	318	10.0	100	1.9
Primary source of income				
Cultivation	697	22.0		
Business	581	18.3		
Salaried work	998	31.5		
Casual wage work	647	20.4		
Rent Pension Remittance	175	5.5		
No source of income	70	2.2		

DCVTS-4 sample characteristics (resp): comparison with DMAS baseline face to face survey

- Much lower percentage of **female respondents** in telephone survey compared to f2f survey
- Lower proportion of **60+ respondents** in telephone survey
- Proportion of respondents having **no or very low level of education** is higher in telephone survey

Respondent characteristics	DCVTS-4		DMAS baseline	
	n	%	n	%
Total	3,168	100	5,253	100
Gender				
Female	554	17.5	2474	47.1
Male	2,614	82.5	2,779	52.9
Age group				
18-29	687	21.7	1185	22.6
30-39	848	26.8	1337	25.5
40-49	741	23.4	1122	21.4
50-59	517	16.3	778	14.9
60+	375	11.8	814	15.6
Years of Education				
0-4	421	13.3	250	6.2
5-9	974	30.7	1534	38.3
10	507	16.0	711	17.7
11-12	544	17.2	653	16.3
More than HS	722	22.8	861	21.5
Occupation				
Cultivation	593	18.7		
Business	500	15.8		
Salaried work	800	25.3		
Casual wage work	551	17.4		
Household work	297	9.4		
Other (student, looking for work, retired etc.)	427	13.5		

COVID testing and test positivity rate

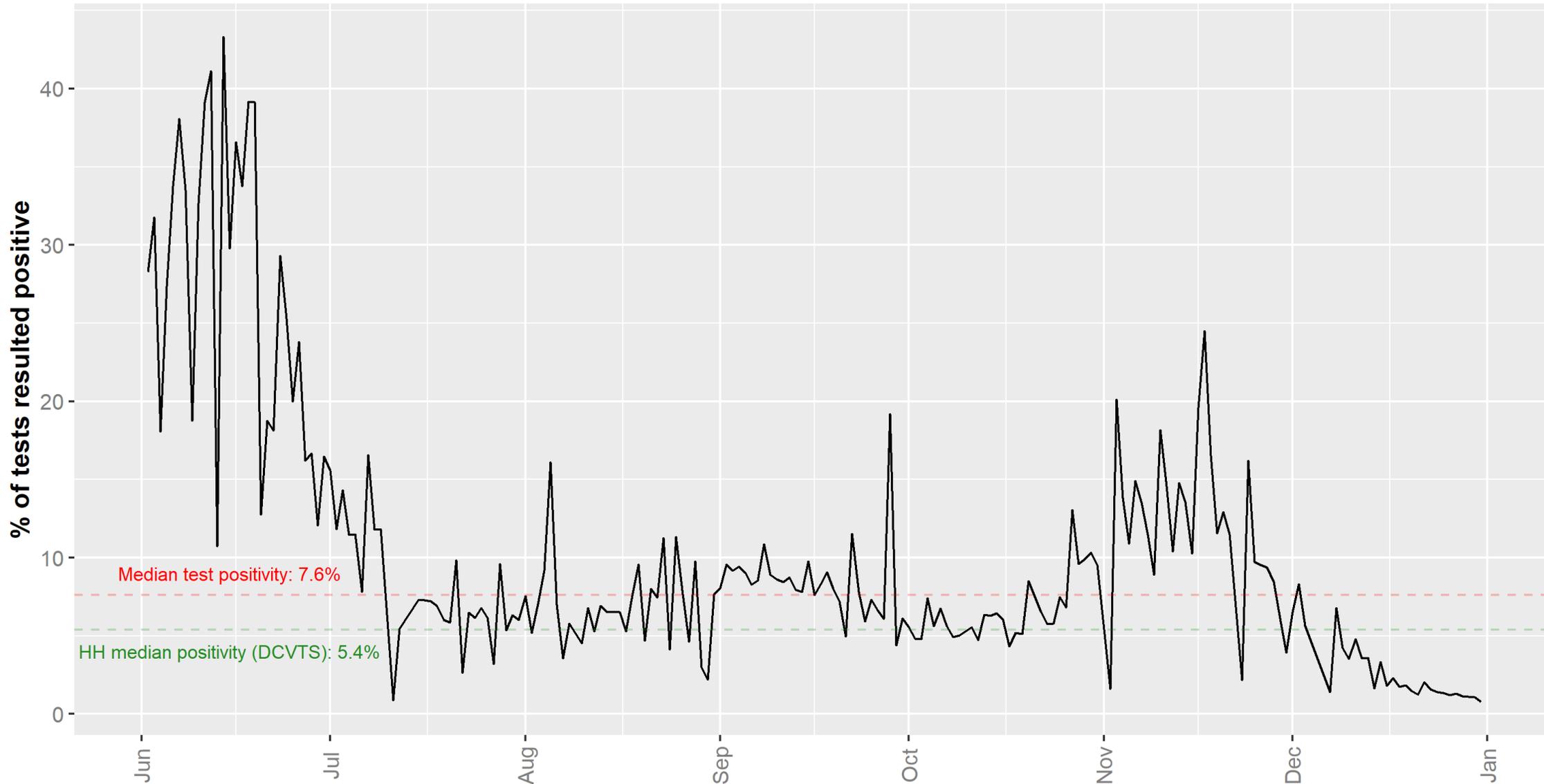
Q. Nowadays, when people have symptoms like fever, cough, tiredness, or come in contact with COVID-infected person, some people get tested for COVID and some do not. Have you or any member of your household **ever** been tested for COVID?

DCVTS-4 results consistent with low positivity rates in other DATA sources

- In **38% HHs**, *someone got tested* for COVID-19 since the pandemic
- Testing rate is significantly higher in
 - Delhi (**54%**) relative to other parts of NCR
 - Urban areas (**44%**) compared to rural parts of NCR (**33%**)
- Only 33 respondents (**1%**) reported *unmet need for COVID tests* faced by the household
- Among HHs which got the test done, in only **5.4% HHs** at least one member *tested positive*
- Median *test positivity rate* in Delhi NCR based on official data (<https://www.covid19india.org/>) is **7.6%**
- Household level test positivity rate is lower- possibly because of concerns of stigma and discrimination

Test positivity rate based on new cases and number of tests done with lag(1) in Delhi NCR

Daily data: from 2020-06-01 to 2020-12-31



Includes data from Delhi as well as districts from other parts of NCR (total 31 districts).
Data source: <https://www.covid19india.org/>. District-level cases and tests data were used.

Were routine healthcare services disrupted?

- The disruption of routine health services emerged as a major area of concern in the wake of the COVID-19
- HMIS data suggest significant decline in the use of MCH services during the lockdown
- WHO assessments around the world suggest severe disruption of prevention and treatment of NCDs
- We wanted to understand the current situation in the context of healthcare access

Q. **In the last 3 months (October-December)**, did you or any member of your household need to avail medical services for the following reasons?

[Read out the reasons one by one](#)

Response options: 1. Received care without much difficulty; 2. Received care with difficulty; 3. Needed but did not receive the care; 4. Was not required / NA

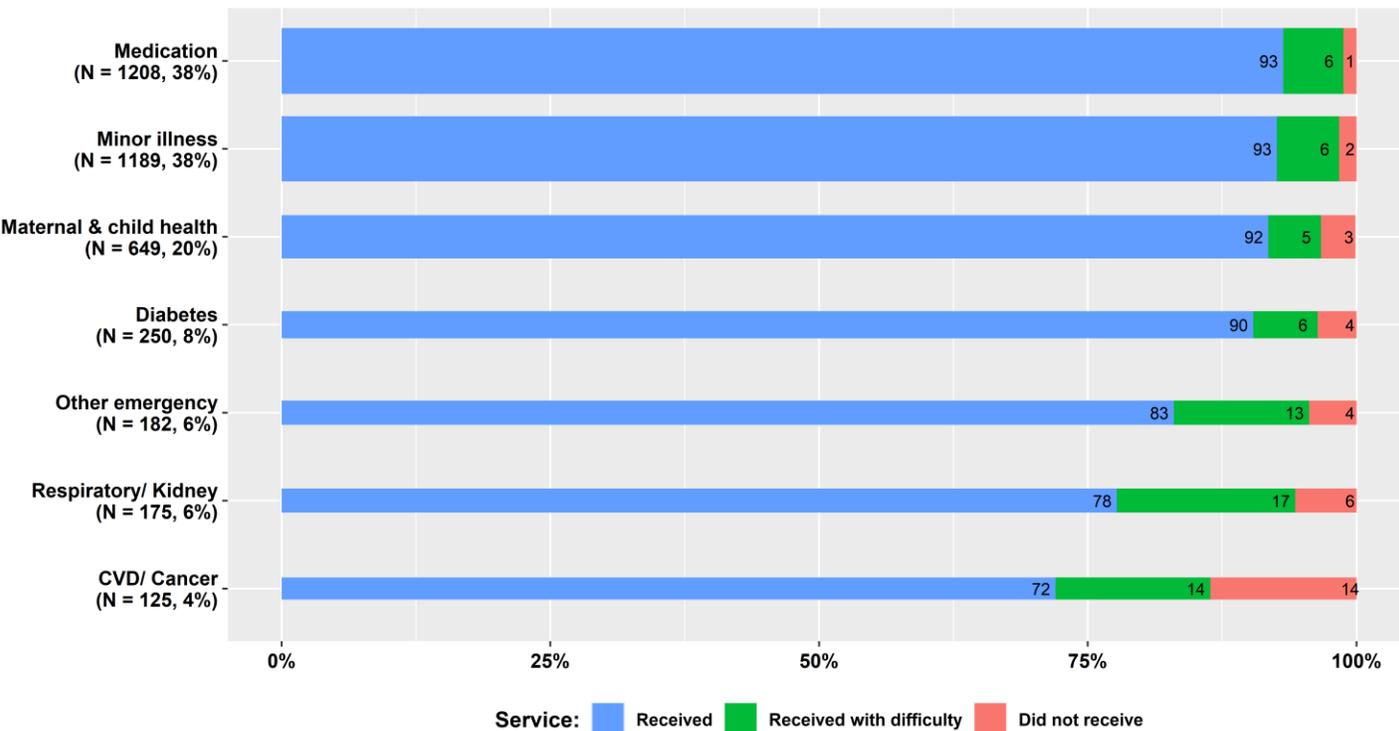
Disruption appears modest with a few exceptions

