

# FINANCIAL LITERACY FINDINGS AND RECOMMENDATIONS TABANGKO AND SIMULAKO PROGRAMS

Mercy Corps Philippines  
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## Project Background

Typhoon Haiyan, one of the strongest storms in recorded history, swept across nine provinces in the Philippines on 8 November 2013. The UN (United Nations) classified Haiyan as a category three disaster, the most devastating kind. More than 6,500 people have died and 1,700 are still missing. Over 13.2 million people – more than 10 per cent of the country’s population – was affected and more than 4.4 million people were displaced from their homes.

Access to cash and financial services was a primary concern for families affected by Haiyan. Throughout the Philippines, approximately 80 percent of the population is “un-banked” or “under-banked,” and nearly half of them earn USD \$2 or less per day. Lacking any safety net, and with short-term distributions from aid organizations winding down, families affected by Haiyan need money to sustain themselves during this transition and recovery period.

Mercy Corps supported typhoon-affected families by providing cash assistance, financial training and access to needs-based financial services including loans, insurance and savings products. Mercy Corps’ TabangKO program is an unconditional cash transfer program that uses a branchless mobile banking platform to disburse cash to disaster-affected families. SimulaKO, which means “my beginning,” is a financial inclusion program that builds on TabangKO’s cash disbursement platform. Mercy Corps will improve the financial literacy of typhoon-affected families and give them access to newly developed financial products.

Mercy Corps recognizes a financial inclusion program is not solely contingent upon access, but also requires financial capability, specifically financial education. With the growing interest to apply technology in financial services, it is equally important to take on efforts to bring about learning and increased confidence in using mobile phones and other similar technology devices to further widen outreach of financial inclusion in the Philippines, particularly in areas affected by Typhoon Haiyan.

*"I like the moral of the Ben and Joy story - it teaches us the value of thriftiness," says Manong Rogelio, Mercy Corps beneficiary in Eastern Leyte. "I remember when Joy had a relative who was sick and needed to borrow cash. If Ben and Joy didn't have any money saved, they could not have helped pay the hospital bills. That's why it is important to save for the future, not only to secure yourself but to be able to help others in your household too". Manong Rogelio used his cash assistance as capital for his mobile credit reloading business, one of the services available for BankO clients.*

## Program Brief

**IDEA:** As part of the financial literacy component of the program, Mercy Corps partnered with social enterprise engageSpark to provide global SMS /interactive Voice messaging, to engage with beneficiaries via their mobile numbers.

**INNOVATION:** Financial literacy via SMS / voice comprised of stories of Filipino couples. The messages were in the form of an ongoing dialogue between the couples about common household financial problems and a discussion on how they could resolve them.

**IMPACT:** Mercy Corps is collecting bank transaction data for beneficiaries from January 2014 to June 2015 to monitor any specific spikes in savings into beneficiary bank accounts (or any other specific financial product uptake) that are evident during the same period as the financial literacy messaging. While we may not be able to attribute this to Mercy Corps' messaging, it will provide a good basis for additional investigation, reporting and recommendations to the larger humanitarian community.

## Sample and Location

The financial literacy messages were sent out in three parts through October 2014 to April 2015 both in the form of voice and text messages.

