Supplementary Materials

Appendix 1. ICM Survey Form v3.3

ICM Survey Form v3.3 was the survey instrument used to interview program participants before and after the intervention. The interviews were conducted by part-time enumerators hired by ICM's Research Department, trained on data collection practices and survey conduct. These enumerators are separate from the program delivery team, with minimal to no interaction.

INTERNATIONAL CARE MINISTRIES FOUNDATION, INC.
Program Survey Form

ICM

[ ] Pastor [ ] Counselor [ ] Participant [ ] Jumpstart [ ] MCO   Date: _____   Time: _____

Name: (Last, First MI) _____   Mobile No.: _____

Recipient No.:

Base #	Program #	Batch #	Community #	Participant #

1:Bacolod, 2:Bohol, 3:Dumaguete, 4:GenSan, 5:Koronadal, 6:El Nido; 7:Dipolog

1:Transform, 2:Jumpstart 3:MCO

Hello. My name is _____, and I am working with International Care Ministry of the Philippines (ICMPI). We are conducting a survey about various health and livelihood issues. We would very much appreciate your participation in this survey. The survey usually takes between 30 and 45 minutes to complete. The purpose of this survey is for ICMPI to measure the impact of the program you have been selected to join. It is a two part survey: the „pre" and the „post". Which means the before program survey and the after program survey. Today it will be the Pre survey / Post survey (chose the correct one). ICMPI uses this information to inform sponsors and donors about the activities of ICM, but most importantly these survey"s help ICMPI to improve the programs that they offer and help teach ICMPI about how better to conduct their programs. The interview is completely confidential and your responses will only be analysed together with all the others. No one will find out how you answered and your answers will not have any impact on the benefits that you receive so please answer honestly.

At this time, do you want to ask me anything about the survey?

First we will collect information about your household. Can I start by asking about the people who are 16 years old & above in your household:

Line/ID Number	Q1: Starting with the participant, please give me the names of the adults (over 16) who usually live here and eat with you.	Q2: What is the highest grade he or she has completed?	Q3: What is the age of each person?	Q4: Is each person male or female?		Q5: What is each person's marital status? (For questions 5-7, please fill up only for adults aged 16 to 65)						Q6: Does he or she have a birth certificate at home?		Q7: Does he or she have a marriage certificate at home?	
				1	2	1	2	3	4	5	6	1	2	1	2
				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
Adult1				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
A2				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
A3				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
A4				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
A5				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
A6				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
A7				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
A8				M	F	Married	Live-in	Separated	Widowed	Single	Other	Yes	No	Yes	No
AVERAGE (AGE)/TOTAL:															

Just to make sure that I have a complete listing, are there any other people who may not be members of your family, such as domestic help, lodgers, or friends who usually live here? [IF "YES", ADD TO FIRST TABLE]

Now, I'd like to ask about the children who are 15 years old and younger that live in the household:
NOTE: For Jumpstart recipient kindly fill up the first column to indicate that the child is a Jumpstart recipient.

Line/ID Number	Q8: Please give me the names of the children (15 years old and below) who usually live here and eat with you.	Q9: How old is each person(in years)?	Q10: what is the highest grade he or she completed	Q11: Is each person male or female?		Q12: Is each child currently enrolled in school?		Q13: Does each child receive a scholarship?		Q14: What type of school does each child attend?		
				1	2	1	2	1	2	1	2	3
Jumpstart				M	F	Yes	No	Yes	No	ICM	Government	Private
MCO				M	F	Yes	No	Yes	No	ICM	Government	Private
Child1				M	F	Yes	No	Yes	No	ICM	Government	Private
C2				M	F	Yes	No	Yes	No	ICM	Government	Private
C3				M	F	Yes	No	Yes	No	ICM	Government	Private
C4				M	F	Yes	No	Yes	No	ICM	Government	Private
C5				M	F	Yes	No	Yes	No	ICM	Government	Private
C6				M	F	Yes	No	Yes	No	ICM	Government	Private
C7				M	F	Yes	No	Yes	No	ICM	Government	Private
C8				M	F	Yes	No	Yes	No	ICM	Government	Private
C9				M	F	Yes	No	Yes	No	ICM	Government	Private
C10				M	F	Yes	No	Yes	No	ICM	Government	Private
6 to 15 AVERAGE (AGE)/TOTAL:												
0 to 5 AVERAGE (AGE)/TOTAL:												

Note: If the child is a Jumpstart recipients use the table labelled as "Jumpstart" for his/her data & for an MCO recipient use the table labelled as "MCO" as well.

