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Jamaica: How introducing local food programs can help malnutrition in Jamaica

Jamaica is a third world country in the Caribbean. Jamaica has a sufficient amount of food but they export a lot of it. They are forced to import a lot of their food which is usually cheap and fattening food. The best solution is to introduce a curriculum for kids to learn more about healthy living, to keep pushing local farmers, and to teach them sustainable practices.

There are about 2.9 million people living on the island of Jamaica (Jamaican Population 1). They're about 55.03% of people are urban 44.07% rural (Jamaica Land use 1). Their government is a constitutional monarchy. The land is about 41% cultivated (Agricultural Census 2020). The main export commodities are alumina, bauxite, sugar, rum, coffee, yams, beverages, chemicals, wearing apparel and mineral fuels (Find Import and Export expertise in Jamaica 1). The average farm in Jamaica is 1 hectare which is about 2.5 acres. In Jamaica, the climate is tropical, meaning that it stays hot all year long, with little difference between winter and summer (just a few degrees). The average temperature stays between 80 and 90 degrees (Jamaica, Climate 1).

The average family size of a Jamaican family is 3.1 persons (Jamaicans Average Household 1). Typical Jamaican families live in two or one story houses similar to the American home. Homeless Jamaicans live in shacks made of metal siding and old pieces of wood (Homes 1).

They typically eat a combination of locally grown and imported ingredients. The typical food Jamaicans eat is usually spicy. About every meal has rice, beans, and peas. They typically eat fish with their meals and also pork and chicken. Vegetables that they eat are typically green bananas, tomatoes, yams, peas, pineapple, and cabbage. Most families use electric ovens but some people still use coal ovens (Imports and Exports 1)

Tourism is very important to Jamaica, and it's Jamaica's main industry. Many Jamaicans work in hotels, restaurants, and shops that serve this industry. Farming is also common as many people buy their produce at the local markets in their town. Coffee farming and sugar cane are also main industries in Jamaica. In Jamaica, the average monthly salary is \$149,105 JMD or roughly \$1,241 USD though it can be as surprisingly low as only \$16,667 JMD (just \$138.72 in USD) a month. However, some of the higher paid jobs in the country are positions within hotels, which pay an average of \$315,000 JMD or \$2,628.50 USD per month.

For many years, Jamaica has provided universal primary education. The six years of primary school education in Jamaica is required and free. Children receive their instructions in English and remain there between the ages of six and twelve. Schools may be state-owned, or private schools. Through those six kids are taught at grade one basic information which is called inventory readiness. At grade three kids are taught math and language arts. Grade four kids are taught about literacy and math again but at the end of

the year they have to pass the Literacy and Numeracy Test. Grade six kids will take the GSAT test this class to determine which high school the kids can get into. To do well on the test kids take extra classes and do extra homework that can take up to five hours a day. "In high school kids are taught history, Geography, Agricultural Science, Biology, Physics, Chemistry, Spanish, French, Accounting, Principles of Business, Information Technology, Religious Education, Technical Drawing, Art, Theater Arts and about 21 others"(Education In Jamaica 1)

Jamaica has a health care system which is overall adequate in quality but has some drawbacks. Health care in Jamaica is free to all citizens and legal residents at government hospitals and clinics. Which includes prescription drugs for no charge to anyone. One of the drawbacks to Jamaica's free health care is long lines with no appointments accepted by the physicians being a common issue. With not having any appointments Jamaicans are seen to get to the hospital or the pharmacy 2-3 hours before opening so they can get seen and the attention they need. Some people will be in line all day and will have to go home empty handed because the clinic closed. Jamaicans also will have the problem of not getting medication they need as well because the clinic is out of medication. Jamaica does have private health care hospitals. However this is for the rich who have the funds and insurance plans to pay for those health care systems. For older people over 65 health care insurance can not be purchased unless it was bought before age 65 (Casey, J 1).

Jamaicans live in squalor, with poor housing, limited food supply, and inadequate access to clean water. They don't receive Quality health care or education. The urban families are more wealthy and have clean jobs. They typically work in tourists jobs like hotels, shops, and restaurants. The wealthier families will send their kids to private schools knowing they will get a better education. Rural families are very poor. They are mostly farmers and also don't have a good education.

The Jamaica agricultural sector is faced with threats from severe weather conditions, plant diseases, pests, and cheap food imports. Can this country be able to provide and supply adequate safe and nutritious food at all times for its growing population with those problems? Jamaicans are faced with a very high obesity rate and its increasing. There is a high death toll from heart/circulatory diseases, Diabetes, and strokes. These diseases are due to the increased consumption of imported processed foods rich in animal fats, salts, and sugar which results in the change in diet from their traditional foods (ground provisions, fruits and vegetables, and home-grown grown meats/poultry) (Food security 1).

Other factors that make the situation higher are the increase in reported cases of a food-related disease outbreak, undernourishment, poverty levels, unemployment, and sluggish economic growth. Contributors to this problem are cheap imports from other countries that have low nutrient and that are very fattening. Also having low water supply which does not allow farmers to grow as much.

