World Health Organization

AtidMUN2022

Table of Contents

Contents

Chair Letters 2

Topic A: Communicable Disease Control in Humanitarian Emergencies & Global Disasters 6

Background to the Topic 6

Introduction 6

Sanitation, Safe Water, and Site Planning 6

Health Care Services: 7

Immunization 8

Surveillance 9

The Challenges 9

Current Situation 10

Introduction 10

Questions To Consider 11

Suggested Reading 12

Bibliography 12

Topic B: The Global Healthcare Worker Shortage 17

Background to the Topic 17

Medical Training Process 17

Working Conditions 18

Unpredictable Events 20

Questions to Consider 22

Suggested Reading 22

Bibliography 23

AtidMUN2022

Chair Letters

Roey Shimony

Hello, everyone,

I will be one of your chairs for the AtidMUN 2022 WHO Committee this year. I cannot wait to meet all of you and discuss our topics for this year's conference, especially the issue of Communicable Disease Control in Humanitarian Emergencies & Global Disasters.

I am 16 years old, and I am in the the11th grade at Misgav High School. I have participated in quite a lot of MUN Conferences, and I am incredibly excited to be chairing this committee. When I am not preparing for an MUN or studying, I like to go to the gym and hang out with friends.

And now, a glimpse at our first topic of Communicable Disease Control in Humanitarian Emergencies & Global Disasters, which is particularly important in our modern society, as with climate change at an increasingly fast pace, global disasters are becoming a frequent thing. These catastrophic events cause an increase in communicable diseases, and you, delegates, will be discussing how to control the damage inflicted by these diseases (preventing the spread of disease, providing medical support, etc.).

If you need anything at all, feel free to send me a message on WhatsApp (054-863-5018), and I cannot wait to meet you all in person soon.

Sincerely,

Royee Shimoni

Gil Weiss

Hi, everyone!

Welcome to the World Health Organization Committee!

I'm very excited to tackle the extremely important and relevant issues of disease control in conflict and disasters and the global healthcare worker shortage. With the prior issue, we have all experienced this firsthand, and after multiple years of COVID-19, it will be eye-opening to examine this and other pandemics' intersectionality with conflict from the perspectives of various countries. As far as the latter topic is concerned, this issue is exceptionally significant as the number of healthcare workers is rapidly decreasing due to multiple factors. This only further harms the medical field and all of humanity as a whole- due to consequently reduced health care quality. Overall, the World Health Organization is the leading actor attempting to address this issue at a global level, and simulating the organization will allow us to understand the complex, systemic issues at play.

I also want to tell you a little bit about me. I'm 17 and in the 12th grade at the Eastern Mediterranean International School (EMIS). I enjoy MUN so much, especially in the beginner committees, because we have the most fun- which is my main priority for the conference ;). In addition, I love science and aspire to be a surgeon, so I have a special connection to this committee and am extra grateful to be on it with you all. Besides my academic life, I like going out with my friends to Tel Aviv to party and act in advertisements for various companies. In conclusion, I can't wait to meet you all and have the most fun committee and conference!

If you have any questions, need help getting ready for the conference, or just want to make a new friend :) please text me anytime on WhatsApp +972 53-3823393, follow and text me on instagram @weiss_gil, or email me at gil.w@em-is.org. See y'all soon!

Sincerely,

Gil Weiss

Hello, delegates! My name is Omer Navot, and I will be one of your chairs for this fascinating committee. I'm incredibly excited to be the chair of this amazing committee tackling the most profound and urgent questions of 21st-century healthcare problems.

In my opinion, the topics on which we will discuss are highly relevant to today's time, especially after the coronavirus pandemic when the whole world has learned to value health workers much more. While the Covid-19 pandemic has affected the entire world, thousands were seeking care without any nurses or doctors to treat them due to the significant shortage. I believe that It is our duty as this world's citizens and fellow humans to make sure each and every person in this world will have access to modern medicine. It is our debt to make sure we value our health workers, train new ones, and make the field of medicine more accessible.

Now, a bit about myself. As mentioned before, My name's Omer. I'm sixteen years old and currently studying in the 11'th grade at Atid Lod highschool, the host of this exciting conference. I have participated in different leveled committees, and this is my third year in MUN. This is my first time chairing a committee, and I'm really hoping to see all of you already!

If you have any questions regarding the committee or anything of the sort feel free to contact my email: onavot06@gmail.com

Introduction to the Committee

The World Health Organization (WHO) is a specialized agency established by the UN on April 7, 1948, responsible for international public health. The WHO mandate includes working internationally to promote health, keep the world safe from disease, and serve those vulnerable to sickness. The WHO seeks to provide the entire human population with universal health care coverage, engagement with the monitoring of public health risks, coordinate responses to health emergencies, and promote health and well-being. The WHO has played a vital role in several public health achievements, such as the eradication of smallpox, the near-eradication of polio, and the fight against Ebola.

Currently, WHO is considered the highest authority in public health and is considered to be "the first inter-governmental institution" that has the word "world" in its name. The significance of adding this word was to imply that global health problems must be confronted and defeated collectively. Indeed, the protection of the health of each country's citizens is crucial to saving the citizens of other countries as well. Therefore, the WHO keeps a low profile when it comes to conflicts, in order to maintain peace between the organization, and its members.

The World Health Organization's constitution is considered the basic health theory that defines health in the modern context post-World War II world. In the past, health was considered a physiological condition, yet, health was described as a "multidimensional state" of complete physical, mental and social well-being in WHO's constitution. Furthermore, this comprehensive definition of health was stated as a fundamental right in the Universal Declaration of Human Rights, issued by the United Nations General Assembly in 1948. Presently, it is mandated in WHO's constitution to tackle diseases in the world, among Global Communicable Diseases. Given our current state, responsibility, and taking part in the WHO committee, delegates must come together with an aim to create an original solution to such detrimental conflicts.

