

Irene V. Ford, PA School for Excellence in the Ag Sciences
W.B. Saul High School of the Agricultural Sciences Philadelphia, PA
Cuba, Factor 10: Dietary Diseases

Cuba: Leading The World In Eliminating Problems

Developing countries are often overlooked whenever the topic of food security is mentioned because people feel that they have no possible solutions to relieving food insecurity on a global scale since they are not “as popular” or “as old” (and therefore not as developed) as countries such as the United States, Canada, or Australia. The general public opinion on these countries is that their governments are not as advanced as the United States due to these countries not making the same technological advances or using the same practices in their government, medicine, or education. One such country is Cuba. Contrary to public knowledge, Cuba is actually well renowned in the medical industry and in education, despite using prestigious technology and equipment. While the country is still developing in certain aspects, Cuba may actually be developed in respect to the steps the country takes towards ending food security. On a global scale, food security is a trending problem that only continues to grow worst and can be caused by a number of different factors. These factors, in turn, then cause additional problems that relate to citizens having low income large family sizes, unaffordable healthcare, or even inaccessibility to receive adequate healthcare. Other factors of food security include eating healthy, nutritious foods in sufficient amounts in order to live. The problem, however, is that most people do not eat sufficient amounts of nutritious food which leads to dietary diseases, or diseases caused by the consumption of food or related to food in general. In recent decades, Cuba has had several dramatic increases in the overall population for multiple dietary diseases that include obesity and diabetes, as well as other diseases such as Typhoid and Hepatitis A that are caused through food contamination. Cuba’s government has decreased cases of these diseases nationwide and continue to lead the world in reducing food insecurity.

Families across the globe often become food insecure because they have larger families but do not have a sufficient income that could sustain that amount of people. Cuban families tend to be full households that typically consist of not only one's immediate family, but one's extended family as well. This includes, but is not limited to: grandparents, cousins, nieces, nephews, in-laws, aunts, and uncles. On average, a Cuban household can have 15+ people, give or take. According to a survey conducted in 2017 (Translating Cuba, 2017), studies shown that on average, a Cuban makes 740 Cuban Pesos, which is \$29.60 in U.S money. Finding that \$30 a month may not sustain an entire family’s needs and knowing how large Cuban families were, a prospective issue almost rose, but never did, due to the government policy implemented over fifty years ago following the Cuban Revolution. This policy is called rationing, which is where a set portion of food is evenly distributed between a certain amount of people. Every month, Cuban families receive seven pounds of rice, a pound of beans, half a bottle of cooking oil, one bread roll per day, eggs, chicken or fish, spaghetti, and sugar. These rations contain all basic foods that provide a sustainable diet full of fats, sugars, and carbohydrates. Extra rations are set aside for children in schools, people in hospitals, or special occasions such as birthdays, anniversaries, and weddings (Dividing The Pie, 2015). Cuba’s government started rationing long before food security became a globally discussed conflict since rationing foods started in 1959, yet it does relieve most families potentially food insecure due to not having enough money to buy groceries.

Over the last thirty years, Cuba has faced several outbreaks in dietary diseases and illnesses, some being the general population’s increase/decrease in weight, malnutrition, and obesity. In the early 1990s, the