			Among those who needed specific service		
Healthcare access related to	Faced difficulty* at the population level (N = 3,168)	HHs needed specific service (N varies)	Received without much difficulty	Received with difficulty	Did not receive
Medication	82 (2.6%)	1,208	93%	5.6%	1.2%
Minor illness	88 (2.8%)	1,189	93%	5.8%	1.6%
Maternal and child health care	53 (1.7%)	649	92%	4.9%	3.2%
Diabetes	24 (0.8%)	250	90%	6.0%	3.6%
Any other emergency reason	31 (1.0%)	182	83%	13.0%	4.4%
Chronic respiratory/ kidney disease	39 (1.2%)	175	78%	17.0%	5.7%
Cardio-vascular disease/ cancer	35 (1.1%)	125	72%	14.0%	14.0%
COVID related illness	23 (0.7%)	92	75%	14.0%	11.0%

*Facing difficulty is defined as either *did not receive the service* or *received with difficulty* (sum of last two columns)

Disruption appears modest with a few exceptions

Access to routine health care for different needs in Delhi NCR in the past 3 months (Oct - Dec)
Percentage among households needed specific services (width of bar proportional to number of people needed them)



Source: Delhi NCR Coronavirus Telephone Survey (Dec 23, 2020 - Jan 4, 2021)

- Disruption is dependent upon type of service
- Services that are commonly used and are generally available close to home- the level of disruption is low
- Treatment for chronic illnesses were more difficult to avail
- Due of their low prevalence this affected a smaller proportion of households

Resumption of healthcare services: supply side perception and demand side intent

- Repurposing of health workers, accommodating COVID patients, cancellation of elective care, closure of outpatient services and changes in treatment policy- significantly disrupted delivery of routine healthcare
- Additionally, fear of getting infected, constrained physical access and financial hardship might have changed health seeking behaviour
- **Supply side perception: 36.6%** experienced or perceives that the healthcare service capacity is below the normal level
 - The proportion is *significantly higher* in **Delhi (45%)** and in **urban areas (41%)**
- **Demand side intent:** about **22% respondents** reported that they would **either avoid visiting medical facilities even now or visit only if there is an emergency**

Vaccine hesitancy

- Development, testing and approval of COVID-19 vaccines for emergency use have been achieved within a record time
- On one hand, this is an unprecedented achievement of scientists, industrialists, and policy makers but on the other hand it might lead to vaccine hesitancy

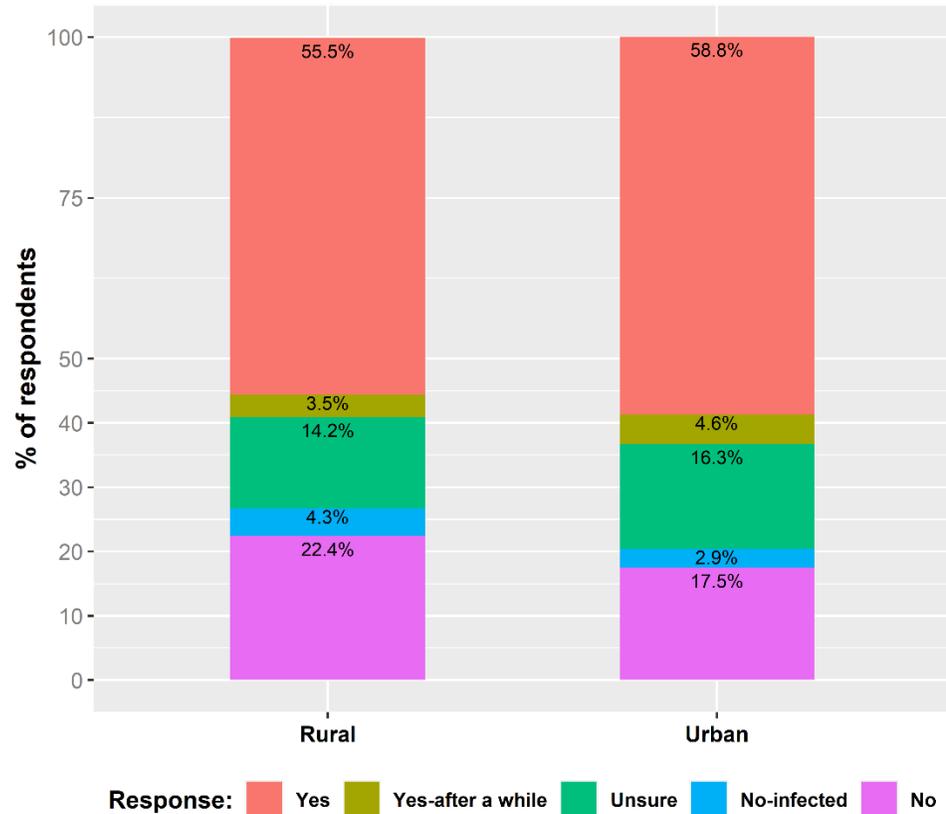
Q. In few months if vaccines were to be available to prevent COVID, will you be willing to take it?

- Ask to respondent only
- Record the first response without probing

Response options: 1. Yes; 2. Yes, but after observing for a while; 3. Unsure / depends; 4. No, I will not take it as already infected; 5. No, I will not take it (for any other reason)

Vaccine hesitancy could be a key hindrance in achieving herd immunity sooner despite emergency approval of vaccines

Willingness to take Coronavirus vaccine in Delhi NCR
Includes data from Delhi as well as districts from other parts of NCR



Source: Delhi NCR Coronavirus Telephone Survey (Dec 23, 2020 - Jan 4, 2021)

- DCVTS-4 findings show that about **20% respondents** are *certain about not taking the vaccine*
 - Significant rural (**22.4%**) and urban (**17.5%**) differences
- Additional **4%** will not take it as they are *already infected*; additional **15%** are *unsure*
- Overall *proportion of vaccine hesitancy* is quite high: **39%**
 - Significantly higher in *Haryana part of NCR* (**44%**)
 - No significant association across respondent gender or age
 - *Less educated (0-4 years of complete education) respondents* are more hesitant to take vaccines (**52%**)

Willingness to pay for vaccine

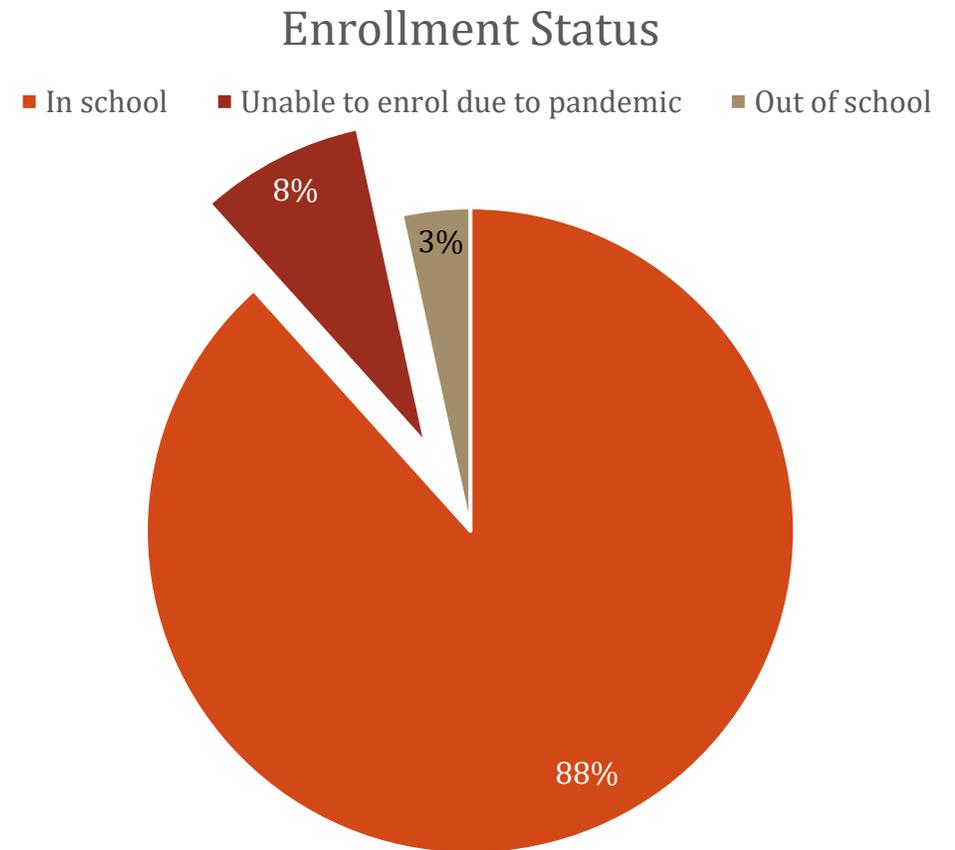
- Vaccine is a public or private good?
- Willingness to pay for vaccine was asked to those who are willing to take vaccine or unsure about it (N = 2,412)
- About **41%** respondents think that the *vaccine should be provided free*
 - Additional **14%** said they will not pay more than Rs 500
 - Proportion of respondents expecting free vaccine is significantly higher among respondents from *poor economic status* (**48%**) and *casual wage workers* (**51%**)
- Interestingly, about similar proportion of people (**40%**) are *willing to pay as much as required* for two doses of the vaccine
 - Understandably, this proportion is higher (**45%**) among respondents from rich households