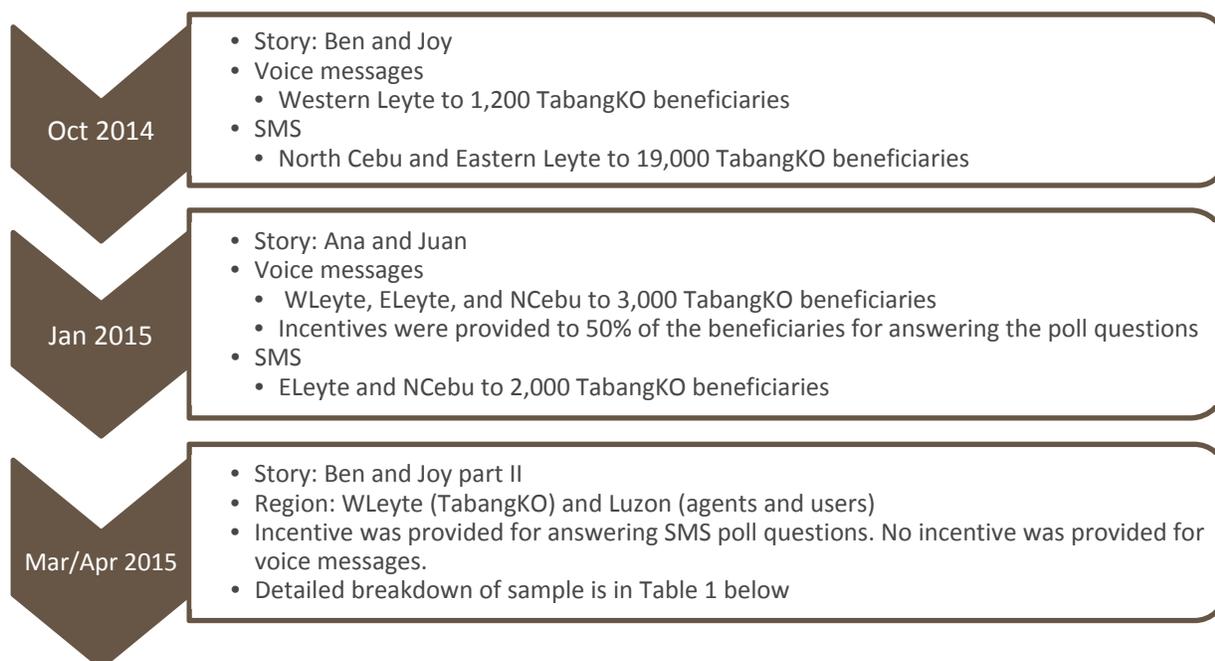


Figure 1. Timeline for financial literacy messaging for TabangKO and SimulaKO

For the last round of messaging on March and April 2015, SMS were sent out to three segments: (a) 300 Wleyte TabangKO beneficiaries; (b) 200 SAN agent-outlets and (c) 600 SAN agent end-clients from Luzon. Please refer to the preliminary sample distribution below for details:

Table 1. Sample distribution for the March/April financial literacy messaging

Segment	Group with airtime load incentive	Group without load incentive
Luzon agents	100	100
Luzon users	300	300
TabangKO users (Active)	75	75
TabangKO users (Inactive)	75	75
<b>SUBTOTAL</b>	<b>550</b>	<b>550</b>



The sample size for each of the messaging components was randomly chosen from the total list of beneficiaries under the TabangKO program. For Luzon beneficiary lists for agents and users were obtained from the Shared agent network (SAN) partners.<sup>1</sup>

## SMS vs Voice – Key Considerations

Voice	SMS/ text
Provide key management information data: <ol style="list-style-type: none"> <li>1. Best time to call beneficiaries (based on call pick up rates)</li> <li>2. Length of time beneficiaries listen to the call (to understand if they find the story engaging enough to listen to the entire message)</li> <li>3. Response rates vs. call pick up rates</li> <li>4. Response chosen</li> <li>5. Auto response on the right or wrong response based on the beneficiary's selection (educational)</li> <li>6. Free for beneficiary to respond to the poll question</li> </ol>	Management information is limited to: <ol style="list-style-type: none"> <li>1. Response rates</li> <li>2. Response choices</li> <li>3. Management information reporting is entirely dependent on whether or not a beneficiary responds to the poll question</li> <li>4. Cannot provide auto response on right / wrong option chosen;</li> <li>5. Beneficiary pays 1 peso to respond to a poll question</li> </ol>
Voice calls are pre-recorded by Mercy Corps staff and voice calls have an automatic retry option. If a beneficiary does not pick up his/ her phone the system automatically retries these numbers for a limited period of time.	SMS messages have no auto retry option. Text-based messages may not be suitable for people with poor literacy, however, the messages were sent in local languages).
Voice messages cannot be stored and listened to later.	SMS messages can be saved and shared with friends and family to increase awareness.
Receiving the message depends on telecom network reliability.	Can be stored on the network and sent to beneficiary for up to 24 – 48 hours later.

