Enhancing WFP’s Capacity and Experience to Design, Implement, Monitor and Evaluate Vouchers and Cash Transfer Programmes

STUDY SUMMARY

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Introduction

- What is the issue

Responses to crises emphasize saving lives and protecting livelihoods. But while there is general *agreement* on objectives of responses, there is less agreement on *how* international actors such as WFP should respond.

- What do we know

Very little.

There are many informative studies of food transfers and of cash transfers but there are no compelling studies that directly compare the impacts of food and cash in the same setting.

There is limited information on relative costs.
Introduction

- How can we answer this question in a compelling fashion?
  - In the same setting, implement transfers keeping all aspects of the intervention the same ...
    - Value of transfers
    - Frequency of transfers
    - Payment dates
  - ... except for the modality (cash, food, voucher) ...
  - which is randomly assigned ...
  - so that differences in impacts can be ascribed to modality and NOT to other confounding factors ...
  - And do this in a variety of settings

- Today we report back on the results of a three year IFPRI-WFP study that does just that
Structure of presentation

- Describe the interventions
- Explain the evaluation design
- Describe core findings:
  - Impacts
  - Costs
  - Beneficiary preferences
- Briefly note additional findings
- Summary and implications
INTERVENTIONS
Ecuador

- Unconditional transfers in two northern provinces (Carchi and Sucumbíos) with large concentration of Colombian refugees and poor host Ecuadorians.

- Beneficiaries randomized (at barrio level) to receive:
  - $40 cash transfers that were accessed from ATMs using a debit card
  - $40 in vouchers redeemable for specified foods in supermarkets
  - $40 in food: rice (24 kg), vegetable oil (4ℓ), lentils (8 kg), and canned sardines (8 cans of 0.425 kg)

- Transfers received monthly for a six month period

- All beneficiaries receive nutrition sensitization

- Roughly 75% of beneficiaries were women
Niger

- Three months public works (all households) and three months unconditional transfers (targeted households) in Mirriah departement, Zinder region where there are high levels of chronic and transitory food insecurity

- Beneficiaries randomized at worksite level to receive:
  - Cash payment of 25000 FCFA ($55) per month. Cash dispensed from mobile ATM brought into each village
  - In-kind payment of 87.5kg cereals, 18kg of pulses and 3.5 kg vegetable oil and salt. Food shipped into villages at beginning of public works and stored in granary. Breakdown into rations undertaken by beneficiaries
  - Payments every two weeks during public works; monthly for unconditional transfers

- Transfers made to household head, approx 75% male; 25% female
Uganda

- Transfers linked to children’s enrollment in Early Childhood Development centers (preschools) in three districts of Karamoja – a poor, rugged, post-conflict sub-region in Eastern Uganda with high seasonal food insecurity

- For each child aged 3-5 years enrolled in preschool, beneficiaries were randomized (at preschool level) to receive:
  - 25,500 UGX ($10.25) in cash: added electronically to mobile money cards
  - 25,500 UGX worth of food: multiple-micronutrient fortified corn soya blend (CSB), Vitamin-A fortified oil, sugar
  - No transfer (control group)

- Transfers received every six-eight weeks for 12 months (6 transfer cycles)

- Transfers made preferentially to the child’s mother
Yemen

- Unconditional transfers in rural districts of two governorates (Hajjah and Ibb) with high baseline levels of food insecurity.

- Randomization at the Food Distribution Point (FDP) level
  - Each FDP is a school serving a cluster of neighboring villages
  - 68 food FDPs; 68 cash FDPs
    - 1 cash FDP in Hajjah affected by violence and not surveyed at endline

- 3 transfers each:
  - Cash Transfer: 10500 YER (≈$49)
    - every two months beginning in Nov 2011
  - Food Transfer: 50kg of fortified wheat flour, 5ℓ of oil

- Beneficiaries: 19% female headed households
Addenda: The fifth country

- Timor Leste was originally included as the fifth country but it was not possible to implement the intervention as designed.

- With agreement with the donor, Timor Leste was dropped.

