

WHO

Combating Tuberculosis in South Asia



Minjoo Michelle Lee and
Jun Hwan Chang

TABLE OF CONTENTS

1. Letter from the chairs
 2. Country in participation
 3. Glossary of Key terms and acronyms
 4. Introduction to the committee
 5. Historical background
 6. Past UN Actions
 7. Status quo
 8. Stances of UN member states and Parties Involved
 9. Possible Solutions
 10. Questions to consider
- Bibliography

LETTER FROM THE CHAIRS

Greetings delegates.

This is your Head Chair Michelle Lee from Branksome Hall Asia and Deputy Chair JunHwan Chang from NLCS. We wholeheartedly welcome you to the third annual GEC MUN and to our beloved WHO committee. The agenda for our committee is 'Combating Tuberculosis in South Asia.' The Secretariat and the Chairs have put a lot of effort into this MUN as we have always done and we cannot wait to meet you all. This is a Chair's Report/ Background Guide for the agenda we will be debating upon in WHO. Being able to chair GEC MUN is a huge honor for us and we look forward to debates with much participation, passion and cooperation. What we love about MUN is that it never is a competition because everyone is here for a common goal. It's a time where the delegates and even the chairs have fun and bond while sharing ideas and strategies to solve a real life problem. For those who are new or even familiar with anything regarding MUN procedures, rules or just general knowledge regarding the country you've been assigned, please do not hesitate to ask us for advice.

These are our emails

Michelle Lee : leeminjoo00766@branksome.asia

JunHwan Chang: jhchang18@pupils.nlcsjeju.kr

See you all in February!

Sincerely,

Your chairs

INTRODUCTION TO THE COMMITTEE

WORLD HEALTH ORGANIZATION

The World Health Organization (WHO) is a specialized agency of the United Nations that interacts with international public health. It was established on 7 April 1948, headquartered in Geneva, Switzerland. The most well known issues that WHO currently prioritized are communicable diseases (HIV/AIDS, Ebola, malaria and tuberculosis). In 2012-2013 WHO budget identified two areas where funding was being used. They aimed to reduce social and economic burdens of diseases in general. They also aimed to combat HIV/AIDS, malaria and tuberculosis particularly. WHO's help contributed to a 40% decrease in the number of deaths caused by tuberculosis between 1990 and 2010. They engaged national governments and financing, early decision, publicly generalized treatment, monitored and stabilized the drug supply. They also analyzed the vulnerability of victims of HIV/AIDS to tuberculosis. Recently, in 11th of August 2016, WHO recommended a rapid test to diagnose pulmonary tuberculosis in health centres. The test is also known as TB-LAMP, which was a methodology to reduce time taken for diagnosis. WHO's method of rapid, accurate diagnosis is expected to result in better treatment outcomes and to end the TB epidemic. WHO also promoted official global public health campaigns such as World Tuberculosis Day, World Immunization week, World AIDS Day, etc.

The WHO along with the World Bank is responsible for administering the International Health Policy (IHP+) (Their aim is to improve the health of citizen in developing countries). They cooperate each other for aid effectiveness and development cooperation into practice. WHO also runs the alliance for Health Policy and Systems Research to develop health policy and systems. WHO works to provide the proper evidence to various data platforms, including the World Health survey covering 400,000 respondents from 70 countries, and the Study on Global Ageing and Adult Health (SAGE) covering over 50,000 people. The Country Health Intelligence Portal (CHIP) has also been developed to provide the information about health service in other countries. They gather the data, and set priorities for future strategies or plans, implement, monitor and evaluate it. Moreover, the WHO produced various tools to measure and monitor the capacity of national health systems and workforces. The Global Health Observatory (GHO) backups the WHO's main portal to provide data access and to analyse key health themes. Collaborative efforts between WHO and other agencies such as the Health Metrics Network aim to provide high quality information and assist decision makings. With all the information, WHO publishes the World Health Reports, its leading guidance, which also includes specific global health topics. Other publications include the Bulletin of the World Health Organisation, the Eastern Mediterranean Health Journal, the Human Resources for Health, and the Pan American Journal of Public Health.

