

# Nutrition Education Outreach to Address Chronic Malnutrition in the Western Highlands of Guatemala

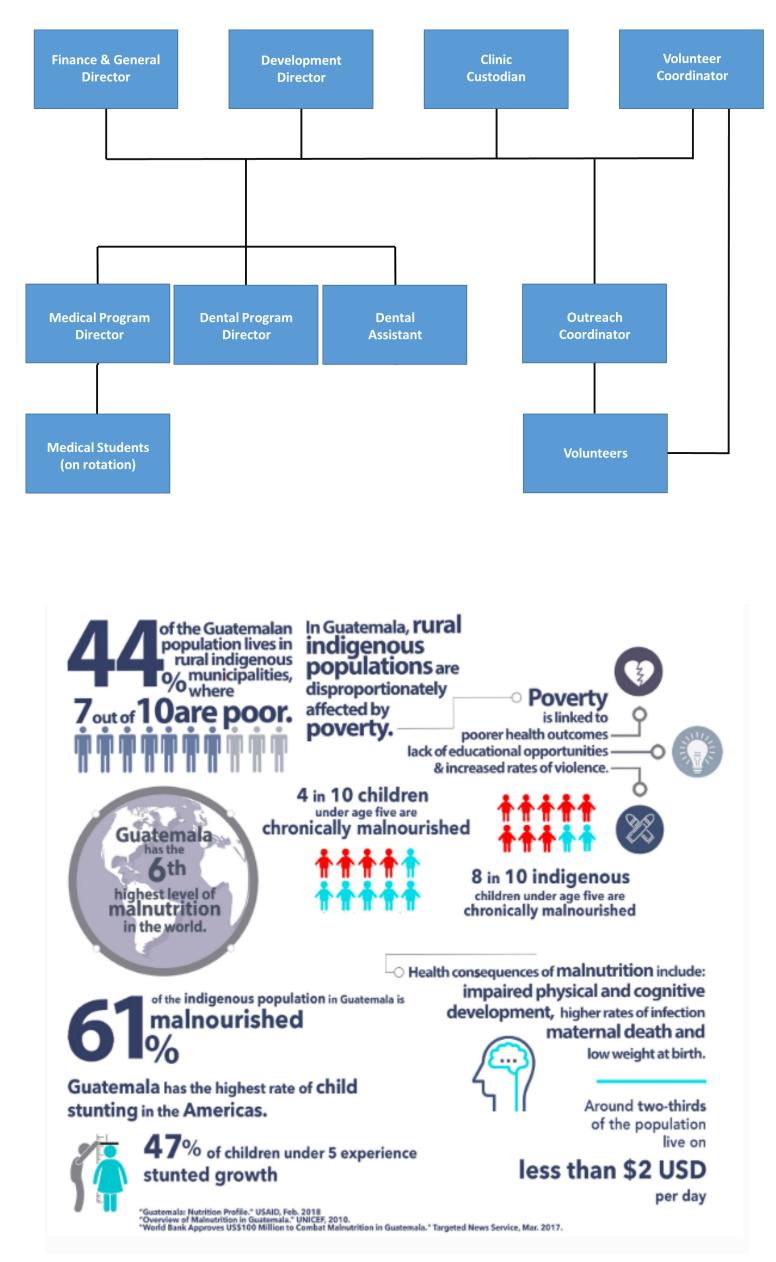
# TAYLOR MATHERLY<sup>1</sup>, THOMAS KLINK<sup>1,</sup> MONICA PEREZ<sup>2</sup>, CLAIRE PERRY<sup>3</sup>, MAY DE WILD<sup>4</sup>, ELENA SIEPMAN VAN DEN BERG<sup>5</sup>

<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>Medical Intern, University of Maastricht; <sup>5</sup>Site Supervisor and Development Director, Primeros Pasos

### **CONTEXT: ORGANIZATIONAL & GEOGRAPHIC**

**Primeros Pasos** 

- A non-profit, independent organization located in the rural Western Highlands of Guatemala, an area comprised of a majority indigenous population
- Mission: "to improve the quality of life of the rural communities of the Palajunoj Valley of Quetzaltenango, Guatemala through integrated health education projects and access to medical, dental, and nutritional services."<sup>1</sup>
- Primeros Pasos began offering free medical services and health education within its brick and mortar clinic in 2002
- Recently began reaching further into the Palajunoj Valley to provide services to more communities through outreach and mobile clinic operations



