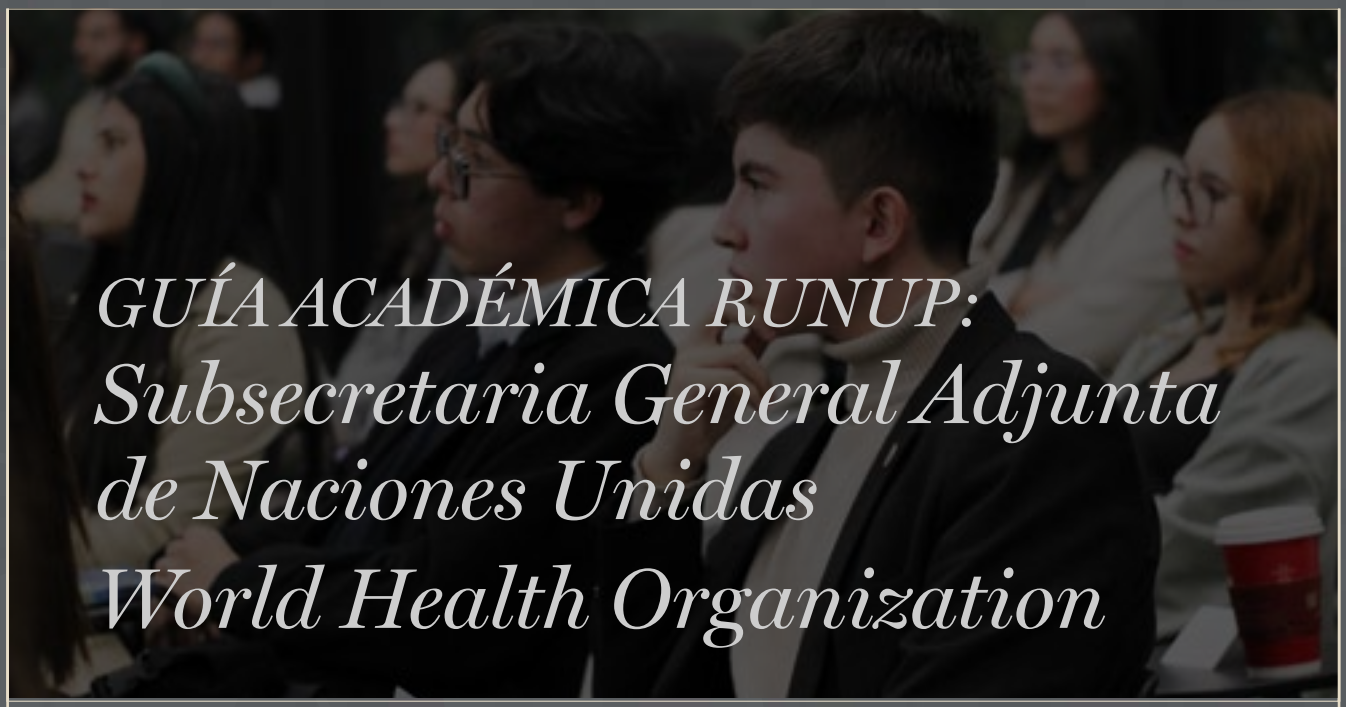

GUÍA ACADÉMICA RUNUP: Subsecretaria General Adjunta de Naciones Unidas World Health Organization

Temática A: Health Crisis in Conflict Zones: Strategies for the Provision and Functioning of Medical Infrastructure

Temática B: Global Prevention: Response to global health threats, working along guidelines and regulations for evolving technologies and genetic manipulation

IDIOMA: Inglés

Mesas directivas: Gabriela Zambrano y Tomás Gómez

MONUA

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Board Of Directors
cover letters

Eimmy Romero,
Secretary General MONUA XV

It is an honor for me, Eimmy Romero, to extend the warmest welcome to this fifteenth edition of RUNUP. To commemorate MONICA's fifteen-year journey, we have drawn inspiration from every success story that has reached our desks, transforming these experiences into the foundation for what promises to be an unforgettable simulation.

Every aspect has been meticulously planned, both academically and logistically, to create a space where intellectual challenge is constant. We invite you to step beyond the boundaries of your comfort zone and discover abilities you may not have known you possessed. Each challenge you face represents a step on the ladder that will lead you toward achieving your goals, and we aspire for RUNUP to serve as the catalyst for your journey.

For some, this will be your first exposure to a Model United Nations; others may already master the procedure with skill. Yet, regardless of your prior experience, we are certain this exercise will offer revelations about yourselves and your peers, while enriching your perspective on the intricate fabric of international relations.

The core pillars of MONUA are understood and applied by every member of our community, and we hope you will embrace them as well: academic rigor in perfect balance with personal and collective well-being.

Rest assured, you have an exceptional team ready to address any circumstance that may arise. With that, we deeply thank you for being part of this valuable project, and know that your stories are the compass guiding our evolution and commitment to excellence.

With enthusiasm and anticipation for our upcoming gathering,

Eimmy Romero
es.romero@uniandes.edu.co

#StoriesThatInspireChange
#MONUAXV

Laura Cediel,
Under-Secretary-General MONUA XV

Dear attendees,

It is my pleasure to welcome you to the RUN UP, a simulation organized by the board of the fifteenth edition of the Model United Nations of Universidad de Los Andes. Over the past fifteen years, we have worked to uphold the highest standards of both the Colombian and international circuits. I am proud to say that being part of this experience as the Under-Secretary-General is a privilege—one that allows me to uplift the voices of each and every delegate in our conference, showing that our stories inspire.

This simulation is a unique opportunity for students from diverse institutions to come together and explore the complexities of the international system, promoting dialogue and cooperation among nations. In this event, you will have the chance to engage in global debates, each connected to the different Under-Secretariats that we bring as part of this edition of MONUA XV. Our goal is to foster an environment of learning and personal growth, where you can develop diplomatic and conflict-resolution skills. Likewise, we aim for every attendee to gain a deeper understanding of the pillars that guide our

conference: academic rigor and the well-being of all participants.

Throughout this event, we hope you feel part of the Uniandina community—a community deeply committed to learning, international policy, and the development of high-impact academic and personal experiences, balancing both competitiveness and pedagogy in one space. Our team has worked tirelessly to ensure that this experience is enriching and memorable for everyone, from delegates and sponsors to our staff and all attendees. Each of you has a role to play, and MONUA is the space to bring your ideas to life and push them to the limit.

If you have any questions or need assistance, please don't hesitate to reach out. We are here to support you at all times, and our trained staff will provide you with one of the best experiences the circuit has to offer.

Thank you for your participation and commitment to this model. We invite you to be part of MONUA's legacy, becoming an inspiration for change through your actions—because every action matters. I hope you enjoy this experience and carry its memory with you always.

