



WHO

MITMUNC 2014

Greetings Delegates,

My name is Sophia and I'm currently a freshman at MIT studying course 10B, which is Chemical-Biological Engineering. I'm so excited to be your head chair for this conference, and hope that we really get down to the heart of the topics. In high school, I went to fifteen conferences and my favorite committee was always the World Health Organization! In many ways I feel like it's one of the most effective parts of the United Nations, and I hope eventually to pursue an MD-PhD and do research to address global health, so it's always been a committee close to my heart.

Other than Model UN, I'm also currently researching at the Koch Institute of Integrative Cancer Research, the vice president of the class of 2017, part of Dance Troupe, the new volunteer chair for LIFT, a Sigma Kappa sister (and a Junior Panhel delegate) and a bunch of other things that we can talk more about during down time if you have any questions about what MIT is like in terms of academics, Greek life, and whatever else you may be interested in! My lovely co-chair, Nikita Kodali, who also happens to be my roommate, can also answer any questions you may have, and will be helping me run the committee as well as carry out proper parliamentary procedure. Please feel free to contact me if you have any questions about how the committee will be run and the topics in general via email me and my fellow chair, Nikita, at who2014@mitmunc.org.

Can't wait to work with you all,

Sophia Liu

Neglected Tropical Diseases

Introduction

Neglected Tropical Diseases, also known as NTDs, are seventeen diseases that are recognized by the World Health Organization (WHO) as afflicting more than one billion people around the world—almost exclusively in developing countries [1]. This works out to slightly more than one in seven people. Despite this level of prevalence, it remains likely that those in the developed world remain unaware of the existence of even a single person with any of these diseases. From Chagas disease to dengue, NTDs unfairly target the poor, and are, for the most part, easily treated in places where healthcare is established and stable.

NTDs can result in death and deformation, and the stigmas associated with survivors sustain the cycle of poverty in the developing world. The cost that they incur on the global economy is a burden that needs to be addressed. As a committee, the WHO will work to better define the five public-health strategies outlined with regard to NTDs, which are 1) preventative chemotherapy, 2) innovative and intensified disease management, 3) vector control and pesticide management, 4) zoonotic disease management, and 5) safe drinking-water, basic sanitation, hygiene services, and education, and work to increase awareness and eliminate NTDs worldwide. Furthermore, the United Nations recently amended the Millennium Development Goals (MDGs) with more targets for 2015, which includes combatting disease; in light of this recent addendum, it is imperative for the

WHO to put this mandate into effect as soon as possible [2].

Case Study: Preventative Chemotherapy

In 2011, approximately 720 million people received preventative chemotherapy for at least one NTD [3]. Used primarily to treat human helminthiasis in countries like China and Egypt, and schistosomiasis in sub-Saharan Africa, preventative chemotherapy has been shown to be incredibly successful.

In 2001, a paper was published regarding the status of helminthiasis in Western Pacific countries, calling the WHO to action. Over 39 million treatments were provided in 2006 and treatment is progressing well. However, in China, where the majority of helminthiasis infections occur, preventative chemotherapy treatment is still competing with limited financial resources and expansive territory that remains difficult to cover [4].

Case Study: Mass Drug Administration

Togo is one of thirty-nine countries that is endemic for lymphatic filariasis, which is a mosquito-borne disease that manifests itself as large, painful tissue swellings, a thickening of the skin, and fluid accumulation—a result of parasites attacking the lymphatic system. Also known as elephantiasis, this extreme state prevents victims from functioning normally and supporting their family, while simultaneously burdening them with social stigma and isolation. According to the WHO, it is the second most common cause of permanent disability worldwide. In response

to this, the WHO formed the Global Programme to Eliminate Lymphatic Filariasis (GPELF) in 2000, with the goal of eliminating the disease as a major problem by 2020. While the WHO has officially eradicated only one disease internationally, smallpox, its successes in Togo cannot be understated.

