World Health Organization

MUNOX24
15th Model United Nations of Xiamen

3 GOOD HEALTH AND WELL-BEING

Background Guide

Counter Measures for Ameliorating Tuberculosis Harm in South East Asia

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Welcome Letter From The DAIS

Distinguished and honorable delegates,

Welcome to the Model United Nations of Xiamen 2024! My name is Huang Guan Lin, a Grade 10 student studying at the Manila Xiamen International School, and I will be your director for this year's WHO committee.

MUN is a platform where delegates gather in the spirit of diplomacy and debate on current ongoing crisis found globally. Throughout the five years of my MUNOX experience, I have realized that, MUNOX is not only about debating for getting an award, or to write the best position paper and stand alone. But to all collaborate, discuss, and share the ideas and positions you currently have. You can also gain valuable experiences from the conference such as communication skills, critical-thinking skills, open-minded, and understand more about the world we currently live in. We fully encourage every delegate to confidently speak out their ideas on the podium during the conference. We hope this year's MUNOX conference will serve as a wonderful and memorable experience for everyone!

I am Lily Tseng, a grade 11 student from the Manila Xiamen International School. I will be working as the assistant director for this year's WHO committee. I am excited to provide guidance and support delegates as you engage in critical discussions on the topic. Let's make this an inspiring and productive experience!

Greetings, my name is Gary Chen, a Grade 11 student who currently studies at Manila Xiamen International School and I will also be one of the assistant directors for the WHO committee. It is my privilege and honor to join you guys for this year's MUNOX conference. I sincerely anticipate to see intensive debates and thoughtful ideas in this year's upcoming conference!

This year's WHO topic targets for the "Counter Measures for Ameliorating Tuberculosis in South-east Asia." As the Dias members of the committee, we are looking forward to having all the delegates express their unique ideas freely, work collaboratively with one another and make a practical resolution for this particular issue.

As the conference closes in, we anticipate and are excited to see all delegates in the conference, to see all your best performances. Doing your best is the way to participate MUNOX and experience the conference to its fullest. May fortune befall on all the delegates.

Yours Respectfully,

Huang Guan Lin, Lily Tseng, Gary Chen

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Committee Introduction

The World Health Organization (WHO) is a specialized United Nations agency that promotes global health, ensures access to essential healthcare, and respond to public health emergencies. In an attempt to counter the creation of a single health organization, the UN Economics and Social Council called an international conference, which resulted in the adoption of the World Health Organization's constitution on July 22, 1946. The World Health Organization (WHO) was established on April 7, 1948, as a response to the need for coordinated international efforts to address health issues in the aftermath of World War II. Headquartered in Geneva, Switzerland, working with 194 Member States across 6 regions and on the ground in 150+ locations, the WHO team aims to improve health outcomes, reduce health inequities, and enhance overall well-being for populations worldwide. The WHO is a member of the United Nations Development Group. Its predecessor, the Health Organization, was an agency of the League of Nations.

The World Health Organization (WHO) plays a crucial role in the current society, by serving as a leading authority on global health issues and coordinating international responses to health challenges. A core function of WHO is to provide leadership on matters critical to the health of all people and to convene and coordinate effective joint action of the many in-country partners. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends. By providing evidence-based guidelines and recommendations for disease prevention and health promotion while actively managing health emergencies, such as pandemics and outbreaks. WHO conducts vital research and gathers health data to inform public health policies, and it supports countries in strengthening their healthcare systems through training and technical assistance. Advocating for universal health coverage, WHO works to ensure equitable access to healthcare services for all individuals, addressing disparities in health outcomes. By fostering collaboration among governments, NGOs, and other stakeholders, WHO significantly contributes to enhancing global health security and improving the overall well-being of populations worldwide.

The agency initially focused on combating infectious diseases and improving health conditions globally. Over the decades, its role expanded to include a wider range of health concerns, including maternal and child health, non-communicable diseases, and health systems strengthening. Significant milestones in its development include the eradication of smallpox in 1980, the establishment of the Framework Convention on Tobacco Control in 2003. It is regarded as a turning point in the field of public health and global health collaboration. And the ongoing response to global health emergencies like the COVID-19 pandemic. Using its existing decentralized administration processes, WHO directed financial resources to the country level, as close to the emergency and the affected population as possible. Today, WHO plays a vital role in guiding global health policy, conducting research, and providing technical assistance to countries, continually adapting to emerging health challenges and advocating for health equity and universal health coverage.