Topic A: Communicable Disease Control in Humanitarian Emergencies & Global Disasters

Background to the Topic

Introduction

The World Health Organization deals with issues in many areas, but one of the more critical issues the committee will be discussing is Communicable Disease Control in Humanitarian Emergencies. Humanitarian emergencies and natural disasters take place in developing countries very often, and such crises have long-lasting health impacts on the surrounding populations. For example, natural disasters such as floods or hurricanes can cause the spread of water-borne diseases such as cholera, Hepatitis E, and typhoid fever, and although these diseases all have cures, the lack of sanitation in an event such as a hurricane can lead to higher rates of mortality in afflicted citizens. Additionally, in situations of overcrowding or a lack of appropriate living environments, measles and malnutrition can be widespread. While the western world has the resources and capability to deal with such crises, the developing world often doesn't – which leads to horrible outbreaks and many deaths. This is usually where the WHO steps in.

The World Health Organization first recognized the importance of controlling the spread of disease in the wake of a global disaster in the year 2000, releasing a publication primarily focused on the management of nutrition in cases of conflict (WHO, 2000). However, in Chapter 6, the publication also discusses communicable disease control and states: "Although the provision of food is the first relief priority in nutritional emergencies, it is also crucial to organize programs for the prevention and treatment of major important diseases, particularly since food itself can be a vehicle for disease transmission." To combat this issue, the World Health Organization created several tactics to combat these diseases. These tactics are divided into four groups: Sanitation, Safe Water, and Site Planning; Health Care Services; Immunization; and Surveillance.

Sanitation, Safe Water, and Site Planning

One of the most crucial components in communicable disease control is sanitation, but to create sanitary environments, access to clean and safe water is an essential requirement. In cases of crowded populations, buildings that are constructed must be planned around access to safe water. Once a source of water is acquired, it must be filtered with the use of chlorine before becoming safe to drink. Chlorine is highly effective against water-borne diseases and is easily accessible. This

is a simple but significant process in the control of communicable diseases, as it nearly eliminates the affliction of water-borne diseases on displaced peoples. Sanitation and safe water are most important in the fight against Cholera, and the easiest way to prevent this disease is to create a supply of clean water to displaced people in the aftermath of a natural disaster/humanitarian emergency (WHO, 2000).

The Cholera outbreaks in Haiti, Somalia, and the Democratic Republic of Congo are said to be the product of frequent natural disasters and a lack of clean water and sanitation. In an article published by WHO's official website, The World Health Director, Dr. Tedros Adhanom Ghebreyesus, stated (WHO, 2019) that "The decrease we are seeing in several major cholera-endemic countries demonstrates the increased engagement of countries in global efforts to slow and prevent cholera outbreaks and shows the vital role of mass cholera vaccination campaigns, we continue to emphasize, however, that the long-term solution for ending cholera lies in increasing access to clean drinking water and providing adequate sanitation and hygiene." This message shows the importance of clean drinking water and sanitation in the fight against communicable diseases.

Health Care Services:

The next step after providing access to clean and safe water is providing access to healthcare services. Access to doctors and nurses is a crucial component in combating communicable diseases, as they have the ability to diagnose and quarantine patients to prevent the affliction of others. Access to medicine and vaccinations can prevent further disease and suffering, and just the presence of medicine can ease the minds of citizens in crisis. The WHO implements several procedures that utilize health care services: In cases of Diarrheal disease, ARI's, and Malaria, an early diagnosis and treatment proved to be an effective solution, especially for those above the age of five. Another policy under the banner of Health Care Services is ensuring access to and application of treatment protocols to battle disease. Health Care Services also promotes several messages to the camps, such as the encouragement of good hygiene practices, the promotion of safe food cooking techniques to minimize the spread of communicable disease through nutrition, the use of boiling or chlorination of water (to fight water-borne disease), and in cases of Malaria, the use of insecticides is highly advised (WHO, 2000).

However, there is a significant issue with this approach: Countries ravaged by Humanitarian Emergencies or Global Disasters have harsh environments that might endanger doctors and other health workers. This leads to medical support being unable to reach those in need because of the

repercussions of natural disasters. A recent example of this issue took place in Afghanistan, where WHO medical aid was stopped from entering the country by Taliban fighters. Internal health workers were left stranded in the country, with only enough medical supplies to last a week (Eltahir & Lewis, 2021). Cases like these that endanger human lives, create a moral dilemma for WHO operatives. There are citizens that are in danger from communicable diseases and require medical attention by professionals, but if the WHO sends in health workers, they are endangering the lives of those health workers. In the past, health workers entering situations of danger have been killed, injured, and fallen ill to the communicable diseases they were fighting against.

Immunization

Immunization might just be the most effective tool to combat reoccurring waves of communicable disease. By immunizing citizens, the chances of them getting infected are significantly reduced. If similar crises happen on a frequent basis (meaning similar diseases follow suit), immunized citizens are likely to be protected from another wave of disease. On a smaller scale, the effects seem to be negligible. However, efficiency in this department is exponential, and significantly lowers mortality rates (WHO, 2000).

In a publication released in 2006 by the World Health Organization, titled "Communicable Diseases Following Natural Disasters", the importance of immunization was questioned. The document discussed immunizations against Measles, Typhoid, Hepatitis A, and Cholera, stating that the high costs and low effectiveness of vaccines at the time made immunization a bad solution to solve communicable diseases in the aftermath of natural disasters. The publication stated that the use of vaccinations was very situational. However, vaccine technology evolved in the coming years after publication. In 2018, Cholera case numbers drastically fell, by around 60%, after a mass vaccination in countries inflicted with the disease. Around 18 million vaccines were shipped to 11 different countries, and 60 million vaccines have been shipped since the Cholera vaccine stockpile opened in 2013 (as of 2019). This increase in vaccine use shows the growth in the strength of immunization in recent years. All the while, there still is a significant challenge with this approach: It will be harder to reach citizens and provide them with vaccines in countries that are in the midst of humanitarian crises, as there are not enough people to spread the vaccine, and the conditions in these countries pose a significant threat to healthcare workers. Sadly, we have yet to come up with a viable solution to this issue.