GLOSSARY OF KEY TERMS AND ACRONYMS

TB: Tuberculosis

MDR - TB: Multidrug Resistant Tuberculosis

DOTS: Directly Observed Treatment, Short Course

RNTCP: Revised National Tuberculosis Control Program

NTP: National Tuberculosis Program

INFORMATION ON THE TOPIC

Tuberculosis has been known to mankind since ancient times. Earlier this disease has been called by numerous names including consumption, phthisis pulmonalis and the white plague. Even today after the development of advanced screening, diagnostic and treatment methods for the disease, the world's population has been exposed and infected.

The organism causing tuberculosis- *Mycobacterium tuberculosis* exist 15,000 to 20,000 years ago. It has been found in ancient Egypt, India, and China. In the middle ages, evidence of tuberculosis of the cervical lymph nodes or lymph nodes of the neck termed scrofula was found. It was termed as 'king's evil' and was widely believed that it could be affected by simply touching others. In the 18th century in Western Europe, tuberculosis reached its peak with 900 deaths per 100,000. It was caused by poorly ventilated and overcrowded housing, primitive sanitation, malnutrition, etc.

In the 1880s Louis Pasteur began the concept of development of vaccines against tuberculosis. In 1908, the French scientists Albert Calmette and Camille Guerin grew Koch's bacillus to decrease their virulence and increase the capacity to produce immunity. This led to the famous vaccine called BCG. It was first introduced in 1921. Antibiotic then were used against tuberculosis in 1944 after the discovery of streptomycin. Better results followed the development of PAS (para-aminosalicylic acid). More effective drugs like INH (isoniazid) came in 1950's. Currently, there are nearly 20 agents with activity against *Mycobacterium tuberculosis*.

Tuberculosis usually attacks the lungs, but can attack almost any part of the body. It can be an active disease or latent infection. When people with tuberculosis in their lungs or throat cough, laugh, sneeze, or even talk, the germs cause TB to spread into the air. If another person breathes it, there is a chance that they will be infected. However, even if someone becomes infected with TB, that does not mean that they will get active TB disease. A person with latent infection are not infectious. On the other hand, a person with active TB disease may have a symptoms like coughing, feeling tired, weight loss, loss of appetite, fever and might cough up blood.

DESCRIPTION OF THE ISSUE

South-east Asia accounts for 26% of the global population but 41% of the entire TB incidences. Almost half of the 22 high burden nations are consisted of nations within South Asia. These statistics alone shows that this region needs special attention.

The World Health Organization (WHO) classified tuberculosis as a worldwide pandemic that has been with humanity for over 17,000 years. The Southern and South-East Asia regions account for 40% of the global burden of WHO regarding TB incidences. Five major countries, Bangladesh, India, Indonesia, Myanmar and Thailand, are reported to have on average 3.5 million new cases of TB and 480,000 deaths annually.

Acknowledging this issue that the region faces, the UN and WHO have continuously worked on eradicating such maladies. Although there are not specific goals just regarding eradicating tuberculosis, goal #3 of the newly documented Sustainable Development Goals (SDGs) states 'Ensure healthy lives and promote well-being for all at all ages.' The third target of Goal 3 states that 'By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases' and the focus is geared towards sub-Saharan Africa and Southern Asia.

Tuberculosis has been a concern of many nations around the world in various eras even until now. With TB's infamous reputation, the UN and WHO have made countless efforts in the past decades in order to solve this problem. Many nations have applied the DOTS (Directly Observed Treatment, Short-Course) program in order to make eradicating TB more effective with five main components: government commitment, effective diagnosis, sufficient drug supply, a systematic regime of treatment and case detection. This solution was initially suggested in a report in the fall of 1994 and was considered the greatest health breakthrough of the decade and has been expected to significantly decrease the number of TB outbreaks. DOTS is used effectively throughout many nations even till this day in order to eradicate TB.

