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Guatemala: Cultivating Nutrition Education to Combat Malnutrition in Rural Communities

Mayan indigenous people lived in the Central American country of Guatemala long before the Spanish invaded. The people of Spain would take over the country influencing the Mayan's way of life by establishing a government, imposing their Catholic religion and dictating how the indigenous people would dress. While independence from Spain came in 1821, dictators ruled and the indigenous people suffered. The recent 36-year civil war has left the indigenous people in greater need. In the rural area of Tactic, Guatemala, the divide is still evident between the Spanish and Mayan indigenous people by their dress, housing and level of education. While the Tactic farmer's market is filled with produce sold by the indigenous rural people, they tend to eat only corn tortillas, rice and black beans. The lack of proper diet is one cause of malnutrition. Malnutrition is becoming a growing concern because it causes children to become sick and weak with stunted growth. The rural people of Guatemala need to be educated on the importance of a nutritional diet and how they can best implement this into their daily lives.

A combination of unequal distribution of wealth, low minimum wage, and poor education contribute to the high rate of rural poverty. The average annual population growth of Guatemala is 2.5% a year, making the current population 13 million, with 39% of these people living in urban cities ("Guatemala-Country Overview"). It is believed more than 75% of Guatemalans live below the poverty line ("Guatemala-Poverty and Wealth") and that 40% of these people are indigenous (Valladares). One main problem is that 70% of the land is owned by two percent of the population, making it hard for poor rural workers to improve their financial situation ("Guatemala-Overview", CIDA). The workers are forever dependent upon landowners for their income and within agriculture the work is influenced by seasons and climate conditions. The National Statistics Institute estimates the cost of everyday needs is \$490 US per month but the income of rural indigenous people is insufficient (Valladares) To boost financial income on January 1, 2011 President Alvaro Colom increased minimum wage from \$183/month to \$273/month; however, it still falls short of covering basic needs (Valladares). Also this minimum wage, only affects those with a steady job. Most indigenous rural Guatemalans depend upon seasonal jobs within agriculture. For instance, during the December to March coffee season an entire rural family will work together to pick 250 pounds of coffee beans to make \$5 US per day (Chupa). The hardest hit people are the 12% of all Guatemalans living on \$1.25 US per day and 24% living on \$2 US ("Guatemala-Overview", CIDA). People with this income often suffer from poor education and low literacy rates. Only 41% of school-aged children attend regular classes, and only 55.6% of all the population has had an education. This lack of education is often caused by the need for children to work at home to help provide for their families ("Guatemala-Poverty and Wealth"). It is common for children to attend school until second grade, at which point they have a basic education and are old enough to work with their parents. If they continue in their education, not many children attend high school. Due to the extreme poverty and lack of sufficient means to provide proper nutritious food, families living in poverty are more susceptible to illnesses and other health problems such as malnutrition.

Production of agriculture in Guatemala provides many diverse foods, along with a source of income for rural workers. According to the "Country Profile-Guatemala" *from New Agriculturalist*, agriculture employs over half of the labor force, contributes to two-thirds of all exports, and provides 25% of gross domestic product, which refers to total market value of goods produced within a country. Traditional crops such as coffee, sugar, and bananas are exported alongside non-traditional crops like snowpeas, broccoli, cauliflower and melons; however, many poor rural families still face seasonal food shortages ("Country Profile- Guatemala"). Such shortages seem strange because the Tactic farmer's market is filled

every Sunday with fruits, vegetables, meats, breads, and grain being sold by indigenous people from the communities surrounding Tactic. However, while the rural people grow and sell all these foods, they hardly ever keep the food for their family to eat. The produce is seen as income to help the families have enough money to survive rather than substance for a well-balanced diet. Often seasonal foods such as maize, beans and rice are staple food for indigenous Guatemalans. The people tend to eat corn tortillas and black beans because these foods are cheaper and traditional. “One of the myths about addressing ‘hunger’ in Guatemala is that people need to eat more. The issue isn’t about eating more; it’s about eating better.” (Bleggi) With meager earnings to pay for food, the diet of rural Guatemalans is not sufficient to provide for the health requirements of the people.

