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Zambia, Factor 12: Human Diseases

Zambia: Ending the Spread of Malaria

Noble Peace Prize winner and devoted missionary, Blessed Mother Teresa once stated, “I can do things you cannot, and you can do things I cannot; together we can do great things” (Teresa). Concerned humanitarians, Bill and Melinda Gates, recently stated that, “The belief that the world can’t solve extreme poverty and disease isn’t just mistaken. It is harmful.” (Gates) With this way of thinking surrounding every thought and action concerning foreign aid, it’s easy to turn the other way and ignore the 7 billion people living on fewer than three dollars a day. (Shah) A self-centered ideal has been embedded into human biology from day one to stay alive. But when every known educated action is taken and failure lurks, when not only does a failing farm haunt but the twist of a child’s stomach, that way of thinking is abandoned and the raw and naked inner core of the human desperately needing help and assistance is put on display. Since the decline into poverty after the decrease of copper price in the 1970’s, Zambia has failed to overcome the title, “Third-World.” Its economy has wavered and been shaken many times by different social regimes rulings. Through those failed attempts the main focus was always on mining being the core economic power but currently the government is pursuing a more agricultural boost out of poverty.

1. Typical Farm

With unemployment being a key problem, agriculture provides more jobs than any other industry in the country while only using 14% of the total land. Being 290,586 sq miles Zambia is approximately the size of Texas. (Encyclopedia) Out of the 290,586 sq miles of land 58% is considered to have high productivity opportunity. With the opportunities this presents comes many benefits not just to the immediate economy of Zambia but to the health and well being of the people. Investing in agriculture provides the possibility of factories to provide for the mechanical needs of farms, in turn creating more jobs and, therefore, decreasing the unemployment rate further. The mechanical needs of the few commercial farms could also then be met in the country instead of having to import some of their necessary mechanics.

Zambia focuses on small plot farming with farm sizes averaging 0.61 hectares in size. That is not a lot of land to farm on to produce food for the table let alone enough land to produce food for a profit. Very few farms are using new techniques such as conservation farming as opposed to the more traditional form of farming. In the traditional form of farming, farmers don’t use irrigation but solely rely on rain fall, no fertilizers are used, poor seeds are planted and there are very high incidences of pest and disease among crops. This use of a very limited resource supply is very inefficient and a waste of valuable materials since most of the crops produced by this technique never produce a harvest to sell and make money let alone enough to feed a family. (Improving) While this has been the tried and true method for the Zambian people it only hurts the little amount of supplies they do have let alone the overall outcome of the production.

Cotton is a major cash crop for Zambia; currently it is the largest domestic textile industry. (Encyclopedia) Other major cash crops in Zambia include tobacco and coffee. Prices of all of these crops have fluctuated dramatically in the last 20 years making it difficult to rely on the produce for a solid income. Sugar is a dominant agricultural export while the major food crops for domestic consumption are cassava, maize, and wheat. (Encyclopedia)

2. Typical Farming Family

Manning these farms are families typically consisting of six poorly educated and malnourished humans. Families tend to be made up of the parents and children. In rural areas education is rare and literacy rates plummet in comparison to the more urbanized areas. In addition to education being sporadic, young girls are the first to drop out of school and the most uneducated amongst the population. Due to the need of women at home on the farm, young girls are forced to end their education and continue inefficient methods of farming. The jobs of these young girls range from assisting in farming to preparing the small meals for the family. In Zambia it is common for the mother to both take care of the house and the farm. The fathers typically work under the mother on the farm assisting as needed. Typical meals consist of local vegetables and lots of maize products. The staple meal is ground maize porridge called nshima. Access to food is difficult because of the lack of funding for food and distance needed to travel. With the malnutrition plaguing 46% of the population and malaria killing 50% of children under the age of five, the need for health care is directly proportional.

3. Barriers to Improvement

Due to a lethal combination of shortages in medication and inadequate facilities the needs of the people are unmet by drastic measures. These measures are so drastic the government has setup zones referring to the different areas of inadequate health care services. In addition to the already rare services, the people in these zones face additional one, such as corruption in the area, making it virtually impossible to access treatment for malaria and malnutrition amongst the other diseases affecting this population. In turn, the people that do have access to health care are faced with even more barriers concerning the health care financial system. Due to the specific free health care policies, the barrier to health care is reduced but it also creates the problem of having most out-of-pocket-expenses adding up to the sum equivalent of paying for private health care services.

With these prices being astronomically unachievable for poor and rural people, it deters them and urban dwellers from even seeking out medical care let alone making it possible for them to receive it. Recent ploys on health care have been mainly focused on the very few employed population who are less confined by the barriers. With the intermittent health care facilities that do exist many problems arise amongst them: drug stock-outs, dirty dealing with under-the-table bribes, and lack of equipment to handle certain cases such as maternal care.

4. Malaria and its effect of agriculture

In the aforementioned paragraph it is seen that that need for medical treatment is met with insufficient means or not met at all. Malaria is a very treatable and preventable disease but with treatment not possible and prevention difficult, malaria has spread rapidly throughout the rural areas of Zambia. Currently affecting four million Zambians annually and being the leading cause of child death. With Zambia sitting in a climate of sub-tropical humidity, the spread and the breeding ground of malaria carrying mosquitoes being standing water it then creates a lethal combination to the rural communities who struggle to find clean water at all.

