

The Normalization of Childhood Disease: An Ethnographic Study of Child Malnutrition in Rural Guatemala

**Anita Chary, Sarah Messmer, Eric Sorenson, Nicole Henretty,
Shom Dasgupta, and Peter Rohloff**

Guatemala has one of the highest rates of child stunting in the world; the indigenous Maya population, who constitute a majority, are disproportionately affected in comparison to the general population. Nevertheless, research on the social dynamics of malnutrition in Maya communities is lacking. To address this deficiency, we present here an ethnographic study of caregivers' experiences of child malnutrition in two rural indigenous towns, supplemented by quantitative data collection on rates of child malnutrition in both study sites. Our research documents the ways in which child malnutrition is a "normalized" total experience for communities and caregivers, heavily influenced by local and structural inequalities, and we explore the policy implications of our findings for effective child nutrition programming.

Key words: Guatemala, malnutrition, child health, ethnography, Maya, indigenous

Introduction

Guatemala is a Central American nation with a large indigenous Maya population. According to recent surveys by the National Bureau of Statistics, 38 percent of Guatemalans self-identify as indigenous (MSPAS et al. 2009), although many groups contest that this number is far too low and reflects survey bias. Guatemala is also one of the most impoverished nations in Latin America, with the third lowest Human Development Index in the Americas (UNDP 2009). The indigenous segments of the population shoulder the brunt of this poverty. National health surveys show large disparities in health outcomes between the indigenous and non-indigenous populations (e.g., MSPAS et al. 2009). The World Bank has reported that although approximately 55 percent of the general population lives in poverty and 15

percent in extreme poverty, these numbers increase to nearly 80 percent and 30 percent for the indigenous population (Gragnotati and Marini 2003).

Of particular importance as a health indicator in Guatemala is the rate of child malnutrition. Guatemala has one of the highest rates of stunting (low height-for-age) in the world, and fully 56 percent of all malnourished children in Central America reside in Guatemala (World Bank 2010). In a recent national survey, 43 percent of children between three and 60 months of age were stunted, and the prevalence was 50 percent higher than this average in some rural indigenous areas (MSPAS et al. 2009). According to one independent estimate, the rate of stunting in indigenous children is twice that of non-indigenous children (World Bank 2008).

Child Malnutrition Research and Policy in Guatemala

Child malnutrition research in Guatemala is well respected in the academic community worldwide, largely due to the efforts of the large Instituto de Nutrición de Centroamérica y Panamá (Nutrition Institute of Central America and Panama or INCAP) cohort study, which began as a supplementary feeding program in several rural Guatemalan communities running from 1969-1977 (Martorell, Habicht, and Rivera 1995). Excellent longitudinal follow-up from the study has permitted a clear delineation of the intergenerational health and socioeconomic effects of early childhood supplementary feeding (Stein et al. 2008; Stein et al. 2009). One important outcome of the study has been

Anita Chary is affiliated with the Department of Anthropology and School of Medicine at Washington University in St. Louis, Missouri. Sarah Messmer is affiliated with the Harvard Medical School. Eric Sorenson is affiliated with the School of Medicine at the University of Southern California. Shom Dasgupta is affiliated with the Department of Pediatrics at the University of California-Los Angeles Harborview. Nicole Henretty is affiliated with Edesia, Inc. Peter Rohloff is affiliated with the Departments of Medicine at Brigham and Women's Hospital and Children's Hospital in Boston, Mass. This work was supported in part by a grant from the Child Health Foundation (to Rohloff). All authors are current or former staff members or volunteers for Wugu' Kawoq, a non-governmental health sector organization in Guatemala.

the definitive demonstration that the problem of child malnutrition in Guatemala is primarily one of chronic, endemic undernutrition (stunting or low height-for-age), rather than more acute wasting (low weight-for-height) or underweight (low weight-for-age).¹ Similarly, the study demonstrated that the onset of faltering in height velocity occurs extremely early, often in the first year, and that full catch-up growth is often impossible to achieve (Ruel, Rivera, and Habicht 1995). In our own work, we have described how the onset of growth faltering is closely associated with the transition to complementary feeding around 6 months of age and is negatively correlated with caregivers' financial stability and the availability of high quality infant foods (Chary et al. 2011; Chary, Messmer, and Rohloff 2011).

Effective child nutritional programs in Guatemala have been hampered over the years by a historical programmatic focus on school feeding programs (e.g., Nutrinet 2009), despite a lack of evidence as to the efficacy of these approaches for reducing rates of malnutrition. The roots of this emphasis on school nutrition date to the 1950s, paralleling efforts by wealthier countries to develop school-based domestic programs (Gundersen 2009) as well as the subsequent exportation of these programmatic priorities to Guatemala by major donors (Nutrinet 2009). However, the last decade has seen important changes in nutrition policies. For example, the World Food Program (WFP n.d.) has provided a corn and soy-based fortified supplement (Vitacereal) targeted primarily to infants and toddlers in rural communities. Additionally, there have been strong policy reformulations by major international donors, including USAID (2010, 2011a) and WFP, in favor of early childhood programs—"the first 1,000 days of life." These reformulations have caught public interest (Gamazo 2011; Prensa Libre 2010a, 2010b), and they underpin the official efforts of the new presidential administration to formulate a national multisectorial early child nutrition policy (SEGEPLAN 2012).

These policy shifts clearly necessitate a renewed research focus on the knowledge, attitudes, and practices of caregivers and community leaders in their approach to child nutrition and illness. This is because the new attention given to infant and toddler nutrition programming will require more direct contact with individual caregivers than did school-based programming. Prior research in other areas of health programming, such as emergency medical services and obstetrical care, has clearly demonstrated how the acceptance and utilization of health programs by indigenous communities in Guatemala is strongly affected by local models of wellness, language barriers, and medical paternalism (Annis 1981; Berry 2006, 2008; Gleit and Goldman 2000; Kestler 1995; Roost Mattias, Liljestrand, and Essen 2004). With one notable exception (Bennett 2009), the qualitative literature on indigenous child health in Guatemala is extremely limited and is focused almost exclusively on the elaboration of folk taxonomies of childhood disease (Burleigh, Dardano, and Cruz 1990; Pebley, Hurtado, and Goldman 1999; Scrimshaw and Hurtado 1988).

