

# An Experimental Pilot Cash Transfer Study in Delhi

An Initiative under GNCTD-UNDP project, Government of Delhi

## Executive Summary



BY  
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# Results of an experimental pilot cash transfer study in Delhi

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## Executive Summary

### 1. Introduction

In India, food security for the poor is assured by the government through the Public Distribution System to the beneficiaries who possess the APL, BPL or the Antyodaya cards. However, although government has been allocating funds for PDS, not all of it reaches the intended beneficiary, due to leakages, wastages and a system of “clogged pipes”.<sup>1</sup>

It is primarily because of this that cash transfers (CT) are being explored as one of the possible methods of food security as well as of a form of social protection. Of course, a cash transfer in itself will pose another set of challenges. So, this study was initiated by the Government of Delhi and SEWA under the GNCTD-UNDP project to test the effects of substituting PDS rations by cash transfers for BPL families. Research agency ‘India Development Foundation’ designed and carried out the surveys.

### 2. Methodology

The main features of the study were:

- The pilot was for one year from Jan to Dec, 2011 in Raghbir Nagar of West Delhi.
- BPL card holders in Raghbir Nagar were asked whether they wished to participate in the study or not. Yeses and Nos were recorded. 450 BPL families were selected for the experiment of which 100 families from the self-selected “Yes” group were randomly selected to receive cash transfers.
- These 100 families were not entitled to take anything from the ration shop during the pilot period.
- The cash transfer for each self-selected family was in the name of women only. An account was opened for this purpose in her name in the nearest bank and the transfer was paid every month into the account.
- Each family received INR 1000 per month.<sup>2</sup>

Methodology was designed by IDF with 450 households of which 100 HHs randomly received cash transfers. The rest of the 350 were control group out of which 200 were self selected but did not receive cash transfer and 150 were self rejected.<sup>3</sup> To measure the overall impact of cash transfers to the lives of

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<sup>1</sup> According to the central vigilance committee on public distribution system, headed by Honourable Justice D.P Wadhwa report “PDS is inefficient and corrupt. There is diversion and black-marketing of PDS food grain in large scale. The poor people never get the PDS food grain in proper quantity and quality.” 2007

<sup>2</sup> The amount of Rs. 1000 was calculated as the actual subsidy received by the BPL family. It was the difference between the amounts paid in the market minus the amount paid to PDS shop by the BPL family at the time the baseline study was carried out in November 2010.

<sup>3</sup> After selected 50 controlled HH dropped out from the pilot, so the total population reduced to 450.

participant households, both quantitative and qualitative surveys have been carried out. The following studies were conducted-

- i. Baseline survey- November, 2010
- ii. Midline Survey- July, 2011
- iii. Endline survey- January, 2012
- iv. Impact perception survey- January, 2012
- v. Case studies- January, 2011- January, 2012; throughout the year of pilot.

### **3. Snapshots of Raghur Nagar BPL households: Descriptive statistics from baseline-**

#### ***Caste and Community***

- 10% of the population is Muslim or Sikh. Of the Hindus:
- Nearly 55% of the sample belong to scheduled caste,
- 19% are other backward caste and 6% are scheduled tribe.
- The remaining 20% fall into the 'others' category.

#### ***Main Occupation of Households***

- About 36% of households are self-employed who work as street vendors, tailors, or run a business from their home.
- Over 36% of households main occupation is jobs like domestic workers, employees/ helpers in private companies, security, and drivers. Most jobs are in informal sector. Only 1% have Government jobs
- About 22% earn from casual daily labour

#### ***Literacy and education-***

- 34% of the population had not attended school at all.
- 24.4% had primary education.
- 39.3% had secondary education up to class 10<sup>th</sup> and
- Only 1.33 % are graduates.

#### ***Sanitation-***

- More than 70 % of households in the sample have their own toilets,
- 19% use chargeable toilets
- 4% use community toilets.