Sincerely,

Laura Cediel
l.cediel2@uniandes.edu.co

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Santiago Jaimes,
Director General MONUA XV

Warm greetings to all,

My name is Santiago Jaimes, and it is an honor for me to introduce myself as the 15th Director-General of the Model United Nations of Universidad de Los Andes. Taking on this role represents a great responsibility and, above all, an immense privilege. That is why I write to you today—to thank you for being part of this unique experience, where young people committed to the future of our country come together to seek solutions to various national and international challenges.

For the past 15 years, at MONUA, we have worked tirelessly to provide spaces for dialogue, debate, and collective construction. I am convinced that these spaces are key to shaping the next generations of leaders—leaders capable of transforming a society that, while complex and ever-changing, urgently needs active, critical, and empathetic voices.

As Director-General, my commitment is to offer you a safe and respectful environment, where every perspective is heard without fear. We want you to

feel at home from the moment you arrive until the event concludes, and to be able to fully focus on the debate without worrying about logistical matters—which will be entirely taken care of.

Additionally, you will have the constant support of the Wellbeing Team, a fundamental pillar of this edition. They will be available to accompany and assist you in resolving any conflicts, whether personal or interpersonal.

With that said, count on us. We are committed to a constant pursuit of innovation, honoring our traditions while always looking toward the future. We are inspired by the stories that brought us here and driven by the hope of what we can build together. We want to be part of the path that strengthens the skills, dreams, and voices of new leaders. We work with passion, dedication, and conviction to offer you an experience that not only stays in your memory but transforms you.

Welcome to MONUA Run Up XV!
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United Nations
SGAs cover letters

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Valentina Roldán,
SGA United Nations MONUA XV

Dear Delegates,

It is an honor to address you in this edition of MONUA as Assistant Secretary General of the United Nations. Before I begin, I would like to introduce myself: I am a fifth-semester student of Biomedical Engineering at the Colombian School of Engineering Julio Garavito and the University of Rosario, and it is a privilege for me to welcome you to this space for debate and learning.

The United Nations has been, since its foundation, a meeting place for international actors in the search for solutions to global conflicts. However, we cannot ignore that this organization has been involved in dynamics of inequality and in a structure influenced by the interests of world powers. This context has put its original mission at risk and has led to questions about its effectiveness in promoting peace and international cooperation.

It is precisely at this point that your role as delegates takes on fundamental relevance. From your position in this model, you have the opportunity to analyze, question and propose solutions with critical thinking, without losing

sight of the importance of fostering new partnerships and strengthening international relations. I invite you to take on this challenge responsibly, not only by putting your academic and argumentative skills to the test, but also by enriching the debate with your unique perspectives and experiences.

Take advantage of this edition of MONUA to broaden your worldview, challenge your own positions and contribute to a dialogue that not only focuses on theory, but seeks viable solutions to the challenges facing the international community. Remember that every intervention has an impact, and that, if in the future you decide to integrate into real diplomatic structures, it is vital to retain the essence of critical thinking and commitment to change.

I will be attentive to any concerns that arise and I reiterate that, together with the board of directors, we will work to make the debate a safe, respectful and enriching space for all. Please do not hesitate to approach us if you require support in any aspect.I wish you every success in this experience.

Sincerely yours,

Valentina Roldán Silva
#StoriesThatInspireChange
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Laura Ariza,
SGA United Nations MONUA XV

Dear Delegates,

It is an honor for me to address you as the Assistant Secretary-General of the United Nations at MONUA 2025 and the board of directors of ONUANDES, the United Nations Delegation at the University. My name is Laura Juliana Ariza, and I am a fourth-semester student of Global Studies and Economics at Universidad de Los Andes. I have always felt a deep admiration for the work of the United Nations and its ability to bring together actors from all over the world in the search for solutions to the most pressing issues of our time.

I firmly believe that this model is not just an academic exercise but a real opportunity to analyze and debate the complexities of international politics with seriousness and commitment. My expectation is that all participants engage rigorously, approaching the topics with depth and responsibility so that the solutions we propose are realistic, achievable, and aligned with the spirit of international cooperation.

I am confident that, with effort and creativity, we will be able to avoid dystopian or unrealistic proposals, focusing instead on concrete and viable solutions that reflect the true purpose of the United Nations: to build a fairer, more equitable, and sustainable world.

I invite you all to give your best throughout this process and to take advantage of this experience as an opportunity for learning and growth. I am at your disposal for any questions or concerns that may arise during the model.

Sincerely,

Laura Juliana Ariza Rodríguez
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Dais welcome letter

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Dais welcome letter

Gabriela Zambrano,
WHO Dais MONUA XV

Dear delegates,

It's an honor for me to be your Dais in a committee as important as the World Health Organization, along with Tomás, we both will be looking forward to have a committee full of learning and that is very similar to the actual functioning of the WHO. Speaking of who I am, I can say, my name is Gabriela Zambrano Quintana, I study jurisprudence and international relations at Universidad del Rosario, I have been participating in MUN since I was in school, and I discovered that this world is a place to learn, make friends, enjoy and surpass yourself.

I love human rights issues, biology, international law, diplomacy, I love innovation and the risk that means to innovate and appropriate what already exists by incorporating personal tastes into the academy. I believe that the academy is a fundamental pillar in the models of the United Nations. The MUNs are, from what I have learned in my participation in these, fruitful and unique spaces for discussion and debate with the use of conventional and unconventional tools in order to understand and learn about historical and current issues. I hope this committee is an enjoyable experience full of growth and learning in which they can get out of the model knowing that they learned something new and grew personally and can come to us for whatever they need.

Sincerely,

Gabriela Zambrano Quintana
E-mail: gabriela.zambrano@urosario.edu.co

Tómas Gomez,
WHO Dais MONUA XV

Dear delegates,

I'm so excited to be one of the Dais of the World Health Organization committee, along with Gabriela, a wonderful and very smart partner, we both will work towards the goal of setting the foundation for what we expect to be a realistic and very in depth committee that will mimic the real world functioning of the WHO. Getting more into who am i; my name is Tomas Gomez Acevedo, im currently a eleventh grade student at the Colegio Emmanuel d'Alzon, i've been participating in MUNs since summer 2023, almost 2 years, time in which i have meet some truly wonderful people, friends and superiors i hope to beat one day.

My passion for MUNs started when I was in ninth grade, a year in which my ego was as high as a cloud. I went to my first school level MUN, and I won best delegate, so in my blind trust, I decided, why not? Let's go to a university level MUN. I ended up crying in every break because it was too hard. The decision to make my second model a university level one, might just

be the best decision I've made for my UN career, because i realized i loved challenges, and i don't love winning in some way, because i can only know how to do better if someone is better than me and beats me, so i love to lose. So dear delegates, I hope most of you lose, and those of you who win, I hope you can realize the things you can improve.