WHO has strived to gain financial support from various nations regarding their budget to supply aid to nations in need. They have consistently requested help

Stances of UN Member States and Parties Involved

There are 28 Delegations in total:

Algeria, Bangladesh, Cambodia, China, Congo, France, Germany, India, Indonesia, Italy, Kenya, Liberia, Myanmar, Nepal, Netherlands, Nigeria, Papua New Guinea, Philippines, Romania, Russian Federation, South Africa, Sri Lanka, Switzerland, Thailand, Timor Leste, United Kingdom, United States of America, Vietnam

[Russian Federation]

Since the mid 1990s, the fall of the Soviet Union and the failure in the national healthcare system, tuberculosis cases soared. Through developed medical technology, the number of TB incidences seem to show a decreasing rate. However, many nations, not just the 22 high burden TB nations, are suffering from an increasing rate of MDR-TB. The main issue that stalls progress from being made is the lack of technology to differentiate the MDR-TB from ordinary TB.



[Philippines]

With tuberculosis being the sixth highest cause of death in the nation, the Philippines are losing 73 patients just from TB. Ranking the ninth amongst 22 high TB burden nations, approximately 200,000 to 600,000 people are recorded to be infected with such disease. Acknowledging the high rates, the Philippines has devised plans and programs such as PhilFACT and DOTS as a strategy for TB control.



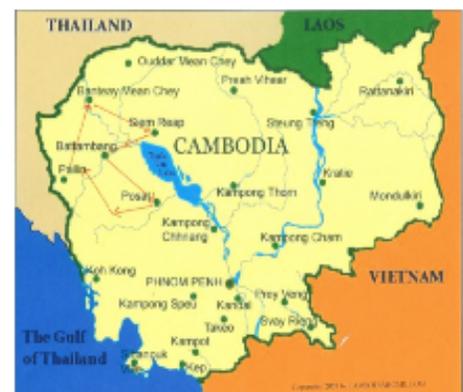
[Myanmar]

Myanmar formerly known as Burma, is a nation of 53.26 million people and is located in the South-Eastern part of Asia, bordering India, China, Thailand and Laos. As one of the top 22 high TB burden nations, Myanmar suffers with 525 new cases per 100,000 population compared to the global average of 178 outbreaks annually. Myanmar is supported by not only WHO but also a number of organizations such as FHI 360 to combat their long fight with tuberculosis.



[Cambodia]

Tuberculosis is one of the biggest challenges the nation faces today in regards to national health. WHO estimates almost a third of the TB cases in Cambodia are not even reported. Poverty and gaps in the health system often takes a toll on the process of eradicating tuberculosis or at least controlling it. WHO has made improvements such as expanding the DOTS program along with altering their approach in attacking TB.



[Vietnam]

Vietnam boasts a 90% cure rate of uncomplicated TB and 75% of drug-resistant TB. The overall number of TB cases mortality rates and prevalence is all showing a decreasing trend since the 1990s. Despite this obvious preliminary success with a cost-effective solution, the burden is to reach the success out to those who are not able to access the health benefits the districts provide.



[Thailand]

Having a 2.5 times higher TB incidence rate than that of European nations, Thailand is also one of the 22 high TB burden nations designated by WHO. Despite the 1.7% increase in MDR-TB, the nation has decreased TB death rate by 41% since the 1990s. Thailand has made much effort in the process of detecting and treating TB.



[India]

As the nation with the highest TB burden in the world, WHO estimates that India is responsible for a quarter of the global TB incidence rate. The poor being the majority of the victims, India has devised programs such as DOTS, RNTCP (Revised National TB Control Program) and NSP (National Strategic Plan). The nation is aiming to meet the national goals such as making TB a notifiable disease along with establishing a private sector for TB.



[Bangladesh]

Taking 4th place in both TB outbreaks and TB mortality, Bangladesh is facing major problems regarding this pandemic. Initiating programs such as the TB Care II Bangladesh and Community-based Programmatic Management of Drug Resistant Tuberculosis in 2011, the country is striving to make progress.



[United States of America]

Since the peak in 1992, USA has been showing a steady decrease in the number of TB incidences; about 2.96 cases per 100,000 people. However, with a sudden increase in the TB incidence rate in 23 years and an apparent stall in the progress of eradicating TB, this epidemic has risen as an issue to be solved. Acknowledging the difficulty in managing and treating this disease, the nation is focusing on budgets set to solve the problem.



