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Tonga, Malnutrition

Tonga: Importing Obesity

Tonga is a collection of 170 islands located in the Pacific Ocean that hosts a population of 108,000 (Moya). The cost of living in Tonga is 34% lower than that of the United States. About 42% of Tonga's annual budget is spent on food, which is about 10% less than those in the United States ("Cost of Living in Tonga."). Tonga is currently ranked as the second most obese country and has an average adult weight of 192 pounds (Quilty-Harper). The capital of Tonga is Nuku'alofa. Tonga's government is currently a constitutional monarchy under the rule of King Tupou VI and Prime minister 'Akilisi Pōhiva ("Tonga Government."). Tonga's wet season ranges from December to April, dropping about 63 inches of rain. This season is also the warmest for the country, reaching temperatures of about 91 degrees Fahrenheit. Tonga is in a location that experiences hurricanes, although, these only occur every 10 to 15 years ("Climate and Average Weather in Tonga.").

Sixty-seven percent of the population in Tonga lives in rural areas and manage livestock or crops. The other 33% of the population live in more densely populated areas and work in business or government positions. Polygamy is normal for men in Tonga. Men will typically have multiple wives and move from house to house to be with each wife individually ("Tonga - Marriage and Family."). Households consist of all those who are related; grandparents, aunts, uncles, parents, and siblings ("Tonga People & Culture."). There are about six people that live in each house in Tonga (Zhang). Males and females will eat meals and sleep in separate areas. Males will eat whatever is prepared for them by the women ("Tonga - Marriage and Family."). A traditional meal includes coconuts, fish and root vegetables that are all farmed on the islands. These healthy dishes are what once resulted in Tonga being considered a healthy country. Recent diets include mutton flaps and corned beef that are imported from New Zealand (Watson). Water and sewage management systems are managed individually by each community ("Tonga."). About 92% of Tongans are able to reach sanitation facilities on a regular basis ("Health Systems in Tonga.").

Ninety-eight percent of both men and women are able to read and write in their native language and 70% of Tongans are literate in English (Bennett). Primary school is mandatory and free for students. Other higher-level educational systems are run by churches (Bennett). There is free medical care for all citizens ("Health Systems in Tonga."). In Tonga there are about 444 medical staff for every 100,000 residents. Tonga does not have any pharmaceutical manufacturers and needs to import all medications ("Health Systems in Tonga."). Tonga hosts 14 health centers and four hospitals (Rodny). Many people in Tonga struggle with weight-related health issues that affect their respiratory and cardiovascular systems as well as other noninfectious diseases (Rodny). Ninety percent of the country suffers from obesity. Many people also suffer from bad oral hygiene due to the large amount of processed and sugary food that they consume on a daily basis (Zhang).

Living in rural areas of Tonga is common. The average farm size is eight acres ("The Tonga Agriculture Policy Bank."). Land is owned by families and is passed through generations ("The Tonga Agriculture Policy Bank."). The majority of the land is owned by absentee landholders (Halavatau). Land is mainly used for growing root vegetables, rarely land is used for livestock ("The Tonga Agriculture Policy Bank."). Land goes through a vigorous cycle of growing. The first one to three years of the cycle land is used for yams, alopecia, and plantains ("Traditional Tongan Farming System. . ."). For about half a year

after the harvest of these vegetables, sweet potatoes are planted, followed by xanthosoma and cassava which use the land for a year ("Traditional Tongan Farming System. . ."). The fourth year, the land is not used to allow the land to rest which they believe allows nutrients to come back to the soil ("Traditional Tongan Farming System. . ."). This rotation allows for stable employment of farmers and enough income to support their families ("The Tonga Agriculture Policy Bank.").