Currently, my biggest interest in MUNs are all topics related to science, biology, statistics and finances, because the world is not ruled by politicians or lawyers, the world is managed by the joint force of scientists, economic professionals, engineers, chemist, biologist, medics, teachers, and a lot more. I also think it is important for law students to specialize and study more about other topics, like computing, sciences and other disciplines involved in global matters. It's also important for students of all disciplines to have a more in depth knowledge about the world's power dynamics, political relations, the hidden meaning behind wars, and more things concerning law, international relations and political science. I expect all of you to have a very technical and profound knowledge about the scientific topics to be treated in this committee.

Lastly, good luck to all of you future delegates. I hope you learn a lot from this guide and the debate, and that I can learn a lot from your ideas and vision of the world.

Best Regards,

Tomas Gomez Acevedo
E- mail: gomezacevedotomas@gmail.com

Introduction
to the committee

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Introduction to the committee

The World Health Organization (WHO) is the leading international agency responsible for directing and coordinating global health within the United Nations system. Founded in 1948 under the principles set forth in its Constitution, the WHO's fundamental objective is "the attainment of the highest possible level of health for all peoples," a mandate that ranges from the eradication of disease to the promotion of physical, mental, and social well-being. As the leading authority on international health matters, the WHO plays a crucial role in shaping the global public health agenda, setting technical standards and norms, and responding to transnational health emergencies.

The WHO's organizational structure is built around three main bodies that ensure its functioning and decision-making. The World Health Assembly, composed of representatives from the 194 Member States, functions as the highest deliberative body and establishes the organization's general policies during its annual meeting. The Executive Board, composed of 34 technical experts in the field of health, is responsible for implementing the decisions of the Assembly and overseeing the implementation of programs. Finally, the Secretariat, headed by the Director-General, carries out technical and administrative operations through its headquarters in Geneva, six

regional offices, and numerous country representations. This decentralized structure allows the WHO to maintain a global presence while adapting its interventions to specific regional contexts.

WHO's operational procedures are governed by a regulatory framework that includes binding legal instruments such as the International Health Regulations, as well as numerous resolutions and technical recommendations. The process of formulating global health policies combines rigorous scientific evidence with multilateral negotiations between Member States, specialized agencies, and non-state actors. In emergency situations, WHO activates rapid response mechanisms that include the declaration of Public Health Emergencies of International Concern, a key instrument used during outbreaks such as Ebola in West Africa and the COVID-19 pandemic. The organization also oversees global epidemiological surveillance systems and coordinates laboratory networks for the early detection of public health threats.

The WHO's strategic objectives include achieving universal health coverage, protecting against health emergencies, and promoting health throughout the life course. These goals are aligned with the UN's Sustainable Development Goals, particularly SDG 3 on health and well-being. The organization works to reduce health inequalities through programs that prioritize vulnerable populations and low-income countries. In addition, the WHO leads global initiatives for the control of communicable and noncommunicable diseases, food safety, environmental health, and pandemic preparedness, demonstrating the comprehensive nature of its approach to human health.

The financing and governance of the WHO present complex challenges that influence its operational capacity. Although Member States contribute mandatory quotas determined by their economic capacity, a growing proportion of the budget comes from voluntary contributions from public and private donors. This financial dependence has sparked debates about the potential influence of external actors on the organization's priorities. At the same time, the WHO faces the challenge of maintaining its technical

neutrality in an increasingly polarized geopolitical context, where health decisions can be affected by tensions between nations. These factors have led to calls for structural reforms to strengthen the organization's independence and effectiveness.

As the leading regulatory authority on global health, the WHO continues to adapt to the emerging challenges of the 21st century. Recent efforts to establish an international treaty on pandemics and reform the International Health Regulations reflect the organization's evolution in light of lessons learned from recent health crises. The WHO remains relevant as a platform for international cooperation on health, although its effectiveness ultimately depends on the political will of Member States to fulfill their collective commitments. In an increasingly interconnected world, the WHO's role as coordinator of the response to global health threats remains indispensable for protecting the health of all populations.

Image taken from: World Health Organization (WHO)

Committee history

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Committee history

The creation of the World Health Organization (WHO) was conceived in the final months of World War II. During the founding conference of the United Nations in San Francisco (1945), delegates from Brazil and China proposed establishing a global health organization. This led the UN Economic and Social Council (ECOSOC) to convene a preparatory committee in Paris in 1946, whose proposals were consolidated into the WHO Constitution during the International Health Conference in New York. On July 22, 1946, 61 countries signed the agreement, committing themselves to achieving the highest level of global health. The WHO came into effect on April 7, 1948, a date commemorated as World Health Day.

In its early years, the WHO established six regional offices to address specific health issues, beginning with the Pan American Health Office in 1949. During the 1950s and 1960s, the organization launched massive campaigns against diseases such as malaria, tuberculosis, and smallpox, achieving milestones such as the adoption of the International Health Regulations (1969). In 1974, the Expanded Program on Immunization (EPI) was created, which dramatically reduced child mortality, and in 1978, the Alma-Ata Declaration promoted the goal of “Health for All” through primary care.

The eradication of smallpox in 1980 demonstrated the power of global cooperation. In the following decades, WHO tackled HIV/AIDS, launched the Polio Eradication Initiative (1988), and adopted a comprehensive approach to reproductive health and women's rights at the Cairo Conference (1994). It also introduced the first List of Essential Medicines (1977) and supported emergency contraception methods. In 2000, the Millennium Development Goals (MDGs) set priorities such as reducing child mortality and combating HIV.

The WHO faced outbreaks such as SARS (2003), H1N1 (2009), and Ebola (2014–2016), which led to reforms in its response capacity. In 2005, the International Health Regulations were updated, and in 2015, the Sustainable Development Goals (SDGs) included ambitious health targets. The organization also addressed antimicrobial resistance and expanded access to treatments for HIV and malaria.

To conclude, over more than seven decades, the WHO has evolved from campaigns against infectious diseases to addressing complex challenges such as pandemics and noncommunicable diseases. Its history reflects both extraordinary achievements—such as the eradication of smallpox—and criticism for its crisis management. Today, it remains an indispensable pillar of global health, although it needs to adapt to a constantly changing world.

Committee

context

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Committee context

The World Health Organization currently has 194 member states, having all the United Nations state members except for Liechtenstein and the Cook Islands and Niue. The WHO also works with two associated members, Puerto Rico and Tokelau, alongside observers not quite fitting to be a state, such as the Holy See, The Sovereign Military Order of Malta and Palestine. Recently, a founding member of the WHO has decided to withdraw from the organization, The United States of America, WHO's maximum financial contributor, the mandatory 12 month notice was given by the head of state Donald Trump, notice that will take action on January 22, 2026, until then, The United States will continue being a state member. Members of the WHO meet in annual regular periods in the World Health Assembly (WHA), with the interests of setting the priorities of the organization within a four year term in its General Programme of Work (G.P.W), alongside approving budget and its destination project, sharing insights on each countries developments and health situation, propose projects, establishing frameworks, and more.

