WHO

World Health Organization

Topic 1: Mental Health in Developing Countries

Topic 2: Nutrient Deficiencies in Developing Countries

Model United Nations at UC Davis

Letter from the Head Chair

Dear delegates,

My name is Jasmine Mah, and I will be your head chair for the World Health Organization for DMUNC 2017.

I am a second-year English and Environmental Policy Analysis and Planning double major. Over the course of my college career, I have taken classes ranging from Shakespeare to statistics, and from physics to political science. As a result, I am deeply interested in how the natural sciences intersect with policy to remedy social problems. When I'm not studying or doing MUN-related activities, I enjoy reading, watching TV, working out at UC Davis's Activities and Recreation Center, and discovering new food places in downtown Davis.

As your head chair, I will monitor the debate and encourage lively, meaningful discussions. Come with original ideas, and be ready to cooperate with your fellow delegates to pass comprehensive resolutions. I hope you enjoy your time in the WHO at DMUNC 2017!

Sincerely,
Jasmine Mah
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About the Committee

The World Health Organization (WHO) is a specialized body of the United Nations that focuses on improving global public health. During its initial establishment in 1948, the WHO addressed issues like malaria, child and maternal health, sanitation, and nutrition. According to the WHO's Constitution, health is " a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The organization works to not only aid sick individuals but also help the international community optimize their physical and mental health. The constitution further describes health as fundamental to attaining worldwide peace and security.

The WHO operates a variety of programs to accomplish its goals. As a UN committee, the WHO provides leadership in health matters by directing routes of research, putting forth norms and standards, upholding ethics, assisting in technology, and keeping current with health trends and situations. While WHO has a central role in the health of the global population, it is limited by funding and sovereignty of nations.

Topic 1: Mental Health in Developing Countries

Historical Background

As stated in the WHO constitution, health by WHO standards includes mental well-being, also known as mental health. While not everybody has a mental disorder, everybody has mental health. Being in good mental health allows individuals to best adjust to the stresses of daily life, recognize their full potential, and make positive changes in their communities. When the mental health of an individual, community, or society is impaired, it can lead to consequences that go beyond health and affect a nation in various ways.

About 75% of people living with mental disorders reside in low- and middle-income countries. Usually, these people are unable to receive proper treatment due to lack of resources and social stigmas surrounding mental health. It is estimated that 76 to 90% of people with serious mental disorders living in developing countries do not receive treatment. This range is called the treatment gap, or the number of mentally ill patients who need health care and do not receive it.

Socioeconomic factors can have a significant influence on a person's mental health. Symptoms of poverty such as low education levels, stressful work conditions, risks of violence, poor physical health, and human rights violations contribute to poor mental health. These factors are consistent with living conditions found in developing countries, which is why mental health in these countries is an obstacle. Poor mental health can also aggravate the effects of poverty, as untreated mental illness can disrupt an individual's ability to work properly and advance economically. Since developing countries have fewer resources, less education, and more stigma with regards to mental health, populations find greater challenges seeking help for mental illness.

Many developing countries lack adequate mental health professionals and educational institutions to train professionals, leaving these countries unable to start proper conversations about mental health in a clinical setting. Professional psychiatrists are necessary for teaching citizens the importance of mental health and aiding those with serious illnesses. The following table illustrates the ratio of psychiatrists to citizens in several developing countries:

Country Name	**Number of Psychiatrists for Number of Citizens**
Indonesia	1 for every 350,000 people
Haiti	10 for all 10 million people
Rwanda	5 for all 13 million people
Mexico	2000 for all 123 million people

Without so few professionals for so many citizens, many people are left untreated and without resources. The few psychiatrists that are present in developing countries are concentrated in urban areas, leaving rural populations without resources. Thus, people who live in rural areas must either travel great distances to receive help or fail to receive treatment.

Compared to developed nations, developing nations spend very little on mental health care. This happens because people in developing countries frequently underestimate the importance of mental health. Since many of these countries do not fund mental health care and do not have enough mental health care professionals to facilitate the progress of mental health care, they are unable to initiate the building of necessary infrastructure to bolster mental health and provide populations with care.

Another obstacle is the stigma surrounding mental health. In developing Asian countries, people with mental disorders often deny or hide their illnesses for fear of being judged negatively. This prevents them from seeking necessary help. The stigma surrounding mental

illness extends to an individual's family, as the family may worry about the individual's chances of marriage and passing along genes that can impact future offspring. To combat the stigma, many low- and middle-income countries try to implement policies that help citizens better understand mental health and people with psychiatric illnesses.

Receiving proper mental health care is also difficult for refugees displaced by conflict. Developing nations currently contain 86% of all displaced people, who lack access to Universal Health Coverage. During humanitarian emergencies, as many as 1 in 5 people may suffer from anxiety or depression. Sometimes the trauma of the emergency triggers pre-existing illnesses, while other times it directly induces illness. While refugees need basic supplies like food and water for their physical health, they also need resources for their mental health.

