WORLD HEALTH ORGANIZATION

EAST BAY MODEL UNITED NATIONS 2025

TABLE OF CONTENTS

LETTER FROM CHAIR

Dear delegates,
My name is Allie Heo (@not_seoo on insta shameless plug), and I'm a junior at California High School! I'm super excited to be your co-Head Chair for EBMUN this year :)

I'm the Chair of Outreach for the CalMUN Board, where I work to expand and strengthen our MUN community. I've been doing Model UN since my sophomore year and have attended conferences like SFMUN, EBMUN, DMUNC, and BMUN. Joining MUN has certainly yielded some truly chaotic yet unforgettable experiences and I've made tons of amazing new friends through the conferences I've attended!

Beyond MUN, I'm a violinist currently tackling Beethoven's Violin Sonata No. 9 Kreutzer Op. 47 (pray for me). I also love weightlifting so if you ever want to talk gym PRs or routines, feel free to dm! Some of my favorite artists/bands are Metallica, Megadeth, AC/DC, Megan Thee Stallion, Queen, Palaye Royale, and even Frank Sinatra. In my free time, I also enjoy learning Russian and German.

I'm so excited to see all of your creative solutions and make this an unforgettable experience together! Feel free to email (allie.heo20@gmail.com) or DM me on insta with any questions (music, gym, MUN, or anything else). Can't wait to meet you guys :)

LETTER FROM CHAIR

Dear delegates,
My name is Ashish Jagannath, and I'm a junior at Dougherty Valley High School. I am honored to be your co-Head Chair for EBMUN 2025!

I have participated in Model UN since 8th grade, and I have attended 10+ conferences, including Stanford MUN, where I placed Outstanding, and Harvard MUN this past January, where I got the incredible opportunity to compete against 200 other delegates in my committee, where I met delegates from Venezuela, Lebanon, India, and every other corner of the world.

Outside of MUN, I am an avid sports fan, as I am a fan of the Pittsburgh Steelers in the NFL and the San Francisco Giants of the MLB. I also love to watch TV, and my all-time favorite shows are The West Wing and The Amazing Race. I also enjoy running and coding in my free time as well.

I am ecstatic to be chairing this committee. The World Health Organization is one of the most important committees of the United Nations, and I am very interested to see how you delegates will respond to the topics of this committee. If you have any questions at all, please feel free to email me (ashooosh.lol@gmail.com), and good luck with your research!

Topic A: Reducing Maternal and Neonatal Health Disparities

I. Historical Background

Maternal and neonatal health disparities have been a persistent global issue, disproportionately affecting low-income communities, marginalized groups, and regions with limited healthcare access. The World Health Organization (WHO) defines maternal mortality as the death of a woman during pregnancy, childbirth, or within 42 days of termination of pregnancy due to complications related to pregnancy or its management. Neonatal mortality refers to the death of a newborn within the first 28 days of life, often due to preventable causes such as infections, birth asphyxia, preterm birth complications, and inadequate healthcare.

Historically, advances in maternal and neonatal health have been closely tied to improvements in medical technology, public health policies, and social determinants of health. In the early 20th century, maternal mortality rates were significantly higher due to a lack of prenatal care, unsanitary birthing conditions, and the absence of medical interventions like antibiotics, blood transfusions, and cesarean sections. The introduction of antiseptics, vaccinations, and obstetric care in the mid-20th century drastically reduced maternal and neonatal mortality in high-income nations. However, in developing countries, maternal mortality rates remained high due to poverty, weak healthcare systems, and inadequate access to trained medical professionals.

The 1987 Safe Motherhood Initiative, launched by WHO, the World Bank, and UNFPA, aimed to reduce maternal deaths worldwide. Efforts such as Millennium Development Goal 5 (2000-2015) sought to improve maternal health, and its successor, Sustainable Development Goal 3.1, set a target to reduce the global maternal mortality ratio to less than 70 deaths per 100,000 live births by 2030. Despite these efforts, disparities in maternal and neonatal health persist due to socioeconomic inequities, gender discrimination, and inadequate healthcare infrastructure in many parts of the world.

