Kylie Feilmeier Kuemper Catholic High School Carroll, Iowa Guatemala, Malnutrition **Pull the Problem at the Root** 

The effects of poverty-inducing malnutrition throughout Guatemala, giving it the highest rate of chronic malnutrition in Central America, have created an acknowledged national crisis (Project, B., 2019, August 13). A cycle of poverty, malnutrition, and lack of education sets up Guatemala's people for generations in poverty, but efforts of outside forces have shown promise in reducing stunting and malnutrition of children in South American countries like Peru (Van Trotsenburg, A., & Libre, P., 2019, May 20). With the combined efforts of the Guatemalan government and helpful corporations, the malnutrition rates and number of people seemingly stuck impoverished in Guatemala can decrease immensely.

The country of Guatemala in Central America has a population of 16.91 million people, 59.3% of which live below the poverty level. With 23% of the populace in extreme poverty, that means over 3 million people live on less than \$1.90 per day (Hoy, C., 2015, October 5) and about 7 million more people do not make enough money to support themselves and their families. Worldwide, 736 million people live below the poverty level, 10 million of which live in the 42,042 square miles of this Central American country (GUATEMALA., n.d.). While not being able to provide has significant effects on morale, the persons affected will have a lesser chance of escaping poverty and the endless cycle of malnutrition.

Malnutrition is defined by Dictionary.com as the "lack of proper nutrition; inadequate or unbalanced nutrition (Malnutrition., n.d.)." The effects of malnutrition due to lack of food or non nutritive food are long term and can carry on to the next generation. Many chronic illnesses such as diabetes and high blood pressure along with heart disease and brain stunting can occur as a result of malnutrition (Streit, L., 2018, October 10). Brain stunting due to malnutrition shows a 40% decrease in structural development after the first one thousand days of life (Van Trotsenburg, A., & Libre, P., 2019, May 20). As a result, educational reward and pay level will be consistently lower in the adult years of a child stunted by malnutrition.

Worldwide 795 million people suffer from chronic malnutrition and inadequate food supply. Anywhere from 55% to 70% of children throughout Guatemala are suffering from starvation and malnutrition (Project, B., 2019, August 21). As these children grow up, their lives and the lives of their children will be shaped by the malnutrition they have endured. Women who suffered from malnutrition as a child or young adult have a higher chance delivering low birth weight babies (Fighting Malnutrition in Guatemala., 2017, July 19).

A typical family in Guatemala has, on average, 4.8 family members (United Nations., 2017). The amount of households run by the mother alone who has small children is an astonishing 82% (United Nations., 2017). With only one parental figure to provide and a mother who often cannot work, these families turn to extended family members or older children to support the entire family. The strain of one family expands to the community and the family around them.

Many Latin American countries have what is described as a collectivist culture. In contrast to the individualistic culture, commonly seen in first-world countries, a collectivist culture illustrates a community working together to collectively move up in society. This "sacrificial love" is shown in communities that often do not have much to sacrifice, leading to a cycle of struggle that maintains a

family tree and community in poverty, only to expand the effects of stunting and malnutrition (Cherry, K., 2020, February 9).

Studies have shown the effects of stunting on a malnourished child. Along with never achieving full height and contraction of chronic diseases, the cognitive abilities of a person can be detrimentally affected by malnourishment in childhood. Stunting increases the risk of poverty as an adult by up to 43%. Because of limitations in educational advancement and abilities, the pay rate for a stunted individual is an average of 20% less than a non-stunted counterpart. A child who has not suffered from malnourishment is 33% more likely to escape poverty than a malnourished child (The Power of Nutrition., n.d.). Each of these factors plays into the slower development of Guatemala as a country both economically and in power after a thirty-six-year civil war that ended in 1996.