		1	2	3	4	5
		0 to 5	6 to 15	16 to 65	65+	Total
Q15:	Household Count Summary: ⟦Put in total number of people in each category⟧					
Q16:	Show the recipient the sentence written on the last page of this survey form. Ask them to read it out for you. If they can read it then mark "Yes", if not mark "No".	Yes	No			

Now I would like to ask you about your relationships with other people. In particular I would like to ask you about your interactions with other people.

Q17:	How satisfied are you with your family life?	Not at all satisfied	Not very satisfied	Neutral	Somewhat satisfied	Very Satisfied
Q18:	How satisfied are you with your friendships?	Not at all satisfied	Not very satisfied	Neutral	Somewhat satisfied	Very Satisfied

For questions 19 – 22, please indicate how much you trust the following people:

Q19:	Your relatives	No trust	Tentatively trust	Neutral	Moderately trust	Very trusting
Q20:	Your neighbors	No trust	Tentatively trust	Neutral	Moderately trust	Very trusting
Q21:	Your religious leaders or church	No trust	Tentatively trust	Neutral	Moderately trust	Very trusting
Q22:	Your local barangay	No trust	Tentatively trust	Neutral	Moderately trust	Very trusting
Q23:	In the last 6 months how many times have you been in a serious dispute with another person?					
Q24:	In your family is there anyone currently experiencing physical abuse?	Yes	No			
Q25:	(If yes to Q24) Has this problem gotten better in the last 6 months?	Yes	No			
Q26:	Does anyone in your family currently have problems with substance abuse (alcohol/drugs)	Yes	No			
Q27:	(If yes to Q26) Has this problem gotten better in the last 6 months?	Yes	No			

Now I would like to ask you about your health and the health of other people in your household.

Q28:	Are you a member of Phil Health? (Select one)	Yes	No, because the benefits won't help my family.	No, because the benefits are too expensive.	No, because I don't have the appropriate paperwork to enroll. (no birth certificate,etc.)	I am not familiar with Phil Health.
Q29:	Is the female household head currently pregnant?	Yes	No			

(If Yes to Q29, continue with questions 30-31. If No, skip to Q32.)

Q30:	If pregnant, have they been given a maternal tetanus immunization?	Yes	No			
Q31:	If pregnant, whom are they attending pre-natal care? (Select all that apply)	Quack doctor	Hilot (Traditional)	Barangay health worker/ midwife/ birthing home	Doctor or Hospital	No pre-natal care
Q32:	At the last occasion, where did the female household head give birth?	Home	Birthing Home	Hospital	Other	
Q33:	At the last occasion the female household head gave birth was there anyone at the birth – choose only one:	Quack Doctor	Hilot (Traditional)	Barangay health worker/ midwife/ birthing home	Doctor or Hospital	No One
Q34:	At the last occasion the female household head gave birth did she received a home visit within 24 hours after delivery?	Yes	No			
Q35:	If yes to Q34, who visited?	Quack Doctor	Hilot (Traditional)	Barangay health worker/ midwife/ birthing home	Doctor	Other
Q36:	Has the female household head ever had a baby or child die?	No child has died.	Yes, miscarriage before birth.	Yes, death within one month to 5 years at time of death.	Yes, aged 6-15 at time of death.	Yes, aged 16 or older at time of death.
Q37:	(If yes to question 36) How many children have died?					
Q38:	Which of the following do you think is the best to feed baby under 6 months of age?	Breast milk only	Other milk only	Breast milk & other milk	Breast milk & other food	
Q39:	For how long did you breast feed your youngest child before introducing any other milk or food?	0-3 mos.	4-6 mos.	7-9 mos.	10-12 mos.	

Q40:	What type of family planning are you using, if any? (Select only one, the most commonly use) **[Let the recipient give the response without prompting the options.]**	Abstinence	Natural methods	IUD	Pill	Injection
		Condom	Ligation	Vasectomy	Other family planning method	No family planning method