Unprepared schools: A crisis

2020-21 IS LIKELY TO BE A LOST YEAR FOR A LARGE
PROPORTION OF STUDENTS

Six & seven year old students may have found it difficult to enroll

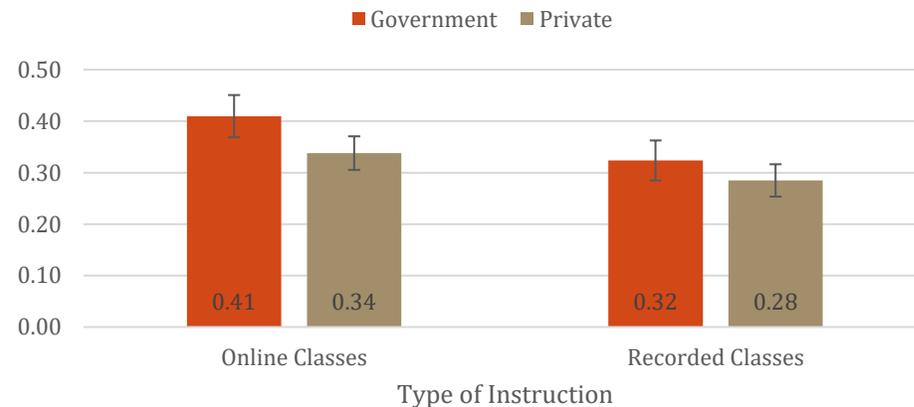
- When DCVTS-4 was conducted between December 23 and January 4, most schools had not yet restarted after the pandemic
- In DCVTS-4 households with children ages 6-14, interviewers asked about educational experiences of the youngest child in this age group
- We have data on educational experience of 1530 children
- 1352 children were currently in school while 126 (8.4%) were unable to enroll due to pandemic
- Most of these left out children were 6 and 7 years old



Schools were caught unprepared for online instruction

- Nearly 40% children were not offered online classes; 30 % not offered recorded lectures
- While private schools did slightly better than government schools, in our sample the differences are not statistically significant
- Tremendous heterogeneity *within* private and government schools

Proportion of Children Not Being Offered Online Instruction by School Type



Q. **In the last 3 months (October-December)**, did **[NAME]** do the following learning activities?

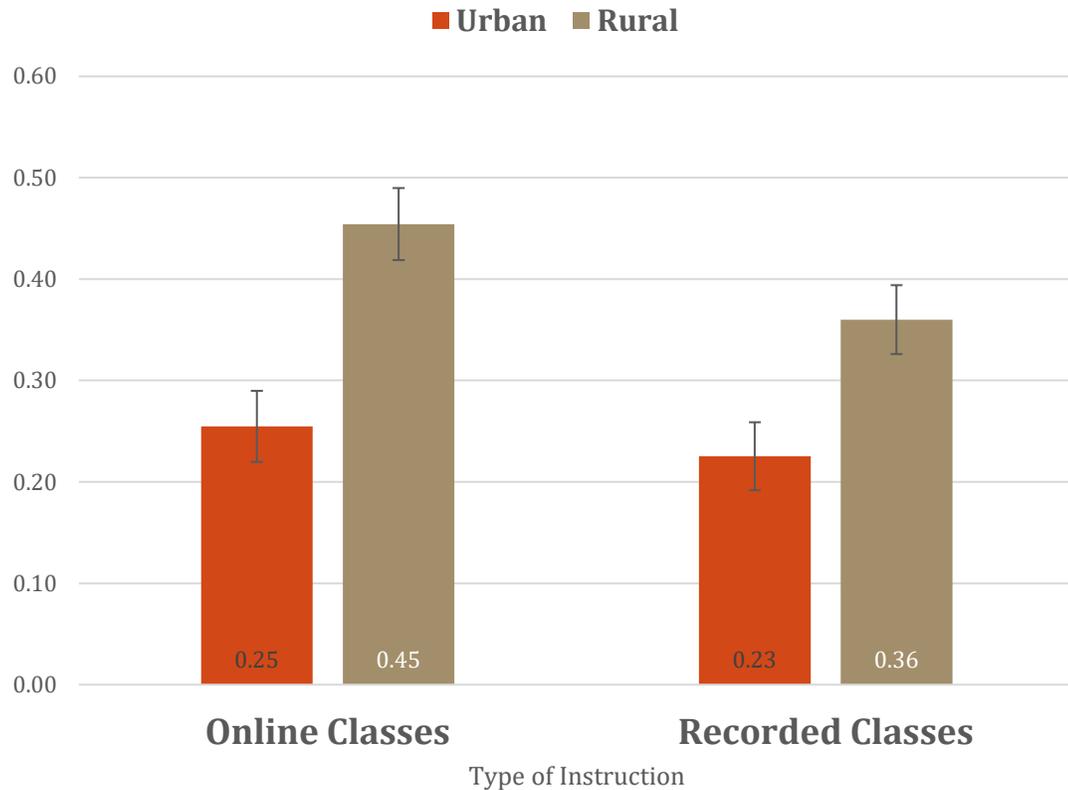
Regularly means three hours or more for at least three days a week (except during holidays or festivals)

Response options: 1. Regularly; 2. Sometimes; 3. Never/Rarely; 4. Not Available

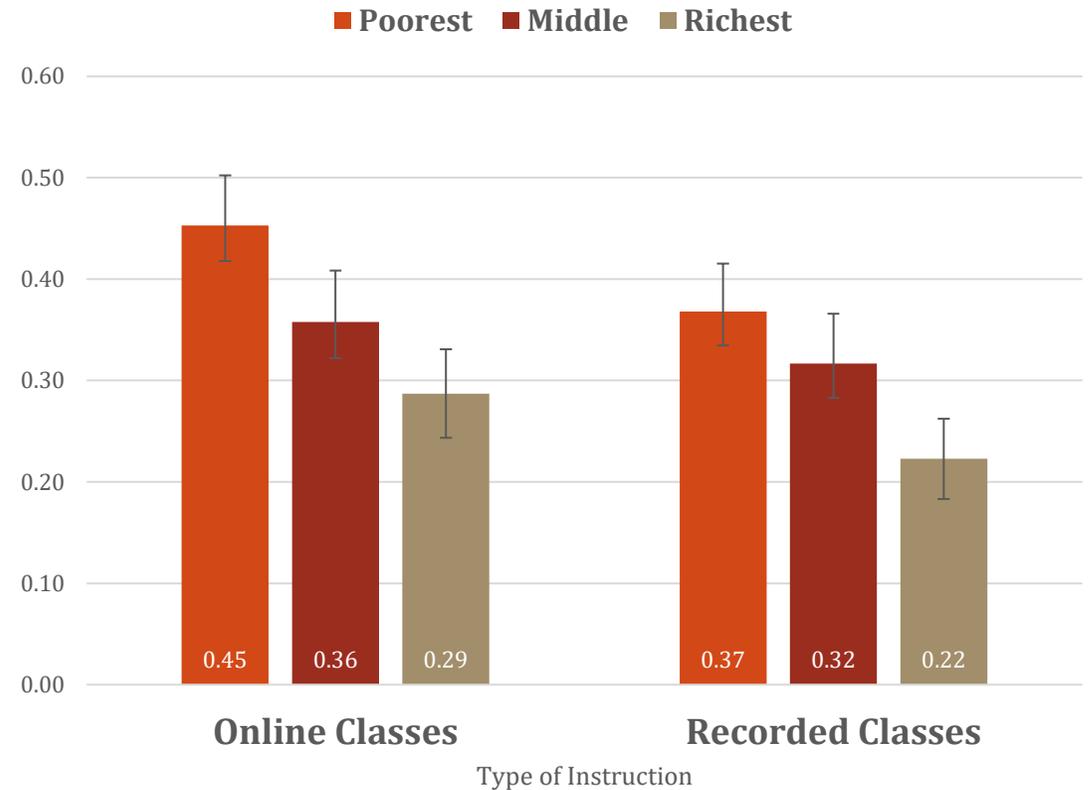
Activities: Online classes taught by teachers; recorded lessons or online videos provided by teachers; studied from learning materials provided by school; homework/assignments/projects; watched educational TV programs; attended private tuitions (online or in-person); self-study through online videos or courses.

Rural children and poor children least likely to be in schools that offer online instruction

Proportion of Children Not Being Offered Online Instruction by Place of Residence

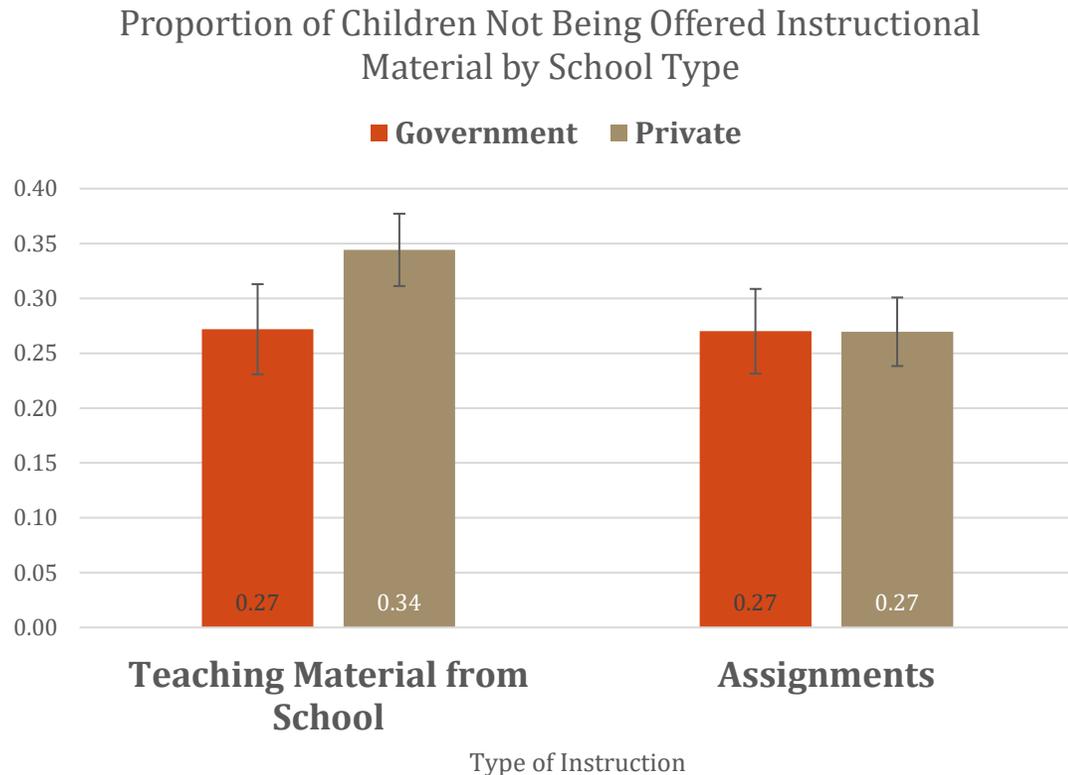


Proportion of Children Not Being Offered Online Instruction by Household Living Standard(*)



* Household living standard is missing for 1/3 children since living standard data is obtained by matching DCVTS-4 with DCVTS-1 & 2. Living standard defined as ownership of a variety of consumer goods.