[Germany]

A constant descending trend of TB cases since 2001 shows that tuberculosis might be fully eradicated in the near future of Germany. With a total of less than 6 cases, Germany has been a member of nations that have sported less than 10 cases out of 100,000 per year. However, there have been speculations that Germany's descending trend may soon come to an end.



[Switzerland]

Sporting only 463 total annual cases in 2012, Switzerland has been showing a clear trend of decreasing TB incidences since its breakout. With an extensive system of testing, diagnosis, careful treatment and even vaccination, TB is rarely considered a major issue in the health department. There must be much for the South Asian nations to learn or receive advice regarding the process of eliminating such disease.



[France]

Well known for the “Royal Touch” ritual, where kings of England and France would touch to heal those who are infected with tuberculosis, France has a long history with TB and it began in the middle ages. Hitting another peak during World War I, the nation began actively making efforts to curb the spread of the epidemic by implementing education/ awareness campaigns as well as training more nurses and physicians. In 1880, with the discovery of a vaccine for tuberculosis called BCG, the overall rate of TB infection seemed to have decreased and with a mere 5,000 annual cases.



[Papua New Guinea]

With one of the highest tuberculosis (TB) infection rates in the world, Papua New Guinea's TB epidemic is referred to be a national emergency."With approximately 30,000 people in the country gets newly infected with the bacteria every year, increasing incidences of drug-resistant strains, and limited access to adequate healthcare, the nation has seen a recent resurgence of support from international governments and medical humanitarian agencies.



[China]

China's overall prevalence declined 2.2% per year between 1990 and 2000, and 4.7% per year between 2000 and 2010. In 2004, the Ministry of Health had established a nationwide TB control network based on the China CDC system that successfully standardized the diagnosis and treatment of TB. In 2010, China achieved the TB control targets of the United Nation's Millennium Development Goals, which is 5 years ahead of the target date set by the UN. Overall, China has reduced the TB prevalence rates by half.



[Indonesia]

Carrying the 5th highest burden in the world, Indonesia has been making much effort to improve their current situation. Since the 1880s, medical advancement around the world has improved the diagnostic process of TB and multidrug resistant TB as well. With improving trends in treatment success and diagnosis, Indonesia's trends show that the DOTS program is working for them.



[Timor Leste]

Located northwest of Australia, Timor Leste has been suffering from 15 years of war. Despite their efforts to eradicate TB, the war just left the nation barren and helpless. TB is the 2nd highest cause of death in the nation and Timor Leste ranks 3rd in the entire world for the highest TB outbreaks with 128 deaths per 100,000. Based on the success in the past, WHO believes that eradication of TB is possible in Timor Leste.



[Nepal]

Tuberculosis (TB) is a major health problem in Nepal. It caused a significant burden of morbidity and mortality. Here, 45% of the total population is infected with TB, of which 60% are in the productive age group. Moreover, each year, 40,000 people develop active TB, of whom 20,000 have infectious type of pulmonary TB. In addition, 5000 to 7000 people continue to die each year in Nepal.



[Sri Lanka]

NPTCCD (National Programme for Tuberculosis Control and Chest Diseases) is the central organization of the Ministry of Health responsible for controlling and preventing TB and other respiratory diseases throughout Sri Lanka. The activities are carried out through network of chest clinics established at each district.



[Italy]

In Italy, tuberculosis (TB) is a relatively rare disease. In the last decade its incidence has remained constant at under 10 cases/100,000 inhabitants, the threshold considered to define a country as low prevalence. The epidemiological picture, however, is very different in the countries of Eastern Europe and in Africa, Asia, and Latin America, where the incidence of TB continues to increase and in some cases is accompanied by the emergence and spread of multidrug-resistant TB. The present review describes the epidemiology of TB in Italy.



[Algeria]

According to the latest WHO data published in may 2014 Tuberculosis Deaths in Algeria reached 5,597 or 3.02% of total deaths. The age adjusted Death Rate is 19.12 per 100,000 of population ranks Algeria #51 in the world.