With the death of parents on ailing farms, the young children are then forced to drop out of school to tend to the farm. Without the adequate knowledge of the diseases they are facing, they don't know the tell tale signs and early onset symptoms to immediately find treatment. In addition to lack of knowledge about malaria, the remaining citizens then face a very literate world to trade with putting up yet another barrier between the two. Without being able to communicate the prices and the product they are selling, there is a chance of being cheated out of money or getting a very unfair trade. Not only is malaria depleting the available population of agriculture workers but it in turn it decreases literacy rates and education rates and keeps Zambia in poverty. Even with two parents running the farm, when children die the morale is

decreased substantially. A recent CARE Canada report on the economic standing of Zambia states that, "In Zambia, women are the key element to ensuring household food security." With the women leading the household and their children dying, to makes it very difficult for them to see the point of the work they are doing and therefore decreasing their input and work into the land.

5. Current Status

Recent applications have attempted to address this issue but the problem of malaria still remains. Currently only 35% of malaria diagnosed people are being treated. The truly terrifying thing is due to the immense lack of education, the people don't realize they or their family has malaria until it's too late and they are dead. The need to be able to spot the early symptoms is a true necessity in combating malaria. By providing Zambian people with the right tools to spot malaria early on treatment of it becomes much more attainable and possible. By keeping more people alive and in school it can be taught early on the tools needed to help the population with this situation. Prevention has been difficult due to the lack of funds for the supplies. One of the main ways to fight Malaria is to sleep in an ITN. An ITN is a net that is put up around a bed or room to keep out the mosquitoes that has been treated with insecticide to prevent mosquitoes. It's encouraged to surround it around an area where people spend most of their time but currently only 50% of children sleep under one and in addition only 64% of houses all together have one ITN available for the family.

With 8,000 dying annually from malaria rural people are at a very large disadvantage to contracting malaria due to lack of transportation and access to supplies in addition to the lack of money to afford care. In addition to rural families, pregnant women and children are the most susceptible to malaria due to the tendency to have a suppressed immune system during pregnancy and childhood. In the past, nets were financially out-of-reach for poor Zambians, costing upwards of US \$12 each. Free distribution and highly subsidized nets are now widely available, but need still outweighs supply.

Malaria is a very treatable disease but the dosage for treatment has to average about three times for the medicine to truly kick in. To completely prevent malaria one must create a completely malaria-free area which in the current time isn't achievable so treating it is the first step to ending the spread of this disease. To completely create a malaria-free environment you need to spray down the walls of all populated buildings entirely. With such low funds available for medicine it seems unattainable to afford the spray; but in the future it will be a necessity to save the Zambian population. Other measures to create this environment would be environmental control which is difficult because of the climate and the breeding of mosquitoes. (Zambia:Barriers)

6. Potential and Outcome

Potential change is increasing drastically. For example, 89 percent of pregnant women received at least one dose of malaria preventive medicine and more than 70 percent received two or more doses. With these numbers continually increasing it gives so much hope but there is still a lot of work to do. Furthermore, the percentage of households with at least one ITN increased from 38 percent to 64 percent between 2006 and 2010. In 2006, when malaria medicine was introduced, the number of tons of cotton seeds produced was at 64,000. After six years of progress in which the spread of medication the number of tons of cotton seeds also increased up to 270,000.

With prevention and treatment of malaria, more people stay alive and also improve their education and morale and in turn agricultural production and environmental sustainability. With the growth of agricultural production, foreign trade possibilities increase and in turn the income of the country. When a larger percentage of a country's profit can be invested in families, the community is strengthened and that trickles up to the country at large. (Tembo) At large, when the families are helped, the country is helped.

7. Current Obstacles

With clean water sources being very scarce in Zambia, it's hard to overcome the current plague of malaria. The water they do have is immediately overcome with mosquitoes breeding. It has been proven that mosquitoes can breed in such small puddles as cow tracks with that small amount of water producing upwards of dozens of mosquitoes. (Mosquito Breeding) It's very difficult to fix this problem due to the climate that Zambia is in and the amount of rainfall it receives. As the population increases, the available funds for materials decreases directly creating another major issue and thus making it seem like all the work has had no effect. When people briefly glance over the data and see not much change it's difficult to raise funds for this desperate cause because of the struggling influxes of numbers.

8. Recommendations

Immediate action needs to be taken in Zambia to save this culture which is full of rich tradition. Noted author John Green once stated that, "There is no Them. There are only facets of Us." (Quotes) With this powerful quote in mind I believe whole heartedly that helping Zambia is possible. With the proper education and tools, Zambia has the potential to agriculturally flourish. Immediate action currently needs to be taken including distribution of cheaper but effective malaria medications along with preventative measures to be distributed. Measures have been taken but still only 64% of houses have ITNs, a major preventative precaution against malaria. With women and children being so drastically affected I find it ethical and practical to focus attention on them to get the situation in grasp. Increasing dosages for pregnant women and children is a must. Once the number of malaria cases is low, it allows people to become more educated on the issue itself and the preventative measures they can take to protect themselves and their families.

9. Conclusion

C. Joybell said something that changed my view of my abilities with foreign aid, "Don't be afraid of your fears. They're not there to scare you. They're there to let you know that something is worth it." Fears surround every life action. Fear of a broken nail, a broken heart, but in some cases the fear is of your daughter not making it through the night, or fear that the small amount of water you have won't last till you find more. In the US when Malaria broke out in the late 1950's, the American government spent millions of dollars to combat it and ended the spread in its tracks. Currently there are five reported cases (McNeil) of malaria and all of them are being treated. Again I say, Malaria is one of the most preventable and treatable diseases out there and Zambia deserves the chance to live. Through well educated prevention and treatment, the dreamt of agricultural boost out of poverty can be a reality for Zambia. Children can see their sixth birthdays and mothers can hold their children during the party. Fathers can be proud to pass on the farm to their children. Zambia can flourish and I want to live to see it. I want to be the generation that saves Zambia.

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