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Position Papers for:

World Health Organization
Delegation from: The Islamic Republic of Afghanistan
Represented by: Westlake High School

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera and how antimicrobial resistance is causing an increasing number of deaths. The Islamic Republic of Afghanistan are aware of these certain issues, and would like to collaborate with other nations to find a solution that would benefit all the nations and their people.

I. Addressing the Global Threat of Cholera

Cholera is a disease that causes infection of the intestine and leads to dehydration that can become so severe death may occur. This disease is caused by eating or drinking the source that is contaminated. The infected substance is contaminated with a bacterium called *Vibrio cholerae*. This disease is almost non-existent in regions that are industrialized, but in Africa, South East Asia, and Haiti they are more prominent because of their unsanitary and crowded conditions. The amount of undeveloped countries that don’t have the proper sanitation to keep people healthy, have a higher risk of being contaminated.

Although several pathogens may be responsible for causing acute diarrhea in humans, it is important to investigate *Vibrio cholerae* as the causative agent, particularly in resource poor settings because it can be fatal, causing death within several hours and it is highly contagious with a propensity to cause epidemics or pandemics. There are an estimated 3–5 million Cholera cases and 120,000 deaths every year. Commonly, lack of proper treatment leads to shock within 6–12 hours followed by death occurring between 18 hours and several days. Scientists had created a medicine that once successfully treated this particular disease. However, this microbe has developed antimicrobial resistance. Antimicrobial resistance is the ability of a microbe to resist the effects of a medication or antibiotic that was originally designed to successfully rid the disease from the body. Cholera had evolved therefore rendering the medication used to treat this disease useless in order to save lives in regions of the world that are insufficient in resources.

In the past, representatives of the United Nations have discussed a new approach that aimed to intensify efforts to eliminate cholera from Haiti. The United Nations proceed to eliminate cholera, intentions aim to upgrade the country’s water and sanitation systems. Doing
this, lends material assistance and support for those who are most directly affected. This epidemic needs to be treated promptly to decrease the number of deaths induced by Cholera.

II. Antimicrobial Resistance

Multidrug-resistant (MDR) bacteria is bacteria showing resistance towards three or more than three different classes of antibiotics. In Pakistan, only a few studies have been done targeting the identification of drug resistance in *Vibrio cholerae* and limited information is available about the MDR cholera. Cholera is a major cause of mortality and morbidity in under-developed countries including Pakistan.

*Vibrio cholerae* is one of the most notorious enteric pathogens responsible for many cholera outbreaks. Recently, drug resistance in *Vibrio cholerae* has become a serious problem mainly in developing countries. According to the antimicrobial susceptibility patterns of *Vibrio cholerae*, multidrug-resistant *Vibrio cholerae* is also prominent in Pakistan and affects not only Pakistanis but the populations across Asia. Once commonly detected throughout the world, the infection is now mainly confined to the under-developed countries, where the conditions of drinking water, sanitation and hygiene are not well maintained.

Recently, drug resistance in *Vibrio cholerae* has become a serious problem mainly in countries such as Pakistan and reports of drug resistance to different antibiotics have appeared from many cholera-endemic countries. Further cholera cases due to multidrug-resistant *Vibrio cholerae* have been reported from all around the globe. As the causative agent of cholera, the bacterium *Vibrio cholerae* represents an enormous public health burden, especially in less fortunate countries around the world. The acute diarrhoeal disease cholera is responsible for approximately 120,000 deaths every year and has a major impact on the health of those living in unsanitary conditions.
Delegation From: Algeria  
Represented By: Orange High School  
Position Paper for the World Health Organization

I. Addressing the Global Threat of Cholera

Cholera is an acute diarrhoeal disease that can kill within hours if left untreated. Researchers have estimated that each year there are 1.3 million to 4.0 million cases of cholera, and 21,000 to 143,000 deaths worldwide due to cholera. 80% of cases can be treated with oral rehydration solution. Cholera will not be combated with just one idea. It will take an approach that uses multiple methods that work together in addressing the global threat of Cholera.

The delegation of Algeria has been hit hard with Cholera. Waterborne transmission has been implicated in the outbreak; a drinking water source, not part of the public water system, has been reported as contaminated. Since certain affected areas are involved in intensive agriculture activities, the contamination of fruit and vegetables cannot be ruled out and food-borne transmission may also occur. An investigation into how the water source became contaminated could support rapid control of the outbreak and avoid new occurrences of cholera cases in affected areas. Recognizing the fact that this problem stems from safe drinking water, Algeria has focused on that area and believe other nations should do the same. There should be a focus on providing safe and accessible drinking water to underdeveloped countries that are in need of it. Nations need to make sure they are properly treating their water in order to limit the spread of Cholera. Cholera prevention and control should be a priority in areas at risk for cholera or where endemic cholera is present. Given the current availability of oral cholera vaccines and data on their safety, efficacy, field effectiveness, feasibility, impact and acceptability in cholera affected populations, these vaccines should be used in areas with endemic cholera, in humanitarian crises with high risk of cholera, and during cholera outbreaks. The vaccines should always be used in conjunction with other cholera prevention and control strategies. Additionally, communities should be reminded of basic hygienic behaviours, including the necessity of systematic hand-washing with soap after defecation and before handling food or eating, as well as safe preparation and conservation of food. Appropriate media, such as radio, television or newspapers should be involved in disseminating health education messages. Community and religious leaders should also be associated to social mobilization campaigns. Aiding in the control of Cholera along with providing awareness for it will slow its threat. These practices will be life saving for many people around the world.
II. Antimicrobial Resistance

Antimicrobial Resistance refers to the adaptation of bacteria, fungi, and viruses to antimicrobial drugs such as antibiotics and antifungals through constant exposure. This leaves the effects of the medications to be futile. In the US alone, each year at least 2 million people get an Antibiotic-resistant infection, with over 23,000 deaths each year. Antimicrobial Resistance is a global issue as serious infections remain in humans despite medication, and lead the risk of spreading around to other people, communities, and nations. Antimicrobial Resistance causes procedures such as organ transplantation and cancer chemotherapy to be very high risk all over the world.

The Delegation of Algeria recognizes the pernicious effects of Antimicrobial Resistance and the cruciality of the issue. The Delegation therefore stresses that immediate action be taken. Acknowledging that the root cause of the issue is misuse and overuse of Antibiotics, the delegation of Algeria proposes to invest more funds into the pharmaceutical field in order to develop new innovative technologies, diagnostic tools, and most importantly, advanced antimicrobial medications.

The Delegation of Algeria is currently working with the Food and Agricultural Organization of the United Nations and the World Organization for Animal Health in order to promote safe and efficient practices to avoid the spread and resistance of antimicrobials in both animals and humans. In addition, the Delegation of Algeria is using a Global Antimicrobial Resistance Surveillance System (GLASS) as a standardized approach to collecting data and analysis on antimicrobial resistance at a global level in order to inform government officials and the general public of the implications of the issue, and to drive decision making at a local, regional, and national level for solutions to the issue.
Delegation from: the Republic of Argentina
Represented by: Strongsville High School

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera and Antimicrobial Resistance. The republic of Argentina is committed to providing the best care and medical treatment available to help stop and prevent the further spread of these current issues affecting their people and surrounding countries.

I. Addressing the Global Threat of Cholera

Emerging out of the Ganges Delta, the first Cholera outbreak took place in Jessore, India, in 1817. Cholera is an infection of the small intestine by some strains of bacteria called Vibrio Cholerae. The classic symptom is a large amount of watery diarrhea that lasts for days, as well as vomiting of clear fluid. Symptoms can start anywhere from two hours to five days after exposure. Humans are the only organisms affected, and rapid dipstick tests are available, but not quite accurate. Seven large outbreaks have occurred over the last 200 years with millions of fatalities following it. Cholera has been nicknamed the “blue death” as a person’s skin may turn bluish-gray from the extreme loss of fluids; dehydration. Victims can be lethargic with sunken eyes, dry mouth, cold clammy skin, and wrinkled hands or feet.

In February 1992, an epidemic of cholera began in Argentina. The first known case appeared in an aborigine population living by the Pilcomayo river on the Bolivian border. By the end of that year, 551 cases and 15 deaths were reported to the health authorities. Epidemiological analysis helped identify the pattern of transmission of the disease in this region of South America. Polluted watercourses and little pools, formed after the rainy season, were identified as the single source of infection for subsequent cases. Then, the epidemic adopted a person-to-person transmission and was propagated over a long course with weekly occurrence. Anthropological, cultural, and other factors contributed to the origin and spread of cholera in northern Argentina. Working-class living conditions were one of the most pressing problems of urban expansion, to identify tensions between the application of hygiene measures and the evacuation or eviction of working-class sectors and to examine the role of displacement in the definition of suburban spaces. President Carlos Saul Menem recently disputed Araoz’s contention that cholera is a manifestation of poverty. Menem argued that the outbreak is due to the carelessness of a lot of people who do not follow health authorities’ advice.

Prevention methods against cholera include improved sanitation and access to clean water. This solution can be achieved by installing wells within Argentina to allow for access of sufficient water. Antibiotics should also be held in the homes of people, or at every local pharmacy to allow for quick relief of this threat. Cholera is classified as a pandemic, but rare in the developed world, so reaching out for aid from other nations would be beneficial to Argentina. Intravenous fluids, such as Ringer’s lactate, may be required in severe cases when antibiotics are not working sufficiently enough.

II. Antimicrobial Resistance
The republic of Argentina has been recently suffering the effects of antibacterial resistance and its prevalence has been increasing in countries around the world. Antimicrobial resistance occurs when microbes in the form of viruses, bacteria, fungi, and parasites become resistant to the antibiotics or anti microbes that are developed to kill them, thus rendering medication and antibiotics ineffective. This is affecting the general health of the afflicted by increasing illness, side effects, cost, deaths, and length of illnesses. The most common form of antimicrobial resistance is bacteria that you are exposed to, that cause illnesses like the flu, to develop an immunity to the antibiotics designed to kill them. In response to this, in regards to specifically the flu, every year the medication has to be altered slightly to ensure its effectiveness against microbes.

Argentina, having one of the largest economies in South America, inevitably plays a role in aiding nearby counties during major health issues. What Argentina specifically has done to combat health issues in the past includes ensuring education for the issue, and providing health care. Additionally Argentina has created a national surveillance program committee to evaluate the prevalence and severity of bacterial resistance. This committee conducted a three year study collecting and evaluating the quantities of bacterial resistance in hospitals in Argentina. Argentina has and will continue to prioritize the health and safety of itself and other countries affected by serious health issues.

The Republic of Argentina needs to have a controlled and clear way to combat this growing issue of antimicrobial resistance to ensure the health and safety of its citizens. Possibly the best and simplest way to go about this is to improve sanitation and health care for the general public. Informing the public about the importance of cleanliness and hygiene can greatly improve the health of the public. In addition to this, and going along with sanitation, improving access to clean water worldwide would again help the health of the general population. Improving the health of the general population is important because this would lead to less people developing illnesses in the first place so they would not need antibiotics or any other medication. This means that the microbes would not become immune to antimicrobials in the first place. Additionally improved sanitation and health would lead to a reduction in the development of diseases that need antibiotics to be treated in the first place. This would mean that the misuse and overuse of antibiotics would decline making antimicrobial resistance less prevalent. Without these urgent improvements antibiotics, vaccines, and other medications we use to protect ourselves could become useless and ineffective leading to a very dangerous future. Providing clean water and better sanitation is more of an issue in less developed countries and facilities such as hospitals where illness are treated especially need this clean water to provide the best care possible for their patients. This would again limit the amount of antimicrobial misuse reducing the amount of bacteria, fungi, viruses, and parasites that become resistant to antimicrobials.
Delegation from: Australia  
Represented by: Rocky River High School

Position Paper for the World Health Organization

The important issues set in front of the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. Australia is committed to ensuring safety to people all over the world when dealing with such serious health issues and is, therefore, hoping to join other countries to advocate for the safety and wellbeing of people.

I. Addressing the Global Threat of Cholera

The Delegation of Australia recognizes the global threat of cholera, therefore supports any viable solutions to this issue. There are on average 6 cases of cholera reported in Australia each year, almost always being brought in from other countries, but, there are currently 1.3 to 4 million cases of cholera reported each year. Due to the exceedingly large number of cases of cholera, Australia greatly feels that the issue of cholera must be combated not by individual countries but together with one another.

Australia has played a major role in the prevention of cholera as well as in assistance to countries in need. In the past Australia has aided multiple countries during their time of need where cholera is concerned, during the cholera outbreak in Haiti, Australia provided relief efforts to the nation as well as ensuring that the outbreak was contained and would not return to the area in the foreseeable future. In addition, Australia also aided Papua New Guinea in 2010 when it was experiencing a cholera outbreak, Australia provided medical assistance in the form of clean water, water purification tablets, educational prevention tools for cholera as well as IV fluids. Australia has also taken preventative measures to help reduce cholera’s impact. Australia is an active member in the Vaccine Alliance where they have given over 2 million people throughout the African continent the cholera vaccine. These prevention measures are crucial as cholera is most commonly found in developing countries like those in Africa where assistance has been provided.

Australia believes that providing aid to countries where cholera is an endemic and prevention will prove the most effective measures in fighting this disease. The administration of the cholera vaccine will play a crucial role in fighting outbreaks, therefore task forces to help administer these vaccines should be implemented in developing countries where cholera outbreaks are most prevalent. Moreover, educational information on cholera prevention should be given to people throughout developing countries to educate them on cooking and hygiene habits that can help prevent cholera, educational materials such as posters and pamphlets on prevention should also be made accessible in medical centers where cholera patients may be seeking treatment as well as by task forces fighting the cholera outbreaks.

II. Antimicrobial Resistance
The Delegation of Australia recognizes the global concern antimicrobial resistance causes, therefore, supports any viable solutions to this issue. Due to the fact that Australia is home to 24.6 million people, the Delegation from Australia greatly feels that protecting the lives of people is of the utmost importance and is willing to work with multiple other countries to combat this issue.

In previous years Australia has taken some measures to combat antimicrobial resistance. In June 2015 Australia prosed a variety of plans to fight against antimicrobial resistance. They suggested implantation of the One Health Plan. They also worked to prevent the spread of illnesses among livestock and agriculture to prevent the need for medication. They noticed specific areas that were high is death because of antimicrobial resistance and focused there. Next, they devoted a week to inform the public about antimicrobial resistance. They explain further approaches the public can take. They took precautionary measures to make sure health providers and veterinary clinics gave out the correct prescription and amount of medication. They considered many different options for how to protect the public but ultimately decided upon the One Health Plan. This program watched out for the number of antimicrobials given out, as well as monitored the levels of them in food.

In the future, Australia would like to implement the One Health Program in other parts of the world. They would like to watch the numbers of antimicrobials given out in hospitals and in the community. By achieving this the agricultural, animal health and human health will improve. The delegation of Australia would like to point out to communities nationwide the importance of washing hands and daily hygienic things that tend to be overlooked but would significantly reduce the antimicrobial resistance. Furthermore the need for vaccines not only in Australia but all over the world is a must. The use of vaccines would significantly lower antimicrobial resistance. Due to the ramifications caused by antimicrobial resistance the Delegation from Australia views this issue of utmost importance.
Delegation from Bangladesh
Represented by Hawken High School

Position Paper for World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. Bangladesh is devoted to the termination of Cholera and is ready to fight antimicrobial resistance.

I. Addressing the Global Threat of Cholera

Cholera is a rapidly dehydrating diarrheal disease that, if left untreated, can kill within hours. According to the World Health Organization, up to 4 million people in approximately 47 different countries are affected by Cholera annually. Moreover, around 143,000 of those infected succumb to death. “The disease most commonly affects people living in high-density, populated environments with poor access to water, sanitation, and education. Cholera also heavily affects countries that are affected by humanitarian emergency situations; because it commonly affects poverty-stricken areas, Cholera is referred to as ‘the disease of inequality’” (Background Guide, World Health Organization). According to The World Health Organization, Cholera disease is very problematic due to its ability to spread through contaminated water. Because impoverished countries do not have access to clean water and sanitation, eliminating Cholera is challenging.

In Bangladesh, there are 100,000 cases of Cholera annually; unfortunately, 4,500 of these cases result in death. Due to its lack of clean water, sanitation, and infrastructure, Bangladesh has become a hotspot for Cholera to spread. Over the last decade, oral Cholera vaccines were distributed to all of Bangladesh; the vaccine prevented 65% of the cases for people over the age of 5 (Quadri et all, Cholera Control and Prevention in Bangladesh, The Journal of Infectious Diseases). Unfortunately, due to the incomplete development of the immune system for those under the age of 5, the oral vaccine barely, if at all, helps. Though the vaccine helps treat the side effects of Cholera, it does not terminate the disease itself. In order to eliminate Cholera as a whole, Bangladesh is improving its access to water, sanitation, and hygiene. The World Health Organization plants to eliminate Cholera by the year 2030. However, the demand for the Oral Cholera Vaccine is outgrowing its supply; the demand almost doubles annually, compared to the previous year. In order to combat this, “Bangladesh has decided to locally produce the vaccine under a qualified agency” (Cholera Control and Prevention in Bangladesh, The Journal of Infectious Diseases). Studies of Ethiopia show that the vaccine costs around $712,000 to treat all 100,000 affected (Teshome et al, Volume 14 – Issue 10, Human Vaccines & Immunotherapeutics). Bangladesh is a financially stable country that produced a GDP of $274.54 billion in 2018. Due to its stability, budgeting money in order to produce the vaccine can be done. By implementing these methods, Bangladesh has seen a severe reduction in Cholera cases and deaths, which in turn has boosted its infrastructure and economy. However, Bangladesh and other countries like Bangladesh do not have an appropriate emergency response in order to counteract Cholera, as oral vaccines and implementing better water sanitation infrastructure are long term solutions. According to the World Health Organization’s Cholera outbreak handbook, countries affected by an emergency should: ban public festivals, scan and thoroughly clean food, and campaign in order to inform the people. Furthermore, if the patient is infected, the manual says to assess the patient, rehydrate the patient, and educate the patient. Another crucial step is to implement a flow chart that lists these procedures into public facilities. By taking the right steps, Cholera can be eliminated for good.

II. Antimicrobial Resistance
According to the World Health Organization, anti-microbial resistance is when a microorganism like bacteria is exposed to ant-microbial drugs and changes to become resistant to it. This leads to the drug becoming ineffective. These are often referred to as superbugs. With the severity of anti-microbial resistance some serious procedures could become very dangerous because of the risk of infection. Also because of more people staying for longer and needing more demanding care the cost of health care go’s up which leads to people buying cheaper anti-biotics leading to more anti-microbial resistance. Anti-Microbial resistance occurs naturally over time, but through the misuse of anti-biotics it can be accelerated. Misuse of antibiotics include things like when people use antibiotics for viral infection (flu, cold, et.), to stimulate growth in animals, and when they are used to prevent diseases in healthy animal. A 2014 review commissioned by the United Kingdom government estimated that antimicrobial resistance could cause 10 million deaths a year by 2050. It could also cause a reduction of 2% to 3.5% in GDP which would cost the world up to $100,000,000,000,000 in US currency. According to Maisha Zaman of the Daily Star The people most harmed by anti-microbial resistance are elderly people and children. This is due to the weaker immune systems which leads to those people taking more anti-biotics and build up more anti-biotic resistance. The best way to slow down anti-microbial resistance is education. We need to teach people about how to use anti-biotics safely and correctly. People must only use anti-biotics when needed.

According to Kamrul Hasan, Bangladesh is one of the countries hardest hit by anti-microbial resistance. This is because of their poor healthcare standards and misuse of anti-biotics. A study conducted by Poribesh Bachao Andolon or Poba in 2016 showed that about 56% of antibiotics prescribed to patients in Dhaka barely worked. Some diseases that have become the most resistant is Bangladesh are typhoid, urinary infection and diarrhea. In Bangladesh it is prohibited to use antibiotics on animals to promote growth. Anti-biotics in Bangladesh should only be used to treat disease. According to the report of Antibiotic Use, an outbreak of disease in animals in Bangladesh poses a great threat to the economy as it accounts for 1.6% of the GDP, directly employs 20% of the country, and indirectly employs 50% of the country. On November 12, 2018 Bangladesh in collaboration with WHO held a day long workshop to help alleviate the challenges related to anti-biotic research. Lots of important people participated like senior government officials, and representatives of donors; drug manufacturers; and academia. The people in the workshop shows their concern for the problem and called on the government to create awareness for the problem. The government has done some things like setting up a “model pharmacy” which has instructions for the use of the medicines. The pharmacies only sell anti-biotics with authorized prescriptions. These could help reduce the use of anti-biotics.

Right now, the only way to slow down anti-biotics is to use them rationally and sparingly. The public needs to do that so the best course or action is education of people and pharmacies on what to do. We need to teach people when to take them and how often. Pharmacies should not sell anti-biotics without authorized prescriptions. Doctors should also give out prescriptions for anti-biotics more sparingly. We also have to teach farmers about the danger of misuse of anti-biotics including on animals. The economy of Bangladesh is heavily reliant on the livestock market. And if a disease in animals occurs it could also spread to humans. The people of Bangladesh have to come together to fight anti-microbial resistance through stopping the misuse of anti-biotics and educating the people who do.
Delegation from: The Kingdom of Belgium
Represented by: Archbishop Hoban Highschool

Position Paper for the World Health Organization

The current issues faced by The World Health Organization are Cholera and Antimicrobial Resistance. The Kingdom of Belgium is hoping to achieve the best possible solution to these two concerning issues.

I. Addressing the Global Threat of Cholera

With over one million reported cases in Yemen alone, and global cases constantly growing, Belgium strongly urges the committee to reach a timely resolution to prevent the further spread of Cholera. Unfortunately, many of these casualties could have been avoided, given that cholera is curable. Daily, families are being faced with unnecessary death, so we, as a committee, must rise to offer what we can, in order to prevent further grief. First, a patient comes into contact with unclean water, understanding the risks, but needing water to live. Then, the patient falls ill, the symptoms arise, and they quickly become severely dehydrated. The longer they go without treatment, the quicker their internal organs fail, ultimately leading to death. If they had been taken to a clinic, the fluids and antibodies administered would save their life, but cholera hotspots align with the most impoverished areas of our world and many cannot afford treatment, or even have a place to be treated. With this in mind, the Kingdom of Belgium suggests that funds continue to be gathered to increase the amount of cholera kits distributed. In addition, a short term emergency plan to quickly open treatment facilities when an outbreak occurs, and a long term plan to offer a reliable source of clean water to these hotspots would be supported by Belgium.

At the most recent meeting of the Global Task Force for Cholera Control, UNISEF, USAID, and UNHCR all attended and participated in the creation of the Global Road Map. Because they all have contributed in the past, the committee can consider requesting their monetary support for any plan created. Similarly to the fund created to combat the cholera outbreak in Haiti, a more broadly focused, UN supplied fund could be created and contributed to by willing member states. As we are all aware, cholera kits distributed to affected areas are expensive to produce, and because of this, funding should be a main focus of our discussion.

Considering this, Belgium strongly suggests the creation of a fund for the continued fight against cholera. If the committee continues to follow the plan presented by the Global Road Map, it is believed that cholera will be eradicated by 2030, if not sooner due to our efforts.

II. Antimicrobial Resistance

Antibiotics are known as medicines used to prevent and treat bacterial infections. The use of antibiotics began with the discovery of Penicillin by Alexander Fleming. It resulted in the curation of many common infections during World War 2 and called the “miracle drug”. Even then, the
idea of bacteria becoming resistant was known as Fleming warned of the chances. When his theory came true, researchers began working on modifying penicillin and discovering new antibiotics between the 1950s and 1970s. Almost no new forms of penicillin and other antibiotics have been discovered since then and has been a major cause of antimicrobial resistance. The United Nations attempted to raise awareness of this major issue in 1998, but by the end of the 20th century, the world saw a rise of bacteria resistant to penicillin and other common drugs.

As more and more patients are prescribed and use a certain antibiotic, the disease being targeted can build up a resistance to that specific antibiotic. With this in mind, Belgium has installed the Coordination Commission for Antibiotic Policy to help combat antimicrobial resistance around the world. Our nation keeps track of and has a wealth of information on antibiotic consumption in hospitals as well as the community. While there is a unique system for the reimbursement of prophylactic use of antibiotics in surgery, we cannot rely on this alone for this is only a short-term solution. A major issue contributing to the spread of resistance is that Antibiotics are being unnecessarily prescribed. The overuse of these antibodies allows the microbes to adapt and resist them. This is specifically seen in some of the most dangerous and deadly diseases known to man such as tuberculosis, malaria, influenza, and HIV/AIDS.

With all of this in mind, we believe the only way in which we can slow this threat to civilization is through education and awareness. We suggest distributing pamphlets, a new social media campaign more often than the current one week annual edition, increased sanitation, pop-up clinics, and a fund contributed to offering support to countries without the monetary means to enact aforementioned solutions. We believe this will lead to the absolute standstill of Antimicrobial resistance.
Delegation from: Federative Republic of Brazil
Represented by: Archbishop Hoban High School

Position Paper for the World Health Organization

The issues before the World Organization are: Addressing the global threat of cholera and antimicrobial resistance. The Federative Republic of Brazil is strongly involved with these issues and seeks to implement effective global policy that favors preventative measures regarding the Cholera epidemic and antibiotic development.

I. Addressing the Global Threat of Cholera

Cholera is a dehydrating diarrheal disease that is contracted through the consumption of food or water contaminated with the bacterium *vibrio cholerae*. The cholera bacteria originated in a reservoir in India dating back to 1543. Since this time, the disease has spread globally causing seven pandemics (an outbreak of a disease prevalent over a large area). This disease, though easily preventable, has killed millions across the globe and is currently endemic (currently taking place) in many countries as the world is presently in the midst of its seventh pandemic. Cholera epidemics oftentimes reoccur in the same areas where environmental, social, and economic conditions are conducive to the spread of the bacterium. As the seventh Cholera pandemic prevails, The Federative Republic of Brazil seeks to promote the goals shared with this committee and to resolve the current matter with the aid of those in favor.

As the disease is commonly referred to as the “disease of inequality,” Brazil is certainly concerned with the outbreak as our northern regions experience many downfalls in regards to economics and infrastructure. Cholera has been seen before in these regions and in order to prevent and eliminate the further spread, Brazil’s health department collaborated with the sanitation and water authorities from the State of Pernambuco in coordinating epidemiological studies and surveillance, health education activities on the local and national level, water chlorination, and case management. It has also become our country's goal to provide an adequate supply of tap water to impoverished areas that pose the risk of an outbreak.

Brazil would like to see further cooperation in the World Health Organization (WHO) in terms of implementing preventative measures in areas of countries at risk for exposure to the Cholera bacterium. This involves potential partnerships between countries to aid more impoverished countries to work toward spreading awareness on the disease and eliminating risk factors. Brazil seeks to work toward the further education of our citizens and the modernization of our infrastructure in order to promote awareness. In the case of an outbreak, we hope to maintain capable laboratories in medical facilities and hospitals as well as ensure adequate detection of the disease.
II. Antimicrobial Resistance

Antimicrobial resistance is the body’s gradually gained resistance to antimicrobial drugs, such as antibiotics, antifungals, antivirals, and antimalarials. This resistance affects humans and animals alike. This was initially discovered by Alexander Fleming, a Scottish biologist who founded the use of penicillin in medicine. He warned the world that the overdosage of related antimicrobial drugs can procure resistance and ultimately fail to eradicate this initial illness. This poses a major threat to the medical application of antibiotics in regions as they will no longer serve their purpose and the people will suffer.