- Subsequently, WFP and IFPRI raised additional funds to undertake a randomized cash/food study in Bangladesh. Results will be available towards the end of 2013.
Country selection: Summary

- **Ecuador:**
  - Urban, refugee population, easy access to banks, easy access to many types of food markets selling wide range of foods

- **Niger:**
  - Rural, “classic Sahelian food security setting”; very poor households facing severe seasonal food shortages, somewhat isolated with reasonable access to markets selling basic grains

- **Uganda:**
  - Rural, rugged and remote area with high seasonal food insecurity; many households are semi-pastoralist; some access to markets but with limited range of available foods

- **Yemen:**
  - Rural, intervention forms part of a Protracted Relief and Recovery Operation (PRRO); concerns over use of cash to purchase qat
EVALUATION DESIGN
Evaluation design

Where intervention design consists of treatment groups (hh getting a transfer) and a control group (hh not getting a transfer), we can answer two questions:

- Impact of each modality relative to no transfer and
- Impact of cash(vouchers) relative to food

We can do this in Ecuador and Uganda

- In Ecuador, households were randomized into four groups: cash, food, voucher and control
- In Uganda, households were randomized into three groups: cash, food, and control

Where intervention design consists only of treatment groups (hh getting a transfer), we can answer one question:

- Impact of cash(vouchers) relative to food

We do this for Niger and Yemen where the transfers were either food or cash
### Evaluation design: Core questions addressed in all countries

<table>
<thead>
<tr>
<th></th>
<th>Ecuador</th>
<th>Niger</th>
<th>Uganda</th>
<th>Yemen</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do benefits of cash(vouchers) compare to food transfers?</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Does the delivery of cash(vouchers) cost less than food transfers?</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HH preferences for modality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
### Additional questions addressed in some countries

<table>
<thead>
<tr>
<th>How does receipt of cash(voucher) affect</th>
<th>Ecuador</th>
<th>Niger</th>
<th>Uganda</th>
<th>Yemen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-household decisionmaking (gender)</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic and social relations between households</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who is selected to receive transfers</td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anemia</td>
<td>Y</td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Child anthropometric status</td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>ECD outcomes</td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Purchase of agricultural inputs</td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditures on undesirable goods</td>
<td></td>
<td></td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
Impact of household food security

- Use WFP’s principal food security indicator, Food Consumption Score (FCS)

- The FCS combines information on food diversity, food frequency (the number of days each food group is consumed) weighted by the relative nutritional importance of different food group

- It ranges in value from zero to 112 (higher number indicates better food security status)

- Households with values below 21 (28 in Yemen) have poor food security status; values between 21 and 35 are considered borderline

- Mean values of FCS were 36 (Uganda), 41 (Niger), 49 (Yemen) and 59 (Ecuador)
Impact of transfers relative to control households: Change in FCS score

- Ecuador food: 4.95
- Ecuador, cash: 5.75
- Ecuador, vouchers: 9.04
- Uganda, food: 0.00
- Uganda, cash: 3.00
Impact of cash transfers *relative* to food: Percentage change in FCS

- **Niger, post-harvest season**: -11%
- **Niger, hungry season**: -9.6%
- **Ecuador, cash**: 0.6%
- **Ecuador, vouchers**: 5.6%
- **Yemen**: 9.2%
- **Uganda**: 10.1%
Impact of cash transfers relative to food: Percent change in households moved above FCS cut-off

- Niger, post-harvest season: -12.1%
- Niger, hungry season: -10.9%
- Ecuador, cash: 0.4%
- Ecuador, vouchers: 3.3%
- Uganda: 0.0%
- Yemen: 8.5%
**Impact on food quantity**

- In Ecuador, we can look at impact of food, cash and vouchers on caloric acquisition in previous seven days, relative to households that received no transfer.

- In Uganda, we can look at impact of food and cash on caloric acquisition in previous seven days, relative to households that received no transfer.

- In Yemen, we can look at impact of food on caloric acquisition in previous seven days, relative to households that received cash (recall we have no pure control group).