Aims and Scope of this Research

Against this background, we take up an ethnographic investigation of caregiver perceptions and experiences of child malnutrition in two rural indigenous communities. Our ethnographic data is supplemented by quantitative data collection on rates of child malnutrition in both communities, which helps to triangulate themes that emerge in the ethnography and also provide a concrete estimate of the magnitude of the "problem" around which the qualitative inquiry pivots. The proximal goal of the research presented here is to explore the social constellations in rural indigenous communities which shape views of child health and illness and which influence health care access behaviors. Ultimately, the programmatic goal of our research program is to improve community-based pediatric health programming in rural Guatemala. With this in view, here we demonstrate that the normalization of childhood disease and malnutrition in rural settings, as well as continued malfeasance and paternalism in the medical referral structure, are the major logistical barriers to effective pediatric programming.

Methodology

Site Description

Chi Poqol (see Table 1) is a rural agricultural community located in the department of Chimaltenango. The largest nearby city is San Juan Comalapa, a two-hour walk down a road which does not have any regular transportation. All 325 residents of the community are indigenous Maya who speak Kaqchikel and Spanish. Most inhabitants have small land holdings and grow a mixture of household staples and commodities for local sale. Men often supplement income through employment in construction or as unskilled laborers. Fifty percent of the population lives on less than \$2 per day.²

K'exel (see Table 1) is a rural agricultural community located in the Piedmont region of the department of Suchitepéquez. The largest nearby city is Mazatenango, which is located a half-hour bus ride away. The majority of the 500 village residents are indigenous Maya who speak a mixture of Spanish, Kaqchikel, and K'ichee'. Nearly all local land belongs to plantation owners, and the majority of K'exel's residents work as day laborers, either on plantations or as construction workers. Frequent unemployment is common with 28 percent of households living on less than \$2 per day.²

Ethics

All work was conducted under the auspices of Wuqu' Kawoq, a health services NGO working in both K'exel and Chi Poqol at the request of the respective communities to establish child nutrition programs. The authors are all current or former staff or volunteers for Wuqu' Kawoq. Chi Poqol, K'exel, and names of informants are all pseudonyms. Local site approval and ethics review was provided by Wuqu'

Table 1. Basic Demographic Characteristics of K'exel and Chi Poqol

	K'exel	Chi Poqol
Total population	500	325
% Male	46	52
% 6-59 months	15	12
% Female who have completed 3rd grade	21	15
Major forms of employment	Unskilled day labor Construction Coffee growing	Unskilled day labor Construction Subsistence agriculture Weaving
Languages spoken	Spanish Kaqchikel K'ichee'	Spanish Kaqchikel

Kawoq's institutional review board. The project was also approved by the institutional review board of Partners Healthcare (Boston, Mass.). Verbal informed consent was obtained prior to data collection, and particular attention was paid in the consent process to advising participants that failure to participate in the study did not jeopardize inclusion in Wuqu' Kawoq's programs.

Anthropometry

Anthropometric data were collected with the help of trained community assistants using standardized methodologies (Cogill 2003). Data were collected in November 2008 in K'exel and in January 2010 in Chi Poqol. A dedicated team of community assistants in each of the two sites participated in an intensive three-day training led by the authors, in which they learned how to obtain accurate weights and heights on study participants. Anthropometric data collection was supervised and verified at all times by one of the study authors. Weights were collected using either an electronic infant and toddler scale (Salter model 914, Salter Brecknell, Fairmont, Minn.) or a hanging scale (Salter model 235, Salter Brecknell, Fairmont, Minn.). Heights were obtained using a stadiometer constructed locally according to established guidelines (Contreras Rojas and Palomino Hamasaki 2007). Anthropometric data were obtained on children aged six to 59 months, and 100 percent coverage of all children in both study sites was obtained. Height/length-for-age (HAZ) and weight-for-age (WAZ) Z scores were calculated using the World Health Organization (WHO) Growth Standards Database for children under five years of age (De Onis et al. 2006) using the WHO Anthro program (WHO, Geneva). According to WHO standards, stunting was defined as a height-for-age z-score (HAZ) of more than -2 standard deviations and underweight as a weight-for-age z-score (WAZ) of more than -2 standard deviations from the international reference population.

Poverty Scores

The Quick Poverty Score (QPS) Toolkit for Guatemala (MEASURE Evaluation/USAID) was used to obtain relative poverty scores, and the accompanying look-up table was used to convert scores to poverty likelihood based on the World Bank poverty lines of \$1 per day and \$2 per day. Although simple measures of poverty are never ideal, particularly in a partial subsistence economy like rural Guatemala, the QPS has previously been validated against a large national poverty data set (INE 2007) and is widely used by development organizations in Guatemala, especially in the microfinance industry.

Ethnography

From July 2008 to July 2009, study investigators conducted in-depth interviews with 73 mothers in K'exel and engaged in community events as participant-observers on a nearly daily basis. From January 2010 through June 2010, this work was replicated in Chi Poqol with all 38 mothers. Interviews were unstructured and open-ended, ranged from 40 to 180 minutes, conducted in participants' homes, and covered the following topics: child care and feeding practices; food security and diversity; understandings of child malnutrition, health, and illness; patterns of health care seeking for children's illnesses; and experiences of infrastructure lack and poverty. Additionally, the two study investigators who are physicians (SD and PR), conducted clinical intake interviews in Wuqu' Kawoq's clinical facility with all female caregivers to discuss child feeding practices and medical status. Most interviews were not recorded due to the preferences of participants. Transcripts of recorded interviews, field notes from participant-observation, and extensive notes taken throughout and immediately after non-recorded interviews form the basis of the ethnographic data. Authors coded these texts using an inductive approach to search for themes relating to structural and social determinants of child malnutrition (Bernard 2011).

Results

Quantitative Assessment of Child Malnutrition in K'exel and Chi Poqol

The frequency distribution of HAZ and WAZ for all child residents of K'exel ($n=87$) and Chi Poqol ($n=39$) between six and 59 months of age are represented in Figures 1A and 1B, respectively. Mean WAZ score was -1.25 (95 percent confidence interval -1.48 to -1.01) in K'exel and -1.47 (95 percent confidence interval -1.68 to -1.27) in Chi Poqol, giving a prevalence of underweight of 24 percent and 34 percent respectively. Mean HAZ score was -2.32 (95 percent confidence interval -2.59 to -2.05) in K'exel and -3.09 (95 percent confidence interval -3.30 to -2.89) in Chi Poqol, giving a prevalence of stunting of 71 percent and 87 percent respectively. There were no cases of wasting (low weight-for-length) observed. Data are summarized in Table 2.