One recent example involves the export of COVID-19 vaccines to third-world countries suffering from internal conflicts, such as Afghanistan and Ethiopia. For example, Ethiopia is suffering from the conflict raging in Tigray. This conflict caused an economic crisis in the country, making it hard for the government to buy COVID-19 vaccines, and so, the number of afflicted citizens rose to four hundred thousand in total, with seven thousand citizens who succumbed to the disease. Ethiopia currently has only 11% of the vaccines needed to immunize all its citizens, and its supply will not grow by much as its economic struggles become more complicated. The country was donated vaccines by various governments and NGOs, and yet, it is still not enough to vaccinate the population and reach herd immunity.

SURVEILLANCE

The surveillance of a population affected by a humanitarian emergency or a global disaster is crucial in the making sure said population is not infected by a communicable disease. In water-type disasters (hurricanes, floods), the sampling of water is a great way to precede infection. By predicting a wave of infectious diseases, the World Health Organization can provide immunization and health care, even before the first cases of the disease begin. Surveillance is one of the most effective tools that the WHO uses in the fight against communicable diseases. Recent examples include the management of cholera, malaria, and COVID-19 in Somalia and Ethiopia. To effectively surveil populations that might be in danger of communicable diseases, the WHO has set up a system that follows a few guidelines. The guidelines deem rapid detection as a cornerstone for the prevention of communicable diseases in advance. The publication states: "Priority diseases to be included in the surveillance system should be based on a systematic communicable disease risk assessment… A comprehensive global communicable disease risk assessment can identify and prioritize these threats." The article also states that healthcare workers should be trained to detect said priority diseases and should always be equipped with inspection and sampling materials. Additionally, healthcare workers should always be supplied with kits to combat outbreaks if needed (WHO, 2000).

THE CHALLENGES

The WHO guidelines mentioned above work well in countries that are easy to reach, and their citizens are easily accessed. However, countries that are in the midst of natural disasters, internal conflict, and war, are more often than not extremely dangerous environments to be in. By sending medical forces into these environments, the WHO places the lives of its healthcare workers at risk.

This is a question that, currently, has no correct answer: "Should we risk the lives of our healthcare workers to prevent disease in unstable environments?"

Though, the question of legitimacy is not where the challenges end. Even if the WHO sends forces into these unstable environments, it is complicated to reach populations and give them proper care. In countries ravaged by war and internal conflict, healthcare workers are likely to be killed before they reach their patients, or even during their treatment. In countries in the midst of natural disasters, such as hurricanes and earthquakes, healthcare workers cannot reach a large portion of the population due to the mass destruction around the area, and will not have the proper infrastructure to carry out prevention mechanisms.

CURRENT SITUATION

INTRODUCTION

Case Study: Tigray War

The Tigray war is an ongoing internal conflict in the Tigray region of Ethiopia, that began on November 3rd, 2020. The local Tigray Defense Forces are in a battle with the Ethiopian National Defense Force, the Ethiopian Federal Police, and the regional police. During the course of the conflict, all sides committed several war crimes, and the total number of deaths amounted to 300,000–500,000 (Ghosh, 2022).

Ethiopian infrastructure, and healthcare systems, in particular, have also taken a significant blow: At least 22 healthcare workers were killed, and only 1,300 out of the 20 thousand healthcare workers were working in 2020 because of the conflict. According to biostatistician Mulugeta Gebregziabher, only 3.6% of Tigray's 1,007 health facilities are fully functional (Simpson, 2022).

Despite the severity of the crisis, the WHO has given very little attention to it; according to a study published on BMJ Global Health, due to the global COVID-19 crisis and Ethiopian intervention - a medical blockade was enforced by Ethiopia. The Director General of the WHO commented on said blockade: "Humanitarian access even in conflict is the basics. Even in Syria, we had access, even during the worst of conflicts in Syria. In Yemen, we have the same access. We delivered medicines. Here, it's a complete blockade, especially since mid-July. Nothing. This is six months without medical support, without food, without all the rest of the things I have said. It's been impossible" (Adepoju, 2022).

In this case study, we can see the challenges taking place in real-time: Foreign healthcare workers are unable to reach citizens in dire need of medical care, and as a result – the majority of them die. Local healthcare services are barely functioning, and the healthcare workers who are active end up dying in the process.

Case Study: Flash Floods in Indonesia

The flash floods in Jakarta, Indonesia, is deemed the worst flooding in the area since 2007 when 80 citizens were killed over 10 days. Over the course of the floods that began on January 1st, 2020, 66 people were killed, and 60,000 citizens were displaced, with their homes being destroyed.

In this crisis, while the Indonesian government was slow to act, regional healthcare workers weren't: 11,000 healthcare workers were deployed, and tests conducted with the flooded water showed that there had been no recorded cases of leptospirosis, tetanus, or serious waterborne diseases (Karmini, 2020).

The challenges in this case study, while still significant, were easier to deal with than those posed in the Tigray region of Ethiopia. Consequently, we can see a lot more action being taken by the government, and by local authorities and organizations.

Questions To Consider

Familiarizing Questions

- Does your country face humanitarian emergencies and natural disasters frequently?
- How does your country deal with the health consequences of humanitarian emergencies and natural disasters?
- Are communicable disease outbreaks a common issue in your country and region? Which policies and strategies do your authorities, and health care services implement?
- Does your country work closely with the World Health Organization when dealing with communicable disease outbreaks or act as an independent agent?

Clash-Oriented Questions

- Does your country use any of the strategies mentioned above when dealing with these outbreaks?
- Would your country send additional help to countries suffering from communicable diseases while cooperating with the WHO?
- In what ways could the WHO tactics for communicable disease control be improved?