Management problem, not simply a technological problem



- Schools found it difficult to cope with a new environment and often made no efforts to connect with parents.
- Parents reporting contact with school and teachers over prior 3 months:
 - Regularly 37%
 - Sometimes 29%
 - Never 34%

Q. **In the last 3 months (October-December)**, was there communications between teachers and parents to discuss children's progress and wellbeing?

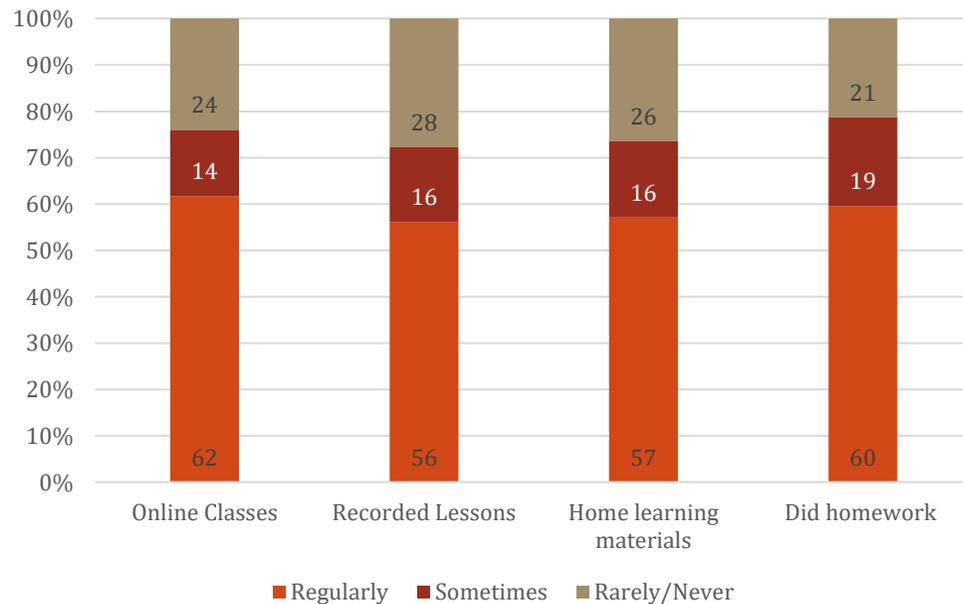
- Regularly means at least once a month in most months
- Communication can happen through phone call, WhatsApp chat/ video call or face-to-face meeting

Response options: 1. Yes, regularly; 2. Yes, occasionally; 3. Never.

Student engagement in school organized learning or tutoring is higher than when they are left to study on their own or via TV programs

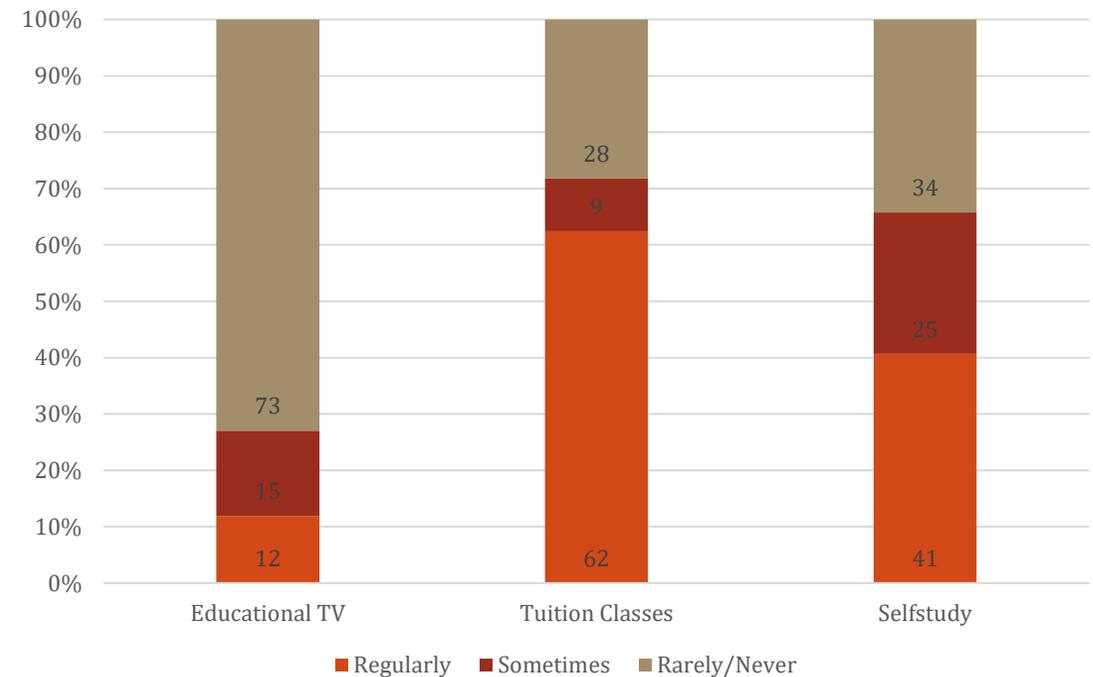
School organized learning

Frequency of Educational Participation for Children Who had Option to Participate

