



# DESIGN AND IMPLEMENTATION OF A MONITORING AND EVALUATION PROTOCOL FOR A NUTRITION OUTREACH PROGRAM IN GUATEMALA

THOMAS KLINK<sup>1</sup>, TAYLOR MATHERLY<sup>1</sup>, MONICA PEREZ<sup>2</sup>, CLAIRE PERRY<sup>3</sup>, ELENA SIEPMAN VAN DEN BERG<sup>4</sup>, LUKAS RIHA<sup>5</sup>

<sup>1</sup>MPH Student, Vanderbilt University; <sup>2</sup>Outreach Director, Primeros Pasos; <sup>3</sup>Undergraduate Intern, University of Chicago; <sup>4</sup>Development Director, Primeros Pasos; <sup>5</sup>Site Supervisor and Finance Director, Primeros Pasos



SCHOOL OF MEDICINE  
VANDERBILT UNIVERSITY

## BACKGROUND

### Primeros Pasos

- Nonprofit primary care clinic in Quetzaltenango, Guatemala
- Principally engaged in primary care and health outreach programs in 10 rural indigenous communities in the Palajunoj valley
- Outreach programs were on hold for the first half of 2018 as they underwent programmatic and organizational restructuring.

### Malnutrition

- Stunting is defined as being 2 SD below the median of height in the reference population. The primary cause is malnutrition.
- Guatemala has one of the ten highest proportions of stunting in children under 5, with a prevalence of 46.5%. In the United States, the prevalence is 2.1%.<sup>1</sup>
- Malnutrition disproportionately affects rural indigenous communities.



Figure 3: The Palajunoj Valley, courtesy of Primeros Pasos 2017 Annual Report

## STRUCTURE OF PRACTICUM

### Logistics

- Duration: May 22, 2018-August 28, 2018
- Supervisor: Lukas Riha, Chief Financial Officer
- Lived with Host Abuelita
- In clinic or office 3-4 days a week from 8AM-1PM
- In community 1-2 days a week from 8AM-1PM
- Spanish lessons 3-5 afternoons a week to improve communication with local staff and program participants

### Primary Activities

- Development and Revision of Nutrition Program's
- SMART Goals
- LogFrame
- M&E Framework
- REDCap Surveys
- Community Visits
- Supporting the startup of mobile clinics
- Statistical analysis of results from Medicos Voladores

### Timeline

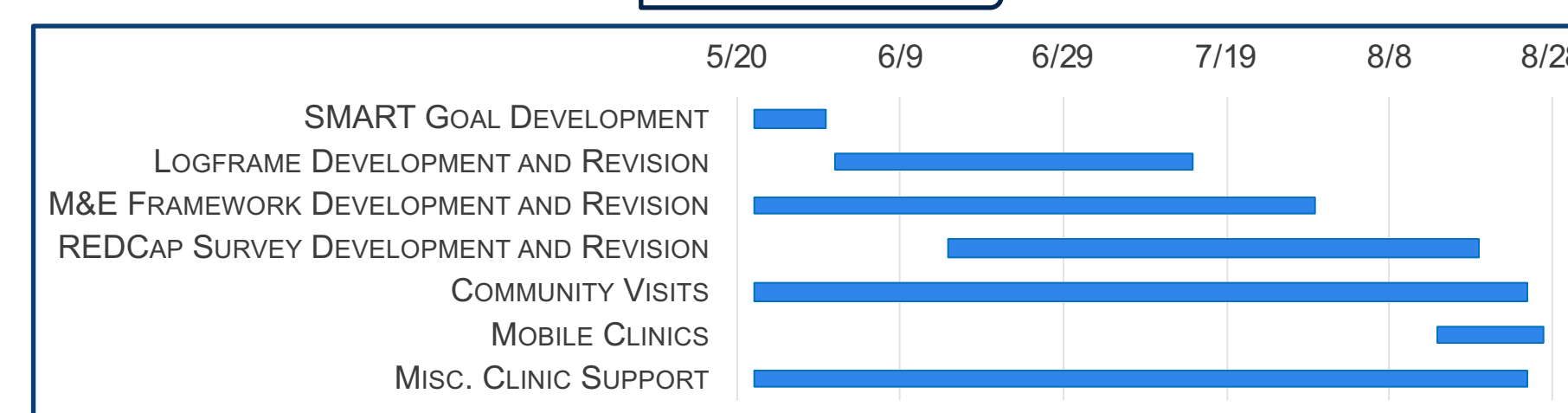


Figure 1: Primeros Pasos Clinic



Figure 2: Hanging out with clinic dogs, Frijol and Canela

## PURPOSE

### The Need

Primeros Pasos wanted to restart their historically successful nutrition outreach program in the four most underserved communities, but wanted to make sure results were well measured.