Suggested Reading

- **Starting point to understand your country:** A database/factbook from the CIA with all the basic, in depth, accurate information about every country: https://www.cia.gov/the-world-factbook/countries/
- **How WHO works:** A great explanation of how World Health Organization functions: https://www.cfr.org/backgrounder/what-does-world-health-organization-do
- **WHO publications:** Controlling communicable disease after Global Disasters: https://cdn.who.int/media/docs/default-source/documents/emergencies/communicable-diseases-following-natural-disasters.pdf?sfvrsn=4a185b2c_2&download=true
- **Ethiopia Covid-19 Crisis (2021):** https://theconversation.com/how-conflict-has-made-covid-19-a-neglected-epidemic-in-ethiopia-167499

Bibliography

Adepoju, Paul. 2022. *WHO Slams Ethiopia's 'Blockade' on Health Relief to Tigray Region as 'Catastrophic' and 'Unprecedented' Even in Conflict Zones.* January 13. https://healthpolicy-watch.news/who-slams-ethiopias-blockade-on-tigray-region-as-catastrophic-to-health/.

Agency for Healthcare Research and Quality. n.d. *Physician Burnout.* https://www.ahrq.gov/prevention/clinician/ahrq-works/burnout/index.html.

Baker, Amanda. 2020. *Quizlet's State of Remote Learning Report 2020. Key Insights for Back-to-School.* Quizlet.

Bell, Sue Anne, and Mahshid Abir. 2017. *Ripple Effect: How Hurricanes and Other Disasters Affect Hospital Care.* September 11. https://ihpi.umich.edu/news/ripple-effect-how-hurricanes-other-disasters-affect-hospital-care#:~:text=The%20reason%3A%20a%20wave%20of,significant%20barriers%20to%20optimal%20care.

Berg, Sara. 2019. *As work hours rise, so does physician burnout.* march 22. https://www.ama-assn.org/practice-management/physician-health/work-hours-rise-so-does-physician-burnout#:~:text=Spending%20too%20many%20hours%20at,31%2D40%20hours%20each%20week.

Berjano, Roy. 2017. *Considerations for Opening a Practice in a Low-Income Area.* April 3. https://www.physicianspractice.com/view/considerations-opening-practice-low-income-area.

BMJ. 2022. *Next generation of doctors are unable to complete training due to a lack of funding at medical school.* June 1. https://www.bmj.com/content/377/bmj.o1384.

—. 2019. *Trends in global health financing.* May 20. https://www.bmj.com/content/365/bmj.l2185.

Boerner, Kathrin, Hayley Gleason, and Daniella S Jopp. 2017. "Burnout After Patient Death: Challenges for Direct Care Workers." *J Pain Symptom Manage.*

Bou-Karroum, Lama. 2020. "Health care workers in conflict and post-conflict settings: Systematic mapping of the evidence."

Boyle, Patrick. 2020. *Medical school enrollments grow, but residency slots haven't kept pace.* September 3. https://www.aamc.org/news-insights/medical-school-enrollments-grow-residency-slots-haven-t-kept-pace.

Calonia, Jennifer. 2022. *What's The Average Medical School Debt In 2022?* May 13. https://www.forbes.com/advisor/student-loans/average-medical-school-debt/#:~:text=Average%20Medical%20School%20Debt%20for,said%20they%20had%20education%20debt.

Cohen, Deborah. 2022. *Primary care clinicians are the glue to health and wellness. Their shortage spells trouble.* February 4. https://www.statnews.com/2022/02/04/primary-care-clinicians-essential-health-wellness/.

Curtin, Sally C, and Merianne Rose Spencer. 2021. "Trends in Death Rates in Urban and Rural Areas: United States, 1999–2019 ."

Eltahir, Nafisa, and Aidan Lewis. 2021. *WHO says it only has medical supplies in Afghanistan for a week.* August 24. https://www.reuters.com/world/asia-pacific/senior-who-official-says-agency-only-has-supplies-afghanistan-one-week-2021-08-24/.

Frazee, Gretchen. 2018. *The U.S. needs more doctors. Is free medical school the answer?* August 21. https://www.pbs.org/newshour/economy/the-u-s-needs-more-doctors-is-free-medical-school-the-answer#:~:text=in%20medical%20fields.-,Medical%20students%20incur%2C%20on%20average%2C%20about%20%24200%2C000%20in%20debt%2C,of%20%24187%2C540%20and%20%24208%2C560%.

Galvin, Gaby. 2021. *Nearly 1 in 5 Health Care Workers Have Quit Their Jobs During the Pandemic.* October 4. https://morningconsult.com/2021/10/04/health-care-workers-series-part-2-workforce/.

Ghosh, Bobby. 2022. *Analysis | The World's Deadliest War Isn't in Ukraine, But in Ethiopia.* March 23. https://www.washingtonpost.com/business/the-worlds-deadliest-war-isnt-in-ukraine-but-in-ethiopia/2022/03/22/eaf4b83c-a9b6-11ec-8a8e-9c6e9fc7a0de_story.html.

Gupta, Nishtha, Sana Dhamija, Jaideep Patil, and Bhusan Chaudhari. 2021. "Impact of COVID-19 pandemic on healthcare workers." *Industrial Psychiatry Journal.*

Institute of Medicine. 2009. "Supply and Demand in the Health Care Workforce." In *Ensuring Quality Cancer Care Through the Oncology Workforce: Sustaining Care in the 21st Century: Workshop Summary*. Washington DC: The National Academies Press.

Interview Area. 2022. *How many med students drop out?* https://www.interviewarea.com/faq/how-many-med-students-drop-out.

Karmini, Niniek. 2020. *Indonesia's flooded capital disinfected to fend off disease.* January 5. https://abcnews.go.com/Health/wireStory/indonesias-flooded-capital-disinfected-fend-off-disease-68076279.

