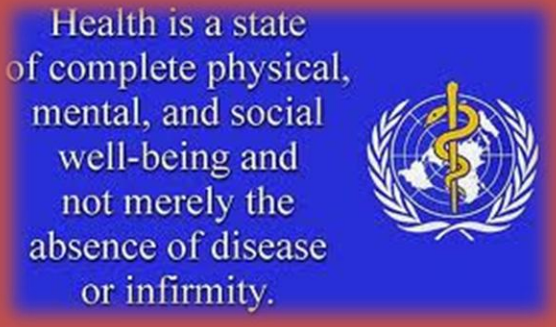
MIT Association of International Relations and Model United Nations

WHO 2012
Background Guide

2012



who2012@mitmunc.org

Letter from the Dais

Hello Delegates,

I welcome you to the 2012 Massachusetts Institute of Technology Model United Nations Conference (MITMUNC 2012) World Health Organization Committee. My name is James Yeung and I am a second-year at MIT from Cambridge, MA pursuing a major in Math with Computer Science, with a minor in Biology and Linguistics. I did four years of Model UN in high school and went to numerous HMUN and NHSMUN conferences during my time. With MITUNC, I helped co-chair the WHO last year, and it was a really fun and enjoyable experience, so I'm back to do it again this year.

The topics this year are very exciting, and helping me out will be my co-chair Nurşen Öğütveren, a first-year here at MIT. She's in the Class of 2015, from Istanbul, Turkey via Ozark, Alabama. She'll be majoring in Computer Science and Molecular Biology. She did Model UN in middle school, and got best delegate awards during her time. She's really excited to get back into the swing of things and get back into Model UN.

The success of the committee will hinge on all delegates being as knowledgeable about the topic as well as their country's stance on the topic. Therefore, compromise is the most important thread through the committee, as delegates must decide what the most important focus points are and how best to implement solutions to the global issues we plan on debating. As a result, we have prepared the following background guides for you, which are just to give you a basic overview of the issues and some thinking points to give you a good footing on which to conduct your own research and prepare for debate.

As such, my co-chair and I will be happy to address any concerns you have, such as questions about the conference, the topics, your country's stance, or position papers. I can't wait to see what amazing debate happens at the conference, and I expect to be completely blown away by the debate and solutions we will come up with during the conference. We look forward to seeing you in February!

Sincerely,

James Yeung

Chair,
WFP 2012
MITMUNC IV
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Topic 1:

Childhood Hunger and Malnutrition in Developing Countries

Introduction

Currently, hunger is the number-one health risk for the world's population at large. Many people in the world simply do not have access to an adequate supply of food because of geographical or economic barriers. Food markets could be located miles away, requiring trips that can last several days in places where transportation is unavailable or unreliable. Furthermore, for the impoverished, the price of food, especially in the variety needed for adequate nutrition, could far exceed their monthly income. The resulting poorly-balanced diets often result in malnutrition and related nutrient deficiencies. The health risks caused by hunger and malnutrition could be managed if alternative access routes were put in place to provide food for the world's hungry.

On average, a body needs 2,100 Calories a day to lead a healthy life. Hunger is the condition where a person must survive on less than that amount. A balanced diet and proper nutrition provide an excellent defense against disease and nutrient deficiencies by providing support for the body's immune system. However, for a hungry person, physical and mental activities are slowed down and the body's immune system is weakened. A hungry child will not have the energy to study or play, and a hungry adult will not have the energy to work. The weaker immune system makes hungry people more likely to die from common infections such as measles or diarrhea. By providing the necessary 2,100 Calories a day, hunger (and consequently, disease and death) can be prevented, and the quality and productivity of life can be increased.

Even if a person gets enough to eat, they will become malnourished if the food they eat does not provide the necessary vitamins and minerals. At an early age, malnutrition can result in irreversible damage to the body and severe stunting of growth. For instance, according to the UN's Standing Committee on Nutrition (SCN) in its 5th World Nutrition Situation report, Iodine deficiency is the world's greatest single cause of mental retardation and brain damage. The body needs a variety of micronutrients to function at its best. Three essential micronutrients UNICEF is currently undertaking efforts to supply are iron, iodine, and Vitamin A. By supplying these essential micronutrients, UNICEF hopes to prevent life-altering conditions such as blindness and anemia.