Despite Brazil's technologically advanced medical centers, antimicrobial resistance poses a major challenge to the country’s health. Rates of methicillin-resistant Staphylococcus aureus are up to 60% among other resistance related issues currently occurring in Brazil. It is imperative that Brazil increases efforts towards spreading awareness towards the topic at hand as many of these antibiotics protect the integrity of our nation’s health in areas heavily affected by such diseases. As of now, Brazil has implemented multiple programs to combat this issue affecting countries across the globe. First, Brazilian Antimicrobial Resistance Network (i.e. the National Research Institute for Antimicrobial Resistance, INPRA), combines research, training, outreach and capacity building to prevent and control antimicrobial resistance throughout Brazil. This initiative promotes the stimulation, improvement, innovation and expansion of knowledge in the study of the mechanisms of bacterial resistance that can be used in the clinical setting to procure improved medical practices and reduce risk to patients.

Brazil hopes to see further cooperation in the implementation of better research programs and initiatives in regards to informing citizens globally of the genuine risk of antimicrobial resistance. Brazil believes an effective approach towards the spread of awareness could be borne in the growth of the Global Antimicrobial Resistance Action Plan by funding further research in the topic and creating and reinforcing new educational programs as it pertains to each individual country around the globe. Similarly, Brazil pushes for more strict regulation of the distribution of antibiotics and increased surveillance in medical practice around the globe.
Delegation from: Canada  
Represented by: Mayfield High School

Position Paper for the United Nations World Health Organization

The issues being discussed for the World Health Organization include: Addressing the Global Threat of Cholera and Antimicrobial Resistance. Canada is committed to aiding in the control, awareness, and prevention of diseases on the global scale.

I. Addressing the Global Threat of Cholera

In awareness of current Cholera outbreaks, Canada recognizes that foreign outbreaks such as in Yemen have more prevalence than those within Canada. Cholera is a bacterium that arises in areas where water has poor sanitation and ineffective plumbing has caused poor water quality within highly populated areas. Cholera can cause severe symptoms that can be deadly. In Canada, Cholera is not a common disease with an average of only one case per year and only seven cases occurring in the past five years. In 2018, four cases occurred due to the consumption of herring eggs but no cases have arisen since then. As the situation is not as serious in Canada, Canada recognizes the cholera outbreaks in Yemen and Haiti. In Yemen, 1.8 million cases of Cholera have been reported since the beginning of the outbreak in April 2016. Canada provided 34 million in 2017 to Yemen and provided 50 million in aid to Haiti since 2010.

In awareness of the current epidemic in Yemen, Canada advises those who plan to go to Yemen to reconsider due to the high cholera rates or insure that they have been vaccinated for cholera. For those already in Yemen, Canada recommends to remain there to prevent the spread of Cholera to other countries and territories. Canada highly recommends the use of the cholera vaccination for those who wish to travel to an area with high cholera frequencies as a measure to prevent further spread within Yemen. The cause of the cholera outbreak has been recognized as from the destruction of sewage plants in Yemen from conflicts with Houthi rebels. Canada has signed a 15 million arms deal with Saudi Arabia, Yemen’s ally, to produce weapons to bring an end to the conflict.

As Canada recognizes that the threat of Cholera is not as significant in Canada, Canada wishes to aid in preventing the continuation of the spread of Cholera in Yemen. Canada is doing this by assisting in creating peace in Yemen so that Yemen can restore its previous centers for water sanity. Additionally, Canada advises to all in Yemen to remain there and for traveling to Yemen, to obtain a cholera vaccination.

II. Addressing the Global Threat of Antimicrobial Resistance

In the effort to prevent the spread of disease, Canada is taking great effort in not only the prevention, but the control of antimicrobial resistance. Antimicrobial resistance is caused by the production and use of antimicrobial drugs (antibiotics), and though resistance can occur naturally, the process is often accelerated by antimicrobial use. This leads to antimicrobial-resistant strains of bacteria (microbes) to form and spread, making prevention of diseases ranging from serious to common a difficult task. Health committees of Canada have also organized numerous times in the past few years focusing on the topic of health and antimicrobial use and resistance. One report released from a study performed in
May of 2018 found that “annual worldwide human deaths attributable to AMR could reach 10 million by 2050. This figure would overtake the number of deaths resulting from diabetes and cancer combined.”

Canada has formed The Canadian Antimicrobial Resistance Surveillance System, or CARSS, in an effort to monitor the growing issue as well.

Canada has been taking various prevention measures in the form of regulations and general education as to limit the risk of excessive antimicrobial use. As of May 2017, Canada has put prevention measures into place such as the requirement of licenses among goods manufacturers in order to administer the use of veterinary pharmaceuticals, and the requirement of reports from goods manufacturers on antimicrobials being commonly used in said veterinary pharmaceuticals for monitoring purposes. As of September 2017, Canada has released a Pan-Canadian Framework for Action which focuses on four main pillars of action; surveillance/monitoring, prevention and control, care and treatment, and testing. This framework also works closely with the Federal Action Plan on Antimicrobial Resistance and Use in Canada issued by the government in March 2015.

Canada focuses its attention on the prevention of antimicrobial resistance, ensuring that not only do prevention efforts increase, but that the current efforts don’t lose momentum as well. Canada is increasing the prevention of antimicrobial resistance through modification and improvement of funding, stewardship, surveillance, and leadership (federal) with the intended outcome of awareness and a decrease in unnecessary usage of antimicrobial drugs.
Delegation From: Chile  
Represented By: Lakewood High School

Position paper for The World Health Organization

The topics that are entrusted to The World Health Organization include Addressing The Global Threat of Cholera and Antimicrobial Resistance. Chile is very supportive of the many actions to be taken during this conference and providing aid to countries dealing with national health epidemics, viral outbreaks, perilous work conditions.

I. Addressing The Global Threat of Cholera

Chile is committed to assisting other nations in the eradication and continued education of cholera. This dangerous and excruciatingly painful bacteria poses a threat to not only adults but the children of multiple nations both developed and developing. While efforts have been made over time to stop this bacteria it is clear a new approach must be made as this virus has continued to outsmart us since its first appearance in 1817. The only way to impede the imminent destruction brought by it is through educating those who do not know of cholera’s transmission. Chile is whole heartedly and excitedly committed to building a generation that know how to fight against cholera.

Chile is no stranger to cholera and its deadly effects. In 1991 a plague broke out in Peru near the border of Chile which soon spread. After a reported 41 cases and 2 deaths the plague was largely stopped. This was largely due to extensive education about the bacteria and its transmission. However this was not the last time that it would be a problem for in 1997 32 others were again infected. It has been clear that intensive education on how the bacteria spreads is the most effective form of resistance to its spreading. Chile has been committed to fighting this bacteria for some time including the 1971 response to cholera outbreak in countries such as Haiti however we have not passed any significant bills related to its eradication but rather relied on citizen to citizen education which has largely been effective.

Chile hopes that this committee will continue to help fight this infectious, deadly, easily preventable disease. Having observed the effectiveness of intensive and extensive education on the topic Chile implores this committee to focus a significant amount of its time and energy on the passing of a resolution that largely pushes for education in developing countries that lack the knowledge currently to fight cholera. This committee should address this topic with the utmost sincerity as this bacteria has killed millions and can kill within a few hours of contraction if not treated correctly. Chile hope that as a committee we can unite to finally significantly destroy this infectious bacteria and end its centuries long reign of terror on the underdeveloped countries and peoples of this world.

II. Antimicrobial Resistance
The first antibiotics were the Penicillin vaccine, and Syphilis vaccine, healing millions, but this also meant that bacteria treated with antibiotics would grow to resist these and cause infections relating to bacteria that have adapted to these treatments. Due to major abuse by countries of these antibiotics (including Chile) these microbes can now live through these treatments and are stronger than ever. The Country of Chile realizes that although many countries have varying opinions on how to stop abusing these antibiotics as a way to prevent diseases in crops, animals, and even people, it’s important that all countries (including Chile itself) stop using antibiotics to prevent these microbes from increasing their resistance to our drugs. Chile is focusing its utmost attention on Antimicrobial Resistance. Chile believes that solving this issue will not only help the people of Chile, but all those who are affected by Antimicrobial Resistance.

Chile is in a position to fully support any efforts having to do with antimicrobial resistance, as the country itself is developed and in a position to do so. Chile also realizes that their have been efforts to try to mend this problem such as Global Antimicrobial Resistance Surveillance System (G.L.A.S.S). Chile has yet to join along with this new system, as it is fairly new, and Chile wishes to see further development of this institution, and whether it has a positive or negative effect. Chile however has collaborated with Sweden and in November of 2016 formed the Academic Collaboration Chile Sweden which hopes to form an education bond between these two countries in trying to solve different problems world wide, similar to G.L.A.S.S, but not as expansive, and Chile hopes that one day this problem will be solved. Chile in the past, and still to the present is a leading producer of salmon for the world, and would like to recognize that although Chile uses many antibiotics with fish, that it’s only done to strengthen our economy, and Chile as a country would like to see a solution to this, but will not risk its national economy, and its people to give up this industry. Many institutions, ideas, and treaties have yet to be explored on this issue, and Chile would like to see more cooperation between these countries, that have good, beneficial outcomes for all countries involved.

Chile has expressed concern to this issue, and since 1999 has enforced a ban on Over the counter (OTC) antibiotics, and a law requiring all antibiotics to be prescribed by a doctor. Chile realizes that all solutions to mend this dire problem need to be put to fruition, and although Chile’s system for this isn’t perfect, Chile realize that with enough effort between different countries, we can provide a global solution to this problem. Chile would like to see the maintained efforts to recognize national sovereignty, when looking for solutions on a country to country basis, and feels that without this national sovereignty, A solution to the problem of this antimicrobial resistance will never be resolved. And most of all, Chile wishes to see cooperation between all nations regardless of previous issues, to deal with this problem of ever increasing severity.
The cases before the World Health Organization (WHO) are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. The Republic of Cuba is invested in dissecting new preventive methods of Cholera amongst the globe and increasing government investment in the increasing threat of Antimicrobial resistance.

\[\text{I. Addressing the Global Threat of Cholera}\]

The Republic of Cuba finds it at the utmost importance to bring awareness to the Cholera outbreaks occurring across the world and finds it detrimental to disregard any possible clues as to where the outbreaks are emerging from. A common misconception among nations where the infection is a miniscule issue is that the most effective way to diminish the threat of Cholera is to inform tourists of preventive measures from contracting the bacteria. Cuba believes that the heart of the solution to the rising epidemic is to search for and find the source of the bacterial infection in its most prevalent countries and catering its research to induct methods of prevention of outbreaks of Cholera in these specific areas by informing the public on how to avoid spreading the disease in their towns, cities, countries, etc. The Republic of Cuba finds it necessary to implement steps to begin nations on roads to their liberation from Cholera outbreaks to ensure the safety of tourism and the safety of tourists in said nations who have and/or are facing Cholera outbreaks, like Cuba itself. Tourism being the leading source of revenue and employment in Cuba in 2012, attracting more than 2.5 million visitors, allows the republic to visualize the risks of the industry deteriorating due to outbreaks of this illness. It is unrealistic to expect tourists to go out of their way to prevent the possibility of their being affected by this bacteria when there is minimal efforts being made by the world and other delegations to prevent outbreaks from happening in their own nations and/or other nations.

Cuba has had a history with Cholera outbreaks through the years in a short span of time, some more detrimental to the lives of the Cuban citizens than others. 2012 brought along a deadly epidemic of the outbreak of this bacteria that was previously dormant for over a century. The Republic of Cuba, nonetheless, made good efforts to stabilize the epidemic and successfully eradicated the cholera outbreak through the skills of Cuban health workers in a little over a month. Cuban health officials responded to the outbreak by gathering clean drinking water for the citizens of Cuba, closing food stands in affected areas and by setting up checkpoints along the road to eliminate the possibility of anyone with the illness from traveling and spreading the epidemic farther than where it already resided. The Republic of Cuba’s health officials exhibited experience and knowledge over the topic of Cholera as they thrived as a leading figure during the outbreak of Cholera in Haiti. This statement, “With a tradition of service in the world’s poorest and most forgotten states, the Cubans are a major frontline force in the multinational response to the raging epidemic, which has killed at least 2,000 people and probably more, since mid-October in the impoverished country,” describes the efforts made by Cuban doctors during Haiti’s time of need, supporting the previous knowledge of Cuba’s aid toward impoverished nations in times of crisis. The efforts, advancements, successes, and even failures made by the Republic of Cuba caters to its need for more specific methods of targeting the outbreaks of Cholera across the world and targeting the root of the issue rather than trying to find ways to deal with said issue after the fact, after the damages have already been made.

The delegation of the Republic of Cuba proposes a plan that will ensure the safety of tourists and citizens of any nation facing potentially fatal Cholera epidemics. All delegations affected by past or current outbreaks of the illness should follow the step by step process that Cuba is proposing as a gradual permanent solution to said outbreaks. The plan follows closely with the teachings of the “Ending Cholera: A Global Roadmap to 2030” movement taken on by UNICEF. Cuba names this potential resolution [to the ongoing global threat of Cholera] A.P.M.R.C.T.N. (the actions of preventive measures for reducing the cause of illness threats among nations). The epitome of this resolution is that other delegations will begin to first promote motivational reasonings for engagement among communities towards the fight against Cholera; then use roughly 3% of its federal budget to invest in safe hygienic systems; immediately find the source(s) anytime there is any suspicion of an epidemic; deny access to the country (ranging from a week to a month depending on the severity of the situation) to prevent the spread of the illness to tourists and other nations; and finally out of the main parts of the resolution, settling legally binding statements that require all citizens between the ages of 18-85 to get the oral Cholera vaccine during times of outbreak(s) in order to prevent the severity and fatality of the illnesses being caught by the citizens of the country and to promote herd immunity for the younger children and the people unable to get vaccines who are also at risk of catching the disease. Due to all nations around the world having ties to the issue of the threat of Cholera, whether this be through tourism, economic, political, or safety relations with other nations, it is common ground that all nations economically able to do so should implement the proposed resolution into their governmental systems to help begin the gradual change from Cholera being a threat to becoming a miniscule problem in today’s world.

\[\text{II. Antimicrobial Resistance}\]

The Republic of Cuba finds it necessary to increase research among all countries regarding the increasing antimicrobial resistance (AMR) occurring across the world. Antimicrobial resistance is affecting every country in the world, differing in severity depending on many factors (EX: the economy of the country, government funding on antimicrobial resistance research,
and government plans/actions on the threat), and is being widely ignored by many of these governments. AMR is one of the largest health crises that is affecting the majority of the world through the lack of knowledge over the use and distribution of antibiotics. The question regarding the topic is whether bringing national awareness upon antimicrobial resistance is essential or useful in combating the spread of it across many nations. The Republic of Cuba believes this to be the most useful method, following methods already being used by the World Health Organization, as it allows citizens of countries all over the world to be aware of their own actions regarding the spread of antibiotics locally and globally. It will help inform citizens of all countries across the world of the common mistakes made and common misconceptions spread about antibiotics and allow them to be aware of the preventive measures able to be put into place to further cease the spread of AMR, aiding the World Health Organization in its efforts to end the spreading of this resistance while it is still considered one of the leading causes of illness across the world. Along with the aforementioned, allowing citizens, health professionals, and more to be informed on AMR will help diminish the negatives it causes, besides illness, among all countries, for example, it will help decrease the expensive medical bills issued for people who catch illnesses due to antimicrobial resistance.

Cuba faces a lack of antibiotic use and treatment guidelines and a lack of continuing medical education on antibiotic use for prescribers. The most common effect of this lack of knowledge over antibiotics is the occurrence of Acute Respiratory Infections, which is the highest prevalent illness in Cuba. In the past, to target these issues, the Republic of Cuba established the APUA Cuba (Alliance for the Prudent Use of Antibiotics) organization in 1996 in collaboration with Cuba’s Center for Pharmaceutical Chemistry. This organization was aimed to introduce the WHONET (An Information System for Monitoring Antimicrobial Resistance) program, which tracks the spread of resistance at local and global levels, in order to keep an eye on the spread of resistance in the country. Shortly after APUA Cuba was established, the Republic of Cuba organized a conference in 1997 under the name of “Methodological and Functional Considerations of Antimicrobial Resistance” with the Center for Medical and Surgical Research (CIMEQ) and discussed the following topics: methods to detect resistance, susceptibility tests, increasing experience in the intensive care clinic, and microbiological mapping (similar to WHONET). This resulted in the Republic of Cuba’s Cuban Society of Microbiology and Parasitology organizing an international conference named as the “Antimicrobial resistance from bench to practice” in collaboration with the European Society for Clinical Microbiology and Infectious Diseases (ESCMID). Taking place in September of 2018, the event further discusses how antimicrobial resistance is one of the most serious health problems in present day. The Republic of Cuba’s main reason for establishing this conference is the fact that Latin America attracts many well-known and emerging infectious diseases and it is the main region that contributes greatly to the spread of awareness and of debate of antimicrobial resistance, bringing together renowned scientists and international experts in order to address said issue to salvage global health.

The delegation of the Republic of Cuba calls for other delegations and countries around the world to follow in Cuba’s footsteps by bringing it upon themselves to follow the resolution that it has created in hopes of ceasing the increasing antimicrobial resistance amongst the world. This resolution has been named N.P.A.S.A. (the national precautions for awareness of the spread of antimicrobial resistance), and establishes a set of steps to be taken by delegations in order to not only bring awareness to the spreading of AMR but also to terminate the spreading of AMR itself. The steps include: promoting education about antibiotic resistance among healthcare professionals as well as among citizens, improving laboratory capabilities and diagnostic technology, regulating the use of critically important antibiotics, collaborating with healthcare facilities and their subdivisions, and promoting preventive measures against the spread of antimicrobial resistance (EX: hand hygiene). The preventive measures of this resolution will be implemented in education systems and public facilities all around the world in order to emphasize their importance among the citizens of said areas. The top priority of all delegations is to inform health professionals, scientists, prescribers, the general public and more, of the causes and effects of AMR and of what they can do in regards to ending and spreading awareness of the increasing of AMR around the world. The Republic of Cuba hopes that all other delegations will come together in order to secure national plans against the spreading of AMR with the aid of the resolution proposed by the Republic.
Delegation from: People's Republic of China
Represented by: Strongsville High School

Position Paper for the World Health Organization

The issues before the United Nations World Health Organization are the global threat of cholera and antimicrobial resistance. The People’s Republic of China recognizes the importance of theses issues, and is willing to collaborate with the United Nations to create an effective solution.

I. Addressing the Global Threat of Cholera

The People’s Republic of China strongly believes that Cholera is a major global threat. Cholera can be contracted by the ingestion of food or drink contaminated with the bacterium Vibrio cholerae and is a rapidly-dehydrating diarrheal disease and, if left untreated, can kill within hours. The disease is a worldwide threat to public health and one of the largest indicators of global inequity regarding social development due to the disease’s association with poor sanitary conditions, lack of clean drinking water, malnutrition, and poverty. The first pandemic of cholera began when cholera spread from the reservoir; this was a result of contaminated rice. The rice was then traded to Europe and eventually affected modern-day Myanmar and Sri Lanka, then leading to Thailand, Indonesia, and the Philippines. After this, the outbreak continued to China. Those conditions were then worsened due to water contamination.

One of the most affected nations of Cholera is China. Due to low hygiene awareness among the public and street food peddlers, and stalls that offered poor quality food during the big Cholera pandemic, the People’s Republic of China had its local authorities close all street food stalls and restaurants for disinfection as the disease is transmitted through water and food. Water contamination by industries also were a main cause of Cholera. City of Tianjin is the third largest industrial city in China. For many years, the construction of urban drainage, sewage, and wastewater treatment (domestic and industrial) has lagged far behind the development and environmental requirements for the city. A Wastewater Improvement Project has been introduced and co-financed by the Tianjin Municipal Government and the World Bank to help improve the city’s water conditions and to reduce water borne diseases including Cholera. This project focuses on sewage collection and treatment, as well as measures used to improve the institutional controls on sewage and pollution control. To ensure that the Tianjin Municipal Government achieves its overall objectives of optimizing water consumption and reducing pollution loads, an emphasis on the reduction of industrial water consumption and the improvement of effluent discharge quality.

The problem not only lies in the city of Tianjin, but the second example of wastewater pollution in China lies in the east central part of China, 300 miles west of Shanghai, lies the Chao Lake, one of China's five largest freshwater lakes. This area's main source of potable water supply comes from the Chao Lake. This lake is also used for as an economic and recreational resource. The water is used for commercial and recreational fishing, and as a source for irrigation. In recent years, the rapid development of industrial and urban areas, and changes in agricultural practices, have caused damage to the lake. Although pretreatment or final treatment of industrial wastewater has controlled pollution by heavy metals, toxic or hazardous substances, the lake has become overloaded with nutrients. These nutrients are contributed from municipal and industrial wastewater due to soil erosion and from excessive applications of chemical fertilizers on agricultural land. As a solution to restore the lake's water quality and to improve the health and economic concerns for the area, The Asian Development Bank (ADB) appointed the Camp Dresser & McKee (CDM). The ADB appointed the CDM to conduct a feasibility study to develop a possible project for the construction of municipal wastewater treatment facilities. In addition to the two other locations in China, Xian City, Shaanxi Province, in China with a population of 2.8 million within the urban area has dealt with major water pollution problems in the past years. There are many industries located in this
City. Vast quantities of untreated domestic and industrial wastewater flow into small streams leading to the Wei River. The water systems have become severely polluted. As the water is reused further downstream for irrigation and household purposes, there is an environmental and health concern for the population. A project was proposed for a new wastewater treatment plant in Xian City. This project is cost-effective and environmentally friendly method of treating sewage. Since most of these water systems are used in society as irrigation for farmlands and personal water consumption, the risk of the society getting Cholera is seemingly increasing in the People’s Republic of China.

II. Antimicrobial Resistance

The People’s Republic of China views antimicrobial resistance as a worldwide danger. Antimicrobial resistance is defined as an infection’s ability to withstand the use of antimicrobials. The issue of antimicrobial resistance has progressed unchecked due to the lack of regulation regarding and the misuse of antimicrobial drugs. In 2016, there were 490,000 cases globally of resistant tuberculosis.

The People’s Republic of China fully supports policy regulating antimicrobial resistance, and has taken comprehensive steps toward limiting it. In 2015, the World Health Organization issued a resolution advocating for the global action plan on antimicrobial resistance. This plan recommended that all member states create a national plan, emphasizing five specific goals: raising awareness of antimicrobial resistance through education and training, increasing available data through research and surveillance, reducing the spread of infection through prevention and sanitation, rationalizing the use of antimicrobials in the animal sector, and developing new medicines. In response, the People’s Republic of China issued an ambitious five year plan, spanning from 2016 to 2020, that aims to fulfill the goals outlined in the global action plan. The national action plan lists specific changes and targets: the authorization of antibiotic sales to only patients with a prescription, the termination of the use of antibiotics as a growth promoted, the launch of 1-2 antimicrobials, and the education of medical staff, veterinarians, and the public.

The People’s Republic of China very much believes that antimicrobial resistance is a matter that can only be resolved through the collaboration of international organizations and foreign states. In order to facilitate such collaboration, the People’s Republic of China recommends the creation of a board dedicated specifically to antimicrobial resistance. A board like this would encourage members to share data, which would allow analysis of global trends. It would also encourage cooperative international research and development toward new antimicrobials. Collaboration is critical because resistant infections can easily spread across states, and potentially progress into a pandemic. The People’s Republic of China staunchly believed that the UN World Health Organization can take the necessary steps toward resolving antimicrobial resistance.
Delegation from: Côte d’Ivoire  
Represented by: Western Reserve Academy  

Position Paper for the World Health Organization (WHO)

The issues before the World Health Organization are Addressing the Global Threat of Cholera and Antimicrobial Resistance. Cote d’Ivoire is devoted to the advancement of health care in third world countries.

I. Addressing the Global Threat of Cholera

Cholera is an infectious, often fatal, bacterial disease found in the small intestine contracted through drinking water supplies, contaminated by a bacterium called Vibrio cholerae, which has been labeled by the World Health Organization, or WHO, as a worldwide health threat. Cholera is a naturally occurring bacteria found in coastal waters, attached to tiny crustaceans called copepods. As the copepods follow their food source, the bacterium travels with them spreading through waters worldwide, contaminating more and more people. It has been estimated that, in a year, there are anywhere between 1.3-4 million cases reported worldwide, with 21,000-143,000 resulting in death most being children. Within the first 7-14 days of contracting the disease, patients may not even know that they are infected and because the disease is still in the person and transferred through the bowel, they can infect other people through contaminated sewer water even if the disease completely misses the beginning patient, however, person to person contact is not an applicable way for others to contract the disease, because it takes more than a million bacteria to actually cause the disease. Patients with the disease, live and acting, experience vomiting, nausea, irritability, lethargy, sunken eyes, and diarrhea, resulting in severe fluid loss, leading to a major life-threatening symptom, severe dehydration. The dehydration leads to an electrolyte imbalance, which in turn leads to muscle cramps and shock, a severe drop in blood pressure, which can lead to seizures or even a coma and if untreated can lead to, within minutes, death. Because the disease is so fast-moving, treatment is required immediately, this treatment includes; rehydration, usually, intravenous rehydration, or rehydration through an IV, as well as antibiotics or zinc supplements to reduce the duration and amount of diarrhea a patient experiences.

Cholera is most relevant in third-world countries, like Côte d’Ivoire, due to these countries’ lack of clean, filtered water, and countries affected by humanitarian emergency situations, giving it the nickname “the disease of inequality”. The first case of Cholera in Cote d’Ivoire was reported in 1970, with large outbreaks in 1995, 2001, and 2002 with comparatively small outbreaks reported with the last 10-15 years. The onset of these outbreaks occur mostly in Abidjan, Sud Comoe, and Moyen Comoe. While there are cholera kits in place to do some control and provide aid, to truly prevent these outbreaks measures such as rapid response systems and effective cross-border alerts, to prepare neighboring countries and cities, should be set into place. The top priorities for the places with occurring outbreaks should be sanitation and hygiene as well as moving towards clean, sustainable water access for all citizens. Other countries, with sustainable resources, should try and help supply other countries with needed resources. We all need to work towards solving this issue.
Antimicrobial Resistance is the ability of a microorganism such as bacteria or a virus to effectively stop an antimicrobial such as antibiotics or antimalarials from working against it. This can cause common treatments of a disease to stop working allowing the patient to spread their disease to others. An example of a treatment that has pushback from microorganisms in Penicillin. Penicillin is an antibacterial drug that works by bursting the cell walls of bacterial cells causing that cell to stop replicating. This has helped keep infections such as pneumonia and meningitis from spreading to others while helping the patient get over the illness.

The Republic of Côte d’Ivoire believes that antibiotics are essential to helping cure illnesses and recognizes that there is a global threat regarding antimicrobial resistance. When antibiotics are used and administered properly, they can have glorious side effects nearly curing the patient of their infection or disease. When used or administered incorrectly, the effects take a more drastic turn. In recent studies, it has been found that incorrect doses of antibiotics can actually be harmful in protecting against infection. A recent study has shown that at least 30% of the prescriptions for antibiotics from 2010-2011 were unnecessary. Another source of incorrect administration is through agriculture. Farmers use antibiotics to prevent any infections that could occur in animals which we consume. Consumption of these animals has been thought to have helped the resistance of bacteria to antibiotics.

In order to alleviate the threat of antimicrobial resistance, the Republic of Côte d’Ivoire has come up with a few solutions to combat these issues. If the UN were to create laws regulating the antibiotics given to animals that would later be used for consumption, we would be able to stop the over exposure of these antibiotics to humans, which would stop microorganisms from finding a way to resist the drug as quickly as they do now. Another solution would be to help prevent the spread of infections in third-world countries such as Côte d’Ivoire. Many third-war countries do not have access to clean water so infection is passed easily. If the UN were to make a global fund towards helping those countries without clean water, we would be able to stop the spread of diseases through contaminated water allowing for a more clean and sanitary community.
I. Antimicrobial Resistance

Antimicrobial Resistance is a crucially important factor in both individual populations and the global population at large. The increased use of antibiotics in both developed and underdeveloped nations has caused a world-wide crisis in the fight against disease and infection. This issue as a whole is currently developing, as the antibiotics developed in the past have now become ineffective due to these infections and microbes growing resistance to past forms of medication. When diseases and infections that had previously had drastic and harmful effects on global populations begin to grow resistance to medication, a solution must be found to circumvent and alleviate this problem as the world’s populations are in grave danger.