Target recipients	Story 1: Ben and Joy	Story 2: Ana and Juan
SMS/ text	19,956 beneficiaries 6,987 with a poll question 12,978 did not receive a poll question	1,999 beneficiaries SMS with incentive: 998 SMS without incentive: 1,001 All beneficiaries received a poll question
Voice	1,226 beneficiaries All 1,226 beneficiaries received a poll question	3,180 beneficiaries Voice with incentive: 998 Voice without incentive: 2,181 <sup>2</sup> All beneficiaries received a poll question
Number of poll questions	11	5

<sup>1</sup> 0.25 standard deviation change was taken from the mean of nationally reported hunger index. And alpha of 0.05 and a beta/power of 0.8 was taken.

<sup>2</sup> Mercy Corps is conducting a randomized control trial in Western Leyte and hence 1,226 beneficiaries in Western Leyte were not included in the voice with incentive group to ensure this test did not dilute any larger findings.

## Stories in a Nutshell

*Note: a full transcript of all the stories is available on the Digital Library.*

Story 1	Emergency and Budgeting	Story 1 traces the life of Joy and Ben. As a poor couple, they barely make ends meet and sudden unplanned expenses mean a terrible strain to their financial situation. Fortunately, Joy has a 'mysterious' box containing several items. These items will become the key to solve each problem as they become relevant during the story. The main lesson is that Joy's attitude towards saving helped them get over their situations. In the end, Ben adopts the same healthy habit for both of them.
Story 2	Gambling and Budgeting	Story 2 is about the life of Juan and Ana, a newlywed couple who dream of a financially successful life. Even though the couple are in difficult times, they were full of plans for a better future. But a deep secret has been a hindrance to the dreams yet fulfilled.
Story 3	Savings and Insurance	Story 3 continues the story of Ben and Joy, neighbors' of Ana and Juan. Like Ana and Juan, they also barely make ends meet. Ana was now an insurance agent and she just offered them insurance. Ana felt it was good for them; Juan thought it was expensive and unnecessary. Fortunately for them, they agreed to get insurance right before a storm hit, which led to an accident in the family. The main lesson is that Ana's attitude towards insurance helped them prepare for emergencies and sudden expenses. In the end, Juan adopts the same healthy habit. <i>Note: This story used to feature Rita and Pepe as the main characters, but their names have since been changed to Ben and Joy.</i>
Story 4	The use of electronic wallets for conducting financial transactions of the household.	Story 4 continues the story of Juan and Ana, with their kids, Jak and Jil, who are in college. As their family grew bigger, so did their expenses. Fortunately, Jak and Jil discovered how to pay their bills, buy airtime load and collect remittances faster and easier by just using their mobile phone. The main lesson is that the kids' attitude towards technology helped them find better ways to pay and buy things. In the end, Juan and Ana are convinced to also try using their mobile phones just like a wallet, and not just for calling and texting.
Story 5	Remittances	Story 5 tackles the user journey of Juan and Ana in sending and receiving remittances; Juan got a job on a ship but he did not know the best way to send money home. Fortunately, Ana discovered a new, faster way of receiving remittances. The main lesson is that the couple's attitude towards alternative ways of doing money transfer helped them cover an unexpected expense and save up for their business.