overall population weight had decreased dramatically due to more exercise by citizens. This, in turn, made cases of obesity and diabetes drop. However, in the early 2000s, Cuba's population started gaining more weight and the return of dietary diseases broke out yet again (Castro's Cuba, 2015). When this happened, Cuba took action in reducing the number of appearances these illnesses made. Through affordable, accessible healthcare, reports of obesity decreased for the second time in roughly 25 years. Currently, barely any instances have been reported to show malnutrition in kids or in adults, and statistics currently show that malnutrition is actually almost nonexistent in children across Cuba. Even though Cuba does not have or use the same technology that the United States does, it has been credited for having promising healthcare for citizens across the country. With no private hospitals, private doctors, or other private medical practices that make healthcare unaffordable to citizens, Cuba leads the way in efficient medical practices being provided across the country. The doctor to patient ratio in Cuba has increased and proves to be a successful component in their healthcare system with over 70,000 doctors that are highly renowned across the globe. Cuban healthcare designates a family doctor for all people in the surrounding neighborhood which allows for the building relationships, a stronger understanding of patient pains and necessities, and less need for patients to change or to find new physicians. Healthcare programs have been put into place to ensure healthcare that is affordable to pregnant women, babies, children, and teens, and is not only affordable, but accessible. Doctors go door to door, have monthly checkups, and follow-up on their patients' health. Cuba takes health care very seriously because the government focuses heavily on preventing diseases, especially dietary diseases such as diabetes, obesity, and malnutrition, regardless of the extremity or how they are obtained. Cuba's government tries to ensure that if a citizen were to catch a fatal disease, that they can receive proper, adequate, and cheap healthcare. On average, a Cuban spends approximately \$813 a year on healthcare, compared to Americans that average over \$9,000 a year due to the American medical system using technology and private practices that cost a substantial amount of money (Fergal Brown, 2018).

Similar to their healthcare system, the Cuban government ensures that all children have access to an education regardless of their financial situation. In fact, Cuba leads Latin America in primary education that is mandatory until the 9th grade where students may take general education courses in literature, mathematics, and oratory expression, or even special skill classes such as learning how to garden, prune, how to craft wood and metal, and handicrafts. Most recently, within the last few years, Cuban courses have extended past general education classes and have started incorporating Agricultural education and practices for students. With one of the leading teacher to student ratios worldwide, Cuban classrooms have a maximum of 25 students per primary school classroom and a maximum of no more than 15 per secondary classroom. These smaller classrooms allow for teachers to teach more effectively and focus on individual student needs in order to be successful (Nebojsa Mandrapa, 2015). Furthermore, every Cuban child in the education system receives free food that is given monthly to the schools in rations. The government does this so that no child goes hungry, families do not have to worry about feeding their children, and children simply have to focus on their studies.

In the agricultural world, Cuba's main issue is that the majority of the land is not being used to produce crops for the country's population. Cuba's crop production includes bananas, citrus, sugarcane, guava, papayas, okra, and tomatoes. Some farms raise cattle, poultry and swine in order to produce and sell meat. However, Cuba still does not produce enough to feed all citizens across the country, which is why they rely heavily on imports. Roughly 90% of Cuba's food comes from importing

products from other countries. This presents a problem because the money being used to buy the imports is being lost instead of being put back into the economy, local or otherwise. Furthermore, in the last three to five years, Cuba has been facing food contamination due to water pollution and bacteria outbreaks. This food contamination has been proven to lead to dietary diseases like Hepatitis A and Typhoid. Hepatitis A is commonly contracted through consumption of feces, primarily through water, rarely through food. Hepatitis A can cause liver failure after a long period of time. Typhoid, however, can potentially be more fatal to a person. It starts as a fever and gradually worsens, and if left untreated for any reason, death will ensue. These dietary diseases in particular can cause strain on a family, especially a large family, since they would still have to pay for healthcare to relieve a family member of the disease.

Throughout the past several decades and through crises of dietary diseases, Cuba has shown its ability to acknowledge multiple problems and finding a solution to fix it. While they have been doing a terrific job of reducing numbers, cases of dietary diseases still exist and are not 100% eliminated. The Cuban government does rationing, offers the best medical practices they can, and tries to educate younger generations about agriculture. Another solution that may contribute to eliminating fatal dietary diseases is creating CSAs. CSA stands for Community Supported Agriculture, which is a local farm that sells fresh grown produce to those in the surrounding community throughout an entire growing season. The inner workings of a CSA are simple: at the start of every growing season, locals buy a share, which is a set fee that allows them to become members of the CSA and to receive a portion of any yield that growing season. This ensures the consumer's share to whatever is harvested, the farmer's income, and the farmer's start-up cash. The farmer uses member money to buy the seeds and equipment needed for the entire growing season, as well as hires volunteers to help with the production during the growing season. When harvesting comes around, the share that the consumer brought in the beginning is a generous portion of whatever crops were harvested. CSAs help the local community by circulating money within that community. What that means is that people would use their money to buy their share, the farmers use that money to produce crops, and that gives the local more.