[Nigeria]

Nigeria ranks 10th among the 22 high-burden TB countries in the world. WHO estimates that 210,000 new cases of all forms of TB occurred in the country in 2010, equivalent to 133/100,000 population. There were an estimated 320,000 prevalent cases of TB in 2010, equivalent to 199/100,000 cases. There were 90,447 TB cases notified in 2010 with 41,416 (58%) cases as new smear positives, and a case detection rate of 40%. 83% of cases notified in 2009 were successfully treated. The main goal of Nigeria's TB program is to halve the TB prevalence and death rates by 2015. TB death rates have declined from 11% in 2006 to 5% in 2010.



[Netherlands]

Three-quarters of TB patients were born outside the Netherlands. Most of the TB patients in 2014 originated from Eritrea, followed by Somalia and Morocco. These are countries with a high TB incidence. Among Syrians, the largest group of asylum seekers, TB is not much more common than it is among Dutch nationals. The high number of Syrian refugees therefore had a limited effect on the number of TB patients in the Netherlands.



[Liberia]

In Liberia, the notification of tuberculosis (TB) trend has shown a steady rise over the years, increasing from 1771 cases of all forms of TB being reported in 2001 to 5402 cases in 2011. The increased detection rate can be attributed to the expansion of TB services to all parts of the country and an improvement in the capacity of the health system to diagnose and report cases.



[Romania]

Romania has the highest number of people suffering from TB in the EU. Around 12,000 people are diagnosed with TB each year, of whom 500 were diagnosed with multidrug resistant tuberculosis (MRD-TB). MRD-TB is potentially deadly and cannot be treated with common antibiotics.



[Congo]

Tuberculosis (TB) is a leading cause of death in Democratic Republic of the Congo (DRC), partly due to a low case detection rate within the health system, compounded by little knowledge or awareness among patients of the disease's symptoms. In the province of Sud Kivu, where people have relied on traditional healers for generations, those who were suffering from the persistent, painful coughing that is one symptom of TB were advised by traditional healers that they had been poisoned, and they were not referred to health centers.



[South Africa]

South Africa is one of the countries with the highest burden of TB, with the World Health Organisation (WHO) statistics giving an estimated incidence of 450,000 cases of active TB in 2013. So about 1% of the population of about 50 million develop active TB disease each year. This is worldwide the third highest incidence of any country after India and China, and the incidence has increased by 400% over the past 15 years.



[Kenya]

Tuberculosis (TB) is a serious public health issue in Kenya. About 120,000 people a year develop TB (48,000 of them being HIV-positive) and 18,600 people die from it. It is the fourth largest cause of death, being responsible for about 6% of all deaths. Nearly two people an hour die from TB, despite effective treatments being available.



[UK]

Despite many people believing TB has been eradicated in the UK it never went away. In fact, the UK experienced a two decade long rise in cases from the mid-1980s. It is only in the last three years that the UK has begun to match the global trend for falling rates of TB.



POSSIBLE SOLUTIONS

Ever since the rise of tuberculosis in the 1800s, it has been one of humanity's priorities to eradicate such disease. Such goals have been delayed due to other crises and have been slow due the insufficient supply of medical aid to countries who most needed them. However, TB has been reported to often be the result of and the cause of poverty around nations since patients would lose time to work and earn money because of suffering from such diseases. Acknowledging another socio-economic factor that may be at risk, WHO has been striving to achieve such goals as the most current updated strategy seems to show much promise on top of the progress that countries have been making.

In the hopes of ending this centuries old global epidemic, WHO has reported 'The End TB Strategy' in 2015. Delegates may also use this report as inspiration for further possible solutions when writing your resolutions. WHO's main goal is to make the world TB free and to make sure zero casualties and sufferings due to TB by year 2035. WHO aims to reduce the number of deaths by caused by TB 95% and decrease the TB incidence rate by 90%. (The End TB Strategy)

In order to achieve such massive goals, there are certain efforts WHO should make. The organization should reach out to those that do not yet have the access to healthcare and medical technology as the first world nations do. This may require cooperation and collaboration from governments a number of nations. In addition, when approaching these regions, it would be wiser to go for a patient-centered solution. Also, raising general awareness of such disease and how TB is transmitted, the possible symptoms patients or potential patients may look out for along with how to most efficiently access medical aid.

