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Latin American Studies Association Conference----Washington DC, May 31<sup>st</sup>-June 1<sup>st</sup>

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# Preventing Child Malnutrition: Conceptualizing Social Contracts through Sources of Health Information



Kelley Brown, University of Illinois at Chicago  
Nicole Henretty, Edesia Nutrition Solutions

# WHO Infant and Young Child Feeding

- Exclusive breastfeeding for the first 6 months of life
  - Only breast milk from birth
- Addition of appropriate complementary feeding starting at 6 months
  - The introduction of a variety of solid, nutrient dense foods and gradual replacement of breast milk as the primary source of nutrition
- Continuing breastfeeding until 24 months to ensure a child's growing nutritional requirements are met

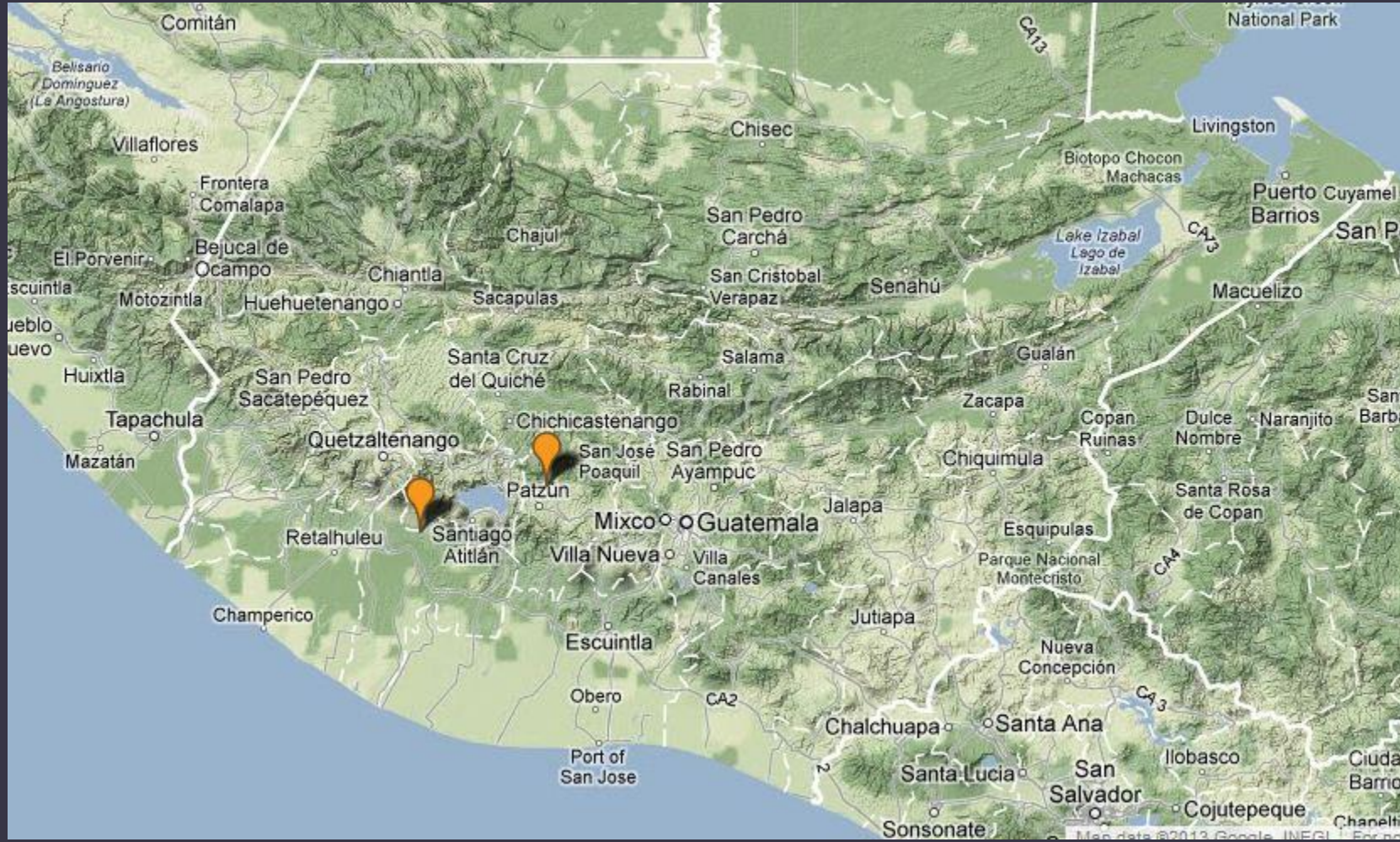


# Wuqu' Kawoq

- Non-governmental organization, since 2007
- Primary health care, chronic disease management, maternal-child and nutritional programming, and disaster relief services
- Kaqchikel- and K'ichee'- speaking communities in the Central highlands and Bocacosta region of Guatemala.
- Provides culturally and linguistically sensitive programming for the rural Maya target populations



