

case
study

USING INNOVATION AND NEW TECHNOLOGIES TO IMPROVE CASH TRANSFER PROGRAMMING (CTP)



Photo 1: Electronic registration and distribution © IFRC

Photo 2: Scanning the barcode on the registration card © IFRC

Photo 3: ATM withdrawal using the IFRC stored-value card © IFRC

1. Overview

Experience and studies show that providing cash transfers to disaster-affected families empowers them to meet their diverse needs, provides a stimulus to the recovery of the local economy and is a cost effective way to deliver humanitarian assistance.

The IFRC is committed to providing multi-sectoral assistance through a range of suitable means including when appropriate, large scale cash transfer programming (CTP) in the immediate aftermath of disasters. Cash transfers need to be delivered safely and securely to the disaster-affected population and often this is best done through the selection and development of electronic transfer (e-transfer) systems which improves the quality and accountability of CTP and can complement in-kind assistance and other humanitarian services.

To establish e-transfer systems, National Societies and their IFRC counterparts must identify appropriate service providers, evaluate back-end systems, establish vendor contracts, develop Standard Operating Procedures (SOPs) and train staff; which can delay the provision of emergency assistance. In order to be better prepared to provide assistance rapidly to highly urbanized populations in Latin America and the Caribbean, IFRC has developed a universal e-transfer mechanism for cash (Visa stored-value cards) that can be utilized on a regional basis, in a secure and accountable manner.

In order to test the functionality of the system and community acceptance and use of the card, a field pilot was conducted in February 2015 in Jamaica. This was the second pilot of the system, that followed an internal test that was conducted with 50 cards distributed and used by IFRC staff in Panama in December 2014.

This field pilot included vulnerable households similar to those likely to receive assistance following a disaster and included Red Cross staff and volunteers who would manage such programmes. The purpose was to see if this e-transfer system for unconditional case based assistance was appropriate, easy to use and provided a way for households to meet their immediate needs. At the same time the pilot allowed IFRC to test the pairing of the regional stored-value card system with an electronic household registration and distribution tool and identified ways to refine and improve this system for use in future disaster responses.



Explaining to the targeted households how the stored-value card works.

2. Pilot overview

National society	Jamaica Red Cross
Objective(s)	<ul style="list-style-type: none"> • Meet the needs of the targeted households in an acceptable, appropriate and timely manner • Test the stored-value card system and supporting technology • Identify ways for IFRC to improve the procedures and tools prior to making the system available for regional use.
Duration	Two weeks - Week 1: Planning, distribution and encashment; Week 2: Monitoring and post distribution satisfaction surveys
Location	Kingston/ St Andrew Parish St Catherine Parish
Cost	Total cost of grants: CHF 7,928 (930,000 Jamaican dollars JMD) Percentage of financial service fee/cost of grants: ATM withdrawal CHF 4.64 (JMD 544) + 2% of the value of withdrawal, PoS 2% per cent of the value of the transaction
Main sector(s)	Multi-sectoral: Unconditional cash transfer for basic needs
Number of households	93 families
Household Selection criteria	As this was a pilot, households were selected in conjunction with the Ministry of Labour and Social Services (MLSS) which is the government agency responsible for social welfare. The households had either suffered a house fire, owned a small business that needed support or were part of a social safety net scheme.
Main activities	<ul style="list-style-type: none"> • Train staff and volunteers • Organise distribution sites and processes • Load and activate cards post-distribution • Conduct post-distribution monitoring activities
Key outcome(s)	<ul style="list-style-type: none"> • Households were able to choose how best to spend the cash grant to meet their immediate needs. • Perception of the stored-value card system was very positive in the selected communities. • Proved for IFRC and Jamaica Red Cross that stored-value cards are a viable and acceptable approach for CTP.
Number of staff involved	Jamaica Red Cross: 14 volunteers from branches in two Parishes . IFRC: 3 staff members from the Zone/Secretariat (Disaster Management & Innovation) and 1 person from University of Washington as technical support for Open Data Kit (ODK)

1. Administratively, Jamaica is divided into fourteen parishes which are grouped into three counties.

3. Pilot description

Context and pilot choice

The IFRC identified stored-value cards as a way of providing cash grants to families after a disaster and has a contract in place with a service provider that allows the cards to be shipped and used in 33 of the 35 countries in the Americas. To further test the applicability of this stored-value card approach on a regional basis, a field-based pilot needed to be conducted with Red Cross Red Crescent staff and volunteers and the families that would typically receive post-disaster assistance.