### **4. Comparing Self-selected and Self-rejected households**

The study population initially constituted two groups: those households who had voluntarily signed up for the CT programme (self-selected households) and those who did not want to be part of the CT programme (self-rejected households).

It is possible that there are significant disparities between households that wanted to be part of the programme and households that did not want to be involved. Since the transfer and control groups were formed according to this self-selection status, it is necessary to assess the comparability of these household groupings.

We find that self-selected and self-rejected groups are comparable with regard to most variables under observation. There is no significant difference in occupation, social grouping (caste and community), household size, household ownership, benefit from schemes, source of energy for cooking, sanitation (type of toilet and sewerage connection), health (illness and hospitalisation), vocational training, savings and consumption patterns. Self-selected and self-rejected groups also do not differ significantly with respect to dissatisfaction with PDS overall all or PDS quality.<sup>4</sup>

However, in the areas of education and outstanding borrowings we observe significant differences between the two groups. Compared with self-rejected households, self-selected households are on average less educated; they have higher dropout rates; and they have significantly higher outstanding loan amounts.<sup>5</sup>

## 5. Main findings from the Final Evaluation study

### 5.1 Food Security

The main hypothesis to be tested was the effect of cash transfers on food security. This was done by examining whether the families bought more or less of each food item<sup>6</sup>. The main findings were:

- **There is no decrease in any food item, due to cash transfers.**
- **Cash transfers cause a significant increase in some food items.**

Since there was no significant decrease in consumption of any of the commodities under observation in the transfer group, we conclude that cash transfers do not adversely affect food security. Additionally, we find that cash transfers provide opportunity for households to increase other nutritious food options. Our analyses show that cash transfer in place of subsidized ration from PDS shops has been effective in significantly increasing consumption of the following commodities:

- Pulses
- Egg, fish and meat

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<sup>4</sup> Only selected variables are reported here. However, the same comparability was found for several other variables in the study.

<sup>5</sup> In terms of education, average years of schooling for self-selected households are 4.73 years, compared with 5.25 years in the self-rejected households. We find that these averages are statistically different from one another, suggesting that self-selected households are significantly less educated compared to self-rejected households. Additionally, dropout rates are significantly higher in self-selected households with 21% of school going age individuals not enrolled in school compared with 10% of school going age individuals in self-rejected households.

The proportion of households taking out loans is similar across self-selected and self-rejected households. However, total outstanding loan amounts are significantly higher in self-selected households. These households have an average of Rupees 74746 outstanding, in contrast with noncompliant households who have an average of Rupees 43216 outstanding. It could be that households with higher outstanding loans prefer cash transfers because they can be used to repay debt.

<sup>6</sup> Statistical tests were carried out on the differences between consumption figures of baseline and endline survey results as well as the consumption of transfer and control groups. T-test, Z test, Chi-square and Difference-in-difference methods were used. The Statistical test were carried out by IDF and Dr. YP Gupta (independent consultant)

**Table 1- Average quantity purchased on PDS commodities in endline over baseline (kg)**

	Transfer group		Control group		Difference significant?
	B	E	B	E	
Rice	8.32	8.90	8.36	8.30	Not significant
Wheat	32.04	32.62	31.33	29.32	Not significant
Sugar	6.48	6.81	6.66	6.07	Not significant

B denotes baseline and E denotes endline.

**Table 2- Average expenditure on non-PDS commodities in endline over baseline (Rupees)<sup>7</sup>**

	Transfer group		Control group		Difference significant?
	B	E	B	E	
Pulse & pulse products	239.46	308.86	258.42	278.31	Yes
Milk & milk products	689.78	1004.25	702.53	943.72	Not significant
Egg, fish & meat	183.35	315	161.03	190.08	Yes
Vegetables	531.75	819.15	515.77	767.19	Not significant

We find that the difference of mean change in quantity purchased in baseline and endline in intervention and control group is not statistically significant for rice, wheat and sugar. However, the difference of mean change in expenditure in baseline and endline in intervention and control group is statistically significant for two commodity groups: (1) pulses and pulse products and (2) eggs, fish and meat, as shown in the table above.