Since the 1990’s, Croatia has been a world leader in the study and surveillance of microbial resistance in not only our Country, but on a global scale. In 1999, The Croatian Committee for Microbial Resistance was founded with the goal of studying and tracking microbial resistance to common antibiotics and other commonly utilized medications. It found that up to 38% of infectious strains treated by Penicillin have grown an immunity to Penicillin. After this study was concluded, The Croatian Committee for Microbial Resistance began to monitor and restrict the use of antibiotics in order to restrict the trend of infectious resistance to these medications. The Croatian Committee for Microbial Resistance also began an education campaign in which they travel to different countries to hold conferences in order to educate the leading medical professionals around the world on this serious issue. The Department of Microbiology at the University Hospital in Zagreb, acting as a proxy party for The Croatian Committee for Microbial Resistance, participates in a quality assurance program organized by the WHO and CDC for the control of microbial resistance. From this quality assurance program WHONET, a global online database for antibiotics and other medications, was born. While a global database is necessary and extraordinarily useful, the flaws within this system are glaring and easily mendable.

Croatia advocates for the increased awareness and education towards microbial resistance to antibiotics, and additionally concerned with the awareness of a faulty global database organized by the WHO and CDC. Croatia wishes to initiate and WHO sponsored independent United Nations body to monitor and organize the existing WHONET body, as well as establishing enforcement power within this independent body to halt the manufacturing and distribution of antibiotics and other medications shown to have been subjected to heightened levels of infectious immunity. Croatia believes there lays an existing structure for a functioning system for the surveillance and control of microbial resistance, however there exists a need for greater levels of enforcement within this structure and higher levels of organization of this existing database and system.
Cholera is a disease contracted by the ingestion of contaminated substances. Due to this cholera has been known to be one of the largest indicators of global inequality because of its association with poor sanitary conditions, lack of clean drinking water, malnutrition and poverty. In recent years the number of infected has begun to rise, much of which, according to a recent study has been linked to the global rise in temperature, product of global warming.

Luckily, Croatia has not had much of a reason to discuss the topic of cholera due to the fact that there are no reported cases within the past. But in the past when we have had health issues in our country we have combated the issues by providing proper care for the infected and fixing the issues that led to the outbreak. Much like we have done in our country we plan to try to fix the issue of cholera by combating the source of the issue.

To combat the growing issue of cholera the delegation of Croatia advises that steps be taken to provide clean drinking water to areas where it is not currently accessible. Besides this Croatia advises the education of people living in areas where cholera is common on ways to identify and prevent the virus. Croatia also believes that since much of the current rise in cholera cases is due to the increase in temperature, it is necessary that we acknowledge this growing concern. Croatia suggests combating the warming climate by limiting emissions world wide and taking other steps to protect our environment.
Delegation from: The Republic of Cuba  
Represented by: Rocky River High School

Position Paper for the World Health Organization (WHO)

The cases before the World Health Organization (WHO) are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. The Republic of Cuba is invested in dissecting new preventive methods of Cholera amongst the globe and increasing government investment in the increasing threat of Antimicrobial resistance.

I. Addressing the Global Threat of Cholera

The Republic of Cuba finds it at the utmost importance to bring awareness to the Cholera outbreaks occurring across the world and finds it detrimental to disregard any possible clues as to where the outbreaks are emerging from. A common misconception among nations where the infection is a miniscule issue is that the most effective way to diminish the threat of Cholera is to inform tourists of preventive measures from contracting the bacteria. Cuba believes that the heart of the solution to the rising epidemic is to search for and find the source of the bacterial infection in its most prevalent countries and catering its research to induct methods of prevention of outbreaks of Cholera in these specific areas by informing the public on how to avoid spreading the disease in their towns, cities, countries, etc. The Republic of Cuba finds it necessary to implement steps to begin nations on roads to their liberation from Cholera outbreaks to ensure the safety of tourism and the safety of tourists in said nations who have and/or are facing Cholera outbreaks, like Cuba itself. Tourism being the leading source of revenue and employment in Cuba in 2012, attracting more than 2.5 million visitors, allows the republic to visualize the risks of the industry deteriorating due to outbreaks of this illness. It is unrealistic to expect tourists to go out of their way to prevent the possibility of their being affected by this bacteria when there is minimal efforts being made by the world and other delegations to prevent outbreaks from happening in their own nations and/or other nations.

Cuba has had a history with Cholera outbreaks through the years in a short span of time, some more detrimental to the lives of the Cuban citizens than others. 2012 brought along a deadly epidemic of the outbreak of this bacteria that was previously dormant for over a century. The Republic of Cuba, nonetheless, made good efforts to stabilize the epidemic and successfully eradicated the cholera outbreak through the skills of Cuban health workers in a little over a month. Cuban health officials responded to the outbreak by gathering clean drinking water for the citizens of Cuba, closing food stands in affected areas and by setting up checkpoints along the road to eliminate the possibility of anyone with the illness from traveling and spreading the epidemic farther than where it already resided. The Republic of Cuba’s health officials exhibited experience and knowledge over the topic of Cholera as they thrived as a leading figure during the outbreak of Cholera in Haiti. This statement, “With a tradition of service in the world’s poorest and most forgotten states, the Cubans are a major frontline force in the multinational response to the raging epidemic, which has killed at least 2,000 people and probably more, since mid-October in the impoverished country,” describes the efforts made by Cuban doctors during Haiti’s time of need, supporting the previous knowledge of Cuba’s aid toward impoverished nations in times of crisis. The efforts, advancements, successes, and even failures made by the Republic of Cuba caters to its need for more specific methods of targeting the outbreaks of Cholera across the world and targeting the root of the issue rather than trying to find ways to deal with said issue after the fact, after the damages have already been made.

The delegation of the Republic of Cuba proposes a plan that will ensure the safety of tourists and citizens of any nation facing potentially fatal Cholera epidemics. All delegations affected by past or current outbreaks of the illness should follow the step by step process that Cuba is proposing as a gradual permanent solution to said outbreaks. The plan follows closely with the teachings of the “Ending Cholera: A Global Roadmap to 2030” movement taken on by UNICEF. Cuba names this potential resolution [to the ongoing global threat of Cholera] A.P.M.R.C.T.N. (the actions of preventive measures for reducing the cause of illness threats among nations). The epitome of this resolution is that other delegations will begin to first promote motivational reasonings for engagement among communities towards the fight against Cholera; then use roughly 3% of its federal budget to invest in safe hygienic systems; immediately find the source(s) anytime there is any suspicion of an epidemic; deny access to the country (ranging from a week to a month depending on the severity of the situation) to prevent the spread of the illness to tourists and other nations; and finally out of the main parts of the resolution, settling legally binding statements that require all citizens between the ages of 18-85 to get the oral Cholera vaccine during times of outbreak(s) in order to prevent the severity and fatality of the illnesses being caught by the citizens of the country and to promote herd immunity for the younger children and the people unable to get vaccines who are also at risk of catching the disease. Due to all nations around the world having ties to the issue of the threat of Cholera, whether this be through tourism, economic, political, or safety relations with other nations, it is common ground that all nations economically able to do so should implement the proposed resolution into their governmental systems to help begin the gradual change from Cholera being a threat to becoming a miniscule problem in today’s world.

II. Antimicrobial Resistance

The Republic of Cuba finds it necessary to increase research among all countries regarding the increasing antimicrobial resistance (AMR) occurring across the world. Antimicrobial resistance is affecting every country in the world, differing in severity depending on many factors (EX: the economy of the country, government funding on antimicrobial resistance research,
and government plans/actions on the threat), and is being widely ignored by many of these governments. AMR is one of the largest health crises that is affecting the majority of the world through the lack of knowledge over the use and distribution of antibiotics. The question regarding the topic is whether bringing national awareness upon antimicrobial resistance is essential or useful in combating the spread of it across many nations. The Republic of Cuba believes this to be the most useful method, following methods already being used by the World Health Organization, as it allows citizens of countries all over the world to be aware of their own actions regarding the spread of antibiotics locally and globally. It will help inform citizens of all countries across the world of the common mistakes made and common misconceptions spread about antibiotics and allow them to be aware of the preventive measures able to be put into place to further cease the spread of AMR, aiding the World Health Organization in its efforts to end the spreading of this resistance while it is still considered one of the leading causes of illness across the world. Along with the aforementioned, allowing citizens, health professionals, and more to be informed on AMR will help diminish the negatives it causes, besides illness, among all countries, for example, it will help decrease the expensive medical bills issued for people who catch illnesses due to antimicrobial resistance.

Cuba faces a lack of antibiotic use and treatment guidelines and a lack of continuing medical education on antibiotic use for prescribers. The most common effect of this lack of knowledge over antibiotics is the occurrence of Acute Respiratory Infections, which is the highest prevalent illness in Cuba. In the past, to target these issues, the Republic of Cuba established the APUA Cuba (Alliance for the Prudent Use of Antibiotics) organization in 1996 in collaboration with Cuba’s Center for Pharmaceutical Chemistry. This organization was aimed to introduce the WHONET (An Information System for Monitoring Antimicrobial Resistance) program, which tracks the spread of resistance at local and global levels, in order to keep an eye on the spread of resistance in the country. Shortly after APUA Cuba was established, the Republic of Cuba organized a conference in 1997 under the name of “Methodological and Functional Considerations of Antimicrobial Resistance” with the Center for Medical and Surgical Research (CIMEQ) and discussed the following topics: methods to detect resistance, susceptibility tests, increasing experience in the intensive care clinic, and microbiological mapping (similar to WHONET). This resulted in the Republic of Cuba’s Cuban Society of Microbiology and Parasitology organizing an international conference named as the “Antimicrobial resistance from bench to practice” in collaboration with the European Society for Clinical Microbiology and Infectious Diseases (ESCMID). Taking place in September of 2018, the event further discusses how antimicrobial resistance is one of the most serious health problems in present day. The Republic of Cuba’s main reason for establishing this conference is the fact that Latin America attracts many well-known and emerging infectious diseases and it is the main region that contributes greatly to the spread of awareness and of debate of antimicrobial resistance, bringing together renowned scientists and international experts in order to address said issue to salvage global health.

The delegation of the Republic of Cuba calls for other delegations and countries around the world to follow in Cuba’s footsteps by bringing it upon themselves to follow the resolution that it has created in hopes of ceasing the increasing antimicrobial resistance amongst the world. This resolution has been named N.P.A.S.A. (the national precautions for awareness of the spread of antimicrobial resistance), and establishes a set of steps to be taken by delegations in order to not only bring awareness to the spreading of AMR but also to terminate the spreading of AMR itself. The steps include: promoting education about antibiotic resistance among healthcare professionals as well as among citizens, improving laboratory capabilities and diagnostic technology, regulating the use of critically important antibiotics, collaborating with healthcare facilities and their subdivisions, and promoting preventive measures against the spread of antimicrobial resistance (EX: hand hygiene). The preventive measures of this resolution will be implemented in education systems and public facilities all around the world in order to emphasize their importance among the citizens of said areas. The top priority of all delegations is to inform health professionals, scientists, prescribers, the general public and more, of the causes and effects of AMR and of what they can do in regards to ending and spreading awareness of the increasing of AMR around the world. The Republic of Cuba hopes that all other delegations will come together in order to secure national plans against the spreading of AMR with the aid of the resolution proposed by the Republic.
Delegation from: The Czech Republic  
Represented by: Strongsville High School

Position Paper for the World Health Organization

The Czech Republic is a strong supporter of working to reform the principal role played by the United Nations in coordination of humanitarian action. The country has a goal of providing any and all possible humanitarian support towards countries and citizens that may require this assistance. Czechia believes that it is unjust to deprive people of the basic privilege of health and safety. Therefore, the issues before the committee of “Addressing the Global Threat of Cholera” and “Antimicrobial Resistance” represent the Czech Republic’s call for health care assistance from the United Nations in order to provide humanitarian aid.

I. Addressing the Global Threat of Cholera

The most recent cholera outbreaks have been throughout Africa, Haiti, and the Democratic Republic of Congo in 2018. Although this may not seem to be an issue American and European countries, the fact remains that it is causing a numerous amount of deaths each day and families continue to suffer. The disease has a high potential of spreading again as it has spread in many previous years. As a strong provider of humanitarian aid, the Czech Republic believes it is the United Nations’ responsibility to help these countries eliminate this illness.

The Czech Republic was, at one point, part of a communist territory. After becoming independent, the country chose to be based on human rights and providing aid to all. Czechia believes that every human deserves to live under safe conditions in which nothing prohibits their freedoms. The country also chooses to apply this belief to other countries that may be facing drastic effects of conditions such as disease. They support the organization, the Red Cross heavily. Cholera is also a disease based on unclean environments in which water and food sources are polluted by bacteria. The Minister of Foreign Affairs, Tomáš Petříček, and his country are strong supporters of clean, sustainable environments. The Czech Republic also is a significant ally of the United States who has provided aid in many cases of disease in other countries.

The Czech Republic’s goal of helping with the cholera outbreak involves firstly, curing and quarantining the already affected people. This would be to avoid more deaths and the spread of this disease. The second action needed would be cleaning water sources. An alternative would be adding pipelines and other structures that would provide clean water directly to people. These actions require aid from organizations such as the Red Cross. It would also require monetary aid to fund services and to support the installment of such structures. In doing so, future spreading of the disease to nearby countries or more outbreaks within the countries would be prevented.

II. Antimicrobial Resistance

Antimicrobial resistance is a pressing issue that is growing more urgent as time goes on. Antimicrobial resistance is defined as “the ability of a microorganism (like bacteria, viruses, and parasites) to stop an antimicrobial (such as antibiotics, antivirals and antimalarials) from working against it,”(World Health Organization). As a result of this, common treatments become obsolete
and the infection continues to develop and may spread to others. The resistance is spreading rapidly and is causing drastic effects. The issue is currently being addressed but is still lacking major support in all six World Health Organization regions.

As a strong believer in humanitarian aid, the Czech Republic is in support of finding solutions to Antimicrobial resistance. The Czech Republic is an avid supporter of human rights and providing aid to people or issues that may require it. Antimicrobial resistance is an issue that is impacting people all over the world and threatening their opportunities of life while instilling a constant state of fear of death from ineffective vaccines and fatal diseases. The basic treatments for extreme health problems are ineffective and there is currently no other treatment for many of the infections. The Czech Republic has also had testing done in 2018 on antimicrobial resistance in their water treatment plants and the results from this showed that resistance to antibiotics is present in their water treatment plants. The leaders of the country support environmental improvement to rescue civilians and their quality of life. If this problem continues in Czechia and the rest of the world, there will be issues involving an increase in deaths and an increase in undrinkable water.

The Czech Republic will be working towards the goal of finding new ways to efficiently and effectively provide assistance and treatment for illnesses that have ineffective treatments to people that struggle with these diseases worldwide. The country, having connections with many rescue organizations, will work hand in hand with the Red Cross as it has in the past to perform new procedures and research in stopping antimicrobial resistance along with finding new ways to treat sickness that have only had antibiotic treatment previously. The country is also willing to fund the quarantining and isolation of people facing currently incurable diseases in order to prevent their spread. New ways to fight common yet very deadly ailments must be found if antimicrobial resistance is going to persist in the future, so Czechia will put forth much effort including monetary and humanitarian support towards this.
Delegation from: the Democratic People’s Republic of Korea
Represented by: Westlake High School

Position Paper for The World Health Organization

The issues before the General Assembly are: Addressing the global threat of cholera, and antimicrobial resistance. The DPRK is committed to maintaining international peace and security while maintaining its status as a champion of national sovereignty.

I. Addressing the Global Threat of Cholera

The Democratic People’s Republic of Korea is committed to maintaining the health of its citizens. The DPRK has consistently valued supporting its citizens in the face of cholera epidemics, like the one seen in 2016, after historic flooding devastated the country. The DPRK wishes to formally request relief assistance in the World Health Organization to stop the spread of disease and help with recovery efforts. The DPRK is fully aware of the dangers of standing water and its effectiveness at spreading disease. Access to clean drinking water is vital to prevent the spread of cholera. Therefore, the DPRK will propose investment and infrastructure to prevent the pooling of standing water that puts people at risk.

II. Antimicrobial Resistance

The second issue facing the World Health Organization is the increasing risk of antimicrobial resistance. As the West grows more dependent on antibiotics, the disease-causing microbes have began to evolve and render antibiotics ineffective, and making the respective diseases more powerful than ever. The consequence of this resistance is common treatments becoming unusable, and therefore leaving more people at risk. Fortunately, the DPRK is completely free of HIV and AIDS, and its citizens are therefore protected from the compromised immune system that is caused by AIDS. However, in order to maintain its state of country-wide immunity, the minuscule chance of HIV/AIDS entering the country poses a threat of antimicrobial resistance that the DPRK has a responsibility to not ignore.

The issue of the UN dictating what kinds of healthcare is accessible to citizens is a direct assault on the national sovereignty of the Democratic People’s Republic of Korea. The Republic is under constant threat from hostile countries like South Korea and the United States. Limiting what kinds of treatments the Republic may possess limits the Republic’s ability to defend itself against hostile foreign powers and diseases. Therefore, the Democratic People’s Republic of Korea intends to continue to support and contribute to resolutions that protect worldwide health and maintain national sovereignty.
Delegation from: The Dominican Republic  
Represented by: Beachwood High School  

Position Paper for the World Health Organization  

The issues for deliberation before the World Health Organization includes Addressing the Global Threat of Cholera and Antimicrobial Resistance. Accordingly, the Dominican Republic is deeply concerned with the issues at hand. Consequently, the delegation from the Dominican Republic is not only deeply dedicated to strong collaboration with its fellow nationstates, but is committed to finding lasting solutions to the issues that face our world today.

I: Addressing the Global Threat of Cholera

Cholera is an epidemic that mainly affects settings with poor sanitary conditions, a lack of clean drinking water, poverty, malnutrition, and coastal regions with warm, salty waters. Cholera takes between twelve hours to five days to show symptoms once contracted, and can cause death in just a few hours after symptoms show. Cholera spreads through food or drink contaminated with *Vibrio cholerae*. Cholera is a dehydrating diarrheal disease that persists in many countries including Yemen, Somalia, Democratic Republic of Congo, Haiti, Zambia, Uganda, Malawi, Nigeria, South Sudan, and the Dominican Republic. Cholera originated in the Ganges Delta in 1543, and has since then caused seven pandemics.

In response to the global epidemic of cholera, the World Health Organization (WHO) created the Global Task Force on Cholera Control (GTFCC) in 1992. After it was shut down once eliminating cholera in the Americans, it was revitalized in 2011 (WHA 64.15). Later, WHO extended its attack on cholera by establishing the Global Roadmap: Ending Cholera by 2030. This plan chose to attack cholera by using early detection, quick response, and a targeted multi sectoral approach to prevent cholera in hotspots. The Dominican Republic experienced its first cholera case in November 2010. In comparison to its neighbor Haiti, the Dominican Republic has less cholera deaths due to higher quality of water, but still works towards eradicating cholera in its area. The Dominican Red Cross (DRC) has worked fruitfully towards this goal. By implementing programs working towards safe water, sanitation, and health, the DRC has trained 54,500 people with cholera prevention and response training. In order to raise awareness about this disease and prevention, the DRC has established outreach campaigns utilizing puppet shows, rap songs, websites, and social media. The DRC has also worked with the Haitian Red Cross to deliver 50,000 oral rehydration salts (ORS) to people in need and trainers. Lastly, the Dominican Republic partnered with Pan American Health Organization, the World Health Organization, the Centers for Disease Control and Prevention, the United Nations Children’s Fund (UNICEF), and the Haitian government through the program “Call to Action: a Cholera-Free Hispaniola” to continue to work towards eliminating cholera.

The Dominican Republic wishes to continue to work with other countries to not only eliminate cholera in the Hispanic region but also globally. The Dominican republic believes in a three prong plan that (1) raises awareness on prevention of cholera through social media; (2) trains facilities and adults on proper treatment; (3) works towards better sanitation and infrastructure of hot spot communities. The Dominican Republic is confident that they will be able to play a key role in helping to guide other countries towards eradicating cholera.
II: Antimicrobial Resistance

Since the advent of antibiotics, antimicrobial resistance (AMR) has become an ever growing issue. From 2000 to 2015, within the Dominican Republic, antibiotic usage increase 38%. Though a portion of this increase can be attributed to proper medical reasons, this reflects an increasing number of people misusing antibiotics, which will inevitably lead to higher antimicrobial resistance rates. Common strains of bacteria such as Tuberculosis, E. Coli, and Staph have already been found to have become resistant to everyday antibiotics. This is not an issue the international community can overlook. If there is no concrete and drastic action is taken, the Interagency Coordination Group on Antimicrobial Resistance predicts that by 2050, over 10 million people will die each year due to antimicrobial resistant bacteria. It is the firm conviction of the Dominican Republic that this issue can only be properly addressed through increased communication and firm international cooperation between nations. It is not the time to turn to isolationism, but to embrace globalism.

The Dominican Republic fully recognizes the threat that antimicrobial resistance poses to the health of the international community. Accordingly, in 1996 the Dominican Republic joined the Latin American Network for Antimicrobial Resistance Surveillance (ReLAVRA). The mission of ReLAVRA continues to be to implement AMR prevention and control policies within the Latin American region. Through this intergovernmental network, the Dominican Republic has continued to provide data regarding AMR surveillance. ReLAVRA has allowed the Dominican Republic to provide valuable information to our fellow nations. Being well aware of the issue at hand, the Dominican Republic embraces WHA68.7 on the Global Action Plan on Antimicrobial Resistance. Spurred forward by this resolution, the Dominican Republic is striving to reduce antibiotic usage in the agricultural sector 15% by 2025. However, although we fully acknowledge the tasks at hand for the global community, due to domestic issues, we have not been able to confidently address the issue at hand.

The Dominican Republic would like to reaffirm our continued dedication towards the mitigation of the impact of antimicrobial resistance. We the international community must come together to properly address this issue in a swift and effective manner. However, despite our willingness to tackle this ever growing issue, the Dominican Republic cannot be expected to address this challenge without external assistance. During the 2016 year, 20% of our population was living in poverty. We simply do not have the resources to act on this matter without the support of our fellow nations. Nonetheless, we stand committed to pursuing action plans that reduce antibiotic usage and raise awareness on this fervent matter. We must adopt a One Health Approach that takes a multisectoral approach to the issue at hand. Simultaneously tackling the human, animal, and environmental sides of antimicrobial resistance. The Dominican Republic stands confident in the ability of the international community to come together to pursue the mitigation of this issue.
Delegation from: Ecuador
Represented by: Lakewood Highschool

Position Paper for World Health Organization

The topics presented to the World Health Organization include addressing the global threat of Cholera, and Antimicrobial resistance. Ecuador supports treatment of mass epidemics and the restriction of antibiotics.

I. Addressing the Global Threat of Cholera

The Nation of Ecuador recognizes Cholera as an epidemic and understands its severity. Since its earliest diagnosis Ecuador has always taken precautions, and educated the public on it’s symptoms. The Nation of Ecuador often has cholera diagnosed in early stages, and takes efforts to prevent the spread of Cholera.

The first case of Cholera was reported in The early 1990s. This was only a few weeks after Peru had declared it an epidemic. It was first diagnosed to a fisherman then rapidly spreading into an epidemic. In other instances Cholera often spreads through water supplies, in most cases through comunal pumps or pipelines. To combat this public service announcements were sent out informing the public to boil water before consumption to kill off the Cholera virus before it can spread. There were more cases where a family would dip water drinking vessels into vessels of stored water. Which could be prevented by taps to dispense water before being boiled. The most effective way to prevent outbreaks is to find the source of the disease transmission. There is a higher chance of receiving Cholera when you do a lot of work outside, and consistently consumer food from street vendors.

Early diagnosis and public inforrnance of prevention are effective solutions the combat Cholera. Informing the public about methods such as boiling water and reducing contact with surfaces that may have the virus are crucial to the prevention of Cholera. Cholera is a major epidemic affecting the planet and proper measures should be taken to resist it.

II. Antimicrobial Resistance

Earlier this year, the UN Ad hoc Interagency Coordinating Group on Antimicrobial Resistance warned that, “if no action is taken, drug-resistant diseases could cause 10 million deaths each year by 2050 and damage to the economy” and that, “By 2030, antimicrobial resistance could force up to 24 million people into extreme poverty.” The Nation of Ecuador finds these to be very troubling statistics due to the extensive use of antibiotics used in Ecuador. However, the increase in antimicrobial resistance is not only related to use on sick people, as antibiotics are used to frequently on ill livestock on farms to guarantee a healthy product.

Ecuador’s poorer populations are most vulnerable to the effects of bacterial infections, and would be unable to survive effectively in a mass-antimicrobial resistance event. The Nation of Ecuador participated in a World Health Organization (WHO) survey on the efforts of member states to prevent antibiotic resistance; Rated at step 2 of antimicrobial research efforts, Ecuador plans of fleshing out projects to
prevent future crises. In the conclusion to the survey the WHO stated that, “A quarter of the countries that responded to a WHO survey have national plans to preserve antimicrobial medicines like antibiotics, but many more countries must also step up.” The Nation of Ecuador plans on cooperating with other member states to “step up” to the plate in coming up with a palpable solution within a reasonable, short term ideas.

This issue of resistance is only made more disastrous due to the neglect by many governments on the serious future effects that could occur. As stated earlier, the nation of Ecuador would look favorably upon a plan that is based on short term efforts to specifically hinder the rampant use of antibiotics in the world. These solutions could range from a less intrusive general suggestion from this committee to countries to use lower amounts of antimicrobials, to more extensive projects of governments’ regulations and restrictions on the use of antibiotics by doctors in the countries. This would disrupt the future disastrous situations posed by the continued spread of antimicrobial resistance.
Delegation from: Ethiopia  
Represented by: Westlake High School  
Position paper for the World Health Organization

The issues to be presented to the World Health Organization are: Addressing the Global Threat of Cholera and Antimicrobial Resistance. Ethiopia hopes to create long-term solutions to these international problems.

I. Addressing the Global Threat of Cholera
Cholera is a bacteria that causes illness throughout the world. The bacteria is spread through infected water or food. It can cause mild to severe vomiting, diarrhea, and extreme dehydration. In serious cases, the bacteria can cause death within hours. Cholera tends to thrive in urban areas with weaker water systems. These areas are called hotspots, they are places where Cholera can spread rapidly. Outbreaks and epidemics of Cholera have been occurring for centuries and continue to take lives today, the most medically advanced society yet. This bacteria affects numerous third world countries and can be spread to first world countries through travelers or foods brought into the country. This means any country can feel the effects from this bacteria.

The UN and other organizations have taken measures to stop the disease and prevent its spreading in previous meetings. The World Health Organization has taken previous action by forming the Global Task Force on Cholera Control. Its goal is to reduce deaths by Cholera by 90% by 2030 and claim that over 20 countries, who are currently suffering from the bacteria, could completely eliminate it by 2030. By detecting and responding to outbreaks early, receiving support, and promoting hygiene they hope to eliminate the bacteria.

Ethiopia’s current way of handling the spread of Cholera is by sending an Epidemic Control Committee to meet and discuss how best to control the outbreak based on the area in which it occurred. They estimate the amount of resources, assign control responsibilities, etc. In addition, health workers are sent to treat patients by hydrating them. Thirdly, teams of medical personnel meet to ensure proper staff, supplies, sanitary measures, and clean water is accessible. In order to reduce the chance of death of a patient, Ethiopia has increased access to medical assistance. Furthermore, Ethiopia aims to increase public knowledge of the bacteria and access to clean water. Ethiopia views the spreading of Cholera as an important and pressing issue, seeing that there have been over 800 deaths due to it in recent years.