## Key Findings

### First round of messaging

STORY 1: Ben and Joy

**This story introduced the importance of household budgeting and saving for unplanned exigencies.**

Voice & SMS poll results: Ben and Joy - Story 1				
Poll type	Voice Poll reports		SMS Poll reports	
Poll groups	Voice Poll recipients in all locations with 1,226 recipients x 11 poll questions		SMS Poll recipients in all locations with 6,987 recipients x 11 poll questions	
	Total count	% of Total	Total count	% of Total
Total number of responses	5,011	37%	3,464	5%
Of which valid responses	2,327	46%	2,263	65%
Of which invalid responses	2,684	54%	1,201	35%
Accuracy rate(valid responses)	1,668	72%	1,685	74%

Peak Response time:	Count of ans
<b>11:00 AM</b>	<b>507</b>
<b>2:00 PM</b>	<b>449</b>
<b>9:00 AM</b>	<b>309</b>
<b>10:00 AM</b>	<b>302</b>
<b>12:00 PM</b>	261
<b>3:00 PM</b>	225
<b>1:00 PM</b>	221
<b>6:00 PM</b>	220
<b>7:00 AM</b>	220
<b>4:00 PM</b>	189
<b>8:00 AM</b>	175
<b>5:00 PM</b>	119

### Key findings following Story 1:

1. Response rates for voice were considerably higher at 37.2% compared to SMS response rates at 4.5%;
  - a. Cost to beneficiary response rates for SMS may likely impact response rates
2. SMS had a higher valid response rate at 65% compared to 46% for voice; Response validity is calculated if a beneficiary presses an invalid key e.g. # instead of the number 3;
  - a. Poll questions are stored on the beneficiary's phone, so it is easier to read the question again, and choose the right response; With voice, poll questions and response options are recorded and played immediately after the message which may cause a higher invalid response rate. If the system does not detect a response, the poll question and response options are played back at least 3 times.



3. Response accuracy rates that measure the beneficiary's application of the key financial literacy concepts introduced in the story were only marginally higher for SMS at 74.5% compared to voice at 72%;
4. Beneficiary call pick up rates were highest between 9 am to 11 am and once again at 2 pm.
  - a. 54% of Mercy Corps beneficiaries are women, which may explain the preference for these specific times to receive the voice messages.

### Second round of messaging

STORY 2: Ana and Juan

**This story focused on a common vice of gambling.**

Mercy Corps undertook a randomized testing for Story 2 (Ana and Juan) to understand if beneficiaries had a specific preference for voice messages compared to SMS. In order to level the playing field between voice and SMS, Mercy Corps introduced an incentive for 50% of beneficiaries under each category. The incentive comprise of 20 Pesos of phone credit for a randomly selected 50 beneficiaries who responded to all the poll questions under both categories.

Voice & SMS poll results: Ana and Juan - Story 2								
Poll type	Voice Poll reports				SMS Poll reports			
Poll groups	Voice <u>incentive</u> group with 999 recipients x 5 poll questions		Voice <u>no incentive</u> group with 2,181 recipients x 5 poll questions		SMS <u>incentive</u> group with 998 recipients x 5 poll questions		SMS <u>no incentive</u> group with 1,001 recipients x 5 poll questions	
	Total count	% of Total	Total count	% of Total	Total count	% of Total	Total count	% of Total
Total number of responses	1,065	21%	2,132	20%	173	3%	149	3%
Of which valid responses	998	94%	2,020	95%	135	78%	118	79%
Of which invalid responses	67	6%	112	5%	38	22%	31	21%
Accuracy rate(valid responses)	854	86%	1,667	83%	123	91%	104	88%

Peak Response time:	Count of ansv
4:00 PM	1545
10:00 AM	1066
11:00 AM	664
5:00 PM	419
2:00 PM	358
3:00 PM	227
6:00 PM	200
12:00 AM	183
1:00 PM	167
7:00 PM	131
8:00 PM	33
9:00 PM	17

### Key findings following Story 2:

1. Voice messages had a consistently higher response rate at an average of 20.4% compared to SMS 3.2%;
2. Voice response rates for the group with incentive category was only marginally higher at 21.3% compared to 19.6% for the non-incentive category;
3. Validity of responses on the second story was considerably higher for voice at 94% compared to SMS at 79%;
  - a. This may likely indicate that beneficiaries were more used to responding to voice polls this time around;
4. Accuracy of responses for SMS messages were higher at 90% compared to 84% on voice;
5. Beneficiary call pick up rates were highest between 10 am to 11 am and once again at 4 pm:
  - a. 54% of Mercy Corps beneficiaries are women.