	Q41: In the last month, does each person have an illness?											Q42: How does this person receive treatment (Select one common choice that apply)								Q43: Does each child have? *Note: Ask for children only.*		
Line/ID Number	Chronic sickness(3 mo. Or more requiring treatment)	Physical disability	Blind	Deaf	Nausea and /or vomiting in the past month	Unresolved cough for more than two weeks	Diarrhea	Goitre	Mental illness	Other significant illness	No Significant illness	Hospital admission within the past month	Local health centre	Doctor	Quack doctor	Hilot	Barangay health worker	Other health worker	No medical assistance	Birth certificate at home	White Card	Complete routine Immunization
	1	2	3	4	5	6	6	7	8	9	10	1	2	3	4	5	6	7	8	1	2	3
Adult1	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
A2	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
A3	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
A4	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
A5	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
A6	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
A7	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
A8	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Jumpstart	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
MCO	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Child1	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C2	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C3	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C4	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C5	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C6	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C7	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C8	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C9	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C10	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
TOTAL																						
6 to 15 TOTAL																						
0 to 5 TOTAL																						

		1	2	3	4	5	6
Q44:	Where do you go to the toilet?	Public Toilet	Toilet in the compound	Toilet in the house	Outside(No toilet)	On paper or in a plastic bag	Not sure
Q45:	Is there a means for hand washing in the toilet/cubicle/location?	Yes	No				
Q46:	Where did the water for hand washing come from?	Hands not washed	Took the water to the toilet location	Container near the toilet location	Tap water from the house	Not sure	
Q47:	Do you use soap for hand washing?	Hands not washed	Soap not use – water only	Soap not use – ash or other abrasive matl"s	Soap & water	Not sure	

Q48:	Reason for not using soap:	Cost	Unable to purchase in local store	Prefer to use ash or other material	Not sure that soap is required	
Q49:	Where do you wash your clothes?	Clothes not washed	In river/water source more than 500 meters	In river/water source closer than 500 meters	At well more than 500 meters	At well closer than 500 meters	At home
Q50:	Where do you hang your clothes to dry?	Do not hung clothes	In fence around the house	In a tree	Outside on a line	House windows	Inside the house
Q51:	How do you clean your teeth?	Do not clean teeth	Rinse with water	Use salt and water	Use herbal mouth wash	Tooth brush only	Tooth brush & tooth paste
Q52:	How do you dispose dog or animal excrement?	No disposal	In paper/plastic bag	Sweep it away/burn it	Bury it	No dogs/animals allowed inside or yard	

Now I'd like to ask you some questions about your food and drink.

Q53:	How many meals do you usually eat in a normal day?	One meal	Two meals	Three meals	More than three meals	
Q54:	How many times a week do you serve a meal containing vegetable?	zero	1 – 5 times a week	6 – 10 times a week	11 – 15 times a week	16 – 21 times a week
Q55:	How many times a week do you serve viand? (Or meal containing meat, chicken or fish)	zero	1 – 5 times a week	6 – 10 times a week	11 – 15 times a week	16 – 21 times a week
Q56:	Total pesos spent by family on junk food per day?	0 – 10 Pesos	11 – 20 pesos	21- 30 pesos	31 – 40 pesos	41 – 50 pesos
Q57:	How often do you feel hungry at the end of the day?	Everyday	Several days a week	Once a week	Once a month	Rarely
Q58:	Do you do anything to make your water safer to drink?	No action	Buy drinking water (bottled, ATM)	Use water filter (ex: bio-sand)	Solar disinfection	Boiling of water	Other method to make water safe to drink
Q59:	How do you store water for cooking or drinking?	No storage	Bucket or similar container – no lid	Bucket or similar container – with lid	Earthen wear or plastic jug w/lid	Container from water vendor	From the tap in the house
Q60:	How far is your main water supply from your home?	0 to 20 meters	21 to 50 meters	51 to 100 meters	101 to 500 meters	500+ meters	

I'd like to ask you some questions about your Income & occupation.

Line/ID Number	Q61: What is the type of work of each person?									Q62: How much did each person earn from **regular work/petty jobs/occasional work** in the past month?	Q63: What was the approximate **value of any product produced** by each person during the past month? (Example: veg., detergent, snack, etc.)	Q64: How much did each person receive in **assistance from friends or relatives** in the past month? (include overseas remittances and gifts from nearby friends, but exclude gifts from mother to son within the family group below)	Q65: How much cash or value did each person receive **from any other source** in the past month?	
	Fisherman	Tricycle /trisikad driver	Farmer	Laundry	Buy & sell	Construction	Household helper	Others	No work					
	1	2	3	4	5	6	7	8	9					
Adult 1	O	O	O	O	O	O	O	O	O					
A2	O	O	O	O	O	O	O	O	O					Recipient Income
A3	O	O	O	O	O	O	O	O	O					
A4	O	O	O	O	O	O	O	O	O					
A5	O	O	O	O	O	O	O	O	O					
A6	O	O	O	O	O	O	O	O	O					
A7	O	O	O	O	O	O	O	O	O					
A8	O	O	O	O	O	O	O	O	O					Total HH income
Column Total														