Ethiopia’s solution consists of increasing access to medical help and better infrastructure in areas currently affected by the bacteria. These solutions have been proven to work in the western world where Cholera has been nearly eradicated. If better infrastructure is built, water will be less likely to become contaminated with the bacteria. In addition, easy access to medical assistance after exposure to the bacteria can prevent many deaths. To complete this proposed project other countries in the World Health Organization would assist in combating this bacteria.
in ways that have worked previously in countries where the bacteria has been eradicated, like funding the building of better infrastructure or supplies such as Cholera kits.

II. Antimicrobial Resistance

Antimicrobial Resistance (AMR) is becoming an increasingly concerning global issue. AMR occurs when bacteria become resistant to drugs or antibiotics that are meant to prevent or kill them. Resistance is caused by misuse of the drug. A drug can be misused by being taken more than necessary, taken when not necessary, or a dosage is not completed. This allows the bacteria to genetically change to become resistant to a drug. This process would naturally occur over generations of the bacteria, but these genetic modifications are becoming increasingly more rapid. Due to scientists focusing on antimicrobial resistance, few new antibiotics have been created. As more bacteria become resistant to our current antibiotics, the less effective they become. Moreover, if there are no new antibiotics the world could be facing a new reality in which it is defenseless against illnesses that could once be cured.

There have been many attempts to slow antimicrobial resistance. The World Health Organization created World Antibiotic Awareness Week. It is one week, every year, in which many social media platforms to spread awareness and information about antimicrobial resistance. The World Health Organization also created the Global Action Plan on Antimicrobial Resistance, while the UN created a program called GLASS (Global Antimicrobial Resistance Surveillance System). Both programs had similar goals, the main one being to use research and surveillance to increase knowledge about antimicrobial resistance and to stop it. In other meetings the UN hoped to increase surveillance of drugs being administered to cut down on unnecessary use of medicines. They also wanted to find alternative ways to cure an illness, other than antibiotics. Ethiopia has taken action against antimicrobial resistance as well. Not only has Ethiopia participated in the World Antibiotic Awareness Week, but has also set up the AMR surveillance plan to collect data about antimicrobial resistance in laboratories all across the country. By increasing public knowledge and using data found in the surveillance plan, Ethiopia hopes to find a long-term solution to prevent antimicrobial resistance.

Ethiopia’s solution to combating antimicrobial resistance builds on that of the AMR surveillance system. All the countries in the World Health Organization will have a program where data is shared. The data would include trends and information discovered about antimicrobial resistance. This would allow countries to stay informed to create further action plans to stop antimicrobial resistance and understand how antimicrobial resistance is affecting other places in the world. In addition, a standard for when antibiotics are needed should be set. Instead of prescribing antibiotics to anyone, a certain standard of age or severity of illness needs to be met. This would prevent antibiotics from being misused and easily distributed. Finally, public education is an important step in fighting antimicrobial resistance. The public has to be aware of how their actions affect the world around them and our future. Implementing this plan would increase the world’s knowledge on antimicrobial resistance and how to prevent it.
Delegation from: Fiji
Represented by: Fairport Harding High School

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Outbreak of Cholera and Antimicrobial Resistance. Fiji is committed to helping the world community eradicate the scourge that is Cholera and wants to assist nations in dealing with microbial resistance.

I. Addressing the Global Threat of Cholera

Cholera is a disease that displays itself through severe diarrhea and dehydration that is caused by consuming the bacterium vibrio cholerae. On July 30, 1999, they reported to the World Health Organization, WHO, and the Ministry of Health of Fiji. The most recent cholera outbreaks have occurred in African nations throughout 2018. According to WHO, Cholera is a global threat that indicates lack of social development and has the largest outbreaks in the countries that are less developed. There are approximately 1.3 million to 4 million cases of cholera per year resulting in 21,000-143,000 deaths. Currently, WHO has implemented the following to prevent the outbreak of cholera: Rehydration therapy, meaning prompt restoration of lost fluids and salts through rehydration therapy is the primary goal of treatment. Also antibiotic treatment, which reduces fluid requirements and duration of illness, is indicated for severe cases of cholera. Zinc treatments have also helped to improve cholera symptoms in children.

Approximately 20 years ago, there was a single case of cholera that led to multiple investigations. Fecal matter had been discovered in the drinking water supply after water samples had been taken from around the island. The government then began chlorinating all water sources prior to distribution. Currently, the Australian government provides an estimated 58.8 million dollars total to Fiji to strengthen primary health services along with two other issues. This aid also provides citizens of Fiji and surrounding countries with education about healthy hygiene and choosing adequate food sources.

Our proposed solution is to create devices that float in open bodies of water. Within these devices tablets containing solution to purify contaminated water will release over time. Fiji will also include information about these devices in their education program. The education program will also include more in-depth information about healthy hygiene and choosing safe food sources through a government issued curriculum. These changes will make a huge impact in preventing and educating Fijian citizens about cholera. These are also steps that can be taken by the world community to eradicate this disease.
II. Antimicrobial Resistance

Antimicrobial resistance is the way that microorganisms like bacteria, viruses, and parasites fight off antimicrobials. Many countries over prescribe or overuse antibiotics which leads to the creation of “superbugs.” Thousands of people per year in countries around the world are infected with “superbugs” and millions of people die per year. The global economic burden would be approximately $120 trillion. It is suggested that all countries create and implement an AMR plan to combat antimicrobial resistance. Antimicrobial microbes are found in animals, food, people, and the environment. The microbes can spread between people and animals, from food of animals, and from person to person. The reason for this is poor infection control, insufficient sanitary conditions and unsuitable food handling.

To combat this issue, Fiji launched an AMR action plan in 2018. This helped improve awareness and understanding of AMR through effective communication, education and training. Fiji also strengthened coordinated surveillance systems, advanced the use of antimicrobial medicines in human and animal health, initiated and guaranteed governance, sustained investment and actions to combat AMR. Fiji’s response to AMR included the proposed committee of TOR (endorsed by the Medicinal Products Board) which has a plan of meeting frequently, developing strategic operational plans, developing work plans, report: quarterly and annual reports, and monitoring and evaluation of outcomes.

Our proposed solution is to create laws that control the amount of medicines that will be prescribed, which means consumers would be restricted on how often they could refill their prescription and how much they can take. For example, doctors would only be able to prescribe Doxycycline for the severest cases of diseases such as cholera. New technology would help control how much medicine a person can consume. It would also help to produce various prescriptions that will suit most people. Also, Fiji would try and control if people were sharing their medicines because some prescriptions would not suit other various people with their condition. We also want to cut down on the use of expired medications. Lastly Fiji will create technology that predicts strands of diseases that will become “superbugs” in the years to come. Fiji will work with the UN to put these solutions in action.
1. Addressing the Global Threat of Cholera

Cholera has recently become one of the biggest problems facing the World Health Organization. Despite there being a known cure for the disease, it remains to be a threat. Cholera is contracted through drinking infected water. It takes hold in its victim’s digestive system and causes extreme diarrhea. The victim will quickly die from dehydration if not cured quickly. It can kill within hours if not treated. Researchers have estimated that every year there are between 21,000 to 143,000 deaths due to cholera every year worldwide. The disease is commonly found in areas where there is poor infrastructure or in humanitarian emergency areas; thus, giving it the name, the disease of inequality. Because it’s bacteria are normally found in warm salt water, areas near the coast are under more threat from outbreaks. Studies all associate climate change with the spread of cholera. All of these aspects make cholera dangers and a priority of the WHO.

France has had several experiences with cholera in the past. The disease ravaged Paris and much of France. The first outbreaks in the area were in 1832. So many died that it was reported that the grave diggers couldn’t dig graves fast enough to bury the dead. The cause and cure for cholera were not known at the time and hence there was nothing anyone could do about it. We know first hand of the damage the disease can do on a physical level as well as on a national level, paralysing the local area with fear. We are keenly interested in supporting countries racked with this terrible yet completely preventable disease. Considering the number of people requiring humanitarian aid has more than doubled from 2012’s 61.7 million to 2018’s estimated 135.7. To combat this, France had tripled its spending on humanitarian aid. They have also streamlined there The Global Task Force on Cholera Control (GTFCC) started a plan in 2017 known as Ending Cholera: A Global Road Map to 2030, to reduce cholera related deaths by 90%. This project was launched from France in 2017. Since its launch it has made great progress. According to a WHO report from October 2018 “At least 10 countries are now taking active measures towards cholera control plans in alignment with the Global Roadmap: Bangladesh, Haiti, Kenya, Malawi, Nigeria, South Sudan, Uganda, Zambia, the United Republic of Tanzania, and Zimbabwe. In addition, 47 African countries adopted the Regional Framework for the Implementation of the Global Strategy for Cholera Prevention and Control on 28 August at the 68th session of the WHO Regional Committee for Africa.”

The Global Road Map focuses on aligning the various resources of the participating countries, organizations, one of which is WHO, and outside donors. A focus of The Global Road Map is to use a coordinated approach to contain cholera as well as early detection and response. France is fully planning on continuing to support this effort as it has been a contributing factor and has more planes in the future to improve. Along with increased funding for Humanitarian aid money France is planning to increase their contribution to the Global Road Map. In conclusion, with all of the actions taken by France in addition to the one’s planning to be taken the country is going to take a leading role in the global threat of Cholera.

2. Antimicrobial Resistance

As antibiotics have been rapidly increasing since the nineteenth century, the formation of antimicrobial resistance are becoming more prevalent in society as a whole. Antimicrobial resistance is an extreme risk and threat to the health of all animals world wide, especially to human beings. Antimicrobial resistance occurs when microorganisms, better known as bacteria, adapts in a way to reduce or eliminate the effects of a drug. These microorganisms are exposed to medicine or medication and in certain conditions are able to become resistant to these drugs. These particular cases usually happen through some condition of genetic mutation, but a lot of the times it happens through the misuse and overuse of antimicrobials in humans and other species. These mutations cause the microorganisms to become “superbugs” and make infections more lethal. The infections become more lethal as the antibiotics that have been created become futile, and cannot effectively counteract these diseases causing more illness to globally spread. Bacteria that are affected by antimicrobial resistance are diseases such as Ecoli or HIV/AIDS, which have been shown to become resistant to antibodies. While these diseases are becoming
resistant the misuse of antibiotics the misuse and overuse make the problem much worse. People often take antibiotics without professional oversight, and give animals that are in a thriving condition to prevent from bacteria infection. This misuse causes these bacteria to be able to adapt to the conditions stated before. Even medical professionals are apart of the crisis, as sometimes they give patients too much of a medication, or extended their period too long. Overuse has also been seen to cause individuals to become dependent on antimicrobials, and when removed off the drug causes their illness to become prevalent once again. The United Nations had taken a step toward combating this issue with resolutions and the World Health Organization has also raised awareness for this issue making a whole week dedicated to the issue. Overall this issue has become a large issue that is being faced by France along with other nations.

France has taken numerous steps internally in facing this global issue. As France being a major consumer in antibiotics and being fourth in European hospitals in using them they had to face this issues from the start. All hospitals that are in French borders have formulated a medical committee to deal with nosocomial infections and antibiotic use (those being named Comité de Lutte contre les Infections Nosocomiales and Comité des Anti-infectieux). The medical committees all contain an infection control practitioner who either has a background in microbiology, infectious diseases, Public Health, pharmacy, or clinical care. In addition, the hospitals all develop protocols based on recommendations by one of the major national bodies in infection control, such as the French Society for Hospital Hygiene (SF2H). France has also taken measures to isolate patients who are already known, or recently have been identified as carriers of resistant organisms, even though this process can be quite costly. Lastly in every hospital there strict guidelines for the use of antibiotics that demand that the situation should be re-evaluated after the initial prescription, in order to confirm a response to the treatment and prevent the emergence of resistance. While antibiotics can cause diseases to spread more readily, we also need to be reminded that they still are very useful in combating diseases.

France plans on implementing a comprehensive plan of action in combating this issue in the future. France is going to implement a three national plans for human medicine in which they are targeting hospitals antibiotic use. France is planning on requiring a mandatory public reporting of annual quality indicators of infection prevention and is going to implement this inside each of their hospitals to assess them. In addition they have created the national programme for the prevention of healthcare-associated infections (HCIA) and in the future would like to continue this. The programme ensures that patients and public are involved in the fight along with reinforcing the standard precautions for every patient. Lastly, France in planning on enacting the national action plan to reduce antibiotic resistance in medicine. This plan is to raise awareness of all stakeholders, improving livestock farming practices, reinforcing partnerships between prescribers and animal owners and, promoting prevention and alternatives, such as vaccines. Overall France has a bright future in combating the issue at hand, and is taking a leading role in the situation.
Delegation from: the Federal Republic of Germany  
Represented by: Archbishop Hoban  

Position Paper for the World Health Organization  

The issues presented before the World Health Organization are: Addressing the Global Plan of Cholera and Antimicrobial Resistance. The delegation of Germany firmly believes that these issues presented are extremely important in the modern world, with our growing medical issues and knowledge.

I. Addressing the Global Plan of Cholera

With one of the best and most recognized healthcare systems throughout the world, Germany has roughly one confirmed cases of Cholera each year. A huge preventative factor in Germany is the renowned water system, preventing Cholera, which most commonly spreads through contaminated water. Now, Germany actively aides countries such as Zimbabwe to decrease the spread of Cholera by donating money to organizations like the International Committee of the Red Cross (ICRC). Germany believes addressing the spread of Cholera is extremely important, in order to stop preventable diseases like Cholera from spreading and to ensure a healthier world for the future.

The World Health Organization has identified Cholera as one of the greatest threats against our modern healthcare system. This endemic is intertwined with poverty, social disparity, and technological scarcity. Recently, Germany has pledged over 1 million euros to fight Cholera across the world. Although Germany is currently not affected by Cholera in a large way, Germany has contributed an immense amount of research and knowledge to the international community in fighting this disease.

The Federal Republic of Germany believes the international threat of Cholera must be addressed and a plan to cease the spread of Cholera must be created. Germany plans to prevent and attack Cholera through improvement of infrastructure, such as water systems, working with organizations such as ICRC, educating the public, improving technology, etc.. Germany is particularly concerned with Cholera’s spread in poorer regions of the world, and therefore less medically accessible regions. Currently, the World Health Organization has distributed Interagency Diarrheal Disease Kits (IDDK) and other cholera kits that target the disease head-on, and are extremely effective in doing so. Germany would like to continue this practice, and even refine current kits. Germany also believes that proper surveillance is an essential for fighting Cholera, and calls upon countries to improve upon surveillance technology. Germany is passionately against Cholera, and is dedicated to creating a global plan that encapsulates successful past efforts, while also adding new, unique methods in fighting this disease.

II. Antimicrobial Resistance
Germany’s intention to abolish antimicrobial resistance lies in the six thousand deaths faced due to these diseases in Germany, and the seven hundred thousand that the world faces annually. Germany currently leads Europe and the world in the development of action plans regarding Antimicrobial Resistance (AMR), creating short term and long term plans dedicated to ending this dreadful epidemic. Germany lays out a short term plan in the German Antibiotic Resistance Strategy (also known as DART 2020), dedicated to improving awareness and education, strengthening research, advancing prevention measures, optimizing antibiotics, all while creating sustainable economic growth. Germany’s long term goals begin with implementing DART 2020 policies nationally and internationally, and end with AMR completely abolished.

Germany tackles this issue on an international level through leadership and funding of projects across the world. Beginning in May 2016, Germany has funded a number of projects, which combat AMR, particularly in African and South-East Asian countries. These projects particularly target surveillance and improving current systems. Germany has also contributed to many WHO projects, sponsoring many global action plans. Germany is completely dedicated to not only solving this issue on a national level, but a global level.

To fight AMR, Germany wishes to implement similar plans to that of DART 2020, as DART 2020 completely addresses not only issues that are unique to Germany, but issues that are unique to each country and adapt to such needs. Germany particularly believes in the policies addressed in DART 2020, as well as policies implemented affecting zoonotic, or spread by animals, AMR’s, such as those addressed in “Zoonoses”. Globally, research and education needs to be drastically improved, so that the world may effectively fight AMR with a common and increasing knowledge. As new antibiotics have not been developed since the 1970s, current antibiotics must not only be modified to fight AMR, but new antibiotics must be produced with the immense amount of knowledge the world has accumulated in the last 50 years. Infrastructure, particularly that of health infrastructure, must be improved to prevent contamination, and surveillance technology must be developed to prevent AMR from striking. Most particularly, however, countries must monitor antibiotic and drug distribution and use, sustaining antibiotic effectiveness and preventing misuse, and overuse, which can lead to AMR. The world must also address the differing technology, funds, and knowledge that individual countries possess while fighting AMR; Germany, moreover, would like to create country specific actions that would balance the gap created by these differing factors. Overall, Germany is committed to a plan that addresses all of these issues, while also creating a quintessential model that the world may base their own action plans upon.
Delegation: The Republic of Ghana
Represented by: Mayfield High School

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera and Antimicrobial Resistance. Ghana is devoted to the development of solutions to improve world health and enhancing the lives of stricken individuals in all states and territories.

I. Addressing The Global Threat of Cholera

Cholera has been conspicuous inside the global community for a significant amount of time. During the nineteenth century, cholera spread over the world from the Ganges delta in India. Six ensuing pandemics killed a massive quantity of individuals in all mainlands. The current (seventh) pandemic commenced in South Asia in 1961 and arrived at Africa in 1971 and the Americas in 1991. Cholera is currently a pandemic in several nations. All-inclusively, it is assessed that 1.3 million to 4 million cases of cholera and 21,000 to 143,000 deaths occur due to cholera every year. As of 4th January 2015, a total of 28,922 instances have occurred of Cholera, consisting of 243 deaths which have been recorded, representing a case fatality rate of 0.8%; in simply Ghana alone. Cholera is brought about through the ingestion of nourishment or water sullied with the bacterium Vibrio Cholera. It is a global threat to general wellbeing and key factor of the absence of social conveniences, for example, protected and processed water, cleanliness, and sanitation. An individual with cholera loses a lot of water and salts quickly, turning to be feeble and noticeably parched very quickly. On the off chance that the individual does not get treatment early, then the weakness may also progress, and can quickly advance to death. The Republic of Ghana seeks assistance to help establish and strengthen more hospitals and clinics in order to take action in treating the many individuals affected by Cholera in Ghana.

Cholera is being mistreated and revamped in Ghana through the spread of feces of an infected individual contaminates the water or food of another person and it is swallowed, or used by another individual. For example in the source “Cyclical cholera outbreaks in Ghana”, in Ghana the lack of sanitation and plumbing causes many individuals to use local water sources to both cleanse themself and as drinking water; being detrimental to their health and liveliness. “The epidemics’ endemic nature in Ghana has been attributed to a lack of potable water supply, the presence of slums, unsanitary practices and poor personal hygiene, indiscriminate waste disposal, as well as street vending of contaminated water or food” (Mireku-Gyimah et all). Most of the individuals who have been affected through the outbreaks had poor attitudes and understanding in regards to the disposal of refuse. Some households lack bathroom facilities, as properly as applicable waste disposal sites and equipment. There have been also been insufficient personnel accountable for waste disposal. Because Ghana doesn’t have the acceptable sanitation and amenities to grant quality healthcare, a massive purpose of Ghana is to try to help provide better healthcare amenities and services to the public to assist in serving ailing individuals but to have an impenetrable and healthy environment for surrounding nations as well. “The Ghana Health Service at the national level sent cholera outbreak alerts to all regions and districts in the country. Standard operating procedures on cholera surveillance and case management were also sent to all regions. “Medications and other logistics were dispatched to affected outbreak areas, and the National Cholera and Emergency Preparedness and Response Plan were updated and put into action” (Mireku-Gyimah et all). But since we don’t have the manpower to provide healthcare, we are requesting the help of prepared counties in the
assistance of ill-prepared districts in Ghana. Implementation of the intervention would take place to make certain that it had the most coverage and successful implementation. Individuals would be engaged and educated on how diarrheal ailments attributable to unsanitary practices and poor hygiene are impacting child morbidity amongst households, and why it is indispensable to forestall the ailment by means of adopting prescribed hygienic practices, the use of secure water, and the avoidance of unsanitary behaviors.

Water and sanitation amenities ought to be made accessible through an initiative to communities, perhaps through our facilities and clinics to help provide cholera treatment. Moreover, drinkable water must be supplied to several individuals and communities; through the development of boreholes and piping structures for small towns. But water production developments where secure water can be purchased; must also be created to have a definite location for drinking water. Sanitation within communities would additionally be expanded via household latrine development and institutional bathroom construction, as well as through the promoting of hygienic behaviors; since only 1 in 8 Ghanian individuals on average are found to wash their hands. We as a global community should try to strive to provide better living conditions for not only Ghana by the global community as a whole, and we full-heartedly support any country who strives to eradicate Cholera as a whole.

II. Antimicrobial Resistance

Antimicrobial resistance (AMR) is the capacity of a microorganism (like microscopic organisms, infections, and a few parasites) to stop an antimicrobial, (for example, anti-microbials, antivirals, and antimalarials) from neutralizing it. Subsequently, standard medicines become incapable, contaminations persevere and may spread to other people. The significance regarding this global issue is that this AMR can often be deadly, and is a clear threat to the world.

In Ghana, it has been found that several bacteria have infected the bloodstream of many patients and caused their death. AMR can be caused by the misuse of antibiotics or other drugs and kills at least 150 people annually with at least 440,000 cases each year. In fact, a survey in Ghana reflected that 43.7% of people in Ghana use antibiotics without knowing what they are and when they should be used. Globally, this calamity could significantly damage the economy by increasing health expenditures. It can be difficult for Ghana to remedy this problem due to the lack of laboratories and materials; but, has made several efforts to simmer this problem. For instance, Ghana held several events in order to inform their community about this problem. They created dances including doctors and pharmacists, demonstrating the correct use of antibiotics. They showed that in order to buy drugs from the pharmacy, they had to approach pharmacists with prescriptions. Additionally, they exhibited correct use and dosage for any type of these antibiotics. In addition to this, an impactful policy was employed in order to meet the goals that the country is working towards improving the status of Ghana. Employing this plan and removing the roadblock of AMR will allow Ghana to excel and improve overall, and rid of antimicrobial resistance.

Antimicrobial resistance is a disease that can influence the lives of many families in several countries. In Ghana, several efforts are being made to put an end to this prominent crisis. One example of this is entertainment efforts and political policies. In all, it is critical to Ghana to continue to improve the conditions of their society and the impact of this disease.
The issues before the World Health Organization (WHO) are addressing the global threat of cholera and antimicrobial resistance. The United Arab Emirates (UAE) has demonstrated leadership in both of these areas and hopes to gain further support from fellow representatives in the United Nations.

A. Addressing the Global Threat of Cholera

The UAE has 9.2 million residents including 1.4 million Emirati citizens and 7.8 million expatriates. The country has only 86,300 square kilometers that are mostly desert and sand. There is very little rainfall and very high temperatures. As a result of these harsh conditions, a major issue in UAE and surrounding countries is the availability of safe drinking water.

Cholera is a disease caused by eating or drinking contaminated water containing the bacteria *vibrio cholerae*. Untreated, cholera can cause dehydration and even death.

Due to environmental factors in the Middle East, cholera is a common illness. From 2016 to 2018 more than 1.2 million cholera cases were reported in Yemen. More than 2,500 people died, 58% of whom were children.

The UAE, represented by the Emirates Red Crescent (“ERC”) has taken it upon itself to support and help resolve the crisis of cholera.

In the summer of 2019 the ERC launched an anti-cholera campaign in Mawza District in Taizz Governorate, Yemen. This campaign included a massive six day program to clean water wells, and drain swamps to eradicate the bacteria causing the disease. This is not the only way the UAE plans to help fight the epidemic. UAE is now in collaboration with (“WHO”) sending medicine and more advanced equipment to help control the outbreak. Following these efforts, the death rate is slowly going down.

Now we propose to take the plan of the UAE to the next level. Not only should swamps and wells be cleaned, but plumbing, water lines and even household faucets should be reconstructed. This will completely clear out any bacteria in accessible water and prevent the disease from further infecting the population. Hopefully if changes are made in Yemen these efforts will impress upon the rest of the world that broader remedial action is needed now. These programs are essential to give adults and children in Yemen, and elsewhere, a chance at a better life.

B. Antimicrobial Resistance
The United Arab Emirates firmly believes that antimicrobial resistance is an issue present in today's society that needs to be resolved immediately.

Antimicrobial resistance (AMR) is the ability of bacteria, viruses, and parasites to stop antibiotics from working against the viruses. As a result, regular treatments become ineffective. Many of the infections spread to others extremely quickly. When used properly, antimicrobial drugs save lives. However, according to the Centre for Evidenced-Based Medicine at the University of Oxford (CEBM), otherwise effective medications when used excessively or irresponsibly in human medicine, intensive livestock, pharmaceuticals in the environment, and veterinary medicine can: “put patients with life threatening infections at risk of therapeutic insufficiency” and “endanger the potency and efficacy of antimicrobial agents [in the environment].”

The United Arab Emirates recognizes antimicrobial resistance as an ongoing challenge across the world.

At the 68th World Health Assembly in 2015, a global action plan was created to address all antimicrobial resistance. The first step of this plan was to raise money for intense research in order to be more educated on the subject. This step was completed and successful in 2017.

Now there is a need to run evidence based tests to help treat the microorganisms causing the body to lower resistance to infections. The purpose is to ensure that people are being prescribed and receiving appropriate medications. This way, the general population will gradually reach a higher immunity to these microorganisms, and therefore becoming healthier and more resistant to viruses.

This issue is one that needs to be resolved in the near future, so that the United Arab Emirates — and all nations — can lower their infection rates and quickly increase the percentage of healthy citizens.
Position Paper for the World Health Organization

The issues of concern before the World Health Organization are as follows: Addressing the global threat of cholera and antimicrobial resistance. The delegation of India is committed to resolving the global issue of cholera and antimicrobial resistance with effective and fast-acting solutions.

I. The Global Threat of Cholera

Cholera is an acute diarrhoeal infection caused by ingestion of food or water that is contaminated with *Vibrio cholerae* bacterium. Cholera is a global problem because it is transmitted by ingesting food or water and if the bacteria, *vibrio cholerae*, reached a greater number of bodies of water around the world it could cause a pandemic of cholera. Internationally, this threat affects 17 countries in Africa, 12 in Asia, 4 in Europe, 4 in the Americas, and 1 in Oceania. Haiti, the Democratic Republic of the Congo (DRC), Yemen, Somalia, and the United Republic of Tanzania accounted for 80% of all cases. Of cases reported globally, 54% were from Africa, 13% from Asia and 32% from Hispaniola. Imported cases were reported in 9 countries.

In 2016 there was a report that stated that 38 states reported a total of 132,121 cases of cholera. Of cases reported globally, 54% were from Africa, 13% from Asia and 32% from Hispaniola. Imported cases were reported in 9 countries. However, it is known that globally the true number of cholera cases is much, much higher. The number of cases globally is estimated to be 1.4 to 4 million cases with 21,000 to 143,000 deaths per year worldwide. In 2016 it was reported that there was a 23% decrease of cholera cases compared to 2015 when 172,454 cases were reported globally. Though the number of cases has decreased dramatically, the decrease was accompanied by more than double the mortality rate (1.8% in 2016 vs 0.8% in 2015). If future action is not taken the mortality rate could ascend even higher resulting in more death.

The delegation of India's stance on the global threat of Cholera is that Cholera is a dangerous disease that can be prevented through a non-vaccine strategy through the Global Task Force on Cholera Control (GTFCC). India has taken numerous actions to prevent cholera from spreading. For example, the Government of India’s major anti-cholera and anti-diarrhea initiatives under Integrated Disease Surveillance Program (IDSP). The IDSP is a system that is created to detect and respond to diseases quickly with a network of sites that can be accessed and by sub-centers, primary health centers, community health centers, hospitals including government and private sector hospitals and medical colleges to create data for the IDSP. The data that is collected is then analyzed for disease trends. Another action by India to prevent Cholera is the National Rural Health Mission (NRHM). The NRHM complements IDSP activities by focusing on sanitation, hygiene, nutrition, and safe drinking water. The goal of the NRHM is to provide accessible, affordable and quality health care to the rural population, especially the vulnerable groups.