In recognition of the crisis, the Guatemalan government has reached out and recruited several proven plans of action on the front of malnutrition as a result of poverty. The first of these is called Nutributter. Nutributter is a food supplement high in nutrients, vitamins, and minerals that a child needs from six months old to twenty-four months old (Fighting Malnutrition in Guatemala., 2017, July 19). This revolutionary product has already saved lives in Guatemala. For example, Yansi, now four years old, was diagnosed with severe acute malnutrition (SAM) at forty-five days old. At ten months old, Yansi qualified and was registered for the IRT Nutributter program. Yansi made an incredible recovery from her severe acute malnutrition, and now, at the age of four years old, Yansi is healthy, lively, and tall for her age (An Amazing Transformation in Guatemala., n.d.).

More recently, the World Bank has contributed to the efforts against malnutrition in Guatemala. They have instituted a program called "*Crecer Sano*," meaning to grow up healthy. This program has had success in other Latin American countries, such as Peru, who, with the effort of the World Bank, reduced their malnutrition rates by more than half. Peru and the World Bank were able to achieve success by recognizing the problem and seeing the root of the problem. The inadequate or unavailable sources of food, water, and sanitation contributed to the continuity of malnutrition and stunting of the Peruvian youth.

The World Bank and the Guatemalan government have started working together to formulate a solution to the Central American country's chronic malnutrition crisis. As "*Crecer Sano*" is set in motion, there are multiple ideas that come to mind. The institution of better educational, sanitation, plumbing, and water systems is a necessary first step to establish a strong foundation to work up from. On that foundation, the next step would be to institute a similar system to food stamps or food pantries, to allow nourishment during hard times and possible paths out of poverty.

Another thought would be to follow in the steps of Peruvian success by bringing media attention to the crisis and gather the community of a nation to protect their own, but this could have possible adverse effects, as Guatemala is still recovering from a thirty-six-year civil war in which the indigenous Mayan people lost. The indigenous Mayan people make up most, if not all, of the impoverished population in Guatemala. The Guatemalan government would most likely desire to prevent more conflict in this battle worn and divided country.

Although the devastating civil war has ended, a rift between the indigenous Mayans and the Ladinos, westernized mestizos, still stands. As the Ladinos push for modernization of agricultural processes, the Mayans continue to hold onto the ways of their ancestors. The effects of this rift and disagreement leave their impression on each of these cultural sectors in Guatemala. The Mayan agricultural system is inefficient in mass producing agricultural products to create a substantial profit unlike the larger more commercial Ladino farming industry. This, in turn, has a detrimental effect on Guatemalan economic growth (Fischer, E. F., & Brown, R. M. K., n.d.). Now, as Guatemala is in the stages of young democratic growth, the effects of communism and cultural differences show themselves.

The indigenous Mayans, as a minority, have fought for their place in Guatemala in the past, but among an unstable government, economy, and social structures, their indigenous culture has sunk into the background. The rift between indigenous peoples and the Ladinos has grown as the Mayans are excluded from political affairs. Separated by language barriers, the Ladinos and the Mayans continue to build tension within their small Central American country. The language barrier has been a controversial subject between Guatemalan cultures; it is the original separation of culture in Guatemala. Without a separate language, historians say the ancient Mayan culture would not exist today (Fischer, E. F., & Brown, R. M. K., n.d.).

With a past of underrepresentation and being overlooked, a cultural group of angry Mayans feels hurt by the Ladinos, which seemingly control Guatemala's economic and agricultural business. Anger and distrust have led to an economic shift that, even though it hurts the Ladinos controlling the agriculture, brings the Mayan people to a level of poverty in which malnutrition thrives (Fischer, E. F., & Brown, R. M. K., n.d.). Obviously, it is necessary to have peace-making between the separate cultural groups within Guatemala. The internal lack of communication is causing a level of unsettlement and hurt that, in turn, causes the malnourished state of the many Guatemalans.

