A Randomized Controlled Trial on the Impact of Small Cash Incentives on Attendance in Poverty Alleviation Program in the Philippines

Study Overview & Key Findings

This randomized controlled trial evaluated the impact of small financial incentives (USD 2 per participant) on attendance in International Care Ministries' *Transform* program. The study compared a *Transform Only Control* arm against two intervention arms with financial incentives: individual USD 2 cash grants (*Transform with Individual Cash Grants*) and savings group grants — pooled USD 40 grants shared within a savings group, equalling about USD 2 per participant (*Transform with Savings Group Grants)*. The study included 9,300 participants across 310 Philippine communities.

Key Findings:

- **Small financial incentives significantly improved attendance**, with both individual and savings group grants boosting attendance compared to *Control*, especially in the program's early stages.
- **However, when analyzing only first-session participants, results become less conclusive,** with some models showing savings group grants maintained significant attendance effects while others found no significant effects for either treatment.
- **Small financial incentives reduced dropout rates,** defined as three consecutive absences. The protective effect of individual grants was only significant in the full sample analysis, while savings group grants maintained significance across both full and subsample analyses.
- **Neither incentive structure effectively targeted early versus late program dropouts**.

Background & Significance of the Study

Poverty remains a critical development challenge requiring effective anti-poverty programs. International Care Ministries (ICM) works with households living on less than USD 2.15[1] per person per day through its 15-week, classroom-based health and livelihood program—*Transform*. However, programs such as *Transform* experience delays or participant relocations that contribute to high attrition rates and undermine their potential impact (Walelign, 2016; Schelzig & Jilani, 2020). In *Transform*, only 61% of participants complete the program, 9% never engage, and 17% drop out in the first half. Despite allowing replacements for absent participants, high attrition remains a critical concern.

As a response, ICM has increasingly explored the role of financial incentives in boosting program attendance and reducing attrition. Studies support that financial incentives can improve participation rates across contexts: USD 25 incentive improved diabetes prevention program participation (Desai et al., 2020), USD 20[2] to 356 incentives in Mexico and Nicaragua improved health activities and school attendance (Brenzel et al., 2007; Moore, 2009; Neufield et al., 2011), and USD 15 per session effectively improved program attendance among parents (Gross and Bettencourt, 2019).

However, few studies directly address attrition in poverty alleviation contexts using small-value incentives. This study fills this gap through a randomized controlled trial of ICM's *Transform* program in the Philippines, examining how small financial incentives impact attendance and dropout rates. The research hypothesizes that even modest incentives of USD 2 will significantly improve program completion rates, potentially delivering high returns on investment when participants receive the program in full.

[1] The World Bank Group recently provided an updated poverty line of $3 per person per day following a new purchasing power parities released by the International Comparison Program. However, global poverty line was at $2.15 at the time of RCT implementation.
[2] Impact evaluation for *Oportunidades* covered October 1997 to May 1998. The USD approximation cited used the average exchange rate from 1998.

Study Objectives

This study evaluates whether small financial incentives—either individual USD 2 cash grants versus pooled USD 40 savings group grants—can improve attendance and reduce dropout rates in the *Transform* program. Additionally, it aims to determine which specific incentive structure more effectively promotes program completion, offering insights into the impact of small cash incentives, optimal grant structure, and the overall viability of cash grants in sustaining participant engagement throughout the program. Findings will inform ICM's future program strategies and contribute to the broader evidence base on the use of financial incentives to enhance participation in anti-poverty programs.

Methods

A cluster randomized controlled trial (RCT) was conducted across 310 communities in 11 Philippine provinces from May to August 2021, during the COVID-19 pandemic and related lockdowns. Communities were blinded and randomly assigned to: (1) ***Transform Only (Control)*** with food pack incentives for perfect attendance, (2) ***Transform with Individual Cash Grants (Treatment 1)*** of USD 2 for attending at least 11 out of 14 sessions; and (3) ***Transform with Savings Group Grants (Treatment 2)*** of USD 40 if at least 25 out of 30 group members attended 11 out of 14 sessions.