QUESTIONS TO CONSIDER

1. What have been the obstacles that prevented the process of eradicating tuberculosis in these nations?
2. What have been the past attempts of the UN and WHO? What were the flaws that ultimately resulted in slower progress?
3. How were other nations around the world able to eradicate tuberculosis?
4. How much support does the individual nations need? How can WHO, UN and member states support the nation in eradicating tuberculosis?
5. Are there any specific goals the member state has regarding the current agenda?

BIBLIOGRAPHY

- WHO. "Tuberculosis in the WHO South-East Asia Region." WHO. University of Minnesota, 2010. Web. 14 July 2016. <<http://www.who.int/bulletin/volumes/88/3/09-073874/en/>>.
- UN. "Health - United Nations Sustainable Development." UN News Center. UN, n.d. Web. 14 July 2016. <<http://www.un.org/sustainabledevelopment/health/>>.
- WHO. "Tuberculosis (TB)." World Health Organization. UN, n.d. Web. 24 July 2016. <<http://www.who.int/mediacentre/factsheets/fs104/en/>>.
- World Vision. "TB by the Numbers – 6 Asian Nations Detecting, Treating More Cases." World Vision International. World Vision, 23 Mar. 2015. Web. 24 July 2016. <<http://www.wvi.org/asia-pacific/article/tb-numbers-6-asian-nations-detecting-treating-cases>>.
- World Travels. "Philippines Map, Philippines Travel Maps from Word Travels." Philippines Map, Philippines Travel Maps from Word Travels. World Travels, n.d. Web. 31 July 2016. <<http://www.wordtravels.com/Travel-guide/Countries/Philippines/Map>>.
- Londergan, Betty. "Map of Cambodia." Heifer 12 X 12. Heifer, 18 Oct. 2012. Web. 31 July 2016. <<https://heifer12x12.com/map-of-cambodia/>>.
- Trails of Indochina. "Thailand Map - Trails of Indochina." Thailand Map - Trails of Indochina. N.p., n.d. Web. 31 July 2016. <<http://www.trailsofindochina.com/thailand/map>>.
- "TB Statistics for India | National and State Statistics." TB Facts.org. N.p., n.d. Web. 02 Aug. 2016. <<http://www.tbfacts.org/tb-statistics-india/>>.
- "TB in India | TB Burden, NSP, Private TB Care." TB Facts.org. N.p., n.d. Web. 02 Aug. 2016. <<http://www.tbfacts.org/tb-india/>>.
- "India Map, Map of India." India Map, Map of India. Maps of India, n.d. Web. 02 Aug. 2016. <<http://www.mapsofindia.com/>>.
- Sun, Lena H. "TB Cases Increase in U.S. for First Time in 23 Years." Washington Post. The Washington Post, 24 Mar. 2015. Web. 03 Aug. 2016. <<https://www.washingtonpost.com/news/to-your-health/wp/2016/03/24/tb-cases-increase-in-u-s-for-first-time-in-23-years/>>.
- CDC. "Fact Sheet." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, 24 Sept. 2015. Web. 03 Aug. 2016. <<http://www.cdc.gov/tb/publications/factsheets/statistics/tbtrends.htm>>.
- Free World Maps. "Download Free US Maps." Download Free US Maps. Free World Maps, n.d. Web. 03 Aug. 2016. <<http://www.freeworldmaps.net/download/united-states.html>>.
- Smith, Lydia. "Why Are Rates of Drug-resistant TB so High in Russia?" International Business Times RSS. IBTimes, 23 Mar. 2015. Web. 03 Aug. 2016. <<http://www.ibtimes.co.uk/world-tuberculosis-day-why-are-rates-drug-resistant-tb-so-high-russia-1493176>>.
- "Political Map of Russia." Map Pictures. WP Map, 29 Nov. 2015. Web. 03 Aug. 2016. <<http://www.wpmap.org/political-map-of-russia/>>.
- EUROSTAT. "France." Surveillance Report (n.d.): n. pag. Tuberculosis Monitoring and Surveillance Report. EUROSTAT, 2014. Web. 8 July 2016. <http://ecdc.europa.eu/en/healthtopics/Tuberculosis/epidemiological_data/Documents/France-tuberculosis-country-profile-2014.pdf>.
- "History of Tuberculosis." Wikipedia. Wikimedia Foundation, n.d. Web. 08 Aug. 2016. <https://en.wikipedia.org/wiki/History_of_tuberculosis>.