II. Current Situation

Globally, approximately 287,000 women die each year due to complications in pregnancy and childbirth, with 95% of these deaths occurring in low- and middle-income countries (LMICs). Sub-Saharan Africa and South Asia have the highest maternal and neonatal

mortality rates, largely due to barriers such as lack of skilled birth attendants, limited healthcare access, and inadequate emergency obstetric care.

Neonatal mortality remains a pressing issue, with over 2.3 million newborns dying annually. Prematurity, infections, and birth complications account for the majority of neonatal deaths. Many of these deaths could be prevented with cost-effective interventions such as improved prenatal care, skilled birth attendants, and access to neonatal intensive care units (NICUs).

Social determinants of health, including education, poverty, and cultural beliefs, play a significant role in exacerbating maternal and neonatal health disparities. Women in impoverished communities often lack access to adequate nutrition, healthcare, and family planning services, increasing the risk of pregnancy-related complications. Furthermore, systemic healthcare inequalities, racial and ethnic disparities, and gender-based violence continue to hinder progress toward achieving equitable maternal and neonatal healthcare worldwide.

III. Key Issues

One of the primary challenges in addressing maternal and neonatal health disparities is the lack of adequate healthcare access and infrastructure, particularly in low-income and rural areas. Many regions suffer from a shortage of hospitals, skilled birth attendants, and emergency obstetric care, leading to preventable maternal and neonatal deaths. Even when healthcare facilities are available, transportation barriers and financial constraints often prevent women from accessing them in a timely manner. Additionally, socioeconomic and racial disparities play a significant role in maternal health outcomes. Women from marginalized communities, particularly in developing countries, are more likely to experience poor maternal healthcare due to poverty, systemic discrimination, and lower levels of education. In high-income nations, racial disparities persist as well—Black women in the U.S., for example, face disproportionately higher maternal mortality rates due to implicit bias in healthcare systems and limited access to quality prenatal care.

Another critical issue is the lack of maternal health education and awareness. Many women, especially in underprivileged areas, are unaware of essential prenatal and postnatal care practices, increasing their risk of complications. Cultural stigmas surrounding contraception, family planning, and medical interventions further contribute

to poor maternal health outcomes. Similarly, neonatal care remains insufficient in many parts of the world, as essential resources such as neonatal intensive care units (NICUs), trained neonatologists, and life-saving medications are often unavailable. Malnutrition, infections, and inadequate postnatal care continue to threaten the survival of newborns. Policy and funding gaps further exacerbate these challenges. Many countries lack the necessary financial resources and policy frameworks to implement effective maternal and neonatal health programs. Additionally, international aid for maternal health initiatives is often inconsistent, leading to setbacks in progress and disparities in healthcare availability.

IV. Past UN Action

The United Nations has taken several initiatives to address maternal and neonatal health disparities, focusing on both immediate interventions and long-term systemic improvements. The Global Strategy for Women's, Children's, and Adolescents' Health (2016-2030) was launched to promote universal healthcare coverage, increase investments in maternal health, and strengthen healthcare systems worldwide. Similarly, the Every Woman Every Child Initiative, established by the UN, works to reduce preventable maternal and neonatal deaths by improving access to reproductive health services, vaccines, and skilled birth attendants.

The WHO Maternal Health Roadmap (2023-2030) is another major effort aimed at strengthening national healthcare systems, enhancing maternal health monitoring, and expanding access to emergency obstetric care. Additionally, the UNFPA Midwifery Programme plays a critical role in training midwives in low-income countries, ensuring that more women have access to safe childbirth assistance. Furthermore, the Sustainable Development Goals (SDG 3.1 and 3.2) set ambitious targets to reduce maternal mortality to less than 70 deaths per 100,000 live births and to lower neonatal mortality rates to below 12 per 1,000 live births by 2030. These past actions have laid the groundwork for further improvements, but disparities persist, highlighting the need for continued global cooperation and policy reform.