The action that India is going to take is to create a new system called the Organization of Cholera Elimination in India (OCEI). The OCEI’s mission is to help fund the manufacturers of oral Cholera vaccines such as SBL Vaccines, Shantha Biotech, and Eubiologics. They will also send researchers and doctors to areas of India that are prone to Cholera to find out how many outbreaks of Cholera there are in India and work on curing this epidemic. The main goal of the OCEI is to end the possibility of a Cholera epidemic in India and work on eradicating the disease altogether in the form of a vaccine or cure for the bacteria. At the committee is hoping to begin the OCEI and start preventing Cholera.
II. Antimicrobial Resistance

Antimicrobial Resistance is a mutation where microorganisms such as bacteria, viruses, fungi, and parasites are resistant to medications. The threat of Antimicrobial Resistance (AMR) is in every country all throughout the world, but AMR is more of a threat in undeveloped countries. It is higher in undeveloped countries due to the lack of medical knowledge and due to the lack of medical funding. AMR is becoming increasingly threatening across the whole world and is often found in people, animals, food, and the environment (air, water, etc.). AMR is spread through people, animals, and inappropriate food-handling, but the spread of AMR is increased in areas with poor sanitation and in conditions where infection control is poor like in developing countries.

Antimicrobial Resistance is such a problem that every country on this earth has had an issue with AMR. In medical studies written by the UN, patients with an infection of drug-resistant bacteria have a higher chance of having worse medical outcomes and have to spend more money on more effective treatments. But a major threat that AMR is showing is that it is adapting to more contagious and fatal diseases like HIV. Patients in developing countries that were diagnosed with the HIV virus that had started antiretroviral therapy (ART) and 7% of those infected had a more drug-resistant virus. In some developing countries it was up 10%-20% and in some cases was up to 15% but a shocking discovery was that patients that restarted their ART had up to 40%. But other diseases like Malaria, Tuberculosis, Pneumonia, and Influenza have all had an increase of AMR.

The delegation of India’s stance on AMR is that AMR is counteracting one of modern medicine's greatest inventions, antibiotics. India stated that antibiotics have allowed people to live longer and more healthy but due to this epidemic of AMR, antibiotics have proven useless. India’s solution to eliminate all traces of AMR has been to communicate with countries from the South East Asia Region of the World Health Organization (WHO) and create a national awareness of AMR throughout India due to the lack of knowledge that Indian citizens had on AMR. Another step India took to eradicating AMR was when India created a huge out of pocket health care system that was brought about by Dr. Hank Bekedam. Bekedam who is India's WHO representative wanted to create a system that would both help the national health of India but also create a health care system that would be cost-free for the Indian citizen. This plan did not help towards the elimination of AMR, but these high expensive drugs would not help the cause of eradicating AMR and this is what Bekedam said about his plan, “This situation needs to be interrupted and reversed not only for safeguarding people’s health but also for providing protection against health care costs and people going into poverty.” Overall Bekedam's plan was ineffective at solving the AMR situation in India.

An action India could take to solve AMR would be to increase the medical budget and to increase further knowledge of AMR. But a possibly more effective way of eliminating AMR would be to create a food packaging system that would eliminate the spread of AMR through inappropriate food packaging. Another possible solution India could create would be to make India a more sanitary country. Since AMR is spread through poor sanitary conditions, eliminating one of the ways of transmitting the disease could reduce the amount of AMR patients and by getting rid of this form of transmission it could possibly reduce the strength of AMR. If we can eliminate the transmissions of AMR and we increase our medical knowledge of AMR we could, as a country, eradicate Antimicrobial Resistance.
Delegation from: Iran  
Represented from: Berea Midpark High School

Position Paper for the World Health Organization (WHO)

The issues before the World Health Organization (WHO) are as follows: Addressing the Global Threat of Cholera and Antimicrobial Resistance. Iran firmly believes in progressing towards a safer world through better healthcare and more funding towards development of better vaccines.

I. Addressing the Global Threat of Cholera

Cholera is a highly infectious disease spread mostly through contaminated water, but it can also be ingested through infected food, making it especially dangerous in underdeveloped countries in the Sub-Saharan region and the Middle East. There are between 1.3 million and 4 million cases worldwide, and from 20,000 to 140,000 deaths around the globe from this deadly bacterial diseases. Some of the countries most affected by Cholera include Kenya, Angola, and Malawi.

The Islamic Republic of Iran believes that the spread of Cholera can, and should, be stopped. Iran has had a past with the disease causing depopulation, and a large impact on the country’s economy during the 19th and 20th century. Though vaccinations are being administered around the world, Cholera is still actively a widespread threat. The countries most threatened by Cholera are the countries unable to afford healthcare and vaccinations for their citizens. Though Cholera has not recently been a major threat in Iran, countries near Iran such as Yemen have a largely consequential problem with the disease. Therefore, stopping the spread of this disease is paramount to the Islamic Republic of Iran, and we believe that decisive action should be taken immediately.

Iran believes that the best course of action is through a Nonprofit Government Organization funded by countries willing to participate, known as the Containment and Healthcare Organization Leading the End of the Reach of Ailments, or CHOLERA for short. This organization focuses on targeting the areas of countries most ravaged by Cholera, and containing patients infected by the disease in order to prevent the spread. Half of the funding that CHOLERA gets will be devoted to funding importation of vaccines and better coverage of healthcare for Cholera. The other half will be devoted to constructing more efficient water filtration systems, and improving the sewer systems of the areas the organization is targeting, since Cholera is mostly spread through infected water. The Islamic Republic of Iran believes that WHO, through the implementation of CHOLERA, can stop the spread and global threat that Cholera poses to us.

II. Antimicrobial Resistance
Antimicrobial Resistance is the development by a disease-causing microbe, through mutation or gene transfer, of the ability to survive exposure to an antimicrobial agent that was previously an effective treatment. In other words, when bacteria infects a well-working antibiotic or drug. When the first few antibiotics were invented in the early twentieth century, they started having this problem. Before they could come up with the technology to solve this, it had already gotten bad. AMR eliminates the effectiveness in the drug, and reduces the chance of a healing outcome.

AMR, also known as Antimicrobial Resistance, is a critical health problem in Iran. Delving into the problem has been discussed for a while, especially in Iran. The increasing rate of antimicrobial resistance in Iran, requires a rational drug administration effort in collaboration with infection control committees, as well as the establishment of a national surveillance system. Professor Mohammad Asgharzadeh has a PhD in Biotechnology. He currently works in the paramedicine faculty of Tabriz University of Medical Services. His work and research has brought Iran closer to a conclusion. Asgharzadeh, along with other colleagues, are working to provide knowledge so the country as a whole can work towards an official national surveillance system. A variety of colleges, universities, and hospitals, have improved the situation with their greatest efforts.

After lots of consideration of the problem, the Islamic Republic of Iran is ready to make a change. We have an astounding group of individuals that are willing to put effort into making a difference in this crisis. Our plan is to establish a general decline in antibiotics in general. This situation can not be curable, but if we don’t take care of this now, long-term consequences may take affect. Getting rid of the use of drugs in Iran can seriously change the health of our country. We have perplexing medical professionals that are capable of taking care of their patients without the need for an antibiotic.
Delegation from: Iraq
Represented by: St. Vincent-St. Mary’s High School

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Addressing the Global Threat of Cholera and Antimicrobial Resistance. The humble nation of Iraq is able and ready to fight and address the growing concerns around Cholera and Antimicrobial Resistance.

I. Antimicrobial Resistance

Antimicrobial resistance (AMR) is the ability of a microbe to resist medication to survive exposure to an antimicrobial agent that was previously an effective treatment. Antimicrobial Resistance poses a risk in terms of public health when it is transmitted to humans as foodborne contaminants. Therefore addressing the issue of antimicrobial resistance is one of the most urgent priorities in the fields of public health today. There are three different types of Antimicrobial Pressure such as selection pressure. Selection pressure is when cells are present that possess traits that enable them to survive in the presence of a substance, therefore the cells that do not have the advantageous trait will be eliminated. After a long time of this process being repeated, the only cells left will be the cells that are resistant to these substances.

The delegation of Iraq has felt the effects of Antimicrobial resistance, and has set their sights on finding a solution. In order to do this it is important to look at Iraq's past that is brimming with Antimicrobial resistance. On September 19, 2017, Iraq created a five day workshop in which they came up with many possible solutions to Antimicrobial resistance. For instance, they recognized that the key to tackling AMR lies with the prevention and control of infections in humans and animals. The importance of rational use of antibiotics is key in Iraq. Iraq has created the MSF which provides life saving stabilization and emergency care to people in need. This group implanted antibiotic stewardship, infection prevention, as well as control measures in order to limit the impact on drug-resistant infections.

Iraq is planning to create an elaborate multi-stage solution that will cover simple control measures all the way to detailed and accurate infection prevention. The delegation of Iraq realizes the importance of covering the simplistic solutions such as showing how crucial it is to avoid the transmission of a multidrug-resistant infection between many different patients in a facillity. This measures can simply be taken by making sure all doctors and associates wash their hands thoroughly. This also includes the use of protective equipment, such as gloves and gowns; limiting the transport and movement of patients; using dedicated patient-care equipment; and making sure that patients’ rooms are thoroughly cleaned and disinfected regularly. The delegation of Iraq would also like to expand the use of vaccinations as well as increase the research on new vaccines seeing that new vaccines would help decrease the amount of people
that receive illnesses that are antimicrobial resistance. Expanding the use of these vaccines would allow for more people to not catch these deadly diseases. Iraq is looking forward to working with many other countries in order to defeat the effects of Antimicrobial resistance.

II. Cholera

In recent years, there has been a rise in the fairly preventable Asiatic cholera disease prominently in underdeveloped countries. Simply known as Cholera, symptoms of the disease include diarrhea, dehydration, and can lead to death. These symptoms occur on a spectrum. The disease is spread through contaminated water and/or food. The country of Iraq is ready to fight this disease, and any factors that may follow the disease. The delegation of Iraq will work tirelessly to solve this crisis and to give stability to those affected by Asiatic Cholera.

Most outbreaks of Cholera can be traced back to a lack of sanitation or infrastructure regarding hygiene, put in place by a government. As a result of this fact, countries described as 3rd world are more prone to outbreaks due to a lack of control of sanitation. Unfortunately, our country, Iraq has been seriously affected by this terrible affliction. In an Internally Displaced Persons Camp, an outbreak in 2015 occurred. From Sep 15 to Dec 19, cases of Cholera were reported in exponentially growing quantities. Outbreaks of the disease are seasonal, spiking in November-December, and shrinking in the spring. We responded to this epidemic with a meeting to discuss prevention and causes with the Ministry of Health, WHO, and sanitation partners. The meeting had a justified emphasis on communication between the World Health Organization and sanitation / health infrastructure now in action. Infrastructure such as interdepartmental analysis of: “acute watery diarrhea…”-(WHO EMRO / Iraq) Through these actions, the next outbreak will be met preparedly, with knowledgeable insight from the past.

Iraq is affected by Cholera, so this delegation is eager to contribute solutions to minimize future harm done by it. We propose the addition of sanitation infrastructure, with the help of WHO, to regulate causes of the disease. Causes include: contaminated water as a result of fecal matter, uncooked food, especially seafood, and the drinking of impure water. With the addition of sanitation regulations and monitoring, such as sewer and latrine systems, we not only Iraq but everyone affected by the disease, Cholera, can move on to a healthier and more prosperous time.
Position Paper For the World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. The Republic of Ireland is committed to addressing these issues and creating solutions to establish sanitary drinking conditions and higher awareness of antimicrobial resistance.

I. Addressing the Global Threat of Cholera

The Republic of Ireland is devoted to eliminating the cholera epidemic worldwide and aiding those who are directly impacted by the disease. Previously, cholera has caused seven pandemics and killed millions. Since 1961, the outbreak has reemerged invading South Asia, Africa, and the Americas. Ireland was affected by the disease in the 1832 Sligo Cholera Outbreak where in a matter of months, more than 1,500 people died. The Republic of Ireland understands the severity of this emergency and gives its full attention to providing assistance and relief to the affected areas.

Ireland takes great concern with the cholera epidemic and is working to achieve a decrease in the disease by supporting efforts to end it. The Global Alliance for Vaccines and Immunization (GAVI), works to administer vaccines for various diseases around the world. Ireland has joined the effort by helping to fund the project against cholera which will distribute vaccines to crisis areas. The Republic of Ireland is also in support of the 1938 International Sanitary Convention on Cholera and The Plague. The convention was a series of 14 conferences with the goal to standardize international quarantine regulations against the spread of cholera, yellow fever, and the plague.

The Republic of Ireland recognizes the importance of The Global Alliance for Vaccines and Immunization plan already in place to solve the cholera epidemic and supports further development of them. Extending vaccines beyond crisis areas for prevention in at-risk regions can halt any advances of the disease to otherwise healthy cities. Cholera kits and vaccines are extremely effective but are not always accessible to everyone. Ireland is determined to increase the circulation of these critical components to stopping the global epidemic. Adequate filtration for water is also important. Implementing copper piping has been proven to terminate the bacteria Vibrio cholerae and is a long-term solution.

II. Antimicrobial Resistance

The Republic of Ireland is willing to help educate and spread awareness on the use of antibiotics. Notably, how to avoid and minimize the further emergence and spread of antimicrobial resistance. Antimicrobial resistance takes place when antimicrobial substances, which have been used since the 19th century to treat infections caused by bacteria, are misused and the bacteria forms a resistance or tolerance to the drug. This renders the drug useless and drives the bacteria to evolve. It is estimated that antimicrobial resistance could kill ten million people by 2050 if left unresolved.
The Republic of Ireland’s 2017-2020 National Action Plan on Antimicrobial Resistance was written to avert and supervise antimicrobial resistance among the health, agriculture, and environmental sectors. This prevents, monitors, and combats the misuse of antibiotics through the spread of awareness. This is vital in eradicating antimicrobial resistance because it informs the public of the correct usage of antibiotics. The Republic of Ireland has a high rate of antibiotic usage so the need to put an end to antimicrobial resistance is vital. The UN had a General Assembly meeting in September of 2016 to discuss antimicrobial resistance. This was the fourth time there was a General Assembly meeting to discuss a health topic.

Ireland believes that collaboration with other countries to fight against antimicrobial resistance is central to solving this issue. Ireland urges other member states to spread awareness about the issue of antimicrobial resistance. Through continued warnings in the media, news, and public, this can be taken seriously and will decrease incorrect usage of antibiotics. If antimicrobial resistance is not resolved the world will face lethal diseases that once used to be small infections or illnesses. Also, creating systems that can brief doctors and patients that receive antibiotics about the correct usage and danger if incorrectly used can help end bacterial resistance. Ireland is among the few countries that have made national plans to fight antimicrobial resistance and is determined to create a widespread knowledge of the urgency to solve antimicrobial resistance.
Delegation from: State of Israel
Represented by: Saint Vincent- Saint Mary High School

Position Paper for the World Health Organization

The issues presented to the World Health Organization are: Addressing the Global Threat of Cholera and Antimicrobial Resistance. The State of Israel is fully committed to working towards an end to Cholera for all, developing antibiotics that the microbes are not resistant to and expresses its sincere wish that all nations may work together to achieve one, comprehensive solution.

I. Addressing the Global Threat of Cholera

Cholera, or *Vibrio cholerae*, is an extremely infectious, yet easily preventable disease that is contracted through the consumption of contaminated food or water. The Cholera bacteria thrives in warm, salty water, placing underdeveloped coastal nations at extreme risk of outbreak. A lack of accessibility to clean, drinkable water, wide-scale poverty, and malnourishment are the primary points of interest when addressing this global hazard. Cholera has persisted as a global endangerment since the first pandemic in 1817. More recently, in 1961, the current and ongoing seventh pandemic of Cholera has emerged as a deadly, ever-present barbell for forty-seven nations. This is a cause for both Israeli and international concern and cannot be overlooked.

Although Cholera is notorious for thriving within impoverished nations, it is necessary to acknowledge that Cholera has the capability to afflict more adeptly developed nations. 1970 was one of the worst years of the seventh Cholera pandemic and one that confounded the State of Israel. Israeli authorities believed that if the bacteria spread as it traditionally had in the past, the State of Israel would be at minimal risk for a Cholera outbreak. However, more than 250 confirmed cases of Cholera occurred within Israel throughout a twenty-one month period. The State of Israel recognized the viability of this threat in 1970, just as it does today. In January of 2018, several Israeli physicians and nurses were deployed into the Republic of Zambia and played a key role in identifying the central cause of a recent Zambian outbreak of Cholera as polluted water wells in the Zambian capital, Lusaka. The State of Israel prioritizes combating the worldwide threat Cholera presents and is devoted to sharing our technological advances with the world. In May of 2018, the State of Israel organized $15,000 worth of United Nations approved NUFiltration machinery to be donated to the Republic of Cameroon in an effort to provide access to sterile water. These extremely economical and functional machines do not require electricity to function and can run for three years without being replaced. NUFiltration machinery has also been deployed to Ecuador, Colombia, Peru, the Fiji Islands, Cambodia, Vietnam, Ethiopia, Ghana, Kenya, Tanzania, Mali, and Nigeria. The State of Israel firmly believes that manufacturing and deploying these machines are a necessary and effective first step to combating Cholera on a global scale.

With regards to the future, the State of Israel aims to expand upon its efforts to provide clean water access to the world by deploying its newly developed NUFiltration machinery on a much larger scale. Nations that have suffered from the crippling effects of Cholera such as Kenya, Malawi, Nigeria, and South Sudan will be primary targets for this plan. We cannot accomplish this monumental task alone. The State of Israel urges each and every nation in the World Health Organization to join our war against Cholera.
II. Antimicrobial Resistance

When certain microorganisms are exposed to antimicrobial drugs, they develop a resistance to them, becoming “superbugs”. These “superbugs”, because of medicine’s inability to combat them, can prolong illness time, lead to more complications in many medical procedures and ultimately, result in more deaths. This resistance is known as antimicrobial resistance threatens a doctor’s ability to treat many common infectious diseases, as the treatments that they previously used to not be as effective in eradicating the microorganisms and medical procedures become more of a risk. The overuse and unnecessary use of antibiotics drives the spread of antimicrobial resistance, with more than fifty percent of antibiotics being inappropriately used in countries, there are no signs of this stopping. Even though over 100 countries have plans to combat antimicrobial resistance in place, only twenty percent of these plans are funded. Alarmed by this crisis, the State of Israel is deeply concerned and in search of a solution.

In response to the antimicrobial resistance crisis, the State of Israel has taken the lead in researching and working towards solutions. With the establishment of the National Center of Infection Control (NCIC) in 2006, we have developed an extremely efficient database with which we share information from the OIE and WHO. After recognizing the importance of communicating information, the State of Israel established an antimicrobial resistance awareness campaign that continues to expand. In addition to this, the State of Israel supported the World Health Organization’s AWaRe tool, a list of medicines compiled, in an effort to reduce excessive use of antibiotics, that states which medicines to use for common infections, which ones should always be available and which medicines should be used sparingly. Always striving for full compliance with the World Health Organization’s efforts to reduce antimicrobial resistance, the State of Israel does everything in our power to help combat this crisis.

Alarmed by the spread of antimicrobial resistance throughout the global community, the State of Israel firmly believes that further actions need to be taken. The World Health Organization needs to continue to encourage countries to adopt AWaRe in order to reduce the amount of misused medicines. However, in order to effectively reduce the great number of misused antibiotics, the world’s general population needs to be educated with a social and political outreach program, following the example of the State of Israel as we have already been using video calling to educate many citizens of low income African nations of other health issues. The State of Israel is appalled by the spread of antimicrobial resistance, fully dedicated to working towards solutions in collaboration with the World Health Organization and all nations to finally end this world-wide issue and looks forward to cooperating to develop a comprehensive solution for antimicrobial resistance.
Delegation from: Italy
Represented by: Archbishop Hoban High School

Position Paper for the World Health Organization

The issues facing the World Health Organization are: Addressing the Global Threat Of Cholera; and Antimicrobial Resistance. Italy is dedicated to the promotion of world health and asserts its goal for continued collaboration between national and international parties in the support and advancement of that health.

I. Addressing the Global Threat of Cholera

Italy recognises the severity of the current choices epidemics that are plaguing the world. Since 1990, over 100,000 cholera cases are reported each year. Within the past five years, the world has seen the largest cholera epidemic in history, which has killed over two thousand people in Yemen. The regions where cholera is still a public health problem should be acknowledged, such as South-East Asian, African, Eastern Mediterranean, and Central American regions. There are around 47 impacted countries, most of whom have large areas of poverty and lack of sanitation. A large setback in treating cholera is how interwoven it is with the developmental status of the nation. It is difficult to eradicate cholera because in order to do so, monumental and costly changes to a country’s infrastructure would have to be implemented.

The World Health Organization has taken many steps to prevent the spread of cholera, with the revitalization of the Global Task Force on Cholera Control (GTFCC) in 2011. The recent creation of the Global Roadmap: Ending Cholera by 2030 is a large step in the right direction for eradicating cholera worldwide. Italy recommends the WHO Biennial Budget be revised with more of an emphasis on the relevance and necessity of issues, such as the cholera epidemics. Although in this budget, communicable diseases have the most funding, the deadly devastation of cholera and others, should be reason enough to allocate more funding.

The World Health Organization should research the most efficient and least costly ways to eradicate cholera in different parts of the world. Because the causes of the outbreaks often stem from other more primary issues, some of this funding should be allocated toward the source problem as well as basic medical aids for treating cholera. Another issue that must be addressed is underreporting. Some countries do not want to appear underdeveloped, and are hesitant to publicly display their medical statistics. Ensuring that the disease is well monitored in higher risk areas is crucial to solving the problem. Implementing higher standards for education on how to properly diagnose cholera, and how to keep it from spreading should be a major focus of the World Health Organization’s plan for disease eradication.
II. Antimicrobial Resistance

The nation of Italy believes that antimicrobial resistance (AMR) is not only a threat to public health internationally, but that it is also a combined threat to both humans and animals alike worldwide. The Italian delegation affirms that continued awareness education about Antimicrobial Resistance is essential, citing statistics from the US National Academy Of Sciences that Antimicrobial Resistance causes an estimated 700,000 deaths annually due to ignorance of antibiotic risks.

In reference to the World Health Organization article, “Antimicrobial Resistance”, most of the general public are not aware of rapidly changing microorganisms affect on common medications. While not mentioned specifically, this education on the changing genetic makeup of our common medications causes overdoses of antibiotics, leading to accelerated resistance to the drugs entirely. Due to the importance that preventative education and awareness has on individual and public health, the Italian delegation gives its full support for the awareness education on Antimicrobial Resistance and has lent its support to this in past resolutions.

While it is clear that increased education on Antimicrobial Resistance is essential for the fulfillment of world health, it is important to recognize the diplomatic challenges of initiating world wide medical and biological education on disease, infection, and antibiotics, considering the principle of state sovereignty. Due to a lack of financial resources, most states would be incapable of providing universal and effective education individually, and would depend upon various world organizations for financial and diplomatic responsibility. While essential to promote access to preventative education on increased biological diseases and medications, the Italian delegation recognizes the importance of developing method(s) to combat the ignorance of the public about Antimicrobial Resistance while respecting national and state sovereignty. To this end, the World Health Organization must ensure that any universal system of education developed contains recognition of the sovereign right of states to decide the method(s) and implementation of any such system. In recognition of these reasons, the Italian delegation implores the United Nations to establish a system specific to implementing education systems for nations who cannot establish their own. This proposed education system must work in conjunction with national and state governments to ensure sovereign ownership and respect. Through these systematic establishments, the United Nations will be in a position to promote world health, international cooperation, education on Antimicrobial Resistance, and display its respect for sovereign state authority in the development of a biological education system.
Delegation from: the Republic of Japan  
Represented by: Mayfield High School

Position Paper for the World Health Organization (WHO)

The issues before the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. The Republic of Japan is devoted to the eventual global eradication of cholera and the prevention of antimicrobial resistance.

I. Addressing the Global Threat of Cholera

Cholera is a lethal, diarrheal disease spread through bacteria contaminated food and water. Each year, millions of people suffer from cholera and hundreds of thousands are killed. In 2017, multiple resolutions were written to address the growing threat of cholera, particularly in Haiti, including A/RES/71/161 B and E/RES/2019/32. However, within the last year, nine different outbreaks of the disease have occurred in various third world countries including Zimbabwe, Niger, and Algeria, showing that cholera is still a relevant issue and a very real cause of death in various countries today.

Although, the Republic of Japan has not suffered as much from the outbreaks of cholera in the previous year, its people and livestock are not immune. Japan has had its own share of swine cholera and other forms of cholera in recent times and understands the prevalence and the magnitude of the devastating effects of cholera. The Republic of Japan has been present at previous United Nations general assemblies in which a general consensus of aiding the Republic of Haiti in its battle against cholera had been reached.

Reasonably, the Republic of Japan would like to aid in the cause against cholera. The Republic of Japan suggests the continuation and application of programs facilitated by resolutions A/RES/71/161 B and E/RES/2019/32 in various countries other than Haiti as well as the creation of new multi-sectoral programs focused on the prevention of cholera before initial outbreaks. This can be achieved through the improvement of hygiene and sanitation in areas with previous outbreaks or areas of future epidemic sources to ensure that outbreaks of cholera occur less prevalently in the distant future. The Republic of Japan proposes the raising of funds in conjunction with other first world countries in order to develop new technologies for use in providing clean food and water in impoverished countries in need of aid.
II. Antimicrobial Resistance

The introduction of antibiotics since 1928 (penicillin) has greatly benefited humanity’s fight against microbes. Never before has a drug been able to directly target and kill the source of many diseases. And never before has the problem of antimicrobial resistance been a concern. Many countries that have been blindly dependent on the successes of these drugs are now in danger. It is predicted that as much as 10 million people may die by 2050 if this problem is ignored. This poses a serious health concern to both developed and underdeveloped countries alike.

The issue of antimicrobial resistance has only recently increased in urgency. In 2016, Japan attended a general assembly conference regarding the topic of antimicrobial resistance. During this conference, the resolution, A/RES/71/3, was reached, recognizing the imminent threat and charging various organizations working in conjunction with the World Health Organization with tasks to further reduce the spread of antimicrobial resistance.

The Republic of Japan believes that this problem relies mostly on developed countries with advanced health systems. Japan is willing to reach an agreement with other countries to combat this problem. The Republic of Japan suggests the continuation and reformation of the A/RES/71/3 resolution in conjunction with the fundraising in first world countries to aid the resistance to antimicrobial resistance.
Delegation from: Kenya  
Represented by: Hawken School  

Position Paper for the World Health Organization

I. Addressing the Global Threat of Cholera

In recent years, the Cholera outbreak has been a pressing worldwide issue. Cholera is an infectious disease. This disease comes from eating or drinking water with the presence of the bacterium Vibrio cholerae. Without treatment, this disease can cause fatality. Because the presence of this bacterium can be found in unsanitary drinking water, it is known to be one of major factors of global inequity. In addition to this, this disease is often located in regions with humanitarian issues already present. Cholera disease is currently present in many countries especially those in coastal regions. Cholera endemics are present worldwide, and safety measurements and prevention needs to be emphasized.

Kenya has had a long history with Cholera. The most recent Cholera outbreak took place on January 22, 2019 when WHO was informed of an outbreak in two Kenyan counties. Since January 2019, seven more counties reported outbreaks. It was discovered that these first outbreaks were spreading because of a communal meal, poor water quality, poor sanitation, and poor hygiene. In addition to this, a communal river was contaminated on the surface with Vibra cholerae. The infection in the river is believed to come from the amount of human waste put in the river. Around 26 deaths have been reported since, and a total over 3,800 were reported. By October 20, 2019, 78 news cases have been reported. Since 2017, however, WHO has been present in aiding Kenya in hopes to control the outbreak. WHO has also assessed the outbreaks and determined them as moderate at a global level. These outbreaks have been majorly linked to mass gatherings and sanitation of food in restaurants and hotels.