Despite its successes, the WHO has faced criticism for its handling of pandemics, such as the 2009 H1N1 influenza outbreak and the 2014 Ebola crisis. Critics argue that bureaucratic inefficiencies and political influences have hindered its responsiveness. The COVID-19 pandemic further exposed tensions, particularly regarding the WHO's reliance on member-state funding and its relationship with China. Reforms, including increased financial autonomy and improved governance, have been proposed to enhance its effectiveness (Gostin & Moon, 2020; Kamradt-Scott, 2015).
In response to the systemic failures exposed by the COVID-19 pandemic, member states of the World Health Organization (WHO) negotiated a landmark Pandemic Agreement (also referred to as the Pandemic Treaty) to strengthen global preparedness and response. The agreement, adopted in May 2024 at the 77th World Health Assembly (WHA), aims to address inequities in vaccine distribution, enhance surveillance systems, and ensure sustainable financing for pandemic prevention (WHO, 2024). This treaty

represents a collective effort to avoid the fragmented national responses seen during COVID-19, emphasizing solidarity and shared responsibility among nations (Gostin et al., 2024).

The treaty establishes binding commitments on equitable access to medical countermeasures, including vaccines, therapeutics, and diagnostics, particularly for low- and middle-income countries (LMICs). It also mandates the strengthening of national health systems and the implementation of the One Health approach, recognizing the interconnection between human, animal, and environmental health (WHO, 2024). Additionally, the agreement includes provisions for pathogen surveillance and data-sharing, requiring states to report outbreaks transparently to prevent future delays like those seen in the early stages of COVID-19 (Fidler, 2024). Despite its ambitious goals, the treaty faced significant opposition, particularly over concerns about national sovereignty and the financial burden on developing nations. Some high-income countries resisted stringent equity clauses, while LMICs argued for stronger intellectual property waivers to ensure technology transfer (Hotez, 2024). The final text reflects compromises, with some obligations softened to secure broader participation. Critics argue that without enforceable mechanisms, the agreement may fall short of its intended impact (Baker & Kay, 2024).

The Pandemic Agreement marks a historic step toward a more coordinated global health framework, aligning with the International Health Regulations (IHR) amendments adopted concurrently. However, its success hinges on political will, adequate funding, and robust accountability mechanisms. Moving forward, the WHO must navigate geopolitical tensions and ensure compliance to avoid repeating the mistakes of past pandemics (Kickbusch & Holzscheiter, 2024).

Topic A:

Health Crisis in Conflict Zones: Strategies for the Provision and Functioning of Medical Infrastructure

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Case of study: Gaza Strip

a). Introduction to the topic:

Modern armed conflicts invariably precipitate multidimensional humanitarian crises, characterized by the deliberate or collateral destruction of medical infrastructure, obstruction of lifesaving aid, and the near-total collapse of local health systems. These outcomes are not merely incidental but are often exacerbated by systematic violations of International Humanitarian Law (IHL). The Geneva Conventions—particularly Articles 12, 19, and 24 (see Appendix 1)—explicitly mandate the protection of civilians, medical personnel, and healthcare facilities, prohibiting attacks on these protected entities under any circumstances. Yet, in conflicts such as the ongoing war in Gaza, these principles are routinely disregarded. Reports from the World Health Organization (WHO) and the Office for the Coordination of Humanitarian Affairs (OCHA) document that over 70% of Gaza's

hospitals have been rendered nonfunctional as of 2024, either through direct bombardment, siege-induced shortages of fuel and medicines, or the deliberate targeting of ambulances and medical staff (WHO, 2024; OCHA, 2024). The consequences extend beyond immediate trauma care: the paralysis of healthcare systems accelerates outbreaks of infectious diseases, mass malnutrition, and severe psychological trauma, creating a protracted health disaster long after active hostilities cease.

The role of international organizations in mitigating these crises remains fraught with systemic challenges. The WHO, in coordination with the International Committee of the Red Cross (ICRC) and UN agencies, has repeatedly condemned the militarization of healthcare in Gaza, where hospitals like Al-Shifa and Al-Quds have been raided or repurposed as military zones, violating their protected status under IHL (ICRC, 2023). Despite deploying emergency medical teams and negotiating aid corridors, these efforts are routinely undermined by logistical barriers, bureaucratic delays, and the politicization of humanitarian access. For instance, the WHO's 2023 annual report on Gaza noted that 50% of requested aid convoys were either denied entry or delayed by Israeli military checkpoints, while Hamas' diversion of medical supplies further complicated distributions (WHO, 2023). Such obstructionism highlights a broader pattern: the subordination of humanitarian imperatives to strategic and ideological agendas.

The case of Gaza exemplifies how modern warfare transcends battlefield casualties, weaponizing public health as a tool of collective punishment. The deliberate targeting of water treatment plants, electricity grids, and pharmaceutical warehouses has created a perfect storm for disease proliferation. In 2024, the WHO recorded a 300% increase in cholera-like symptoms and pediatric malnutrition cases compared to pre-war levels, a direct consequence of the degradation of sanitation systems and food insecurity (WHO-Gaza, 2024). Psychological trauma, particularly among children, has reached epidemic proportions, with UNICEF estimating that 90% of Gaza's minors now exhibit symptoms of post-traumatic stress disorder (PTSD) (UNICEF, 2024). These outcomes are not accidental but are

predictable results of siege tactics that violate the principle of distinction under IHL, which prohibits rendering civilian survival contingent on military objectives.

International organizations face a paradox in such contexts: their mandates demand neutrality, yet their operations are inevitably politicized. The WHO's principle of "health for all" is routinely compromised by the need to negotiate with belligerents who flout IHL with impunity. For example, while the UN Security Council has passed resolutions demanding medical access in Gaza, enforcement mechanisms remain toothless, enabling repeat violations (Security Council Resolution 2720, 2023). Legal scholars argue that the lack of accountability for attacks on healthcare—only 5% of which are ever prosecuted—emboldens further atrocities (Lancet Commission on Gaza, 2024). Until the international community prioritizes legal enforcement over rhetorical condemnations, the cycle of health system collapse will persist in Gaza and beyond.

The destruction of Gaza's healthcare infrastructure has not only crippled trauma response but also accelerated the spread of infectious diseases, creating a secondary crisis that may ultimately claim more lives than direct combat. Overcrowded shelters, contaminated water supplies, and the collapse of sanitation systems have formed a breeding ground for pathogens. The World Health Organization (WHO) has documented outbreaks of cholera, dysentery, hepatitis A, and severe acute respiratory infections, with suspected cases surging by over 300% since the escalation of hostilities (WHO, 2024). The absence of functional laboratories and the targeting of medical facilities have further hampered disease surveillance, leaving health authorities blind to the true scale of transmission.