Malnutrition in the Home: The Deprioritization of Child Health in Resource-Poor Conditions

Elvia is a shy young woman in her late twenties from Chi Poqol. She tends to avoid group interactions, always hanging on the edge of the crowd of other women when they gather for social events. When she was a small girl, a pot of boiling water fell on her head. Lacking adequate access to medical care, her burns were never adequately treated. She now wears a low head scarf to conceal the extensive, disfiguring scars on her scalp and forehead.

Elvia has five young children and is several months pregnant with another. Together with her children, she lives in a poorly constructed dwelling with an earth floor and an open hearth that fills the home with smoke. Her home lacks a toilet or latrine, leaving her family to perform their necessities in the *campo abierto* (open field). Although Elvia is married, her husband has recently taken up with another woman in the nearby town of San Juan Comalapa; he splits time between the two homes although increasingly spends more time away from Elvia. The amount of money that he provides to Elvia for household expenses (*gastos*) has now almost entirely dried up, given that he is now providing for another household as well.

Based on our anthropometric survey, Elvia's children are some of the most severely stunted children in Chi Poqol. She

admits that food is limited at times, and she relies heavily on *Incaparina* (a gruel-like food supplement) that she receives from the development program in Chi Poqol. However, even cooking *Incaparina* for her children has recently become a challenge, as her husband no longer provides sufficient money to her to buy fuel for her wood fire or sugar to sweeten the *Incaparina* and make it more palatable. Indeed, on a recent trip home, her chronically cash-strapped husband confiscated her monthly allotment of *Incaparina* that she had just received and took it into town to sell. When we asked her how her children's health was holding up under this stressful situation, she replied, "Okay. They are okay. They are not coughing. They don't have fever."

Other women in difficult situations akin to Elvia's approached their children's health in similar ways. Berta, an 18-year-old mother of two, was successively abandoned by two husbands. Unable to work while raising her three year-old son and one year-old daughter, she resorted to living with her parents, who, though embarrassed of her status as an unwed single mother, took Berta into the one-room house in which they live with their other six children. To contribute to the household, Berta alternates between gathering firewood and tending to the children.

On many days, Berta and her children subsist on *café de tortilla*, the liquid portion of day-old stale corn tortillas boiled in water. Berta's two children frequently contract acute illnesses. Over the course of repeated household visits and clinical consultations, we noticed that Berta's children were often listless and did not engage in vigorous play like the children from the neighboring home. Berta seemed to have accepted her children's lethargy as their baseline of health: when asked how her children were faring, she responded, "They haven't had diarrhea today."

Although both Elvia's and Berta's trying social circumstances and stigmatized positions severely circumscribed the possibilities they envisioned for their children's health, similar dynamics existed also in households that were comparatively well-off. For example, Bartola, the respected leader of a women's group in K'exel, has a stable marriage with her regularly employed husband. In order to supplement his wages and help feed their eight children, Bartola has become involved with many microfinance projects. She and her children can often be found dekerneling vast quantities of corn, blending plants to make shampoos, and making handicrafts for sale in international markets. "Sometimes I think it's not

Table 2. Height-for-Age (HAZ) and Weight-for-Age (WAZ) Z-Scores in K'exel and Chi Poqol for Children Aged 6-59 Months

	K'exel ($n=87$)	Chi Poqol ($n=39$)
HAZ	-2.32 (95% CI: -2.59 to -2.05)	-3.09 (95% CI: -3.30 to -2.89)
WAZ	-1.25 (95% CI: -1.48 to -1.01)	-1.47 (95% CI: -1.68 to -1.27)

worth the effort,” she explained, of spending so much of her time and resources to constantly engage in these projects, “but we need to eat.”

For how economically stable the family outwardly appears, Bartola’s children are surprisingly malnourished. On several occasions, when local staff members have informed Bartola of her children’s checkups with physicians, she has suggested that other village children see the doctors instead: “But why? Mine are not sick right now. They haven’t had diarrhea or cough.” When her children do attend the clinic, they often do so accompanied by an older sister, as Bartola is frequently too occupied with her various microlending-related entrepreneurial activities.

Gender Inequalities and Constraints on Caregiver Agency

Florentina’s only child had chronic diarrhea and had stopped growing. His case frustrated the physicians involved in his care, who ordered tests and provided medicines each time Florentina brought him to the clinic in K’xel, but Florentina and her son would miss their follow-up appointments. Months later, Florentina would reappear, explaining that the diarrhea had persisted since the last visit. Several local staff members remarked that they initially interpreted Florentina, a quiet woman in her early 20s, as indifferent and irresponsible. However, after about one year of participating in the program, she stoically disclosed to one of the authors: “My husband does not want me to go to the clinic. He does not want me to leave the house,” not even to bring their son to the doctor. Florentina periodically managed to slip away when her husband was gone. As she relies on her husband’s salary to buy food and lives in his parents’ home, she must obey in order to guarantee economic security for herself and her child.

Florentina’s situation is by no means the exception. In K’xel and Chi Poqol, mothers rely on husbands to provide *gastos*, a portion of their salary, to buy everything from beans to firewood. However, from both our observations and as endorsed during interviews with female caregivers, many men spend their week’s wages on extramarital affairs, alcohol, and sports (cf. Ehlers 2000; Menjivar 2011). Delmi, a young mother with two severely malnourished children, remarked that her husband Francisco denied her weekly *gastos* on numerous occasions. While claiming that his boss had not paid him, he frequently returned home in the evenings with new soccer equipment or smelling of alcohol. When Delmi attempted to challenge Francisco about the issue, he responded with violence.

Many other women related the difficulties that their husbands’ alcohol use posed for feeding and caring for their children. Yolanda connected her husband’s “*vicio*” (“drinking vice”) with her infant daughter’s constant diarrhea and failure to recuperate: “How my heart would like to give her beans, some vegetables! But as he drinks, nothing can be done.” Eva, another young mother, expressed similar sentiments, concerned about the foods she would be able to provide her

infant son when the time for weaning came. “At the end of the week, the men here like to drink and go to bars, including my own husband. We women become bitter, but what are we supposed to do?” Eva remarked that several of her sisters-in-law had grown accustomed to turning a blind eye to their husbands’ infidelities, suffering silently when wages that could feed the family were instead diverted to “other women” in urban brothels.

