Sheffield
World Health Organization
Simulation

SheffWHO

EVENT GUIDE

For Delegates

Outbreaks and Pandemics: Addressing the Next Crisis

SheffWHO 2018

April 27-29

Sheffield World Health Organization Simulation - SheffWHO

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Contents.

Sub-Themes:

From the Co-Founders.

We are happy to welcome you to the Steel City!

You will play a vital role in shaping history, as we converge at the University of Sheffield for the first World Health Assembly simulation in Sheffield. SheffWHO has been a passion project. A project to reduce barriers to entering a career in global health. A project that is not possible without the support of a passionate team and the participation of diverse delegates - to bring this vision from concept to reality. We are commending you for taking this step forward in your global health journey and we hope that you will take advantage of this opportunity and make the best of it.

During this event, we tackle the complex topic of Outbreaks and Pandemics: Addressing the Next Crisis. The work needed to prevent and navigate the next disease outbreak require interdisciplinary approaches to health. This is why we have gathered together persons from diverse backgrounds to assist in generating innovative ideas and solutions to health interventions for preparation, response and management of emergency situations.

We have the privilege of key players in global health, with direct experience in navigating outbreak and pandemic situations, joining us. We hope that you take the time to listen keenly and reflect on their work and knowledge in the field, and that you engage productively with our speakers.

We have prepared materials to guide and help you before and during this conference, so that you can become a more confident global health practitioner. We strongly encourage you to prepare and adhere to your delegate roles throughout the event, even with your country, organisation or company's inherent biases or issues. This will help to strengthen your skills in diplomacy and you will be recognised for preparation.

We wish to recognise our Department, the School of Health and Related Research (ScHARR) for their continuous support. Additionally, we wish to acknowledge the Sheffield Institute for International Development (SIID), the European Public Health Masters' Consortium, Think Ahead and the University of Sheffield Alumni Foundation for their significant financial assistance in making sure that this program is a success. We wish to highlight Dr Julie Balen, without whose persistence, consistent optimism and challenge to us as global health students, this event would not have been possible.

Finally, we wish to thank our passionate Organising Committee and volunteers, who have dedicated months of preparation and planning to ensure that your time in Sheffield is unforgettable.

Addressing global health issues requires working together with diverse teams, transcending disciplines to develop innovative solutions, which has been our motto as a team. We wish that you follow our example during the course of this event and work together to achieve groundbreaking results in global health issues.

Yours truly,

N. Charles Hamilton and Dr Naomi Limaro Nathan
Co-Founders, SheffWHO

About SheffWHO.

"What roles do non-state actors such as NGOs, pharmaceutical companies, trade organisations, media and others play to address outbreaks and pandemics?"

Model WHO events are educational simulations whereby participants recreate the process of the annual World Health Assembly (WHA) as held at the World Health Organization (WHO) Headquarters in Geneva. The WHA is the decision-making organ of the WHO, in which delegations from all WHO Member States attend and direct attention to a specific health agenda that has been formulated by the Executive Board. The WHA does not, however, only focus on this specific health agenda. It also takes on the following functions: determining the Organization's politics; supervising the financial policies; reviewing and approving programme budgets that have been proposed; and appointing the Director-General to the WHO. Here at SheffWHO, we will be offering students, alumni and professionals from all disciplines the opportunity to convene and engage with an important global health topic, embracing the role of delegates of the WHA.

The first of its kind in the Steel City, SheffWHO will explore the theme "Outbreaks and Pandemics: Addressing the Next Crisis" from April 27th-29th, 2018. Delegates attending will represent a variety of roles: WHO Member States, non-governmental organizations (NGOs), pharmaceutical companies and the media. Throughout this event, delegates will discuss, co-operate, and negotiate with other stakeholders in order to produce resolution papers that address the simulation theme.

This simulation aims to address important questions across the weekend that includes, but is not limited to, the following:

- When facing communicable disease outbreaks such as Ebola and influenza, how does a nation and the global community respond in terms of health system preparedness, delivery of medicine and health care?
- How does the world cope transitioning into a new era of high incidence of non-communicable diseases, such as cardiovascular disease, cancers, and mental health conditions, while ensuring adequate support for infectious disease and outbreak control?
- What regulations have been set to address outbreaks and epidemics and do they need to be improved?
- How do we strengthen governance and financing in the health sector to ensure a country has adequate resources to cope with outbreaks and pandemics?
- How can we support interdisciplinary approaches to addressing outbreaks and pandemics in the 21st century?
- What roles do non-state actors such as NGOs, pharmaceutical companies, trade organisations, media and others play to address outbreaks and pandemics?
- How can we utilise technology and encourage transparency in addressing outbreaks and pandemics?

Delegates can explore these questions over the course of the SheffWHO event, concluding with the development and approval of resolution papers with how to address this topic. Our aim is to transfer approved resolutions to WHO Headquarters to demonstrate the creative capacity of the next generation of global health leaders.

(For more information about the WHO and WHA, visit: www.who.int/about)

The School of Health and Related Research (ScHARR). Photo: Anny Huang

Delegate roles.

As part of the simulation, all participants are assigned to a delegate position in one of four categories. This is designed to reflect the World Health Assembly, which is attended not only by WHO Member States, but also by a range of stakeholders. To ensure that all participants get the most out of the experience, it is important to review and familiarise yourself with the different roles.

Regardless of the role that you have been assigned, all participants will gain a better understanding of the operation and policy-making of the WHO. Critical thinking, problem-solving and negotiation skills will be required for, and developed through, all roles. We hope that all participants will be able to network and learn from each other.

Member State Representatives (WHO Ambassadors)
The role of a Member State (WHO Ambassador) is to represent your country's interests throughout the simulation, especially during regional blocs and plenary.

1. Member States collaborate with other Member States to form alliances and write collaborative resolution papers.
2. You will negotiate with Non-Governmental Organisations (NGOs) to obtain stamps of approval to gain more attention for your resolution paper.
3. Member States collaborate with pharmaceutical companies in order to receive funding (stamp of approval) to implement the global health policies of your resolution paper.
4. You will debate and defend specific global health issues in debate, in attempt to have your resolution paper adopted.

Non-Governmental Organisation Representatives (NGOs)
NGO Representatives represent the interests of their organisation and work with Member States (WHO Ambassadors) to approve draft resolutions. NGOs will be engaged by Media Representatives (Journalists) to help promote (or discourage) support for resolutions or policy position papers.

1. NGOs discuss potential partnerships with regional blocs and can then provide three stamps of approval.
2. You will then negotiate with Member States (WHO Ambassadors) to create policies that concern your goals in their draft resolution. You can leverage with your stamps of approval.

Pharmaceutical Representatives
Pharmaceutical companies are important in global healthcare as they manage, research and develop life-saving medications and vaccinations.

1. Representatives collaborate with ambassadors to provide their (two) stamps of approval whilst advancing their company's interests.
2. You will influence draft resolutions to represent your objectives and leverage policies to protect your interests.

Media Representatives (Journalists)
The media will report the events throughout the simulations and shape delegate's global awareness. They work from different angles.

1. You will move between different regional blocs and use diverse modes of communication.
2. You will also interview delegates about different issues and recent developments. The media can also plant news stories and create rumours.

Let us know if you have any further questions about your role! We will always be happy to clarify anything as needed.

Point of serpentine scrutiny.

Who are the Dais, and what do they do?

The Dais consists of the Chair and the Vice-Chairs. These are the people seated at the front of the room in every plenary session. They have been invited by us to take on these roles due to their experience and expertise, and their role is to moderate debates in plenary sessions. In addition, they keep time and enforce proceedings in terms of rules, motions and points. They also approve and format draft resolutions.

Meet the speakers.

Dr Remco van de Pas

Maastricht Centre for Global Health, Maastricht University | Institute of Tropical Medicine Antwerp

Remco van de Pas is a medical doctor who has specialised in public health, and a global health scholar. He has a position as Research Fellow in Global Health Policy at the Institute of Tropical Medicine, Antwerp, and is the Coordinator of the interdisciplinary Maastricht Centre for Global Health, Maastricht University. His PhD research (Faculty of Health, Medicine and Life Sciences, Maastricht University, completion in 2018) focuses on global governance of the health workforce.

He teaches at universities and in international courses on global health governance, diplomacy and policy coherence for health, with a special attention on health workforce development and migration, health system strengthening, social protection, the health impacts of globalization and health equity.