UN Involvement

The WHO's main effort to address mental health care has been the Comprehensive Mental Health Action Plan for 2013-2020, which was approved in 2013 by all of WHO's Member States. The Action Plan is monumental for being the WHO's first comprehensive mental health plan that targets both developed and developing countries. The Action Plan aims to help those with mental disorders and encourage healthy mental well-being for everyone. It illustrates this through four primary objectives: strengthening leadership in mental health care, providing mental health and social care, strategizing prevention, and bolstering research for mental health.

Every year, the WHO recognizes April 7 as World Health Day to celebrate its founding. The theme of World Health Day 2017 will be depression, a mental illness that is both widespread and treatable. Patients with depression suffer from an extreme sadness that hinders them from carrying out everyday tasks, working productively, and

having healthy interpersonal relationships. If left untreated, depression may lead to suicide. The WHO hopes that World Health Day 2017 will educate people about depression and reduce the stigma of the illness so that depressed individuals can get the help they need.

Current Situation

To monitor and document the progress made by the Action Plan, WHO drafts a series of Mental Health Atlases. The most recent edition, Mental Health Atlas 2014, summarizes the most current mental health progress as a result of the Action Plan and to what extent the member states have implemented the objectives set forth by the Action Plan. The Atlas includes data on policies, finances, human resources, and medical information. While the Action Plan aims to promote progress in the realm of mental health care, the member states must implement policy, expand their resources, and take overall responsibility for the condition of mental health in their countries.

Policy and Potential Solutions

While most countries have signed on to the Action Plan, not all countries are making progress in mental health care. Many countries support the idea of making mental health care a priority in theory, but in practice, they do not allocate enough funds to implement the strategies needed. Specific country progress can be found in the Mental Health Atlas 2014 country profiles. Since each country's mental health care situation is different, there is no one-size-fits-all solution to improving global mental health. Any policies passed must take into account the specific circumstances of a country or region.

There are many potential solutions to implement change in the realm of mental health care. However, the solutions that are relevant to developed countries cannot always be applied to developing countries because developing countries lack fundamental resources, as mentioned above. Because of the limited resources, one must exercise a certain degree of creativity to maximize the resources that developing countries currently possess. Many developing countries have put in place methods of mental health intervention. Other methods include early childhood intervention, programs to for women's empowerment, mental health exposure in the workplace and schools, and support for older populations.

Questions to Consider

1. How can the Comprehensive Mental Health Action Plan for 2013-2020 be extended to target developing countries better and account for their lack of resources when compared to developed countries?
2. What can global, national, and local governments do to combat the stigma surrounding mental illness?
3. How can developed countries guide and support developing countries in implementing better mental health care?
4. How can developing countries that are also areas of conflict combat mental health?
5. How can refugees from developing countries be supported in their mental health?
6. What are short-term and long-term solutions to improve mental health care in developing countries and make sure these solutions are implemented and are making change?

Topic 2: Nutrient Deficiencies in Developing Countries

Historical Background

The WHO is concerned with fighting non-communicable diseases (NCD), or diseases that are caused by something other than an infectious agent. One specific NCD is micronutrient deficiency, a type of malnutrition that occurs when a person does not consume enough necessary vitamins and minerals. Pregnant women and young children are typically the most vulnerable to the effects of micronutrient deficiency. If left untreated, micronutrient deficiency can result in maternal death, increased infant mortality, and early childhood developmental problems. Although micronutrient deficiencies are a global issue, they are most prevalent in developing nations.

Nutrient deficiency is often the result of food insecurity, which can be caused by unsustainable agricultural practices, natural disasters, poverty, and political unrest. Environmental disturbances decrease the quantity of available food, while social challenges make the distribution of food more difficult. Loss of available arable land and shortage of water are current challenges of feeding an ever-growing world population. For refugees displaced by political conflicts, finding healthy food and proper medical care is extremely difficult. According to the United Nations High Commissioner for Refugees (UNHCR), malnutrition is one of the top causes of death for refugee children under the age of five. Thus, food insecurity and micronutrient deficiency ought to be addressed not only from a domestic perspective but also from an international perspective.

To understand micronutrient deficiency, one must understand the thrifty phenotype hypothesis and nutrition transition. When a pregnant mother does not consume enough nutrient-rich food, her baby will adapt to conserve as much energy as possible from the little food. The

thrifty phenotype hypothesis suggests that once the child grows up, he or she will continue to metabolize food conservatively. The nutrition transition refers to a country's shift from producing little food to producing lots of food. As income levels rise, so do NCDs like obesity, type II diabetes, and cardiovascular diseases. According to the thrifty phenotype hypothesis, people who were malnourished as children are most susceptible because their bodies have adapted to resist insulin instead of secrete insulin.