WHO has recommended that Kenya tries to inhibit further outbreaks by educating health facilities to be more prepared. Moreover, WHO believes it is necessary that hygiene in public places such as hotels, restaurants, health facilities, and households is strengthened. WHO also stated that travel restrictions to Kenya are not necessary based on the assessment of the current outbreak. Kenya needs to see some more people encouraging them to continue to take prevention measures. Kenya needs assistance and regulation when trying to surge the ongoing outbreaks. However, the main thing Kenya needs is helping sanitizing and keeping up hygiene.

II. Antimicrobial Resistance

In the past decade, antimicrobial resistance has become an increasing threat to the global community. Antimicrobial Resistance, AMR for short, threatens the ability to treat a number of infections. AMR is a microbe resisting an antimicrobial treatment that it
previously responded to. This naturally occurring phenomenon is caused by a microorganism changing following exposure to a medication. With altered organisms, treatments in turn become ineffective at fighting the given virus or infections. This increases the probability of a virus being spread. AMR occurs even when combatting some of the most common infections such as malaria, influenza, and HIV/AIDS. Antibiotics are vital within the medical community. Ineffective antibiotics could impact the medical community in a number of ways including chemotherapy treatments and major surgery. On top of the medical impacts of AMR, those who are infected with resisting infections will have higher medical bills due to a prolonged duration of illness in addition to more expensive treatment.

Kenya is heavily involved in AMR surveillance. AMR research in Kenya began in the late 1970s and 80s through the Kenyatta National Hospital and University of Nairobi, College of Health Sciences’ studies on antibiotic susceptibility patterns. Kenya is continuing to pave way in AMR research to this date. AMR in Kenya has continued making headlines in present day media. While antibiotics are more accessible in Kenya due to mass production and distribution from India and China. This has led to an increase in antibiotic use across the country and in turn the drugs are becoming less effective in battling disease as the microbes evolve. The rise of AMR in Kenya has major impacts on the community. Already, Kenya is losing thousands of lives each year due to them not having proper access to medical treatment. Worldwide, specialists are estimating that resisting pathogens could be responsible for up to 700,000 deaths a year. The issue of AMR is exacerbated by vendors selling counterfeit antibiotics having none of little of the active ingredient. On the same hand, many poor Kenyans are not buying enough of the drugs so it speeds along AMR.

In 2017, the Kenyan government created the Policy and National Action Plan. This plan is a joint venture between the Ministries of Health and Agriculture, Livestock and Fisheries. The Kenyan government strongly believes that any solution that should address the issue from two sides: the actual medical community and evaluating and understanding the impact on and of the surrounding environment.
The delegation from: The Republic of Kuwait
Represented by: Beachwood High School
Committee: World Health Organization (WHO)

Position paper for the United Nations World Health Organization (WHO)

The issues for deliberation before the World Health Organization includes Addressing the Global Threat of Cholera and Antimicrobial Resistance. The Republic of Kuwait is dedicated to resolve both of the issues posed before us and would be willing to work with other nations to come to an agreement on the pressing issues.

I. Addressing the Global Threat of Cholera

Cholera has long been known as a global threat. With its Indian origin, the disease has been devastating populations for decades. Cholera was thought to be caused by ‘bad airs’ or miasmas, and life was believed to be generated spontaneously from non-living matter. This was generally accepted as the cause of the disease until it was refuted by London anesthetist, John Snow, who had already developed an interest in cholera during the second pandemic, in 1831. By 1849, he was suggesting that a water-borne agent that entered by the mouth, multiplied in the gut and left via the feces, was the cause of cholera. This suggestion was in stark contrast to the established view that miasmas spread cholera. John Snow is generally regarded as the father of epidemiology.

In the last decade, several large-scale and high mortality cholera outbreaks have occurred during complex humanitarian emergencies including in Iraq, Somalia, and South Sudan. While the issues of “what to do” (in terms of breaking the chain of transmission) to control cholera is largely known, context-specific practices on “how to do it” in order to surmount challenges to coordination, logistics, insecurity, access, and politics, remain. The threat of cholera is derived from Common Point Source, that being the epidemic occurs when people are exposed to the same exposure over a limited, well defined period of time. Although the question of how to cure cholera has been long answered, the issue is to properly prevent cholera outbreaks and further detection methods to eradicate the global threat of cholera, as prevention is far better than cure.

The Republic of Kuwait is dedicated to alleviating the suffering of the people and combating the contagious disease. Kuwait launched a cholera vaccination campaign in the Taiz Governorate, in Southern Yemen. This derives from the initial idea that vaccination is easier than breaking the chain of transmission. Although the campaign was successful, it had its limitations. Due to the unorganized nature of the region, many children did not process information about their vaccination status, therefore the equal distribution of the vaccine was hindered. Therefore there is low vaccination coverage among children aged 12-23 months. The improvement of the lack of information available about immunization status would greatly impact the distribution of the vaccine. Additionally, the Republic of Kuwait has had exposure to a cholera outbreak. The United Nations Human Rights Commission in Iraq announced the registration of 18,000 cases in Basra distributed between diarrhea and acute intestinal colic and vomiting, warning of the possibility of spreading cholera in the province. It has documented high levels of salinity in all levels of water fed to Shatt al-Arab, the decline of water in the rivers feeding the residential areas, and the increase of chemical and biological pollutants in the Shatt al-Arab due to the remnants of factories and sewage. The announcement further developed into a cholera outbreak. Kuwait responded by enforcing certain preventative measures, such as confiscating unlicensed food that enters into Kuwait and focusing on sanitation.

The large number of suspect cases reported is likely much higher than the actual number meeting the suspect case definition. The lack of systematic use of culture-confirmation and the late adoption of epidemiological investigation and quality control makes it difficult to address the high proportion of mild suspect cases. Therefore proper usage of epidemiological methods such as the steps to investigating an outbreak must be further implemented. The spreading of knowledge in epidemiological methods would greatly benefit all nations as it would allow for all cases to be identified. Also additional epidemiological analysis would greatly facilitate the prevention of cholera in hotspots in endemic countries. Moreover ensuring that scientists have safer modes of crossing borders to continue their investigative work. No matter what approach is taken, Kuwait hopes to eradicate the threat of cholera globally through the cooperation of the member states of the World Health Organization, as well as effectively reach a resolution that wholistically combats the issue.

II. Antimicrobial Resistance
The world is in the midst of fighting a long-standing menace: Antimicrobial resistance. Antibiotic-resistant bacteria pose a serious health risk to people across the world, despite differing socio-economic realities. 33,000 people die from these bacteria alone while spending totals around $58 billion USD over the course of six years on antibiotics. With the ongoing evolution of microbes, many countries have faced challenges in protecting themselves from the newly developed generations of germs. This evolution has led the newfound generations to become resistant to even the most recently developed antibiotics. This issue emerges from a plethora of traceable causes. Primarily, the overuse of antibiotics in cases where they are unnecessary. Furthermore, the excess of antibiotics and the failure to complete prescriptions allows for bacteria to mutate at a faster rate. Another cause of antimicrobial resistance stems from the lack of medical infrastructure in developing nations, which allows for infectious antibiotic-resistant bacteria to spread at faster rates and increase the scope of the problem. The United Nations has convened multiple times to coordinate a response regarding combating antimicrobial resistance worldwide, establishing the Global Antimicrobial Surveillance System (GLASS) to collect data, the Global Antibiotic Research and Development Partnership (GARDP) to encourage research through public-private partnerships, the Interagency Coordination Group on Antimicrobial Resistance (IACG) to improve coordination among nations, and finally creating a world antibiotic awareness week.

In Kuwait, a recent study was conducted that, screened for the presence of antimicrobial resistance in *Escherichia coli*, from Kuwait’s marine environment. Isolated screenings for resistance against a panel of 23 antibiotics yielded that resistance was widespread, between 57 and 90% displaying resistance to at least 1 of the 23 antibiotics tested. With resistance to *Ampicillin* being by far the most widely observed among the 23 antibiotics tested. This study demonstrates the potential of AMR screening to be used in Kuwait to detect issues related to water quality and the consequences it may pose for human health. Furthermore, the implications of the study being that AMR screening can potentially be used more frequently in other nations to establish a baseline. In addition, another study was conducted aimed at investigating the antimicrobial resistance of healthcare-associated and community-acquired *Clostridium difficile* infection over 5 years (2008–2012) in Kuwait. *Clostridium difficile* infection (CDI) is a prevalent cause of diarrhea in a healthcare setting, especially in industrialized countries. Antimicrobial susceptibility testing of 15 antimicrobial agents against these pathogens was performed and the study displayed that high resistance rates of ampicillin, clindamycin, levofloxacin, and imipenem resistance were evident. Moreover, the analysis of the samples showed the emergence of a gene responsible for producing carbapenemases, which are enzymes that negatively affect the strongest antibiotics, which are used against life-threatening and multidrug-resistant bacterial infections. This, with the emergence of a bacterial clone that spread between various patients, has further proliferated the issue. As Kuwait battles such problems, progress is being made.

The Republic of Kuwait recognizes the urgency of the antibiotic crisis. The Republic of Kuwait proposes a few solutions which might help reduce the spread of antibiotic resistance and help save many lives. These solutions include increasing regulation and management of hospitals to help prevent infections overall. In addition, decreased use of excessive antibiotics, refraining from misuse and overuse of antibiotics and avoiding poor infection prevention. With globalization booming, it is important to understand international patterns of resistance. Future research on the determinants of drug resistance patterns, and their international convergence or divergence should be a priority. Additionally, Kuwait stresses the importance of the use of AMR screenings as a tool to catalog the evolution of bacteria. The Republic of Kuwait is dedicated to further the fight against antimicrobial resistance and truly believes that through coordination of all nations involved, the long-standing menace: antibiotic resistant bacterias, may finally be defeated.
Delegation from: Latvia  
Represented by: Orange High School

Position Paper for the World Health Organization

The issues before the United Nations World Health Organization are: Addressing the Global Threat of cholera and Antimicrobial Resistance. Latvia recognizes the significance of these issues, and supports the resolution of these two issues and is open to the discussion and hearings of other delegations.

I. Addressing the Global Threat of Cholera

It is imperative of every country that the health and liveliness of their citizens is maintained. Deadly outbreaks of diseases like cholera can easily threaten an entire countries population. Just in the past week, there have been two reports of outbreaks of disease in Latvia; now imagine this on a global scale. This issue is occurring in the present and is a pressing issue that needs to be dealt with immediately.

Cholera is an extremely prominent and deadly disease in many nations around the world. According to the World Health Organization, “Cholera is an acute diarrhoeal disease that can kill within hours if left untreated.” It has been estimated by the WHO that there is 1.3 to 4 million cases worldwide of cholera, with a 50% mortality rate if left untreated. Out of those cases, there are 21,000 to 143,000 cholera related deaths each year. With these fatal numbers of deaths and cases, a country and its citizens can inevitably be weakened. Hotspots for cholera are where the environmental, social, or economic conditions of an area facilitate the spread of cholera, and where the disease persists or reappears regularly. Currently, there are approximately 47 countries extremely impacted by cholera, most of them experiencing extreme poverty and lack of social development, according to the WHO. Overall, cholera is not a specifically threatening disease in Latvia, however, because of the rapidness of the spreading, it easily can be; therefore, actions and precautions still need to be taken, especially in areas considered to be cholera hotspots.

Latvia believes in the continuation of work to end the global threat of cholera through quick access to treatment, such as oral rehydration solution (ORS), and immunization with oral cholera vaccine. In addition, the simple practice of the universal use of safe water and basic sanitation can help reduce cholera outbreaks tremendously. Latvia believes that the implementation of these methods in both the country itself, as well as in countries at high risk of cholera outbreaks, can help the global threat of cholera.

II. Antimicrobial Resistance
In recent years, antimicrobial resistance has decreased within Latvia and many other countries. Antimicrobial resistance (AMR) is the development by a disease-causing microbe, through mutation or gene transfer, of the ability to survive exposure to an antimicrobial agent that was previously an effective treatment (Oxford Dictionary). Increasing cases of AMR have led to devastating rates of disease and death within countries. Time and time again, countries have weakened and struggled because of this.

As diseases spread and become more prominent throughout countries and citizens, the ability for the blood stream to resist these diseases has reduced. A prime example of this is illustrated in the European Centre for Disease Prevention and Control’s lay out of their meeting in Latvia, “resistance to third-generation cephalosporins in 2007–2009 was at around 10% in Escherichia coli isolates and over 50% in Klebsiella pneumoniae isolates which, for the latter, corresponds to a high percentage.” Simply stated, percentages of AMR have decreased, therefore, creating poor levels of health and increasing rates of fatal diseases.

The delegation of Latvia have devoted time and effort to promoting the health and welfare of its people. The delegation believes that this issue can be solved by increasing immunization at young ages. One of the biggest strengths within Latvia are their efficient immunization advances. Adding on to these advances, the well-being of Latvia’s population could be protected. Latvia wishes to witness a difference within nations struggling with AMR issues. The delegation of Latvia will be open to suggestions and to discuss any resolutions in which antimicrobial resistance affairs can be put to a minimum.
Delegation from: Mexico, WHO

Represented by: Hawken School

1. Addressing the Global Threat of Cholera

Cholera is one of the largest public health threats of the 21st century due to how deadly it is and how rapidly it can spread. Cholera or *Vibrio cholerae* is typically contracted through contaminated food or water, and when the disease is untreated, it can kill within hours. Cholera first originated from a reservoir in India known as the Ganges Delta in 1543. There have been seven pandemics between the 19th and 20th century alone, and one occurred as recently as 1961 in Africa and Southeast Asia. Poor sanitary conditions, lack of clean drinking water, humanitarian crises, malnutrition and poverty are common factors that contribute to the growth of the disease. In addition, about half of all cholera cases occur in children. At the moment, cholera is endemic to many countries. For a disease to be endemic, it has to have had confirmed cases over the past three years that were not from other places. However, cholera epidemics, hotspots and outbreaks are also a widespread issue. In fact, there are 47 countries impacted by cholera today, most of them associated with poverty, lack of resources and lack of social development.

Mexico has experienced many cholera outbreaks over the years in different regions of the country. During these outbreaks, Mexico has been able to act under pressure and resolve these issues in a timely fashion. According to a disease outbreak report by the WHO, in the cholera outbreak of 2013, health authorities strengthened outbreak investigation and surveillance at a national level. Health professionals were trained in prevention and treatment of the disease. Various measures took place so that people accessed clean water and basic sanitation at a community level. In addition, awareness campaigns conducted in Spanish and indigenous languages helped control the outbreak. Mexico’s immediate identification of the disease as a national security threat enabled implementation and prevention of the disease before it became endemic. According to the article, *Cholera in Mexico: The Paradoxical Benefits of the Last Pandemic* by International Society for Infectious Diseases, during the 1991 cholera threat, prevention and control measures were implemented in Mexico before the first outbreak. Some of the control measures taken a few months before any reported cases were establishing a system of epidemiologic surveillance, ensuring adequate patient care, reinforcing laboratories, studying and controlling outbreaks, promoting health education to the public, training health personnel, providing necessary supplies, and establishing basic sanitation guidelines. During 2003, the WHO reported 111,575 cholera cases. The US and Canada reported cholera cases, however the last reported cholera case from Mexico during that time was two years prior. This is proof that Mexico’s preventative measures were very effective.

Due to its great success, Mexico is a great example for countries around the world to start acting against the threat of cholera. Not only can the disease be controlled or eradicated, but implementing prevention plans can have long-term benefits. For example, as stated in the article, *Cholera in Mexico: The Paradoxical Benefits of the Last Pandemic* by International Society for Infectious Diseases in Mexico after the cholera outbreaks, there was an increased level in potable water, infrastructure for diarrhea control, surveillance of microbiologic contamination of food, and other sanitation measures promoted such as sufficient waste disposal. Even after the cholera outbreaks, these new measures continued to be protocol and thus increased the people’s quality of life. In the future, Mexico will continue to take these measures in case of the threat of a cholera emergency, and other countries in the UN should follow Mexico’s footsteps because it is proof that with proper education and efforts, any country can be cholera-free.
2. Antimicrobial Resistance

An antimicrobial, or antibiotic, is something that destroys or inhibits the growth of microorganisms, especially pathogenic or disease causing microorganisms. Since their discovery in 1928, antimicrobials have never been completely effective and reliable because new strands of viruses and bacteria constantly continue to develop and evolve. The first antibiotic, penicillin, was created in 1928 by Alexander Fleming and since then people have created various kinds of antibiotics which are intended to kill germs and bacteria. However, strands of bacteria have evolved to be immune or highly resistant to antibiotics. The UN has been actively involved in the fight against antimicrobial resistance since it was discussed in the general assembly in 2016. The World Health Organization (WHO) has labelled this issue as a global crisis because as antibiotics become less and less effective, infections and diseases that were once unproblematic have become fatal.

Mexico has taken few steps to deal with this issue. This is largely due to the lack of access to appropriate technology, awareness, and laws regulating the use of antimicrobials. Mexico does not have the funding from the government to have huge teams and sites that focus solely on the fight against antimicrobials. However, according to an article from CBC titled *Antibiotics/Antimicrobial Resistance*, 23,000 deaths occur yearly in Mexico due to antimicrobial resistance. As of 2014, the fight against antimicrobials has been low on the government's agenda opposed to the government favors focusing on the national drug epidemic. In addition, the government does not properly regulate the use of pesticides and other antimicrobials. Without regulations, farmers can use much larger quantities of antimicrobials than necessary to kill pathogens or bacteria that may harm the crops. In addition, bacteria reproduce every 20 minutes. Their fast reproduction rate is what contributes to their fast evolution. The more heavily the antimicrobials are used, the quicker the bacteria are going to evolve a trait immune to the effects of said antimicrobials. Our country needs to be more concerned about the effects of antimicrobials to slow down the death rates, regulate amount of antibiotics used, and educate more people on the effects of antimicrobials.

Finally, although Mexico is not a leader in the fight against antimicrobial resistant pathogens, it is a great example of the importance of spreading awareness of antimicrobial resistance. With proper funding and aid from other countries, Mexico could be a powerful ally in the fight against antimicrobial resistance because it could provide data from areas heavily affected by antimicrobial resistance. In the future, Mexico will try to spread awareness on antimicrobial resistance and help people realize the urgency of the issue. The UN should help countries like Mexico in the fight against these deadly diseases, and they should spread awareness of the topic.
Delegation from: the Netherlands  
Represented by: Rocky River High School

Position Paper for the World Health Organization

The World Health Organization, as the premier international body on maintaining health and hygiene, has been tasked with addressing the recent outbreaks of cholera as well as the growing threat presented by the rise of antibiotic-resistant microorganisms. As a stable and prosperous nation, the Netherlands seeks to aid those in need while also working towards a solution to the antibiotic resistance crisis that threatens all regions of the world.

I. Addressing the Global Issue of Cholera

The Netherlands has made copious efforts throughout the years to fight the current cholera epidemic. Since 2009, the Netherlands has donated more than $25 million dollars to provide safe and sanitary water, as well as medication to the countries most affected by Cholera. The country has decided to fight the global threat of Cholera and support numerous organizations fighting the disease. The Netherlands believes and is active in the fight to end the global threat of Cholera.

During the 1830s, shortly after the first introduction to Cholera in Europe, the disease was brought to the Netherlands, which in a short period of time killed more than 5,000 Dutch citizens. The disease itself is currently found on every continent, excluding Antarctica, and is mostly found in tropical coastal waters. The disease is most commonly found in Asia, Africa, Latin America, the Middle East, and India. Cholera, which is a bacterial disease of the small intestine, is commonly spread and contracted from contaminated water or food and causes severe vomiting, watery diarrhea, and has also been reported to cause severe fevers. Due to excessive vomiting and diarrhea, the disease often leads to fatal dehydration. To manage the disease, treatment includes rehydrating the victim through either oral or IV fluids. While treatment is relatively inexpensive, many countries still struggle to help treat those infected by lacking sufficient medical treatments.

The Netherlands has been recognized as officially Cholera free since the early 20th century and Dukoral vaccines are available by request of the patient in the country. Due to the many sanitary laws in the Netherlands, the disease has been virtually erased from the country, with the occasional case brought in through infected travelers. The nation has promoted its sanitary measures by financially supporting countries with poor sanitary conditions, mostly helping countries in Africa and the Middle East. In 2014, representatives from the Netherlands attended the first meeting of the Global Task Force for Cholera Control in Chavannes-de-Bogis, Switzerland, conducted by the World Health Organization. The Global Task Force for Cholera Control focuses on how to fight the disease and has also produced a number of preventative actions to stop Cholera, most notably, the oral cholera vaccines and Cholera kits. Cholera kits are also known as Interagency Diarrheal Disease Kits and can help a community prepare for and prevent a Cholera outbreak. The disease can also be prevented by practicing basic sanitary precautions, such as washing hands with soap thoroughly throughout the day and before and after handling food. Food supply should also be handled with care and precaution so the disease cannot infect any food. The Netherlands is devoted to supporting this cause and to bring the Cholera epidemic to a terminal end.
II. Addressing the Threat Presented by Antibiotic-Resistant Microorganisms

The Netherlands, like many other nations, recognizes the looming threat that antibiotic/ antimicrobial-resistant microorganisms present to the health of the world at large. The existence of such so-called “superbugs” presents a growing problem in the European region, one that only worsens due to the widespread availability of many antibiotics in European countries. The misuse and abuse of these antimicrobials will inevitably lead to the rise of resistance within microorganisms as they adapt and evolve to the new environment, and the Netherlands believes that ending this trend will greatly help the effort to end the spreading of antibiotic-resistant microorganisms.

As of May 2019, it is believed that every year 700,000 people die from antibiotic-resistant diseases. Furthermore, in the European Union, 25,000 patient deaths annually are estimated to be caused by antibiotic-resistant diseases contracted in hospitals. Within the European region, such diseases are prone to spreading in health care settings where antimicrobial use is common. These diseases cause increased medical expenses, longer and more intensive hospitalization, and riskier treatments such as chemotherapy and organ transplant. One of the key features of this crisis is that it cannot be eradicated or destroyed; as long as antimicrobials are in use, antimicrobial-resistant microorganisms will exist. It is possible, however, to slow the spread and future development of such organisms, primarily through education, superior sanitation, and increasingly cautious medical practices.

The Netherlands is fully committed to doing everything in its power to work towards a solution to this crisis, both within the European region and beyond. The World Health Organization’s Collaborating Centre for antimicrobial resistance epidemiology and surveillance is based in Bilthoven, the Netherlands, and works closely with the World Health Organization to establish antimicrobial resistance surveillance networks within member states. The centre also provides technical support and advice for setting up such systems in the European region, as well as analyzing the data it collects on antimicrobial resistance. The Netherlands seeks to lead the way in Europe in terms of smarter antibiotics consumption, and since 2013 the nation has decreased consumption by 9% (as compared to Europe as a whole’s 6% decrease). Like many other nations, the Netherlands strongly believes that the key to solving antimicrobial resistance is the education of the public, through events such as World Antibiotic Awareness Week, increased surveillance of the issue through projects such as the CAESAR network (Central Asian and Eastern European Surveillance of Antimicrobial Resistance), and finally a general decrease in the consumption and availability of antibiotics.
Delegation from: New Zealand  
Represented by: Berea-Midpark High School

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera and Antimicrobial Resistance. New Zealand is concerned that these could potentially pose a threat to the country and would also like to help other countries that currently have issues with cholera and antimicrobial resistance.

I. Addressing the Global Threat of Cholera

Cholera is a disease first started in 1817 along the Ganges delta, spread by contaminated food and water with the expulsion of bodily fluids from a contaminated individual. The disease causes violent vomiting and diarrhea, which leads to dehydration and eventually, death. Although some places in the world have created a way of cleaning contaminated water, a majority of Third World countries and regions are still affected by the disease. New Zealand wishes to ensure that cholera never enters its nation’s borders as an outbreak of cholera can become severe and damaging to its ecosystem.

New Zealand has a unique ecosystem that can be destroyed with the invitation of new animals, plants, and diseases. New Zealand does not have a full plumbing system in a majority of its cities and rural areas, it is very easy for a disease like cholera to spread. To deal with the disease currently, medical personnel must go out to heal infected and to try and decontaminate nearby water sources. As a result, the only way to prevent outbreaks is by reports from infected individuals or their friends and family. One such case was the Wilson family in 1973, when one of the sons came back home from a trip to Egypt. There were no casualties but 7 people were infected. As a result, a nearby pond had to be completely emptied and cleaned before it was refilled, according to the US National Library of Medicine.

A solution to this problem is the funding of programs and countries with the goal of getting clean water to people in third world regions. This can be reached with temporary deliveries of decontaminated water or a more permanent introduction of plumbing and cleaning devices for the use of nearby water sources or reservoirs. Another possibility is spreading awareness to affected regions of how to cure the disease as well as giving them the resources to do so. A third possibility is to prevent the sending of contaminated food, water or people to other areas via plane, ships or other methods of transportation.

II. Antimicrobial Resistance

Antimicrobial resistance happens when microorganisms are exposed to antimicrobial drugs and change, causing medicines to become ineffective. This allows the infections to persist in the body and increase the risk of spreading the infection to others. The cost of healthcare for patients with resistant infections is higher due to the longer duration of the illness, additional tests and the use of more expensive drugs. Without effective antimicrobials, medical procedures become very high-risk. New Zealand is dedicated to taking action against antimicrobial resistance.
New Zealand has a comparatively low rate of antimicrobial resistance however, there has been a rise in antimicrobial resistance to certain types of infections. New Zealand has implemented a five-year antimicrobial resistance plan to help combat antimicrobial resistance in their country. This plan has five priority action areas: awareness and understanding, surveillance and research, infection prevention and control, antimicrobial stewardship and governance, collaboration and investment. New Zealand is strengthening awareness and understanding and promoting education about the importance of this issue by using social media, promoting World Antibiotic Awareness Week, improving access to information about antimicrobial stewardship and reviewing and updating information about antimicrobial resistance. The World Health Organization also has an antimicrobial resistance plan in place with similar goals as New Zealand’s antimicrobial resistance plan. New Zealand is in support of the World Health Organization’s antimicrobial resistance plan.

There are many ways this issue can be controlled including raising awareness and researching ways to combat antimicrobial resistance. One course of action would include promoting education of antimicrobial resistance in every country, raising awareness about antimicrobial resistance in every country, improving the quality of healthcare given and funding research for novel antibiotics. Raising awareness could be as simple as promoting World Antibiotic Awareness Week or using social media as a way to let citizens of the country know about this issue and how important it is. Promoting education could mean requiring doctors to talk to patients about this issue or having representatives speak to classes about this issue. Funding research for novel antibiotics would require countries cooperating with each other by giving each other any information they have about these antibiotics and giving poorer countries aid so they are able to have access to these novel antibiotics. In theory, this would work, but it would require full participation and cooperation of both the country leaders and the citizens. Implementing this system may be challenging, but it would be an important step in combating antimicrobial resistance.
Delegation of: Nigeria
Represented by: Chardon High School

Position Paper for World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. The delegation of Nigeria is committed to a productive debate that comes to a resolution reasonable to all countries involved.

A. Addressing the Global Threat of Cholera

The delegation of Nigeria is very aware of the worldwide threat cholera is posing. This horrible disease infects up to 4 million people a year and needs to be addressed. The cholera pandemic has been around for centuries, but recently broke out in India in the 1900’s. Since then, the disease has spread through many countries, but is most prominent in India, Nigeria, China, Ethiopia, and Bangladesh. According to the WHO, it is estimated that 120,000 people die of cholera each year. With numbers as high as these, the World Health committee needs to come up with a possible solution.