Kelly, Nicola. 2022. *'Global crisis' of violence: 161 healthcare workers were killed last year, study finds.* May 24. https://www.theguardian.com/global-development/2022/may/24/global-crisis-of-violence-161-healthcare-workers-were-killed-last-year-study-finds.

Lee, Rebecca. n.d. *What can doctors do to help low-income patients who need them?* https://rendia.com/resources/insights/poverty-location-limit-access-health-care/#:~:text=Hospital%20closures%20and%20doctors%20leaving,live%20in%20low%2Dincome%20neighborhoods.

McEwan, Jean. 2019. *Could Clinical Education Avert the Impending Global Healthcare Workforce Crisis?* . June. https://www.academichealthsolutions.com/thought-leadership/could-clinical-education-avert-impending-global-healthcare-workforce-crisis.

Murphy, Brendan. 2019. *3 reasons student loan debt should not deter you from med school.* May 13. https://www.ama-assn.org/medical-students/preparing-medical-school/3-reasons-student-loan-debt-should-not-deter-you-med.

Notable. 2022. *Majority of Healthcare Workers Worry About Burnout from Increasing Burden of Administrative Work.* April 26. https://resources.notablehealth.com/press-release-state-of-automation-p1.

Pan American Health Organization. n.d. *2010: A Year of Health Challenges for Haiti.* https://www3.paho.org/hq/index.php?option=com_content&view=article&id=4609:2011-2010-year-health-challenges-haiti&Itemid=135&lang=en.

Rogan, Erika, and Joy Lewis. 2020. *Rural health care: Big challenges require big solutions.* January 28. https://www.aha.org/news/insights-and-analysis/2020-01-28-rural-health-care-big-challenges-require-big-solutions#:~:text=Although%20rural%20hospitals%20provide%20great,aging%20infrastructure%20and%20cybersecurity%20threats.

Safeguarding Health in Conflict. 2020.

Simpson, Brian W. 2022. *Tigray (and Its Health Care System) Under Siege.* April 12. https://globalhealthnow.org/2022-04/tigray-and-its-health-care-system-under-siege.

U.S. Department of Health and Human Services Office of the U.S. Surgeon General. n.d. *Current Priorities of the U.S. Surgeon General.* https://www.hhs.gov/surgeongeneral/priorities/health-worker-burnout/index.html.

Verduin, Marcia L, Richard Balon, John H Coverdale, Alan K Louie, Eugene V Beresin, and Laura Weiss Roberts. 2014. "The Rising Cost of Medical Education and Its Significance for (Not Only) Psychiatry." *Academic Psychiatry* 305-308.

WHO. 2019. *Drop in cholera cases worldwide, as key endemic countries report gains in cholera control.* December 19. https://www.who.int/news/item/19-12-2019-drop-in-cholera-cases-worldwide-as-key-endemic-countries-report-gains-in-cholera-control.

—. 2000. *The management of nutrition in major emergencies.* February 23. https://www.who.int/publications/i/item/9241545208.

World Health Organization. 2006. "Global Shortage of Health Workers and its Impact."

—. 2021. *Health and Care Worker Deaths during COVID-19.* October 20. https://www.who.int/news/item/20-10-2021-health-and-care-worker-deaths-during-covid-19.

World Health Organization. 2012. "Local Production and Technology Transfer to Increase Access to Medical Devices Addressing the barriers and challenges in low- and middle-income countries."

World Health Organization. 2021. "The impact of COVID-19 on health and care workers: a closer look at deaths."

Topic B: The Global Healthcare Worker Shortage

Background to the Topic

The third United Nations Sustainable Development Goal is good health and well-being. Globally, to ensure this human right, every state requires properly functioning health care. However, these systems are extremely complex and require many resources, including monetary financing, high-tech equipment, and- the focus of this committee- healthcare workers. Healthcare workers serve in many roles, such as nurses, paramedics, surgeons, and many more intricate, specialized jobs. As the global population increases, life expectancy improves, and the older generations require more medical assistance, more medical employees are needed to maintain functioning healthcare systems. But the ways these systems are currently organized and run create a global healthcare worker shortage.

Specifically, "WHO recognizes a threshold **need** for a healthcare workforce of 4.5 per 1000 population as this appears to be associated with achieving Universal Health Coverage, associated decreases in maternal and infant mortality and improved disability-adjusted life years. Similar estimates propose that 2.5 nurses are required for every doctor" (McEwan 2019). Furthermore, most research agrees that the main roles that lack workers are that of physicians, nurses, and allied health care professionals in fields of primary care, psychiatry, and other general specializations (Institute of Medicine 2009). Lastly, all the impacts and causes discussed below are magnified in rural and low-income areas (which will be further explained in the reading) as they already experience a more severe healthcare worker shortage, how little access to resources (monetary and otherwise), and often have their issues (medical and otherwise) overlooked and underprioritized by their states.

This background section will focus on the impacts of medical training, healthcare working conditions, and unpredictable events on the global healthcare worker shortage.

Medical Training Process

Medicine is one of the hardest, most complex, and lengthiest university majors, lasting upwards of 8 years. This alone deters many from entering the medical field, and yet, the challenges don't stop there: Because of a lack of government funding, tuition fees are usually through the roof (the average American medical student racks up a loan debt of 200,000! (Murphy 2019)); many from disadvantaged communities, and even middle-class citizens, are forced to give up their dreams of

becoming doctors and nurses. With all these issues, many give up on the field and turn to others, leading to a major shortage in healthcare workers.

Even though in most western countries, there is a rise in the number of university students interested in studying medicine (Baker 2020), many countries are struggling to accommodate the increasing number of students (Institute of Medicine 2009) – existing medical schools aren't being expanded, new ones are rarely built, and training programs are struggling to keep up with the rising amount of medical trainees (Boyle 2020). Due to the lack of medical education, the medical community cannot keep up with demand and is often overwhelmed.