### Third round of messaging

STORY 3 and 4: Ana and Juan (part II)/ Jak and Jil

**The story focuses on the use of mobile wallet to easily receive money and make payments. And the second part of the story focuses on the usefulness of insurance to prepare for emergencies and meet sudden expenses.**

As part of the Simulako Program, in particular under the Shared Agent Network Initiative, Mercy Corps worked with engageSPARK in deploying SMS (short messaging service)-based financial literacy messages to TabangKO beneficiaries in Western Leyte and agents and users from the Shared agent network (SAN) in the Luzon region. In addition to SMS or text messages, voice messages were also used to provide financial literacy information to the beneficiaries. The objective of this engagement is to further gather information from target recipients to be able to validate content and identify the best delivery strategies for a financial education program.

Key findings from this engagement will be used to inform the SAN partners in designing a financial education program for both end-users and agents aimed at increasing uptake and use of digital payment services, especially through mobile phones for carrying out banking transactions.

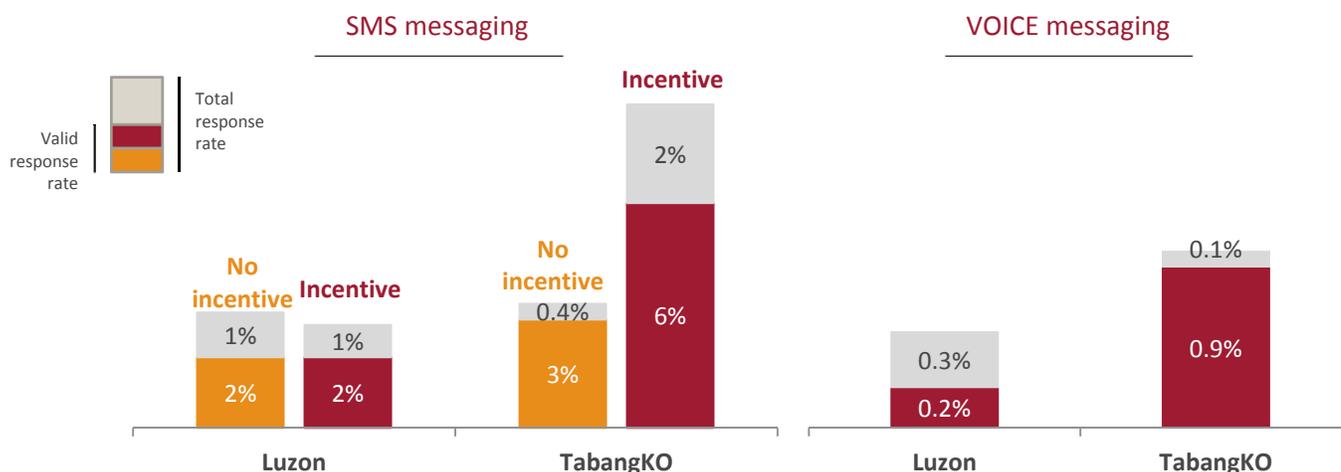


Figure 2. Response rate for SMS and Voice messaging among Luzon agents and users and TabangKO beneficiaries



From Figure 2 it can be seen that the overall beneficiaries responding to the poll questions is much higher for SMS messaging compared to voice messages. This is in contrast with previous two rounds of messages where the response rate was higher for voice calls. Response rate is even lower for Luzon based beneficiaries. This may be because this was the first time these beneficiaries are receiving such financial literacy messages and are not used to service; they were also not part of any sustained engagement with Mercy Corps, so these were essentially “cold calls”. Whereas the TabangKO beneficiaries in Wleyte have been exposed to this mode of delivering messages for the past couple of months and had months of expose to Mercy Corps and were beneficiaries of other programs. The proportion of correct answers was also significantly higher for the TabangKO beneficiaries; almost all the responses were correct (0.9 out of 1 percent).