Topic Introduction

Tuberculosis, often known as TB, is an infectious disease that is primarily caused by the bacterium called “Mycobacterium tuberculosis”. Being a pulmonary disease, tuberculosis primarily attacks the lungs of the infected patient. Tuberculosis is separated into two categories. The first category being latent tuberculosis, this type of tuberculosis often occurs starting from the first two years of being infected, and often goes unnoticed due to the lack of symptoms and diagnosis. The second category is the active tuberculosis, tuberculosis changes from latent to active in a time period of around two years. The conditions needed for the transition to occur is when the host patient has an addition burden on the immune system such as another illness, extreme stress, or immunosuppressive treatments on another condition. However, the process may speed up if the person was already infected with Human Immunodeficiency Virus (HIV), of older age, or if the person has a weak immune system. Considering the fact that tuberculosis is an airborne disease, the main method of transmission would be through the air. The patient needs to have an activated tuberculosis disease, as latent tuberculosis cannot spread. Tuberculosis patients are able to spread the bacteria by coughing or sneezing, and a healthy individual would only need to acquire a few germs to be infected with this disease.

By the end of 2022, eight countries represent two-thirds of the world’s tuberculosis cases. India (28%), Indonesia (9.2%), China (7.4%), the Philippines (7.0%), Pakistan (5.8%), Nigeria (4.4%), Bangladesh (3.6%) and Democratic Republic of the Congo (2.9%). With an estimated 10 million people falling ill to tuberculosis (TB). Despite being a preventable and curable disease, 1.5 million people die from TB each year – making it the world’s top infectious killer. Tuberculosis is now primarily raging in the South-east Asian region; the region is now responsible for 45% of all new patients and 50% of deaths. These countries do not have sufficient medical supplies and assistance to counter tuberculosis harm in their own territories. The people of the countries are now in desperate need for assistance in countering ameliorating tuberculosis conditions. High income countries such as the United States of America or countries in the European Region, have successfully brought down the rate of tuberculosis infection over the past decades. The South-east Asian region is still unable to bring down the rate of tuberculosis infections. Intensified political commitment has been achieved by countries in addressing TB incidents in SEAR. Meetings in

"The Delhi Call for Action to End TB, 2017", "Global ministerial meeting in Moscow held in November 2017.", "Delhi End TB Summit held in March 2018", and a final meeting "Renewed TB response in 2021 was co-hosted by India, Indonesia, and Nepal" called for the 'Gandhinagar Declaration' on August 2023. The declaration calls for improved access to TB treatment through equitable, rights-based approach and allocation of needed resources for improved treatment coverage.

Although states around the world have successfully brought down the rates of tuberculosis infections. The disease has not yet been eradicated and is currently affecting every single country. It is a crucial task for every nation to solve this issue in helping each other nations to counter tuberculosis, especially in South-east Asia. There are several issues at the moment that center on being unable to completely ameliorate tuberculosis. Some of the issues are stated in the following:

1. Missing funds that are needed to take action

The WHO has estimated an amount for the prevention of tuberculosis which is 15–32 billion dollars per year. 15-32 billion dollars per year from 2023-2030 is a staggering amount of money, especially for low- and -middle income countries. South-east Asian nations are unable to provide such high amounts of funding to help prevent tuberculosis. Treatment also requires an additional amount of funds. With low-income countries being incapable to afford the expensive costs of treatments, the countries are therefore unable to economically sustain themselves in the prevention and treatment, requiring additional assistance.

2. The acknowledgment needed from the public

Raising public awareness is an important aspect to consider in order to minimize the harm being acted upon by the people. The TB disease includes the latent and active stages, any patient acquiring TB is forced to go through the latent stage. Due to the lack of symptoms, many of these patients go undetected and have risk of spreading the disease to people around the patient once the TB becomes active. According to the National Health Institute (NHI) one in three patients are unaware of them acquiring the tuberculosis disease, resulting in many not receiving proper treatment. Either resulting in death or spreading the disease around to more people.