Hunger affects nearly 1 in 6 people, killing more people annually than Malaria, AIDS, and Tuberculosis combined. Children and women are often most affected, especially in developing countries. In fact, 1 in 4 children developing countries are underweight as a result of having insufficient food. This issue also affects education and the economy. Hungry children struggle to focus, learn, or even attend school. Without education, it's

much harder for them to grow up and contribute to the growth of the national economy. A study in Guatemala found that boys who received fortified food before the age of three grew up to have wages 46 percent higher than those in a control group. Products such as Ready-to-Use Foods (RUFS) designed specifically for children and free lunch in schools are two examples of measures taken targeted at fighting childhood hunger and malnutrition.

Despite common beliefs, most hunger is not caused by a lack of food, but rather a lack of access to food, either by geographic barriers or by monetary inhibition, especially since 2008, when food prices shot up causing a reversal in progress made up to that point by countries worldwide in reducing hunger and malnutrition. Conflict and rises in food prices due to increase in population demand for food are two major contributors to a lack of access to food. There is currently enough food in the world that every man, woman and child should be entitled to a nutritious diet that is both filling and healthy. The challenge that remains is making this food accessible to all of these people.

Background

Eradicating hunger is part of the number one goal of the United Nations' Millennium Development Goals. According to the 2010 Millennium Development Goal report, since 1990, developing regions have made some progress towards the MDG target of halving the proportion of people suffering from hunger. The share of undernourished populations decreased from 20 percent in 1990-1992 to 16 percent in 2005-2007, the latest period with available data.

However, progress has stalled since 2000-2002. Overall progress in reducing the prevalence of hunger has not been sufficient to reduce the number of undernourished people. In 2005-2007, the last period assessed, 830 million people were still undernourished, an increase from 817 million in 1990-1992. Food prices spiked in 2008 and falling income due to the financial crisis further worsened the situation. The Food and Agricultural Organization of the United Nations estimates that the number of people who were undernourished in 2008 may be as high as 915 million and exceed 1 billion in 2009.

Progress to end hunger has been hindered in most regions. Before the onset of the food and financial crises, a number of regions were well on their way to halving, by 2015, the proportion of their population that were undernourished. Southeast Asia, which was already close to the target in 2005-2007 made additional progress, as did Latin America and the Caribbean and Eastern Asia. Progress in the latter region was largely due to reductions in hunger in China. The prevalence of hunger also declined in sub-Saharan Africa, although not at a pace that was sufficiently fast to compensate for population growth and to put the region on track to meet the MDG target.

In March of 2011, WHO approved a resolution for a maternal, infant, and young child nutrition implementation plan. The plan urged member states to "increase political commitment to preventing and reducing malnutrition in all its forms, to expedite implementation of the global strategy on infant and young child feeding, and to expand interventions."

It is the hope of this council that you will put your creative skills to use developing resolutions to reverse this disturbing trend of inactions and set the UN on course to achieve its millennium development goal of halving the proportion of people suffering from hunger by 2015.
Country Blocs

Hunger is a problem that affects every nation, even those with high GDPs such as the United States or China. However, most hunger is concentrated in the developing world, and highly concentrated in the rural regions there, as indicated in (Chart 1) Children in rural areas are twice as likely to be underweight as children in urban areas due to a lack of reliable access to food and increased rate of poverty.

(Chart 2) shows the proportion of children under the age of 5 who were underweight in 1990 and 2008, indicating the progress each bloc has made towards the millennium development goal.
There is also a large disparity amongst incidence of hunger among children in poor families versus those in wealthy, as shown in (Chart 3). The highest such disparity is shown in Southern Asia. This indicates that socioeconomic status plays a larger role there in the lack of access to food.

Committee Direction

- What role should the UN play in encouraging and aiding countries in achieving the Millennium Development Goal of halving the proportion of hungry people in the world by 2015?
    - What kind of resources should WHO be responsible for providing countries? How much of these resources should WHO provide? To whom?
    - How should hunger-alleviating resources be allotted to countries? Should incentives be used to encourage countries to alleviate hunger? Should punitive measures be used?
- Given the current progress made towards the millennium development goal, is it an unrealistic expectation? Should all countries be expected to reach the goal by 2015? If not, which ones should?
- What role should individual governments play in reducing hunger? Should policy and/or resources be targeted at certain groups within the population?
- What role should countries play in helping each other to alleviate hunger? Should countries with more resources be responsible for helping countries with fewer?