Ashaben is a home-based worker. She is 45 yrs old, lives in TC camp, Raghbir Nagar and makes paper bags at home. Her husband has a chronic illness so he does not work. Before the CT programme she would look for free food in Gurudwara or other places. The PDS shop did not give her their entitled ration. When she started getting Rs. 1000/- from January onwards, she could buy food items in bulk which she never had done before. She, along with two neighbours, go to a wholesale shop straight after withdrawing the money from SBI. All of them are quite happy and do not want to go back to PDS again.

## **5.2 Primary source of energy for cooking: Moving to LPG**

Majority of the households across groups (and overall) in both the baseline and endline surveys use LPG as the primary source of cooking. The next major fuel used for cooking is kerosene across all groups in

<sup>7</sup> Note: Analyses for PDS items were performed using average per capita quantity purchased instead of expenditure because cash transfer groups bought these items in the market at higher prices. Analyses for non-PDS items were performed using per capita expenditure in Rupees. In order to overcome the problem of conversion of expenditure at endline at baseline prices, the analysis in the second table was done in terms of testing the difference in average expenditure in baseline and endline in transfer and control group.

both time periods. We test whether the use of LPG has increased significantly in the transfer group as compared with the control group and find that:

- **Cash transfers do not necessarily help households to shift from hazardous fuels to safer and cleaner fuels such as LPG**

From baseline to endline we observe a substantial increase in the proportion of households using LPG as their primary source of energy for cooking in both transfer and control groups<sup>8</sup>. However, the increase in the transfer group is not significantly higher than the increase in the control group<sup>9</sup>. Hence there is no impact of the cash transfer on proportion of LPG users.

**Table 3- Primary source of energy for cooking**

**DID estimate of the effect of cash transfers on proportion of LPG users**

	Proportion of LPG users		Difference between
	B	E	
Transfer	68.09	84.04	Significant
Control	62.04	72.84	Significant
Overall difference between groups	6.05	11.2	Not significant

Savitriben lives in F block and is a widow; She is a home-based work (cutting plastic) and has 5 children. Her elder son is a head loader and her 3 daughters help her in her plastic work. Before getting CT she was using kerosene as a primary fuel. As getting CT stopped kerosene entitlements, she had to switch to other fuel sources. First she was using coal and traditional chullah, but later, when she could put together some money, she bought a mini LPG cylinder. Overall, she feels happy with CT and thinks entitlements should be more for larger sized family like hers.

### **5.3 Health Security**

BPL families in Delhi avail both Government and Private health treatment. To test whether transfer households are spending more on health care, we observe the proportion of households in each group who seek treatment from private and government hospitals. We find that:

<sup>8</sup> During the study period the Government of Delhi was encouraging LPG usage instead of kerosene, therefore, as we have observed, we would expect an increase in LPG usage in both groups.

<sup>9</sup> To isolate the effect of the cash transfer on proportion of LPG users from baseline to endline, we compute the difference-in-differences estimate, calculated using OLS regression with an interaction term. This gives a DID estimate of 0.052, which is not significant (with a p value of 0.471) and therefore conclude that cash transfers do not have an impact on the proportion of LPG users.

- **A significant proportion of households with cash transfer have switched from government treatment options to private treatment options.**

For the transfer group we find a significant decrease in seeking treatment from government hospitals and a significant increase in seeking treatment from private hospitals. On the other hand, for the control group, there is no significant change in treatment seeking behaviour.