The lifestyle in rural Guatemala is based on traditions revolving around families and survival. Family members normally live close to or with each other helping to care for the extended family. While most rural indigenous parents have more than three children, they consider their family to include their extended relatives. Therefore a “family” consists of parents, their unmarried children, married children, grandchildren and, elderly parents, as well as other relatives. It is not uncommon for extended families to live within a single housing structure or “compound” made of small structures placed together. In October 2011, I traveled to Tactic, Guatemala for ten days working with Impact Ministries. During this time I had the opportunity to be a guest within a rural indigenous family compound. Living within the compound were two extended families, the first family with parents, two children and their orphaned niece; the second with parents and three children. Upon entering the three-room cement house with dirt floors, I noticed the main room was no bigger than my bedroom back home. Within this room were two chairs, a window with no glass or screen and a small dresser; a smaller bedroom had rolled up mats on the floor and a small table; the kitchen area had a sink and a vat where the wife made cheese within the home to sell at the market. The family had no land for a garden and the husband worked in the fields to provide for his family. Attached to the cement house was a two-room wooden structure with dirt floors and a tarp roof which had a main room with a sink, a wooden stove, a bench and a chicken coop; beyond the main room was a small bedroom. The cousins who lived within the compound could go between houses by a door in the main rooms. For each meal the women would walk to the community grinder where they would grind just enough corn into dough to make fresh tortillas for their meal. A Guatemalan family of six normally consumes 32 quintals of corn and 7 quintals of black beans annually; however, it is believed this will decrease as food prices continue to rise (FAO/WHO). For some families the problem is not just a lack of funds, but the number of people they have to feed, there is just not enough food to go around (Miller). This makes it very difficult to fight hunger and problems like malnutrition. For the poorest families attending school at Impact Ministries it is said, “A good day is made of waking, working, feeding their children one meal, and going to bed without anyone getting sick” (Chupa).

Malnutrition is a prevalent problem within Guatemala as children in rural families and pregnant women have health complications including weakness and inability to fight off infection. Standing as the fourth highest in the world (Valladares) and the highest rate in Latin America (Miller), approximately 50% to 75% of the children in Guatemala suffer from a type of food poverty known as chronic malnutrition (Reuters). The health condition of malnutrition develops when the body does not get the right amount of vitamins, minerals, and other nutrients it needs to maintain healthy function. As it develops in stages over long periods, the onset of malnutrition signs and symptoms may not occur right away (Reuters). Children who suffer from chronic malnutrition are not in immediate danger of starvation, but face symptoms like stunted growth and, diminished mental capacity (Loewenberg), as well as dizziness and loss of weight (“Malnutrition”). Malnutrition is also a common concern among pregnant or nursing women. Because any malnutrition the mother may have experienced before or during pregnancy is made worse due to the added stress on the body, it can lead to problems in both the mother’s body and her child’s because they are not getting the proper nutrients they need (“Nutritional Habits During Pregnancy & Lactation.”). Although malnutrition is a problem, it is not untreatable. There are ways to treat malnutrition; it usually

consists of replacing the missing nutrients from the body while, treating the various symptoms of malnutrition, and any other health problems, in most cases by implementing proper diet (“Malnutrition”).

The Guatemalan government is getting involved to battle the issue of malnutrition in their country. The new president Otto Perez Molina has initiated a program called “Hunger Zero” to combat chronic malnutrition in Guatemala. The hunger zero project will start in the areas hardest hit by malnutrition (Bleggi). It will focus on the first 1,000 days after a child is born, keeping the mother and child well nourished. (Arthur) According to Dr. Reynaldo Martorell, an international nutrition expert from Emory University, “The Guatemalan diet is excessively high in calories, particularly those derived from sugar and other simple carbohydrates; and the consumption of fats and oils has increased this is what causes malnutrition. (Arthur) This is why President Molina has focused on the mother and child relationship. However, the government is slow in its implementation and hampered by little new money. This is why other organizations must come in and help out. One such organization, Guatemalan Mothers, has been formed with members taking part in the quest to educate families about nutrition and feeding programs. These mothers are working in communities where 80% of children suffer from malnutrition. Currently 228 mothers have been trained in a project which aims to reduce malnutrition among children, pregnant women and breastfeeding mothers. This project is supported by UN agencies and the Guatemalan government. It is targeting 40 indigenous communities in the Totonicapán area, which has the highest rate of child malnutrition in the country. These women are elected leaders in their communities. They teach good practices in the family diet for pregnant and nursing mothers (Dzregah)