An incentive scheme was provided for the beneficiaries receiving text messages of PHP 75 (USD 1.7) airtime credit. The provision of incentive had no effect on the beneficiaries in the Luzon area. However the TabangKO beneficiaries responded positively to the incentive. Five percent more beneficiaries responded to the poll questions and the proportion of valid or correct answers was also higher for the beneficiaries receiving incentives (6 percent).

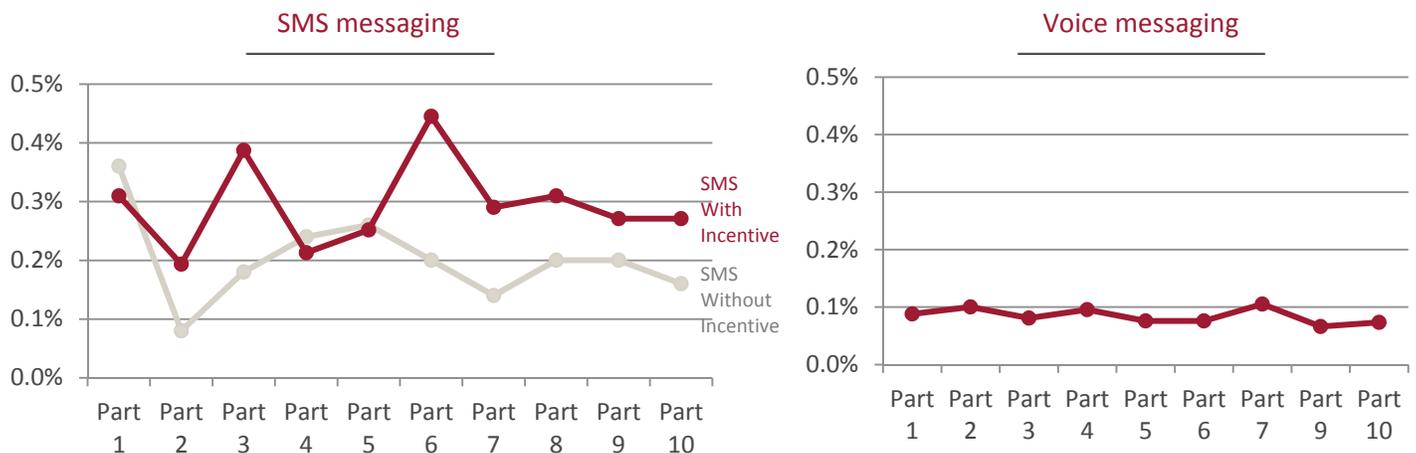


Figure 3. Valid response rate by each episode of messages aired, for both SMS and voice

A total of 10 episodes were aired for both the voice and text messages for the two regions. It was assumed that the response rate would improve with later episodes as beneficiaries will be familiar with the message delivery system and the poll questions. However, overall response rate has remained similar across all the episodes with small fluctuations in between. It is the same case for both SMS and voice messaging (Figure 3). For voice message response rate was lower compared to SMS. Overall response rate was higher for the SMS messages with provision for incentives compared to the non-incentive option.