Remco is a board member of the Medicus Mundi International–Network Health for All, a Visiting Research Fellow at Clingendael, the Netherlands Institute of International Relations and editorial board member of the academic journal Globalization and Health.

He worked as health policy adviser for Wemos, a public health foundation advocating for social justice and as medical coordinator for the NGO Médécins du Monde, mostly in West-Papua, Indonesia. Remco practiced in mental health services for refugees and migrants in Rotterdam.

An overview of academic and other publications can be found via Researchgate:
https://www.researchgate.net/profile/Remco_Van_De_Pas

Greg Fell

Sheffield Council

Greg Fell is a Director of Public Health in Sheffield. He graduated from Nottingham University with a degree in biochemistry and physiology in 1993. He has worked as a social researcher in a maternity unit; a number of roles in health promotion and public health before joining the public health training scheme. Greg worked as a consultant in public health in Bradford in the PCT, then Bradford council. Since Feb 2016 he has worked for Sheffield as Director of Public Health.

An overview of Greg's work can be found via: https://gregfellpublichealth.wordpress.com.

Dr Nathalie MacDermott

Imperial College London | Samaritan's Purse International Relief

Dr Nathalie MacDermott is a paediatric infectious diseases doctor based at Imperial College London. She is currently undertaking a PhD looking at genetic susceptibility to Ebola virus disease. Her research interests include epidemic diseases and outbreak control, with a specific focus on viral haemorrhagic fevers.

She is also involved in medical disaster emergency response with an organisation called Samaritan's Purse International Relief. Through this organisation, she found herself at the forefront of the Ebola epidemic in Liberia from July 2014 until March 2015. She has also responded to the cholera epidemic in Haiti, the post-Typhoon Haiyan response in the Philippines and the European refugee crisis in Greece.

Dr Simon Rushton

The University of Sheffield | The Sheffield Institute for International Development

Simon Rushton is a Senior Lecturer in the Department of Politics at the University of Sheffield. He has written widely on international responses to HIV/AIDS and other diseases; the links between health and security; global health governance; and issues surrounding health, conflict, and postconflict reconstruction. His most recent books were *Disease Diplomacy: International Norms and Global Health Security* (co-authored with Sara Davies and Adam Kamradt-Scott) and *The Routledge Handbook of Global Health Security* (co-edited with Jeremy Youde). Simon is an Associate Fellow of the Centre on Global Health Security at the Royal Institute of International Affairs, Chatham House.

Meet your Secretariat.

Baher Mohamed

Dr Baher Mohamed MB BCh, M.Sc, M.A. has been working in Global Health Governance and Diplomacy for the last 4 years. He currently serves as a Consultant for the policy team of the Access Campaign of Medicines Sans Frontieres (MSF). He has been Youth Delegate for the Egyptian government delegation to the WHO governing body from 2014 to 2017. He had been a co-founder for Cairo Model World Health Organisation: a platform that aims at promoting Global Health Diplomacy to the Egyptian youth and to the Middle East and North Africa (MENA) region.

He graduated from medical school and is now pursuing a dual Master degree in Global Health and International Development Studies from the Graduate Institute of Geneva.

Basem Mohamed

Dr Basem Mohamed MB BCh, M.Sc, M.A. is a Consultant at the Health Workforce Department at the World Health Organization (WHO). He is currently leading the establishment of the Youth Hub at the Global Health Workforce Network hosted by WHO that aims to connect global young leaders and change agents from across and beyond health and social care to support the global efforts to transform and expand the health and social workforce. He supported the organization of the first ever WHO Youth Forum on Human resources for Health (HRH) at the Fourth Global Forum on HRH that culminated in the Youth Call for Action. Prior to his role at WHO, Basem established a program on youth engagement in Global Health Diplomacy at the Ministry of Health of Egypt, where he joined as a Youth Delegate to the governing bodies of WHO for 3 years, promoting youth at the table of global health policymaking. His passion lies in the intersection between health beyond medicine and international affairs.

Brian Wong

Brian Wong MSc is currently a clinical researcher with the Medical Research Council (MRC) Unit for Lifelong Health and Ageing, and is pursuing a British Heart Foundation-funded PhD in Cardiovascular Science through the Department of Population Studies and Experimental Medicine. He has attended a total of 19 model WHO simulations (and counting), and provided his expertise as a Chair at 9 of those simulations, including the inaugural London Model World Health Organization Simulation (LonWHO) in 2017. Brian is an active participant in global health case competitions, hack-a-thons, and is highly involved with social entrepreneurship. He views model WHO simulations as a platform for empowering the next generation of public health practitioners and enthusiasts to become more informed about current global health issues as well as to develop transferrable skills for tackling these challenges in a multidisciplinary environment. As such, he is enthused to be able to be a part of this year's SheffWHO!

Shereen Al Laham

Shereen Al Laham, PharmD is currently pursuing a Master of Public Health (Management and Leadership) at the University of Sheffield. Coming from a diverse background with an experience of living in three different countries, she came to the realisation that despite how diverse the world is, when it comes to health issues they are similar all over the world. This drove her into pursuing a career in global public health. Her passion for policy making led to her participation in LonWHO 2017 which was her first plunge into the world of model World Health Organisation simulations. She loves challenges is excited about the challenge of improving global health. She looks forward to meeting you all.

Ana Irache

Ana Irache BSN, RN is a Registered Nurse, who recently graduated from the University of Navarra and is pursuing a Master of Public Health at the University of Sheffield. She is currently conducting a research project on women's nutrition in Ghana as part of her Master's thesis. She has worked with patients and families living with Parkinson's disease, in order to improve their quality of life and coping strategies. Her enthusiasm for global health began at the University of Illinois at Chicago (UIC) after attending a global health course for two consecutive summers. She entered the world of model WHO in LonWHO 2017 and is excited to be a part of SheffWHO.

Hareen De Silva

Hareen De Silva is currently a General Practitioner (GP) studying for a Masters in Public Health. As well as being the Wellbeing Executive for the Royal College of General Practitioners (RCGP). He is also an elected representative for First5 GPs in South Yorkshire North Trent to the RCGP. An injury to his knee at the age of 16 led to him taking a different and rewarding path of becoming a medical doctor and now pursuing a public health masters with reminder that he can make a difference to many lives. He participated in his first model World Health Organisation event in 2017 and won Best Pharmaceutical Representative, and believes nothing can stop you from doing the same. He is thrilled to be a part of SheffWHO.

Salonee Nemade

Salonee Nemade is currently a Masters of Public Health student under the Europubhealth+ Programme. She is committed to initiating, sustaining and improving health services globally for all beings. She has been involved in student-led environmental charities during her undergraduate days to encourage the public and students to preserve and conserve the environment in her country through innovative activities. She is also a Judge at the English-Speaking Union, inspiring young children and teenagers to take up public speaking and debating as an outlet to improve their confidence and interpersonal skills. She is honoured to be a part of the 2018 SheffWHO and cannot wait to meet you all!

Theme guide.

"Outbreaks and Pandemics: Addressing the Next Crisis"

The sub-theme section was created to provide insight to delegates on the range of topics that may emerge during this event. It provides you background information to assist you in writing your position paper (that you must submit prior to your arrival at the conference). It also gives context for areas of debate in your WHO regional blocs and plenary. We encourage you to review the SheffWHO Simulation Handbook for further information.

Sub-Theme: Communicable Diseases At A Glance.

Communicable diseases are diseases caused by an infectious agent or its toxins, and can be transmitted directly or indirectly via an infected individual or animal, vector or the inanimate environment to a susceptible human or animal host. [1] There are four main types of communicable diseases that affect humans, namely, viral, bacterial, fungal and parasitic infections.