Factors that made Jamaica a conducive environment for the pilot:

- Representative of countries within the Zone, with a frequent occurrence of natural disasters many with Disaster Relief Emergency Fund (DREF) operations and Emergency Appeals (EA)
- Highly urbanized population with good banking infrastructure, (Automated Teller Machines (ATM) and Point of Sale (PoS) terminal accessibility) across the country and particularly within the capital Kingston.
- Jamaica Red Cross has previous experience with CTP, most recently in the response to Hurricane Sandy in 2012 supporting livelihoods through microfinance and also in conjunction with the International Committee of the Red Cross (ICRC) following civil unrest in Kingston in 2010.
- Government supportive of CTP and provides conditional cash transfers for its Programme of Advancement Through Health and Education (PATH)



Assessment and pilot design

Several types of innovation and technology that are relatively new to the humanitarian sector were piloted.

2. There are a number of different types of stored-value cards, the pilot used Visa cards which can be used anywhere that Visa is accepted

3. ODK is a free application that allows surveys to be created off-line and downloaded to smartphones or tablets. The collected data can then be uploaded and analysed.

- Visa² stored-value cards for the delivery of the cash grant from IFRC/Jamaica Red Cross to the family
- Open Data Kit³ (ODK) for the registration of the households and the distribution of the cards.
- Smartphones with Android operating system for use with ODK

Cash grant value rationale

The grant value was set at 10,000 Jamaican Dollars (JMD) which equated to CHF 85.25. The grant value was reached in conjunction with Jamaica Red Cross and was considered to be appropriate and complementary to the PATH conditional cash grant received by many of the registered households from the Government and was equivalent to around 1-2 weeks' pay for a low-income family.

Household selection

Based on geographical targeting, all households were in urban areas with good access to banks and shops with PoS terminals.

Households were informed that they were part of a pilot looking at a new way to deliver cash grants following disasters. Households were advised that the one-time distribution had no conditions on use and so they could choose how best to meet their most urgent needs.

Pilot implementation

The cards arrived in country via three routes: (1) Shipped by card provider; (2) Shipped by IFRC Zone Logistics Unit (ZLU) Panama; (3) Hand carried by the IFRC team.

In this case the quickest shipping routes were via the card provider, as they work through typical commercial channels, and by hand carrying the cards through the airport. Red Cross and Red Crescent societies as a humanitarian organisations have special channels for the importation of relief goods. New ways of providing assistance involving items such as stored-value cards, which are not exclusively humanitarian goods, will require work with the Customs at the national level to ensure such items are exempt from taxes and duty and cleared swiftly.

A household registration survey, containing five simple questions, was created off-line in ODK and downloaded to the smartphones. Surveys can be more detailed and complex, however increasing the number of questions increases the registration time. As this system deals with relatively low level⁴ grants, the only mandatory information required to set up a stored-value card is the name of the head of household.

During registration the survey was completed using the smartphone and each household was assigned a pre-printed registration card with a barcode number generated by the IFRC team. Each registration on average took 2 minutes to complete.

The only mandatory information to set up a stored value card is a name



Photo 1: Distribution: Scanning the barcode on the stored-value card envelope © IFRC

Photos 2 & 3: Selected families with the stored-value card they had just received © IFRC

4. As defined by financial regulations

Once all the families had been registered they participated in a training session that provided information, both verbally and via printed materials, on the stored-value cards; their purpose, how to use them, associated fees and how to resolve any issues. It was explained that the cards could be used at any ATM or PoS terminal affiliated with the Visa network.

Once the training session was finished the selected households proceeded to the distribution area. When the household member was called forward to the distribution desk they provided their registration card and the barcode on this was scanned using the smartphone's built-in camera. Their name and address was displayed on the screen of the smartphone and the Jamaica Red Cross volunteer could verify the identity of the person at the desk. The record also showed which stored-value card was assigned to that family. The card was picked, the barcode on the envelope scanned by the smartphone, handed over to the household and the distribution process, which on average took less than one minute per household, was complete.

Household Communications

Fee summary		
Fees	CHF	JMD
ATM Balance check	0.70	82
ATM Decline (insufficient funds)	0.70	82
ATM Decline (incorrect PIN)	0.70	82
ATM withdrawal transaction	4.64	544
ATM foreign exchange (of withdrawal)	2%	2%
PoS foreign exchange (of spend)	2%	2%

Sample ATM withdrawal		
ATM	CHF	JMD
Card load	85.25	10000
Balance check fee	0.70	82
Cash withdrawal	70.50	9000
ATM withdrawal fee	4.64	544
Foreign exchange fee (2%)	1.41	180
Total cash received	70.50	9000
Total fees	6.05	806
Remaining balance on card	8.70	194

The exit survey in which 26% of the recipient households were asked about their experience during the registration and distribution process showed most people (96%) felt that they had received sufficient information about the programme and the instructions were clear on how to use the cash and receive the cash grant. However only 75% of people knew how to make a complaint or provide feedback if they wanted to. All household members felt safe at the distribution and going back home with the card.