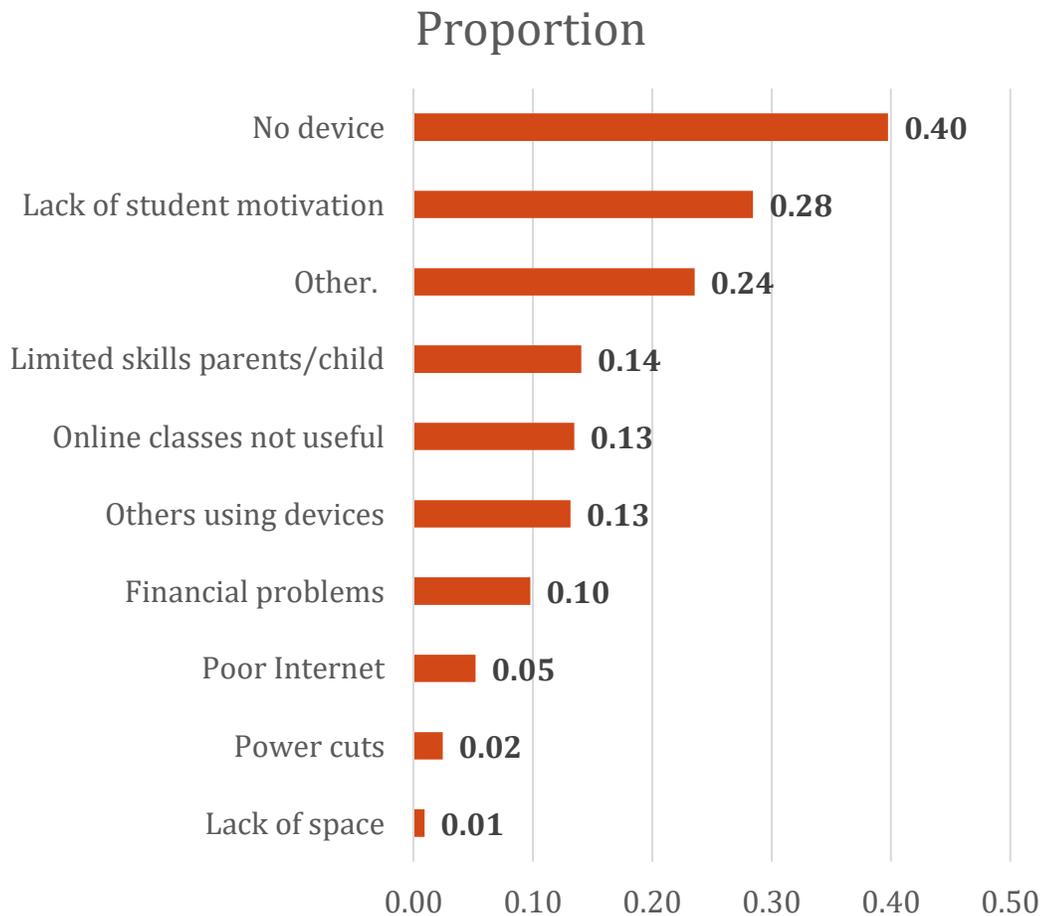


Privately organized learning

Frequency of private learning for students through different sources



Reasons for not attending online classes regularly even when offered

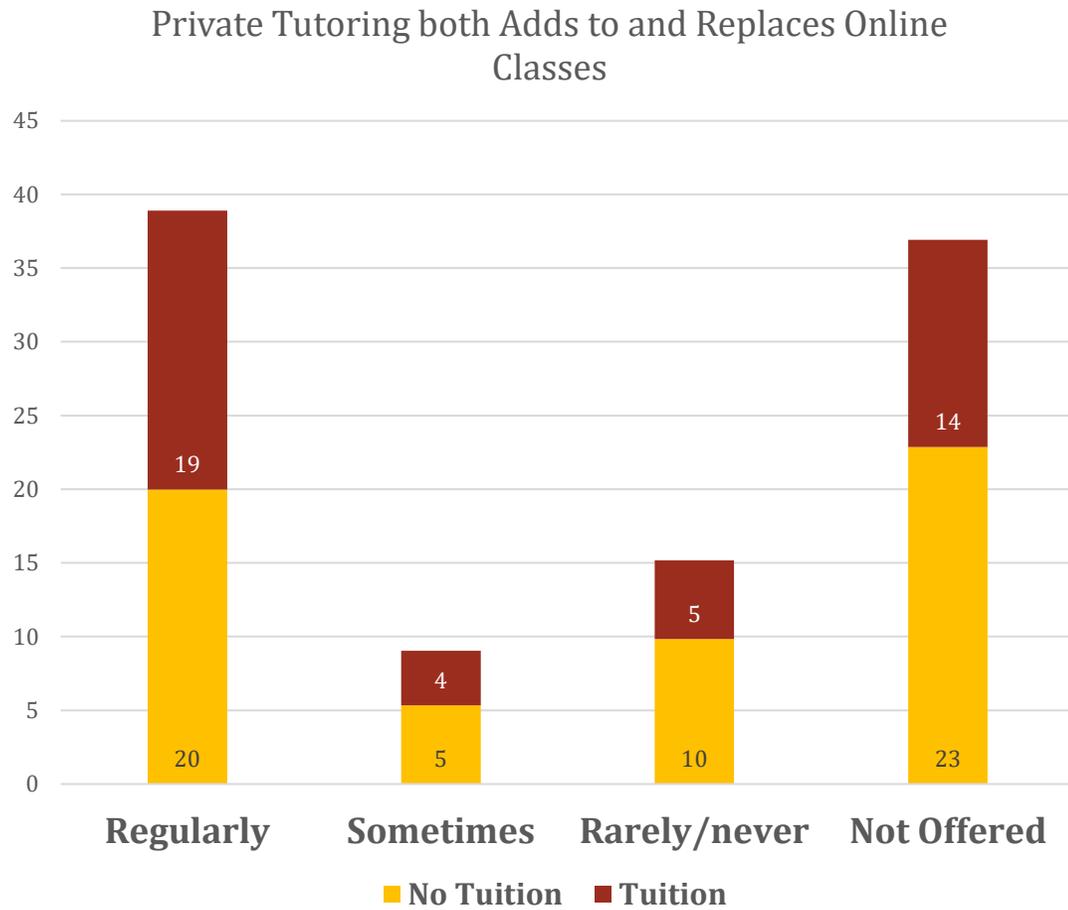


- Over 60% children attend online classes regularly when these are offered.
- However, lack of access to devices seems to be a major impediment for the rest

Q: [If child did not attend online classes regularly], Why was **[NAME]** not able to attend classes regularly?

- DO NOT read out responses
- Record all that apply

Private tutoring is continuing but it is often in addition to other inputs and not replacing online learning



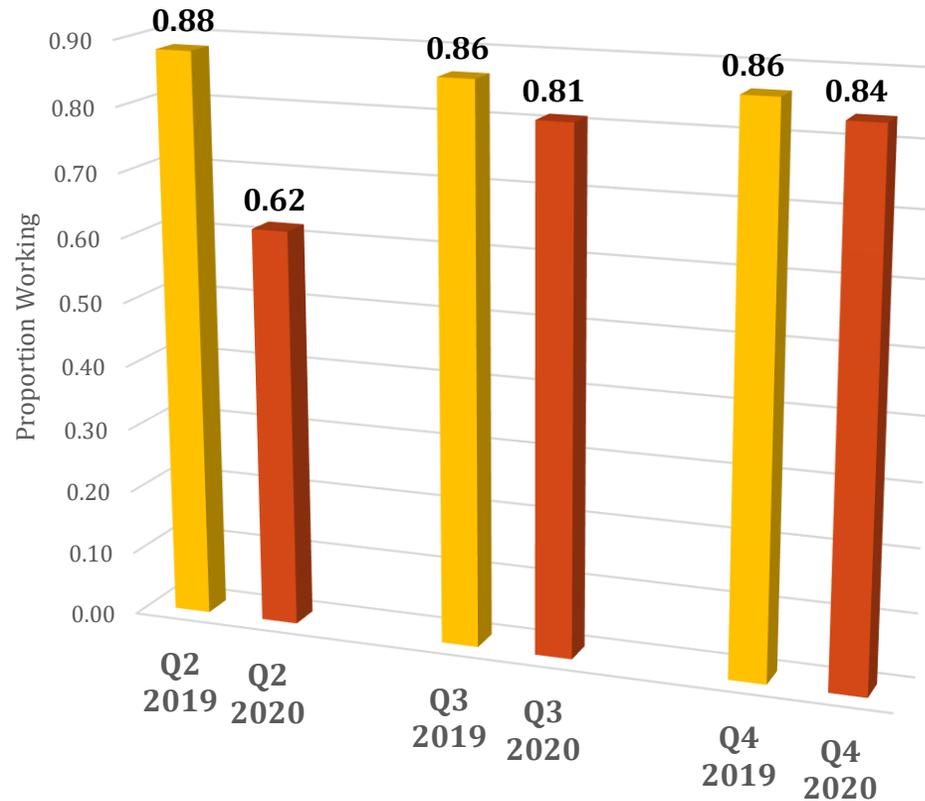
- About 42% children received private tutoring
- Most of the children receiving tutoring were also taking online classes
- This may enhance the gap by concentrating educational inputs in the group that is already more advantaged

Employment Recovery Combined with

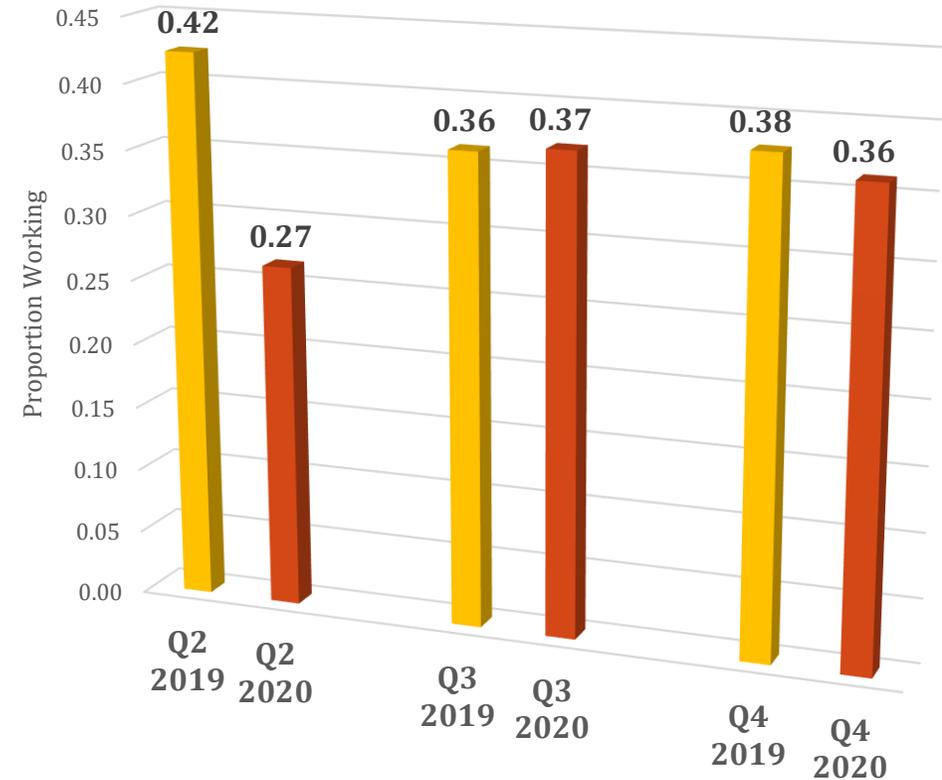
CONTINUED ECONOMIC DISTRESS

Employment recovery has begun Data NOT from DCVTS but another NCAER survey DMAS-Telephone survey for Delhi NCR region

Trends in employment **Men** Ages 21-59
DMAS-Tel Survey March 2019-Nov 2020

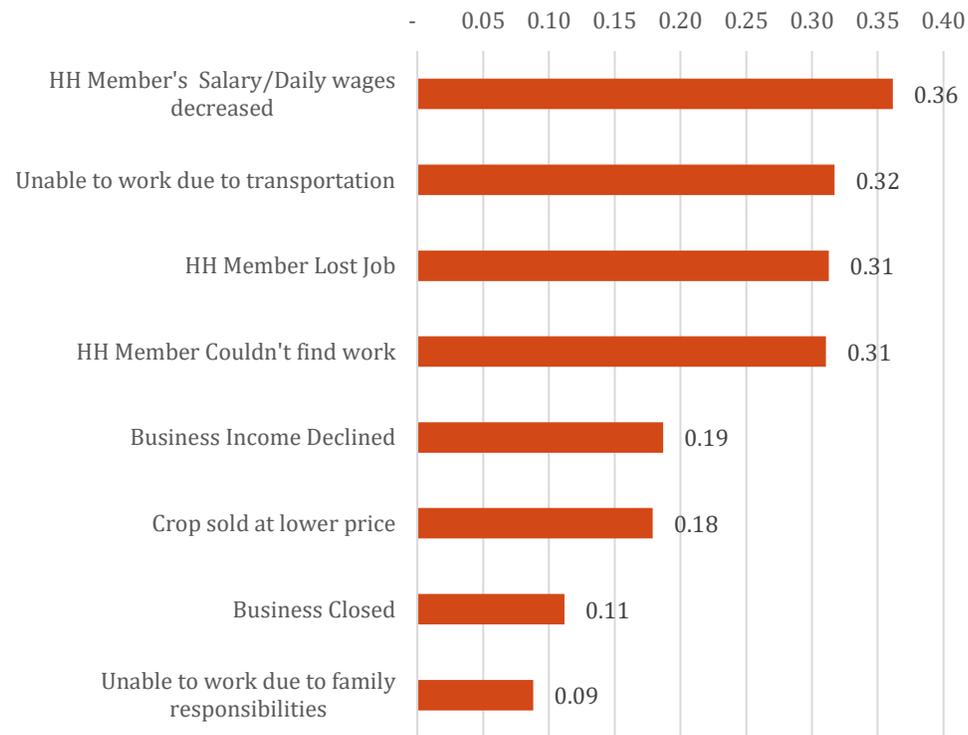


Trends in employment **Women** Ages 21-59
DMAS-Tel Survey March 2019-Nov 2020



However, underneath this recovery lies the tsunami that has impacted a large proportion of the population

Proportion of Households Facing Economic Difficulties Between April and December



- While recovery is well under way as judged by many sources, the lingering impact of lockdown should not be underestimated
- About 80% of the households suffered some sort of economic hardship
- What is their situation now?

Q: During the pandemic period (April-December), did you or any member of your household face any of the following difficulties?