Waterborne Diseases and the Collapse of Sanitation

Prior to the conflict, Gaza's water infrastructure was already fragile due to years of blockade and underinvestment. The war has decimated wastewater treatment plants, pumping stations, and desalination facilities, forcing 95% of the population to rely on unsafe, brackish water (UNICEF, 2024). This has triggered a sharp rise in diarrheal diseases, particularly among children under five, who account for 40% of reported cases (WHO, 2024). The lack of clean water has also rendered basic hygiene practices—such as handwashing—nearly impossible in displacement camps, where up to 15,000 people sometimes share a single toilet (OCHA, 2024). Without urgent intervention, epidemiologists warn of a cholera epidemic mirroring the 2016–2019 Yemen outbreak, where war-induced water contamination led to over 2.5 million cases (The Lancet, 2024).

Mass displacement has compressed Gaza's population into ever-shrinking "safe zones," with some shelters housing 500 people per square kilometer (UNRWA, 2024). Such conditions facilitate the rapid transmission of measles, meningitis, and polio—diseases previously controlled through vaccination campaigns. However, Israel's blockade and repeated attacks on medical warehouses have depleted Gaza's vaccine stocks, while the destruction of cold-chain storage has rendered remaining doses unusable (MSF, 2024). In January 2024, the WHO confirmed Gaza's first measles outbreak in decades, with 120 cases reported in Rafah alone—a figure likely undercounted due to collapsed diagnostics (WHO, 2024).

The war has exacerbated another silent killer: antibiotic-resistant infections. Chronic shortages of broad-spectrum antibiotics have forced doctors to ration or reuse medications, while unsanitary wound care in makeshift clinics has increased the risk of drug-resistant sepsis. A 2024 study in BMJ Global Health found that 65% of burn patients in Gaza's remaining hospitals showed resistance to first-line antibiotics—a rate triple that of pre-war levels (BMJ, 2024). With no functional microbiology labs to guide treatment, physicians are left to prescribe blindly, accelerating the AMR crisis.
Beyond infectious diseases, the mental health toll of sustained bombardment

and displacement has reached catastrophic levels. A UNICEF survey found that 98% of Gaza's children now exhibit symptoms of PTSD, including night terrors, emotional detachment, and self-harm (UNICEF, 2024). The destruction of psychiatric facilities and the killing of mental health professionals—such as the 2023 airstrike on Gaza's only public psychiatric hospital—have left survivors without care (Amnesty International, 2023). Chronic stress and malnutrition are also linked to increased rates of preterm births and developmental delays, ensuring intergenerational harm (UNFPA, 2024).

Despite repeated alerts from the WHO and NGOs, the international community has failed to secure a ceasefire or guarantee unimpeded medical access. The politicization of aid—such as Israel's repeated rejections of water purification equipment as "dual-use" items—has turned preventable diseases into weapons of war (HRW, 2024). Legal scholars argue that these actions may constitute violations of the Geneva Conventions, which prohibit the deliberate deprivation of health necessities (ICRC, 2024). Without immediate, unhindered humanitarian access and accountability for attacks on healthcare, Gaza's public health catastrophe will escalate beyond any possibility of containment.

b). Context of the topic:

Prolonged conflicts tend to destroy in many ways health infrastructure, for instance, during the Syrian Civil War in 2016, it was reported by the WHO that 57% of public hospitals were damaged by unlawful attacks, and one-third ceased to function in the zone. Similar patterns can be observed in Yemen and Ukraine. Following the previously stated of IHL and the Geneva Conventions, Resolution 2286 of the United Nations Security Council (consult Appendix #2), which condemns direct and indirect attacks on healthcare during conflicts, even further, urging states to “integrate practical measures for the protection of the wounded, sick and the medical services into the planning and conduct of their operations”. Despite resolutions and frameworks, health systems continue to be targeted and affected during conflicts.

Under constraints, the WHO alongside its more than 900 partners, including NGOs, UN agencies and local health ministries, coordinate assessment and aid to these regions. As of march 2025, health clusters or sector coordination groups are active in 29 countries, targeting 81.4 million people, with a founding request of $3.16 Billion USD, only 7% of that has been founded to date.

Since the start of the latest escalation of the conflict in Gaza, hospital infrastructure has faced an unprecedented humanitarian crisis. According to WHO reports (2023), more than 60% of medical centers have been rendered totally or partially inoperative due to bombing, supply shortages, and restrictions on access to fuel and energy. The systematic destruction of hospitals, such as Al-Shifa Hospital—the largest in the Strip—has exacerbated the collapse of the healthcare system, limiting the capacity to care for the wounded and chronically ill amid an outbreak of infectious diseases (OCHA, 2024). This situation has been described by human rights organizations as a violation of international humanitarian law, which protects medical facilities in war contexts (International Amnesty, 2024).

In response to this emergency, the WHO has repeatedly denounced attacks on the healthcare network and demanded humanitarian corridors for the delivery of medicines and equipment. However, its capacity for action has been limited by restrictions imposed by the parties to the conflict, particularly in terms of access to areas under intense combat. Despite mobilizing supplies and supporting temporary clinics, the WHO has admitted that the response is insufficient given the magnitude of the catastrophe, urging a political solution that prioritizes civil protection (WHO, 2024). Critics point out that the organization has relied excessively on the cooperation of state actors, which has delayed key interventions (The Lancet, 2024), highlighting the challenges of global governance in protracted crises.

c). Topic's Development:

Response to health crises in conflict zones are guided by a web of frameworks and protocols, which aim to combine rapid deployment of teams and supplies and strengthening of local systems. Key components include:

1. Emergency Medical Teams (EMTs): WHO's EMT initiative coordinates rapid responses to national and international health crises within 24 to 48 hours of the crises. EMTs are composed of nurses, doctors, logisticians and rescuers, and teams are classified based on their capability to be self-sufficient. For instance, in Libya after a dam collapse in 2023, French WHO-certified EMTS treated up to 100 patients per day in collaboration with local health authorities. The WHO establishes Emergency Medical Teams Coordinator Cells (EMTCC) to manage and coordinate EMT's efforts involving multiple international teams. The most recent EMTCC was established in the Gaza strip in late 2023, where they deployed EU provided civil protection experts.