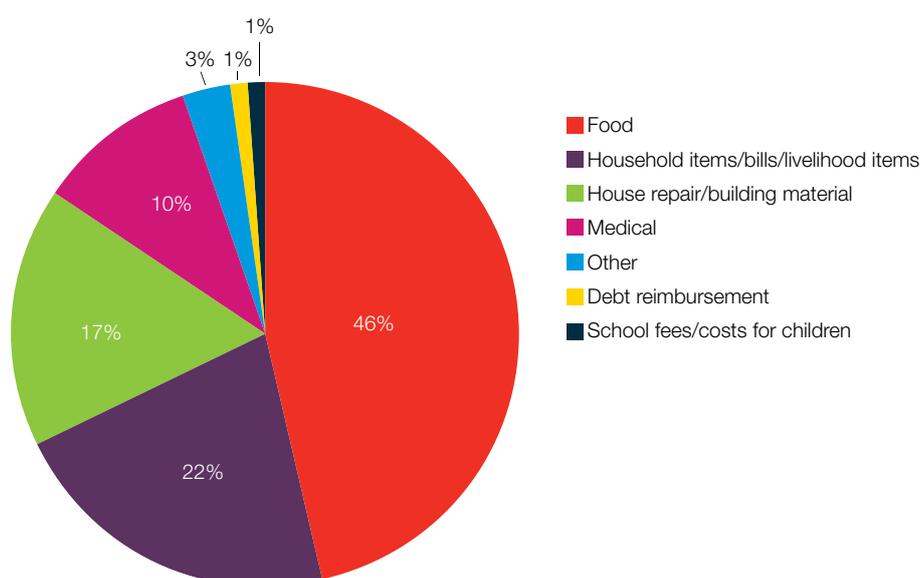
Jamaica Red Cross set up a telephone complaint and response mechanism with a focal point designated at each branch. When a call was received they would log the person's name, the 16-digit card number, the 3-digit security code and a brief description of the complaint or issue. This information was then shared with the IFRC team who were able to log on to the Visa card system, to review and provide the information necessary to resolve the issues.

Encashment process

One month after the distribution a card funding report from the financial service provider showed that on average 97% of the total grant amount had been either withdrawn or spent in shops. A small number of households (3%) had a balance of more than 1173 Jamaican dollars JMD (10 CHF). In most cases these households did not know how to check for the remaining balance. Follow-up instructions via telephone allowed households to access the remainder of the grant.

Even though the cash transfer was unconditional, in post distribution monitoring the households were asked how they spent the funds. The goods and services that households accessed with the cash transfer varied between households and spanned different sectors, which is similar to expenditure data for unconditional cash grants across the humanitarian sector. It is likely to be more difficult, time consuming and expensive to replicate these benefits via in-kind assistance in this context and in some cases, for example debt reimbursement, there is not an appropriate in-kind alternative.

Actual use of the Cash Grant



Pilot outcome

In total, IFRC provided a one-off unconditional cash grants to 93 households with a total grant of 930,000 JMD (CHF 7,928) which was used to cover a broad range of needs.

4. Cash-based programming facts

Total transfer amount per household	10,000 Jamaican dollars (CHF 85.25) per household in all targeted areas
Technology used	<ul style="list-style-type: none"> • ODK for electronic registration and distribution planning and tracking • Smartphones with Android operating system for use with ODK • IFRC branded Visa stored-value cards to distribute the cash grant
Number of payments	<i>One payment per household over the course of the pilot</i>
Modality	<i>Unconditional cash grant</i>
Delivery System	Cash transfer through third party (stored-value card distributed by the Jamaica Red Cross and cash withdrawn at ATMs or spent in shops with PoS terminals)
Method for setting value of the cash transfer	Based on 1-2 weeks' wages for a low income family and sufficient to cover basic needs and replace items and assets lost in a house fire or support a small business with materials and stocks.
Partners / service providers	Existing regional pre-agreement was in place with financial service provider for the stored-value card system.



Jamaica Red Cross volunteer using e-registration tools.