People in Tonga suffer largely from obesity. This makes it harder to be productive in fields and agricultural life resulting in less food being produced. So far, obesity has not caused a large impact on people's lives in this aspect because they are able to buy imported food from New Zealand. Tongans use little of their products allowing them to export their goods. The problem is not that they are consuming imported goods, but rather what the imported goods are. New Zealand's exports to Tonga consist mainly of 27% foodstuffs and 26% animal products ("What Does Tonga. . ."). New Zealand is exporting their food "scraps" into Tonga and other surrounding countries. The region of Oceania, where Tonga is located, since 1975 has been the second most obese region; however, as of 2014, they are just .2% behind the most obese region (Ritchie). This imported food is not in short supply, which is part of the problem. The food that is imported is low in vitamins and proteins that people need. This results in people in Tonga suffering from malnutrition. There is an overabundance of this poor quality food, and people are not educated enough on food nutrition to know what the nutrition labels on foods mean. These family groups that live in Tonga are still able to produce enough food, and therefore have enough money to buy food for themselves. The families as well have access to healthy and nutritious foods as they grow a large variety of foods on their farms

People in Tonga struggle because this imported food is easy to prepare, cheap, and tastes good. When it comes to carbonated beverages, Tongans see western cultures consuming carbonated beverages. People in Tonga want to be like western cultures so they drink carbonated beverages and eat unhealthy foods. This issue has taken over all of the islands in Tonga and surrounding countries. The country as a whole because of these imports are suffering from malnutrition (Halavatau). Women in this country account for part of the problem. As women do most of the meal preparation, a lack of education on nutritional food values negatively affects them and their families. Many of the current children have been raised on a diet consisting of only these foods that lack nutritious content making a new generation of unhealthy eaters. As industrialization has progressed, this problem has become more severe. The more goods that are imported from New Zealand and are consumed, the worse the problem is. By this issue becoming fixed, people would be healthier. People would have longer life spans and would be able to grow and develop their society more efficiently. As the population increases, more people will depend on this over-processed food. In the next ten years, many of the current children will raise their own children that will be completely dependent on these foods making it very difficult to change their diets. Further in the future, people may abandon their farming practices all together and dedicate their time and money towards other sources of income such as promoting tourism on the islands.

There are many tactics that can be utilized to combat this issue. Tonga's government is the overarching power that can control imports and exports to and from the country. The government can address this issue, by preventing imports from New Zealand. Not all imports would need to be banned, although, less nutritious foods could either be regulated or cut off completely. By doing this, people would no longer have easy access to unhealthy foods and be forced to go back to their old ways of living off the land. This may be an issue as people currently rely on these foods for their low cost and simple preparation. This solution, nevertheless, would negatively impact their economy as limited imports from other countries may result in these other countries to accept fewer exports from Tonga. For products produced in the country, the government would also be able to regulate the products that were made. This again may harm the economy, however, the resources that were once used to make unhealthy products could be used to

make more profitable goods. On an individual level, people should become involved in taking care of their bodies. Although the ideal body type varies from country to country, there are obvious standards when it comes to what is healthy and not healthy. Body Mass Index (BMI) is calculated by dividing a person's weight by their height ("About Adult BMI."). A healthy BMI is between 18.5 and 24.9 for both adult males and females ("About Adult BMI."). By creating an ideal body type in Tonga that is centered around having a healthy BMI, individuals will be motivated to live healthier lives. Groups can send humanitarian aid to Tonga to promote this healthier lifestyle. The people of Tonga were influenced by western cultures to drink carbonated beverages, so the people of Tonga should be able to be influenced again by western cultures to better their health.

There are many programs that have taken a shot at addressing the problem with obesity in Tonga. The "Tonga National Strategy to Prevent and Control Non-Communicable Diseases" worked for five years to reduce the number of cardiovascular diseases, obesity, tobacco, and alcohol use, and increase physical activity and servings of fruits and vegetables ("Policy. . ."). This program attempted to meet these goals by encouraging healthy eating in school, work, and other public settings by setting up clinics specializing in obesity and strengthening current dietary regulations. This program was seen to make advancements in improving the health of residents, however, there were multiple complications such as minimal monitoring of participants and lack of funding ("Policy. . ."). One international program that was implemented in both the United States and Tonga's neighboring country, Samoa, is The Biggest Loser. This program tends to see a high success rate, albeit, after a couple of years, most participants gain the weight back ("Unreported World. . ."). The Ma'alahi Youth Project focused on creating interventions for 11 to 19-year-old students in Tonga. (Fotu). This solution did not succeed in decreasing obesity in students in Tonga as rates of obesity did not improve.