2. Trauma and Surgical Care: During heavily armed conflicts, the WHO focuses on trauma stabilization and local health capability increase. For example, in Syria, the WHO stabilized 4,112 war wounded, with 474,669 trauma patients treated and over 2.3 million courses of emergency medication delivered by 2019.
Mobile Infrastructure and Reach: To reach displaced or besieged populations, the WHO uses Mobile Health Units (MHU's), to address chronic and war related conditions. In remote conflict zones such as the Sahel, NGOs deliver mobile clinics in coordination with the WHO, bringing basic services to camps for internally displaced persons (IDP Camps) and besieged areas. Mobile health teams provide vaccination, maternal care and non communicable disease management.

3. Emergency Health Kits and Pre-Positioned Supplies: Standardized Interagency Emergency Health Kits (IEHK) and specialized trauma and NCD kits are maintained by the WHO in strategic warehouses. During conflicts, these pre positioned supplies allow for a rapid dispatch of medicine and

other services. The WHO sustains Long-term supplier contracts to ensure rapid replenishment of stocks.

4. Water, Sanitation and Environmental Health (WASH): Armed conflicts often collapse WASH infrastructure, leading to disease outbreaks such as cholera. The WHO coordinates with NGOs and local agencies to drill wells, chlorinate water and set up sanitation camps. The WHO has developed WASH focus frameworks for cholera in endemic zones such as Yemen and Gaza.

5. Surveillance and Digital tools: Warning Alert and Response Systems (EWARS/EWARN) play a crucial role tracking diseases and mitigating them in war zones. For instance, both Syria and Yemen have WHO supported EWARS that continuously monitor and prevent disease outbreaks.

6. Training and capacity building: A crucial step in long term strategies for conflict zones is empowering local health workers with medical training. In 2023, Armenia, the WHO helped specialize Syrian and Iraqi health personnel on advanced surgical techniques. The WHO also helps countries establish their own EMTs.

Responding to health crises in conflict zones takes a lot of monetary resources . The WHOs main ways of collecting funding are for example flash appeals and partnerships with OCHAs humanitarian plan. For instance, in December 2024, the organization launched in Syria a USD$ 56.4 million flash appeal to address the health needs of Syrians affected by years of conflict and unlawful attacks on health infrastructure. In Ukraine, the WHOs 2025 emergency appeal requested USD$68.4 million, for health needs, plus another USD$41.6million for system recovery, amounting to a total of USD$110 million. This funding aims to provide urgent aid to 12.7 million ukrainians who need it. Since 2022 the WHO has verified 2,209 attacks on Ukrainian health facilities, resulting in the death of 205 medical personnel.

In Yemen, on the year 2023, the WHO appeals required USD$141.5 million to assess 19 out of the 21.9 million in need of health assistance after more

than 7 years in war, as the country has the 4th largest internal displacement crisis in the world, and over 79% of the population will need humanitarian assistance. In 2023, less than 50% of all health facilities are fully functional in Yemen, due to a lack of qualified staff, equipment, medicines and funding for operational costs. The WHO response to relief the crises consisted of 5 strategic objectives, as illustrated in the following frame, strategic objectives followed along other conflict zones around the world.

To carry out its operational goals, the WHO carries out a series of partnerships. In conflict zones, the Organization co-leads health clusters and EMTs along with UNICEF, the United Nations High Commissioner for Refugees (UNHCR) and other NGOs. The Agency also partners with Red Cross/Crescent societies to protect medical neutrality, and with Red Crescent societies like the Syrian Arab Red Crescent for ambulance services.

Partnership and dialog with national governments is crucial. The WHO usually negotiates both with local governments and their opposing parties, to ensure the access of aid and security of health staff. When a conflict zone is strongly politically divided or fragmented, delegates a series of cluster deputies in each zone to carry out negotiations. In situations where the Organization requires lever expertise in conflict zones, it collaborates with regional bodies like the African Union for peacekeeping and the European Civil Protection Mechanism (UCPM) for civil protection.

The World health organization requires the support of its member states regardless of their involvement in the conflict. It publicly pressures member states and donors to assess financially in the operation, due to their funding gaps, which often lead them to scale down targets that rely on this aid.

Even after conflicts end and health crises are relieved, the WHO continues to provide efforts towards building “back and better”. Post war recovery includes the recovery of medical facilities to its fully functional operations, retraining personnel, straightening health systems and re-establishing health governance. For instance, after the 2003 Iraq war, the WHO assessed the redrawal of hospital networks and revived its mission previously present

in the country, like its polo surveillance. Similar post conflict straightening initiatives took place in Bosnia, Syria and Ukraine. Then promoted resilient designs for medical infrastructure, as bunkers and other strategies so that the facility is able to withstand future shocks.

While the WHO has been one of the key agencies in responding to the humanitarian crisis in Gaza, working under extremely difficult conditions to mitigate the collapse of the healthcare system. Among its most important actions are the distribution of essential medical supplies, including medicines, surgical equipment, and fuel to keep hospitals running. In addition, it has provided technical and financial support to health facilities, many of which are operating at limited capacity due to power cuts and resource shortages. However, despite these efforts, serious challenges remain that require immediate attention. One of the main challenges is the delay and restrictions on humanitarian access, as the entry of medical aid and specialized personnel continues to face bureaucratic and political obstacles. Another critical issue is the protection of health infrastructure, as numerous hospitals and clinics have been affected by the fighting, leaving thousands without care. The WHO must intensify its political advocacy to ensure that these facilities are considered neutral and safe zones.

Finally, it would be important to strengthen transparency and communication regarding the use of resources and real needs on the ground. Although the WHO has issued regular reports, a clearer and more accessible strategy for the press and civil society would help to generate greater trust and international support.

Strategic objective 1	Strategic objective 2	Strategic objective 3	Strategic objective 4	Strategic objective 5
Strengthen health system capacity	**Ensure access to humanitarian services**	**Sustain the health system functionality**	**Reduce food insecurity and malnutrition**	**Prevent poliovirus transmission and outbreaks**
WHO will work to prepare, prevent, detect and respond to epidemic-prone and endemic diseases, all-hazards emergency risk management and manage the health information system. Focusing on improving laboratory capacity to detect and respond to outbreaks of vaccine preventable diseases (cVDPVs, Diphtheria, Pertussis, measles and rubella), in children 6 months to 15 years old.	WHO will work to ensure access to safe, equitable and inclusive humanitarian lifesaving, and life-sustaining, health and nutrition services for the most vulnerable, at all levels of service delivery in over 120 priority districts across Yemen.	WHO will support operational costs (electricity, water, oxygen), medicines, medical equipment and supplies, structural rehabilitation / revitalization, capacity building and financial support of Health Care Workers (HCW), referral between care levels and provision of rehabilitative, advanced trauma and Intensive Care Unit (ICU) to improve the resilience of the health system and population in over 120 districts across the country.	WHO will provide an integrated response through International Federations of the Red Cross (IFRC) and International Federation of Red Crescent Societies (IFRR), to contribute to the reduction of food insecurity and malnutrition.	WHO will work to stop the transmission of circulating vaccine-derived poliovirus and prevent outbreaks in non-endemic countries.