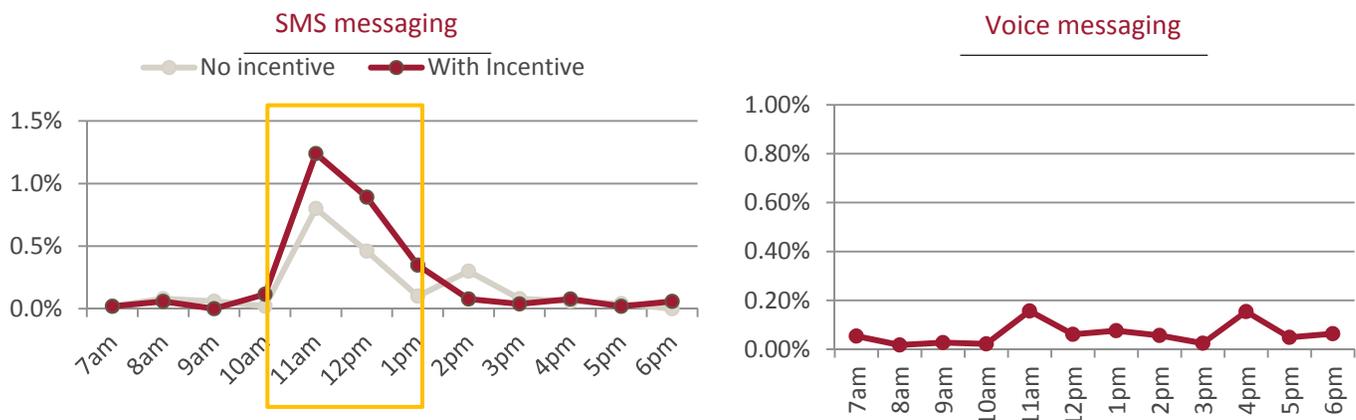


Figure 4. Response rate according to time of call pick up for both SMS and voice

The highest number of responses was received during late morning between 11am and 1pm for text messages and for voice messages, there is a slight peak in the morning at 11am and 4pm in the evening indicating free time slots after finishing the work in the field (Figure 4). This finding is in line with the timeslots identifies from the previous rounds of messaging.

A new feature added, was the option to opt out of the messaging service, which was included in the third round out messages. This was included particularly for the SMS messaging service. Among the beneficiaries who responded to the SMS poll question around 50 percent of them requested to opt out of the service from the Luzon region, expressing limited interested in the financial literacy messages (Figure 5). However, none of the beneficiaries requested the opt-out service from the TabangKO program. This may be due to fact that the TabangKO beneficiaries were familiar with the service whereas the Luzon beneficiaries had limited knowledge and failed to see the value in it. Introductory messages are therefore crucial and should be sent out to the beneficiaries before sending the financial literacy messages to increase understanding and response rate of the messages.

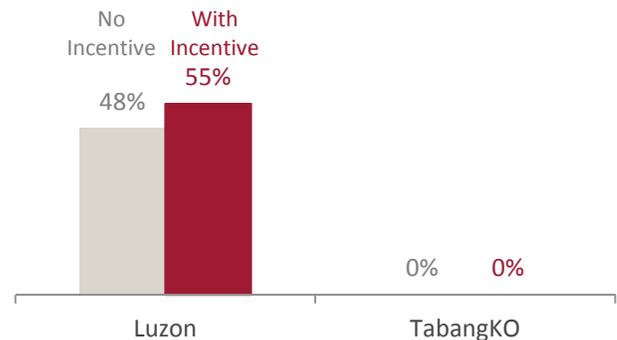


Figure 5. Percent of responded beneficiaries who opted out of the SMS service

## Overall Recommendations

Based on the poll results for the financial literacy stories above, Mercy Corps recommends the following:

1. Overall, data indicates voice messages have a better response rate (which has a direct ability for Mercy Corps to measure against transaction data to see any correlations) and are a better option to introduce key financial concepts (stories). It provides a fun, engaging and interactive medium to engage with beneficiaries with lower literacy levels, and responding to poll questions is free so will have a higher response rate. However for the new beneficiaries (in the case of Luzon) SMS messaging showed higher response, as the beneficiaries are more urban and familiar with the SMS delivery system.



2. To provide increased awareness, provide beneficiaries with a second try if they press the wrong response option on the first try (following the auto voice message play back that their choice was the wrong option);
3. Mornings between 9 am to 11 am and once again between 2 pm to 4 pm are good times to initiate voice messages for women beneficiaries.