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Indonesia, Infectious Diseases

Indonesia: A Simple Solution to Rampant Diseases

With the thousands of dangerous, life-threatening things in this world, it may seem impossible to attack a genuine problem. Some may ask, “What’s the point?” It may not be possible to get rid of every problem in the world, but best efforts can certainly be made to minimize the severity of these topics. Indonesian citizens are currently facing something particularly dangerous: disease. An overview of Indonesia plus information on infectious diseases will clarify the need for action. Most importantly, solutions to minimize those impacts. These solutions include educating employees about disease prevention, keeping a clean, sanitary work environment, and establishing an outbreak response plan that is easily accessible and applicable to the population. Educating employees in disease prevention will reduce the amount of money spent on workers’ compensation and insurance. Additionally, requiring a clean and sanitary workplace will reduce the amount of food and waterborne diseases, resulting in more healthy employees, able to work. An outbreak response plan will allow the country to be more prepared in many ways, which will overall be beneficial, but most importantly a plan on how to provide families with income in the case of a lockdown, to reduce the amount of people going without food. These solutions would improve food security in the country. Therefore, they are amongst the best ways to approach the issue.

Indonesia consists of 275,122,131 people as of 2021, making it the fourth largest country in the world. 43.4% of these people lead rural lives and 56.6% lead urban lives (“Indonesia”). It is ruled by a republic government. This means in the executive branch, they have a president, vice president, and a cabinet appointed by the president. Citizens elect the president through direct voting. They also have a legislative branch, which is called the People’s Consultive Assembly. A House of Representatives called the DPR (Dewan Perwakilan Rakyat), and a Regional Representative Council called the DPD (Dewan Perwakilan Daerah), make up this branch. The public elects the members who then serve five-year terms. Both the DPR and DPD pass laws.

The country is made up of five islands with two primary archipelagos, sixty smaller archipelagos, and over thirteen thousand smaller islands forming a curving barrier between the Pacific and Indian Ocean. The climate here is extremely hot and humid. The terrain consists mostly of coastal lowlands, but larger islands are mountainous due to volcanic origins. Highlands in those areas are more moderate and drier than in coastal regions. This land is currently 31% cultivated, producing major crops such as rice and soybeans. They also export many other goods such as petroleum, coal, natural gas, rubber, tin, nickel, silver, bauxite, copper, gold, palm oil, coffee, cocoa, medicinal herbs and spices, and copra. (Witherbee). Despite this, the average farm size is small, less than one hectare. This is a little less than the size of the grassy area inside a 400-meter track (United States, Department of Agriculture, Foreign Agriculture Service, "Indonesia: Stagnating”).

A typical family size consists of four members per household (“Average Household”). Many families live in large homes or modern apartments in big Indonesian cities, but it is also quite common to live in kampungs or villages. These houses are made up of wood and bamboo, and palm leaves or reeds thatch roofs. Nearly all homes have a television and electricity (Sydenham, Shirley, and Ron Thomas) and supplying clean water sources is a focus of the government (Witherbee).

Families most commonly eat foods such as fish, rice, tropical vegetables and fruits, and many plentiful spices. Local markets, where many meals are bought, are accessible through roads. The most popular dish consumed is nasi goring or fried rice. Often, meat is cooked on skewers and served with spicy sauces like peanut sauce. Other vegetables and bean sprouts may also be served with peanut sauce as "gado-gado." Fruits may appear in many different forms such as salads, juices, or on their own (Witherbee).

Indonesia offers a variety of job options, but many people work in environments that require manual labor such as agriculture, industry, and service occupations ("Indonesia"). Overall, the average wage is 327,917,692 Indonesian Rupiahs, or approximately 22, 954.24 US dollars ("Indonesia: 2020/21"). One Indonesian Rupiah equals 0.000070 US dollars. Only 5.31% of the population was unemployed as of 2018. However, these typical households face challenges. For context, 10.9% of the population is below the poverty line. One of these challenges includes unstable food prices, specifically rice. Indonesia's inflammation rate in 2015 was above six percent, and its GDP growth was only five percent (Yi, "Two Main").

Schooling is free and mandated for children aged seven to sixteen years old, however other activities and expenses may require fees. Similarly, families have access to health care and health insurance, although those without health insurance must pay for medical services at their community-based health clinics (Witherbee). In addition, worker's compensation exists in case of work-related illness or injury ("Indonesia: Work").