In addition to the lack of new medical schools, existing medical schools often lack the resources to make their medical education valuable and affordable. The cost of medical schooling denies prospective students from minority and low-income areas the opportunity to enter the medical field, as they often cannot cover the tuition fees. Even those among the middle class are often required to take a lot of debt on themselves: For the class of 2021, the Association of American Medical Colleges (AAMC) found that the average public medical school student harbors over $190,000 of debt, and 14% had a debt of $300,000 (Calonia 2022). According to the Public Agenda Report, most medical students that drop out do so because of the high tuition fees (Interview Area 2022).

Finally, the medical education field is grossly underfunded. Consequently, medical schools don't have the resources to provide their students with proper medical education and training (BMJ 2019) - WHO estimated that 50-80 percent of medical equipment in low/middle income countries is not functioning (World Health Organization 2012). Not only is there a shortage in healthcare workers in general, but the quality of medical education in many countries is sub-par.

Working Conditions

Working in medicine is just as exhausting and troublesome as studying it: Working in hospitals is exhausting, both physically and mentally; departments are often understaffed; and healthcare facilities residing in smaller, poorer communities often lack the resources they need to stay afloat. These conditions pose a major deterrence to many who wish to work in the medical field – leading many to leave the medical field, or not get into it at all.

Working in medicine is exhausting, both physically and mentally: healthcare workers are known to work extremely long hours and work weeks, more than the average in other fields; they are under

extreme time pressure due to patients' conditions; and the medical staff often needs to deal with patients' deaths, even after forming personal connections with them. This extreme physical (Agency for Healthcare Research and Quality n.d.) (Berg 2019) and emotional (Boerner, Gleason and Jopp 2017) conditions often lead to burnout, leaving the medical staff tired and unmotivated to continue their quality work. Burnout is defined as "a high degree of emotional exhaustion and depersonalization and a low sense of personal accomplishment at work" (U.S. Department of Health and Human Services Office of the U.S. Surgeon General n.d.). The more stress and burnout they go through, the more likely they are to quit the medical field. In a survey by notable of 1000 healthcare workers, 28% answered that they had quit a healthcare job due to burnout (Notable 2022).

Within medicine, there are hundreds of specializations – ranging from comprehensive (general surgeons, family doctors, etc.), to exceptionally specific roles (podiatry, andrology, etc.). Because of the wide variety of specializations, many departments are often understaffed. One important position that is heavily understaffed is primary care with an expected "shortfall of approximately 140,000 primary care clinicians by 2033" (Cohen 2022), which is a very general and extremely crucial medical field; mainly because medical students choose to specialize to more exciting, lucrative, or interesting fields rather than general medicine. However, one misconception about medical specialization that should be addressed is that medical workers are equally likely to choose lucrative and non-lucrative fields (Verduin, et al. 2014), therefore this is not a factor into the healthcare worker shortage in some specializations. Nevertheless, medical specializations are typically understaffed (and therefore contribute to the global health shortage) when they are very specific, unexciting for doctors, or require too much training.

Finally, rural and low-income areas have a hard time keeping up with the costs of medical care: First, it should be noted that these areas require the most medical assistance, as these communities and populations tend to be more vulnerable to health issues than their urban, wealthy counterparts (Lee n.d.). Specifically, according to the CDC (2021), "by 2019, the rate in rural areas was 21% higher than the rate in urban areas for heart disease, 15% higher for cancer, and 48% higher for CLRD".

And yet, there are many bureaucratic disputes that result in these hospitals receiving less money, including issues with reimbursement, insurance, and more. Because of that, the healthcare worker shortage crisis is ten times more visible in these communities, as hospitals face extra difficulties to

keep their practice alive - especially smaller, private ones. Rural and low-income hospitals face significant financial, governmental, and societal issues and difficulties that consequent in said medical institutions to close at a faster rate than well-financed, urban hospitals (Rogan and Lewis 2020). In addition, In addition, these communities may have difficulties with communication, as they may lack the technology for it or have a higher chance of not speaking the national language (Berjano 2017). The result is a significant harm to an already-weakened population, leading to major health concerns within these communities.

Unpredictable Events

With an already-lacking medical infrastructure, it is no surprise that unpredictable and extreme events such as natural disasters, outbreaks, and national/international conflicts make the issue even worse. These types of events have the power to magnify the issue tenfold because medical employees are often needed to a greater degree at such times. Because healthcare workers are often first responders, they may get sick, and in a lot of cases, die – which discourages many from participating in the medical field when such events are at play.

Natural disasters dramatically increase the need for healthcare workers in a very short period of time – which is something that the current medical infrastructure is not able to provide. These disasters are extremely sudden, and can easily overwhelm and overflow local, smaller hospitals, especially in low-income and rural areas (World Health Organization 2006). Even larger hospitals often can't handle the effects of natural disasters, as they usually function on maximum capacity and are also not prepared to admit such a high amount of patients (Bell and Abir 2017). Therefore, in the case of natural disasters, these facilities will not have the proper amount of healthcare workers and medical equipment to deal with all the incoming traumas. Not only that, but healthcare workers experience more stress and are subjected to more risk during these times: Employees working during natural disasters will face maximal levels of stress, which reduces optimal care. Additionally, because of the specialization issue mentioned previously, in some natural disasters, specialized and highly-trained medical personnel may be required to assist certain patients. However, many areas do not have these types of employees readily available and will likely have to fly them in from somewhere else. But this may not be possible depending on the nature and duration of the disaster. In the tragic Haitian Earthquake in 2010, many of the local healthcare facilities were destroyed (including the ministry of health headquarters), and those in use quickly became full of the more than 3,000,000 Haitians that needed humanitarian assistance. Even with

the support of more than 400 foreign healthcare organizations, over 200,000 Haitians died (Pan American Health Organization n.d.).