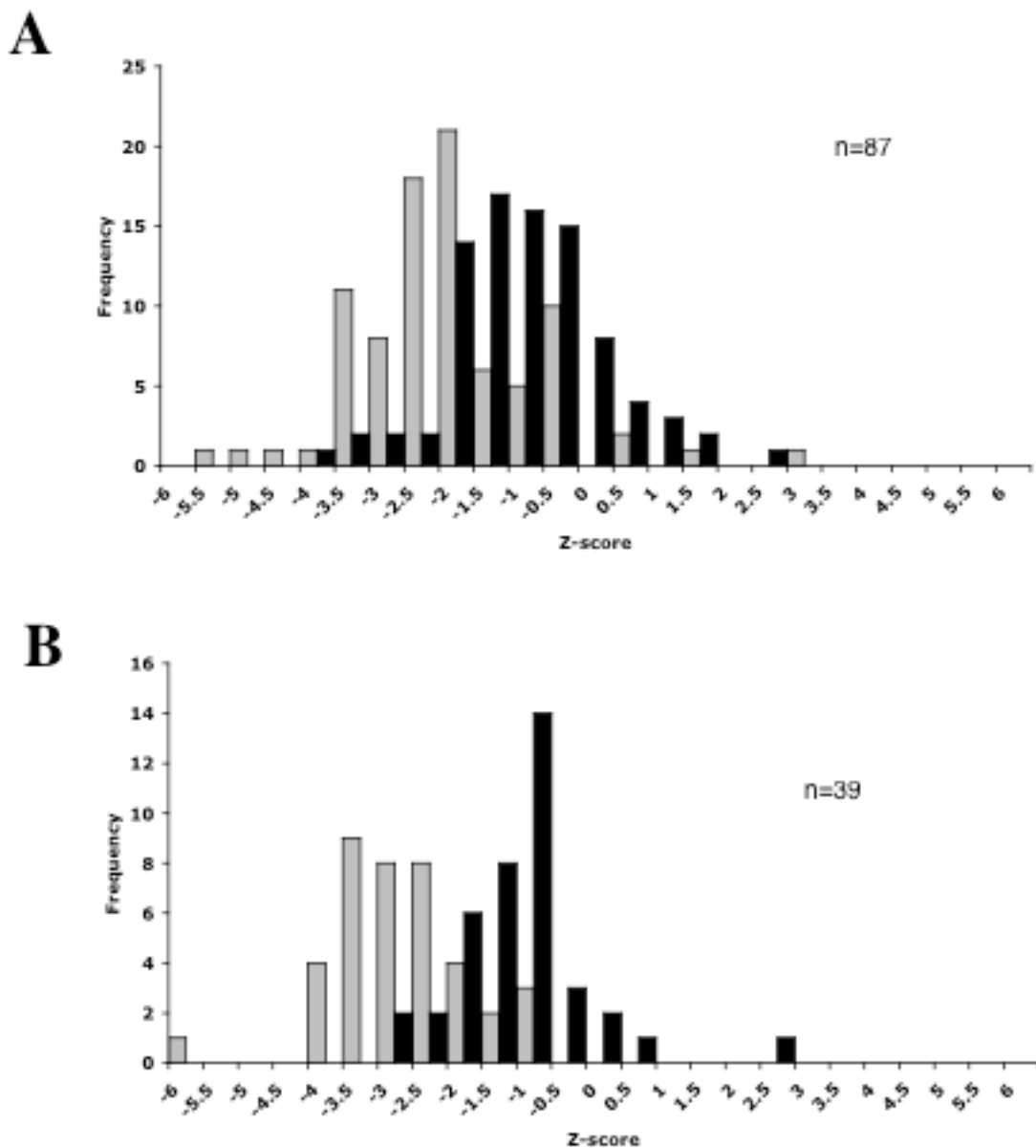
Regardless of whether men provide *gastos*, wives are still expected to find a way to feed both their children and husbands (cf. Ehlers 2000). Delmi, for example, resorted to selling her own clothes in order to feed the children. “I don’t care if I have nothing to eat. But what about the children?” she asked us. Remarking about the tragedy of the situation, Delmi’s sister Lidia showed us an aging photograph of a plump and rosy-cheeked 18-year-old Delmi, a stark contrast to the gaunt 23-year-old we knew.

“We Didn’t Know We Were Malnourished”: The Normalization of Childhood Disease

There is a small women’s cooperative in Chi Poqol, dedicated to improving living conditions and economic prospects in the community. Through the cooperative’s contacts in the nearby municipality of San Juan Comalapa, they reached out to our NGO in late 2009, which had a presence in Comalapa, soliciting help for their community. The authors of this paper participated at those initial meetings, at which time mutual interest in maternal-child health was articulated. We suggested performing a baseline assessment of child nutrition as a way to begin defining need; those results are presented in part here (Figure 1, Table 2). After the baseline assessment, we held a series of informational sessions with the cooperative, in which we explained the overall problem of stunting and described its overwhelming prevalence in Chi Poqol. At one of these sessions, Teresa, the leader of the cooperative expressed the group’s consensus of alarm and surprise: “We didn’t know we were malnourished. We thought it was normal to have short children, and no one told us differently.”

This was a common sentiment in both Chi Poqol and K’xel. During interviews, when women were asked if they thought their children were malnourished, many stated that Guatemalan children are simply short compared to children in other parts of the world, but not necessarily malnourished. “A little sweater for a 6-month-old baby in the United States is what fits a 1-year-old child here,” one woman told us. “*Porque somos chapines, así son nuestros cuerpos.*” (“Because we are Guatemalans, that’s how our bodies are”). Many caregivers of K’xel were shocked, as Teresa was, to find out that their children were considered “malnourished” as we explained their children’s growth curves during clinical consultations. One mother, whose infant son was severely stunted, traced her finger between the data point that plotted her son at several standard deviations below average. “You mean he’s below this red line, but he’s supposed to be at this black line?” she asked in disbelief.

Figure 1. Frequency Distribution of Height-for-Age (Gray Bars) and Weight-for-Age (Black Bars) Z-Scores for Children 6-59 Months of Age in K'exel (A) and Chi Poqol (B)



Chi Poqol’s cooperative, in response to the newfound knowledge that the children of the village were indeed malnourished, suggested the development of a community-based nutrition campaign to aggressively screen for stunting in young children. With our technical assistance, Teresa and the other women in the cooperative learned how to weigh and measure children, and they conduct monthly screenings of all children in the community that are coupled with educational sessions on breastfeeding, infant care, and dietary diversity. This community-based program is complemented by monthly visits from physicians, who perform well child checkups and

examine children who have been identified by Teresa and others as not growing well.