Children can learn about malnutrition through the education system in Guatemala. As children are educated the overall literacy rate will increase. When the literacy rate is increased it will help to boost their economy because the Guatemalan people will know how to better care for themselves. Higher education also allows Guatemalans to acquire superior jobs, resulting in an improved lifestyle, raising income and positively affecting food security in the years to come. If education against malnutrition only takes place in the public school system, then only some of the population will be affected by the teachings. Therefore other sources of education must be used to effectively teach rural families. Supporting the public schools are private organizations like Mano con Mano that run afterschool programs which include a feeding and health program where a doctor weighs and measures each child monthly. Outside of the public school system, private education must be utilized in the rural villages to teach about malnutrition and healthy diets. Private schools like Colegio Cristiano Vida run by Impact Ministries must be part of the solution. Their rural schools provide one healthy meal each day and healthcare for each child and their families attending the school. Because Impact Ministries has had such success in continuing education beyond second grade, mayors from other poor rural villages have donated land for more schools to be built. These organizations work well within the community and are a good source of education alongside the public schools (Chupa).

Outside of schools, taking education directly to rural people is important for improving the health of adult Guatemalans. Due to high poverty levels, there is lack of transportation to the teaching sights and an unwillingness to travel to medical care, Therefore, trained individuals need to go into rural villages and teach the local indigenous population how to improve their diet to treat and prevent malnutrition. In theory, the best way to teach this new concept would be for indigenous people to teach other indigenous people because they already have an understanding of the culture and traditions relating to the people they are teaching. Once some of the rural indigenous people learn about treatment and care for malnutrition they can take their knowledge to others in their culture and teach them about the importance of a healthy diet. This will be the most effective way of teaching because the indigenous Guatemalans know their culture, beliefs, superstitions and there are still areas within Guatemala where no “white man” has entered (Chupa). This model is becoming a reality, Indigenous Guatemalans are graduating from Impact Ministries, then attending colleges to become doctors, nurses, social workers and agricultural specialists who go to the unreached people. Until local leaders are in place to educate the rural villages, first steps

can be put into practice by utilizing the doctors and healthcare specialists from organizations like Mano con Mano where the doctor already gives health classes within the village of San Jose el Yalu (Chupa) and Impact Ministries where they transport family members to their free medical clinic when the doctor is in town. This is important because these organizations are already known and trusted within the community villages. Within the culture of Guatemala, utilizing already established individuals would be important because the relationships are already in place. They will have a greater success with training the indigenous population about malnutrition. Supporting organizations like Mano con Mano and Impact Ministries are groups of short term mission teams from Canada and the United States with doctors, nurses and educators who help where needed. This interaction gives a direct perspective into the needed work causing people like Karren Chupa to give up her North American life of ease for full-time work educating indigenous Guatemalans. When more emphasis is given to educating school children, rural families and pregnant women, progress toward the Millennium Development Goals adopted by the United Nations would be impacted in the years to come.

While malnutrition plagues the Guatemalan population, the people must be taught that healthy nutrition should be an integral part of daily life. Healthy nutrition contributes to their well-being affecting mental abilities to learn and physical abilities to work. By eating healthy balanced foods that include appropriate diet and nourishment, people can have growth, health and well-being (FAO/WHO). Teaching Guatemalans to consider nutrition and the variety of foods they consume is essential to their lifestyle. In order to provide a stable food security and develop healthy lifestyles, the people must be educated on how malnutrition can be treated or avoided. In addition to treating malnutrition, issues such as unsanitary practices and pollution within the country must be addressed in the future as these could make the rural indigenous Guatemalans more susceptible to diseases. The Guatemalans must be educated on how to have a healthier life. Children, pregnant women and adults raising children must receive education through schools or within the communities.

Tugging at the heart is the knowledge that more than half of all Guatemalans live below the poverty line and half of all children live with malnutrition. Worse is the fact that the rural indigenous people have little knowledge of how to improve their situation though the food they need is readily available in their market. In order to survive rural families live off what they can manage to grow, selling all they make and eating the cheapest food such as corn tortillas and black beans. Because the rural Guatemalans do not have a well-rounded diet, they have health conditions from their lack of proper nutrition. Education is needed within public and private schools, partnering with private organizations, to reach young and old. Critical is the face-to-face contact which is important within the Guatemalan culture. Teaching these essential health needs to the current generation will help build a foundation for them to teach it to their children. Building up a generation who eats a proper, healthy diet can help prevent malnutrition in the future generations.

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