Of the 4 million cases of cholera reported, 54% of them come from countries in Africa. The country of Nigeria suffered 43,996 cases of cholera in 2018 while only 23 cases were reported in the United States. So, what causes such a major difference? Those who suffer cholera can be treated and will recover very easily. In fact, with prompt administration of rehydration therapy, only 1% of cholera cases are fatal. Therefore, Nigeria and other African countries’ high cholera mortality rate can be blamed on their access to health care. For every 10,000 Nigerian civilians, there are only four doctors. Most trained doctors leave Nigeria in order to maintain positions in other countries with a better infrastructure and wages. Cholera is caused by a bacteria in foods called vibrio cholerae and it spreads through contaminated water. 70 million Nigerians do not have access to safe drinking water. To make matters even worse, Nigeria has very bad flooding. This can aid in the spreading of Cholera. The government of Nigeria has been working on ways to solve their water problem for some time and in March 2018 released a plan of action. With foreign aid, the country of Nigeria has been designating safe drinking water sites and is educating the Nigerian people on how to identify and cultivate safe drinking water.

The delegation of Nigeria is reaching out to the other delegations of WHO to try and find a global solution to the spread of cholera. The delegation believes that before stopping the cause of cholera, the WHO committee should focus on the bigger problem, the spread of cholera. The delegation of Nigeria hopes to make healthcare more accessible to the less fortunate countries. The delegation of Nigeria understands that some countries may not be affected by cholera, but the duty of the United Nations is support each other and find solutions to global problems.
B. Antimicrobial Resistance

The Delegation of Nigeria is perturbed by the threat that antimicrobial resistance poses on the prevention of treatment of an ever-expanding range of infections. These infections are caused by bacteria that are no longer susceptible to necessary treatment medicines. In the United States, an advanced and up-to-date country, its estimated that two million people are victims of antibiotic-resistance infections a year, resulting in at least 23,000 deaths. Although antimicrobial resistance isn’t contagious, the infections that are caused by it are very easily spread. This is especially dangerous in third-world countries that do not have easy-access to basic health care.

According to the WHO committee, the African region has one of the largest gaps in prevalence of antimicrobial resistance. One of the only ways around antimicrobial resistance is to find alternative medicines. However, in most cases these new treatments are much more expensive. For countries like Nigeria, many patients can not pay this extra cost for the effective medicine. 33.1% of Nigerians live in poverty and only 5% of the population has health insurance. Not only does Nigeria suffer extreme poverty, the country has a major drug problem. The irrational use of drugs in Nigeria makes resistance to common medicines even more probable. To combat antimicrobial resistance, the Nigerian government has taken some big steps. With the help of the WHO and other groups, Nigeria has instituted a National Action plan to streamline the distribution of drugs through professional organizations. The plan also seeks to diminish the open drug market in Nigeria and provide easier access to medical workers.

Although Nigeria has a very serious antimicrobial resistance issue, the country is making very prominent improvements. The Delegation of Nigeria would like to see these same improvements made in other poverty-stricken African countries. The Delegation of Nigeria would like to point out that this issue can also have a negative impact on advanced countries. Antimicrobial resistance can negatively impact the ability to complete surgeries, cancer treatment, and other major medical procedures. Therefore, the delegation of Nigeria believes that this is an issue that all countries in the WHO committee should be driven to find a solution for.
Delegation from: the Kingdom of Norway
Represented by: Archbishop Hoban Highschool

Position Paper for the World Health Organization

The issues being presented to the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. Norway remains steadfast in its support against the spread of cholera and wishes for the expansion of actions taken against the growing problem of Antimicrobial Resistance.

I. Addressing the Global Threat of Cholera

The Kingdom of Norway highly valued the support of the international community in fighting the threat of cholera. As a nation which has poured more than 24 million dollars into the most recent cholera outbreak within Yemen, the Kingdom of Norway views overcoming the threat of cholera as necessary for the promotion of global well-being. The Kingdom of Norway’s commitment to the fight against cholera has also manifest itself through other means such as Norwegian NGO’s and researchers present across the world.

Acknowledging the importance of stopping the spread of cholera due to its dangerous lethality and infectiousness, the government of Norway supports and promotes actions taken to combat this disease. Even though Norway currently doesn’t contain the cholera virus anymore, it has within its past struggled with it resulting in thousands of deaths. With these past events in mind, Norway feels a responsibility to aid the global community with the fight against cholera.

To help combat the spread of cholera within its own borders, Norway has made it a priority to care for the health of the public. Along with a focus on providing the population with numerous other necessities, such as clean drinking water and sanitary means of disposing of waste. Another area Norway seeks to include within these programs is the education of the public on how to prevent the spread of infectious diseases. While the Kingdom of Norway does recognize that while numerous nations may not be able to ensure these protections for a multitude of reasons, Norway does offer aid for these issues.

II. Antimicrobial Resistance

The Kingdom of Norway supports the advancement of research and other actions taken in order to slow and eventually stop the possible future epidemic of Antimicrobial resistance. With diseases adapting to our modern antibiotics we face an incredibly dangerous issue. Norwegian officials are calling this issue an epidemic, stating nearly 25,000 Europeans are projected to die this year from Antimicrobial resistant diseases. With this issue on the rise and growing as a largely unrealized threat, the Kingdom of Norway wishes for global action to be taken.

Norway realizes the immense threat of Antimicrobial resistance and has decided to take the lead role globally in the fight for its solution. Although Norway has few records of highly resistant
bacterial strains, officials have easily recognized the impending threat of Antimicrobial resistance and have begun taking steps to halt the widespread effects of this resistance. The primary fear of the Kingdom of Norway is that the overuse of antibiotics can result in the spread of diseases without any meaningful ways of stemming there spread. These fears have been justified and realized with numerous cases around the world of common bacteria developing resistant and lethal strains. These cases are especially concerning for developed nations as they tend to rely on antibiotics more and are often the starting grounds for resistant strains.

If and when diseases develop immunities to antibiotics, we will no longer have a defense against them. To help prevent this, Norway uses antibiotic cycles, specific times to use antibiotics rather than freely giving them out year round. These antibiotic cycles prevent bacteria from constantly being exposed to our antibiotics, therefore preventing them from developing immunities to them. Norwegian care service plan to reduce the use of antibiotics in the population by 30%. Norway not only plans to reduce antibiotic consumption in human medicine, but also in animals, specifically fisheries and turkey production. Although the immense threat of Antimicrobial resistance cannot be completely diminished, Norway tries their hardest to minimize the repercussion that emerges from it.
Delegation from: Paraguay
Represented by: Western Reserve Academy

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera and Antimicrobial Resistance. Paraguay is devoted to the support of civilian healthier life by attempting to provide with better preventions and treatments to the ongoing diseases, and to improve the social development in order to minimize the risk of disease suffering.

I. Addressing the Global Threat of Cholera

Paraguay supports the statement and the point of view that the World Health Organization comes up with, to protect more people suffer from cholera. Paraguay also strongly urges the rise of the Global Roadmap: Ending Cholera by 2030.

Recently, one of the most world influential diseases that is constantly causing striking numbers of suffering and death is cholera. Cholera is an infectious disease that causes diarrhea which can lead to dehydration or even death, if the situation is severe. The symptoms often occur quickly, range from few hours up to 5 days. It is mostly caused by the use of contaminated water that is infected with a bacterium called Vibrio cholerae, either from the source of drinking or food. The first found of this bacterium Vibrio cholerae was found in a reservoir called Ganges Delta, in India, causing the first outbreak of cholera in the world. One especially important aspect of cholera is that this is an infectious disease, which means that the spreading of the disease could be crazy and could stretch to anywhere if the counties being affected don’t have a modern advanced water system to filter the bacterium out of the water that people used. This feature allows the cross-continent spread of cholera, possibly spread through the trade routes and through the import goods. Most countries don’t have a strong advanced modern water system to filtrate the bacterium and don’t contain chemically disinfected water for civilian life, thus cholera could spread easily in these areas. Cholera caused total 7 pandemics and killed millions and the 7th is ongoing in various countries, including Paraguay. WHO (World Health Organization) also provided with a number of 150,000 cholera cases that are reported each year. This indicates that cholera is a worldwide threat to public health and we, as delegations need to provide solutions to support the Global Roadmap.

Cholera is also recognized as disease of inequality regarding the social development of certain countries. The best and most efficient way to prevent cholera outbreak is to provide the country with a modern and advanced water system to filter the sewage and provide civilian life with clean water to use and a good sanitary condition. Nevertheless, the reason these countries cannot provide citizens with a good sanitary condition is because of their economic background. Some countries don’t have the ability to afford the most advanced modern water system to provide a good healthy environment.

As a current cholera outbreak recorded in March in an isolated Indian settlement in the western region of Chaco in Paraguay has indicated that cholera is still an ongoing severe issue that is threatening civilian life in Paraguay. One of the major components of the economy in Paraguay is agriculture. The use of water to irrigate the crops might result to the rapid spread of cholera. The water might contain human wastes that come from people that have been infected by cholera, thus spread the disease even through crops. Based on the study of Environmental burden of disease for selected risk factors by WHO country health statistics in 2014 has suggested that main burden that causes the diseases is water, sanitation and hygiene, and the main disease group in Paraguay is Diarrhea. It has been estimated that the poor sanitation situation has caused at least 500 deaths per year, and we are turning to improve water and sanitation condition in the nation by implementing an advanced modern water system that will filter the bacterium by chemical means and produce clean water for people in these hotspot disease areas. Nevertheless, only some countries have these water systems because they have the resources and economic power to support these infrastructures. For many countries in Africa, and South America, as well as in Paraguay, we don’t have the money to afford the high technology modern water system. The countries with stronger developed infrastructure should help the nations that are currently
suffering from cholera and try to combat it by providing oversight and technical expertise of the implementation of the new systems. This is a world problem that everybody has to be involved into it in order to solve it.

II. Antimicrobial Resistance

Paraguay strongly urges the committee to focus more on the control of antimicrobial usage and medical security. As an emerging global issue, antimicrobial resistance has already been threatening the life security of countless people around the world. As an adaptive pathway of microorganism, antimicrobial resistance refers to the capability of bacteria, fungi and parasites to survive and execute mitosis in an environment with antibiotics. The resistance will increase whenever antibiotics are used, and especially when abnormal number of doses are implemented into an individual or when it is used in unexamined, inappropriate ways.

Antibiotics resistance was first reported in 1947, just seven years after the production of penicillin. Nowadays, with the constant and sometimes improper use of antibiotics, nearly all bacteria and fungi have developed certain degree of drug resistance. Recently, a newly discovered antibiotics resistant pathogen called Candida Aris broke out in India and several Asian countries, contributing to several thousand people’s death. What is more, resistance to currently available antimalarial drugs has been confirmed in two of the four human malaria parasite species, Plasmodium falciparum and P. vivax, according to CDC. If humankind do not pay enough attention and take insufficient steps to control antimicrobial resistance, antibiotics will no longer have any effect sooner or later. At that time, nothing can stop a disease epidemic, and thousands of millions of people around the world will die every year due to infectious diseases. Consider the prosperity of the modern society, a huge part of the reason is the ability to combat disease, which increases human life expectancy from some 35 years old in the ancient times to nearly 75 years old. If antibiotics no longer works for infectious disease, human life expectancy may go back to the ancient level! What is more, drug resistance will also cause severe economic burdens. In fact, according to BMC, the expenses of antimicrobial resistance on average even exceeds the cost of the medicine.

As one of the members of Latin American, Paraguay always considers antimicrobial resistance as one of the most important global challenges. Paraguay is actively involved in drug resistance control. In 2004, we collaborated with other American countries and founded the South American infectious disease initiative, an international organization, which focuses on effective strategies to counteract resistance with emphasis on the use of antimicrobials of guaranteed quality, according to paho.org. In the country, we spare no efforts in taking careful examinations of patients and use antibiotics carefully. The national plan for Paraguay to combat antimicrobial resistance is to actively promote vaccinations and good sanitations, construct sufficient hospitals in areas with high population density, promote health education and ensure the quality of the imported antibiotics.

However, since we are still a developing country which lacks sufficient technology, fund and essential facilities, the outcome of our efforts is not significant. This problem was also experienced by Peru, Bolivia and other American countries. Thus, we suggest that the committee provides the South American Infectious Disease Initiative 5 billion dollar as well as some experts in combating antimicrobial resistance. As people all agree on, antimicrobial resistance is a global issue, and the increase of resistance in a single area will lead to the increase of resistance around the globe. Thus, as we are all in the family of planet earth, it is necessary for us to help each other and combat antimicrobial resistance in all different countries. Overall, Paraguay strongly suggest the committee to implement our request.
Delegation from: Peru  
Represented by: Lakewood Highschool

Position paper for the World Health Organization (WHO)

The topics presented to the World Health Organization include Addressing the Global Threat of Cholera and Antimicrobial Resistance. Peru recognizes the severity and urgency of each topic and is in support of cohesive plans that allow all nations to rectify the effects of each issue. Peru unconditionally wants to work towards the safest world possible, and would like to see each nation come together to discuss and effectively combat the issues presented.

I. Addressing the Global Threat of Cholera

First seen in the Indian subcontinent during 1563, Cholera has continuously presented itself in almost every developing country at some point in history. In the last 200 years, 7 pandemics of cholera have struck the world; in the past 10 years, 12 outbreaks have been reported in numerous African and Latin American nations. The current Cholera Epidemic in Yemen that has been ongoing since 2016 has infected more than 1 million civilians and left thousands of dead. The World Health Organization has called the epidemic in Yemen as, “...the worst cholera outbreak in the world...” Worries over the spread of Cholera to the major economic partner and neighboring nation, Oman, persist as many fear it could spread to other Middle Eastern and East African nations. Cholera is easily preventable through basic sanitation methods and access to vaccines in regions that present a high risk of susceptibility to and outbreak. It is the cost of materials needed to sanitize water and the lack of education about how to maintain sanitation infrastructure that leads to nations being unable to properly provide clean water. The access to these things are impaired by either the remoteness of a community or ongoing conflict in a nation.

Between 1991-1994, much of South and Central America experienced an outbreak of cholera which originated in Peru. With over a million reported cases and nearly 10,000 deaths, Peru understands the many difficulties presented with an outbreak of Cholera. Specifically containing the spread of the disease presents many problems. The distribution of vaccines and antibiotics helps significantly to slow and sometimes stop the spread of Cholera, but there is no guaranteed methods of containing the disease without going into full safety measures like used in the 2014 Ebola epidemic. Peru still has concerns that it is still highly susceptible to another Cholera epidemic even after 25 years of technological and scientific advances. Cholera affects those most impoverished and it is very difficult for communities affected by cholera to treat themselves.

The nation of Peru still worries that the sustainability and availability of clean water cannot be guaranteed in all parts of the nation. The lack of adequate sanitation in many of the rural communities in Peru put those communities at severe risk for another cholera outbreak. Innovative input of other nations and proven solutions pertaining to the effective containment and elimination of cholera is urgently sought after. Programs that would help implement sanitation system in rural communities where cholera is most likely to impact the most would be a major priority as we don't know how to implement effective programs to sanitize water in remote areas. The effects of Cholera, especially in epidemic proportions, are disastrous as seen
first-hand by Peru in the early 90’s, and this poses concern not only for us but for our neighboring nations. We would like to see member states working to form a plan that provides proper aid for countries, such as Peru, that desperately need it. Cholera is preventable when everyone works to combat it

II. Antimicrobial Resistance

The discovery of penicillin by Alexander Fleming leading up to World War II launched a new era of medicine; penicillin was deemed a “miracle drug,” and antimicrobial medications (antibacterial, antifungal, antimalarials and antivirals) quickly became popular. In Fleming’s Nobel Prize speech, he warned the public not to misuse penicillin because it would accelerate antimicrobial resistance (AMR), ergo making penicillin ineffective in a shorter period of time. Over the years, new antimicrobial medications have been discovered and altered to combat AMR, however the research and development behind it has declined, this has led to the same medications being overused, a major facilitator in AMR. AMR happens naturally over time, but when antimicrobials are being abused (not only in humans, but in animals and agriculture), proper sanitation is lacking, and there isn't clean water, AMR occurs at a quicker rate. The antimicrobials being used are quickly becoming ineffective, allowing diseases to rapidly become fatal and spread to others. There have been more reports and deaths caused by diseases such as HIV/AIDS, tuberculosis, bacterial infections, malaria and influenza over the last five years due to AMR, this is a global health concern for humans and animals alike that all should take seriously.

While it is known that South America suffers from high rates of AMR (and all things associated), there are no definite statistics available for Peru. Peru has not participated in any international studies, but are making positive strides in public health and healthcare as a whole to promote a better Peruvian society. Like many nations, Peru cannot achieve proper healthcare, sanitation, or agricultural/environmental practices to effectively combat AMR by themselves. To combat that, Peru is being aided by Water for People in order to have access to clean water, a necessity in preventing the spread of disease. Additionally, the Food and Agriculture Organization (FAO) of the United Nations is using the “One Health” approach to design and enable practices that will allow Peru (and other nations) to effectively evaluate AMR in livestock/aquatic animal production and contain it. Despite these positive steps towards a healthier population, many are misinformed or simply uneducated about antimicrobials and AMR, but are nevertheless affected by AMR without knowing it. These setbacks, and a general lack of resources, aren't uncommon and need to be addressed in committee.

There is not an "end all, be all" solution for an issue with as many factors and as many varying experiences as AMR. This topic should be addressed keeping in mind that each nation is a different point in its efforts to combat this issue, so it's important to Peru that there is a framework all nations may build and expand upon to fight AMR most effectively for their situation. In that framework more than just the misuse of antimicrobials should be addressed-education, research, and environmental factors should be included. Furthermore, seeing as this is a global issue, it is obvious that this issue should be addressed with a willingness to help nations that need it, such as Peru. AMR affects everyone, and with Peru lacking resources and knowledge, there's no room to be lacking aide and allies as well.
In the 1800’s, Cholera was spread all across the world. The current pandemic of cholera began in 1971. It began to spread through South Asia and the Americas. Now, Cholera is present in many countries. It has spread to many different parts of the world and outbreaks are becoming increasingly more common.

In the Philippines, cholera outbreaks happen typically in the Summer. The World Health Organization is working with the Philippines and health professionals to discover and rapidly respond to outbreaks of Cholera. The Philippines has had many outbreaks of Cholera. However, they have not done much to prevent further outbreaks. There has also been minimal action taken by the Philippines to stop Cholera.

According to the World Health Organization, “A combination of surveillance, water, sanitation and hygiene, social mobilisation, treatment, and oral cholera vaccines are used.” The committee has done Cholera kits. The job of these kits is to stop further spread of cholera and to help stop cholera outbreaks and pandemics quickly after they begin. Each kit can treat 100 patients. We would like the committee to address Cholera by using the OCV vaccine in areas that have a problem with Cholera, and when an outbreak happens. Quick and easy access to treatment must happen, as well as readily available oral rehydration. The most effective and useful solution is universal ability to access to safe and clean water, such as WASH solutions and other environmental interventions. Awareness of Cholera should be promoted along with proper hygiene and behaviors.

**Topic B: Antimicrobial Resistance**

Antimicrobial Resistance (AMR) is defined on dictionary.com as “the development by a disease-causing microbe, through mutation or gene transfer, of the ability to survive exposure to an antimicrobial agent that was previously an effective treatment.” AMR is simply microbes evolving to overcome treatments, making it virtually impossible for someone to get rid of it. While people in the Philippines have almost universal health care coverage from Phillipine Health Insurance Corporation (PhilHealth), AMR is not a problem in the Philippines. With the Philippines spending almost 4.5% of their entire $72 billion budget.

Filipinos are easily covered by PhilHealth, which allows them to easily get many different kinds of antibiotics and different kinds of medical treatment. Over 90% of Filipinos have access to PhilHealth (philhealth.gov.ph), making it much easier for over 93 million people to access medical treatment if they were to have a problem with AMR.
The problem of AMR has never been super prevalent in the Philippines, and it is not projected in any way to be any time in the near future. The amount of people covered by PhilHealth has been rising yearly (PhilHealth), which in that makes it less and less likely each year that AMR will become a problem.
Delegates from: Poland  
Represented by: Rocky River High School  
Position Paper for the World Health Organization

Introduction
The cases before the World Health Organization include mitigating the recent outbreaks of cholera and slowing down the rapid antimicrobial resistance from bacteria. Poland is interested in finding a valid treatment for cholera, and improving the solitariness of medical infrastructure to slow the resistance to antibiotics.

I. Addressing the Global Threat of Cholera
Recently, Cholera has been one of the largest issues especially within humanitarian emergency situations. It is a dehydrating diarrheal disease that can kill anyone from all ages within hours if left untreated. Poland has had its fair share of cholera with six epidemics from 1831 to 1902, the aftermath lasting years. Recently, Poland has been one of the few countries out of the 52 that has not reported imported cases of cholera. Because it is technically Cholera-free, they have done very little to prevent the quick-killing disease. Conversely, politicians in this country have spoken of mitigating the amount of refugees that are let into the country as preventative measures to reduce the number of Cholera outbreaks in the country. In 2015, preparing for the October 25th election, the largest opposition political party in Poland, Jaroslaw Kaczynski spoke of not letting refugees from the Middle East into the country because of the risk of diseases including Cholera, it being one of the most prominent diseases in humanitarian facilities or refugee camps. Because there are little outbreaks in Poland, there is no direct policies from Poland, but there are implemented policies from the countries Poland is aligned with. The World Health Organization’s prevention list consists of providing clean water and proper sanitation to the people in refugee camps or humanitarian facilities. They stress the importance of reminders regarding basic hygiene such as the importance of systematic soap-using hand-washing after restroom use and before eating or handling food. These messages are spread through radio, television or newspapers.

Possible solutions to prevent outbreaks could consist methods to mitigate Cholera spread as a whole. One possible solution is the requirement of Vaxchora before entering the humanitarian facility, a vaccine against some of the bacteria that causes Cholera. With funding provided by the World Health organization, providing the vaccination before people of refuge enter the facility would reduce the chance of a Cholera outbreak. Another solution that could help prevent an outbreak would be more cleaning facility causing the facility to be more germ-free.

II. Antimicrobial Resistance
Medical professionals have been using antibiotics to treat bacterial diseases since the 1940s. They have recently become a more prevalent treatment, and it has been proven that doctors are unnecessarily prescribing this drug to the point where it is becoming hackneyed. Bacteria has a strong evolutionary presence with their reproduction rates at every 20 minutes. Although
antibiotics have been continuously altered since they were invented, bacteria still reproduces rapidly enough that certain stands have become resistant or even immune to the antibiotics meant to kill them. This resistance has caused major problems in fighting infections and diseases. It cannot be stopped, however, we must do all we can to slow the process until a better solution is created. The resistance is sped up due to overuse, bad hygiene and sterilization, poor sanitation, and many more. The delegation of Poland would like to fix these smaller problems in order to have a better chance at solving the major problem of antimicrobial resistance.

Antimicrobial resistance impacts people worldwide. No single country is immune to the impact, for people everywhere get bacterial infections. As of right now, there are still treatments for these infections, but if the antimicrobial resistance continues to progress at the rate it is right now, we will all be in serious danger. In 2014 alone, there was a 22.6% increase in bacterial diseases in Poland, causing over 400 deaths. Although Poland has not completed an action plan, we are not exempt from the growing crisis at hand.

To solve antimicrobial resistance, the delegation of Poland proposes that we start by cleaning up medical facilities. This will prevent the spread of bacteria across different diseases and eventually slow the resistance to the antibiotics. With less contact to the treatment, the bacteria will not be able to reproduce and adapt to fighting them as quickly. We feel that clean water supply and sanitation is a key factor to consider in solving this issue, so Poland would like to join the movement to getting clean water into countries around the world, and specifically into their medical buildings. In understanding that this problem is not preventable, we will not give up. It is still a major issue even if we can only slow the problem rather than stopping it all together. Poland feels the need to make people aware of the issue and then start the revival process.
The issues that face the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. The Russian Federation is determined to establish a relationship not only with the World Health Organization but with other countries as it works to address these problems. The Russian Federation is determined to gradually but effectively establish itself as a nation that will be prominently involved in these problems and discussions of their solutions.

A. Addressing the Global Threat of Cholera

The Russian Federation supports the actions taken thus far by the World Health Organization, and more specifically, the Global Task Force on Cholera Control. Furthermore, it supports the planned actions that are outlined in the Global Roadmap towards its eradication. The dissemination of cholera vaccines and established guides towards distribution of medical and infrastructural technology is integral to the long term and sustainable work towards ensuring that people will not only be able to be treated for cholera, but the inherent risk will not be present.

The Russian Federation and the past governments on Mother Russia’s soil have experienced multiple cholera outbreaks. Although these were not in modern days, and often times brought on by limited infrastructure and improper medical procedures, the modern Russian Federation has advanced to a point where it will not realistically affect anybody in the country, save for a few isolated incidents. When the Russian Federation was affected by diseases such as Tuberculosis, it worked with the World Health Organization to set forth plans on steady reduction of those afflicted by tuberculosis, and made the necessary strides towards itself.

Recognizing that many nations are in potential social disruption or do not have the adequate infrastructure to effectively implement long term cholera strategies, the Russian Federation recognizes that it is not only the World Health Organization’s, but larger donor nations’ roles to take through funding and other contributions. Insightfulness to the state of many third world nations and optimism at bold solutions it essential it overcoming this problem in a practical manner. Until long term action is taken over a long term period, only the effectiveness of short term solutions can be improved. The delivery of these kits is vital to the prevention of mass death, and as a result should be supported by not only more advanced countries but with advanced technologies. For example, the use of drones in the delivery of cholera kits and other integral supplies is an open and realistic possibility, as it has not been the first time the United Nations has utilized drone technology before. The effectiveness of air can overcome geographic obstacles in undeveloped areas or those which are afflicted with a disaster in which they cannot care for their health such as lack of roads or proper navigation. If this issue is to be solved, it is important for countries whose stable economy and health infrastructure can be contributed to third world nations until they have the means to implement long term infrastructural changes in areas such as potable water supply.
B. Antimicrobial Resistance

Antimicrobial resistance is a major pitfall that stands in the wondrous uses of antibiotics, for all forms of life. If this issue is not solved in an efficient manner with both effective long term and short term solutions, the rate at which antibiotics fail will outpace the race at which new ones are discovered. Industries such as the agricultural and meat industries will face grave turmoil. The Russian Federation commends the work done thus far on attempts to neutralize the problem through methods such as GLASS and World Antibiotic Awareness Week.

The Russian Federation has faced some difficult regarding antimicrobial resistance domestically. Due to struggles to centralize many aspects of agricultural production such as the antibiotics used, which also present various respiratory infections and E.coli that are in the country. The Russian Federation’s solution to this was to establish an APUA, the Alliance for the Prudent Use of Antibiotics, chapter in Russia. This organization is dedicated to fighting antimicrobial resistance by hosting various international conferences with other chapters in Eastern Europe and other nations, the most recent being the Russian-Chinese Congress on Antimicrobial Therapy, which had convened in October of 2019.

When regarding the difficulties that come with having a consistent policy on antibiotics throughout the world, and the issues that may come with determining which individuals would truly deserve to use them, The Russian Federation aims to, much like it had with the APUA, work towards making countries aware of the problems that come with antimicrobial resistance and using these dangers to incentivize action. The Russian Federation recognizes the importance of a consistent roadmap towards not reducing the use of antibiotics in general, but applying them more intelligently so they can be used appropriately. Russia would like each nation of the committee to acknowledge antimicrobial resistance and take that as an immediate call to ensure that the proper training, including the stringent knowledge of antimicrobial resistance, is established for doctors who wish to formally practice medicine with a license. Recognizing that no new antibiotics have been discovered since the 1970s, The Russian Federation would like to aim on not only preventing the need to use antibiotics, but to take other actions that would ensure they wouldn’t face the problem in the first place.
Delegation from: The Republic Of Rwanda
Represented by: Archbishop Hoban High School

Issues for the World Health Organization are: combating cholera and antimicrobial resistance. Rwanda takes a firm stand on combating these issues, and for the complete eradication of cholera and assistance on preventing antimicrobial resistance.