The main purpose for having CSAs is to create a relationship between producer and consumer to help relieve the sole responsibility of crop production on farmers. Running a farm comes with risks, and oftentimes farmers get the short end of the stick because unpredictable weather could stunt that year's crop growth (Community Supported Agriculture, 2018). However, CSAs have other purposes. For example, CSAs help people in the community reconnect with nature and gain more knowledge about where their food comes from. The consumer's greatest benefit is acquiring freshly grown fruits and vegetables that did not have to sit on store shelves for an unknown amount of time long enough for bacteria to reduce the quality. All the produce the consumer receives is straight from farm to table. Furthermore, since all of the produce is locally grown and community members establish a relationship with their local farmer, they would know exactly how their food was grown. Were pesticides used? What kind of farming practices were used? At the supermarket, there are so many options between fruits and vegetables because they have signs that may say organic or all natural, or non-GMO. To the consumer, those terms have no meaning, vary from brand to brand, or are downright confusing. By buying from the CSA, members could ask the farmer in order to understand how their food was grown. This would potentially rid consumer foods of getting contaminated and risking Typhoid or Hepatitis A. Finally, knowing where your food comes from, how it's grown, and having it fresh, makes it all the more easier to stay healthy. Being healthy means more than just exercise, it is eating right. A nice portion of fruits and

vegetables that provide the right amount of nutrients and vitamins needed to sustain a healthy diet means less cases of obesity, malnutrition, and diabetes.

Cuba is leading the world in trying to ensure its' population's health nationwide with accessible, affordable healthcare. Over the last three decades, Cuba's population faced a dramatic increase in diabetes, yet through medical practice and higher education, the Cuban Government has reduced such numbers and has improved the nation's health. However, there are still cases where diabetes or malnutrition are prevalent. Other diseases can be transmitted through food contamination, like typhoid or hepatitis A, which are more current dietary diseases being reported in Cuba. Incorporating CSAs into Cuban agriculture may not solve the problem entirely (there is not one solution to any global problem), but CSAs still provide a prospective solution since the produce is fresher, healthier, and therefore gives consumers the nutrition they need in order to prevent getting diabetes or becoming obese. CSAs could potentially reduce the amount of Typhoid and Hepatitis A reported cases due to the fact that with CSAs, consumers will have knowledge of where there food has come from, what practices were used to produce it, and any other factors that could lead to contamination of yield.

Bibliography sites

Average Monthly Salary In Cuba Is \$29.60. (2017). Retrieved from <https://translatingcuba.com/average-monthly-salary-in-cuba-is-29-60-us/>

Dividing The Pie. (2015). Retrieved from <https://www.telesurtv.net/english/opinion/Dividing-the-Pie-Cubas-Ration-System-After-50-Years-20150302-0029.html>

Hepatitis A: FAQ. Retrieved from (<https://www.webmd.com/hepatitis/hepa-guide/digestive-diseases-hepatitis-a#1>)

Education System of Cuba-Path To Success. (2015) Retrieved from <https://novakdjokovicfoundation.org/education-system-of-cuba-path-to-success/>

Castro's Cuba. (2015). Retrieved from https://www.washingtonpost.com/lifestyle/wellness/castros-cuba-a-public-health-phenomenon-in-the-90s-showed-the-benefits-of-national-weight-loss/2016/12/01/c179c6fe-b68d-11e6-b8df-600bd9d38a02_story.html?noredirect=on&utm_term=.ae5b9fc8547d

Fergal Brown. (2016). Retrieved from (<http://www.thejournal.ie/cuba-healthcare-system-2668448-Mar2016/>)

Community Supported Agriculture. (2018). Retrieved from <https://www.localharvest.org/csa/>