By using mass drug administration in conjunction with ongoing treatments for onchocerciasis and countrywide morbidity alleviation, Togo was able to treat over 80% of its population by 2004. This was done by working with community health workers, one for every three hundred people in regions deemed endemic for lymphatic filariasis, and they continue to be an integral part of the decentralized pyramidal health structure that Togo has. In 2006, Togo was the first country to form a national surveillance system for lymphatic filariasis, and no active transmission has been detected since. Since then, news reports within the past few months have been stating that signs point toward Togo being the first Sub-Saharan African nation to eliminate lymphatic filariasis entirely. Togo's system of treatment is now one that the WHO uses as an example, a recommended set of guidelines that other countries should follow when considering mass treatment of a disease.

It is clear that Togo has been a success, but to quote the WHO one last time, there is a benefit of this GPELF program even internationally, and it has been estimated to be, conservatively, US \$24 billion. By investing in global health, we invest in a better future.

Case Study: Funding for Basic Sanitation and Vector Control

Basic sanitation and vector control have been considered the foundations for stability and long-term prevention of the spread of NTDs. Unfortunately, given population growth, which has been greatest in countries with NTDs, and decreased aid worldwide, it has been increasingly difficult to acquire sufficient funding to support projects in the developing world. Furthermore, we need to consider the effects that vector control, which has primarily been pesticide-based in the past, have on the environment, local residents, the agricultural sector, and resistance to medicine [5].

In 2012, the WHO Strategic and Technical Advising Group for NTDs revealed several elements of funding that need to be addressed. While some pharmaceutical companies have extended their commitments to drug donation, such as Merck with praziquantel until 2016,⁴ the question remains as to whether or not such funding can be sustained or depended on in the long term and from multiple companies.

Blocs

Member States Unaffected by NTDs

This category includes most of the G8 countries and other developed countries in Western Europe and North America. Often these countries are more financially secure and are called upon to support global health by what they determine to be a wise investment of their resources. While they reaffirmed their commitment to the eradication of NTDs in 2010, funding towards NTDs only composes approximately 0.6 percent of global health assistance [6]. Furthermore, blocs have been formed around the world that hope to reduce NTDs, such as

the European Initiative for African Research into Neglected Tropical Diseases that are working in research towards improved health care.

Member States Affected by NTDs

This category includes several countries in Africa and Latin America. However, countries in Asia and the Middle East are also affected by NTDs, albeit to a lesser extent. It is important to note that the scale of NTDs for larger countries, such as China and India, there may already exist plans for combatting NTDs. However, this does not mean that an international mandate cannot be implemented to provide a set of recommendations and resources for countries around the world to utilize.

Conclusion

This paper has given you some examples of how the WHO has tried to address the issue of NTDs around the world and how individual countries have taken initiative into their own hands. It is up to you to research deeper into alternative solutions, improvements to these solutions, and to decide which ones you would like to see in a global resolution. What steps can be taken and what can be learned from the successes and failures of these case studies? With the changing world, how can we adapt our resolution if funding suddenly disappears? Health is a human right, not a privilege, and we need to make sure that that right is available to human beings around the world.

Questions for Thought

- How should we let the MDGs shape our plans of action in addressing the eradication of NTDs around the world?
- What has your government done to address NTDs in the past; what resources, networks, tracking systems, have proven successful and useful and what could be considered wasteful?
- What is your country's history of NTDs? What proportion of the population within your country do NTDs affect?
- What are the global as well as national benefits of combatting NTDs?
- While many plans of attack would work towards reducing NTDs, which are within the scope of the WHO to address?

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<http://www.who.int/entity/neglected_diseases/about/en/>.