- How important is alleviating hunger and malnutrition to other developmental goals of a country, such as education or economic development?

Resources

Global Food Security Crisis (http://www.un.org/issues/food/taskforce/index.shtml)

UN Millennium Development Goals (http://www.un.org/millenniumgoals/pdf/MDG%20Report%202010%20En%20r15%20-low%20res%20100615%20-.pdf)

World Food Programme (http://www.wfp.org/)

WHO: Nutrition (http://www.who.int/nutrition/en/)

Appendix

Chart 1

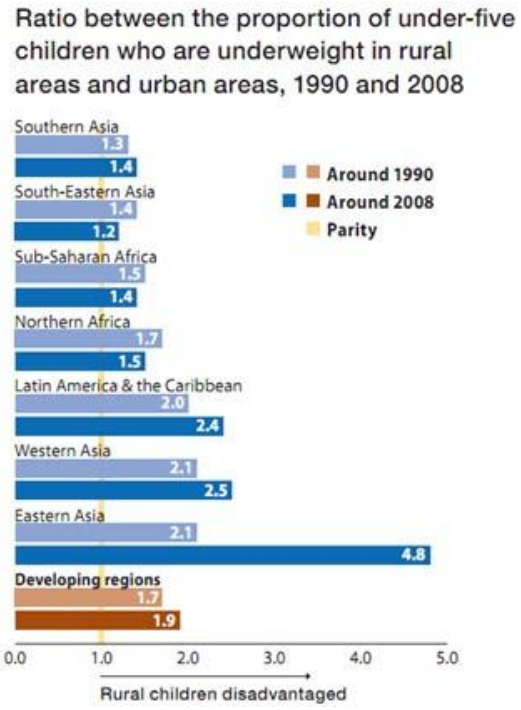


Chart 2

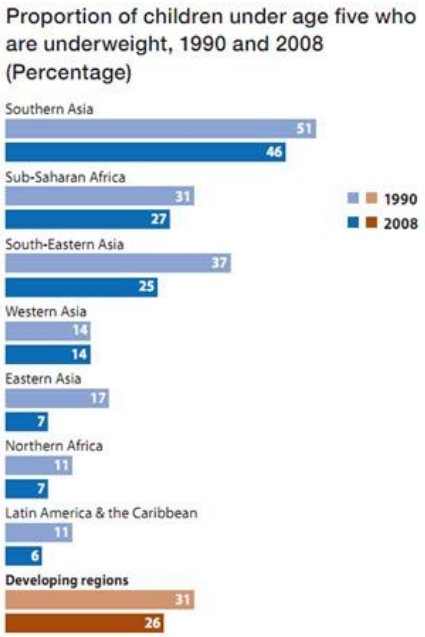
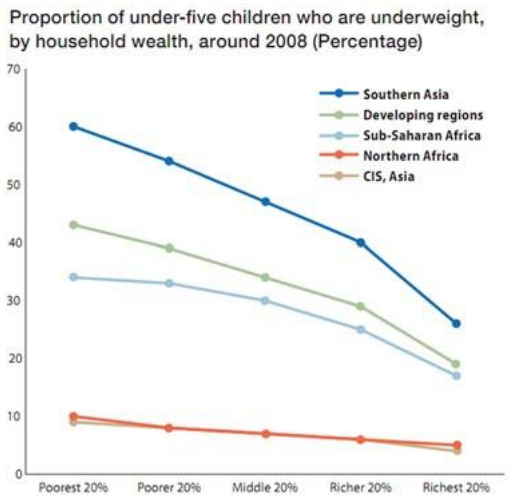


Chart 3



TOPIC 2:

PREVENTING THE SPREAD OF COMMUNICABLE DISEASES AFTER A NATURAL DISASTER

Introduction

Natural disasters are catastrophic events with atmospheric, geologic and hydrologic origins. They include earthquakes, volcanic eruptions, landslides, tsunamis, floods and drought. Natural disasters can have rapid or slow onset, and serious health, social and economic consequences. During the past two decades, natural disasters have killed thousands of people, adversely affecting the lives of at least one billion more people and resulting in substantial economic damage. The main problem is the spread of already prevalent diseases that are endemic or epidemic-prone. These are often fairly common diseases which the health care system of an affected country is already struggling to deal with. Developing countries are disproportionately affected because of their lack of resources, infrastructure and disaster preparedness systems.