ICM used its standard selection process, with local pastors helping identify the 30 poorest households per community using a poverty assessment tool. Participants were enrolled upon consent, and proxies (household members who attended *Transform* on behalf of the original participants) were allowed if they met eligibility criteria. Upon program start, participants were briefed on their group's specific incentive structure.

The study measured three main outcomes: (1) **Increased *Transform* attendance** through weekly session attendance, (2) **Increased participant retention** through the number of weekly consecutive sessions attended, and (3) **Reduced dropout rates** through the number of unique participants who stopped attending before program completion. To capture different aspects of participant engagement, data from ICM's operational monitoring were analyzed using linear regression and linear probability models at both participant and community levels. The study was an internal evaluation supported by the Global Innovation Fund, with randomization conducted by Innovations for Poverty Action (IPA), and did not require ethics approval.

Results

Participant Flowchart

9,300 participants from 310 communities were randomized: 104 communities (3,120 participants) to *Control*, 103 communities (3,090 participants) each to *Treatment 1* and *Treatment 2*. Substantial participant dropout occurred across all groups during the study, resulting in the loss of 18 *Control* communities, 15 *Treatment 1* communities, and 18 *Treatment 2* communities, representing 15 to 17% of communities respectively. The final analysis included 7,643 participants, representing 82% of the originally intended study sample.

Analysis Results

Attendance

The first study objective is to determine whether *Transform* participants' weekly attendance improved in the *Treatment* groups compared to the *Control* group. Specifically, we aim to address the question: Did the probability of attending *Transform* sessions differ significantly between the *Treatment* groups (*Transform with Individual Grant* and *Transform with Savings Group Grant*) and the *Control* group?

Impact of Incentives on Attendance Across All RCT Participants

The initial analysis examined the incentive effect on attendance among all enrolled RCT participants. As shown in Table 1.1, both grant types significantly increased session attendance in the 15-week program. On average, *Treatment 1* participants attended 0.798 more sessions (p<0.01) and *Treatment 2* participants attended 0.949 more sessions (p<0.001) than the *Control* group.[3] Additional analysis on the percentage of enrolled participants who attended each session[4] revealed that both grant types maintained higher attendance compared to the *Control* group across all program weeks (Appendix 1.1). Within this analysis, *Treatment 1* showed a statistically significant positive effect on Week 1 attendance (p<0.05), with rates 6.479 percentage points higher than the *Control* group.

Table 1.1*. Impact of treatment on participant attendance (All RCT participants)*

	Total sessions attended (out of 15)[1]	Week 1 participant attendance (%) [2]
Treatment 1 (Individual)	0.798**	6.479*
	(0.323)	(3.278)
Treatment 2 (Group)	0.949***	4.395
	(0.321)	(3.264)
Control	7.001**	56.78***
	(0.228)	(2.354)
# of Observations	7,488 Participants	286 Communities

† p < .10 , * p < 0.05, ** p < 0.01, *** p < 0.001

[1] *Standard error in parentheses is clustered at the community level*

[2] *% of RCT participant attendance = total RCT participant attendance in week X / total RCT participants*

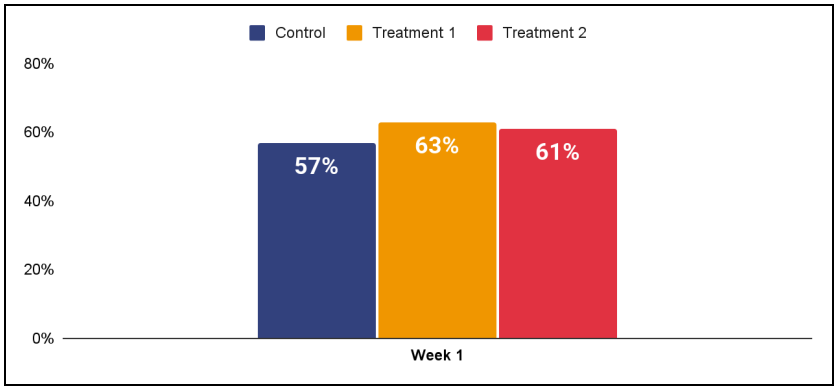
First-Week Attendance and Incentive Disclosure