[2]

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Substance Abuse

Substance abuse, as defined by the World Health Organization, refers to the harmful or hazardous use, production, and trafficking of psychoactive substances, including alcohol and illicit drugs. Although substance abuse is strongly linked to international development, the goal of this committee is to focus on resolving the global health implications – mental and physical – of substance abuse. Most well known are the negative psychological effects of drug addiction, as mental wellness suffers in addicts from wealthy backgrounds, but more so addicts from poor backgrounds. In addition to physical deterioration, intravenous drug use puts patients in high risk of acquiring and transmitting HIV and AIDS. Sponsoring substance abuse is illicit drug cultivation, which practices pose major long-term implications such as water pollution, land misuse, decrease in soil fertility, and extremely high use of pesticides. Lastly, armed conflict influencing drug control poses a huge threat to civilian safety as displaced populations, high infant mortality, and increased psychological dependence on drugs are all too common in many populations.

This committee should seek to create effective and specific solutions to the problem of substance abuse that

1. Increase public health advocacy and partnership
2. Engage technical support and capacity building
3. Guide production and dissemination of knowledge
4. Mobilize resources

Collaboration and engagement with international development partners, civil society, the private sector, and public health and research institutions is necessary in efforts to reduce substance abuse.

Internationally, substance abuse occurs across various socioeconomic backgrounds and includes a range of drugs from alcohol and tobacco to industrial products such as inhalants and solvents. Focusing in on just alcohol, the harmful use of alcohol results in 2.5 millions deaths globally each year, according to WHO. Around the world, 320,000 people between the age of 15 and 29 die from alcohol-related causes, resulting in 9 percent of all deaths in that age group. At least 15.3 million people have drug use disorders. Additionally, according to the UN Office on Drugs and Crime's (UNODC) World Drug Report in 2013, the misuse of sedative and tranquilizers is of "particular concern" as more than 60 percent of countries reported them as one of the top three misused types of substances.

Methamphetamine use is also increasing as in 2011 of methamphetamine seizures have risen to a new time high at 123 tons, which is a 66 percent rise compared to the previous year. In 2011, between 170 and 315 million people aged 15 to 64 were estimated to have used an illicit substance in the preceding year, a value that corresponds to between 4 and 7 percent of the total adult population. Injecting drug use is of particular concern in Eastern and South-Eastern Europe, where 1.3 percent of the population aged 15 to 64 injects drugs. This number is four times greater than

the global average and accounts for 21 percent of the total number of people who inject drugs globally. However, the United States has the largest number of NPS (New Psychoactive Substances) worldwide: for 2012 as a whole, a total of 158 NPS were identified, i.e. twice as many as in the European Union (73). While psychotropic substances are illegally consumed in developing countries, they often originate in industrialized countries (UNODC Drugs & Development, 1).

Developing countries are outpacing developed countries in rates of drug addiction. In fact, since 2009, seizures of heroin have risen sharply in Africa, especially East Africa, where they increased almost ten fold. Afghanistan, however, has retained its position as the lead producer and cultivator of opium globally, as it accounts for 74 percent of global illicit opium production in 2012.

The causes of addiction vary on the demographics of the population. In most developed countries and within wealthy populations of developing countries, substance abuse can originate merely from boredom. For example, celebrities for centuries have been known to use drugs as relief from boredom or stress. Similarly, young populations in modern society view drug use as a method of relieving common stress or depression.

In less well-off communities, substance abuse is rooted in social deprivation. Due to the increasing rates of urbanization, especially in developing countries, migration has increased as well. The lack of social welfare infrastructure in most rapidly

urbanizing areas has led to higher rates of unemployment and a lack of educational resources. As the UNODC noted, “the illicit drug industry can be seen to offer a means of economic survival, a source of peer respectability, as well as a convenient, albeit temporary, escape from reality.” The urban poor live in polluted and overcrowded environments, face high levels of violence, have easy access to drugs, have minimal access to educational resources, and receive reduced social support. Impoverished individuals who become addicted to drugs often don’t have many resources to exit the vicious circle of poverty and drugs.

Most importantly, easy access to drugs increases the probability of drug abuse and addiction. 88 percent of countries responding to a UNODC survey said that the Internet served as a key source for the supply in their markets. However, drug consumption is inevitable once drug trafficking takes root. There exist many reasons for drug trafficking taking root. First, many countries, both developed and developing, generally lack legal and institutional controls for drug trafficking. Additionally, countries, particularly corrupt governments, may be unfamiliar or indifferent to drug threat, ignoring geostrategic considerations. Lastly, poorer countries are economically vulnerable to allow drug trafficking to take root as corrupt governments discover the financial advantages of drug trade.