5. Challenges and lessons learned

REGIONAL STORED-VALUE CARDS COMPARED TO DIRECT CASH IN ENVELOPES IN AN URBAN CONTEXT		
	ADVANTAGES	DISADVANTAGES
Time	<p>Extremely quick to implement as the contract is in place, the cards in stock and SOPs written.</p> <p>Activation and loading of cards with funds takes only a few minutes to complete on-line.</p> <p>Using existing financial infrastructure e.g. ATMs means stored-value cards can be used as soon as they are activated and loaded with funds.</p>	<p>Requires a lot of training and support if the selected households are not familiar with using cards and the fee structure can be complicated to explain.</p> <p>May take more time for agencies to clear customs through special duty free channels as stored-value cards are not a uniquely humanitarian product.</p>
Scale	<p>System is easy and quick to scale up: loading currency onto a card can be completed in bulk by one person, distribution much quicker to issue and check off one card.</p> <p>Low card level grant value means the only mandatory information to set up a card is household name.</p>	<p>Large human resources component for training and support which will increase with scale up.</p> <p>Scale up of the distribution will be quick and easy but households may be slower to access funds if the training and support is not adequate.</p> <p>Not yet tested at scale.</p>
Cost	<p>Automated on-line processing saves time and human resources during distribution preparation even for scale up.</p> <p>Using existing financial infrastructure means no added cost to the programme.</p>	<p>Visa stored-value cards only available in four major currencies so foreign exchanges costs are incurred. Grant amounts may not be the same as planned due to fluctuations in exchange rates.</p> <p>Fees structures for card usage can be complicated to understand and are charged directly from the card so households may get a grant lower than intend if they incur more fees than is necessary.</p> <p>Some ATMs and PoS have minimum transaction levels; part of the grant may remain on the card unable to be accessed.</p>

REGIONAL STORED-VALUE CARDS COMPARED TO DIRECT CASH IN ENVELOPES IN AN URBAN CONTEXT		
	ADVANTAGES	DISADVANTAGES
Vulnerable Groups	Vulnerable groups including child-headed households who are under the legal adult age and those without official ID are not excluded from obtaining cards.	Some shops require official ID to be presented when using PoS and targeted households may not have or may have lost their IDs. Individuals with a lack of familiarity with the technology or who are illiterate may have difficulty using the system.
Security & Risk	Cards are durable, discreet and may reduce risk of theft minimising physical security risk for households. Cards have a stronger audit trail for better monitoring. Lost or stolen cards can be suspended and funds recovered by the household.	In-person support at ATMs is an area for potential fraud and corruption.
Reconciliation & Reporting	The on-line system and electronic reports makes it simpler for authorised users to access records and reports to confirm funds transferred and encashed.	Reporting is at the individual level and it is currently difficult to consolidate reports to get a programmatic overview. Requires internet connectivity.



Ensuring community members know how they can share any comments and concerns they may have during the project with Jamaica Red Cross.