Diagram taken from World Health Organization

d). Main deterrences for the topic's development

The WHO operates in some of the most volatile and high-risk environments globally, where health systems are either collapsing or rendered non-functional due to protracted conflict. Nowhere is this more evident than in the Gaza Strip, where the convergence of direct attacks on medical infrastructure, systemic blockades, and political obstructions has created one of the most severe humanitarian health crises of the 21st century. The challenges faced by WHO and other humanitarian actors in Gaza are not merely logistical but are deeply entrenched in violations of international humanitarian law (IHL), deliberate obstruction of aid, and the weaponization of healthcare as a tool of war.

The deliberate targeting of medical facilities and personnel in conflict zones constitutes one of the most egregious breaches of IHL, particularly the Geneva Conventions, which explicitly protect healthcare infrastructure and workers. According to the International Committee of the Red Cross (ICRC), between early 2023 and late 2024, approximately **1,800 attacks** impacted medical facilities worldwide, with Gaza being among the worst-affected regions. These attacks are not incidental but often strategic, aimed at dismantling the healthcare system as a means of collective punishment or military advantage.

In Gaza, the degradation of medical infrastructure has been catastrophic. In 2019, the Strip had **36 hospitals** operational; by late 2024, only 17 remained partially functional, with many operating at minimal capacity due to structural damage, lack of electricity, and shortages of medical supplies. The targeting extends beyond hospitals to include ambulances, clinics, and medical personnel, creating an environment where healthcare workers refuse to operate ambulances for fear of becoming casualties themselves. The destruction of Gaza's largest medical complex, Al-Shifa Hospital, in late 2023, marked a turning point in the erosion of medical services, leaving thousands without access to trauma care, dialysis, or neonatal units.

Beyond direct attacks, Gaza's healthcare system has been systematically suffocated by a 16-year blockade, severely restricting the entry of essential medical supplies, water, sanitation, and hygiene (WASH) resources, and fuel required to power hospitals. The Rafah crossing, a critical lifeline for humanitarian aid, has been under near-total closure since March 2025, exacerbating an already dire situation. The blockade has forced hospitals to operate without reliable electricity, leading to preventable deaths—patients on ventilators, premature infants in incubators, and those requiring surgery are at constant risk.

Routine humanitarian missions have been replaced by ad-hoc emergency evacuations, often requiring complex negotiations between WHO, UN agencies, and conflicting parties. The restrictions on medical evacuations have resulted in hundreds of preventable deaths, particularly among patients requiring specialized treatment unavailable in Gaza, such as cancer therapy or complex surgeries. The blockade not only violates the **Fourth Geneva Convention** (which prohibits collective punishment) but also constitutes a violation of the right to health under international human rights law.

Humanitarian operations in Gaza are further crippled by **political and legal barriers**, including restrictive counter-terrorism laws and arbitrary detentions of healthcare workers. By late 2024, the ICRC reported that 310 doctors from Gaza had been detained by Israeli forces under accusations of "providing aid to terrorists"—a charge frequently used to criminalize medical neutrality. This has instilled a climate of fear among healthcare workers, many of whom now hesitate to treat patients from certain backgrounds for fear of reprisal.

Coordination among humanitarian actors remains fragmented and inefficient, with no single unified command structure. Efforts by the WHO, the Palestinian Ministry of Health (MOH), and NGOs often overlap, leaving critical gaps in service delivery. Additionally, sanctions and bureaucratic delays imposed by conflicting parties hinder the timely delivery of aid, with life-saving medications and equipment frequently held up at checkpoints for weeks.

The situation in Gaza underscores a broader crisis in humanitarian health interventions: the erosion of medical neutrality in modern warfare. The WHO's efforts, though vital, are insufficient without stronger international enforcement of IHL, an end to the blockade, and accountability for attacks on healthcare. The international community must move beyond condemnations and impose **targeted sanctions on parties that deliberately obstruct medical aid**, while ensuring that healthcare workers are protected, not persecuted. Until then, Gaza's health system will remain in a state of collapse, with thousands paying the price for political and military calculations beyond their control.

The Economist

Weekly edition | The world in brief | War in the Middle East | War in Ukraine | United States | The world economy | Business | Artificial

Middle East & Africa | Gaza's devastated health system

The wrecking of Gaza's health system goes beyond its hospitals

The strip could see 58,000 excess deaths over the next six months if fighting continues

PHOTOGRAPH: GETTY IMAGES

Image taken from The Economist

Topic B:

Global Prevention: Response to global health threats, working along guidelines and regulations for evolving technologies and genetic manipulation

MONUA

Universidad de los Andes
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CASE OF STUDY: He jiankui and the twins (Nana y Lulu)

a). Introduction to the topic:

The World Health Organization has established some global guidelines and recommendations for the regulation of technologies in evolution, specially in the field of genetic evolution with a focus on security, effectiveness, efficiency, productivity and ethics. These guidelines emerged after a process of global consultation that involved scientists, patients, religious leaders and indigenous communities because they saw the need for a multidisciplinary and wide vision about the risks and benefits of the manipulation of the human genome, particularly, with technologies such as CRISPR-Cas9. The WHO emphasizes that genetic modification should be used as a tool for strengthening public health, but it is necessary that it is under strict controls that prevent risks associated with hereditary modifications without adequate regulation.

To address the diversity and complexity of the national regulations, the WHO is developing a model of global governance to be implemented regionally, allowing that all the countries share their experiences and strengthen their regulatory capacities. This regional aim looks forward to overcoming the barriers that make equitable access to these technologies, promoting a harmonized governance that manages the risks without stopping the scientific innovation. The initiative responds to the need of counting with updated regulatory frameworks that contemplate the new techniques of genome modification and that they are able to supervise both the investigation and the clinical application of these technologies.

Besides, the WHO leads a consultative multidisciplinary committee that has recommended the modernization of the national regulations in order to include the new methods of genetic modification, specially all those that can produce hereditary modifications. This committee has marked the lack of homogeneity in the legislations of different countries and the necessity of the establishment of international standards that grants an ethical, rigorous and transparent control. The regulation must protect against possible misuse or biological risks, while promoting fair and responsible access to the benefits of genetic modification for the entire world population.

In addition, the guidelines and regulations of the WHO for technologies in evolution and genetic modification aim to balance the scientific development with the global ethical and health protection, fostering international cooperation and the construction of regulatory capacities that secure an effective, safe and equitable use of these powerful tools.

b). Context of the topic:

In the XXI century, global health is at a critical crossroads. Humanity faces a series of health threats that are increasingly complex, interrelated and accelerated by globalisation, massive urbanisation, climate change and technological transformation. Emerging and re-emerging infectious diseases, antimicrobial resistance, non-communicable diseases, and health crises resulting from natural disasters or conflicts are risks that can spread rapidly and affect millions of people around the world.