However, this raises an important question regarding the timing of incentive disclosure. While the study ensured data quality check procedures, *Treatment* groups showed higher Week 1 attendance despite incentives not being scheduled for disclosure before the first session (Figure 1.1). Regression results (Table 1.1) confirm this pattern: *Treatment 1* participants attended at significantly higher attendance rates at Week 1 (+6.48 percentage points, p<0.05), while *Treatment 2* showed a positive but non-significant increase. These findings raise questions about whether attendance was influenced by incentive leakage or by chance. If incentive information leaked prior to the first session, all-participants analysis provides the most accurate estimate of treatment effects, as all participants were exposed to treatment information. However, if Week 1 differences occurred by chance, a secondary analysis focusing only on participants who attended the first *Transform* session (first-session participants) may provide a more accurate estimate of treatment effects.

Figure 1.1 *Average Week 1 attendance of all RCT participants for each community*

[3] Analysis uses a linear probability model with participant-level data from "completed" communities where at least one participant attended the final *Transform* session, with 15 data points per participant (one for each program week).

[4] The percentage of RCT participants who attended each week was calculated by dividing the total number of attendees by the total number of RCT participants.



Impact of Incentives After Excluding Non-Starters (First-Session Participants Only)

When restricting analysis to first-session participants, only *Treatment 2* maintained a statistically significant impact on attendance (p<0.01), while *Treatment 1* showed no significant effect. Appendix 1.2 corroborated these results, yielding non-significant, often smaller or negative, coefficients, indicating minimal incentive effects on weekly participant attendance percentages among participants who initially engaged with the program. However, these findings must be interpreted cautiously as restricting analysis to first-session attendees eliminates nearly half of the participant sample, potentially reducing statistical power and limiting the ability to detect broader treatment effects.

Table 1.2 *Impact of treatment on participant attendance (First-session participants only)*

	Total sessions attended (out of 15)
Treatment 1 (Individual)	0.0884 (0.363)
Treatment 2 (Group)	0.815** (0.354)
Control	9.891*** (0.251)
# of Observations	4,632 Participants

† p < .10 , * p < 0.05, ** p < 0.01, *** p < 0.001. *Clustered standard error at community level in parentheses.*

Attrition

The second study objective is to evaluate treatment effects on participant attrition (measured by the probability of dropping out or missing 3 consecutive program weeks). Specifically, this section aims to address the question: Did the probability of becoming a dropout differ significantly between the *Treatment* groups (*Transform with Individual Grant* and *Transform with Savings Group Grant*) and the *Control* group?

Impact on Transform Dropouts

When analyzing dropout rates for all RCT participants (including those who never attended any *Transform* session), Table 2.1 showed that the likelihood of becoming a dropout was 5.97 percentage points lower for *Treatment 1* and 5.57 percentage points lower for *Treatment 2* compared to *Control* (p<0.05). This suggests that both grant types were modestly effective in reducing dropout rates among all participants, with *Treatment 1* showing a slightly stronger effect in preventing dropouts than *Treatment 2*. However, among first-session participants only, *Treatment 2* reduced dropout likelihood by 6.51 percentage points (p<0.05), while *Treatment 1*'s effect was no longer statistically significant.

Table 2.1 *Impact of treatment on the likelihood of dropping out of Transform*

	All RCT participants	First-session participants only
Treatment 1 (Individual)	-0.05969* (0.02714)	-0.02160 (0.03287)
Treatment 2 (Group)	-0.05573* (0.02767)	-0.06514* (0.03259)
Control	0.55469*** (0.05739)	0.32232*** (0.05619)
# of Observations	7,643	4,732

† *p < .10, * p < 0.05, ** p < 0.01, *** p < 0.001. Clustered standard error at community level in parentheses.*

Impact on Early vs Late Dropouts

Additional analysis examined whether treatments reduce early dropouts (missing more than three consecutive sessions in the first half of *Transform*) and late dropouts (missing more than three consecutive sessions in the second half) and how each grant type impacts attrition patterns. Early dropouts may signal initial program barriers or disengagement, while late dropouts could reflect ongoing engagement challenges.