- Read out the responses one by one
- Record all that applies

Long term impact most apparent for small business owners and salaried workers

- Short-term emergency associated with lockdown has lasting consequences for some occupations
- Small businesses and salaried workers were most vulnerable to business and job losses and their households had to look for other sources of income or rely on borrowing

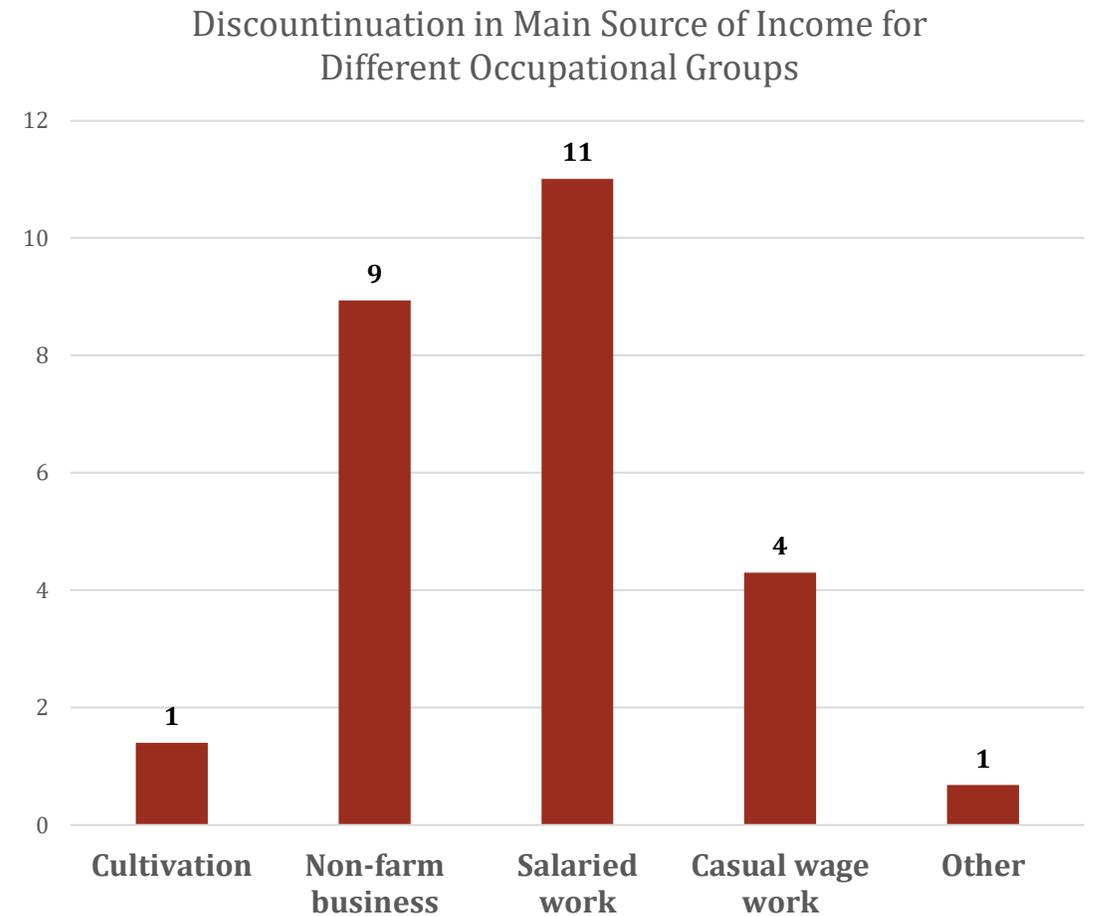
Q: What is the main source of income for your household **now**?

- If the household has more than one source of income, then main source refers to the highest income source

Response Options: Cultivation; Non-farm business; Salaried work; Casual wage work (agricultural and non-agricultural); Rent, pension, remittances, savings, other; No current source of income

Q: Was [ABOVE SOURCE] the main source of income **even before the Coronavirus pandemic (in March or before)**?

Q: What was the main source of income for your household before the Coronavirus pandemic?



Households that lost their jobs or businesses are trying to adjust...

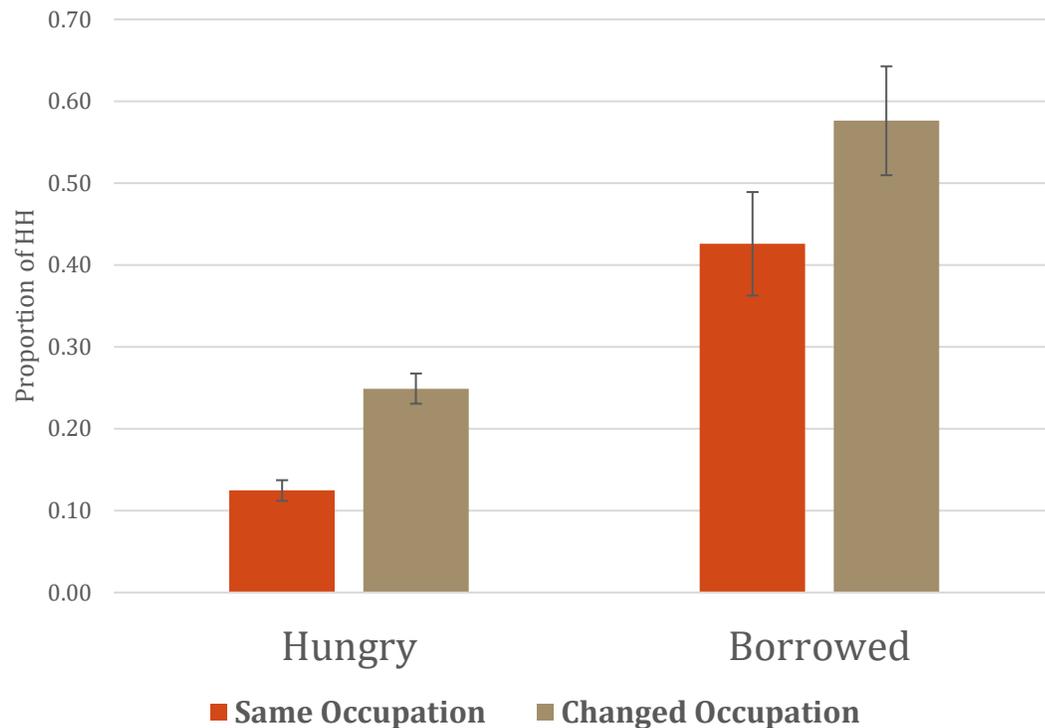
Primary Income Source Before Pandemic	Primary Income Source Now						Total
	Cultivation	Non-farm Business	Salaried Work	Casual Wage Labour	Rent, Pension, Remittance	None	
Cultivation	98	0.6	0.5	0	0.3	0.2	100
Non-farm business	1.3	88	3.1	3.3	1.3	2.8	100
Salaried work	3.8	2.1	86	3.2	1.9	3.3	100
Casual Wage Labour	1.9	1.6	0.5	94	0.3	1.6	100
Rent, Pension, Remittance	0	0	0.7	0	97	2.7	100
Total	22	18	32	20	5.5	2.2	100

Particularly Vulnerable Households

- Households subsisting on remittances, rents, and pensions grew from 4% to 6% and about 2% households have no source of income
- Downward shift from salaried work and business to casual labour is also worrisome

Is changing primary source of income a positive or a negative sign?

Losing original occupation is associated with greater hunger and borrowing for day-to-day expenses



- Individuals and households may change their primary activities for positive and negative reasons
- But looking at the living conditions of households that changed the primary source of income suggests greater hunger and debt

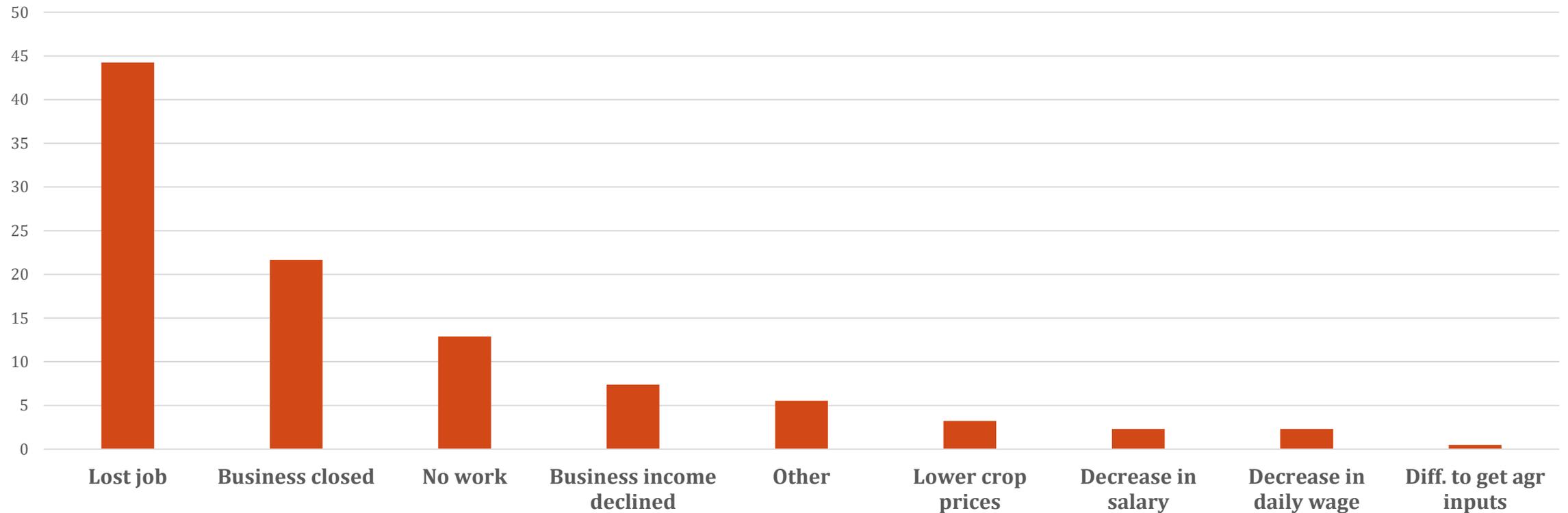
Q: In the last 30 days, has there been any time when you or others in your household did not have enough food to eat because of lack of money or other resources?