- In Niger, we do not have information on caloric acquisition. However, we do know that more than 80 percent of hh receiving cash make large (>50 kg) purchases of grains.
Impact of transfers *relative* to control households: Percent change in caloric acquisition

<table>
<thead>
<tr>
<th></th>
<th>Ecuador, food</th>
<th>Ecuador, cash</th>
<th>Ecuador, vouchers</th>
<th>Uganda, food</th>
<th>Uganda, cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent change</td>
<td>16.0</td>
<td>6.0</td>
<td>11.0</td>
<td>1.7</td>
<td>19.6</td>
</tr>
</tbody>
</table>
Impact of cash transfers relative to food:
Percent change in caloric acquisition

- Ecuador, cash: -10.0
- Ecuador, vouchers: -5.0
- Yemen: -4.0
- Uganda: 17.9
Costing transfer modalities

- Focus on *modality specific costs* (staff time, goods, services) that are specific to the delivery modality chosen:
  - Food: Staff and monetary costs associated with in-country transport, ration preparation and distribution
  - Cash: Costs associated with contract preparation; cost of debit cards; bank fees for administering transfers
  - Vouchers: Costs associated with supermarket selection; printing vouchers; staff costs associated with liquidating vouchers

- Common costs that are incurred in program implementation (planning costs, targeting, sensitization, nutrition training etc) are allocated proportionately across modalities or are excluded.

- Exclude value of transfer. (But we return to this point later)

How much does it cost to make a cash transfer *relative* to a food transfer?
Dollar cost of a cash transfer *relative* to a food transfer
Costing transfer modalities: Implications (1)

In Ecuador, transfers had the following impacts on food security:

- Food: $11.50; Cash: $3.03; Vouchers: $3.30.

<table>
<thead>
<tr>
<th>Modality</th>
<th>Impact on FCS (%)</th>
<th>Impact on calories (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>10.1</td>
<td>16</td>
</tr>
<tr>
<td>Cash</td>
<td>10.8</td>
<td>6</td>
</tr>
<tr>
<td>Vouchers</td>
<td>15.6</td>
<td>11</td>
</tr>
</tbody>
</table>

We can use this information to calculate the modality-specific costs of improving these food security outcomes by 15%:

- Transfers increase the FCS by approximately 11 percent. Therefore, the modality-specific cost of increasing FCS by 15 percent using cash transfers is 
  \[(15\%/11\%) \times 3.03\], which equals $4.13.
Costing transfer modalities: Implications (1)

- Modality-specific costs of improving these food security outcomes by 15% are

<table>
<thead>
<tr>
<th></th>
<th>Food</th>
<th>Cash</th>
<th>Voucher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>$10.78</td>
<td>$7.58</td>
<td>$4.50</td>
</tr>
<tr>
<td>FCS</td>
<td>$17.25</td>
<td>$4.13</td>
<td>$3.09</td>
</tr>
</tbody>
</table>
Costing transfer modalities: Implications (2)

- In Niger, the monthly transfer was worth $55
  - The modality specific cost of a cash transfer was $4.00
  - The modality specific cost of a food transfer was $12.91

- It costs $354.00 to make six cash transfers to a beneficiary household
  - $354.00 = 6 x ($55 + $4.00)

- It costs $407.46 to make six food transfers to a beneficiary household
  - $394.14 = 6 x ($55 + $10.69)

- Abstracting from other costs, with a $2,000,000 budget, we could include:
  - 5,649 households if cash were given ($2,000,000 / $354.00)
  - 4,908 households if food were given ($2,000,000 / $407.46)

- By switching from food to cash, you could include another 741 households or 5,041 people (average household size is 6.8)
Number of additional beneficiaries gained by switching from food to cash transfers

<table>
<thead>
<tr>
<th>Country</th>
<th>Additional Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecuador</td>
<td>4841</td>
</tr>
<tr>
<td>Niger</td>
<td>5041</td>
</tr>
<tr>
<td>Uganda</td>
<td>13858</td>
</tr>
<tr>
<td>Yemen</td>
<td>9062</td>
</tr>
<tr>
<td>Total</td>
<td>32802</td>
</tr>
</tbody>
</table>
Costing transfer modalities: Final comments

- Our approach assumes that if WFP transfers $40 in cash or a food basket worth $40 that the cost of the transfer itself to WFP is $40.