3. Poor living conditions and working environment

Many people who live and work in low- and middle-income countries are often subjected to poverty. Citizens would often brush off the signs and symptoms of the disease, unknowingly, missing their treatment window. The primary factor that is affecting the rate at which tuberculosis is spreading in South-east Asia is the poor working environment. Many are living and working in slums. As tuberculosis is an airborne disease, the crowded workplace and poor ventilation in slums contributes to a major factor on how many are acquiring the infectious disease.

4. Lack of access to medical treatments

Whilst there is an abundant number of vaccines and medications to alleviate the current tuberculosis situation, the majority of the population is unable to access these treatments. The lack of access to the treatments and prevention methods are the primary cause of the high infection rate in South-east Asia unable to decrease. The importance of letting the public gain access towards the prevention and treatment methods is essential and the accessibility for the public towards the medical treatments should be granted in helping ameliorate the treatment for tuberculosis.

5. Evolving Tuberculosis strands

Over the years, tuberculosis has also evolved into a new variant, there are now drug-resistant tuberculosis that infect people. Drug-resistant tuberculosis means that one of the most effective antibiotics against tuberculosis proves useless in eliminating the disease. There are several different Drug-resistant TBs, including but not limited to Mono-resistant TB disease, Poly-resistant TB disease, Multidrug-resistant TB (MDR TB) disease, pre-extensively drug-resistant TB (pre-XDR TB) disease etc. Drug-resistant TB is found in 10% of all TB cases reported. The main cause of drug-resistance is abuse in antibiotic use. When we use antibiotics, some bacteria die but resistant bacteria can survive and even multiply. The overuse of antibiotics makes resistant bacteria more common. The more we use antibiotics, the more chances bacteria have to become resistant to them.

To sum up, Tuberculosis, caused by Mycobacterium tuberculosis, is a pulmonary disease

that is now a leading cause of death. Even with preventions and treatments in place, the annual infection and death rate is still being maintained at a high level. The death toll of TB is higher than malaria, dengue, and the yellow fever combined. Particularly in the South-eastern Region where the most serious outbreaks are often reported. Combined efforts have been done to try and resolve this issue, such as the 'Gandhinagar Declaration'. However, there are still numerous factors that contribute to the burdens in ameliorating tuberculosis harm. Since November 2023, WHO has been leading global research in shaping the TB prevention and innovation agenda. Setting norms and standards in TB prevention and care. Till this day TB is said to infect 1.8billion people, and kill 1.3 million each year. Drug resistant TB is also a huge burden as these can take from 6 months to more than 2 years to treat. It takes a special type of medication that many times have their own side effects.

Sustainable Development Goal (SDG)

SDG 3: Good Health and Well-being

The Sustainable Development Goals are a set of global goals established by the United Nations to address pressing environmental, social, and economic challenges and promote sustainable development. The goal of SDG 3: Good Health and Well Being is to guarantee every individual in well-being health, which is closely related to the struggle against tuberculosis in South East Asia. In this case, SDG 3 applies on eradicating communicable diseases and ensuring universal health coverage relates to the treatment of tuberculosis.

Current Situation

Reported by WHO, Through the through judgment and estimates, WHO supposes that there are 10million people falling ill to tuberculosis globally every year. Out of the 10million, 1.5 million people would lose their lives. Making tuberculosis one of the top infectious killer known. Multi-drug-resistant TB or MDR-TB is also affecting the global population. 3 out of 5 people is infected with this type of tuberculosis. An estimated number of 16.7trillion dollars would be lost by 2050 if the issue is not resolved. Taken together, these statistics reflect an overall of 170000 incidents of Rifampicin-resistant and multi-drug-resistant tuberculosis, more than 45% burden of annual Tuberculosis incidence contributed by the population and the poorly ventilated and overcrowded conditions in the South East Region. The reason for the harm of tuberculosis to be so extraordinary falls mainly into a few categories. The poor prevention methods, lack of equitable treatment, and low public awareness. Prevention methods are often the base way in eradicating any disease. Even if the process takes time, it is the most direct way of ameliorating the harm done by any disease. In particular regions, such as south-east Asia, prevention is done in a not so effective method. Tuberculosis is still able to spread to a large amount of people. Countries has been implementing new protocols such as the need to take the Bacillus Calmette-Guérin (BCG) vaccine, the only working vaccine against tuberculosis. However, the public in certain countries such as Indonesia and Vietnam do not have enough coverage for the citizens to take the vaccines. Coverage is also an essential part in treatment, no matter the disease equitable treatment coverage is needed for all people, especially those in poorer areas. Essential coverage may also be needed as an estimate made by the WHO says “Over 40% of all tuberculosis patients are unaware of their current condition.” Early detection is also needed as latent tuberculosis often goes unnoticed and can result in the worsening of the disease to the human body. Multiple regions have their own different situations with regards to this particular issue.