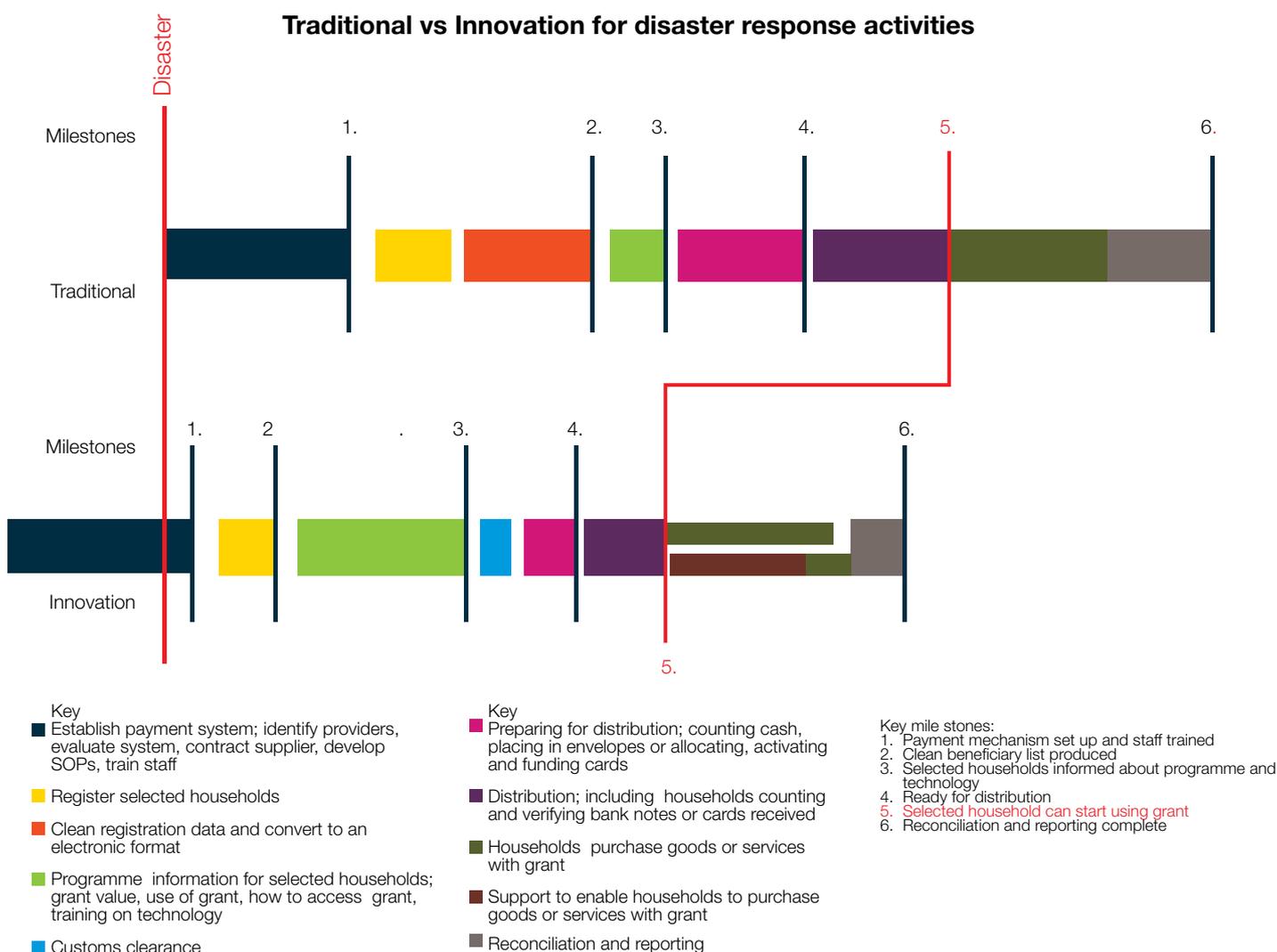
6. Recommendations

The key recommendations if a National Society plans to use the regional stored-value card system in the future:

- Provide additional training to staff and volunteers on the SOPs, ODK and the stored-value card system and invest in the equipment necessary for electronic registration and distribution (i.e. smartphones)
- Ensure a process for cards to be Customs cleared without delay.
- Prepare customised community training materials for stored-value cards.

The key recommendations for IFRC ahead of future deployments:

- Revise and update the stored-value card and programme information SOPs.
- Fine tune the existing programme information materials.
- Explore further the ways in which practical ATM training can be provided.
- Explore Customs procedures and the importation of empty stored-value cards.
- Explore reconciliation and reporting enhancements for bulk transfers with provider.
- Conduct a larger scale regional pilot (2000-3000 households).



Reflecting on our learning from the pilot:

The below infographic is indicative of some of the key practical steps in a disaster response operation. Only steps where innovation and technology has an influence have been included. The timeline is representative rather than absolute as it will vary according to context. The linear layout is for illustrative purposes.

In the traditional approach there is no established CTP delivery mechanism and this needs to be set up at the national level post-disaster. Registration and distribution is completed using paper-based and spreadsheet methodologies. The CTP system is cash in envelopes. It will take longer to prepare and distribute cash in envelopes but people are comfortable using cash and can begin spending immediately. The bottlenecks are setting up the mechanism which can be slow and preparing the distribution which can be labour intensive. Reconciliation and reporting can take much longer when using manual systems.

Using innovation, such a pre-agreed standardised CTP delivery mechanism, the system allows for immediate use⁵ once the in-country programme team has been trained. Registration and distribution is completed electronically using technology like ODK removing the laborious step of cleaning and transferring the data to an electronic format. The CTP system is stored-value cards. The bottlenecks are around the programme information to the selected households, as it can take longer to explain how technology such as stored-value cards are used. Some people who are familiar with ATMs and PoS can start spending immediately. However there can be a second bottleneck where people are unable to begin spending because they have difficulty accessing the funds. There is more of a support mechanism required to help these households. Reconciliation and reporting will be quicker as the information is already in an electronic and easy to access format.

The use of innovation and technology can streamline existing manual processes and speed up the distribution of cash-based assistance, but it can also create new challenges and will continue to require dedicated and trained human resources to deliver and support the programme.

5. If the assessment indicates that CTP is appropriate and the regional stored-value card system is the most suitable mechanism.



Further information can be obtained from:

Claire Durham
Senior Officer, Innovation
Telephone +41 (0) 22 730 4813
claire.durham@ifrc.org

Scott Dipretoro
Disaster Management Delegate
Telephone + 507 317 3050
scott.dipretoro@ifrc.org

www.ifrc.org
Saving lives, changing minds.