1. The HIV / AIDS Pandemic

The Human Immunodeficiency Virus (HIV) attacks the immune system of its human host. Without treatment, chronic HIV infection progresses to acquired immune deficiency syndrome (AIDS), which is the final stage of HIV infection, and renders the infected individual susceptible to other infections and certain types of cancers. Combating HIV / AIDS was one of the Millennium Development Goals that member states agreed to try to achieve by 2015. [2]

Since the first reported case of AIDS in 1981, AIDS-related illness has taken 35 million lives and the death toll is still increasing. [3,4] As of 2016, approximately 36.7 million people are living with HIV / AIDS, among which 2.1 million were children under 15 years old. [3] Currently, only 20.9 million people living with HIV / AIDS have access to antiretroviral therapy (ART), which means almost half of the infected population are not treated with ART. [3] The average wholesale price of the cheapest recommended treatment for a treatment-naïve individual is $3636/month. [5,6] It is not uncommon that HIV-infected individuals become resistant to certain class of antiretroviral drug or are co-infected with other infectious diseases, such as tuberculosis (TB) or hepatitis B or C. In these circumstances, the treatment regimen will be

even more complicated and costly. Worse still, only 60% of people with HIV are aware of their infection status, the remaining affected population has yet to access HIV testing services. [3]

HIV has three pathways of transmission: sexual transmission, vertical transmission and blood transmission. As much as all nations strive to treat HIV-infected population, prevention of transmission is the mainstay of strategies for ending the HIV / AIDS pandemic. Other than the preventive strategies in place, such as safe sex education; needlestick injury risk mitigation for health care workers; prophylactic antiretroviral treatment in newborns and in partners of persons with HIV; [7,8] and needle exchange programmes for intravenous drug users (IVDU), [9] what can be done further to halt the spread of HIV infection; to increase access to testing service; and to ensure availability of treatment?

2. The Ebola and Zika Outbreaks

Ebola virus disease (EVD), formerly known as Ebola haemorrhagic fever (EHF), is a severe and acute viral infection that spreads by direct contact with bodily fluids of an infected person. Initial symptoms include weakness; fever; muscle pain; diarrhoea and vomiting, which is why it is often mistaken as malaria, typhoid fever, cholera and a range of other infections with similar general symptoms. [10] Symptoms at later stage include difficulty breathing or swallowing, confusion and bleeding at multiple sites (including internal). [11] It is a highly infectious disease because as little as a single virus would be sufficient to trigger a fatal infection. [11] Currently, there is no cure for EVD. Infected people can only be treated with supportive care such as rehydration, electrolyte replenishment, supplemental oxygen and blood pressure control.

On 23rd March 2014, the African Regional Office reported an outbreak of EVD in Guinea to the WHO. [12] More cases were confirmed subsequently in Liberia, Sierra Leone, Nigeria, Senegal and Mali as well as in Spain, Italy, the United Kingdom and the United States. [12,13] A total of 28,616 reported cases and 11,310 death makes the 2014-2016 West Africa outbreak the largest outbreak since the discovery of EVD in 1976. [13]

Following the confirmation of cases in various countries in West Africa, a vaccine went on trial in Guinea. Different member states as well as non-governmental organisations (NGOs) (a list of NGOs involved can be found at https://www.cidi.org/ebola-ngos/#.WqanYezFKUl) responded rapidly to offer care and support to the affected regions. For example, experts from Uganda and Cuba visited the affected areas and shared their experience in overcoming outbreaks. [12] The WHO has also identified some key interventions for successful outbreak control, such as case management, surveillance and contact tracing, competent laboratory service, safe and dignified burials and social mobilisation. [12]

Zika virus is a mosquito-borne flavivirus. People infected with Zika virus may develop fever, skin rashes, conjunctivitis, muscle and joint pain, malaise, and headache. These symptoms can last for 2 to 7 days. Although Zika virus disease (ZVD) is usually mild and self-limiting, an infection during pregnancy can lead to microcephaly in the baby. [14] There is evidence that Zika virus is a trigger of Guillain-Barré syndrome (GBS), which is a rare but serious autoimmune disorder, in which the immune system attacks the peripheral nervous system and can cause paralysis. [14]

In the 2016 outbreak, Colombia had the second-most cases of ZVD after Brazil. To tackle the complications caused by ZVD, the Ministry of Health and the National Institute of Health in Colombia launched a project to enhance medical surveillance of pregnant women exposed to Zika virus and their infants. [15] The Centers for Disease Control and Prevention (CDC) provided testing supplies to Colombia and issued guidance for travel, prevention, testing, and preconception counselling related to risks for pregnant women and couples who are at risk of ZVD. [15,16]

In these viral disease outbreaks, the role of emergency management often lied on the member states affected and the international public health organisations. Are there other actors at stake? What would be their roles in managing these crises and what have they done in these examples?

3. TB and the AMR Crisis

Tuberculosis (TB) is caused by the bacterium *Mycobacterium tuberculosis*. Pulmonary TB is the most common and contagious form; it is transmitted by airborne particles. Infected person may develop persistent cough, night sweats, fever, fatigue and muscle wasting. Other than the lungs, it can also infect other tissues and organs, for example, the meninges, joints and bones. In May 2014, a resolution targeting to end the TB epidemic by 2035 was passed in the WHO Assembly, and interim milestones have been set in 2020, 2025 and 2030. [17] Three years in, are we making good progress?

TB remained the biggest killer among all communicable diseases. [18] In 2016, 10.4 million newly infected TB cases emerged, of which 1 million were children. Among the 1.7 million people who died from TB, 250,000 were children. More than 95% of deaths resulted from TB occurred in low-middle income countries. [19] TB is also the leading cause of death in HIV-positive population: 40% of HIV-positive cases died of TB. [19] Despite global effort that leads to a 2% reduction in TB incidence per year, progress in most countries is not ideal and an annual reduction of 4-5% is necessary to close the gap in reaching the 2020 milestone. [18,19]

Although TB is curable and preventable, the epidemic has not ended due to multiple reasons. In addition to the high global burden of TB, multidrug resistance (MDR) is another challenge in ending the TB epidemic. MDR-TB is TB that is resistant to the two most effective first-line medications: isoniazid and rifampicin. According to the WHO, approximately 600,000 new cases are rifampicin-resistant. Among them, the majority of cases are MDR-TB. [18] Drug resistance can emerge from inappropriate use of anti-TB drugs, which include incorrect prescription by health care providers, sub-standard pharmaceutical products, and patients' non-compliance. [19] In fact, antimicrobial resistance (AMR) is not only an issue in treating TB but an emerging public

health crisis that may point us towards the post-antibiotic era – an era when simple infection can kill just as before penicillin was discovered by Alexander Fleming in 1940.

AMR is a result of natural selection, which was observed soon after penicillin was introduced in the World War Two. To tackle this threatening clinical problem, many new classes of antibiotics were discovered and introduced from 1950s to 1980s. [20] However, discovering a new lead compound with antimicrobial activity has become more difficult, time-consuming and expensive. This implies a relatively high risk and potentially low return in profit for pharmaceutical companies to invest in antibiotic research. [21] Other than the existing strategies, which focus on drug use monitoring, what can be done by different stakeholders so that we stand a chance in the face of superbugs?

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Sub-Theme: The Trojan Horse of Aid.

International Aid can take many forms within the global sphere of health. It can refer to money, personnel, medicines and other resources, and can be given and received by individual countries or groups of countries/people committed to a certain outcome. Aid has had many success stories over the past twenty years, with such global health successes as the international TB diagnosis drop of 45% since 1990, a decrease in maternal mortality rates in sub-saharan Africa and the widespread use of HIV treatment, all being attributed to the scaling up of global aid [1]. However, international aid also has many criticisms it needs to answer for, such as accusations of corruption, neo-colonialism and exploitation by those who are providing the aid, as well as the allocation of funding and its inability to be received by the people who need it the most.

1.Top Down or Bottom Up

One of the biggest concerns surrounding international aid is whether it should be administered by a top down or bottom up approach. Top down aid refers to official assistance that may come from unilateral or bilateral governing bodies. It is particularly successful for large scale project planning, concerns about government corruption are still rife. Bottom up aid comes from the community and is often administered to smaller, more local projects. It has the advantage of incorporating local volunteers and minimising corruption costs, the dependence upon contributions by individuals makes this form of aid unreliable and irregular. As delegates of SheffWHO, we should consider the best approach to aid when committing to sudden and widespread crisis.

2. Western Norms

Another critique levied against international aid is that it often acts as a "Trojan horse" for the implementation of western norms. For example, the World Bank's programme to aid the building of basic needs for developing countries to increase health, wellbeing and human rights has been criticised as a cloak for economic advancement and the spread of neoliberalism [2], prioritising land-grabbing over land reform. Equally, on a more unintentional level, there is a fear that international aid in the form of volunteers and aid workers can establish a neo-colonialist rhetoric, in which developing countries are come to be understood as vulnerable and dependent upon the west. "Voluntourism", the trend of western young adults going over to developing countries for the experience, has also been heavily criticised as the implementation of aid in this form enforces this rhetoric that "even ignorant Westerners can improve the lot of the people in the South" [3]. As delegates of SheffWHO, we should consider how aid can be administered in times of crisis and pandemics in a way that is respectful of differing cultural values and ideals, but also how we can ensure that aid is administered transparently.