The South East Asia Region

With 4,028,165 cases in 2015, South East Asia accounted for over 40% of the world's TB burden. Additionally, a disproportionate number of TB deaths (681,975 deaths, or 38% of the worldwide burden) occur in this region. Although about 12.5% of TB infections worldwide occur

in people with HIV, HIV-associated TB has received a lot of attention and funding. In South Asia, HIV co-infection occurs in just 3.5% of TB patients. This region has an estimated 184,336 multidrug resistant (MDR) cases among notified TB patients, which accounts for a third of the global MDR burden. This is not surprising given the enormous disease burden. Importantly, at least 70% of the predicted MDR cases in this region are still untreated, and the success rate for MDR treatment varied from 46% for India to 88%, for Sri Lanka in the treatment-receiving cohort from 2012. Many of the factors contributing to the current TB pandemic are reflected in this region, including high levels of urbanization and population density, rapidly increasing diabetes rates, a growing and mainly unregulated private sector, rising medication resistance, and high levels of indoor and outdoor air pollution.

Between 2016 and 2019, interventions that ranged from inspiring political commitments to empowering and involving communities resulted in a 25% improvement in TB case notifications and a 6% improvement in treatment success rates. Budgetary allotments for the TB program totaled US$1.4 billion in 2022, which is over 2.5 times the 2016 budget. Priority interventions that require up to US$3 billion year in funding to fully implement are identified in an ambitious Regional Strategic Plan to End TB, 2021–2025. With corresponding financing and cross-ministerial and multi-sectoral cooperation, governments in the region must use request for proposal or RFP in short to implement more intensive, people-centered, holistic initiatives for TB prevention, diagnosis, treatment, and care going ahead. South-east Asia hopes to end tuberculosis by 2030 and is doing so with the collaboration in-between the nations at SEAR. With intensified political commitment, Strengthened technical and strategic support, Bolstered community empowerment, and Emphasis on research and innovation. Accelerating the steps forward to end TB now takes more than just a biomedical approach and requires countries working together to build strategies that needs to be inclusive of addressing underlying comorbidities and social determinants of TB like malnutrition.

South African Region

The issue of tuberculosis in Africa received little attention 10 years ago. A contributing factor was the low and declining incidence of tuberculosis in the majority of the continent

(Cauthen, Pio, and ten Dam 2002). Today, Sub-Saharan Africa has a far higher TB burden. Effective TB control methods have not been implemented as quickly in some parts of the continent due to ongoing poverty and political unrest. However, the decline of control measures is not the main cause of the comeback of tuberculosis in Africa. Instead, the connection between TB and HIV/AIDS is what causes the acquired immune deficiency syndrome. About one-third of people in Sub-Saharan Africa are latently infected with Mycobacterium tuberculosis, the bacterium responsible for the tuberculosis disease. (Dye et al. 1999), and thus are at significantly higher risk getting active TB if they also have HIV, which weakens their immune system. When newly infected or reinfected with M. tuberculosis, HIV-positive individuals are also at a higher risk of developing TB. In the eastern and southern African nations most impacted by HIV, the number of TB cases has surged by a factor of five or more within the last ten years. These nations' current incidence rates are on par with those observed in Europe fifty years ago, prior to the development of anti-tuberculosis medications. The medications include rifampin, isoniazid, pyrazinamide, and ethambutol. Medication approved by the FDA to treat tuberculosis. For drug-resistant tuberculosis, prolonged exposure to medication such as moxifloxacin, amikacin, ethionamide, clofazimine, high-dose isoniazid, pyrazinamide, and ethambutol would be needed. Exposure from 6 months to 2 years can be expected in treating drug-resistant tuberculosis.