Q: In the last 30 days, did you or any member of your household borrow money to manage day-to-day expenses/consumption?

- If money taken from parents, relatives or friends need to be repaid, then consider that as borrowing

Job losses and business closure dominate the reason for change in primary source of income

Reason for Change in Main Source of Income for the 217 households that experienced a change in their main income source

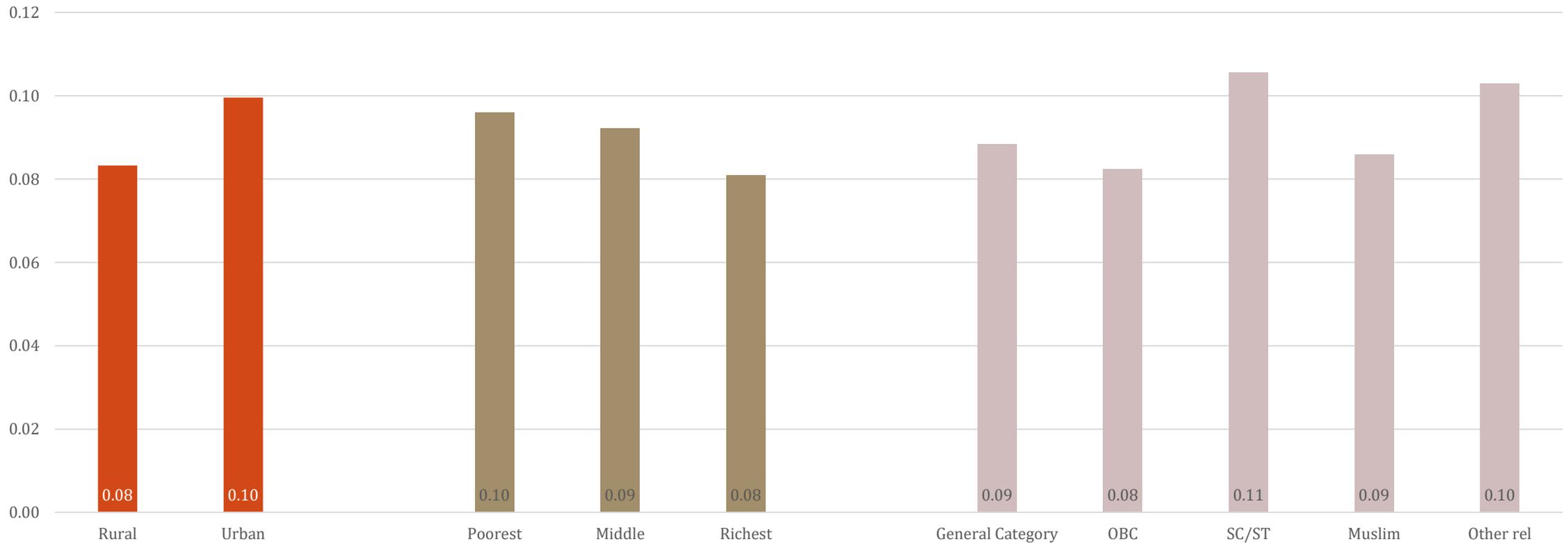


Q: Why is there a change in main source of income?

- Record the main reason

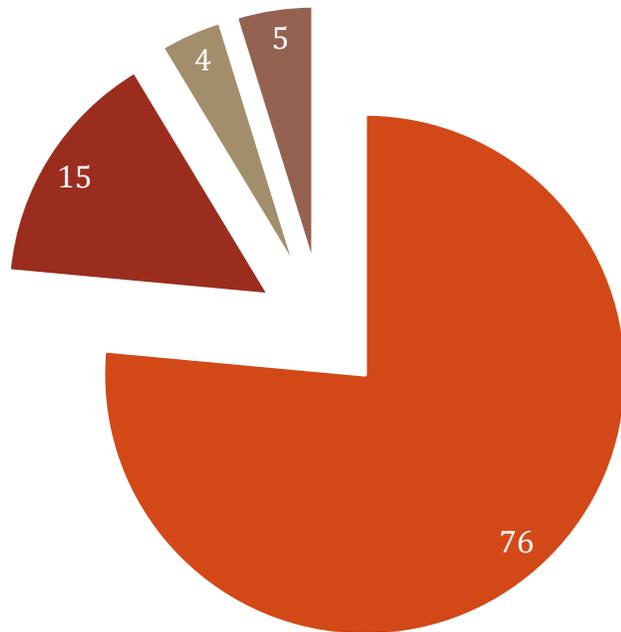
Job and business loss slightly more likely to affect poorest and more vulnerable households & urban households (due to small sample size differences are not statistically significant at 0.05 level)

Urban Households, Poorest Households and SC/ST Households most vulnerable to occupational change



Employed but suffering from salary reduction or non-payment

Salary Receipt for November



■ Full Salary ■ Partial Salary ■ Not Paid Yet ■ No Salary Received

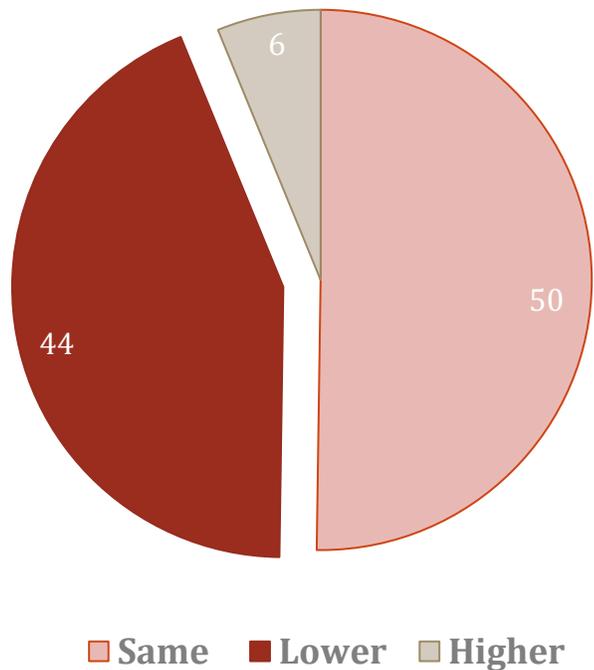
- Workers who retained their jobs in November were fortunate
- Nonetheless, a quarter of these workers had not received their full salary for the month of November
- Over 75% of the non-recipient workers were working from their worksite on a daily basis

Q: Did the salaried worker in your household receive salary for the **month of November**?

Response Options: Yes, full salary ; Yes, partial salary; Not paid yet but expects to receive full or partial salary ; No salary received. (Exclude workers who were relieved)

Decline in casual labour wage rate

Daily Wage for Casual Labour in November Compared to Pre Pandemic Period



- About 44% of the respondents said that casual labour daily wage rate in November was lower than before the pandemic
- This decline was slightly greater for agricultural workers (47%) than construction workers (42%)

Q: How is the daily wage rate of the casual wage worker **now** compared to the **situation before the Coronavirus pandemic**?

- If there is more than one casual wage worker, ask about the highest earner

Response Options: Same as before; higher than before; lower than before.

Some of our sample households are also small employers and offer a clue to the employer perspective (caution: small sample size)

Questions to Small Business Owners

Q: Do you usually hire people for operating your business?

- If there is more than one business, ask about the business having the maximum income now.

Q: For this business, do you still have as many employees as you had before the Coronavirus pandemic (in March or before)?

- If the number of working days were reduced but all the employees were retained, then code Yes, as many

Response Options: Yes, approximately as many; Yes, but less than before; No employees.

Questions to farmers

Q: In the Kharif season, did you hire labourers for agricultural work (e.g., sowing, harvesting)?

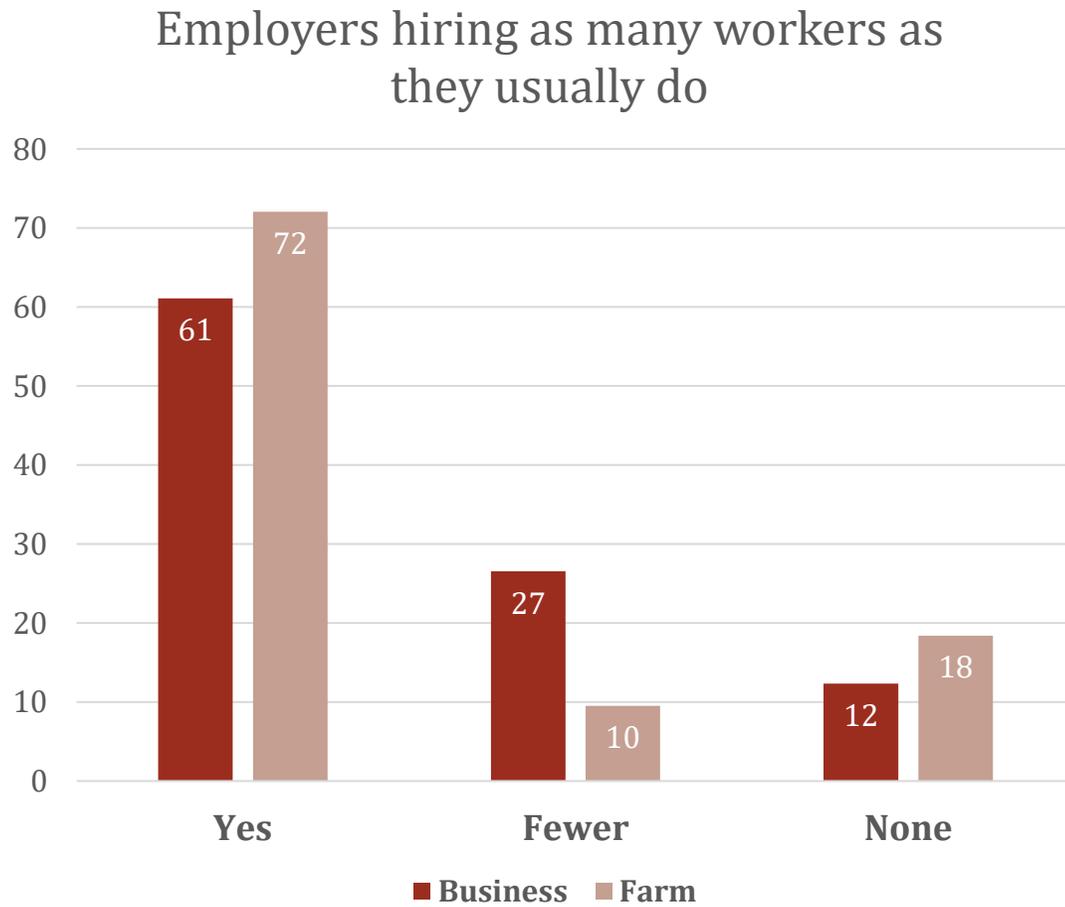
- If yes, probe to find out whether it was as per the need or not.