In developing countries, the effects of micronutrient deficiencies are often exacerbated by infectious diseases and poverty. Since lacking key nutrients weakens the immune system, people with micronutrient deficiencies are more likely to contract diseases like malaria and tuberculosis. Once infected, the people have little access to proper medical care, so they often die from the disease. To understand the link between infection and poverty, one can look to the 2010 cholera outbreak in Haiti, when thousands of patients died due to delays in receiving proper treatment. Haiti is the poorest nation in the western hemisphere, and in 2005 it spent 1.2% of its total GDP on health care. As a result, one cannot ignore the forces of infectious diseases and poverty when dealing with the effects of malnutrition.

Among the different kinds of micronutrient deficiencies, the most common is iron deficiency anemia. It currently impacts 2 billion people worldwide, both in developing and developed countries. As the name suggests, iron deficiency occurs when an individual does not consume enough iron. Iron is essential for the production of red blood cells. Without treatment, it can cause poor physical development in children, decreased productivity in adults, and death for mothers and infants.

Another type of deficiency is vitamin A deficiency, which is most prevalent in Africa and South Asia. Humans consume vitamin A in the form of beta-carotene, which is then converted

into retinol to help the body maintain sight. Lack of vitamin A is one of the leading causes of blindness in Africa and South Asia. Vitamin A is also important for regulating immune system functions and antibody responses, and its absence makes an individual more susceptible to infectious diseases like malaria.

UN Involvement

The third goal of the United Nations' Sustainable Development Goals focuses on improving human health. By 2030, the WHO aims to reduce the rate of maternal mortality, prevent infant and early childhood deaths, and reduce the number of deaths due to NCDs. One way to achieve these goals is to address micronutrient deficiencies.

In April 2016, the UN General Assembly passed a resolution that announced 2016 to 2025 as the UN Decade of Action on Nutrition. Under the resolution, the WHO and the Food and Agriculture Organization (FAO) will work with the World Food Programme (WFP), the International Fund for Agricultural Development (IFAD), and the United Nations Children's Fund (UNICEF) to implement programs related to the Decade of Nutrition. Ultimately, the resolution stresses the importance of international cooperation to combat malnutrition effectively.

In January 2017, the WHO and the FAO created a rough draft of a work programme for the Decade of Nutrition. The draft reaffirms the UN's commitment to fighting all forms of malnutrition and outlines how it will achieve its goals. The work programme will focus on six specific areas, which are:

1. Healthy, sustainable food systems
2. Health systems that promote access to essential nutrients

3. Nutrition education
4. Nutrition-related trade and investment
5. Age-specific nutrition
6. Improved nutrition governance and accountability

Case Studies and Relevant Topics

India

In India, roughly 330,000 children die every year due to vitamin A deficiency. The Indian government tried to implement a vitamin A supplementation programme for children nine months old to five years of age. Despite these efforts, the people of India remain some of the most vitamin A deficient people in the world. Some ongoing obstacles to improving vitamin A access include the country's dense population and the diverse range of socioeconomic factors from region to region.

Nigeria

Food in Nigeria falls into one of three categories: "energy-giving," "body-building," and "protective." Many nutrient-rich fruits and vegetables do not fall into any of these categories and are viewed as optional supplements to a typical diet. As a result, nutrient deficiency is prevalent in Nigeria, with rates of iron deficiency in pregnant women ranging from 44 to 64%. The Nigerian government has recommended an iron supplementation program for pregnant women in their second trimester. However, many pregnant women do not follow these recommendations due to lack of understanding of the importance of iron and the severity of anemia.

Genetically Modified Organisms

Scientists produce genetically modified organisms (GMOs) by adding genes from one organism into another organism's genetic code. This practice allows them to create varieties of plants with desired traits that may not occur naturally. A particular kind of genetic modification is biofortification, which increases the amounts of nutrients in edible crops. Recently, scientists have engineered golden rice, a type of rice that contains more beta-carotene than naturally occurring rice. While golden rice might be a promising solution to solving micronutrient deficiency, one must consider possible effects on non-target organisms (NTOs). Factors to consider include gene stability, protein safety, acute toxicity, nutritional value, and impacts on NTOs. Genetic modification could lead to unintended changes in the plant, which could then pose unpredictable risks for consumers.

Fish

Fish is an important source of food in many low-income countries. Small fish, in particular, have high concentrations of vitamin A, iron, and zinc. Smaller fish are also cheaper than larger fish and are more prevalent in the diets of poor households. The bones, head, and viscera of the fish contain the majority of the micronutrients. One obstacle to increased fish production is the depletion of native, wild caught species. Aquaculture is a relatively more sustainable alternative, but it tends to focus on large fish that are not as nutrient-rich.

Questions to Consider

1. What are immediate solutions to helping individuals, especially young children, and pregnant women, with nutrient deficiencies?
2. How is nutrient deficiency related to food insecurity in developing countries?
3. What should the UN do to reduce the risk of NCDs like obesity and diabetes in a nutrition transition?
4. What can global, national, and regional governments do to monitor nutrient deficiencies?
5. Are the promises of GMOs greater than the possibility of ill health effects? Why?
6. How can governments and local communities manage fisheries to provide more individuals with nutritious, sustainably caught fish?

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