As shown in Table 2.2, neither treatment showed statistically significant effects on early or late dropout rates across either the full RCT sample or first-session participants. Notably, the *Savings Group Grant* consistently showed larger negative coefficients, suggesting potential reductions in both early and late dropout rates, though these effects did not reach statistical significance. The lack of timing-specific effects suggests that financial incentives, while reducing overall attrition, were not more effective at addressing disengagement during any particular program stage.

Table 2.2 *Impact of treatment on early and late dropouts*

	All RCT participants		First-session participants only	
	Early Dropout	Late Dropout	Early Dropout	Late Dropout
Treatment 1 (Individual)	0.01493 (0.02332)	-0.00517 (0.00694)	-0.00739 (0.03234)	-0.01420 (0.01017)
Treatment 2 (Group)	-0.02626 (0.02269)	-0.00728 (0.00698)	-0.05119 (0.03126)	-0.01395 (0.00999)
Control	0.21816*** (0.03663)	0.01729* (0.00732)	0.30335*** (0.05359)	0.01898* (0.00942)
# of Observations	7,643	7,643	4,732	4,732

† p < .10, * p < 0.05, ** p < 0.01, *** p < 0.001. *Clustered standard error at community level in parentheses.*

Discussion

This study examined the effects of two incentive-based strategies on program attendance and attrition. Both grants improved attendance and reduced dropouts, particularly in the early stages and when including all RCT participants. The analysis revealed varying impacts across different engagement aspects.

Attendance

Week 1 attendance was higher among *Treatment* groups, even before incentives were officially disclosed, suggesting that participants may have been aware of the incentives beforehand. When looking at the full RCT sample, *Treatment* communities showed higher attendance rates throughout the program. However, the attendance effects were substantially reduced among first-session attendees, with treatment effects in subsequent weeks weakening or becoming negative.

Overall, the *Individual Cash Grant* was most effective at boosting Week 1 attendance, indicating effectiveness in initial participation but showed limited sustained impact over time. These effects largely disappeared when analyzing only participants who attended the first session, suggesting the primary benefit was in encouraging initial participation rather than sustaining engagement among those already involved. While both grant types increased *Transform* session attendance, the *Savings Group Grant* showed more consistent effects, maintaining statistical significance across both analytical approaches. Nevertheless, both *Treatments* showed higher attendance rates compared to the *Control* group.

Attrition

Both grant types also demonstrated overall reductions in dropout rates compared to the *Control* group when analyzing all RCT participants, suggesting both incentive structures had protective effects against program attrition. However, only the *Savings Group Grant* maintained its protective effect against dropouts among first-session participants.

Neither incentive structure effectively targeted timing-specific dropout patterns, suggesting that incentives reduced dropouts uniformly rather than preventing attrition at particular program phases.

Study Limitations

A key study limitation is the variability in results across model adjustments. While both grant types generally increased attendance compared to *Control*, the results were not consistently significant. Among first-session attendees, the findings became less clear. Only the *Savings Group Grant* showed significant attendance increases in some models, while both grants had negative, though non-significant, coefficients in the other models. The potential sensitivity to results suggests that further refinement is needed.

Final Conclusions

This study examined the differential impacts of two incentive-based intervention strategies on program attendance and attrition. Both incentive strategies offer distinct advantages in promoting program engagement.

The *Individual Cash Grant* increased attendance and protected against dropouts primarily through a significant boost in initial attendance during Week 1 (assuming some incentive leakage), but this effect diminished over time. The lack of significant attendance effects among first-session participants indicates individual grants being more effective in boosting program entry rather than ongoing engagement.

In contrast, the *Savings Group Grant* demonstrated more consistent effects. It significantly improved attendance and maintained protective effects against dropouts across both analytical approaches, though these results were not uniformly robust across all model specifications. This suggests that group-based incentives might have been more effective in boosting overall program engagement.