BIBLIOGRAPHY

Mandal, Anaya, Dr. "History of Tuberculosis." News-Medical.net. N.p., 11 Dec. 2009. Web. 08 Aug. 2016. <<http://www.news-medical.net/health/History-of-Tuberculosis.aspx>>.

Department of Foreign Affairs and Trade. "France." Australian Government: Department of Foreign Affairs and Trade. Australian Government, n.d. Web. 08 Aug. 2016. <<http://smartraveller.gov.au/Countries/europe/western/pages/france.aspx>>.

Facts.co. "Switzerland Location Map." Facts.co. N.p., n.d. Web. 21 Aug. 2016. <<http://switzerlandmap.facts.co/switzerlandmapof/switzerlandmap.php>>.

Fiebig, Lena, Barbara Hauer, Bonita Brodhu, Doris Altmann, and Walter Haas. "Tuberculosis in Germany: A Declining Trend Coming to an End?" European Respiratory Journal. ERS, 2016. Web. 21 Aug. 2016. <<http://erj.ersjournals.com/content/47/2/667>>.

"Germany." (n.d.): n. pag. Tuberculosis Monitoring and Surveillance Report. Surveillance Report, 2014. Web. 21 Aug. 2016. <http://ecdc.europa.eu/en/healthtopics/Tuberculosis/epidemiological_data/Documents/Germany-tuberculosis-country-profile-2014.pdf>.

Facts.co. "Germany Map - Blank Political Germany Map with Cities." Germany Map - Blank Political Germany Map with Cities. N.p., n.d. Web. 21 Aug. 2016. <<http://germanymap.facts.co/germanymapof/germanymap.php>>.

"Tuberculosis in Timor-Leste." World Life Expectancy. N.p., n.d. Web. 21 Aug. 2016. <<http://www.worldlifeexpectancy.com/timor-leste-tuberculosis>>.

Helda, Einar. "The Case of the Democratic Republic of Timor-Leste." WHO. UN, n.d. Web. 21 Aug. 2016. <<http://www.who.int/bulletin/volumes/85/8/06-036087/en/>>.

"Indonesia Map, Indonesia Travel Maps from Word Travels." Indonesia Map, Indonesia Travel Maps from Word Travels. World, n.d. Web. 21 Aug. 2016. <<http://www.wordtravels.com/Travelguide/Countries/Indonesia/Map>>.

Camellia, Artha, Alia Hartanti, and Tom Targos. "Faster Tuberculosis Diagnosis Is Saving Lives in Indonesia | FrontLines March/April 2015 | U.S. Agency for International Development." Faster Tuberculosis Diagnosis Is Saving Lives in Indonesia | FrontLines March/April 2015 | U.S. Agency for International Development. US-AID, Mar. 2015. Web. 21 Aug. 2016. <<https://www.usaid.gov/news-information/frontlines/foreign-aid-impact/faster-tuberculosis-diagnosis-saving>>.

"Programme Budget, 2012–2013" (PDF). WHO. Retrieved 26 March 2012. <http://whqlibdoc.who.int/cgi-bin/repository.pl?url=/pb/2012-2013/PB_2012%E2%80%932013_eng.pdf>

"Global health sector strategy on HIV/AIDS 2011–2015" (pdf). WHO. 2011: 5. <http://apps.who.int/iris/bitstream/10665/44606/1/9789241501651_eng.pdf>

"Global health sector strategy on HIV/AIDS 2011–2015" (pdf). WHO. 2011: 7. <http://apps.who.int/iris/bitstream/10665/44606/1/9789241501651_eng.pdf>

"Malaria Fact Sheet". WHO Media Centre. WHO. April 2012. Retrieved 24 May 2012. <<http://www.who.int/mediacentre/factsheets/fs094/en/>>

"Tuberculosis Fact Sheet". WHO Media Centre. WHO. April 2012. Retrieved 24 May 2012. <<http://www.who.int/mediacentre/factsheets/fs104/en/index.html>>

"WHO Global Code of Practice on the International Recruitment of Health Personnel" (PDF). WHO. 2010. Retrieved 27 March 2012.