V. Potential Solutions

To effectively reduce maternal and neonatal health disparities, a multifaceted approach is necessary. Expanding access to skilled birth attendants is crucial, as increasing the number of trained midwives and obstetricians can ensure safer deliveries. Mobile health

clinics and telemedicine initiatives could also help bridge the gap in rural and underserved communities by providing essential prenatal and postnatal care. Strengthening healthcare infrastructure is another key solution, as increased investment in hospitals, NICUs, and emergency transport services can significantly reduce preventable maternal and neonatal deaths. Policymakers should also work towards ensuring universal health coverage for maternal and neonatal care, so that financial constraints do not prevent women from receiving necessary medical attention.

Addressing socioeconomic and racial disparities requires targeted policies that improve healthcare access for marginalized populations. Governments and international organizations must work together to eliminate systemic biases and ensure that maternal healthcare services are equitable and inclusive. Expanding maternal health education programs can also be an effective solution, as increasing awareness about prenatal care, postpartum recovery, and family planning can empower women to make informed decisions about their health. Additionally, enhancing international collaboration by fostering partnerships between governments, NGOs, and private sector organizations can help mobilize resources and funding for maternal and neonatal health initiatives. Incorporating technological advancements such as telemedicine, AI-assisted diagnostics, and digital health records can further improve healthcare delivery in remote and resource-limited settings. By implementing these solutions, nations can work towards eliminating maternal and neonatal health disparities and ensuring that every woman and child has access to quality healthcare.

VI. Questions to Consider

1. How can international organizations work with national governments to ensure equitable maternal healthcare access?

2. What role do socioeconomic and racial disparities play in maternal and neonatal health, and how can they be addressed?

3. How can developing countries improve healthcare infrastructure to reduce maternal and neonatal mortality rates?

4. Should maternal health policies include provisions for contraception and family planning?

5. What strategies can be implemented to increase funding for maternal and neonatal health programs worldwide?

6. How can technology, such as telemedicine and AI, be leveraged to improve maternal and neonatal healthcare in low-resource settings?

Topic B: The Legality and Ethics of Genome Editing

I. Historical Background

According to the National Human Genome Research Institute, the accepted definition of genome editing is “a method that allows scientists to change the DNA of many organisms including plants, animals, and bacteria. Editing DNA can lead to changes in physical traits, like eye color, and disease risk.” After the 1953 discovery of the “double-helix” model of DNA, new knowledge of the nucleotides that make up DNA led to the first ever artificial synthesis of DNA in 1958. By the 60’s, scientists used ligation and restriction enzymes to target specific sections of DNA. In the 70’s, the industry took off, as the creation of recombinant DNA, the development of polymerase chain reaction (a more efficient method of gene replication) and the creation of the first recombinant vaccines and life forms occurred within the next 40 years. However, the ethics of gene editing have been called into question in recent years. A gene editing procedure performed by researchers at Sun Yat-sen University in 2015 in which a gene error causing blood disease was removed from the germline caused uproar from Western scientists, accusing the procedure of being against ethics. Many ethical dilemmas exist in this field, and with technology constantly improving, and the potential power these innovations can hold, these dilemmas call into question the boundaries that which scientists in the genomic editing field cannot cross.

II. Current Situation

Since its discovery in the early 2000s, CRISPR-Cas9 gene editing technique, derived from cellular immune systems, has become the dominant technology in the field, even winning a Nobel Prize in 2020. The rate of innovation is only continuing to increase. Thousands of scientific papers detailing studies, experiments, and creations of new techniques are published every month, and from these papers have arisen successful editing methods like base and prime. Usage of TALEN editing,, TracrRNA, and transposase integration have all created an environment for further innovation. The possibilities for the reach of this technology are far beyond the scope of the human imagination, and this can be a positive or negative based on perspective.