		1	2	3	4	5
Q66:	**Compared to the rest of the year,** do you feel that your household income over the past month was:	Above average	Average	Below average		
Q67:	Has anyone in the household made a family budget before?	Yes	No			
Q68:	Does anyone in the household owe anyone money? If yes, how much?: _____	Yes	No			
Q69:	Does anyone in the household have any savings? If yes, how much?: _____	Yes	No			
Q70:	Do you have a vegetable garden?	Yes	No			
Q71:	If yes to Q70, how many vegetable plants are there in your garden?	1-10	11-20	21-50	51-100	101 +
Q72:	Does anyone in the household operate a small business?	Yes	No			
Q73:	If yes to Q72, check all that apply.	Vegetables or Seedlings	Vermi or Vermicast	Food & Snacks	Cleaning Products	Others
Q74:	Is the housing structure extremely poor and in need of emergency renovations?	Yes	No			
Q75:	If yes to Q74, select the box that best describes the poor condition of the house.	Habitable (needs few fix)	Dilapidated (some parts are falling)	Totally damage (could collapse at any time)		

(Fill in the following table based on your observations. Do not ask the recipient.)

Indicator	Description and Corresponding Score	Score
Q76: Building Size	Big: >25 sqm. (4) | Medium: 10-15 sqm. (2) | Small: <15 sqm. (0)	
Q77: Foundation Structure	Concrete/Firm (4) | Bamboo/Moderate (2) | Dirt/Weak (0)	
Q78: Roof Materials	New GI Sheet (2) | Old GI Sheet/New Nipa (1) | Scrap/Old Nipa (0)	
Q79: Wall Materials	Concrete (4) | Wood (3) | Lawnanit/Plywood (2) | Bamboo (1) | Scrap (0)	
Q80: Land (Ask)	Own/Inherited (4) | Mortgage (2) | Renting (1) | Tenant/Squatting (0)	
Q81: House Materials (Ask)	Own/Inherited (4) | Mortgage (2) | Renting (1) | Tenant/Squatting (0)	
Q82: Duration of Residence (Ask)	5 years & above (5) | 1 years to 4 years (3) | below 1 year (1)	
Q83: Water Supply (Ask)	Faucet (gripo) at home or own deep well (2) | Shared deep well or faucet within 50 meters (1) | None within 50 meters (0)	
Q84: Electricity (Ask)	Own meter (2) | Shared meter (1) | None (0)	
Q85: Fuel (Ask)	LPG/Electricity for cooking (3) | Kerosene (2) | Charcoal/Wood (0)	
Q86: Toilet (Ask)	Flush in home (3) | Manual in home (2) | Pit/Shared/Communal (1) | None (0)	
Q87: Furniture	Wood/Steel/Plastic 〔New〕(2) | Old/Used Furniture (1) | None (0)	
Q88: Appliances	1 point per working appliance: *(Example: TV, Stereo, Radio, Stove)*	
Q89: Car/Vehicle (Ask)	Jeep/Car (6) | Motorcycle/Tricycle (4) | Trisikad (3) | Bicycle (2) | None (0)	
	Total Poverty Score:	

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Supplemental material

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Appendix 2. MCO M&E data collection template

This is the monitoring and evaluation (M&E) template (two pages) used to collect regular metrics during the implementation of MCO. The ICM team responsible for implementing each MCO program would fill these templates in, under the supervision of ICM's national office.

ID	Base	Name of Child	Sex (M/F)	Date of birth	Age (months)	Feeding site	Referral source (B or C)	Date	Weight (kg)	Height (cm)	Weight-for-height Z score	WHZ	HAZ	FEB	MARCH	APRIL	MAY
		MALNOURISHED CHILDRENS OUTREACH PROGRAM DATA															
		PROGRAM DETAILS						PRE-PROGRAM DATA						MID-PROGRAM DATA			
1	Dumaguete																
2	Dumaguete																
3	Dumaguete																
4	Dumaguete																
5	Dumaguete																
6	Dumaguete																
7	Dumaguete																
8	Dumaguete																
9	Dumaguete																
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25	Dumaguete																