The rural areas are affected the most because they are in most poverty since there is no work in the country except farming. In the city, there's a lot of work because they have lots of tourists in the city which open up more jobs and people to have success in the economy. Kids that are obese and eat fattening food will suffer the most in the future. If kids are malnourished we could start seeing kids that go blind or have other health problems related to malnutrition. Having more nutritional food available

will help lower obesity. However, they need to grow more food and with limited space, they need to introduce new ways of growing food.

My solution is to introduce and push more local farming in Jamaica. If more people in Jamaica grew their food and also sold their food the people of Jamaica could live a healthier life and have more money as well. If we teach Jamaicans more about local foods and the benefits that come with local foods more Jamaicans would pick that over cheap imported food. As well, if more Jamaicans were taught that eating cheap food is usually bad because it's very fattening and non-nutritious. If people were taught how to grow their own food and can their fruits/vegetables, people will have more nutritious food and also have a long supply of it. If Jamaicans can produce their own food and process it this will help them have more nutritious food and be more food secure. Jamaicans need to be taught what's good food and the processing processes that they can use for their food. This will help Jamaicans to be more healthy and have food security.

Making a curriculum that teaches kids how to eat healthy, to make healthy food, and to grow healthy food would help them eat healthier. The class could be taught to all ages of kids that go to school in Jamaica. The class would be basically a small garden class that teaches kids how to grow vegetables and process them. This class will start at age 6 and will go to age 12 as this is how long kids typically stay in school. The kids between ages 6-8 will learn the basics of growing vegetables. Kids will start each year by being introduced to new vegetables that can be grown in Jamaica. Kids will be taught more basic kinds of produce that can be grown or the vegetables that grow the fastest. This will include radishes, greens, peas, green beans, parsnips, and cucumbers. These plants generally have fewer issues when growing and will grow in a shorter time. Kids will be taught how to grow these vegetables and take care of them. While the produce is growing the kids will learn the basics of watering when plants need them and weeding the plants. Also, while the plants are growing teachers will emphasize that the vegetables are good for them and will give them the energy to become healthy adults. Once the vegetables are ready to harvest kids will learn how to pick the produce and make different recipes that would use the vegetables.

When the kids are the ages of 9-10 the kids will learn how to grow different kinds of vegetables, fruits, and grains. Some of those vegetables will include tomatoes, peppers, onions, rice, cabbage, and yams. Students will get to experience produce that is from their country and maybe some other kinds that other countries grow. These kids will apply basic principles that they learned years before. The kids will be taught some newer concepts that may arise in their gardens for instance bugs and diseases that will hurt their crops. Kids will be taught some ways to manage these pests. Ways that can be used to manage these problems are crop rotation and using insect management practices. When the produce is ready to be harvested kids will learn to pick the produce and use them in recipes. Once the kids are at ages 11-12 they will learn more about processing their produce. Kids will learn how to can food and also different recipes used to preserve them.

This class will need teachers and also money to support the new class. This program could be state-funded or independently funded by organizations trying to help Jamaicans. The class at the beginning will need some start-up money to get the program running and will need to pay teachers for teaching the class. Supplies the class will need are some tillable land. The land would not need to be much bigger than $\frac{1}{3}$ of an acre or .135 hectares. It will also need seeds for various kinds of vegetables. The land

will also need access to water for watering plants. The class will also need some basic tools like a hoe, shovel trowel, tiller rake, and a hose. The class will also need access to kitchen and classroom space for teaching food processing and cooking. This class could eventually be self-sufficient if it gains enough production to sell the produce or canned goods. However, it would be better if kids could bring home what they made in class or grew in class back home to their parents. If kids brought home their goods to their parents and taught them what they learned in class that day the class will be hitting more generations. With more generations being taught healthy living, more people may choose healthier living and practices.

How does this new class benefit kids in the future? By taking the class kids will now have the knowledge to grow their own fruits and vegetables at home for their entire life. When these kids turn into adults they will know about what's good food to eat and what's bad food to eat. These kids could eat healthily for the rest of their life and teach their families about nutritious food. This class could help generations to convert to healthy eating habits to accomplish the one goal of getting Jamaica out of obesity and malnutrition.

Also, offering more classes to everyone in Jamaica and teaching them new techniques about farming so they can use the knowledge they learned and apply it to their farms. They already have this system called Jamaican Sustainable Farm Enterprise. They offer classes that teach certain techniques like cover crops, terraces, and making compost. Also, they have introduced farmers' markets to them and making it a social time that consumers can get to know who is growing their food. They are working to get every town to have their own farmers' markets. Having farmers' markets can push eating healthy and having healthy food options. Which will help with obesity rate and malnutrition to create a healthier society.

In Conclusion, Jamaica needs to keep pushing their local farmers and their farmer's markets so people can eat healthy and not become obese. Also, having a class in their education system that teaches kids more about nutritious food to help with their malnutrition problem. If more Jamaicans learned about healthy food choices and were taught different recipes and types of foods could help with obesity and malnutrition. One day Jamaica will come out of poverty and have better overall health through healthier food options. The best solution is to introduce a curriculum for kids to learn more about healthy living, to keep pushing local farmers, and to teach them sustainable practices.

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