III. Key Issues

Many scientists are completely against the idea of gene editing on embryos and germlines since there is no way to get consent from the embryo to perform the procedure on it. Another consideration is wealth inequality. Editing a germline for experimental purposes will change that gene in all of the descendants of that zygote, which can lead to adverse effects in the future. If gene editing is only available to the elite class, then it will only serve to increase inequalities between the upper and lower classes, as the upper classes will have the ability to rid themselves of genetic disease where the lower class simply cannot. The uses of this technology have also been debated, as some desire the technology to be used for frivolous purposes like increasing athleticism and increasing height. Should this technology be used strictly for health purposes, or should these other uses be considered valid as well? Will insurance cover these expenses, and will this become the new life-saving treatment people go for instead of surgery? If all of the genomic information for billions of people across the world begin being systematically recorded and stored, the potential privacy and confidentiality breaches that could occur would affect the entire world and leave it vulnerable to a biological attack the likes of which are completely unfathomable. There may also be religious or cultural objections to the effects of gene editing technology, meaning that their access to this potentially life- and legacy-altering technology could be unfairly limited based on culture. These are just some of the issues that delegates must take into consideration when deciding how to tackle this complex issue.

IV. Past UN Action

In December 2018, the WHO established the global, multi-disciplinary Expert Advisory Committee, which was specifically established to examine the ethical and legal implications of human genome editing. The WHO has also established the Human Genome Editing Registry, which is meant to centralize all of the ongoing research studies on human genome editing, and make this information publicly available to any individual or grup that requires it. The HGE uses data collected by the WHO International Clinical Trials Registry Platform (ICTRP). Reports released by the WHO in 2021 detailed the UN's focus on systems-level improvements to the regulation of genome editing across the world, and they have also implemented regional webinars in order to educate communities on the potential benefits and drawbacks of a world with standardized genome editing, and how genome editing could affect the individual. These past solutions should be factored into a delegate's process of formulating an effective solution.

V. Potential Solutions

There are a wide variety of obstacles that delegates must effectively address in order to provide the committee with a feasible yet wide-ranging solution to this complex topic. Some solutions for delegates to consider include;

- International Collaboration
    - Establishment of summits/international oversight boards to foster collaboration and tackle issue on global level
- Prioritization of Therapeutic Treatments over Cosmetic Treatments
    - Usage of genome editing technology only being used for deleting genetic errors to prevent disease
    - Guidelines on what kinds of procedures are allowed and what kinds are prohibited
- Establishing Regulatory Frameworks
    - Creating comprehensive regulations and standards that human genome editing individuals and companies must meet
    - Include guidelines for clinical research and applications

VI. Questions to Consider

1. Should gene editing machines and techniques become standardized and commercialized?
2. How might genomic editing exacerbate class inequalities, and how can these effects be mitigated?
3. How can genomic editing be equitably implemented in all countries, no matter their economic and financial standing?
4. What kinds of guidelines need to be implemented in order to allow innovation while discouraging weaponization?
5. How can this issue be applied to the world stage, and how can global collaboration improve a potential solution to the topic?

WORKS CITED

Kaiser Family Foundation. “Racial Disparities in Maternal and Infant Health: Current Status and Efforts to Address Them.” *KFF*, 16 November 2022, https://www.kff.org/racial-equity-and-health-policy/issue-brief/racial-disparities-in-maternal-and-infant-health-current-status-and-efforts-to-address-them/. Accessed 18 March 2025.

UnitedHealth Group. “Addressing Maternal and Infant Health Disparities in the U.S.” *UnitedHealth Group*, 27 August 2024, https://www.unitedhealthgroup.com/newsroom/posts/2024/2024-08-27-uhf-ahr-maternal-and-infant-disparities.html. Accessed 18 March 2025.