I. The danger of cholera to underdeveloped nations

The threat of cholera is very real to the Rwandan people. Rwanda has felt cholera’s influence and wishes to remove it once and for all. Rwanda is currently in a state of rebirth. We wish to eliminate the threat once and for all from our shores. We also promise our support to WHO and any nation suffering from this disease.

We have lost 12,000 Rwandan people to this epidemic. Since 1999, Rwanda has been fighting this disease. As of this year, we have had no outbreaks. Our neighbors however are not as fortunate. Burundi, Uganda, and Tanzania are all suffering from cholera. This is an issue that runs deeper than cholera. They lack basic sewage treatment and clean water. Rwanda has signed the “Midterm comprehensive review of the implementation of the International Decade for Action”. This put into place a system for helping these countries. However, action is needed now more than ever. They simply don’t have the infrastructure to keep up with the demand of the people. Tanzania as of recent reports has the highest death toll. These deaths are on the border of Rwanda. This simply can not stand, this disease can and must be prevented. WHO has the tools and has helped Rwanda in the past. When the outbreak began the UN was swift to pass the resolution “Malaria and Diarrheal diseases, in particular Cholera” in 1998. Rwanda wishes to repay that debt. The world must come together to save others as the world once helped Rwanda. Using the skills and resources learned from our nation's outbreaks, will will attempt to assist those afflicted.

WHO bears the roadmap that Rwanda will follow. Rwanda has shown great strides in combating this disease. For those who don’t have the tools. Using the cholera roadmap of 2030, we will work together to eliminate this sickness. Rwanda rises from a dark time as a beacon of hope for those sick and lost in Africa. Rwanda will assist to end this once and for all.

II. The danger of antimicrobial resistance.

According to the World Health Organization, antimicrobial resistance is defined as the ability of a microbe to resist the effects of medication that once successfully treated the said microbe. Rwanda is no super power, the nation simply wants to rebuild. How can we if nature is fighting us for supremacy. At this current stage in Rwanda’s resurrection there are few medications available to fight diseases. From cholera, to respiratory disease. Rwanda needs its medication. The threat of a resistance to medication is to severe to ignore.

Rwanda does not hold the infrastructure to properly combat this issue. The people of Rwanda are in a corner and ask WHO for help. We cannot risk the few medications Rwanda has to become inert. The dangers of that are too great to comprehend, from children to elderly dying simply because the medication won’t work. We have reports of tertiary facilities experiencing this affect. This proves that the crisis is present. Rwanda is a fragile nation, currently battling many diseases,
the loss of medication will doom this nation to fail. The Rwanda people can not be given this false hope. Rwanda asks the world for assistance in ending this threat to all African nations.

This is a fight that the world can’t ignore. Great men and women have striven to create medication for those ill. Rwanda is willing to assist in this cause but we must insure our infrastructure can hold. Along with WHO, we must take a stand to provide for the sick. Rwanda’s future depends on it.
Delegation from: the Kingdom of Saudi Arabia
Represented by: Archbishop Hoban High School

Position Paper for the World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera and addressing the issue of antimicrobial resistance as a threat to global health. The Kingdom of Saudi Arabia is intent on finding long-term solutions to these pressing medical issues while maintaining the general health of its own citizens.

I. Addressing the Global Threat of Cholera

Cholera is an acute diarrhoeal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholera*. In severe cases, the disease can kill within hours if left untreated. Saudi Arabia has confirmed one cholera case and said three others were suspected in an area bordering Yemen, where an epidemic has caused 2,770 deaths and affected over one million people since 2016. It has amplified the suffering of civilians caught up in a three-year civil war in Yemen between forces loyal to the internationally-recognised President Abdrabbuh Mansour Hadi, who is backed by a Saudi-led coalition, and the rebel Houthi movement.

The Kingdom of Saudi Arabia has made financial contributions in the High-Level Pledging Event (HLPE) in April 2018, in an attempt to help control the outbreak in Yemen. The WHO has rolled out an emergency treatment program, based on the vestiges of Yemen's shattered health system, to try to catch new cases early and stop the explosive spread of the disease. Early detection and quick response to contain outbreaks, a targeted multi-sectoral approach to prevent cholera recurrence, and an effective mechanism of coordination for technical support, advocacy, resource mobilisation, and partnership at local and global levels are all steps Saudi Arabia has taken to prevent further spread of disease.

The Kingdom of Saudi Arabia intends to discuss WHO resolution titled “Ending Cholera: A Global Roadmap to 2030” and how each delegation intends to implement this plan into their sovereign nation. Saudi Arabia would like to discuss the aid of the outbreak in Yemen, as the past has shown that proximity incites the spread of this deadly disease. Saudi Arabia wished the committee to create a short-term policy of containment, as complete eradication of cholera is most certainly many years away.
II. Antimicrobial Resistance

Antimicrobial resistance (AMR) is the ability of a microbe to resist the effects of medication that once could successfully treat the microbe. The overuse and misuse of antibiotics in animals and humans is a rising global threat. If no action is taken soon, all antibiotics will be ineffective by 2050. Antibiotics used in food-producing animals are identical to the antibiotics used to treat humans of bacterial infections, making humans more susceptible to contamination by foodborne illness through bacteria from animal production, including consumption and contaminated food products. WHO recommends reducing the amount of all classes of medically important antimicrobials in food producing animals. This way the antibiotics given to treat illnesses in humans will remain effective.

Saudi Arabia has several challenges that can stimulate the emergence and spread of multidrug-resistant bacteria. With the large chemical production industries prevalent in the territory, AMR is common. With a recent study showed that the susceptibilities of A. baumannii to certain antibiotics in 2006 ranged between 64-81.2%, while the susceptibility in 2012 ranged between 8.3-11%. Along with this comes another largely damaging problem: prescription medicines are given over the counter without a note from a doctor, with no concern of the pharmacists. This practice is common among some Saudi Arabian facilities, and only encourages the growth of antimicrobial resistance.

The Kingdom of Saudi Arabia’s stance on this widely held issue is to follow the worldwide plan set into place. The plan is to gain better control over the usage of antibiotics in food, along with actions to include active AMR in the country, from small levels such as hospital-based, to regional and nationwide levels. There will be active surveillance to monitor the emergence and spread of AMR. Infection prevention and control precautions should also be optimized to limit further spread. Raising awareness is essential to limit inappropriate antibiotics use, and the antibiotic stewardship programs in hospital settings, outpatients, and community pharmacies, should regulate the ongoing use of antimicrobials.
Position Paper for the World Health Organization

The issues facing the World Health Organization are as follows: addressing the global threat of cholera and mitigating its effect on the world and reducing the antimicrobial resistance spurring with the overuse of antibiotics. The country of South Africa is willing to confront both of these issues domestically and has communicated the desired outcomes from these endeavors.

I. Topic: Addressing the Global Threat of Cholera

Cholera is an acute, malignant disease with either lethal symptoms, shortening lifespans to days, even hours, or benign ones, making detection a herculean task. Contraction of this infectious disease comes from the ingestion or consumption of food or drink that has been contaminated with the bacterium Vibrio cholera or a host of other bacteria. It affects the intestinal system by producing an enterotoxin that generates watery, painless diarrhea that causes severe dehydration that can eventually lead to death if not treated soon enough. Another symptom of cholera is vomiting. Using ORS (oral rehydration solution), around eighty percent of affected patients can be treated successfully. However, more severe cases require more immediate treatment of fluids and antibiotics administered directly to the veins. Its lethality is proven by the number it kills and infects. An estimated 1.3 to 4 million are infected with cholera and around 21,000 to 143,000 are deceased because of it.

The country of South Africa has been impacted by cholera for about two decades now. In 2003 and from the end of 2008 to the beginning of 2009, the country was plagued by a cholera endemic. Due to the 2008/09 outbreak, the Department of Health had to revise its guidelines for cholera control, focusing its strategy on control by ensuring the availability of medical supplies, the development of the treatment ORS, and proper training of medical staff, and prevention through the development of sanitary lavatories and other systems. Six years following, the Global Task Force on Cholera Control (GTFCC) was revitalized and in 2017 South Africa hosted the Annual Meeting to develop a plan to eradicate it by 2030. Although the possibility of the disease has been reduced in South Africa, citizens remain at risk due to neighboring countries. According to an October 2018 report by the Centre for Enteric Diseases, Division of Public Health Surveillance and Response and Provincial Epidemiology Team, NICD-NHLS, a cholera outbreak Zimbabwe with around nine-thousand infected and fifty dead, had infected a South African female with a travel history to the country. She contracted the disease while on her short excursion in Zimbabwe and spread it to her husband as well. Both were treated and recovered fully. However, this case exhibits a prime example of why epidemics in neighboring countries should still be treated with caution.

The Global Task Force on Cholera Control has outlined its planned strategy for the control of the cholera disease in a report written by the secretariat of the GTFCC with input from about fifteen organizations and nonprofits with an imperative on establishing clean facilities, early detection, and efficient mobilization of medical staff and supplies. The goal of this document is to eliminate the threat of cholera by 2030. It outlines a plan for ensuring that progress is being made and mitigation of “unexpected factors and external risks” such as “unexpected events increasing
the risk of cholera (e.g., natural disaster, conflict, etc.),” “insufficient funding,” and “insufficient availability of vaccines.”

II. Topic: Antimicrobial Resistance

Antimicrobial resistance (AMR) is the ability of an organism, specifically a microorganism, to defend and resist the microbes from invasion. AMR can severely manipulate the ability for a certain treatment to be effective, and can compromise the means of prevention of different bacterias and diseases. Surgery, treatments such as Chemotherapy, and other life-saving operations are also put at risk due to AMR. Patients with this resistance have a higher price for health care because their resistance usually extends the time that an illness is present in their system, as well as more tests that need to be conducted. It was concluded by the WHO that in 2016, 490,000 people were diagnosed with a multi-drug resistant form of Tuberculosis around the globe.

The WHO reported in 2016 that about 19,000 citizens of South Africa were diagnosed with a drug-resistance Tuberculosis. South Africa has declared a national priority and has developed a National Strategic Plan to help eliminate the health threats in the next few decades. In 2015, the Department of Health published an AMR Strategy guideline for South Africa, and the current leaders in the healthcare operations are continuing to develop international connections in hopes to end the crisis. In 2018, the SAMRC (South African Medical Research Council) hosted an international conference in Cape Town that focused on the prevention of the spread of AMR not only in South Africa but globally.

The South African Department of Health shall use the works published in the AMR Strategy guidelines and framework to better assist the current dilemma and crisis of AMR by an international and global outreach sustained by collaboration with but not exclusively, the WHO and the United Nations.
Committee: World Health Organization
Delegation: Spain
School: Chardon High School

Position Paper for World Health Organization

With being the delegation of Spain, we will be prepared and ready to debate on the World Health Organization, specifically the following topics. Topic A: Addressing the Global Threat of Cholera and Topic B: Antimicrobial Resistance. With these topics, the delegation of Spain is planning to find a resolution to these global issues, while working with other delegations.

A. Addressing the Global Threat of Cholera

The topic of addressing the global threat of cholera is a very important matter to the delegation of Spain. Cholera is a deadly disease if not treated quickly and properly under the right conditions. This disease is The global threat of cholera is extremely important to notice, as in 2017, there were 1,227,391 reported cases in roughly 34 countries. Of these reported cases, 5,654 people died. To put things into perspective, in one year of cholera outbreaks, there were four times as many deaths caused by this disease as people died on the Titanic in 1912.

Spain hasn’t had many pandemics since 1863, when a large outbreak spread from India to Spain and Naples. This pandemic lasted until 1875, and ended up killing up to 600,000 people. Mexico, being one of the cheapest healthcare destinations in the world, with 499,803 tourists traveling to Spain in a year. With these infected people, getting health care from Spain may not fit into their budget. This being because Spain had the seventh best healthcare in the world, causing it to be expensive to certain countries. With not being able to afford Spain’s healthcare while being there, causes many untreated people spreading the disease. Furthermore, a doctor’s visit is about $18.00 to $25.00 USD in Mexico, but in Spain it is $218.00 USD. In relative importance, Spain has a much higher cost of 200€ per hospital visit, which is $218.00 USD.

Although the delegation of Spain doesn’t have a drastic issue with their potable water, almost 82.8 million people travel to Spain each year. If a tourist with this deadly disease, or any other contagious illness comes to Spain, it could get millions of others contaminated as well. Therefore, the risk of cholera spreading into our country is very high, let alone spreading throughout the whole entire world. The delegation of Spain plans to put a stop to sending ill people on airplanes, to lower the risk of cholera outbreaks throughout the world.

B. Antimicrobial Resistance

Antimicrobial Resistance (AMR) is the prevention and treatment of certain infections caused by different viruses and bacterias. AMR is a serious issue where people are getting deathly diseases without noticing until the virus is spread throughout the body. People are getting untreatable diseases from human interaction and places such as large crowds, or even hospitals. Imagine going to a hospital for a simple x-ray or surgery, and end up dying from an untreatable disease spread to you.
AMR is a life threatening issue that needs to be addressed before it’s too late. AMR has affected Earth since the 1930’s and ever since, it has just been getting worse. 700,000 people have died from this disease last year, and the World Health Organization expects that the death toll will rise to 10 million deaths per year in the next 35 years. Spain is greatly affected by AMR. An AMR disease in Spain is Methicillin-resistant Staphylococcus aureus (MRSA). In most recent data, in 145 hospitals, there were 463 cases in one day. Out of those 463 cases, 135 were resistant to a certain medicine called methicillin resistant. In presenting these ideas, this means that about 28 percent of patients in spain are immune to medicines and therefore can’t get treated.

Spain would like to see the WHO committee make a big contribution to help find a solution to the Antimicrobial resistance that is negatively affecting the world. Spain would like to see a solution made and discuss the negatives for antimicrobial resistance with other delegates.
Delegation from: Kingdom of Sweden  
Represented by: Mentor High School

Position Paper for the World Health Organization

The issues presented in the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. Sweden is invested in aiding the world in both situations as they pose a serious health risk towards people of all nations. Sweden also expresses hope that the World Health Organization will be able to come to a comprehensive solution for both issues that have been presented and prevent further lives from being negatively affected by these issues.

I. Addressing the Global Threat of Cholera

Sweden as a nation has been negatively affected in several ways by the threats that coincide with Cholera. While we acknowledge that Sweden is not the only country to face this issue, there have been several notable recent events regarding Cholera that has been extremely problematic.

The situation regarding Cholera has led to public concern due to health risks. For example, the overall population became extremely worried when there were several documented incidents where Cholera was found within lakes and rivers found within Sweden. This has led to an overwhelming fear that the nation is developing regarding this health risk. In order to combat this extreme health risk, Sweden in 2017 provided more funding in order to ensure that the lakes and other waterways were free from the bacteria. Additionally, this fear as extended over borders as several Swedish foreign ministers expressed fear and worry in response to the Cholera outbreak that took place during 2017 in Yemen. This has led to increased support in other countries from Sweden in order to prevent the spread of Cholera.

There have been several attempts to help prevent the spread of Cholera in several third world countries. As there are roughly 100,000 people that die from Cholera each year, Sweden has been concerned for the well being of several other third world countries. This can be seen in Sweden’s support regarding the mass production and mass distribution of the cholera vaccine. This has been an extremely difficult task as several areas within these countries do not have access to clean, safe drinking water. As Cholera spreads through unfiltered drinking water easiest, this has made the problem even more complicated. Regardless of this, the vaccine has been proven to be highly effective in preventing children and adults from obtaining Cholera through drinking water. Sweden hopes that this life saving vaccine could be spread throughout more areas in order to ensure that people who are vulnerable to Cholera are rightfully protected.

II. Antimicrobial Resistance

Sweden has been making and hopes to continue making significant strides towards the prevention of antimicrobial resistance. There have been several nationwide initiatives that have aided in the destruction of several of these microbes that have the ability to resist antibiotics.

During the early 1990s, Sweden realized that antimicrobial resistance was going to become an extremely problematic situation. This came in light of a rapid spread of penicillin-resistant
pneumococci among children in southern Sweden in the early 1990s. In order to combat this threat, Sweden mobilized a governmental initiative that worked alongside several organizations. This initiative’s goal was to enforce a law that had been passed in 1986 that had banned the use of antibiotics in animal feed. This intersectoral coordinating mechanism was implemented officially in 2012. This not only enforced the previous law to a more effective rate, but it also stopped Swedish doctors from over prescribing antibiotics in order to lower the risk of antimicrobial resistance from forming. This has led to Sweden having among the lowest antibiotic use and resistance within the European Union.

As the Swedish government is in control of healthcare, there have been several more steps that the government has been taking in order to prevent antibiotic resistant microbes from being overly abundant. There have been several studies conducted by the Swedish government in order to determine what type of economic impact that these microbes could have on a country. It was found that there could be a severe economic impact that could occur if there was another serious antibiotic resistant microbe breakout. In order to combat another break out, the Swedish government has created several national forums and a website for several local doctors as a means of educating them as to what these microbes could look like based on symptoms. This has been extremely effective in providing significant progress in combating antimicrobial resistance and the delegation of Sweden hopes that the World Health Organization could enact similar strategies in order to combat this global health risk.
Position Paper for World Health Organization

The issues before the World Health Organization are: Addressing the Global Threat of Cholera; and Antimicrobial Resistance. The delegation of Thailand is committed to a productive debate that comes to a resolution reasonable to all countries involved.

**Topic A: Addressing the Global Threat of Cholera**

Cholera is an infection caused by the ingestion of contaminated food or water, and it is a problem primarily in developing countries. Though reported cases of cholera around the world peaked in 2011, this disease is still an important public health issue around the world today. In 2016, 132,121 cases of cholera were reported worldwide, with 54 percent of cases in Africa, 32 percent in Hispaniola and 13 percent in Asia. The distribution of this illness reflects the desperate need for access to clean water and sanitation facilities in developing nations.

Thailand has a relatively strong healthcare system, with 93 percent of the population having access to clean water and 96 percent having access to improved sanitation. Thailand ranked 47th out of all countries for the healthcare system in 2010 and has achieved the sanitation and drinking water Millennium Development Goals. Thailand’s Ministry of Health regularly tests water quality in both urban and rural areas. These testing methods have ensured that Cholera is not a large issue in Thailand, though implementing human resource strategies for drinking-water and sanitation has been challenging due to funding restrictions and other obstacles.

Thailand believes that cholera should be eliminated from today’s society. In the case of implementing vaccines to prevent cholera, the UN recognizes and respects each nation’s national sovereignty discussing this issue. Every person should have access to clean drinking water, however if water present is inadequate, Thailand would like to work together with other nations to provide vaccinations, in an effort to stop cholera.

**Topic B: Antimicrobial Resistance**

Antimicrobial resistance or AMR is the ability of a microorganism to combat antimicrobial medication that could previously be used to treat the disease. This causes usual drugs to become useless in preventing infection, allowing for the continued circulation of disease. AMR is a very dangerous phenomenon that has become increasingly common in recent years. In 2014, there were 480,000 new instances of multidrug-resistant tuberculosis. Resistance is not just an issue when dealing with tuberculosis, it has also had a serious impact on dealing with malaria, HIV, influenza, and many other dangerous illnesses.

AMR is a growing issue in Thailand that was determined to have generated over 38,000 deaths and lead to the loss of 1.2 billion US dollars of the national GDP in 2010. Since then, Thailand has created the Thai National Strategic Plan on Antimicrobial Resistance which hopes to reduce the use of antimicrobial medications in humans and reduce AMR mortality by 50%. This plan also aims to increase public awareness
about AMR, which was an important goal during World Antibiotic Awareness week last year. At this conference, many Thai organizations and delegations from other Asian countries focused on improving the public’s understanding of AMR. Another point of interest was the need to adequately label antibiotics so that people recognize the dangers of bacterial resistance. These efforts have lead to noticeable improvement in public awareness and action against the issue of antimicrobial resistance.

Thailand believes that the unnecessary use of antibiotics in both humans and animals should be avoided. Thailand supports government regulation of antibiotic sales and efforts to increase public awareness about the hazards of overuse. Thailand is willing to support other members of the WHO committee and create a resolution to confront AMR on a worldwide scale using the methods previously mentioned and by incentivizing the discovery of new antibiotics.
Delegation from: Ukraine
Represented by: Strongsville High School

Position Paper for The World Health Organization

The issues before the committee of “World Health Organization” pose an imminent threat to the health and well-being of Ukraine entirely. Thusly, Ukraine is in overwhelming support of aid to combat the growing HIV/AIDS epidemic and assistance to address public health issues arising from lack of proper sanitation.

I. Addressing the HIV/AIDS Epidemic

The economic problems which arose after the fall of the Soviet Union have clearly left its mark on Ukraine, a former Soviet state. The dissolution of the Soviet Union aligns directly to the relative decline of the economy of Ukraine. The decline of the economy of Ukraine has plagued the country with staggeringly low unemployment rates, which has led to significantly less education present among the citizens. Therefore, it cannot be ignored that the lack of education amongst the citizens of Ukraine has led to an epidemic in life-threatening diseases such as HIV and AIDS.

Currently, Ukraine is the poorest country in Europe, and the country has the second largest HIV epidemic in the continent. A staggering 360,000 people in Ukraine currently live with HIV and AIDS, yet many are unaware of this due to the lack of education present. Specifically, HIV and AIDS have primarily affected those between the ages of 15 to 49 who fit in the working portion of the country. Ukraine has the lowest immunization rates in the world, resulting in a vulnerability towards new epidemics and outbreaks that would be preventable by immunization. This is due to the lack of vaccines and quality medications available. Moreover, there is a general distrust present amongst the citizens of Ukraine in regards to the validity of vaccines. The lack of education and money present in Ukraine has proven to hinder the growth of the country, and the absence of health and social knowledge has led to thousands of deaths along with the disarray of the country. Therefore, the country of Ukraine encourages countries in the United Nations to aid in methods to combat HIV and AIDS along with funds to promote knowledge in regards to health.

Ukraine depends heavily on the World Health Organization currently to aid in trauma and mental illness programs. The country of Ukraine encourages that the World Health Organization allocate more funds towards programs centered specifically around epidemics and vaccinations. Ukraine has received much aid from the United States and countries affiliated with NATO. Ukraine requests that funds from these countries and WHO should be towards health education as well. A lack of knowledge along with the decline in economic prosperity has brought the country of Ukraine to these precarious circumstances. In order for these circumstances to be reversed, this committee is advised to direct assistance towards key issues that would prove to be fatal if left unchecked. If the World Health Organization wishes to alleviate health epidemics such as AIDS and HIV, the country of Ukraine strongly encourages providing more education and money towards general knowledge as well as treatments to countries that are greatly suffering from it.
II. Addressing Improper Sanitation

The current political disarray facing the Republic of Ukraine has hindered the general welfare and health of its people. Resulting in an estimated 10,000 casualties, 1.5 million internally displaced persons, and a staggering 280 miles of armed zones, Eastern Ukraine has been stripped of the basic right to proper sanitation- beginning with access to suitable water for consumption. For the past six years, Eastern Ukraine and Russia have partaken in major conflict due to the imposition of Russia on the Crimean Peninsula. The specific area of conflict is defined as land east of the Dnieper River. Since 2014, the ongoing disputes among Ukranian Separatists, the Ukranian Military, and Russian Soldiers have continued to ravage and plunder this country’s resources; and has had a devastatingly profound impact upon the standard to which health is held in this country.

Ukraine’s failure to provide adequate sanitation services to its citizens has contributed to the contraction of an array of lethal effects and illnesses. Political unrest plagues roughly a quarter of the nation on the Eastern front due to deep historical divides among Russian forces. This zone has become somewhat of an epicenter for armed conflict, poverty, and primarily poor sanitation. Conflict affected areas especially have been subject most harshly to pathogen related illnesses- primitive illnesses perpetuated by the failure of these areas to provide purified drinking water. Citizens live in considerably inhumane environments. With Eastern Ukraine facing utter disbandment of social order, the government has failed to regulate health standards appropriately and water quality measures have been disregarded almost entirely. Third party organizations such as the Center for Disease Control have aimed to reestablish water quality standards in all areas of the nation. These measures have proven immensely valuable in the initiative for greater well-being, thus justifying a dire need for more supranational intervenience.

The need for sanitation advancement is not merely a distant issue; the need for sanitation advancement is the most pressing issue of Ukranian focus in 2019 and in the future. It is the very debate that directly correlates to the well-being and construct of the Ukranian population. It is for this reason that water purification infrastructure must be mandated by the national regime to standardize water quality across the country. It would also be beneficial for the state of Ukraine to employ sanitation experts to the outskirts of Eastern Ukraine in order to compliment sanitation infrastructure as well as reinforce a weaker area. This issue must be the primary focus of monetary efforts simply due to its directly tangible and alarmingly severe impacts upon people. It is important to see the human faces that are affected by the decisions that governmental organizations make. Intervenience is a necessity in order to ensure the welfare of the people of Ukraine.
The issues before the World Health Organization (WHO) are addressing the global threat of cholera and antimicrobial resistance. The United Arab Emirates (UAE) has demonstrated leadership in both of these areas and hopes to gain further support from fellow representatives in the United Nations.

A. Addressing the Global Threat of Cholera

The UAE has 9.2 million residents including 1.4 million Emirati citizens and 7.8 million expatriates. The country has only 86,300 square kilometers that are mostly desert and sand. There is very little rainfall and very high temperatures. As a result of these harsh conditions, a major issue in UAE and surrounding countries is the availability of safe drinking water.

Cholera is a disease caused by eating or drinking contaminated water containing the bacteria *vibrio cholerae*. Untreated, cholera can cause dehydration and even death.

Due to environmental factors in the Middle East, cholera is a common illness. From 2016 to 2018 more than 1.2 million cholera cases were reported in Yemen. More than 2,500 people died - 58% of whom were children.

The UAE, represented by the Emirates Red Crescent (“ERC”) has taken it upon itself to support and help resolve the crisis of cholera.

In the summer of 2019 the ERC launched an anti-cholera campaign in Mawza District in Taizz Governorate, Yemen. This campaign included a massive six day program to clean water wells, and drain swamps to eradicate the bacteria causing the disease. This is not the only way the UAE plans to help fight the epidemic. UAE is now in collaboration with (“WHO”) sending medicine and more advanced equipment to help control the outbreak. Following these efforts, the death rate is slowly going down.

Now we propose to take the plan of the UAE to the next level. Not only should swamps and wells be cleaned, but plumbing, water lines and even household faucets should be reconstructed. This will completely clear out any bacteria in accessible water and prevent the disease from further infecting the population. Hopefully if changes are made in Yemen these efforts will impress upon the rest of the world that broader remedial action is needed now. These programs are essential to give adults and children in Yemen, and elsewhere, a chance at a better life.

B. Antimicrobial Resistance
The United Arab Emirates firmly believes that antimicrobial resistance is an issue present in today’s society that needs to be resolved immediately.

Antimicrobial resistance (AMR) is the ability of bacteria, viruses, and parasites to stop antibiotics from working against the viruses. As a result, regular treatments become ineffective. Many of the infections spread to others extremely quickly. When used properly, antimicrobial drugs save lives. However, according to the Centre for Evidenced-Based Medicine at the University of Oxford (CEBM), otherwise effective medications when used excessively or irresponsibly in human medicine, intensive livestock, pharmaceuticals in the environment, and veterinary medicine can: “put patients with life threatening infections at risk of therapeutic insufficiency” and “ endanger the potency and efficacy of antimicrobial agents [in the environment].”

The United Arab Emirates recognizes antimicrobial resistance as an ongoing challenge across the world.

At the 68th World Health Assembly in 2015, a global action plan was created to address all antimicrobial resistance. The first step of this plan was to raise money for intense research in order to be more educated on the subject. This step was completed and successful in 2017.

Now there is a need to run evidence based tests to help treat the microorganisms causing the body to lower resistance to infections. The purpose is to ensure that people are being prescribed and receiving appropriate medications. This way, the general population will gradually reach a higher immunity to these microorganisms, and therefore becoming healthier and more resistant to viruses.

This issue is one that needs to be resolved in the near future, so that the United Arab Emirates — and all nations — can lower their infection rates and quickly increase the percentage of healthy citizens.