- If we could have information on the full costs to the WFP of the food transfers (e.g., commodity cost, transport, handling, storage, etc.), we could relax assumption.

- With further experience and some standardization of procedures, modality specific cash costs could fall substantially.
  - E.g., cost of delivering cash transfers was 6% of transfer value in Niger.
Private costs

- Beneficiaries incur costs – travel time, waiting time and money – to reach payment points. These varied by intervention:

  - In Niger, both food and cash were distributed in beneficiary villages in similar ways (implying time costs are roughly equal)

  - In Yemen, there were many more food distribution points than cash distribution points

- Consequently, relevant comparisons are within countries, not across countries
<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Cost (Percent of transfer value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecuador</td>
<td>Food</td>
<td>5.3</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Cash</td>
<td>3.7</td>
</tr>
<tr>
<td>Niger</td>
<td>Food</td>
<td>4.1</td>
</tr>
<tr>
<td>Niger</td>
<td>Cash</td>
<td>0.8</td>
</tr>
<tr>
<td>Uganda</td>
<td>Food</td>
<td>0.0</td>
</tr>
<tr>
<td>Uganda</td>
<td>Cash</td>
<td>0.0</td>
</tr>
<tr>
<td>Yemen</td>
<td>Food</td>
<td>2.0</td>
</tr>
<tr>
<td>Yemen</td>
<td>Cash</td>
<td>8.6</td>
</tr>
</tbody>
</table>
Time spent obtaining transfer
(hours per transfer)

- Ecuador, food: 2.2
- Ecuador, cash: 1.2
- Ecuador, voucher: 1.8
- Niger, food: 1.0
- Niger, cash: 1.0
- Uganda, food: 2.0
- Uganda, cash: 2.0
- Yemen, food: 1.2
- Yemen, cash: 2.2
Preferences for food, cash and vouchers
(Percent)

- Ecuador, food: 55%
- Ecuador, cash: 18%
- Ecuador, voucher: 7%
- Niger, food: 77%
- Niger, cash: 20%
- Niger, voucher: 3%
- Uganda, food: 56%
- Uganda, cash: 8%
- Uganda, voucher: 6%
- Yemen, food: 50%
- Yemen, cash: 16%
- Yemen, voucher: 49%
- All food: 79%
ADDITIONAL RESULTS
Additional Results

- **Nutrition, Uganda**
  - Stunting/wasting: No robust impacts of cash or of food transfers
  - Anemia: food transfers have no impact; evidence that cash transfers reduced anemia among preschool children in some age groups

- **Nutrition, Ecuador**
  - Anemia: neither food, cash or vouchers had any effect on anemia

- **Other results**
  - Virtually no evidence that beneficiaries sell their food rations (all countries)
  - No meaningful evidence that cash transfers are used for undesirable purposes such as buying beer (Uganda) or qat (Yemen)
  - No evidence that different modalities have differential impacts on intra-household decisionmaking or on social tensions between host and refugee communities (Ecuador)
  - Cash transfers improved selected ECD outcomes: visual reception, receptive language, expressive language (Uganda)
SUMMARY
Summary

1) In assessing alternative modalities, there needs to be explicit consideration of the trade-off between increasing quantity of food available and quality of diet
   - In three of four countries, cash had a relatively larger impact on improving dietary diversity
   - In two countries, food had a relatively larger impact on improving quantity of calories available

2) Delivery costs should receive much greater attention when assessing merits of food or cash
   - In these studies, the delivery costs of food dramatically reduced the number of potential beneficiaries
   - We perceive that cash costs can be significantly reduced

3) We found little evidence that cash had adverse impacts as measured by creation of social tensions, changes in intra-household decisionmaking, purchase of intoxicants
   - We did not systematically assess impact of cash on local markets; qualitatively, we found no adverse effects
Summary

4) Across a range of interventions in a variety of settings, cash transfers generally (but not always) proved as or more effective in improving WFP’s core food security indicator – FCS – while doing so at significantly less cost.

5) That said, it would be wrong to draw simplistic conclusions such as “cash is better than food”, “beneficiaries prefer cash” and so on.