**Table 4- Treatment sought in case of illness in past 3 months  
(Percentage and percentage change)**

	Transfer group			Control group		
	B	E	Difference significant?	B	E	Difference significant?
Govt. hospital	43.9	30.77	Yes	43.88	46.7	No
Private hospital	2.44	20.51	Yes	5.37	6.8	No
Other treatment	53.66	48.72	No	50.75	46.5	No
Total	100	100	-	100	100	-

B denotes baseline and E denotes endline.

**Kesri Devi**, A-179, lives in Raghbir Nagar and is around 80 years old. She has 5 sons, all are married. She stays with her younger son and daughter-in-law. She helps her daughter-in-law making paper envelopes. For making 1000 such envelopes, she gets 20 rupees. As the ration card is on Kesri devi's name and she got the direct cash transfer on her name, it enabled her to spend the money as she wished. For the last 10 years Kesri Devi has been an Asthmatic patient and she has needed proper medication and maintenance. She gets the old age pension every three months but needs a good amount of money for her treatment and ailment every month. Since she has been receiving the cash transfer she has spent Rs.1500/- per month on her medication and ailments. She also has a better supplementary diet, which includes fruits, juices and milk.

*She said "I would have died if I did not get old age pension and cash transfers as my asthma causes difficulty if does not have taken care properly"*

#### **5.4 Improvement in Performance of PDS Shops**

The transition of some households from subsidized rations to cash has led to positive spill-over effects in the PDS shops. The proportion of people experiencing difficulties in getting their entitled ration has significantly decreased from 66% in the baseline to 44% in the endline. Hence, we find that:

- **Cash transfers to some families increases the efficiency of PDS shops in the area.**

**Table 5- Proportion of those facing difficulties in getting the entitled ration**

	B	E	Significant difference?
Yes	65.75	42.68	Yes
No	34.25	57.32	Yes

### **5.5 Alcohol Consumption**

A common argument against cash transfers is that cash will be used for increased alcohol consumption instead of food. We find that cash transfers have not led to an increase in the consumption of alcohol. However, it must be noted that the cash transfer has been made in the name of the woman in the household and directly into her bank account.

- **There is no increase in alcohol consumption due to cash transfers.**

**Table 6- Average household expenditure on alcohol (Rupees)**

	B	E	Significant increase?
Transfer	84.57	84.15	No
Control	74.91	84.57	No
All	77.08	84.47	No

**Geetaben** is 35-40 years old. She is a Old cloth vendor and earns Rupees 2000-2500 per month. Her husband is a regular drunkard who stays at home. She found she often did not get her ration on time. She had to take off time from work to get the ration, otherwise her husband would sell off the ration and buy liquor. From January 2011 onwards she received the cash transfer, which she has full control of because the bank account is in her name. Her husband still drinks but he does not ask her for money. She withdraws money when she wants, otherwise she spends money from her income. Now she feels there is an improvement in the household's consumption.

### **5.6 Women's Empowerment**

In this experiment the cash transfer has been made into the bank account of the woman. We find that it has resulted in women assuming a greater role in household decision-making. However, it is not clear whether this is the effect of the cash transfer, the bank account or the control of cash.

- **Cash transfers into women's bank accounts increases empowerment of women.**

**Table 7: Decision-making patterns in treatment and control groups (percentage)**

		Self	Spouse	Jointly/others	Significant difference?
Saving	T	50	31.91	18.09	Yes
	C	37.65	44.44	17.9	
Investment in assets	T	48.94	31.91	19.15	Yes
	C	36.73	45.06	18.21	
Regular expenditure on food	T	56.38	29.79	13.83	Yes
	C	48.46	39.51	11.73	
Expenditure on children's education	T	47.87	32.98	19.15	Yes
	C	38.58	44.44	16.97	

