



Seeds for a Future
Creating Better Lives - Today!

The First 1,000 Days

Early Childhood Nutrition and Implications for
Development in Rural Guatemala

Population Connection
November 2023



Overview



1. Who we are
2. Where we work
3. The first 1,000 days
4. Our integrated approach
5. Final considerations







Empowering rural Guatemalan families through food security and nutrition

Our integrated approach weaves together...

- Sustainable agriculture
- Nutrition education
- Increased income opportunities

...to achieve lasting community development.

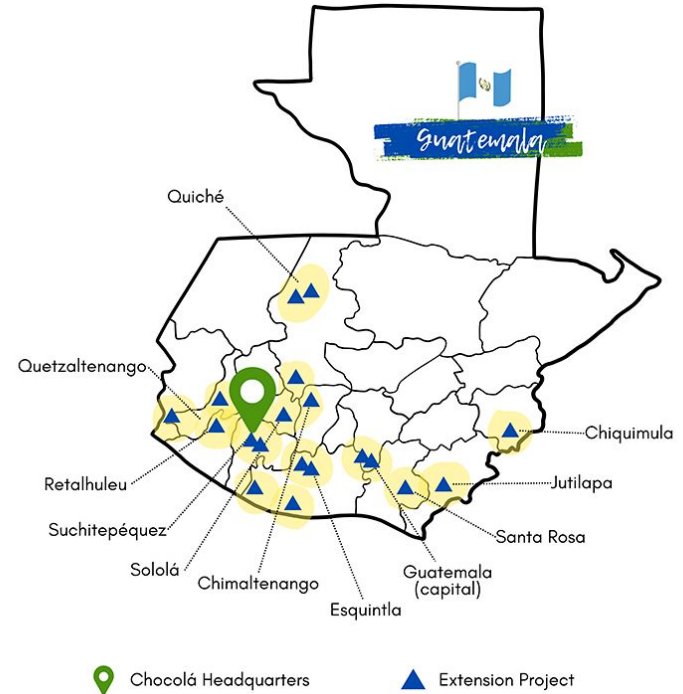


Where We Work



In Guatemala, **1 in every 2 children** suffers from chronic malnutrition ([UNICEF, 2020](#)). Nearly **half of the population lives in poverty**, rising to 80% among the country's indigenous population ([Brookings, 2022](#)). The legacy of Guatemala's **36-year armed conflict** and genocide is clear in rural, indigenous communities today.

Seeds for a Future began as an agricultural extension program in Chocolá, Suchitepéquez in 2009. The program has since been translated to **19 communities in 10 departments (states)** across the country.









Chronic micronutrient deficiency

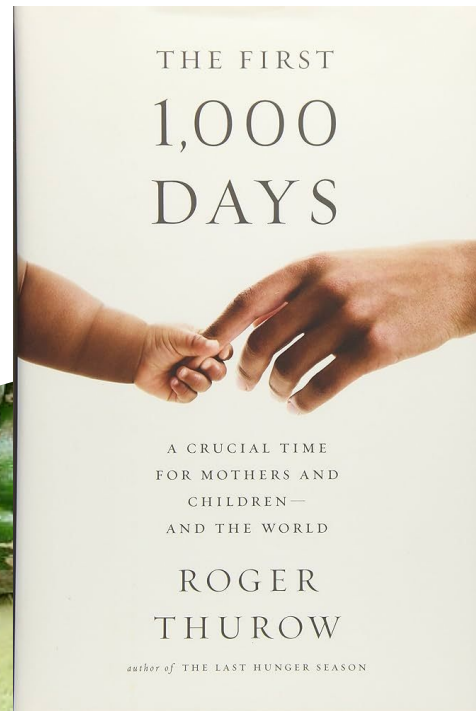
Rural Guatemalan diets tend to be deficient in:

- Iron (leading to anemia)
- Vitamin A
- Zinc
- Folate
- Vitamin B12

Deficiencies are often concentrated in **women and children**, with over 40% of children under the age of 5 being anemic and 33% of pregnant women ([FANTA, 2015](#))

The First 1,000 Days

The early childhood nutrition imperative



Individual impact

Cognitive

- Nervous system
 - Myelination
 - Neurotransmitters
 - Dendrites
- Memory and learning (hippocampus)
- Executive functions (prefrontal cortex)

Physical

- Bone development
- Muscle growth
- Organ growth and development
- Immune system function
- Endocrine system regulation
- Energy levels
- Coordination and motor skills



Community Impact

Lack of access to nutrients during this critical period perpetuates poverty and hinder community development.



The Casa Granja Program

Our integrated approach weaves together sustainable agriculture, nutrition education, and increased income opportunities to achieve lasting community development.

We partner with rural families to build and maintain 'backyard farms' with a rich variety of native plants and herbs, plus sources of small animal protein.





The INCAP Study

From 2014 to 2017, a three-year independent study found that maternal and infant anemia were drastically reduced, and effects sustained; reports showing stable levels of iron in mothers and children 20 months after the study's conclusion.

- AR 43.6% → 2.5% (children) = **94.3% decrease**
- AR 8.5% → 3.6% (women) = **57.6% decrease**
- Approx. 80% program retention rate

**AR = Anemia Rate*





Doña Matea

Age: 27 years old

Role: Extensionist and Field Team Member

Years as a Program Participant: 4 years

Intro Video: <https://vimeo.com/889676120>

**Full-length video:*

<https://seedsforafuture.org/first-1000-days-nutrition-education-guatemala/>



Team Member Doña Matea Speaking on The First 1,000 Days



Food is foundational

...and more than its constituent parts.



Further considerations

- **Cultural appropriateness**
 - Green tortillas
 - Competing forms of knowledge
- **Gendered division of labor**
 - Domestic demands on young mothers
- **Climate resilience**
 - Crop diversification



Final thoughts



To effectively address the critical importance of nutrition in the first 1,000 days...

Our approach emphasizes:

- Community leadership
- Local expertise
- Adaptability
- *Pasos lentos*




Stay in touch!




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Resources



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**The INCAP Study of the Seeds
for a Future Program**
Final Report

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[The INCAP Study](#)




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Vivir Mejor
An Integrated Approach to Chronic
Malnutrition and 'Living Better' in
Rural Guatemala

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**Testimonials for the Seeds for a
Future Program by Participants
and University Faculty**

SeedsforaFuture.org

[Testimonials from Program
Participants](#)