Commonwealth Fund. “Insights into the U.S. Maternal Mortality Crisis: An International Comparison.” *The Commonwealth Fund*, June 2024, https://www.commonwealthfund.org/publications/issue-briefs/2024/jun/insights-us-maternal-mortality-crisis-international-comparison. Accessed 18 March 2025.

World Health Organization. “Maternal Mortality.” *World Health Organization*, 2023, https://www.who.int/news-room/fact-sheets/detail/maternal-mortality. Accessed 18 March 2025.

World Health Organization. “Global Progress in Tackling Maternal and Newborn Deaths Stalls Since 2015 – UN.” *World Health Organization*, 9 May 2023,

https://www.who.int/news/item/09-05-2023-global-progress-in-tackling-maternal-and-newborn-deaths-stalls-since-2015--un. Accessed 18 March 2025.

Centers for Disease Control and Prevention. “Maternal Mortality Rates in 2021.” *Centers for Disease Control and Prevention*, 2021, https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2021/maternal-mortality-rates-2021.htm. Accessed 18 March 2025.

National Center for Biotechnology Information. “Maternal and Newborn Health Disparities: A Global Perspective.” *PubMed Central (PMC)*, https://pmc.ncbi.nlm.nih.gov/articles/PMC5405944/. Accessed 18 March 2025.

United Nations. “4 Doable Actions for Mother and Newborn Care.” *United Nations Chronicle*, https://www.un.org/en/chronicle/article/4-doable-actions-mother-and-newborn-care. Accessed 18 March 2025.

United Nations. “Ensure Healthy Lives and Promote Well-Being for All at All Ages.” *United Nations Sustainable Development Goals*, https://www.un.org/sustainabledevelopment/health/. Accessed 18 March 2025.

UNICEF. “Maternal Mortality.” *UNICEF Data*, https://data.unicef.org/topic/maternal-health/maternal-mortality/. Accessed 18 March 2025.

UNICEF. “Maternal and Newborn Health.” *UNICEF*, https://www.unicef.org/health/maternal-and-newborn-health. Accessed 18 March 2025.

UN Women. “Women and the SDGs: Good Health and Well-Being.” *UN Women*, https://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-3-good-health-well-being. Accessed 18 March 2025.

World Health Organization. “Every Newborn Action Plan.” *World Health Organization*, https://www.who.int/initiatives/every-newborn-action-plan. Accessed 18 March 2025.

Biberman, Yelena. “The Ethics and Security Challenge of Gene Editing.” *Georgetown University*, 26 June 2023, https://gjia.georgetown.edu/2023/06/26/the-ethics-and-security-challenge-of-gene-editing/. Accessed 18 March 2025.

Fletcher, Lyndsey. “The State Of: Gene Editing.” *FrontLine Genomics*, 6 August 2024, https://frontlinegenomics.com/the-state-of-gene-editing/. Accessed 18 March 2025.

National Human Genome Research Institute. “What is genome editing?” *National Institute of Health*, 15 August 2019, https://www.genome.gov/about-genomics/policy-issues/what-is-Genome-Editing. Accessed 18 March 2025.

Synthego. “History of Genetic Engineering and the Rise of Genome Editing Tools.” *Synthego*, 2022, https://www.synthego.com/learn/genome-engineering-history. Accessed 18 March 2025.

World Health Organization. “Human genome editing.” *World Health Organization*, 2019, https://www.who.int/health-topics/human-genome-editing#tab=tab_3. Accessed 18 March 2025.

World Health Organization. “Human Genome Editing (HGE) Registry.” *World Health Organization*, 2019, https://www.who.int/groups/expert-advisory-committee-on-developing-global-standards-for-governance-and-oversight-of-human-genome-editing/registry. Accessed 18 March 2025.

World Health Organization. “WHO issues new recommendations on human genome editing for the advancement of public health.” *World Health Organization*, 12 July 2021, https://www.who.int/news/item/12-07-2021-who-issues-new-recommendations-on-human-genome-editing-for-the-advancement-of-public-health. Accessed 18 March 2025.