"... international aid also has many criticisms it needs to answer for, such as accusations of corruption, neo-colonialism and exploitation by those who are providing the aid, as well as the allocation of funding and its inability to be received by the people who need it the most."

3. Foreign Aid as Foreign Policy

Additionally, one fears that international aid is being increasingly utilised for ulterior motives, other than goodwill. For example, aid has often been used as bargaining chip or a means of building alliances, with the US viewing aid as an "essential instrument of U.S. foreign policy"…"increasingly been associated with national security policy" [4]. In this way, both the giving of aid and the threat of taking it away can be used to influence outcomes, making recipient states vulnerable to exploitation and giving donor states undue power. Equally, there are concerns that international aid can often be deliberately siphoned away from those who it is intended to aid governments and military regimes [4]. As such, aid has increasingly become a means of influence rather than help. As delegates of SheffWHO, we should consider the political context of aid giving in various circumstances, and try and find solutions to aid being used as the carrot and the stick.

4. Exploitation of the Vulnerable

Aid work is an important part of dealing with pandemics and health crises, and has been particularly prevalent in the cases of Ebola and Zika. However, the recent and escalating accusations of sexual abuse by aid workers has considerably undermined the plight of aid work, with key organisations such as Oxfam and Red Cross being accused of exploitation against the very people they are trying to help. For some, this is merely an extension of the sexual harassment epidemic that has permeated much of society [5], for others, this is the conclusion of a wider problem with aid work as a concept. Aid work, they argue, is still built on colonial and racist foundations, creating a "white saviour complex" [6] that still allows the aid worker to see those they help as "the other", leaving them to be vulnerable to exploitation. As delegates of SheffWHO, we should consider the reasons for exploitation in aid work, as well as ways in which to safeguard vulnerable recipients.

"... both the giving of aid and the threat of taking it away can be used to influence outcomes, making recipient states vulnerable to exploitation..."

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Sub-Theme: The Impact of Climate Change and Outbreaks.

Currently, world climate is in a warming phase that began in the early decades of the eighteenth century and the awareness of this warming has led to the concern of the effects of human activities [1]. Climate is a major parameter in all ecosystems and has always been a fundamental factor in human settlement, economy and culture [2]. As the global atmospheric temperatures become increasingly warming, the speculations on the potential impact on human health continues to remain a major subject of debate. It is important to understand how changing climate patterns can have vast implications for epidemic risk.

The rising temperatures have had an impact primarily on infectious disease epidemics. 2016 was recorded to be the hottest year ever, where the world saw a continued increase in the distribution of disease vectors such as mosquitos and ticks, leading to the spread of illnesses such as Zika, yellow fever and dengue to areas where they were previously not endemic [3]. For example, higher temperatures in China have lead to the spread of the snail that hosts schistosomiasis, which causes physical and cognitive development in children [4]. The dengue fever is also currently spreading to areas such as Australia and has extended its zone northwards by 500 kilometres over the past half-century in association warming [4]. The seasonality was a key component of climate in the rise of certain viruses such as the flu influenza. These disruptions to natural ecological patterns and relationships provide great opportunities for infectious patterns and relationships to jump into the human species as a newly available host.

The concern not only lies with the rise in temperatures but also with extreme weather events such as natural disasters. Pandemics are often a result due to the displaced and crowded populations as it leaves individuals vulnerable for infection transmission. Severe rainfall or flooding provides the perfect environment suitable for transmission and propagation of infectious diseases such as measles or cholera [5]. The flood-affected regions in malaria endemic areas result in an increase of mosquito breeding which further increase disease risk [3]. Mosquitos are the perfect vectors of disease as they are found everywhere in the world with over 35,000 species [3]. Its complex salivary secretion facilitates feeding which is the direct injection of this fluid into capillaries that enables to viruses as a means of transport to pass onto a new host [3]. Similarly, in the South-west America, the years of drought led to booming rodent populations as predators suffered, resulting in deadly hantavirus outbreaks [2].

The impact of climate change is vast and unknown. The melting permafrost and ice has seen the reignition of long-dormant threats [1]. Genetic fragments of the 1918 Spanish influenza and smallpox viruses were found in Alaska and Siberia, raising concern as history has shown its deadly consequences [1]. Experts believe that it is more likely that we will be caught in a pandemic of outbreaks without a vaccine to prevent it or a drug ready to treat it [4]. It is important to raise note on this issue to prepare for its impact on global health and the health and wellbeing of populations worldwide. The response to recognize that social and economic stability in the wake of epidemics is needed to ensure community resilience otherwise the economic costs will take a financial toll. The Ebola outbreak in West Africa in 2014 required over $5 billion in emergency funds to control, showing the importance of insights into outbreak controls and mechanisms for ensuring adequate financial support to manage the risks [1]. Microbes are evolving 40 million times as fast as human do, and the question is how policy and the government can catch up with science to keep the world safe. It is our duty as delegates of the World Health Organization to accelerate and expand policies surrounding climate change to take environmental action

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"The concern not only lies with the rise in temperatures but also with extreme weather events such as natural disasters."

Sub-Theme: The Dawn of the Syndrome.

Metabolic syndrome is the name for a group of risk factors that raises your risk for heart disease and other health problems, such as diabetes and stroke. It is a cluster of conditions — increased blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol or triglyceride levels — that occur together, increasing your risk of heart disease, stroke and diabetes [1]. The term "metabolic" refers to the biochemical processes involved in the body's normal functioning. Risk factors are traits, conditions, or habits that increase your chance of developing a disease [2].

The metabolic syndrome is a major and escalating public health and clinical challenge worldwide in the wake of urbanization, surplus energy intake, increasing obesity, and sedentary life habits [3]. A quarter of the world's adult population (approximately 2 billion) have metabolic syndrome. People with metabolic syndrome are twice as likely to die from, and three times as likely to have a heart attack or stroke compared with people without the syndrome. People with metabolic syndrome have a five-fold greater risk of developing type 2 diabetes [4]. Up to 80% of the 200 million people with diabetes globally will die of cardiovascular disease. This puts metabolic syndrome and diabetes way ahead of HIV/AIDS in morbidity and mortality terms yet the problem is not as well recognized. [5] Hence, a metabolic syndrome epidemic has begun and is only expected to worsen.

Effective preventive approaches include lifestyle changes, primarily weight loss, diet, and exercise, and the treatment comprises the appropriate use of pharmacological agents to reduce the specific risk factors. The clinical management of metabolic syndrome is difficult because there is no recognized method to prevent or improve the whole syndrome, the background of which is essentially insulin resistance [3]. Thus, most physicians treat each component of the syndrome separately, often with medications.

1. Obesity

The WHO defines obesity as abnormal or excessive fat accumulation that presents a risk to health [6]. Once considered a problem only in high income countries, obesity is now dramatically on the rise in low- and middle-income countries, particularly in urban settings. Obesity is reaching epidemic proportions with recent worldwide figures estimated at 1.4 billion, tripled since 1975 and rising year-on-year. In 2016, more than 1.9 billion adults (18 years and older) were overweight, of which over 650 million were obese. Worse still, 41 million children under the age of 5 were overweight or obese in 2016 [7]. Most of the world's population live in countries where obesity kills more people than being underweight. Obesity affects all socioeconomic backgrounds and ethnicities and is a prerequisite for metabolic syndrome. The good news however, is that obesity is preventable.

Adopted by the World Health Assembly in 2004, the "WHO Global Strategy on Diet, Physical Activity and Health" describes the need to encourage healthy diets and regular physical activity [8]. WHO has also developed the "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020" which will contribute to progress on 9 global NCD targets to be attained by 2025, including a 25% relative reduction in premature mortality from NCDs by 2025 and a halt in the rise of global obesity to match the rates of 2010 [7]. As delegates of SheffWHO, we can push for more ways to integrate a healthy diet and lifestyle into people's lives from an early age as well as consider how we can support the WHO in improving the obesity epidemic that is upon the world.