Early on in this clinical setting, which has been ongoing since early 2010, clinical questions designed to sort out the cause of malnutrition and acute disease, such as “How long has the child had a cough?” or “How often does the child have loose stools?” were often met with blank stares. At first, we assumed that this was because this line of biomedical inquiry was unfamiliar to caregivers, as others have claimed (Pebley, Hurtado, and Goldman 1999); however, we quickly came to realize that it was rather the notion of a period of time *without*

symptoms that was completely foreign. Similarly, in K'exel, we found that caregivers were often stumped by the question, "When did your child's diarrhea begin?" While mothers could provide nuanced descriptions about their children's diarrhea regarding color, texture, smell, consistency, and volume, they were rarely able to pinpoint the onset of sickness. A common response this question elicited was, "*Hace ratos*," a phrase that, in this context, means anything from "moments ago" to "since a long time ago [for months]." Notably, the tone of clinical encounters has changed dramatically as the incidence of acute childhood disease has dropped, through the efforts of both community-based programs and water sanitation projects. Now, typically, a question like "How have things been since the last time we saw your child?" will provoke a brief summary of major health events over the last few months (colds, fevers, diarrhea) before the mother quickly turns to the pressing issue at hand, "But that's not so important. How is my child growing?"

"Not Being Attended": Health Care Inadequacies and Untreated Childhood Disease

"*No me atendieron*," Diana charged, "I waited all day, and they didn't attend to me." Her child had stopped eating after two weeks of diarrhea and a cough; she had taken the bus to the government health center closest to K'exel at 7:00 A.M. and had returned home eight hours later. She was upset that the doctor had not performed a physical exam of her child; instead, after a brief interview, he had sent her off to the pharmacy to buy an expensive medicine, "infant cough syrup."

The complaint that one has "not been attended" is a common expression reflecting dissatisfaction with services at health posts and national hospitals. Mothers describe spending all day waiting in line at the health center, only to be sent home at the end of the day. Sandra, a K'exel mother of six, no longer took her son to the health center for his repeated ear infections because if she had the luck of making it into a consultation, the outcome would be a prescription for an antibiotic, which she would have to purchase at a nearby pharmacy. "What's the point of losing my time? It's better to just go straight to the pharmacy," she said.

Others report bringing sick children to the hospital, only to be turned away. "It's not worth it," one woman noted. "Last time, the security guard at the front gate didn't even let us in." Some interviewees pointed to the recent case of a four-year-old girl from the community who had died of appendicitis. Her mother had taken great pains to hire a driver to take her to the hospital in the middle of the night, but hospital staff sent the pair home because no surgeons were available. Another one of our informants made an appointment for specialized testing for her severely malnourished child in Guatemala City. After spending more than a day's salary to travel to the capital city, she was told that her appointment had been cancelled. Despite the fact that her contact information was on file for months before the appointment, no one in the hospital had bothered to inform her.

Berry (2008) describes how, in the department of Sololá, indigenous patients' complaints of "not being attended" reflect long waiting times and unfulfilled therapeutic expectations due in part to lack of awareness of hospital and biomedical protocols. The prohibitive expenses of transportation, food, and medicine associated with "free" government health care also factor into this idiom of distress. However, in addition to the phenomena which Berry describes, in K'exel, "not being attended" especially refers to not being attended *well* or with dignity. Many women elaborate on the phrase with descriptions of how they are reprimanded or "shouted at" in health centers for their children's illnesses—scolding which we have witnessed when accompanying patients to health centers and hospitals.

In one case, Joaquina, a mother who went to the hospital with a low birth weight newborn was scolded by the *ladina* (mixed racial descent) head nurse: "You didn't take care of yourself during your pregnancy. Look at this malnourished baby! Why didn't you eat anything while you were pregnant?" Loudly, for the benefit of all the patients and family members in the waiting area, the nurse yelled at Joaquina for dressing the baby's umbilical stump with ash—a common custom in the area—and pronounced the child critically ill.

Another young mother, Nanci, related that she had taken her baby to the hospital for seizures and severe weight loss. Upon her arrival, two nurses told Nanci it was her fault her baby was dying. Despite Nanci's insistence that she had had monthly prenatal care, the hospital staff wrote in her record (as viewed by one of the authors) that she had never seen a doctor during the pregnancy. After these incidents, Nanci avoided taking her daughter to the hospital, fearing that clinical staff would again blame her for being a "bad mother."

Many caregivers characterized health center and hospital staff as "very angry" people who "scold you." One interviewee shared with us that she had taken to lying about her economic circumstances and child feeding practices to health center and hospital practitioners to avoid being scolded and shamed in public. Another mother, commenting about "not being attended," stated: "*Nosotras como mujeres indígenas somos muy discriminadas*." ("We as indigenous women are heavily discriminated against.")

Discussion

In this paper, we provide new ethnographic data on child malnutrition from two indigenous hamlets in Guatemala, supplemented by a comprehensive anthropometric survey. Regarding the quantitative data, as demonstrated in Figure 1 and Table 2, rates of chronic undernutrition (stunting) were extremely high at 71 percent and 87 percent in K'exel and Chi Poqol, respectively, whereas rates of underweight were much lower and no cases of wasting were detected. These results are consistent with the contemporary understanding of the dynamics of malnutrition in the rural highlands of Guatemala: chronic malnutrition is a significant public health burden, but acute forms of malnutrition are relatively absent

(MSPAS et al. 2009). Importantly, the rates of malnutrition in Chi Poqol and K'exel are much higher than the national average of 43 percent (MSPAS et al. 2009) and three times higher than rates in one recently published contemporary non-indigenous cohort (Stein et al. 2009). These quantitative results are an important prequel to the ensuing ethnography, serving to set the stage and focus lines of inquiry. The sheer pervasiveness of the problem serves as an internal quantitative validation of the themes of hopelessness, restricted agency, and normalization of illness that emerge in the ethnography.

Our ethnographic case studies explore the social constellations that influence the poor child nutritional outcomes described by our quantitative data set. First, we demonstrate how local factors conspire to deprioritize child health in the home (cf. Biehl 2005). Elvia and her children live in low quality housing in a state of extreme poverty and food insecurity, a situation strongly influenced by her husband's behavior. Beset by her own pregnancy, as well as the diseases of her many children, the pressing needs of gathering food and fuel compete for her limited physical and emotional resources. She is further isolated by the shame of her disfiguring burn scars, avoiding the company of other women who might otherwise serve as a source of solidarity and logistical support. Berta is similarly situated at the nexus of extreme poverty, chronic hunger, and a marginalized position as an unwed single mother, which severely restricts her interpretation of the possibilities for her children's health. The case of Bartola, who is relatively better positioned in terms of community standing and social support from her husband, demonstrates how, nevertheless, child health becomes deprioritized in the home as women find themselves overwhelmed by other domestic and economic needs.

