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Lao People's Democratic Republic, Malnutrition

Malnutrition in Laos, an Interconnected Topic

Iowa, a state commonly misconceived to grow a significant portion of potatoes, has an average farm size of 351 acres, while Lao People's Democratic Republic (commonly abbreviated to Lao PDR) has an average farm size of one to two hectares. This modest farm, to put into perspective, is roughly the same as the area located inside a 400M running track (Helston). An Iowan farm is 100 times the size of a Laotian one. While Iowa's shockingly corn like potatoes goes on to feed livestock, the rice produced in rural Lao primarily feeds the families who labored to produce it (Hays). Rice is largely consumed from birth in rural communities, which make up 65% of the population. This results in deficiencies of vitamin A, iron, and calcium (Hays). "[N]early every second [a] child under the age of 5 in Lao PDR is chronically malnourished and every fifth rural child is severely stunted (Hays)". Some major contributing factors to the chronic malnutrition rate in Lao are nutrition intake, education, health care, governmental implementation, and external forces. These factors interconnect and must be considered as so for attainable goals in ending malnutrition to be achieved in Lao PDR.

Similar in size to Utah and located in southeastern Asia, nestled between Thailand and Vietnam, is where Lao People's Democratic Republic can be found. Their governmental system is often interpreted as communist, although no official documentation clarifies so (Hays). The citizens are governed by the Lao People's Revolutionary Party, however "[N]o one outside the inner circle seems to know what is really going on (Hays)". In general Lao PDR is considered to be in a "repressed condition" as stated by the U.S. state department (Hays).

An average family consists of six to eight members, although it is common for generations to live together, so larger families will reach up to twelve members (Hays). Housing varies based on location as most of Lao PDR is covered in rocky mountains (Hays). Houses are commonly built above the ground on stilts in an attempt to avoid muddy living conditions during the wet season (Country Studies). Those living in highland Lao are typically poorer than those living in lowland and their housing will be reflected accordingly to their location (Hays). Life revolves around the production of rice both for urban and rural communities. Lowland communities offer little occupational specialization, with the production of rice being the primary focus (Hays). The availability of food varies by season, but those with little financial control have access to rice and vegetables (Hays).

With surviving being the bedrock of life for rural communities, education is put on the backburner, leaving little room for growth in the health industry (Hays). A growth in education would mean a change in food production and consumption. Food preservation like KinoSol's solar powered dehydrators used in

Uganda help preserve fruit, vegetables, and insects (KinoSol). With a shelf life of six months, this dehydrator would make food available during seasonal changes and natural disasters (KinoSol). Often farmers face difficulty producing enough food when agricultural conditions are poor, forcing many mouths to go unfed (Lao Peoples Democratic Republic). Increasing food production by educating farmers on new technologies, rather than the traditional ones, would improve yields (Hays). Excess food could be dried and preserved in times of need, allowing children the opportunity to go to school rather than working. However, girls are less likely to complete primary school, when compared to their male counterparts, due to cultural attitudes (Hays). Organizations like Lotus Educational Fund have made it their mission to provide equal opportunities for girls (Thelwell). Continued support from organizations which aim to improve equal education opportunities will be key for growth in Lao PDR's economy (UNICEF).

Educational opportunities for adults and young parents will be just as important as those available for children. Lao PDR is expected to see the highest rate of increased obesity in its population between 2017-2030 (Kang). Contrary to popular belief, those who are obese can still be malnourished. In the past, Lao PDR faced difficulty getting essential vitamins while eating only rice and vegetables. However, with the rise in junk food availability around the world, Lao is ranked 8th in the "obesity crisis" as said by the World Obesity Federation (Kang). Everyday Health advises the "promotion of healthy habits and exercising (Yoffee)", both of which could be accomplished without the help of foreign aid or money for that matter. Announcements from governmental officials about proper dietary intake, promoting healthy lifestyle, could help fight this future crisis. Additional information about the impact convenience food has on one's health could be posted where these fattening foods are found.

"Most villages lack a clinic or other formal government-provided health services (Hays)". Those who work in facilities located in Urban areas struggle with small salaries (Hays). Oftentimes, facilities are in poor physical condition, as well as understaffed, unequipped with necessary supplies, and unevenly distributed throughout the country (Hays). Lao PDR depends on foreign aid from numerous organizations to address key issues in the health department (Hays). Traditional medicines are still used widely throughout Lao PDR, in both urban and rural populations, as there is little access to western medicine. Despite these challenges, the number of health care staff has increased; however, the general population has little faith in their abilities (Hays). Separate healthcare programs exist for the various income groups. Universal health coverage is the goal for The Ministry of Health (MOH) by 2025 (Pacific Bridge Medical).

Rural communities are the most disadvantaged for health care due to their mountainous locations (Pacific Bridge Medical). Introducing simple programs in these communities could drastically speed the goals MOH has for 2025. "Many rural communities are unaware of appropriate sanitation and hygiene practices. Approximately 24% of the population practice open defecation, and only 28% of children's feces are disposed of safely (Hays)". Poor sanitation and unsafe drinking water are the leading causes of

many gastro-intestinal diseases (Giving A Lifetime of Clean Water). These diseases like dysentery, typhoid, and cholera are the major cause of death for young children (Giving A Lifetime of Clean Water).