2. Diabetes Mellitus

Diabetes is a chronic, metabolic disease characterized by elevated levels of blood glucose (or blood sugar), which leads over time to serious damage to the heart, blood vessels, eyes, kidneys, and nerves [9]. The number of people with diabetes has risen from 108 million in 1980 to 422 million in 2014. In 2015, an estimated 1.6 million deaths were directly caused by diabetes while another 2.2 million deaths were attributable to high blood glucose in 2012. Almost half of all deaths attributable to high blood glucose occur before the age of 70 years. WHO projects that diabetes will be the seventh leading cause of death in 2030 [10].

In the past three decades the prevalence of type 2 diabetes has risen dramatically in countries of all income levels. WHO launched a Diabetes Programme in 2016 to halt the rise in diabetes and obesity by 2025. The overall goal of the Diabetes Programme is to improve health through stimulating and supporting the adoption of effective measures for the surveillance, prevention and control of diabetes and its complications, particularly in low- and middle-income countries [11]. Diabetes is a major cause of blindness, kidney failure, heart attacks, stroke and lower limb amputation. Development of type 2 diabetes mellitus culminates in an increased risk of metabolic syndrome and vice versa [12]. Healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use are ways to prevent or delay the onset of type 2 diabetes. Diabetes can be treated and its consequences avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications [9]. As delegates of SheffWHO, we can think of ways to enhance the diabetes programme and ensure it is

being effectively implemented worldwide, especially in low and middle income communities with high rates of diabetes that are harder to reach, thus alleviating the burden of the diabetes epidemic that is threatening our world.

3. Cardiovascular disease (CVD)

Cardiovascular diseases (CVDs) are disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions [13]. CVDs are the number 1 cause of death globally: more people die annually from CVDs than from any other cause. An estimated 17.7 million people died from CVDs in 2015, representing 31% of all global deaths. Over three quarters of CVD deaths take place in low- and middle-income countries. Most cardiovascular diseases can be prevented by addressing behavioural risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity and harmful use of alcohol using population-wide strategies. People with cardiovascular disease or who are at high cardiovascular risk (due to the presence of one or more risk factors such as hypertension, diabetes, hyperlipidaemia) need early detection and management using counselling and medicines [14]. Development of cardiovascular disease culminates in an increased risk of metabolic syndrome and vice versa.

The aforementioned "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020" put in place by WHO also covers cardiovascular diseases. The sixth target in the Global NCD action plan calls for 25% reduction in the global prevalence of raised blood pressure. Raised blood pressure is the leading risk factor for cardiovascular disease [15]. The number of adults with raised blood pressure increased from 594 million in 1975 to 1.13 billion in 2015, with the increase largely in low- and middle-income countries. Reducing the incidence of hypertension by implementing population-wide policies to reduce behavioural risk factors, including harmful use of alcohol, physical inactivity, overweight, obesity and high salt intake, is essential to attaining this target [14]. As delegates of SheffWHO, we can consider cardiovascular disease and its risk factors in relation to obesity and diabetes in the development of metabolic syndrome. These three put together paint a very terrifying picture of the metabolic syndrome epidemic that we are dealing with right now and we could consider ways to that reduce the burden of all three together and not just to resolve them individually.

Point of serpentine scrutiny.

What additional reading materials are useful for understanding metabolic syndrome?

Obesity:

- WHO and Obesity [http://www.who.int/nutrition/topics/obesity/en/]
- WHO Global Strategy on Diet, Physical Activity and Health [http://www.who.int/dietphysicalactivity/en/]
- WHO Global action plan for the prevention and control of NCDs 2013-2020 [http://www.who.int/nmh/publications/ncd-action-plan/en/]

Diabetes Mellitus:

- WHO Diabetes Programme [http://www.who.int/diabetes/goal/en/]

Cardiovascular Disease:

- WHO Global action plan for the prevention and control of NCDs 2013-2020 [http://www.who.int/nmh/publications/ncd-action-plan/en/]

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Sub-Theme: The Mental Health Triangle.

Mental health is a broad and complex area of health that will be covered under non-communicable diseases and tackled from three angles in the context of outbreaks and pandemics, which is the overarching theme of our conference. We can consider the 1. Rise of mental health issues as a crisis itself; 2. Mental health issues that lead up to a crisis ; and 3. Mental health issues that arise due to a crisis.

1. Rise of mental health issues as a crisis

Traditionally, mental health problems have been divided into groups of either 'neurotic' or 'psychotic symptoms. Neurotic symptoms can be regarded as severe forms of normal emotional experiences such as depression, anxiety or panic. Psychotic symptoms are less common and regarded as interfering with a person's perception of reality. These include hallucinations such as seeing, hearing, smelling or feeling things that no one else can. [1] Mental health problems affect the way you think, feel and behave. They are problems that can be diagnosed and are not personal weaknesses which some parts of the world often refer to them as.

The world has seen a rise in the number of mental health issues and people, affected by mental health problems in the last few decades and the numbers are only expected to rise. Globally, more than 300 million people suffer from depression and 260 million suffer from anxiety disorders- several of whom live with both conditions [2]. Yet mental health services are inadequate and more needs to be done to push people to seek professional help and reduce the stigma surrounding mental health. Promoting mental health and well-being, and the prevention and treatment of substance abuse, are integral parts of the 2030 Sustainable Development Agenda to transform our world [3]. Within the health goal, two targets are directly related to mental health and substance abuse; target 3.4 requests that countries: "By 2030, reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and well-being." and target 3.5 requests that countries: "Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol." [4] The World Health Organization (WHO) and United Nations (UN) have recognized mental health as an important health issue, and promoting it in their agendas to their member states is a big step for humanity. As delegates of SheffWHO, we can consider ways to detect and manage mental health issues early such that we are less likely to face a mental health crisis in the near future.

2. Mental health issues leading up to/resulting in a crisis

There are situations when mental health problems result in a crisis of its own. Gun violence will be used as an example to illustrate this.

In recent American history, there have been several mass shootings and in several cases, the shooter was found to be suffering from a mental health issue. Mass shooting here is defined as a shooting in which four or more people are shot and/or killed, not including the shooter, in a single event at the same general time and location [5]. 2017 alone had more than 365 mass shootings (>1 shooting a day) [6]. While resolving mental health issues is not a wholesome solution to preventing gun violence, it is definitely an important step to take in helping to reduce the incidence of gun violence, alongside regulating and barring the sale of assault weapons.

WHO still focuses on the four major NCDs that are crippling the world- cancer, cardiovascular disease, respiratory illness and diabetes [7]; and thus not much attention or recognition is given to other disabling NCDs like gun violence or road traffic accidents. However, we cannot ignore their existence and more needs to be done to reduce their burden globally through awareness campaigns. Mental health issues and gun violence or road traffic accidents are not synonymous but they have appeared to be linked sufficient number of times for a need for action to be taken. As delegates of SheffWHO, we can consider the link between mental health issues and NCD crises and how we can reduce the likelihood of a crisis by giving importance to and tackling mental health.

3. Mental health issues that arise from a crisis

There are situations where mental health problems arise as a consequence from another crisis. Post-traumatic stress disorder (PTSD) will be used as an example to illustrate this. In our everyday lives, any of us can have an experience that is overwhelming, frightening, and beyond our control. We could find ourselves in a car crash, be the victim of an assault, or see an accident. Police, fire brigade or ambulance workers are more likely to have such experiences – they often have to deal with horrifying scenes. Soldiers may be shot or blown up, and see friends killed or injured. Alot of people, in time, get over experiences like this without needing professional help. However, for some people these traumatic experiences set off a reaction that can last for many months or years [8]. This is called Post-traumatic Stress Disorder, or PTSD for short; an anxiety disorder caused by very stressful, frightening or distressing events [9]. In situations involving natural disasters or war and conflict, the likelihood of a PTSD case is much higher and thus it is necessary to have the relevant mental health services at hand to manage the onset of PTSD in health workers and victims. However, following a single

case of PTSD, a surge of cases would then result in a mental health crisis of its own. There is no way to prevent the onset of PTSD in any situation especially if the crisis it arose from was unexpected. However, early detection of PTSD can go a long way in alleviating its symptoms [10].