Finally, countries in states of conflict face significant healthcare worker shortages due to many reasons: First, extremely unfortunate, in numerous conflicts, healthcare workers are targeted and killed (Kelly 2022). For example, in Yemen, only in 2020, numerous hospitals were bombed and destroyed,- one of which faced grenade attacks twice in 2 days (Safeguarding Health in Conflict 2020). Secondly, because of the hazardous conditions, local healthcare workers tend to flee the area, and foreign healthcare workers are uninterested in working in such dangerous areas (Bou-Karroum 2020). Third, it is not uncommon for large-scale conflicts to harm hospitals, medical schools, and other healthcare institutions. Not only does this damage the healthcare systems and workers set in place, but it also stops prospective medical field workers from attaining training – reducing the number of new healthcare workers being prepared. Consequently, countries plagued with conflict often experience higher levels of shortage of healthcare workers - even though they require them more.

Outbreaks, much like natural disasters, drastically increase the number of needed healthcare workers – but on a global scale. Let's take COVID-19 as a case study. However, it should be noted that all disease outbreaks, no matter the size, severely impact healthcare institutions and workers. COVID-19 had disastrous effects on the global medical field: Healthcare workers were killed more from COVID-19 than people in other jobs (World Health Organization 2021). From only January 2020-May 2021, WHO estimates that 115,000 healthcare workers due to COVID-10 (World Health Organization 2021). In addition, COVID-19 severely harmed healthcare workers' mental health, resulting in burnout and high quitting rates (Gupta, et al. 2021)- nearly 1 of 5 healthcare workers quit during the pandemic (Galvin 2021). Although there are many more reasons, many healthcare workers were unable to work during the pandemic due to health concerns or requiring recuperation from the disease (World Health Organization 2021). Across the board, COVID-19, and other disease outbreaks intensify and worsen the global healthcare worker shortage.

Questions to Consider

Familiarizing Questions

- How have recent years affected my country's medical infrastructure?
- What is the ratio of healthcare workers to residents in my country? Is it sufficient?
- What is the framework for educating and training healthcare workers in my country?

Clash-Oriented Questions

- Has my country done anything to promote employment in healthcare?
- How, and should, the government influence the medical training system in order to raise its efficiency?
- How can my country improve working conditions in hospitals while preserving healthcare quality and efficiency?
- What are the ways to bridge the healthcare worker shortage?

Suggested Reading

- **Starting point to understand your country:** A database/factbook from the CIA with all the basic, in-depth, accurate information about every country: https://www.cia.gov/the-world-factbook/countries/
- **How WHO works:** A great explanation of how World Health Organization functions https://www.cfr.org/backgrounder/what-does-world-health-organization-do
- **Overview of the global health care worker shortage**: from WHO itself, including links to documents describing the topic and strategies to address it: https://www.who.int/health-topics/health-workforce#tab=tab_2
- **Ideas on ways to fix the global healthcare worker shortage:** A concise document which sums up a WHO report from 2006 https://www.globalhealthlearning.org/sites/default/files/page-files/Global_Shortage_of_Health_Workers.pdf
- **Healthcare in conflict zones**: Organization that releases reports on attacks on healthcare globally: https://www.safeguardinghealth.org/

BIBLIOGRAPHY

Adepoju, Paul. 2022. *WHO Slams Ethiopia's 'Blockade' on Health Relief to Tigray Region as 'Catastrophic' and 'Unprecedented' Even in Conflict Zones.* January 13. https://healthpolicy-watch.news/who-slams-ethiopias-blockade-on-tigray-region-as-catastrophic-to-health/.

Agency for Healthcare Research and Quality. n.d. *Physician Burnout.* https://www.ahrq.gov/prevention/clinician/ahrq-works/burnout/index.html.

Baker, Amanda. 2020. *Quizlet's State of Remote Learning Report 2020. Key Insights for Back-to-School.* Quizlet.

Bell, Sue Anne, and Mahshid Abir. 2017. *Ripple Effect: How Hurricanes and Other Disasters Affect Hospital Care.* September 11. https://ihpi.umich.edu/news/ripple-effect-how-hurricanes-other-disasters-affect-hospital-care#:~:text=The%20reason%3A%20a%20wave%20of,significant%20barriers%20to%20optimal%20care.

Berg, Sara. 2019. *As work hours rise, so does physician burnout.* march 22. https://www.ama-assn.org/practice-management/physician-health/work-hours-rise-so-does-physician-burnout#:~:text=Spending%20too%20many%20hours%20at,31%2D40%20hours%20each%20week.

Berjano, Roy. 2017. *Considerations for Opening a Practice in a Low-Income Area.* April 3. https://www.physicianspractice.com/view/considerations-opening-practice-low-income-area.

BMJ. 2022. *Next generation of doctors unable to complete training due to a lack of funding at medical school.* June 1. https://www.bmj.com/content/377/bmj.o1384.

—. 2019. *Trends in global health financing.* May 20. https://www.bmj.com/content/365/bmj.l2185.

Boerner, Kathrin, Hayley Gleason, and Daniella S Jopp. 2017. "Burnout After Patient Death: Challenges for Direct Care Workers." *J Pain Symptom Manage.*

Bou-Karroum, Lama. 2020. "Health care workers in conflict and post-conflict settings: Systematic mapping of the evidence."

Boyle, Patrick. 2020. *Medical school enrollments grow, but residency slots haven't kept pace.* September 3. https://www.aamc.org/news-insights/medical-school-enrollments-grow-residency-slots-haven-t-kept-pace.

Calonia, Jennifer. 2022. *What's The Average Medical School Debt In 2022?* May 13. https://www.forbes.com/advisor/student-loans/average-medical-school-debt/#:~:text=Average%20Medical%20School%20Debt%20for,said%20they%20had%20education%20debt.

Cohen, Deborah. 2022. *Primary care clinicians are the glue to health and wellness. Their shortage spells trouble.* February 4. https://www.statnews.com/2022/02/04/primary-care-clinicians-essential-health-wellness/.