BIBLIOGRAPHY

Hoffman, S.J., Lavis, J.N. & Bennett, S., 2009. 'The Use of Research Evidence in Two International Organizations' Recommendations about Health Systems. *Healthcare Policy*, 5(1), pp.66-86.

"International Health Partnership". IHP+. Retrieved 19 September 2012.
<<http://www.internationalhealthpartnership.net/en/>>

"WHO Expert Committee on Biological Standardization". WHO. Retrieved 27 March 2012.
<http://www.who.int/biologicals/expert_committee/en/>

"WHO Expert Committee on Leprosy: Seventh Report". WHO Press Office. WHO. Retrieved 27 March 2012.
<<http://apps.who.int/bookorders/anglais/detart1.jsp?codlan=1&codcol=10&codcch=874>>

"WHO Study Group on Interprofessional Education and Collaborative Practice". 27 March 2012.
<<http://www.who.int/hrh/professionals/coordination/en/index.html>>

"Alliance for Health Policy and Systems Research". WHO. Retrieved 26 March 2012.
<<http://www.who.int/alliance-hpsr/en/>>

WHO. "The End TB Strategy." World Health Organization. UN, 2015.
<<http://www.who.int/tb/strategy/end-tb/en/>>.

"History of Tuberculosis." News-Medical.net. 11 Dec. 2009.
<<http://www.news-medical.net/health/History-of-Tuberculosis.aspx>>

"Tuberculosis in China." WHO Western Pacific Region. <<http://www.wpro.who.int/china/mediacentre/factsheets/tuberculosis/en/>>

"Papua New Guinea's Tuberculosis Pandemic." *The Diplomat*. 28 March. 2016.
<<http://thediplomat.com/2016/03/papua-new-guineas-tuberculosis-pandemic/>>

"TB Infection Control." Amrit Banstola . 14 April. 2012.
<<https://www.ghdonline.org/ic/discussion/issues-and-threats-of-tuberculosis-in-nepal/>>

"UK Stats and Targets - TB Alert." TB Alert.
<<http://www.tbalert.org/about-tb/statistics-a-targets/uk-stats-and-targets/>>

"Update on the epidemiology of tuberculosis in Italy." National Center for Biotechnology Information.
<<http://www.ncbi.nlm.nih.gov/pubmed/24788994>>

"Eradicating Tuberculosis in Romania - EEA Grants." Eradicating Tuberculosis in Romania - EEA Grants. N.p., 6 May 2014.
<<http://eeagrants.org/News/2014/Eradicating-tuberculosis-in-Romania>>

"TB Statistics for South Africa | National & Provincial." TB Factsorg.
<<http://www.tbfacts.org/tb-statistics-south-africa/>>

"Liberia: Analytical Summary - Tuberculosis - AHO." Liberia: Analytical Summary - Tuberculosis - AHO.
<http://www.who.afro.int/profiles_information/index.php/Liberia:Analytical_summary_-_Tuberculosis>

"Kenya Perspective: Tuberculosis." Copenhagen Consensus Center.
<<http://www.copenhagenconsensus.com/publication/kenya-perspective-tuberculosis>>

"TB Germ - A Cunning World Traveller (English)". BC Centre for Disease Control. 2015.
<http://www.bccdc.ca/Pages/PageNotFound.aspx?requestUrl=http://www.bccdc.ca/dis-cond/a-z/_t/Tuberculosis/TBVideos/TBGerm/TBGermEnglish.htm>

BIBLIOGRAPHY

Public Health Agency of Canada, Canadian Lung Association, Canadian Thoracic Society, “Canadian Tuberculosis Standards” (7th Edition), 2013.

<<http://www.respiratoryguidelines.ca/tb-standards-2013>>

Public Health Agency of Canada. “Tuberculosis Fact Sheets”. 2008.

<<http://www.phac-aspc.gc.ca/tbpc-latb/fa-fi/index-eng.php>>