Currently, there are some self-help groups to target PTSD, such as 'PTSD Resolution' a non-profit charity that helps families, Veterans and Reservists who are struggling to re-integrate into normal work and life because of any trauma that they faced in the armed forces [11]. Most PTSD services are available to people who have developed the disorder as a result of war however, the world needs more action to be taken for those suffering from the disorder as a result of other conflict such as displacement from homes, natural disasters or abuse (domestic, sexual, etc.). As delegates of SheffWHO, we can consider how a situation of crisis can give rise to mental health issues and in turn how we can alleviate the onset of such problems.

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Point of serpentine scrutiny.

What additional reading materials are useful for understanding global mental health?

- 2030 Sustainable Development Agenda [https://sustainabledevelopment.un.org/post2015/transformingourworld]
- WHO Mental Health Action Plan 2013-2020 [http://www.who.int/mental_health/action_plan_2013/en/]

Post-Traumatic Stress Disorder:

- WHO Mental Health and Psychosocial Support in Emergencies [http://www.who.int/mental_health/emergencies/en/]

Sub-Theme: Money Matters.

Funding for crisis and pandemics come from many different sources, including individual state government contributions in the form of aid, the World Bank, private organisations such as the Bill and Melinda Gates Foundation, business, and through the public, via direct donations and taxation [1]. It is estimated that around 10% of global GDP is spent on health every year [2]. In terms of crisis and outbreaks, the CFE (Contingency Fund for Emergencies) was established by the World Health Assembly in 2015 to mobilise resources and responses to such events. The CFE has the power to release amounts of up to US$ 500 000 to the WHO emergency operation within 24hrs of a crisis occurring [3], and has been held successful for minimising of the Ebola outbreak in the Congo, plague in Madagascar and viruses in Uganda and Kenya [3] Despite this, there are major problems within funding for crisis and pandemics which we must seek to address as delegates of the WHO. Firstly, there is still a 55 mil-

lion dollar funding gap in the CFE budget due to its reliance on national donations [3]. Equally, accusations of corruption within funding are rife, and inequality and prioritisation of funding to certain events over others leave some health issues under-funded.

1. The World Bank

The World Bank is the "largest funder of global health within the UN system and the second largest funder overall" [4]. Indeed, the World Bank has a large degree of influence due to its close ties with influential ministries of finance, its resources, cooperation with other sectors and powerful networks of actors [4]. As delegates of the WHO we should consider the benefits and disadvantages of tying the global health sector to a system of funding that is reliant on loans and capital.

2. Corruption

One of the biggest problems with funding for outbreaks and pandemics is that of the corruption and siphoning away of resources. There have been multiple reports of corruption of recipient countries when receiving funding for pandemics, such as that of the Global Funds involvement in Zambia, where money had been "disappearing into the pockets of officials" [5]. In October 2011, Sweden suspended its contribution to the Global Fund to fight Aids, TB and Malaria due to reports of corruption in four recipient countries [6]. Corruption occurs for various reasons, not least due to the troubling lack of accountability and transparency in the funding process, as well as to further the personal agendas of certain actors, which may be for money, power or affiliations with outsider actors. This is troubling for two reasons. Not only does it indicate a clear lack of accountability in the funding process, but it also has a knock-on effect on a key source of funding for future operations. As delegates of the WHO, we need to explore ways in which to make the funding process more transparent to inspire confidence into key donors, in order to ensure operations are appropriately funded.

3. Inequality and Prioritisation

Global health funding has always faced problems with the prioritisation of certain issues over others. As much of the funding is reliant on voluntary contributions, there are problems that the health issues that are not as well publicised may be under-funded, as donors can earmark funding for issues they deem to be more interesting, pressing or have particular affiliations to. Not only this, but funding from groups such as GAVI The Vaccine Alliance and the Global Fund may prioritise spending for certain issues over others in order to meet internationally set goals, such as the increase in neonatal spending in order to help reach the 2015 Millennium Development Goals [7]. In particular, criticism has been levied against the Bill and Melinda Gates foundation, one of the largest global health donors, for prioritising the funding of immunisation as a health issue over the impact of education or appropriate infrastructure [8]. Equally, there are complaints that HIV/AIDS is an issue that has been far prioritised over other far-reaching pandemics and crisis such as diarrhea, mental health and domestic violence, due to the US-led securitisation of the HIV epidemic [9] . In this way, as soon as HIV threatened the security of the US, their capacity for funding meant that HIV pushed its way to the front of the agenda. As such, it is our responsibility as delegates of the WHO to consider both the how funding should be used and establish a fair framework for the allocation of funding.

"Corruption occurs for various reasons, not least due to the troubling lack of accountability and transparency in the funding process, as well as to further the personal agendas of certain actors, which may be for money, power or affiliations with outsider actors."

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Sub-Theme: The Role of Trade in Crisis Management

According to the WHO, a crisis is "a situation that is perceived as difficult. Its greatest value is that it implies the possibility of an insidious process that cannot be defined in time, and that even spatially can recognize different layers / levels of intensity" [1] It is a situation when risk realised; if not managed properly and timely, it can bring significant undesirable impact to individuals, communities and the whole nation or even the whole region.

Emergency preparedness and crisis response should not only concern governments, public health practitioners and health care professionals; instead, a multi-agent and cross-sectoral approach should be adopted for appropriate crisis management. [2] In the time of crisis, trade has an irreplaceable role in improving quality and safeguarding security of agricultural products, pharmaceutical products and crisis-specific aid materials; supporting the increase of capacity to cope with emergencies; and eventually protecting human rights. [3]

1. World Trade Organisation

The World Trade Organisation (WTO) is an international organisation that overlooks the rules of trade between member states. The WTO serves as a platform for governments to negotiate on trading agreements and settle disputes over trade. The purpose and goal of the WTO are to open trade for the benefits of all member governments. However, it maintains trade barriers in circumstances where consumers might be at risk, where spread of diseases is a concern, and where the environment might be harmed. The rules of trade based on which the WTO operates are agreements ratified by member governments. In light of the destructive impact of beggar-thy-neighbour policies and protectionism following the Great Depression, [4] the WTO achieves peace-keeping by easing trade tension between member governments. [5] Other than contributing to stability, the WTO also plays a role in helping member states to overcome crisis and develop further. It helps to channel information on trade-based developmental aid and to increase trade opportunities, as well as to strengthen infrastructure of developing countries, which tend to be more vulnerable to crisis, by offering special provisions and exemptions in the WTO agreements. [6] By setting up Sanitary and Phytosanitary Measures Agreement (SPS) and Technical Barriers to Trade Agreement (TBT), the WTO safeguarded food safety and health of humans, animals and plants without compromising fairness in trade. [7]

2. Big Pharma and TRIPS

Multinational pharmaceutical companies (MNC) have offered the world solutions to many deadly diseases. Thanks to the innovations of MNCs in different therapeutic classes, serious illnesses such as cancer and human immunodeficiency virus (HIV) infection are no longer a death sentence. Some of the MNCs have transparent policies on drug donation. For instance, Roche evaluates requests from charitable organisations seeking medicine or diagnostic donations in the case of emergencies and makes commitment complying with the WHO guidelines; [8] whereas GlaxoSmithKline (GSK)'s product donations are managed by selected charitable Non-Governmental Organisations (NGOs) or through international public health organisations. [9] The Big Pharma have contributed to communicable disease control in developing countries by offering free treatment and vaccines; however, such commitment is usually a one-off donation. In 2009, GSK donated about 24 million flu vaccines to the WHO for developing countries during the H1N1 influenza pandemic. [9] A more sustainable effort has been made in 2012, when 13 drug companies including Pfizer, Merck, Johnson & Johnson, Sanofi, GlaxoSmithKline, Novartis and others agreed to share knowledge and expertise on drug discovery for neglected tropical diseases (NTDs) that have no treatments currently. The Big Pharma have also promised to give away 14 billion doses of medicines for the treatment of NTDs by the end of 2020. [10]

"In the time of crisis, trade has an irreplaceable role in improving quality and safeguarding security of agricultural products, pharmaceutical products and crisis-specific aid materials; supporting the increase of capacity to cope with emergencies; and eventually protecting human rights."