As of 2015, 75% of the population have access to clean water and 71% have improved sanitation (United Nations Lao PDR). However, rural populations are 60% behind their urban counterparts in these efforts (United Nations Lao PDR). In comparison, efforts in Uganda are pushing to have 90% of the population having access to clean drinking water by the end of 2020 (UNICEF). UNICEF introduced community-led total sanitation (CTS) to change sanitation behaviours in Uganda (UNICEF). Their WASH program was also introduced into schools and health facilities (UNICEF). These programs, with the help of solar powered clean water supply stations, supported by UNICEF introduced in Uganda, could drastically improve the percentages found in Lao PDR for sanitation and safe drinking water. Although I mention specifically this WASH program, any efforts put in place in these rural areas would further improve water and sanitation practices. Simply educating rural communities, who are unknowingly polluting waterways, on proper defecation practices will improve water condition.

The distinct rural-urban poverty divide is ever present today, with 29% of rural populations living in poverty compared to 10% in Urban populations (Laos Health Strategy). Although Lao PDR has made significant improvements with the help of foreign aid reducing poverty and hunger, in recent years the constant divide reveals an uneven distribution in effort throughout the country (U.S. Agency for International Development). Lack of governmental implementation of interventions, such as one carried out by ENUFF, showed an “inefficient use of resources and overlapping or repetition of activities at the district and village level (SNV Laos)”.

Lao PDR has and is currently receiving aid from many organizations. Strategies like the one currently in place for 2019-2023 by USAID involve principles which incorporate collaboration between other country lead programs (U.S. Agency for International Development). Organizations like the World Food Programme (WFP) have made resources available to the most vulnerable malnourished percentage of the population, pregnant and breastfeeding children (Lao People's Democratic Republic). The effects of these interventions will be seen with time. Vigorous organization will need to be put into play to ensure all areas of Lao PDR are covered equally between all aiding programs. Volunteers in the community like Chansouk, who became a village facilitator of the WFP Farmer Nutrition Programme, could establish organization for various programs (Lao Peoples Democratic Republic).

Additional efforts outside of Lao PDR can be made to drastically improve food availability in Laos. Veganism is stereotypically personified as an eco friendly extremist hippie who loves animals. However, this lifestyle may be the only way to permanently free the malnourished and hungry in Lao PDR. This has to do with the large amount of space it takes to raise animals for beef, poultry, pork, and dairy products, as well as the amount of resources needed to sustain these animals.

Research by Cassidy et al in 2011 concluded that “75% of all agricultural land (including crop and pasture land) is exclusively for animal production. ...Producing these animal products demands more resources than what is contributed for food consumption in the end..” Growing crops for direct human consumption, rather than animals, would sustain current populations and an additional four billion people (Cassidy et al). Producing crops in this way would surpass the quantity needed for projected population growth in 2050 (Cassidy et al)! “Researchers determined that if the land required to produce animal products were used for a ‘nutritionally equivalent combination’ of potatoes, peanuts, soybeans, and other edible plants, the total food available would increase by 120 percent.” (Loria) Not to mention the immense health benefits gained by living more plant-based offers. As Lao PDR is estimated to be among the top ten in the rising obesity crisis, adopting a balanced plant-based lifestyle may also aid in reducing cardiovascular disease and certain cancers, as well as promoting weight loss (Cassidy et al).

Changes towards more plant-based lifestyles are already underway in some countries, with hopes of improving their populations’ health (Cassidy et al). However, a western diet is still largely consumed today. Although the benefits of living a more plant-based lifestyle are numerous, this would be changing the culture of many who have been eating animal-based diets their whole life (Cassidy et al). To globally transition to a plant-based diet, small steps would need to be taken over time. Examples could include grocery stores displaying plant-based lifestyle recommendations, tv commercials/radio sharing information about the impact of the animal based diet, and plant-based alternatives in restaurants/fast food locations.

Although Lao PDR has made significant progress in reducing malnutrition, the current state is still considered dire. With the help of multiple organizations, progress in reducing malnutrition through proper nutrition and education has occurred. Because Lao is fortunate to have immense funding, proper organization is necessary to guarantee all areas of Lao PDR are covered. Food security through preservation could allow children an education with the help of equal opportunity funding for girls. Countrywide governmental announcements and posts advocating healthy lifestyles could help prevent the obesity crisis. Clean water and WASH programs through UNICEF will improve clean water availability and formal hygiene practices. Veganism may globally help improve food security and those who are malnourished; however, this would change the way many live. Multi Sectoral programs in place today will improve malnutrition throughout Lao PDR but at the cost of time for many who are malnourished.

Simple improvements discussed through this paper have shown proven beneficial effects in countries similar to Lao PDR. These improvements, in addition to promoting plant-based lifestyles, may completely end malnutrition as well as world hunger. The research and prevention of malnutrition is a complex and interconnecting topic, and those attempting to introduce solutions must realize this and adapt their programs accordingly.

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