### **Organogram: Primeros Pasos**

Figure 1: Statistics on Guatemala<sup>2</sup>

### **PRIMARY ACTIVITIES: MAY-JULY 2018**

### SCREENING

• For obesity, malnutrition, and chronic malnutrition, with z-scores calculated using WHO Anthro software

SURVEY DEVELOPMENT: (in REDCap)

- Monthly Charla (interactive lecture) Survey: topics such as family planning, diabetes, hygiene, and breastfeeding covered (see below)
- Dietary Diversity Survey: Categories based on FAO recommendations, modified to fit context of Western Highlands (see below)

**FOCUS GROUPS** 

• Child-rearing practices including health and education sub-topics

MONITORING AND EVALUATION PLANS

- Education Outreach Program (see figure at right)
- Nutrition Outreach Program (see figure at right)
- 2018 year-end SWOT analysis (see figure at bottom right)



**Figure 2: Primeros Pasos Clinic** 



Figure 3: Map of Guatemala<sup>3</sup>

INTRODUCCION	
<ol> <li>Número de identificación, altura, peso, y</li> </ol>	ID # (madre):
fecha de nacimiento del niños/niñas	
menores de seis años del participante.	Edad(es) (niño/s):
<ol><li>¿Alguno de sus hijos recibe vitaminas?</li></ol>	SI NO
<ol><li>¿Alguno de sus hijos menores de seis</li></ol>	SI NO
años tuvo diarrea la semana pasada?	
PLANIFICACION FAMILIAR	
<ol><li>¿Está embarazada?</li></ol>	SI NO
	(SI: SKIP TO NEXT SECTION)
	(NO: GO TO QUESTION 4A.)
4a. ¿Está tratando de quedar embarazada?	SI NO
	(SI: SKIP TO NEXT SECTION)
	(NO: GO TO QUESTION 48.)
4b. ¿Actualmente usa algún método de	SI NO
planificación familiar o método anticonceptivo?	(SI: GO TO QUESTION 4C.)
	(NO: GO TO QUESTION 4D.)
4c. ¿Que método?	DIU
	Ligadura de trompas (esterilización
	femenina)
	Vasectomía (esterilización masculina)
	Preservativos
	Invecciones hormonales
	Anticonceptivos orales
	Implante
	Otro
4d. ¿Está interesado en usar la planificación	SI NO
familiar o método anticonceptivo?	(SI: GO TO QUESTION 4E.)
	(NO: SKIP TO NEXT SECTION)
4e. ¿Que método?	DIU (o, "La T")
	Ligadura de trompas (esterilización
	femenina)
	Vasectomía (esterilización masculina)
	Preservativos
	Invecciones hormonales
	Anticonceptivos orales
	Implante
	Otro
4f. ¿Sabe dónde se puede obtener	SI NO
anticonceptivos?	
LA DIABETES	
<ol><li>¿Ha realizado una prueba de diabetes?</li></ol>	5I NO
	(SI: GO TO QUESTION 5A.)
	(NO: SKIP TO NEXT SECTION)
5a. ¿Tiene diabetes?	SI NO
	(SI: GO TO QUESTION 5B.)
	(NO: SKIP TO NEXT SECTION)

## **SURVEY TOOLS**

DIVERSIDAD DIETICA		
Categoría de alimentos	Descripción	¿Cuántas veces en el último día ha consumido (categoría de alimentos)?
Cereales	Maíz, arroz, trigo, sorgo, mijo o cualquier otro alimento en grano o elaborado con ellos (p.ej., pan, fideos, gachas, pasta, u otros productos elaborados con cereales)	
Raíces y tubérculos	Papas blancas, ñame blanco, yuca blanca u otros alimentos provenientes de raíces y tubérculos, calabacita/zapallo, zanahoria, calabaza o batata pimiento rojo dulce, que son de color naranja dentro	
Verduras	Verduras de hoja verde oscuro, incluidas las silvestres + hojas ricas en vitamina A como las hojas de amaranto, las hojas de yuca, hierba mora, espinacas, ichintal, quixtan, tomate, cebolla, berenjena, chili pimientos, broccoli, coliflor, repollo, remolacha, lechuga	
Frutas	Mango maduro, melón cantalupo, albaricoque (fresco o seco), papaya madura, melocotón / durazno seco, y jugos hechos al 100% con estos frutas, otras frutas, incluidas las frutas silvestres y los jugos hechos al 100% con ellas	
Carnes y pescados	Carne de vacuno, cerdo, cordero, cabra, conejo, carne de caza, pollo, pato, otras aves, insectos, pescado o marisco fresco o seco	
Legumbres, nueces, y semillas	Frijoles secos, arvejas secas, lentejas, nueces, semillas o alimentos elaborados con ellos (p.ej., humus, manteca de maní)	
Leche y productos lácteos	Leche, queso, yogur y otros productos lácteos, huevos	
Aceites y grasas	Aceite, grasas o mantequilla añadida a los alimentos o usada para cocinarlos, aguacate	
Azucares	Azúcar, miel	
Especias y condimentos	Especias (pimienta negra, sal), condimentos (salsa de soja, salsa picante)	