Second, we explore how narrowly circumscribed gender roles negatively impact child health. Florentina cares deeply for her son and is invested in improving his health, but the priorities of ensuring a tenuous economic and physical security subsume her ability to attend to her child's chronic diarrhea. There is an extensive literature in Guatemala on the ways in which women's choices are restricted by their relationships to men (e.g., Carey 2001; Chary et al. 2011; Chary, Messmer, and Rohloff 2011; Ehlers 2000; Menjivar 2011; Metz 2006). The cases of women like Florentina and Delmi are extreme in some ways, but broadly normative at the same time. Indigenous women in rural Guatemala often struggle to fulfill multiple roles—wife, homemaker, caregiver—and to take care of their own health in the face of microlocal inequalities, or “everyday violence” (Scheper-Hughes 1993), as well as the trickle-down effects of supra-local structural inequalities (Farmer 2005). Political-economic inequalities and neoliberal restructuring—which occasion the burgeoning of informal economies, severe underemployment, and a retraction of social services—underpin the endemic poverty that restricts women's effective agency in these very roles (cf. Farmer 2004; Galtung 1990; Scheper-Hughes and Bourgois 2004). At the same time, the women of Chi Poqol and K'exel are routinely subject to unequal power relations at the local level

of the community and the household and endure husbands' infidelities, addictions, and abuse. In the zero-sum game of limited maternal energy inputs and multiple demands, child health is relatively deprioritized, vis-à-vis other equally urgent needs (see also Menjivar 2011). Expectations for child health are necessarily lowered: “They are not coughing. They don't have fever.”

As Sen (1994:125) writes, among the world's poor, there is “acceptance of greater discomfort and illness as part of the prevailing mode of living.” Such attitudes reflect what Bourdieu (2000) refers to as “symbolic violence,” through which traditional arrangements of inequality become inscribed in oppressed people's ways of thinking and behaving such that they no longer question injustices of the existing social order. In the Guatemalan setting, this dynamic becomes apparent as childhood disease is normalized as part and parcel of the everyday landscape of poverty and struggle. Women like Elvia and Berta come to accept their children's poor health as a baseline, and because their children have never been any healthier, they do not aspire for a model of child health beyond the limits of their daily experience (see also Cassidy 1980; Nations and Rebhun 1988; Scheper-Hughes 1993).

In our third case study, the theme of the normalization of chronic malnutrition emerges once again, but this time at the community level. Here, however, childhood disease is not normalized only because of low expectations of health in a resource-poor setting (Elvia, Berta) or constrained agency (Florentina, Delmi). Rather, disease is normalized also because of a generalized *unawareness*: “We didn't know we were malnourished. We thought it was normal to have short children, and no one told us any differently.” Indeed, as our quantitative data validate, in Chi Poqol it is entirely “normal to have short children” (Figure 1, Table 2). Wholesale routinization of continual low-level childhood illness is the rule, as evidenced by the initial bewilderment on the part of caregivers in both Chi Poqol and K'exel when we attempted to tease out intercurrent disease timelines.

This finding is particularly important. Although others have documented an apparent failure of indigenous caregivers in Guatemala to grasp standard biomedical concepts, this has typically been interpreted as evidence of an alternative nosology among the Maya (Harvey 2008, 2011; Pebley, Hurtado, and Goldman 1999) and has given impulse to a large literature attempting to document folk etiologies of childhood illness (e.g., Burleigh, Dardano, and Cruz 1990; Pebley, Hurtado, and Goldman 1999; Scrimshaw and Hurtado 1988). As revealed here, however, at least in the case of child malnutrition, both our ethnography and quantitative data point to a more parsimonious, sober, and less idealizing conclusion: namely, that pervasive social abandonment of the rural indigenous population and the widespread underdiagnosis and undertreatment of child malnutrition create a situation in which, quite simply, the absence of childhood illness cannot be imagined or articulated.

At the same time, the third case study also importantly demonstrates the ways in which the rural community serves as a productive social space for its inhabitants. Women in

Chi Poqol are successfully filling the vacuum created by the sublimation of state services, effectively making linkages to private sector extralocal resources (cf. Biehl 2007). Their collective participation in child health projects has contributed to positive sociality and a greater sense of responsibility for the improvement of the whole community. For Chi Poqol, self-organization at the community level has even helped to overcome some of the isolating effects of the home; even Elvia, from our first case study, has now begun to participate in the cooperative's activities, interacting and laughing with other women and sharing stories about her children.

Finally, we delineate the contributions of the peremptory treatment of child malnutrition in government health clinics to caregivers' experiences of childhood disease. By analogy to the extensive ethnographic literature from Guatemala on indigenous women's health and obstetrical care utilization (Berry 2006, 2008; Gleit and Goldman 2000; Villatoro 2001; Walsh 2006), we document the ways in which caregivers and their children experience "not being attended" at the hands of the medical community. At the same time, our analysis extends the literature in new directions. In contrast to Berry (2006, 2008), who, from an analytic framework of multiculturalism, locates the phenomenon of "not being attended" primarily at the intersection of conflicting sets of therapeutic expectations, our data strongly corroborate the phenomenon of "being *mis*-attended" or malfesance by health care providers. We interpret such malfesance as a manifestation of both structural and everyday violence, as the "petty brutalities" (Bourgeois 2004:426) of reprehending patients and denying them care emerge at the intersections of an underresourced, often inaccessible, biomedical system and a legacy of anti-indigenous discrimination encoded in national and local level hierarchies of race and class. Endemic medical *mis*-attention disincentivizes caregivers to seek medical care through fear of scolding, inattention, and accrued expenses, further reinforcing the normalization of childhood disease and malnutrition.