Infectious diseases are amongst the leading causes of death in the country. Some of the most prevalent examples are cirrhosis, tuberculosis, and diarrheal diseases (United States, Department of Health and Human Services, Centers for DiseaseControl and Prevention, "CDC"). The degree of risk is extremely high. Many illnesses are dangerous, active, and taking a negative toll on food security. Trends are improving, but that does not mean it is no longer something that should be addressed and taken seriously by the government and public. The current pandemic on top of other diseases have affected the country. Food and waterborne diseases such as bacterial diarrhea, hepatitis A, and typhoid fever are rampant as well as vector-borne diseases such as dengue fever and malaria (United States, Department of Health and Human Services, Centers for DiseaseControl and Prevention, "CDC").

Furthermore, there are numerous contributing factors to the spread of diseases. For example, bacteria could become resistant to antibiotics normally used to treat an illness (United States, Department of Health and Human Services, Centers for DiseaseControl and Prevention, "CDC"), thousands of mosquitoes carry dangerous viruses, and unpleasant environmental factors allow diseases to thrive (Yi, "The Most Common"). With the many ways these sicknesses may be acquired, it can be impossible to avoid them.

Different people in the population could also be affected in separate ways. For example, pathogens in urban areas are not used to the sanitized, and overall better living environments than that in rural areas, but they can adapt. This makes it difficult for the government and community to fight pathogens because of the new strands being created (Neiderud). Additionally, separate sexes have different immune responses (Van Lunzen, Jan, and Marcus Altfeld), and those who are elderly, or infants, are specifically at risk. Health care providers may have to react differently in these cases (United States, Department of Health and Human Services, Centers for DiseaseControl and Prevention, "CDC").

Despite all the negative effects of diseases, studies have shown that since the recent pandemic, quarantine has improved the environment. With fewer people driving, flying in airplanes, and other activities like this, pollution has been the best it has been in years (Schwartz). The improving environment provides better living environments, but this does not mean pathogens will not exist in these areas. As previously stated, pathogens are adaptable and will just create more challenges in combatting them. (Neiderud).

Not only are chronic diseases dangerous, but they are also costly. In the United States, it has been shown that these diseases are a major contributor to health insurance costs, as well as employee medical claims. “A healthier workforce can mean lower direct costs, such as insurance premiums and workers’ compensation claims, and lower indirect costs if workers miss less work because of illness” (United States, Department of Health and Human Services, Centers for DiseaseControl and Prevention, “Workplace Health”).

All employees in the food industry, from those in agricultural labor to those working in markets, are essential in getting clean, nutritious food for the public. Making solutions and applying them should be made a priority because it would reduce the costs of insurance premiums and workers’ compensation, and more importantly, benefit food security. Clean food should be accessible to everyone, and diseases are an extreme barrier to this ideal in many ways.

One solution for these issues is educating employees and employers, specifically in the food industry, about infectious diseases and proper sanitation precautions. Food would be cleaner, and therefore less likely to be disease-ridden. Also, less money would be spent on workers’ compensation and insurance. Food security would benefit because with more healthy and able employees, more people would continue working in food production and the public would be less worried about the cleanliness of food. Along with this, a solution involving proper response plans in preparedness of outbreaks should be established. These plans should be made accessible to the entire population of Indonesia so that the public can be ready in these cases.

First, employees and employers should be educated about infectious diseases and how to prevent them, as well as proper sanitation precautions. The CDC is already doing something like this in the United States (United States, Department of Health and Human Services, Centers for DiseaseControl and Prevention, “Workplace Health”), so this could be applied to Indonesia. The CDC organization primarily works in America, but it has been working with other countries as well for the past fifty years. If needed, donations could be taken to fund this, but it would require a minimal budget. Employees would be responsible for applying these ideas, and employers would be responsible for enforcing them.

This solution would require simple policies such as washing hands consistently, wearing gloves when necessary, and making sure food is fresh before putting it on shelves. Also, ensuring environments where food is prepared to be sold are clean. Along with this, a brief education on food and waterborne illnesses in the workplace should be a requirement for employees before handling food. This information would include the causes of food and waterborne illnesses, symptoms of the most common illnesses, and how to prevent and recognize the disease. It might be taught quickly when an employee is hired and be as simple as asking the employee to read a pamphlet with the information included. There should be a brief mention of preventing diseases in everyday life, such as hygiene habits. Education like this could also be required to be briefly mentioned in public schools during class, as schooling is required and free for children in Indonesia (Witherbee).