Critics have pointed out the lack of consideration on cost-effectiveness and prioritisation in the charitable act of drug donation, because the companies tend to focus on therapeutic areas for which they already have a cure. One often-cited example is the donated vaccines against human papillomavirus (HPV) by Merck to Rwanda. After three years of commitment in providing free HPV vaccines, Merck agreed to supply HPV vaccines to Rwanda at a discounted price, which has been criticised as market-priming. [11] As the disease burden of cervical cancer is far lower than other vaccine-preventable

diseases in Rwanda, [12] is shifting limited public funds to cover the cost of HPV vaccines a beneficial decision for the country when there is a high-burden of tetanus and measles? [13] Some practitioners doubt the cost-effectiveness of such donations because there is not enough pharmaco-economic evidence on HPV vaccine compared to screening as an intervention preventing cervical cancer in African countries. [11]

An innovative drug is protected by the WTO's Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) and granted a patent for 20 years. [14] Despite its intention to reward scientists and researchers, TRIPS has been seen as the culprit of Big Pharma's monopoly and skyrocketing drug prices by many developing countries and NGOs. Taking the treatment for HIV infection as an example, the brand product of emtricitabine / tenofovir disoproxil fumarate, Truvada®, costs £400 per 30 tablets while generic version costs only £50. [15] Before patents expire, generic versions of life-saving medications cannot reach the market, rendering low-income countries short of access to treatment options. According to the WHO, 130-150 million of people have chronic hepatitis C, which can lead to liver cancer if left untreated. [16] Sofosbuvir, a drug for treating hepatitis C introduced by Gilead, was patented in the United States and sold for $1,000 per tablet. [16] While research and development takes up merely 20% of total expenditure in most Big Pharma, [17] one may question the ethics behind TRIPS on essential drugs. The Doha Declaration adopted by the WTO in 2001 aims to increase access to essential medicine by low-income developing countries (LIDC). It affirms member states of the right to grant compulsory license and exercise parallel importation without being challenged as leeway around TRIPS when facing public health emergencies. [18] When inequalities in power and influence are deep-rooted, can Doha Declaration be executed without compromising broader trade and economic interests of LIDCs?

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Sub-Theme: Food Security in Crisis.

Nearly a billion people across the world experience the effects of food insecurity which is often linked to poverty, mainly, affected by the shifts in global economy in the rises of food and oil prices in low and middle income countries. Food security is defined as having access to sufficient food to meet dietary needs for a productive and healthy life [1]. The focus of food security for this session is for individuals to not live in hunger or fear of hunger. The interaction between food availability, food access and food utilization, food security components, shed a light on individual and population health, specifically during the situation of a pandemic. This is potentially due to the lack of resources experience during an outbreak; explaining the important role of nutrition in treatment of diseases. Part of the WHO's new sustainable development goals commits Member States to "end hunger, achieve food security and improve nutrition and promote sustainable agriculture". It is important to hold controls in place to prevent further implications on food security during pandemics.

1. The effects of Ebola outbreak on food security

The recent outbreak of Ebola has shown firsthand the urgency of the situation of food security challenge. In the hardest-hit countries of Guinea, Liberia, and Sierra Leone, hundreds of farmers are amongst those who have died-leading to a dramatic increase in food prices, limitation of food availability and the government-imposed quarantines and restrictions on movement have led to food scarcity [1]. On August 21, 2014 all land borders were closed for the movement of goods and people, with closure to respective borders [1]. In the beginning, the expected impact was unclear but inevitably, as their respective economies devalued with the loss of market, the food prices were reflected in the shortage of supply [1]. The relationship between outbreaks and food security play a serious impact on food availability and access due to the pressure on accessibility to basic commodities such as rice [1]. The disruption to the markets is not a new concept as history has seen food prices rise in the face of pandemics, threatening those particularly in vulnerable communities. It is our duty as delegates to learn from past events and place controls to ensure this type of situation can be resolved when the time comes.

2. HIV/AIDS and food security

The HIV/AIDS outbreak gave us a better understanding the impact on nutrition, food security, agricultural production and rural societies in many countries. The dimensions of food security - availability, stability, access, and use of food - are shown to be affected in areas where the prevalence of HIV/AIDS is high. Globally, over 95 percent of those infected live in developing countries with high rates in India and sub-Saharan Africa, where over 24 million are infected with the virus [2]. The devastating effect on household food security and nutrition begins with the direct impact on household after the primary adult falls ill. The increase in spending for health care, decreased productivity and demands in care sees a dramatic drop in food production and income in the household. Additionally, a study in Uganda has seen that malnutrition is an immediate problem faced in a female-headed AIDS-affected household [3]. It is a vicious cycle of pandemic that not only worsens the patient but those around them as good nutrition is important to improve the quality of life but also to develop disease-resistance. Economically, highly-affected countries focus on agriculture as a primary market but when the HIV/AIDS pandemic hit, the labour force saw a toll as workers fell ill, losing productivity and crop supply [3]. It is an important priority for us to work to create strategies to prevent the significant impact on food availability due to loss of healthy workers.

3. The vulnerability of the agricultural sector

The vulnerability of the agricultural sector that leads to food insecurity emphasizes the problems of ill health that are already affecting many developing countries and small island nations. Experience indicates that dynamic leadership and political commitment at all levels are imperative for effective action to address these issues [3]. By significantly investing in food security, it will pay great economic dividends in both long and short term. It is important to acknowledge that with swift population growth, multiple nutritional threats, and emergence of rapidly spreading diseases (outbreaks), the future of humanity's food and nutrition security cannot be taken for granted. It is our duty as SheffWHO delegates to develop greater awareness and recognition about meeting food and nutritional needs for greater health of the society.

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Your guide to Sheffield.

Known around the world as "The Steel City", Sheffield was famed for its industry in the 1900s and remains a city of innovation to this day. However, the smoking chimney stacks are here no more, and now Sheffield is one of England's greenest cities, set in a unique Peak District landscape.

Sheffield has a friendly, independent and alternative spirit that you won't find in other cities, alongside a thriving cultural scene boasting award-winning theatre, beer, music, festivals, street art and so much more. It's all here waiting for you to explore during the SheffWHO weekend: Welcome to Sheffield!

The University of Sheffield
With almost 29,000 students from over 140 countries learning alongside over 1,200 of the best academics from across the globe, the University of Sheffield is one of the world's leading universities. A member of the UK's prestigious Russell Group of leading research-led institutions, Sheffield offers world-class teaching and research excellence across a wide range of disciplines.

Sheffield is the only university to feature in The Sunday Times 100 Best Not-For-Profit Organisations to Work For 2017 and was voted number one university in the UK for Student Satisfaction by Times Higher Education in 2014.

Sheffield has six Nobel Prize winners among former staff, and its alumni go on to hold positions of great responsibility and influence all over the world, making significant contributions in their chosen fields.

Getting to Sheffield
Sheffield is one of the easiest cities in the UK to get to and get around.

With 4 international airports within less than an hour's drive, Sheffield is easy to reach from overseas destinations. Manchester Airport (MAN), one of the UK's busiest, has a regular direct rail service to Sheffield. You can also take the National Express bus directly from Manchester Airport. Robin Hood Doncaster Sheffield Airport (DSA) is served by a number of European destinations with charter flight routes. There is an airport bus service to Sheffield Interchange. Leeds Bradford Airport (LBA) is also well served by European and long haul destinations. Sheffield can be reached by using a taxi service or bus to Leeds and then train to Sheffield. Nottingham East Midlands Airport (EMA) receives routes from European and long haul destinations. Sheffield can be reached by road using a taxi service, or by taking the National Express bus service.

If you are travelling from London, the journey by train is now only around 2 hours, the service is operated by East Midlands Trains and departs from St Pancras International Station. There are also regular bus routes from London and other major UK cities operated by National Express (stopping at Sheffield Interchange) and Megabus (stopping at Meadowhall Interchange). The bus journey from London takes approximately 4 hours on average.

Getting around Sheffield
You can use the Supertram network or hop on a local bus. The city centre and the Sheffield transport interchange are also accessible from the University of Sheffield by foot.

All trams are accessible, with regular stopping points throughout the city centre. The Meadowhall/Middlewood (yellow) route will take you to all the major sporting venues and Meadowhall, one of Europe's largest shopping malls.

The Halfway/Malin Bridge (blue) route will take you to some of Sheffield's most interesting suburbs, one of Sheffield's oldest parks - Norfolk Heritage Park, and the historic Rivelin Valley.

There are clear route indicators on supertram stops and on each tram but if you have a question, or need assistance, just ask the on-board tram staff who will be happy to help.

You can purchase a ticket for tram travel from the on-board staff, and for bus travel from the driver. Trams are cash-only. Contactless card payments are accepted on board local buses.