Conclusions

In this paper, we set out to analyze new data on child malnutrition from two indigenous communities in Guatemala. We have adopted here a combined qualitative and quantitative approach to illustrate the absolute significance of the phenomenon of child malnutrition and to explore social constellations that are important determinants of child health. Our case study highlights the ways that structural, everyday, and symbolic violence normalize childhood disease. Local power differentials, often taking the form of gender inequalities, as well as the competing priorities of quotidian subsistence struggles and systematic *mis*-treatment at the level of the medical referral infrastructure reinforce the normalization of child malnutrition. This setting dampens the social imagination of caregivers and communities, who struggle to conceptualize and articulate a vision of child wellness. As the women of the Chi Poqol cooperative demonstrate, communities remain resourceful

and, when given the opportunity, can initiate the process of renormalizing wellness. Mutually respectful collaborations within communities and with extralocal private sector groups can challenge harmful ideologies, potentially leading to robust community-based actions that are a prerequisite for effective child malnutrition interventions in Guatemala.

Based on the findings of this study, the NGO we are associated with instituted several changes to its health programs. First, it increased social work staff and home-based visits in an effort to identify more quickly and respond to cases of social isolation among female caregivers. Second, it increased utilization of caregiver peer support groups as a method to improve social supports and "denormalize" child illness. Third, it instituted a program of medical accompaniment for cases referred to hospitals or other treatment facilities. Outcomes research on the effects of these measures on caregiver supports and child health are ongoing.

Notes

¹A high rate of endemic stunting is a distinct pattern of child malnutrition seen in certain areas of the world, like Guatemala, where health care and infrastructure are poor but where there are not particularly high burdens of periodic food insecurity (famine, drought, or armed conflict) or fatal infectious disease (malaria, tuberculosis, HIV). These latter factors are more likely to produce high rates of acute wasting or underweight, as seen in much of sub-Saharan Africa.

²We used the Quick Poverty Score to calculate these numbers on the poverty line, as explained below in the Methodology section.

References Cited

- Annis, Sheldon
1981 Physical Access and Utilization of Health Services in Rural Guatemala. *Social Science and Medicine* 15(D):515-523.
- Bennett, Elaine Marie
2009 Understanding Childhood Malnutrition in a Maya Village in Guatemala: A Syndemic Perspective. Ph.D. thesis, University of Connecticut.
- Bernard, H. Russell
2011 *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. 5th ed. Lanham, Md.: AltaMira Press.
- Berry, Nicole S.
2006 Kaqchikel Midwives, Home Births, and Emergency Obstetric Referrals in Guatemala: Contextualizing the Choice to Stay at Home. *Social Science and Medicine* 62(8):1958-1969.
2008 Who's Judging the Quality of Care?: Indigenous Maya and the Problem of "Not Being Attended." *Medical Anthropology Quarterly* 27(2):164-189.
- Biehl, Joao
2005 *Vita: Life in a Zone of Social Abandonment*. Berkeley: University of California Press.
2007 *Will to Live: AIDS Therapies and the Politics of Survival*. Princeton, N.J.: Princeton University Press.
- Bourdieu, Pierre
2000 *Pascalian Meditations*. Stanford, Calif.: Stanford University Press.

- Bourgois, Phillippe
2004 The Continuum of Violence in War and Peace: Post-Cold War Lessons From El Salvador. *In* *Violence in War and Peace: An Anthology*. Nancy Scheper-Hughes and Phillippe Bourgois, eds. Pp. 425-434. Malden, Mass.: Blackwell.
- Burleigh, Elizabeth, Carmen Dardano, and Jose R. Cruz
1990 Colors, Humor, and Evil Eye: Indigenous Classification and Treatment of Childhood Diarrhea in Highland Guatemala. *Medical Anthropology* 12(4):419-441.
- Carey, David
2001 *Our Elders Teach Us: Maya-Kaqchikel Historical Perspectives*. Tuscaloosa: University of Alabama Press.
- Cassidy, Clare Monod
1980 Benign Neglect and Toddler Malnutrition. *In* *Social and Biological Predictors of Nutritional Status, Physical Growth, and Neurological Development*. Lawrence S. Greene and Francis E. Johnston, eds. Pp. 109-139. New York: Academic Press.
- Chary, Anita, Sarah Messmer, Shom Dasgupta, and Peter Rohloff
2011 Breastfeeding, Subjugation, and Empowerment in Rural Guatemala. *In* *An Anthropology of Mothering*. Michelle Walks and Naomi McPherson, eds. Pp. 172-182. Bradford, Canada: Demeter Press.
- Chary Anita, Sarah Messmer, and Peter Rohloff
2011 Male Influence on Infant Feeding in Rural Guatemala and Implications for Child Nutrition Interventions. *Breastfeeding Medicine* 6(4):227-231.
- Cogill, Bruce
2003 *Anthropometric Indicators Measurement Guide*. Washington, D.C.: Food and Nutrition Technical Assistance Project.
- Contreras Rojas, Mariela, and Carmen Palomino Hamasaki
2007 *Elaboración y Mantenimiento de Infantómetros y Tallímetros de Madera*. Lima, Peru: UNICEF.
- De Onis, Mercedes, Cutberto Garza, Adelheid W. Onyango, and Reynaldo Martorell, eds.
2006 WHO Child Growth Standards. *Acta Paediatrica* 95(Supplement 450): 76-85.
- Ehlers, Tracy
2000 *Silent Looms: Women and Production in a Guatemalan Town*. Austin: University of Texas Press.
- Farmer, Paul
2004 An Anthropology of Structural Violence. *Current Anthropology* 45(3):305-325.
2005 *Pathologies of Power: Health, Human Rights, and the New War on the Poor*. Berkeley: University of California Press.
- Galtung, Johan
1990 Cultural Violence. *Journal of Peace Research* 27(3):291-305.
- Gamazo, Carolina
2011 La Ventana de los Mil Días. *El Periodico*. URL:<<http://www.elperiodico.com.gt/es/20111128/pais/204212>> (January 10, 2012).
- Glei, Dana A., and Noreen Goldman
2000 Understanding Ethnic Variation in Pregnancy-Related Care in Rural Guatemala. *Ethnic Health* 5(1):5-22.
- Gragnotati, Michele, and Alessandra Marini
2003 *Health and Poverty in Guatemala*. World Bank Policy Research Working Paper 2966. Washington, D.C.: The World Bank.
- Gunderson, Gordon W.
2009 The National School Lunch Program: Background and Development. URL:<<http://www.fns.usda.gov/cnd/lunch/AboutLunch/ProgramHistory.htm>> (January 10, 2012).
- Harvey, T. S.
2008 Where There is No Patient: An Anthropological Treatment of a Biomedical Category. *Culture, Medicine, and Psychiatry* 32(4):577-606.
2011 Maya Mobile Medicine: The “Other” Public Health. *Medical Anthropology Quarterly* 25(1):47-69.
- Instituto Nacional de Estadística (INE)
2007 ¿Cómo Estamos Viviendo? Encuesta Nacional de Condiciones de Vida: Principales Resultados, 2006. Guatemala City: Instituto Nacional de Estadística.
- Kestler, Edgar E.
1995 Guatemala: Maternal Mortality in Guatemala: Assessing the Gap, Beginning to Bridge it. *World Health Statistics Quarterly* 48(1):28-33.
- Martorell, Reynaldo, Jean-Pierre Habicht, and Juan A. Rivera
1995 History and Design of the INCAP Longitudinal Study (1969-1977) and Its Follow-up (1988-1989). *Journal of Nutrition* 125(Supplement 4S):1027S-1041S.
- Menjivar, Cecilia
2011 *Enduring Violence: Ladina Women’s Lives in Guatemala*. Berkeley: University of California Press.
- Metz, Brent
2006 *Ch’orti’ Maya Survival in Eastern Guatemala: Indigeneity in Transition*. Albuquerque: University of New Mexico Press.
- Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística, Universidad del Valle de Guatemala, USAID, Agencia Sueca de Cooperación para el Desarrollo Internacional, CDC, UNICEF, UNFPA, PAHO, USAID/Calidad en Salud
2009 V Encuesta Nacional de Salud Materno Infantil 2008-2009. Guatemala City: MSPAS et al.
- Nations, Marilyn, and Linda A. Rebhun
1988 Angels With Wet Wings Won’t Fly: Maternal Sentiment and the Image of Neglect in Brazil. *Culture, Medicine, and Psychiatry* 12(2):141-200.
- Nutrinet
2009 *Historia de la Alimentación Escolar en Guatemala*. URL:<<http://guatemala.nutrinet.org/areas-tematicas/alimentacion-escolar/casos-exitosos/201-historia-de-la-alimentacion-escolar-en-guatemala>> (January 10, 2012).
- Pebly, Anne, Elena Hurtado, and Noreen Goldman
1999 Beliefs About Children’s Illness. *Journal of Biosocial Science* 31(2):195-219.
- Prensa Libre
2010a Guatemala Debe Multiplicar Esfuerzos Contra la Desnutrición Infantil. URL:<http://www.prensalibre.com.gt/noticias/politica/pma-desnutricion_infantil-programas_sociales-estudio_0_295170641.html> (February 1, 2011).