## 6. Hypothesis Testing

**Table 8- Hypotheses testing**

No	Hypothesis description	Outcome
<b>H1</b>	<b>Cash transfers adversely affect food security.</b>	<b>NO</b>
<b>H2</b>	<b>Cash transfers provide opportunity for the households to increase other nutritious options in the non-cereal segment.</b>	<b>YES</b>
<b>H3</b>	<b>Cash transfers allow households to spend more on healthcare</b>	<b>YES</b>
<b>H4</b>	<b>Cash transfers help to create better conditions so that children attend school to a greater extent and learn more effectively in and outside school.</b>	<b>NO</b>
<b>H5</b>	<b>Cash transfer induces people, particularly men, to ‘waste’ money on private “bads” like alcohol.</b>	<b>NO</b>
<b>H6</b>	<b>Cash transfers help to move from hazardous fuels to safer and cleaner fuels such as LPG.</b>	<b>NO</b>
<b>H7</b>	<b>Cash transfers induce investment in income generating skills or enhancement of income generating skills of the treated population</b>	<b>NO</b>
<b>H8</b>	<b>Cash transfers allow households to take up activities that can boost their income generation capacity</b>	<b>NO</b>

<b>H9</b>	<b>Cash transfers induce families to spend on improving sanitary conditions in their households, thereby improving health and well-being.</b>	<b>NO</b>
<b>H10</b>	<b>Cash transfers reduce indebtedness of the treated population.</b>	<b>YES</b>
<b>H11</b>	<b>Cash transfers help in increasing the savings of the treated population.</b>	<b>NO</b>
<b>H 12</b>	<b>Cash transfers induce a positive spill over effect on the performance of PDS shops</b>	<b>YES</b>
<b>H 13</b>	<b>Cash transfers into women’s bank accounts increases empowerment of women.</b>	<b>YES</b>

## **7. Recommendation- Towards a Policy of Choice for the Poor Consumer**

The debate on allowing cash transfers as a means of food security has become divisive and extreme. However, our pilot experiment shows that the poor themselves do not see it as a black and white option. Some BPL families see an advantage in cash transfers and others would prefer the direct food option.

We feel that a more effective and humane way of food security would be allow the BPL card holder a choice of food and fuel or cash. The BPL card holder, would be asked at the beginning of the year whether she preferred cash or food. If she preferred cash, she would have to open a bank account. Her card would be stamped with her choice. Families could alter their choice after a year and revert to rations. All families would keep their BPL-card and hence its identity card advantages.

A Policy of Choice allows a family to choose what is best for its circumstances and needs. Choice opens up opportunities for people and allows them to develop according to their own understanding. This policy assumes that most people, and especially the poor, are wise enough to know what is best for themselves. If India’s middle classes have benefited from the greater choices available to them as the result of liberalization, why should poor households also not be given greater choice in alternative forms fo social protection?

There is a genuine “trust deficit” among the poor. At present PDS, with all its defects, is the only safety net available. Withdrawing this safety net without demonstrating a viable alternative, would lead to fear and unrest. Forcing people to shift from food to cash will have an element of coercion in it as many families genuinely do not want cash as they fear that it will not be spent on food. The “free choice” method avoids the element of coercion.

Allowing people a choice would make both the fair price shops and the Government more efficient. The FPS would perform better for fear of losing their customers to cash, whereas Governments who transfer cash would be shown up, if many BPL card holders preferred to go back to the ration shops.

Another major issue is the lack of financial inclusion, even in the urban areas. This lack is even worse for women. Very few people have bank accounts. Opening bank accounts is extremely difficult and sometimes impossible. If the cash is to be given in the name of the woman, difficulties multiply. Shifting

from food to cash would mean in effect dropping a large number of the most vulnerable from the food security system. It would also mean shifting the control from women to men in the family.

Malnutrition is a major problem in India. Many in the system believe that Government should provide food security to battle malnutrition. It is not yet clear that giving cash instead of food does lead to food security and hence to reduction of malnutrition. This will have to be demonstrated over time.

***We recommend that the Government of Delhi spend some years with a “Choice” option where BPL families are allowed either food or cash as per their choice. The option can be introduced gradually to allow for mid-term course changes.***