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Public Health and Food Security in the Nexus

Pestilence and drought may be caused by nature or God, but famine and starvation are caused by people.

Humankind has rarely been able to find a balance between adequate food production, allocation and consumption. Owing to the complex interplay of economic issues; growing populations and consumption patterns; energy re-allocation and natural resource depletion; and geopolitical instability, global food security is now a public health crisis.

Public Health and Food Security

Adequate and clean water help stave off infectious diseases and waterborne illnesses. Access to a nutritious and consistent food supply enables child development and individuals to thrive and provide for others in both family and community. Consumption in both the developed and developing worlds is a leading factor accounting for the world's growing pandemics of obesity, diabetes and cardiovascular disease. Inadequate nutrition arises not only through access issues, but the soil itself must be capable of producing foods that are nutritious and people must have minimum requirement to toil the land and produce food. Through over-farming, the re-allocation of agricultural land for food changing to energy supply, the depletion of elements essential to nutritious food is becoming evident everywhere. Soils, water supply, and inclement weather are only some of nature's services that are under extreme stress.

For the bottom billion people on this planet, poverty is inversely proportional to food security. With the ability of a region or population to grow or purchase its food, food security becomes increasingly tenuous and the risk of food shortages and political instability rises. Despite the fact that more of the developed world has health issues associated with overconsumption of food (such as obesity, diabetes, hypertension and cardiovascular disease), the developing world is quickly catching-up in all of these non-communicable and entirely preventable diseases.

The public health issues of imbalanced nutrition, inadequate access to food security and misappropriation of resources, at the governmental and household levels, are seen globally and affect billions of people. They are compounded by an inadequate access to nutritious food, plus large scarcities building up in the world of global agriculture. Among these scarcities are: arable land, fresh water, fossil fuels for energy and for fertilizer production, appropriate farm technology and access to this technology, and fish supplies. Put simply, food prices have risen sharply from two main causes: investors that are speculating on growth and the price of grain and the conversion of would-be food products to ethanol for use as biofuels. Water quality for consumption and agriculture is tightly linked to this dynamic. The use of food crops for biofuel production and energy, as opposed for consumption is causing direct public harm.

In addition, excessive use of fertilizers in combination with inappropriate and aggressive farming techniques have led to macro- and micro-nutrient depletion in the soil. Other factors include diminishing access to appropriate financial support and an increasingly unstable climate. All of these factors make increasing global food output extremely difficult. We will see that the cornerstone to Public Health action and improvement with the food security crisis is found in climate change reduction. The public health situation in relation to agriculture and food security is getting worse, but why?

Policy Failure

After all, feeding the world's hungry is not entirely possible or a credible and evidenced based policy that has proven to work and is reproducible around the globe. After significant double-blind field research, it has been found that poverty leads to a world where those without enough to eat may save up to buy a TV instead of adequate food for their family, where more money does not translate into more food and where making rice cheaper can sometimes even lead people to buy less rice.

Indeed, when many communities have gained more access to wealth and can afford adequate and balanced food supplies, many opt for the better tasting and less nutritious option purely as a right of becoming 'civilized'. As communities and societies gain more access to wealth, the greatly needed outcome of more balanced consumption is not guaranteed and is sometimes even hindered as more and more market forces encourage the purchase of luxuries as opposed to adequate nutrition. Education for these at risk communities is needed in the form of primary prevention - to prevent misguided family and household expenditures on poorly nutritious food and other superfluous purchases that are not directly linked to their own food security, public health and overall wellbeing.

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