



## Helping the Healing Process

### WINNING STUDENT ESSAY



By Darren Salmi, MSII

**This is the winning college entry in our first student essay contest. The winning high school entry appeared in the last issue.**

*The winner of the 2007 SSV Medicine essay contest for medical students is Darren Salmi, in his second year at the UC Davis School of Medicine.*

*He is a native Californian from the Bay Area. He became interested in oncology as an undergraduate at UC Santa Barbara, and is considering that as a future specialty.*

*On the other hand, he has always enjoyed writing. So many well known writers have been physicians that perhaps he will keep that option open. - J.L.*

EVERY YEAR MILLIONS of children succumb to preventable deaths, mostly in the world's poorest countries. The methods of prevention are well-known and widely employed in many parts of the world.

However, knowing how to do something and actually doing it are two very different things. Countries with high rates of infant/child death lack the appropriate resources, infrastructure, or stability to implement the necessary changes in water safety, food supply, and vaccine development and administration.

As a result, such countries are dependent upon those willing to donate such services. For example, 4.3 million people in sub-Saharan Africa survive on food donated by the World Food Programme. Such goodwill is not a sustainable answer to problems of this scale nor does it engender a role for the needy in their own health.

Instead of waiting for the child to become infected with a disease and then treating his or her symptoms, a physician provides a vaccination to allow the child's own immune system to prevent illness in the first place. Similarly, the world community should provide the tools to take care of its sick children so that any country, regardless of size or wealth, may be able to prevent the unnecessary illness and death of its most vulnerable citizens. If changes are to be permanent, they must take hold from within.

The poor are usually more rural yet aid programs in most countries are based in a few major centers. Such centralized setups increase the vulnerability for theft or fraud and decrease the availability of medicine to those who live far away. Bringing services closer to those who need them allows for greater effectiveness and also makes those at the bottom of the chain more invested in their own healthcare.

For example, training a member of each town, tribe, or village to be its designated healthcare provider means there is someone responsible for the health of the children in his or her own community who will be able to not only perform vaccinations or distribute certain medications, but also educate the rest of the community on simple ways to promote health.

Taking control of their own health situation can empower them and stimulate a greater

sense of ownership in their future. Consider what happens in the U.S. when a dozen people get food poisoning from a fast-food chain. There are reports on the news and stories in the paper, million dollar lawsuits ensue, and public relations campaigns are launched to restore the customers' trust in the company's product.

Hopefully, even those in the poorest countries will one day command respect, as well as resources, for their health and well-being. Reviewing the sad tales of many lottery winners is enough to remind us that all the money and resources in the world will just go to waste if people don't know how to use them wisely. In addition to healthcare workers, management at higher levels needs to be properly trained in order to establish a reliable infrastructure through which changes may be implemented.

Ideally, every child would eat a well-balanced diet, receive vaccinations and medications, and have a bottomless jar of vitamins. Unfortunately, malnutrition, micronutrient deficiency, and disease vulnerability are the norm for millions of children.

The most efficient way to approach this problem is to promote the use of superfoods. Biotechnology has reached a point where it is feasible and safe to engineer food that is hardy enough to grow in necessary quantities in harsh climates, ample in micronutrients that are otherwise missing in local diets, and endowed with certain medicines.

In fact, Sacramento's own Ventria Bioscience has recently developed strains of rice with the genes for breast milk proteins to be used in the treatment of infant diarrhea. Instead of wealthier countries growing food or manufacturing vaccines and medicine, and then shipping them to poorer countries, perhaps a wiser investment would be made in developing crops tailored to suit their local environment and health issues. Once developed, the seeds can be handed over to needy nations. They would then be able to literally grow the solutions to their problems in their own backyard, giving them control over their health, a sense of empowerment, and a solution that is sustainable.

Although there are several hurdles to overcome if we are to alleviate the avoidable suffering of millions of the world's children, there is also reason to be hopeful. According to the Global Health Council, only 5 percent of the world's children were vaccinated 30 years ago compared to 75 percent today. In 2005, UNICEF's State of the World's Children reported that the under-5 mortality rate of developing countries experienced a 61 percent reduction between 1960 and 2003.

Warren Buffett's historic \$30 billion donation to The Bill and Melinda Gates Foundation has ushered in an exciting time for global health and development and underscored a new vigor in combating disease. When enough of the world focuses its attention on the health of its children, it becomes difficult to look the other way. This is progress in itself and will hopefully encourage even more people to join in helping those least capable of helping themselves.

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