There are many effects of natural disasters on developing countries in both the short-term and the long-term. In the short-term, there are obviously many lives lost and a huge monetary cost in terms of cleaning up the wreckage. In the long-term, there is the detriment to the health of the affected people, as well as the need to repair damaged buildings and infrastructure. One of the most major effects of natural disasters is the spread of communicable diseases. This is due to a failure in both infrastructure and implementation. For example, resources such as clean water are often nonexistent after a natural disaster, causing a rapid deterioration in health and sanitation. In addition, health facilities are also damaged during natural disasters, exacerbating already-poor healthcare. Therefore, the utmost thought must be taken to deal with stemming the spread of communicable diseases in the short-term after a disaster and long-term preparedness for natural disasters in the future.

Background

Possibly the natural disaster most correlated with the spread of communicable diseases is flooding. Flooding is associated with an increased risk of infection, however this risk is low unless there is significant population displacement and/or water sources are compromised. Of the 14 major floods which occurred globally between 1970 and 1994, only one led to a major diarrhea disease outbreak. This occurred in Sudan in 1980, where there was also a significant level of population displacement. Floods in Mozambique in January-March 2000 led to an increase in the incidence of diarrhea and in 1998, floods in West Bengal led to a large cholera epidemic.

The major risk factor for outbreaks associated with flooding is the contamination of drinking-water facilities, and even when this happens, as in Iowa and Missouri in 1993, the risk of outbreaks can be minimized if the risk is well recognized and disaster-response addresses the provision of clean water as a

priority. In Tajikistan in 1992, the flooding of sewage treatment plants led to the contamination of river water. Despite this risk factor, no significant increase in incidence of diarrheal diseases was reported. A typhoon in Truk District, Trust Territories of the Pacific in 1971 disrupted catchment water sources and forced people to use many different sources of groundwater that were heavily contaminated with pig feces. As a result, there was an outbreak of balantidiasis, an intestinal protozoan. A cyclone and flooding in Mauritius in 1980 led to an outbreak of typhoid fever. There is an increased risk of infection of water-borne diseases contracted through direct contact with polluted waters, such as wound infections, dermatitis, conjunctivitis, and ear, nose and throat infections.

Floods may indirectly lead to an increase in vector-borne diseases through the expansion in the number and range of vector habitats. Standing water caused by heavy rainfall or overflow of rivers can act as breeding sites for mosquitoes, and therefore enhance the potential for exposure of the disaster-affected population and emergency workers to infections such as dengue, malaria and West Nile fever. Flooding may initially flush out mosquito breeding, but it comes back when the waters recede. The lag time is usually around 6-8 weeks before the onset of a malaria epidemic. Malaria epidemics in the wake of flooding are a well-known phenomenon in malaria-endemic areas world-wide. For instance, an earthquake and subsequent flooding in Costa Rica's Atlantic region in 1991 and flooding on the Dominican Republic in 2004 led to malaria outbreaks.

Periodic flooding linked to El Nino-Southern Oscillation (ENSO) is associated with malaria epidemics in the dry coastal region of northern Peru and with the resurgence of dengue in the past 10 years throughout the American continent. West Nile Fever has re-surged in Europe subsequent to heavy rains and flooding, with outbreaks in Romania in 1996-97, in the Czech Republic in 1997 and Italy in 1998. The risk of outbreaks is greatly increased by complicating factors, such as changes in human behavior (increased exposure to mosquitoes while sleeping outside, a temporary pause in disease control activities, overcrowding), or changes in the habitat which promote mosquito breeding (landslide, deforestation, river damming, and rerouting).