Part of the problem here is that locals are not educated specifically on the risks of being obese. People are unaware of why one gets a disease, or what the consequences of the diseases are. In 2018, the Obesity Prevention Project in Texas implemented education programs that showed students the risks associated with being obese. This showed positive results in Texas and could work in Tonga. This program in Texas also created a negative stigma against being of larger weight which may be associated with eating disorders ("Obesity Prevention Program."). Amanaki Fo'ou is an organization in Tonga that works to produce videos and classes about the risks associated with being obese and how to live a healthy lifestyle ("Our Organization."). The focus of this program is to help people to prevent more cases of diabetes in Tonga ("Our Organization."). In 2018, Amanaki Fo'ou reached out to more than 4,000 people, and, prepared 35 people to continue to educate the public ("Our Organization."). People in other countries, such as the United States, that are looking to assist Tongans to become healthier are able to volunteer through this program as medical staff, educators, and gardeners ("Our Organization.").

Seeing as very few projects that aim to educate Tongans and implement healthy lifestyles have worked, obesity in Tonga can be seen as more of a cultural issue than a lack of access to nutritious foods. This issue is due to two factors. Tongan culture views people that are larger as more attractive than those who are skinner (Watson). This is because a local stigma in Tonga is that skinniness is associated with poverty. Another factor is that people in Tonga believe that imported foods are superior to locally grown food. "People think something imported is superior . . . you have a situation where fishermen spear their fish - sell it - and go and buy mutton flaps. . ." (Watson). To change the culture of a society is difficult as it requires changing people's deep beliefs and traditions. In the United States when the risks associated with smoking were discovered, many programs were enacted to try and prevent people from smoking. One of the most successful programs that arose was running anti-smoking advertisements on television. The advertisements showed a negative stigma associated with people who smoked as well as nauseating health

consequences that arose from smoking (Cummings). These advertisements greatly reduced the number of people who smoked cigarettes by alerting the public to the dangers of smoking (Cummings). Eventually, smoking became socially unacceptable and was banned in most public places (Cummings). This concept of making smoking socially unacceptable can be applied to eating unhealthy foods. People who eat unhealthy foods can suffer from diabetes, diabetes can result in wound infections and eventually amputations. As anti-smoking advertisements showed tarnished lungs of smokers, anti-unhealthy food advertisements can show infected wounds and amputations of those who ate unhealthily.

People in Tonga could be encouraged to focus more on their crops. By promoting residents to go back to their old ways of farming nutritious foods, those who are currently affected by poor nutrition will be forced to work out to manage their farms and maybe more willing to eat the food that they grow themselves. As Tongans were originally inspired by western cultures to consume unhealthy foods, bringing someone back from a western culture who promotes healthier lifestyles, Tongans will become more motivated to change their standards. By having influential people who are native to Tonga encourage the change of a lifestyle as well, people may be willing to change their traditions. In 2018, the prime minister of Tonga, Akilisi Pohiva, proposed to leaders of surrounding countries a plan to encourage citizens of their countries to lose weight (Young). The leaders are working on a one-year competition to see who would lose the most weight (Young).

Tonga is not the only country that struggles with obesity, although, this country specifically has the ability to come back from this issue. The primary problem that this country faces is the mentality of society. If beauty standards can be changed to represent healthier and more fit people, then Tongans would become more willing to change their lifestyles. By changing the cultural traditions associated with overeating unhealthy foods, people will be motivated to consume healthier foods as they once did and return to their once healthy lifestyles.

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