ID	Date	Weight (cm)	Height (cm)	Weight-for-height score	WHZ	HAZ	Weight gain (kg)	% weight gain	Dewormed as per protocol? (I or L or N)	Vit A as per protocol? (I or L or N)	Edema (y/n)	Health record warning (y/n)	Referred to RM (y/n)	No. days child attended feeding	No. days guardian attended feeding	No. mths post feeding	Height (cm)	Weight (kg)	Weight-for-height Z score
		END PROGRAM DATA							**RISK MANAGEMENT**					**ATTENDANCE**		**FOLLOW UP PROGRAM DATA (6 months post MCO**			
1																			
2																			
3																			
4																			
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Appendix 3. Supplementary Statistical Methods

In this study, we adopted and revised the measure for *intensity* of poverty, or *A*, as defined in the Alkire-Foster Method for measuring multi-dimensional poverty.[1] *Intensity* of poverty is defined as the average proportion of indicators in which a household is deprived in, and a household is categorized as 'experiencing poverty' if they are deprived in at least one third of the weighted indicators. One important feature of *A* is the ability to quantitatively estimate poverty at the household level, and therefore include in model building. In this study, *A* was developed from 13 weighted indicators available from the ICM household survey. The indicators used were the household's building size, foundation material, roof material, wall material, water supply, electricity, type of toilet, ownership of appliances, furniture, cars/vehicles, household head's literacy, and household food security. To develop weights for each indicator, Principal Component Analysis (PCA) was first utilized to develop the factor structure, after which Confirmatory Factor Analysis (CFA) was applied to the structure for model building. All model indices for *A* were found to be acceptable, CFI and NNFI were greater than 0.9 and RMSEA was below 0.05 as per the Alkire-Foster Method. Weights were finalized by taking the mean of bootstrapped communalities for each indicator. Further analysis showed that *A* weighed according to the CFA was more informative to the finalized models when compared to an equally weighted *A*.

For the linear outcome, model building started with an intercept-only model:

$$Y_{ij} = \gamma_{00} + u_{0j} + e_{ij}$$

and intraclass correlation (ICC) was calculated by:

$$ICC = \frac{\sigma_{u0}^2}{\sigma_{u0}^2 + \sigma_e^2}$$

where σ_{u0}^2 is the variance of the community-level residuals u_{0j}, and σ_e^2 is the variance of the individual-level residuals e_{ij}. Models were fitted with lower-level independent variables, excluding variables not significant according to t-tests. A community-level variable, Z_j was tested and included only if the deviance difference test was significant. Following this step, community-level residuals of the slope were systematically tested to determine the model with lowest deviance. Finally, interaction terms between lower and higher level variables were tested and included according to significance and model convergence.

The model building for the logistic outcome was similar, except for a few key steps. First, ICC was calculated by:

$$ICC = \frac{\sigma_{u0}^2}{\sigma_{u0}^2 + 3.29}$$

where 3.29 is the variance of a logistic distribution with scale factor 1 (with $\pi \approx 3.14$). Second, the variables included in the final model were shown to only lower deviance in combination, but not individually. Random slopes of independent variables which were not significant in the model, but significant as slopes were included in the final model if found to contribute towards parsimony.

After following the specified steps, the two final mixed-effects models were:

Linear (WHZ$_2$)

$$Y_{ij} = \gamma_{00} + \gamma_{10}X_{1ij} + \gamma_{20}X_{2ij} + \gamma_{30}X_{3ij} + \gamma_{40}X_{4ij} + \gamma_{50}X_{5ij} + \gamma_{60}X_{6ij} + \gamma_{01}Z_j$$
$$+ \gamma_{31}X_{3ij}Z_j + u_{2j}X_{2ij} + u_{5j}X_{5ij} + u_{4j}X_{4ij} + u_{0j} + e_{ij}$$

Logistic (dropout)

$$\pi_{ij} = logistic(\eta_{ij})$$
$$\eta_{ij} = \gamma_{00} + \gamma_{10}X_{1ij} + \gamma_{30}X_{3ij} + \gamma_{40}X_{4ij} + \gamma_{80}X_{8ij}$$
$$+ u_{1j}X_{1ij} + u_{3j}X_{3ij} + u_{4j}X_{4ij} + u_{7j}X_{7ij} + u_{8j}X_{8ij} + u_{0j}$$

All statistical analyses were performed in R (Version 3.2.3).[2] Full Maximum Likelihood (FML) was used to compare linear mixed-effects models. The default Laplace Approximation build in the package 'lme4'[3] was used to compare logistic mixed-effects models in conjunction with the optimizer 'mimqa'[4] set at 10,000 iterations.

References

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