Curtin, Sally C, and Merianne Rose Spencer. 2021. "Trends in Death Rates in Urban and Rural Areas: United States, 1999–2019 ."

Eltahir, Nafisa, and Aidan Lewis. 2021. *WHO says it only has medical supplies in Afghanistan for a week.* August 24. https://www.reuters.com/world/asia-pacific/senior-who-official-says-agency-only-has-supplies-afghanistan-one-week-2021-08-24/.

Frazee, Gretchen. 2018. *The U.S. needs more doctors. Is free medical school the answer?* August 21. https://www.pbs.org/newshour/economy/the-u-s-needs-more-doctors-is-free-medical-school-the-answer#:~:text=in%20medical%20fields.-,Medical%20students%20incur%2C%20on%20average%2C%20about%20%24200%2C000%20in%20debt%2C,of%20%24187%2C540%20and%20%24208%2C560%.

Galvin, Gaby. 2021. *Nearly 1 in 5 Health Care Workers Have Quit Their Jobs During the Pandemic.* October 4. https://morningconsult.com/2021/10/04/health-care-workers-series-part-2-workforce/.

Ghosh, Bobby. 2022. *Analysis | The World's Deadliest War Isn't in Ukraine, But in Ethiopia.* March 23. https://www.washingtonpost.com/business/the-worlds-deadliest-war-isnt-in-ukraine-but-in-ethiopia/2022/03/22/eaf4b83c-a9b6-11ec-8a8e-9c6e9fc7a0de_story.html.

Gupta, Nishtha, Sana Dhamija, Jaideep Patil, and Bhusan Chaudhari. 2021. "Impact of COVID-19 pandemic on healthcare workers." *Industrial Psychiatry Journal.*

Institute of Medicine. 2009. "Supply and Demand in the Health Care Workforce." In *Ensuring Quality Cancer Care Through the Oncology Workforce: Sustaining Care in the 21st Century: Workshop Summary*. Washington DC: The National Academies Press.

Interview Area. 2022. *How many med students drop out?* https://www.interviewarea.com/faq/how-many-med-students-drop-out.

Karmini, Niniek. 2020. *Indonesia's flooded capital disinfected to fend off disease.* January 5. https://abcnews.go.com/Health/wireStory/indonesias-flooded-capital-disinfected-fend-off-disease-68076279.

Kelly, Nicola. 2022. *'Global crisis' of violence: 161 healthcare workers were killed last year, study finds.* May 24. https://www.theguardian.com/global-development/2022/may/24/global-crisis-of-violence-161-healthcare-workers-were-killed-last-year-study-finds.

Lee, Rebecca. n.d. *What can doctors do to help low-income patients who need them?* https://rendia.com/resources/insights/poverty-location-limit-access-health-care/#:~:text=Hospital%20closures%20and%20doctors%20leaving,live%20in%20low%2Dincome%20neighborhoods.

McEwan, Jean. 2019. *Could Clinical Education Avert the Impending Global Healthcare Workforce Crisis?* . June. https://www.academichealthsolutions.com/thought-leadership/could-clinical-education-avert-impending-global-healthcare-workforce-crisis.

Murphy, Brendan. 2019. *3 reasons student loan debt should not deter you from med school.* May 13. https://www.ama-assn.org/medical-students/preparing-medical-school/3-reasons-student-loan-debt-should-not-deter-you-med.

Notable. 2022. *Majority of Healthcare Workers Worry About Burnout from Increasing Burden of Administrative Work.* April 26. https://resources.notablehealth.com/press-release-state-of-automation-p1.

Pan American Health Organization. n.d. *2010: A Year of Health Challenges for Haiti.* https://www3.paho.org/hq/index.php?option=com_content&view=article&id=4609:2011-2010-year-health-challenges-haiti&Itemid=135&lang=en.

Rogan, Erika, and Joy Lewis. 2020. *Rural health care: Big challenges require big solutions.* January 28. https://www.aha.org/news/insights-and-analysis/2020-01-28-rural-health-care-big-challenges-require-big-solutions#:~:text=Although%20rural%20hospitals%20provide%20great,aging%20infrastructure%20and%20cybersecurity%20threats.

Safeguarding Health in Conflict. 2020.

Simpson, Brian W. 2022. *Tigray (and Its Health Care System) Under Siege.* April 12. https://globalhealthnow.org/2022-04/tigray-and-its-health-care-system-under-siege.

U.S. Department of Health and Human Services Office of the U.S. Surgeon General. n.d. *Current Priorities of the U.S. Surgeon General.* https://www.hhs.gov/surgeongeneral/priorities/health-worker-burnout/index.html.

Verduin, Marcia L, Richard Balon, John H Coverdale, Alan K Louie, Eugene V Beresin, and Laura Weiss Roberts. 2014. "The Rising Cost of Medical Education and Its Significance for (Not Only) Psychiatry." *Academic Psychiatry* 305-308.

WHO. 2019. *Drop in cholera cases worldwide, as key endemic countries report gains in cholera control.* December 19. https://www.who.int/news/item/19-12-2019-drop-in-cholera-cases-worldwide-as-key-endemic-countries-report-gains-in-cholera-control.

—. 2000. *The management of nutrition in major emergencies.* February 23. https://www.who.int/publications/i/item/9241545208.

World Health Organization. 2006. "Global Shortage of Health Workers and its Impact."

—. 2021. *Health and Care Worker Deaths during COVID-19.* October 20. https://www.who.int/news/item/20-10-2021-health-and-care-worker-deaths-during-covid-19.

World Health Organization. 2012. "Local Production and Technology Transfer to Increase Access to Medical Devices Addressing the barriers and challenges in low- and middle-income countries."

World Health Organization. 2021. "The impact of COVID-19 on health and care workers: a closer look at deaths."