# Study Locations



# Community Demographics

## Similarities

- High % living on \$2/day
  - K'exel: 28%
  - Xejuyu': 45%
- Maya descent, language spoken
  - K'exel: Quiché
  - Xejuyu': Kachiquel
- High levels of chronic malnutrition
  - K'exel: 71% in 2008
  - Xejuyu': 57% in 2011

## Differences

- Most common employment
  - K'exel: Agricultural day laborers
  - Xejuyu': Subsistence farmer
- Land Ownership (%)
  - K'exel: 28%
  - Xejuyu': 69%
- Xejuyu'
  - Higher prevalence of non-traditional food options
  - Farther distance to larger city



# Methods

## Household Surveys (n=102)

	<u>Xejuyu'</u>	<u>K'exel</u>	<u>P</u>
• Caregiver Surveyed is Mother (%)	96	96	0.4061
• Mother's age (yrs)	27.5 ± 0.91	28.08 ± 1.04	0.672
• Age of child (months)	17.37 ± 1.07	19.34 ± 1.22	0.232
• Family size (persons)	7.15 ± 0.42	6.78 ± 0.29	0.532
• Mother's education (yrs)	3.15 ± 0.31	3.84 ± 0.64	0.332

## Focus Groups (n=10)

- Xejuyu': 10 male caregivers, 20 female caregivers, and 4 pregnant women (total n=34).
- K'exel: 5 male caregivers, 18 female caregivers, and 5 pregnant women (total n=28)

## Key Informant Interviews (n=21)

- K'exel: 8 community leaders, 3 NGO staff members
- Xejuyu': 3 community leaders, 9 NGO staff members

## Market Surveys (n=82)



# Results: Feeding Practices

WHO Indicators for children 6-23 months of age		
	Study areas	Regional/National
Exclusive Breastfeeding until 6 months	78%	56%*
Continued Breastfeeding 12-15 months	100%	46%**
Complementary Food Introduction 6-8 months	73%	56.6%*

\*Regional: Occidental Region, Sistema de Vigilancia de la Malnutrición en Guatemala (SIVIM). (Mayo, 2012). Fase I: Prueba del prototipo en cinco departamentos de la región del altiplano occidental de Guatemala: Resumen. INCAP, USAID/HCI, CDC.

\*\*National: UNICEF. (2010). At a glance : Guatemala. Retrieved from [http://www.unicef.org/infobycountry/guatemala\\_statistics.html](http://www.unicef.org/infobycountry/guatemala_statistics.html)





# Results: Feeding Practices

WHO Indicators for children 6-23 months of age					
	Xejuyu'	K'exel	P-value	Combined	Honduras
Minimum Dietary Diversity	12.5%	35%	0.02	<b>23% (17/74)</b>	65%*
Minimum Meal Frequency	6%	38%	0.001	<b>21% (14/67)</b>	77%*
Minimum Acceptable Diet	2%	14%	0.05	<b>12% (8/67)</b>	52%*

\*WHO. (2009). Indicators for assessing infant and young child feeding practices. Part 3: Country Profiles. Geneva.



# Results: Sources of Knowledge

Receives health advice from:			
	Xejuyu'	K'exel	P value
Family Members	29%	70%	0.00*
Self-taught	42%	26%	0.08
Health Center	38%	30%	0.37



# Results: Causes of Malnutrition

## Feeding

- Inappropriate breastfeeding duration
- Meal frequency
- Meal quantity
- Provision of junk foods or low-nutrient foods

## Care and Hygiene

- Lack of hand washing
- Allowing children to crawl in dirt
- Lack of attention to child's nutrition and health status

## Illnesses and Infections

- Associated poor appetite, diarrhea, vomiting



# Results: Characteristics

## Physical

### Acute malnutrition

- Thin, can see ribs, swollen stomach, weak, lacks bodily defenses, rejecting food

### Chronic malnutrition/stunting

- Short for age, looks younger than age

Anemia, pale/pallid skin

## Behaviors

### Development

- Walking, talking

### Activity level

- Tired, not wanting to play

### Mental acuity

- Not performing well in school, can't follow instructions, poor memory



# Prevention

How do they ensure that malnutrition does not affect their children?

SPAN: Para que no les pegue la desnutrición

KAQ: Achike modo yeito chwäch ri ya'bil desnutrición

How do they avoid malnutrition among their children?

SPAN: Evitar

KAQ: Richin man nuya' ta chi ke ri yab'il desnutrición

How do they prevent malnutrition among their children?

SPAN: Prevenir

KAQ: Köl



# Best Practices

## Hygiene behaviors

- Washing hands, bathing children

## Food safety behaviors

- Properly washing foods, cooking foods thoroughly, drinking only potable water, not feeding spoiled foods

## Choosing appropriate foods for young children

- Junk foods vs. fruits and vegetables

## Deworming

## Providing vitamins



“We don't know whether we suffer from it or not, and we don't know what form it takes, so if you suffer from it you have to look for medications [to cure it].”

Focus Group participant, mother



“...we don't get taught anything about nutrition in public school. Not even one day. How can we know what it is or how to avoid it?”

Key Informant, woman





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