Accommodation options
Hostels: prices ranging from £14 to £45 per person per night. For more information or to check availabilities, go to:

- https://www.booking.com/hostels/city/gb/sheffield.en-gb.html
- http://www.welcometosheffield.co.uk/dms-connect/search?dms=1&at=th

Hotels and B&Bs: more information can be found on:

- Welcome to Sheffield Website
- http://withus.com/accomodation/
- https://www.sheffield.ac.uk/finance/staff-information/help/procurement/accommodation

Maps of Sheffield and additional tourist information

- http://www.welcometosheffield.co.uk/visit
- https://www.sheffield.ac.uk/visitors/mapsandtravel

Breakfast in Sheffield
Remember that we're not feeding you breakfast! Here are a few suggestions of cafes with early opening times nearby:

- Birdhouse
- The Holt
- HowSt
- Ink and Water
- Lucky Fox
- Marmadukes
- Roco Creative Co-op
- Steamyard
- Tamper

The University Of Sheffield.

School of Health and Related Research

Meet our supporting organisations.

The University of Sheffield - School of Health and Related Research (ScHARR)

One of the nine departments in the Faculty of Medicine, Dentistry and Health in the University of Sheffield, ScHARR comprises 4 academic sections (Health Services Research, Health Economics and Decision Sciences, Public Health and Design, Trials & Statistics), plus the Clinical Trails Research Unit, the hub of the NIHR Research Design Service for Yorkshire and the Humber, the core of the NICE Decision Support Unit, the leadership of the Collaboration for Leadership in Applied Health Research and Care for Yorkshire and Humber and the directorate of the NIHR School for Public Health Research.

Formed in 1992, ScHARR is one of the largest and most dynamic Schools of health research within the UK. With over 300 multidisciplinary staff, it is the focus for a large, diverse and internationally recognised programme of health services and public health research, knowledge transfer and research-led teaching. Its research informs, at both patient and population levels, the way in which health care should be delivered. It studies and evaluates health, healthcare, health services, and health policy from the broadest possible range of clinical, economic and social perspectives.

The Dean of the School is Professor John Brazier. For more information about ScHARR please visit: https://www.sheffield.ac.uk/scharr.

SIID The Sheffield Institute for International Development.

Sheffield Institute for International Development (SIID)

The Sheffield Institute for International Development (SIID) is a flagship interdisciplinary research institute within the University of Sheffield. Our network includes a growing fellowship of over 100 scholars and hundreds of postgraduate students from across the University, in addition to a wider community of academic and practitioner partners in governments, think tanks and NGOs around the world.

SIID strives for social and environmental justice in a prosperous world. We insist that social, economic, political, and environmental injustices cannot be resolved, nor prosperity found, simply from economic growth. We seek solutions through meaningful partnerships with diverse actors from policy, practice, civil society, business and universities.

We pursue critical and rigorous research, working across science, social science and the humanities, to understand major global problems. Our teaching equips current and future generations of decision-makers and citizens to tackle these problems. Our research informs and influences decision-makers and policy to deliver tangibly beneficial outcomes to diverse communities at multiple scales.

The SIID Director is Dan Brockington. For more information about SIID please visit: http://siid.group.shef.ac.uk.

Think Ahead

The Think Ahead programme is a comprehensive blend of training workshops, career mentoring, and work-based opportunities tailored for Early Career Researchers.

We aim to ensure that every researcher has a positive career trajectory and access to high-quality professional development activities providing a range of skills and opportunities for personal development. Our overall goal is that all Early Career Researcher's are provided with every opportunity to Maximise their potential.

More information about Think Ahead can be found at: https://www.sheffield.ac.uk/faculty/medicine-dentistry-health/thinkahead/home.

Europubhealth+ European Public Health Master

Six European universities collaborate to deliver Europubhealth+, an innovative, integrated 2-year Master course for students wishing to engage in a public health career.

Emphasising at its core the urgent need to build sustainable health systems whilst addressing health inequalities, Europubhealth+ provides multi-disciplinary training delivered in a unique multi-cultural environment. It brings students the competences necessary for innovative public health professionals, leading evidence-based decision making at the local, national or global levels in the 21st century.

Upon successful completion of the programme, students receive a double degree (two national Master degrees) delivered by the universities which hosted them during their first and their second year, as well as a Europubhealth+ certificate and joint diploma supplement delivered on behalf of the whole consortium.

The programme has been supported by the European Commission as an Erasmus Mundus Master Degree with a label of excellence since 2006 . Thanks to its 11 years of existence, the programme benefits from a vibrant international network of public health professionals and academics, and more than 250 graduates of 70 nationalities.

For more information about the Europubhealth+ program, please visit https://www.europubhealth.org/

The University of Sheffield Alumni Foundation

The University of Sheffield Alumni Foundation is delighted to provide sponsorship to the Sheffield World Health Organisation (WHO) Simulation (SheffWHO).

The Alumni Foundation exists to channel the donations of Sheffield alumni (former students), staff, and friends of the University, into projects involving current students.

We would like to thank the University's supporters for their generosity, which has made tremendous strides in enhancing the student experience.

More information about the Foundation can be found at: www.shef.ac.uk/alumni/foundation.

Point of serpentine scrutiny.

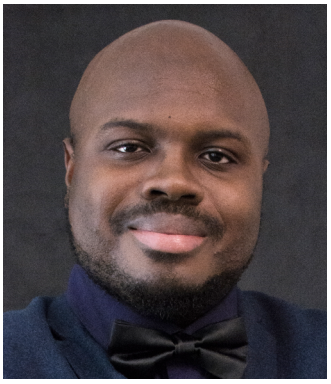
Can you tell me more about the SheffWHO venue itself?

The venue for SheffWHO this year is the historic building of the Sheffield Town Hall. Built in 1896 and designed by the architect E. W. Mountford, it is a landmark building in Sheffield. It is Grade I building located in the centre of Sheffield and is next to the Peace Gardens. With grand, marble staircases and magnificent décor, it will provide a spectacular setting for the whole experience.

The building is now used by Sheffield City Council, and in 1977 they added an extension in a more modern style. The combination of different styles makes the building a distinctive and striking feature in the Sheffield's landscape. Alongside its political uses, the building is also used for many other purposes, including as a wedding venue, for concerts and for conferences.

We will be using the Town Hall for the debating and discussion throughout the simulation, and also for the networking event on the first evening of the event. We hope this historical, beautiful building will inspire great discussion and provide a wonderful setting for the first SheffWHO simulation.

Our team.



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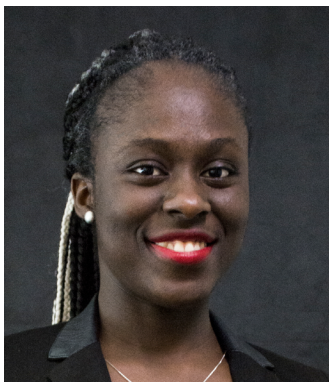
Bahamas (AMRO)
Co-Founder



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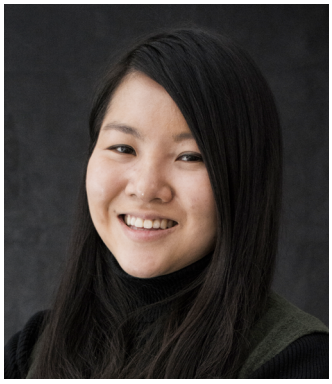

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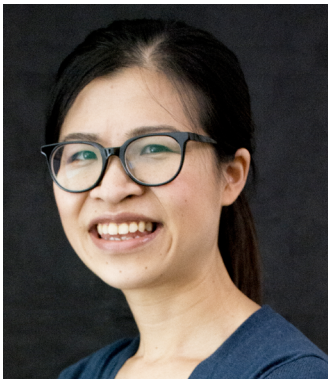

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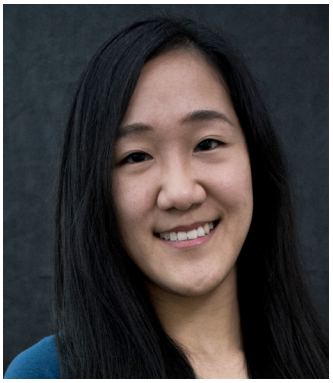

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Hong Kong (WPRO)
Sub-Theme

Give us a shout out on social media!

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Sheffield WHO Simulation 2018

SheffWHO2018
Event Guide

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