Response Options: Yes, as per need; Yes but less than needed; No.

Q: What was the main reason for not hiring/reduced hiring of labour in the Kharif season?

Response Options: There was no need; Labour shortage; More household members available to work on the farm; Financial constraints; Fear of Coronavirus infection; Other

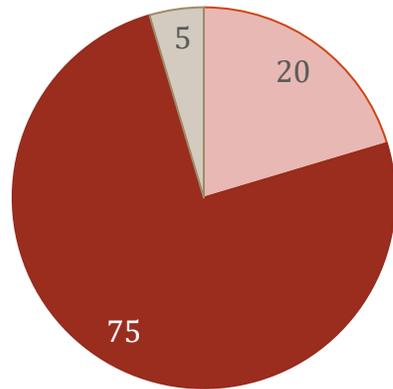
Part of this income decline may be because employers are facing difficulties



- While our sample of employers is very small (162 small business owners and 492 farmers), only about 60-70% seemed to follow prepandemic hiring practices
- About 40% of the farmers who hired fewer labourers said that they reduced hiring because more family labour was available (possibly displaced household members from other sectors)

Small businesses have begun to operate but are plagued by lower demand

Demands for products compared to pre-pandemic period

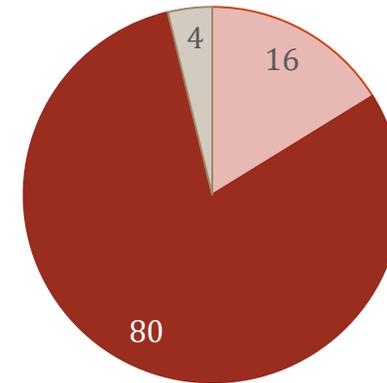


Same Worse Better

Q: Compared to the time before the pandemic, how is the demand for your product(s)?

Response Options: Same as Before; Worse than Before; Better than Before

Business income compared to pre-pandemic period



Same Worse Better

Q: How is your business income now compared to the situation before the Coronavirus pandemic?

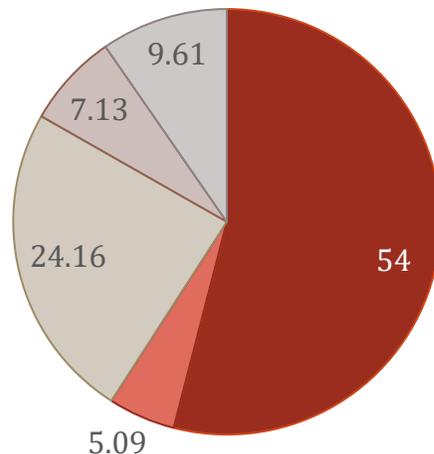
- If there is more than one business, ask about the business having the maximum income now.

Response Options: Same as Before; Worse than Before; Better than Before

Farm households were the least affected, and offered refuge to unemployed family members but also faced income drop

Difficulties in selling produce may have led to lower prices

Selling Price of Kharif Crops



- Lower price than usual
- Higher price than usual
- Usual price
- Could not sell
- Did not want to sell

Puzzle

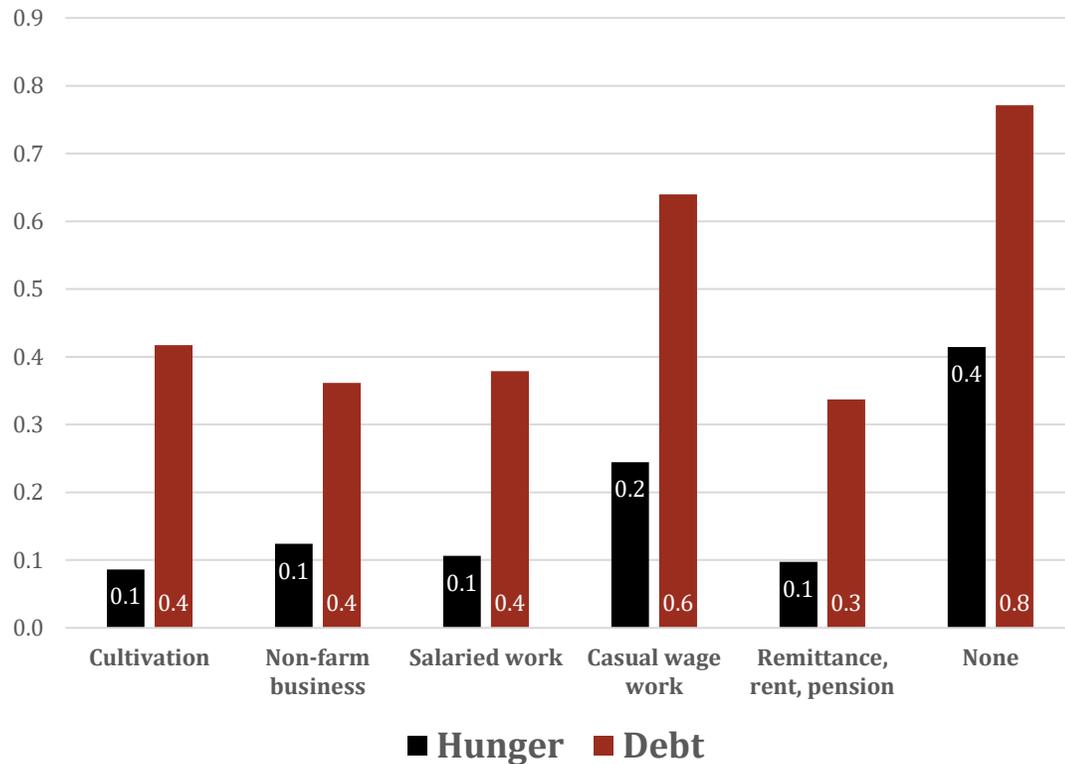
- It is difficult to understand why selling prices for Kharif crops are lower than usual.
- However, WPI data also show that December 2020 index numbers are substantially lower than 2019 index numbers for primary crops in DCVTS area (Wheat, Paddy, Jowar, Bajra)
- Difference in trend between MSP and Farmgate prices, possibly due to logistical challenges

Q: Was the selling price of your **Kharif crops** affected by the pandemic?

- Usual is the scenario before the pandemic

Casual wage labourers and households with no income source as most likely to experience distress

Hunger in the preceding month and borrowing for day-to-day expenses among different occupational groups



- About 14% of all households report experiencing hunger due to lack of money in the preceding month while 44% had to borrow money for day-to-day expenses.
- This proportion is largest among casual labourers and households with no source of income.

With the exception of additional rations, the focus on enhancing safety nets in recent months seems limited

Uneven Safety Nets

- 50% households received additional rations in November.
- 34% children in government school received grains/food in lieu of the midday meal
- However, in our rural sample, only 10% households received MGNREGA work or cash in lieu of work
- For households that received work, average days received between April and December is 34

Persistent Urban Exclusion

- 46% of the urban households received extra ration compared to 55% rural households
- MGNREGA is not available to urban households

Results from DCVTS-4 and related DMAS-Telephone survey offer both encouragement and identify challenges

Encouraging News

- Household data on COVID-19 prevalence matches the low recorded cases in other statistics
- Vaccine hesitancy, while worrisome, is lower than in many developed countries
- Access to routine health care was impacted by the pandemic but the impact was modest
- Employment seems to be recovering

Discouraging News

- Household incomes are severely impacted in almost all occupational categories
- Households that lost jobs are highly vulnerable to hunger and debt
- Schools have struggled to cope with distance education but not been able to keep up, even in an advanced region like Delhi NCR

Acknowledgements

- **NCAER National Data Innovation Centre Team**
 - **Concept, study design, analysis and report:** Sonalde Desai and Santanu Pramanik
 - **Questionnaire design:** Santanu Pramanik, Sonalde Desai, Debasis Barik, Manjistha Banerji, Reem Ashraf, Pallavi Choudhuri, Ruchi Jain, Neerad Deshmukh, Om Prakash Sharma, Dinesh Tiwari, Abhinav Motheram
 - **Training and field management:** Dinesh Tiwari, Gurpreet Singh, Santanu Pramanik, Manjistha Banerji, Reem Ashraf, Bijay Chouhan, Arpita Kayal, Sreejith Karunakaran
 - **Quality control and remote monitoring:** Santanu Pramanik, Dinesh Tiwari, Bijay Chouhan, Abhinav Motheram, Gurpreet Singh, Arpita Kayal, Jaya Koti, Deepa S., Sumiran Chandra, Neeraj Kumar
 - **Preload preparation and data cleaning:** Bijay Chouhan, Jaya Koti, Dinesh Tiwari
 - **CATI programing using SurveyCTO:** Bijay Chouhan and Jaya Koti
 - **NDIC field team**
- **Other NCAER researchers:** Soumi Roy Chowdhury, Prabir Kumar Ghosh
- **NCAER Management**

About NCAER and NCAER NDIC

NCAER

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The NCAER National Data Innovation Centre was set up in December 2017 to promote innovation and excellence in data collection and build research capacity to strengthen the data ecosystem in India. The NDIC is envisaged as a hub for providing expertise to policymakers, government statistical agencies and private data collection agencies. NDIC is pursuing three primary goals: [1] To pilot innovative data collection methods and mainstream successful pilots into larger data collection efforts; [2] To impart formal and informal training to a new generation of data scientists; and [3] To serve as a resource for data stakeholders, including Government data agencies and ministries.

NDIC is experimenting with survey instruments and modes of data collection to address shortcomings in existing approaches. The DCVTS is an example of our rapidly building a quick response telephone survey on top of our existing Delhi Metropolitan Area Study, which is a panel study.