While both incentive structures reduced overall attrition, they showed no differential effectiveness against early versus late program disengagement. Given these mixed but promising findings, particularly for group-based incentives, further research is warranted to optimize small financial incentive approaches and explore complementary strategies that could enhance both initial participation and sustained engagement in poverty alleviation programs.

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Appendix

Appendix 1.1 Impact on % of participant attendance for all RCT participants

	W1	W2	W3	W4	W5	W6	W7
Treatment 1	6.479* (3.278)	6.687 † (3.508)	1.061 (3.365)	2.753 (3.339)	1.812 (3.413)	3.652 (3.379)	6.520 † (3.436)
Treatment 2	4.395 (3.264)	5.366 (3.403)	0.268 (3.359)	5.444 (3.368)	4.873 (3.328)	4.193 (3.240)	5.124 (3.279)
Control	56.78*** (2.354)	55.53*** (2.542)	55.86*** (2.410)	52.12*** (2.396)	50.03*** (2.505)	49.76*** (2.360)	46.80*** (2.407)
# of Observations	286	278	276	264	262	261	262

Appendix 1.1 Impact on % of participant attendance for all RCT participants (Continued)

	W8	W9	W10	W11	W12	W13	W14	W15
Treatment 1	5.772 † (3.301)	4.936 (3.317)	4.340 (3.269)	5.338 (3.319)	5.412 † (3.241)	4.634 (3.456)	3.807 (3.365)	3.016 (3.338)
Treatment 2	5.151 (3.161)	3.809 (3.255)	4.386 (3.160)	5.177 (3.225)	4.768 (3.297)	3.417 (3.403)	4.986 (3.503)	6.023 † (3.321)
Control	45.74*** (2.370)	45.78** (2.426)	44.64*** (2.338)	45.40*** (2.428)	44.54*** (2.391)	45.08*** (2.542)	45.98*** (2.513)	49.52*** (2.407)
# of Observations	261	261	261	260	260	259	260	258

% of RCT participant attendance = total RCT participant attendance in week X / total RCT participants
Standard error in parentheses; † p < .10 , * p < 0.05, ** p < 0.01, *** p < 0.001

Appendix 1.2 Impact of treatments on attendance - % of participants who attended first session

	W1	W2	W3	W4	W5	W6	W7
Treatment 1	0 (.)	-0.538 (3.125)	-4.543 (3.208)	-2.115 (3.322)	-3.435 (3.526)	-0.351 (3.566)	1.788 (3.679)
Treatment 2	0 (.)	4.627 (2.907)	-1.206 (3.051)	4.050 (3.051)	4.197 (3.234)	2.559 (3.297)	2.892 (3.433)
Control	100 (.)	80.17*** (2.300)	74.80*** (2.193)	70.01*** (2.225)	66.70*** (2.475)	66.20*** (2.488)	63.71*** (2.593)
# of Observations	286	278	276	261	260	260	260

% of original participant attendance = total original 1st session participant attendance in week 1/ total original participants
Standard error in parentheses; † p < .10 , * p < 0.05, ** p < 0.01, *** p < 0.001

Appendix 1.2 Impact of treatments on attendance - % of participants who attended first session (Continued)

	W8	W9	W10	W11	W12	W13	W14	W15
Treatment 1	0.501 (3.578)	-1.550 (3.553)	-1.205 (3.592)	-0.835 (3.532)	0.137 (3.549)	-0.544 (3.601)	-1.213 (3.563)	-1.655 (3.502)
Treatment 2	2.554 (3.356)	0.787 (3.426)	2.553 (3.462)	2.934 (3.402)	2.639 (3.528)	1.278 (3.578)	3.066 (3.634)	4.764 (3.328)
Control	62.53*** (2.543)	62.87*** (2.530)	60.70*** (2.551)	62.54*** (2.587)	61.17*** (2.605)	61.60*** (2.629)	63.19**** (2.627)	66.49*** (2.467)
# of Observations	260	261	259	259	260	258	257	258

% of original participant attendance = total original 1st session participant attendance in week 1/ total original participants
Standard error in parentheses; † p < .10 , * p < 0.05, ** p < 0.01, *** p < 0.001