Tuberculosis can be acquired if the bacillus is aerosolized (residual air in lungs exhaled, fluid from lungs spurted up through nose/ mouth during handling of the corpse). Exposure to blood borne viruses occurs due to direct contact with non-intact skin of blood or body fluid, injury from bone fragments and needles, or exposure to the mucous membranes from splashing of blood or body fluid. Gastrointestinal infections are more common as dead bodies commonly leak feces. Transmission occurs via the feco-oral route through direct contact with the body and soiled clothes or contaminated vehicles or equipment. Dead bodies contaminating the water supply may also cause gastrointestinal infections. The

public and emergency workers alike should be duly informed to avoid panic and inappropriate disposal of bodies, and to take adequate precautions in handling the dead (see prevention below).

Other health risks due to flooding include drowning and injuries or trauma. Tetanus is not common after injury from flooding, and mass tetanus vaccination programs are not indicated. However, tetanus boosters may be indicated for previously vaccinated people who sustain open wounds or for other injured people depending on their tetanus immunization history. Passive vaccination with tetanus immune globulin (Hypertet) is useful in treating wounded people who have not been actively vaccinated and those whose wounds are highly contaminated, as well as those with tetanus.

Hypothermia may also be a problem, particularly in children, if trapped in floodwaters for lengthy periods. There may also be an increased risk of respiratory tract infections due to exposure (loss of shelter, exposure to flood waters and rain). Power cuts related to floods may disrupt water treatment and supply plants thereby increasing the risk of water-borne diseases as described above but may also affect proper functioning of health facilities, including cold chain.

In summary, flooding is easily the natural disaster that is most prone to spreading disease.

Country Blocs

High-income countries often have a much easier time dealing with natural disasters, as they have more stable water supplies, more stable infrastructure, and a much more developed disaster preparedness system. They often have much more densely populated health care systems. As such, a natural disaster will not completely take out a health care system. Better disaster preparedness also protects by having ample resources for refugee displacement, which greatly decreases the amount of disease spread as well. This preparedness allows them to shuttle emergency aid to a disaster-affected area much more effectively.

The pre-disaster disease rate is relatively low in these countries, and so the disease rate will not be raised nearly as much. As a result, developed countries such as the United States often have much more emergency aid available to provide to countries in need. Other countries like China and Japan are still prone to natural disasters, but their vast economies and relatively low disease rates enable them to properly deal with the spread of disease quickly and effectively.

On the other hand, developing countries are the main locations most affected by natural disasters. Poor infrastructure and limited resources coupled with already high disease rates cause a much higher chance of spreading endemic or epidemic-prone diseases. A low amount of emergency aid and often destroyed health care facilities creates a long period of time with displaced people and unsanitary water

conditions, causing disease to fester. Therefore, developing countries who do not have the proper prevention techniques would like to work together as much to implement effective solutions to bolster their infrastructure and prevent the spread of disease should a disaster strike. Furthermore, many people in these countries are often less healthy as well due to hunger or malnutrition, and so the possibility of contracting and spreading disease is naturally higher as well. Therefore, emergency aid and proper natural disaster contingency plans are most important for these developing countries.

Questions to Consider

- What short-term measures should be taken after a natural disaster to help stem the spread of communicable diseases?
- What preventative measures can be taken before a natural disaster to ensure uninterrupted provision of safe drinking water and health-care facilities?
- What sort of surveillance/early-warning system is in place to detect epidemic-prone diseases quickly?
- What forms of immunization should be taken after natural disasters to best prevent the spread of disease?
- What measures can be taken in terms of vector control for vectors such as mosquitoes to prevent the spread of malaria and similar diseases?

Resources

WHO: "Communicable diseases following natural disasters: Risk assessment and priority interventions"
http://www.who.int/diseasecontrol_emergencies/guidelines/CD_Disasters_26_06.pdf

WHO: "Flooding and communicable diseases fact sheet"
http://www.who.int/hac/techguidance/ems/flood_cds/en/

Watson JT, Gayer M, Connolly MA. Epidemics after natural disasters. Emerg Infect Dis [serial on the Internet]. 2007 Jan. Available from http://wwwnc.cdc.gov/eid/article/13/1/06-0779.htm

Disease Control Priorities Project: "Natural Disasters: Coping with the Health Impact"
http://www.dcp2.org/file/121/

The Johns Hopkins and the International Federation of Red Cross and Red Crescent Societies: "Control of communicable diseases"
http://www.jhsph.edu/bin/k/c/Pages_from_Chapter_7_.pdf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