WHO has supported mobilizing funding to support the Supranational Reference Laboratories or SRLs in Benin and Uganda to help with the strengthening of capacity of National TB Reference Laboratories in 45 out of 47 Member States. The project continues to demonstrate its relevance in the region by supporting the differentiated capacity needs of National TB Reference Laboratories or NTRLs in quality assurance, quality management system strengthening, use of WHO recommended-rapid diagnostics, Drug Susceptibility Testing commonly referred to as DST, drug resistance survey, prevalence survey, TB specimen referral system, and laboratory information system. The south African region has numerous plans in combating tuberculosis that extends into the next decade. The plans are not to completely eradicate tuberculosis. The plans are more on the essentials that is needed to eradicate the disease for the long run. Plans include “Increase the number of people with TB identified”, “Shorten the duration of TB treatment”, “Improve safety in health facilities” etc. These are plannings made by the region to achieve in the coming year of 2028.

Bloc Positions

Indonesia

Indonesia continues to grapple with a significant burden of tuberculosis (TB), despite ongoing efforts to combat the disease. Even with efforts and funds placed to address the current issue of TB in the country, Indonesia has not seen an improvement in the infection rate throughout the years. With also limited healthcare systems, poverty, and negligence from the public, it would be a hard task for the region to be able to have measures in ameliorating the harm caused by tuberculosis. The region now poses a huge threat to its neighboring countries and regions in the sudden outbreak of the disease. Representing as the second largest tuberculosis burden country. Indonesia sees an incidence rate of 354 patients per 100,000 people. Accounting a total of around 1,060,000 new patients every year.

With the majority of the patients currently situated in Indonesia (9.2%), Indonesia has been struggling as new cases of drug-resistant TB is now appearing in the country. This adds pressure on the already weak funding given. The added complexity would further cut down the public's access towards medical treatment. Poverty is also a leading factor as the many of the population is living in slums, early detection, prevention and treatments would be made near impossible in the area. Slums are also causing issues such as overcrowding in areas that already have poor ventilation, resulting in an outbreak of tuberculosis patients in the area. The environment and funds are the root causes for the high infection rate and low treatment rate in the region. In 2023, a high-level ministerial meeting was held with an aim of reinvigorating the political commitment. This meeting led to the "Gandhinagar Declaration". The Gandhinagar Declaration was a declaration made by the south-east Asian Region countries. It emphasizes on numerous factors that is needed to ameliorate harm done by tuberculosis. Some of the emphasis made includes: "emphasizes on the allocation of necessary resources to meet TB service coverage targets and address social determinants." "Calls on WHO to maintain TB as a Flagship Priority Program over the coming years and provide leadership and technical support to countries" It adds More international collaboration would still be required to aid the SEAR region for measures in ameliorating tuberculosis harm in the South-east Asian Region, and in Indonesia. After the

meeting and the establishment of the Gandhinagar Declaration Indonesia implemented a Presidential Decree to end TB, that mandates an aggressive tracking of TB cases, availability of TB drugs and prevention efforts to reach the end of TB by 2030.

India

Being the country with the highest tuberculosis burden, India is now in a state where actions need to be taken immediately to deal with the ongoing tuberculosis harm. There is a total of 199 cases in 100,000 people reported in India. Considering the dense population of India, it is clear that if no actions are taken the country would soon be in a state where outbreaks of tuberculosis is everywhere. India is now experiencing an outrageous number of tuberculosis cases and this is caused by a few factors including but not limited to, poor housing conditions, high HIV/AIDS incidences, malnutrition and poverty. These are all contributing factors to the reason on why tuberculosis is causing mass havoc in the country.