Figure 5: Dietary Diversity Survey (page one)



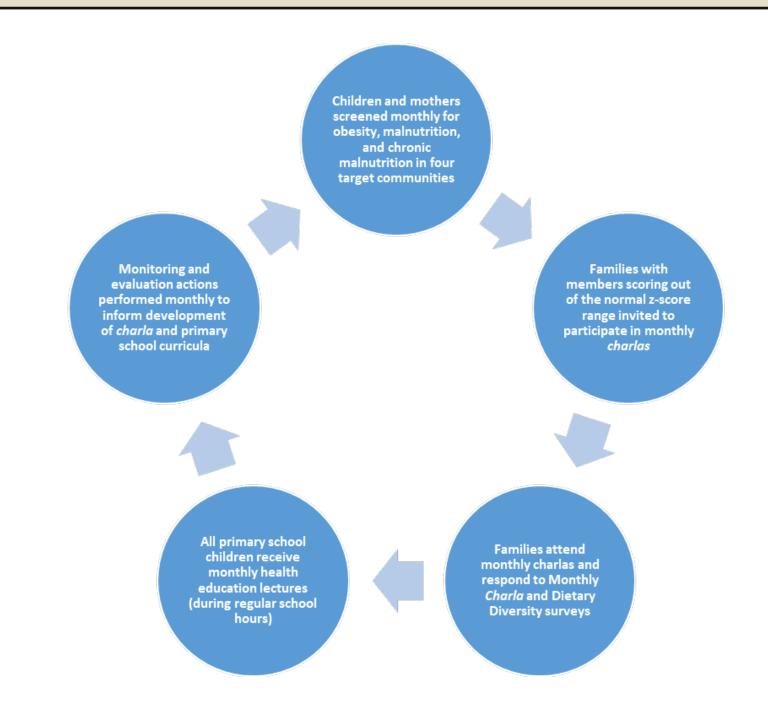
l would Prograr
To Prim of you.
or you.

_	
1.	Prime
2.	Guate
3.	Prime

Figure 4: Monthly Charla Survey (page one)



## **OUTREACH PROGRAM MODEL**



# **NEXT STEPS FOR OUTREACH PROGRAM: 2018 YEAR-END SWOT**

	Strengths	Weaknesses
•	Current programming informed by a needs assessment Existence of robust monitoring & evaluation tool and schedule Programming builds upon and strengthens previously established relationships within the community Can depend upon a reliable stream of student volunteers from a number of universities and medical schools during the summer months	<ul> <li>Unpredictability/difficulty of scheduling regularly occurring <i>charlas</i>, weigh-ins, lessons, etc. in advance</li> <li>Small and inconsistent number of mothers attending <i>charlas</i></li> <li>Not enough incentive for mothers to attend <i>charlas</i></li> <li>Regular turnover of volunteers makes it difficult to give them too much responsibility</li> </ul>
	Opportunities	Threats
•	Expansion to additional communities that are not currently being targeted Education and health-based funding opportunities (grants) Increased awareness of practicum, internship, and clinical rotation opportunities to more universities and medical schools Re-incorporate supplements as incentive for <i>charlas</i> Use local university students to supplement volunteer pool	<ul> <li>Funding for programming</li> <li>Scarcity of volunteers to aid in implementation of outreach programs in seasons other than summer</li> <li>Without the current Outreach Coordinator, it would be challenging to continue the program without a large interruption</li> <li>Loss of support from schools or local health outposts would be catastrophic</li> </ul>

### **ACKNOWLEDGEMENTS**

l like to thank the Vanderbilt Institute for Global Health, the Overall Family Fellowship, and the Frist Global Health Leaders m for funding support.

neros Pasos, thank you for all that you do. I am beyond grateful to have had the opportunity to work alongside each and every one

### REFERENCES

### eros Pasos, Our Mission, 2018.

temala Map of Cities, Roads, and Rivers [map]. geology.com. 2018. https://geology.com/world/guatemala-satellite-image.shtml eros Pasos, Why Guatemala, 2018. http://www.primerospasos.org/about-us-1/