A malnutrition crisis is more than a couple of people missing a meal or two each day. These children and parents are deprived of the nutrients necessary to survive. Many parents suffer from starvation because they cannot bear to see their children have nothing again. Three meals a day, a pantry, a snack, each is a far off dream to someone below the poverty level. These people struggle to survive, and those that do still aren't healthy. Action needs to be taken against a very tamable monster, malnutrition.

A true solution would consist of several steps toward a common goal that cover each of the aspects of the problem. Another aspect would include the integration of political representation of the disadvantaged

and minority groups. Also, a peace made between the Ladino people and the indigenous Mayan people would be extremely beneficial to the improvement of conditions for people in poverty and the economy of Guatemala. Next, an increasing amount of outside assistance, such as Nutributter and "Crecer Sano" (Van Trotsenburg, A., & Libre, P., 2019, May 20).

Nutributter and "Crecer Sano" are unique in how their implementation can complement each other to decrease the malnutrition and stunting statistics in Guatemala. Nutributter's efficiency and affordability, only \$2.50 per child per week, offer an ideal solution to providing essential nutrients and vitamins. Children from the ages of six to twenty-four months are eligible for the Nutributter program. This span of time has historically been when infants are most susceptible to the onset of malnutrition. The program provides the nutrients necessary for children to avoid severe malnutrition and its effects throughout their lives (Wuqu Kawoq.org, W., 2011).

The World Bank and their "Crecer Sano" program have shown the efficacy of community improvement alongside the usual steps taken against malnutrition to decrease the numbers quickly, efficiently, and lasting. "Crecer Sano" demonstrates a unification of the political, social, material, and situational problems to create a several step solution encasing all the contributing factors. Peru is a great example of the World Bank's "Crecer Sano" in action. "In Peru, consistent economic growth combined with investments in infrastructure, education, and health and an expansion of social programmes have resulted in significant reductions in hunger and poverty" (World Food Programme, 2020).

Building off of and improving the World Bank program, starting with several small schools teaching the basics to people of every age and eventually moving toward grade separation and different levels of learning and knowledge, would create a community-wide foundation for educational growth. The educational system is an area where it is necessary for the government to take action to begin and continue to support (World Food Programme, 2020).

As far as sanitation goes, the integration of the plumbing and other systems could be quite costly, but the united mentality of the communities living below the poverty level could provide an opportunity for these people to assist their community and help implement these systems and advance their neighborhood and family's lifestyles (Cherry, K., 2020, February 9). Consequently, the institution of these systems will assist in minimizing the amount of malnutrition and stunting found within their populations.

Another example of a corporation working against malnutrition would be Valid Nutrition. Valid is currently based in Asia and Africa focused on targeting malnutrition in children who live in poverty. They do this by providing a plant and dairy based nutritional diet that is far more affordable than other supplements. Its affordability is made possible by localizing production and the sourcing of products. These not only create an affordable product, but job opportunities and sales pathways for the adults of the community. Locally sourcing products would enhance the agricultural economic systems of Guatemala along with enhancing the lives of the Guatemalan people (Valid Nutrition., 2018).

Finally, to reduce malnutrition;s effect on Guatemala's people and economic gain, government action toward assisting in finding employment and reliable food sources for the malnourished. The trials and tribulations Guatemala is still coping with from the past make it a hard road toward recovery from the widespread effect of malnutrition, but with combined efforts of community, nation, and global assistance, the goal is in the visible future. There are an astonishing number of lives and futures to save through the work of a team of generous, kind people from next door or the next time zone. Teamwork really can make this dream work.

The malnutrition crisis and its effects on Guatemala and her people are still a prominent problem, but the steps being taken toward improvement are substantial. The cycle of poverty that maims the lives of so many people may still exist, but the efforts of outside forces such as the World Bank and IRT are working against it with the government of the Republic of Guatemala. With combined efforts of the Guatemalan government and helpful corporations, the malnutrition rates and the number of people seemingly stuck impoverished in Guatemala can decrease immensely.

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