After holding a high commissioner meeting addressing pressing issue regarding Tuberculosis. The “Gandhinagar Declaration” was established. Following this declaration, it was clear that the country wanted to go with an approach that had to involve other communities in patient support. Pradhan Mantri TB Mukt Bharat Abhiyan” (Prime Minister's TB Free India Campaign) Was the name of this approach. India believes that care is needed for all TB patients and that they should be cared by an individual. According to the Ni-kshay website, there is enough personnel to be able to support more than 1 million TB patients. Increased infection prevention and control (IPC) measures are helping India reach its ambitious goal of eliminating the disease by 2025, ahead of the global 2030 goal. The importance of IPC measures in healthcare facilities was highlighted during the COVID-19 pandemic. IPC measures are essential to prevent and avoid the spread of TB and respiratory diseases to other patients and healthcare workers. The World Health Organization (WHO) End TB Strategy recommends IPC measures as critical components to curb the TB burden worldwide.

United States of America

While the United States of America is now considered a low burden country for

tuberculosis, it definitely has something to do with the sophisticated medical system the US has in order. With a high budget in the country, innovations and protocol implementations are addressed and managed well. In 2023, the United States has a tuberculosis rate of 2.9 cases per 100,000 people, demonstrating the effectiveness of their public health system. The innovation of therapies, such as novel vaccinations and diagnostic instruments is a top priority for both the public and commercial sectors in the United States of America. This approach attempts to better serve emerging high TB burden countries, as well as to eradicate TB locally. The United States has also been using expanded latent tuberculosis infection (LTBI), testing (using interferon-gamma release assays), and treatment (with new shorter course regimens). These prevention methods plays a role in the reason on how the US has brought down the number of new TB cases in the country.

The United States of America is now addressing to the needs of high TB burden countries. Countries include Indonesia and 23 other countries. The United States has been aiding 10billion dollars every year, it has long stood with its commitment to strengthen global health security and its recognition of the need to do more to ensure that our partners around the world are better prepared to address future health threats. The United States of America has been aiding Indonesia as well in terms of supporting them with the development of the Tuberculosis Preventive Treatment (TPT) and have plans to fully adopt this system by 2030. Raising awareness to workers is also a plan for the US to ameliorate the harm done.

Bangladesh

Bangladesh is a developing nation with one of the highest tuberculosis infection rates Bangladesh is among the top 30 countries in the list of highest burden country. In 2023, the tuberculosis prevalence rate was roughly 221 cases per 100,000 people, highlighting the critical need for comprehensive preventative measures. Bangladesh is suffering from the lack of funding, public awareness and coordinated assistance from other countries. Efforts has been made and there has been an obvious downward trend in the tuberculosis incidence rate in the country. The lack of equitable healthcare services also plays a huge role in the slow progress the country sees in its efforts. Without healthcare services, early detection, prevention, and treatment would be deemed impossible for many of the patients.

The country has made significant progress in reducing TB incidence and mortality rates in recent years. This is due to a number of factors, including increased access to TB diagnosis and treatment, improved health education, and strengthened health systems. Bangladesh is committed to end tuberculosis by the year 2030, and has been doing so through expanding access to TB diagnosis and treatment, strengthening health systems, improving health education, Addressing social determinants of health. New health centers and health personnels has been trained by teams from the United States. More equitable preventions and treatments would be established by Bangladesh by 2026.

Questions To Consider

1.) What are the main causes of poor prevention and treatment results that are shown?

2.) How can the prevention protocols be implemented so that lesser people would be infected?

3.) How can countries serve better equitable health services to all of its citizens?

4.) How can better detection for latent tuberculosis be detected, for the early treatment reducing risks of more transmissions.

5.) How can countries work together to share the progress and innovations done to ameliorate the harm done by tuberculosis?

6.) How could relevant parties ensure that protocols are followed and that the ameliorating of tuberculosis harm is on the right track?

For Further Research

WHO newsroom: Detailed overview of Tuberculosis:

https://www.who.int/news-room/fact-sheets/detail/tuberculosis

WHO southeast Region: Situation of tuberculosis

https://www.who.int/southeastasia/health-topics/tuberculosis

WHO annual tuberculosis report for 2023:

https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2023

Funding plans made by the WHO:

https://www.who.int/news/item/18-03-2024-who-urges-investments-for-the-scale-up-of-tuberculosis-screening-and-preventive-treatment

Current plans in addressing tuberculosis in the South-east Asian Region

https://www.thelancet.com/journals/lansea/article/PIIS2772-3682(23)00161-0/fulltext

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