The negative health effects of drug abuse are well known and unfortunate. Heavy drinking and especially smoking cause physical and psychological dependence that is very hard to break even with adequate

resources. When alcohol and nicotine serve as breaks from depression due to poverty, dependence is even harder to break. In addition, intravenous drug use allows for the spread of various diseases, particularly HIV/AIDS. Of the estimated 14 million people who inject drugs worldwide, UNODC estimates that 1.6 million are living with HIV, indicating that the global prevalence of HIV is about 11.5 percent among people who inject drugs. This percentage is statistically significant and confirms that HIV transmission is strongly correlated with the injection of drugs.

In addition to the direct harmful effects of drug abuse, violence and armed conflict associated with the drug trade pose significant health hazards to surrounding communities. Mortality rates and number of populations displaced can be staggeringly high in these communities. The Mexican Drug War is one of such drug wars that has killed many innocent citizens each year. Due to the enormous demand for drugs in the U.S., Mexican cartels sell to American drug users to buy guns and make money, both of which are used to corrupt Mexican and American officials and wreck havoc in various regions in Mexico and the United States. As a result of this vicious cycle, the Mexican Drug War is a killing machine. At the least, an estimated 70,000 people have lost their lives, 20,000 people have been displaced, and a quarter million people have been displaced. Such high levels of mortality and drug use could be prevented if an effective solution to reduce the demand for drugs were to be resolved upon by all nations.

Furthermore, communities surrounding drug production plants, especially in South America, face the problem of water pollution by extremely hazardous chemicals. Drug-processing chemical byproducts are commonly released into nearby water sources, polluting the water and posing major health hazards to the surrounding populations. Ethyl ether, acetone ammonia, sulfuric acid, hydrochloric acid, acetic anhydride, hydrochloric acid, and ammonia are examples of such threatening chemicals. Prolonged consumption of or contact with polluted water can lead to various types of cancers as well as reproductive and developmental problems.

As corroborated by the causes and adverse effects of substance abuse, this committee should form resolutions in a “pragmatic, science-based and humanitarian way, replacing stigma and discrimination with knowledge, care, recovery opportunities and re-integration.” Cost effective treatments must be made available as well as easy to access. Policies to prevent substance dependence are essential to reduce drug abuse and demand in the long run. All countries, especially those with the highest rates of drug abuse, must discuss harm reduction strategies as well as ways to reduce the demand for illicit substances. Community level action must be outlined, so that suffering and drug-related harm to individuals, families, communities, and societies can be decreased. Countries must also decide upon whether or not to come down hard on criminals, but also drug farmers, their families, and impoverished individuals who use substance abuse as an outlet from societal and financial deprivation. Keeping in mind that tools of development

and drug control are similar, policies to limit drug access go hand in hand with preventative measures for drug abuse.

Most importantly, the proportion of IV drug users who are exposed to HIV via the sharing of needles must be reduced. Prevention strategies as well as possibly needle exchange programs must be discussed, although nations must be aware of the fine line between condoning drug abuse and providing HIV protection methods. Furthermore, effective treatment strategies must be identified. For example, in a study of over 23,000 people who inject drugs, the incidence of HIV was 54 per cent lower among those who had received methadone maintenance therapy compared with those who did not. In addition, perhaps prevention policies can target high-risk groups that serve as channels of transmission of HIV. In addition, early dissemination of information about risks associated with drug use as well as education and public awareness efforts are necessary.

A the UNODC reports, “the control of drug abuse is like the control of contagious disease and the promotion of clean air can be defined as a public good, i.e. one person’s ‘consumption’ of the good does not diminish its availability to others.” Thus, it is of utmost importance that WHO addresses the issue of substance abuse globally.

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