- 2010b Los Menores de 2 Años No Reciben Debida Atención. URL:<http://www.prensalibre.com.gt/noticias/alimentacion_pobreza-pma_alimentos_0_295770584.html> (February 1, 2011).
- Roost Mattias, Sara Johnsdotter, Jerker Liljestrand, and Birgitta Essen
2004 A Qualitative Study of Conceptions and Attitudes Regarding Maternal Mortality Among Traditional Birth Attendants in Rural Guatemala. *British Journal of Obstetrics and Gynecology* 111(12):1372-1377.
- Ruel, Marie T., Juan Rivera, and Jean-Pierre Habicht
1993 Length Screens Better Than Weight in Stunted Populations. *Journal of Nutrition* 125(5):1222-1228.
- Scheper-Hughes, Nancy
1993 *Death Without Weeping: The Violence of Everyday Life in Brazil*. Berkeley: University of California Press.
- Scheper-Hughes, Nancy, and Phillipe Bourgois, eds.
2004 *Violence in War and Peace: An Anthology*. Malden, Mass.: Blackwell.
- Scrimshaw, Susan C. M., and Elena Hurtado
1988 Anthropological Involvement in the Central American Diarrheal Disease Control Project. *Social Science and Medicine* 27(1):97-105.
- Secretaría de Planificación y Programación de la Presidencia (SEGEPLAN)
2012 Pacto Hambre Cero: Retos para Guatemala. URL:<http://www.unicef.org.gt/2_sala_de_prensa/docs_y_media/4_SEGEPLAN_Hambre_cero.pdf> (August 1, 2012).
- Sen, Amartya
1994 Objectivity and Position: Assessment of Health and Well-Being. *In* *Health and Social Change in International Perspective*. Lincoln C. Chen, Arthur Kleinman, and Norma Ware, eds. Pp. 115-128. Cambridge, Mass.: Harvard University Press.
- Stein, Aryeh D., Paul Melgar, John Hoddinott, and Reynaldo Martorell
2008 Cohort Profile: The Institute of Nutrition of Central America and Panama (INCAP) Nutrition Trial Cohort Study. *International Journal of Epidemiology* 37(4):716-720.
- Stein, Aryeh D., Meng Wang, Ann DiGirolamo, John Hoddinott, Reynaldo Martorell, Manuel Ramirez-Zea, and Kathryn Yount
2009 Height for Age Increased While Body Mass Index for Age Remained Stable Between 1968 and 2007 Among Guatemalan Children. *Journal of Nutrition* 139(2):365-369.
- United Nations Development Program (UNDP)
2009 *Human Development Report*. New York: United Nations Development Program.
- United States Agency for International Development (USAID)
2010 PM2A: Title II Preventing Malnutrition in Children Under 2 Approach. URL:<<http://www.fantaproject.org/pm2a/index.shtml>> (January 10, 2012).
2011a Our Neighbors, Ourselves: Guatemala's Chronic Malnutrition Crosses Borders. URL:<http://www.usaid.gov/press/frontlines/fl_nov11/FL_nov11_FOOD_GUATEMALA.html> (November 11, 2011).
- Villatoro, Elba
2001 *Promoción de la Medicina y Terapias Indígenas en la Atención Primaria de Salud: El Caso de los Maya de Guatemala*. Washington, D.C.: Pan American Health Organization.
- Walsh, Linda V.
2006 Beliefs and Rituals in Traditional Birth Attendant Practice in Guatemala. *Journal of Transcultural Nursing* 17(2):148-154.
- World Bank
2008 *International Bank for Reconstruction and Development and International Finance Cooperation Country Partnership Strategy for the Republic of Guatemala (Report Number: 44772-GT)*. New York: The World Bank.
2010 *Improving Health and Nutrition of Mothers and Young Children in Guatemala*. URL:<<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/GUATEMALAEXTN/0,,contentMDK:20903253~pagePK:1497618~piPK:217854~theSitePK:328117,00.html>> (January 10, 2012).
- World Food Program (WFP)
n.d. *Guatemala: La Historia del Vitacereal*. URL:<<http://es.wfp.org/content/guatemala-la-historia-del-vitacereal>> (October 20, 2012).