Much of the Indonesian population is Muslim (Witherbee), but their cultural norms would not be affected by these policies, because they only regard education and cleanliness habits. These are mere guidelines for behavior in the workplace and would not affect their religious practices. Keeping this project sustainable may become an issue if it is not consistently enforced. However, stressing the importance of the project and providing reminder sign templates around markets and agricultural labor workplaces could solve this.

Secondly, government response plans should be set into place for when an outbreak should occur. These should be deliberately thought out and include everything that may need to be addressed in the case of an outbreak. This could incorporate how quarantine can be implemented, or eliminating the source of the disease if applicable, such as India’s response to the Avian Flu Outbreak (Mogul, Rhea, and Swati Gupta). Most importantly, providing families with a steady income in case of job loss.

To further examine this, when the Covid-19 pandemic hit, many families were losing their source of income. This unfortunate event led to worldwide hunger. This does not mean feeling peckish after not eating breakfast; it means severe starvation. For example, strict lockdowns, such as ones in India left tens of millions of people without income, so they did not have access to food. “You could have 150,000 to 300,00 people dying a day if this doesn’t get addressed promptly,” (LaFranchi).

Considering this is an official outbreak response, the government would have to contribute to the plan by helping create it and setting it into place. The CDC could also give input, as they have in other public health crises. As stated above, the CDC is primarily a domestic organization in the US but has been working with other countries for half a century as well. Planning an outbreak response would take little to no funding at all and would better prevent pandemonium in the case of lockdowns. It would give better piece of mind throughout the country without the worries of hunger or being unable to afford proper meals, therefore benefiting overall food security. Besides this, having more preparation for families who lose their income when an outbreak occurs would leave fewer people unable to have nutritious and clean meals.

If the response plan must be put into action, the community would have to implement it and take it seriously. For example, if quarantine or lockdown should transpire, the population would need to follow those rules. This applies for other everyday actions such as wearing a mask in public places, social distancing, and proper personal hygiene as well. If the community does not apply these rules to their life, a response plan would be pointless in the first place.

Cultural norms and behaviors would need to be considered when creating the response plan. As stated above, most Indonesians are Muslim, so these practices must be respected. It would be unethical to create a response plan that prevents these people from practicing their religion. So, this may include allowing small assemblies for religious purposes in case of lockdown. The response plan should be kept up to date, so it remains sustainable. A plan as important as this should be reviewed and amended as needed every five to ten years, or as needed.

These solutions could keep families from going hungry, which should be amongst the upmost priorities. The first solution provided would allow a clean work environment, reducing the spread of food and waterborne diseases. Less money would be spent on workers’ compensation and insurance because the education of employees could help them prevent illnesses. Continually, its effects on food security would be substantial. Its aid in the prevention of disease spread would mean fewer employees unable to work, and because of this food production is less likely to slow down. Also, a planned income for families who lose their jobs in the case of an outbreak would reduce the amount of people going without nutritious food. Families would not have to worry as much about hunger in unfortunate situations throughout the country. These solutions could be considered simple, but extremely important because they are not already fully implemented, and they have potential to benefit food security in Indonesia.

In conclusion, illnesses in Indonesia are rapidly spreading, and this is dangerous as well as economically damaging. While diseases are natural, they have become out of hand, severely affecting food security. They are preventing the population from accessing clean food. Therefore, solutions such as a cleaner work environment and educated employees are important in preventing the spread of food and waterborne illnesses, as well as an appropriate up-to-date outbreak response. More families would be able to access nutritious, sanitary food, fewer people would be suffering from diseases; specifically, food and waterborne disease, and it would help food security remain stable. For these reasons, the two solutions represented are amongst the best ways to solve the problem at hand. Infectious diseases are extremely dangerous and can catch us by surprise, which is why it should be addressed promptly. “The world we have made—interconnected, inequitable, complacent—is evolution’s playground, and our dominance may prove more fragile than we would like to believe,” (Harper).

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