### Goals of the Practicum

- Develop culturally appropriate data collection tools to support the nutrition outreach program
- Sustainably implement data collection tools to provide actionable data for the organization
- Collaborate with a team of health professionals to advance the goals of Primeros Pasos
- Improve Spanish language proficiency to approach minimum professional working proficiency as defined by the United States State Department

## OUTCOMES

### Logical Framework (Logframe)

PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal 1: Decrease percentage of children 5 and under classified as stunted by at least 20% whose mothers or caretakers participate in the nutrition program	1. Percentage of children 5 and under categorized as stunted by WHO Child Growth Standards definition	1. Baseline, Monthly, and Target Anthropometric Measurements entered into online software provided by WHO.	N/A
Goal 2: Decrease percentage of children 5 and under classified as having severe or moderate acute malnutrition by X% whose mothers or caretakers participate in the nutrition program	2. Percentage of children 5 and under classified as having severe or moderate acute malnutrition by WHO Child Growth Standards definition	2. Baseline, Monthly, and Target Anthropometric Measurements using WHO ANTHRO software	
Goal 3: Reduce instances of diarrhea in all children under 5 of participating in the program	3. Percentage of mothers who identify the presence of diarrheal illnesses in their children	3. Monthly survey results	
Goal 4: Increase number of women not seeking to be pregnant using an effective contraceptive	4. Percentage of women not seeking to be pregnant using an effective contraceptive	4. Monthly survey results	

### Monitoring & Evaluation (M&E) Framework

INDICATOR	DEFINITION	BASELINE	TARGET	DATA SOURCE	FREQUENCY	RESPONSIBLE	REPORTING
1. Percentage of children 5 and under categorized as stunted by WHO Child Growth Standards definition	1. Stunted children are defined by WHO as children who have a height for age < -2 standard deviations (SD) of the WHO Child Growth Standards median as calculated by WHO Anthro software	1. Baseline	20% decrease from baseline	1. Measurements collected during nutrition charters	1. Every three months	1. Monica or nutrition volunteer	1. WHO Anthro Software
2. Percentage of children 5 and under classified as having severe or moderate acute malnutrition by WHO Child Growth Standards definition	2. Percentage of children 5 and under classified as having severe or moderate acute malnutrition as calculated by WHO Anthro software	2. Baseline	10% decrease from baseline	2. Measurements collected during nutrition charters	2. Every three months	2. Monica or nutrition volunteer	2. WHO Anthro Software
3. Increase number of children with stunting need regularly for the 24 children classified as stunted	3. Percentage of mothers who identify the presence of diarrheal illnesses in their children 5 and under in the past week	3. Baseline	10% increase from baseline	3. Survey questions	3. Every month	3. Monica or nutrition volunteer	3. REDCap survey data
4. Increase number of women not seeking to be pregnant using an effective contraceptive	4. Percentage of women not seeking to be pregnant using an effective contraceptive	4. Baseline	10% increase from baseline	4. Survey questions	4. Every month	4. Monica or nutrition volunteer	4. REDCap survey data
5. Percentage of mothers seeking and on treatment for children	5. Percentage of mothers seeking and on treatment for children	5. Baseline	10% increase from baseline	5. Survey questions	5. Every month	5. Monica or nutrition volunteer	5. REDCap survey data
6. Difference in BMI average of all overweight and obese participants from beginning to end of program	6. Difference in BMI average of all overweight and obese participants from beginning to end of program	6. Baseline	10% increase from baseline	6. Measurements collected during nutrition charters	6. Every month	6. Monica or nutrition volunteer	6. REDCap survey data

Figure 4: Sample of M&E Framework and Logframe

## DISCUSSION

- A monitoring and evaluation system was developed and implemented over a three month period for the nutrition outreach program.
- Results should allow the clinic to show stakeholders the outcome of the nutrition outreach program.

### Accomplishments

- SMART goals provided direction for the purpose of the outreach program.
- The REDCap surveys are straightforward to administer and require minimal training.
- Logframe and M&E document have already been used in grant applications and discussions.



### Limitations and Challenges

- Inconsistent attendance of mothers in nutrition program
- Inconsistent flow of volunteers to administer surveys—putting greater burden on staff
- Sufficient baseline data was not yet captured by the end of the practicum.



### Next Steps

- Establish baseline data and make realistic and ambitious benchmark goals.
- Consider new strategies to increase regular attendance at nutrition programming.
- Analyze the first year of data.



Figure 5: Clinic Staff following mobile clinic in Bella Vista



Figure 6: Uploading REDCap data

## ACKNOWLEDGEMENTS

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- Thank you to Primeros Pasos for welcoming us into their clinic family.

## REFERENCES

1. Prevalence of stunting, height for age (% of children under 5), The World Bank, <https://data.worldbank.org/indicator/SH.STA.STNT.ZS>. Accessed on January 15, 2019.