In this context, global prevention and coordinated response to these threats are essential to saving lives, protecting economies and maintaining social stability. The World Health Organisation (WHO) plays a key role as a governing body in international public health, establishing regulatory frameworks, fostering cooperation between countries and promoting equity in access to health resources.

Threats to global health are varied and multifaceted. Among the most significant are:

- **Emerging and Re-Emerging Infectious Diseases:** Viruses such as SARS-CoV-2, Ebola virus, Zika, avian influenza and other zoonotic pathogens have demonstrated the ability to spread rapidly and the potential to cause devastating pandemics. Global interconnection, facilitated by air transport and international supply chains, allows these diseases to cross borders in a matter of hours or days.

- **Antimicrobial Resistance (ADR):** Resistance to antibiotics, antivirals and antifungals threatens to reverse decades of medical progress, hindering the treatment of common infections and increasing mortality. The AMR is a silent crisis that requires urgent and coordinated action at the global level.

- **Impacts of Climate Change and Environmental Degradation:** Climate change alters the distribution patterns of disease vectors, such as mosquitoes that transmit malaria and dengue, and can exacerbate the incidence of respiratory and cardiovascular diseases. Deforestation and

biodiversity loss also increase the risk of zoonoses.

- **Social and Economic Inequalities:** Vulnerable populations, including indigenous communities, people in extreme poverty and refugees, face greater risks due to the lack of access to health services, basic sanitation and education, which hinders the prevention and effective control of diseases.

Global prevention is not only the early detection and control of outbreaks, but a comprehensive approach that includes:

- **Strengthening Health Systems:** Investing in health infrastructure, staff training, epidemiological surveillance systems and rapid response capacity. International Cooperation: WHO promotes collaboration between countries to share information, resources and best practices, through instruments such as the International Health Regulations (IHR) and the Pandemic Preparedness Framework.

- **Community Participation:** Education, effective communication and the inclusion of communities in decision-making are vital to the success of preventive strategies.

- **Equity in Access to Technologies and Medicines:** Ensure that vaccines, treatments and diagnostic tools are available to all, regardless of geographical location or socioeconomic level.

Technological advancement has transformed the ability of health systems to prevent and respond to global threats. Among the most relevant technologies are:

- **Artificial Intelligence (AI) and Big Data:** They allow the collection and real-time analysis of epidemiological data, facilitating the early detection of outbreaks, predictive modelling and resource optimisation.

- **Rapid Genomic Sequencing:** The ability to sequence the genome of viruses and bacteria in record time has been crucial for the development of

vaccines and personalised treatments, as well as for tracking the evolution and mutations of pathogens.

- **Digital Technologies and Telemedicine:** They improve access to health services, especially in remote areas or during health emergencies, and facilitate education and communication in public health.

- **Biotechnology and Genetic Manipulation:** Techniques such as CRISPR-Cas9 allow precise editing of genes, opening up possibilities to treat genetic diseases, create innovative vaccines and improve resistance to infections.

Genetic manipulation represents a revolutionary frontier in medicine and public health, but it also poses important challenges:

- **Promising Medical Applications:** Genetic editing can correct mutations causing hereditary diseases, develop advanced therapies and accelerate the production of vaccines and medicines.

- **Ethical Risks and Controversies:** The editing of the human germ line, which involves hereditary changes, raises concerns about safety, social justice, the possible creation of genetic inequalities and the irreversible alteration of the human genome. In addition, there is a risk of improper or unregulated use of these technologies.

- **Need for International Regulatory Frameworks:** WHO has recommended a moratorium on the clinical application of genetic editing in human embryos until clear regulations are established and rigorous ethical supervision is guaranteed. An inclusive global dialogue is promoted to define limits and ensure responsibility.

The rapid evolution of biomedical and digital technologies demands dynamic and collaborative regulatory frameworks that:

- **Protect Safety and Human Rights:** Establishing clear standards for research, development and clinical application, guaranteeing the privacy and

confidentiality of health data.

- **Promote Transparency and Accountability:** Through monitoring, auditing and accountability mechanisms.

- **Promote Equity and Universal Access:** Preventing innovations from deepening existing inequalities.

- **Facilitate Multilateral Cooperation:** To share information, resources and respond in a coordinated manner to health emergencies.

The inherent complexity to global prevention and the response to the threats for world health is enhanced by the diversity of the involved actors and the heterogeneity of capacities amongst countries. Taking this to account, international cooperation is not only desirable, but absolutely indispensable. The effective coordination between governments, multilateral organizations, scientific institutions, private sector and the civil population turns out to be the pillar that maintains the collective capacity to anticipate, detect and mitigate emerging health risks. Nevertheless, this collaboration faces multiple obstacles, from differences in regulatory frames and levels of technological development, to political and economic issues that may limit the prompt exchange of information and resources.

The rapid evolution of biomedical technologies, particularly in the field of genetic manipulation, requires regulatory systems to be agile and adaptive, capable of incorporating new scientific knowledge without sacrificing rigour or ethical protection. This implies the need to establish dynamic risk and benefit assessment mechanisms, which allow a continuous and transparent review of clinical and research applications. In addition, post-commercialisation surveillance and long-term monitoring become essential to identify adverse effects or unforeseen consequences that may arise after the implementation of new technologies.

Another crucial aspect is the training and awareness of health professionals, researchers and regulators, who must be up-to-date and prepared to

meet the challenges posed by these innovations. Continuing education and expert networking facilitate the dissemination of good practices and the development of common standards, strengthening global health governance.

Finally, the active participation of communities and society in general is a fundamental component to legitimise policies and regulations related to emerging technologies. Transparency, open dialogue and the inclusion of diverse perspectives contribute to building public confidence, reducing unfounded fears and promoting a responsible and equitable use of scientific advances. In this regard, WHO and its partners must promote accessible and effective communication spaces that allow the population to understand the associated benefits and risks, as well as their rights and responsibilities in the framework of global health.

c). Topic's Development:

Gene regulation represents one of the most complex and dynamic fields in contemporary biology, ranging from basic epigenetic mechanisms to the most advanced genomic engineering technologies. In recent years, the development of gene editing systems such as CRISPR-Cas9 has revolutionized our ability to modify organisms with unprecedented precision. However, this technological capability has far outpaced existing regulatory and ethical frameworks, creating a dangerous gap between what is scientifically possible and what is ethically acceptable.

The World Health Organization (WHO) has attempted to position itself as a leader in creating a global regulatory framework for these technologies, particularly after the scandal generated by Chinese researcher He Jiankui in 2018. The case of the genetically modified twins exposed the profound deficiencies in international oversight systems and highlighted the urgent need to establish binding global protocols.

To fully understand the implications of the He Jiankui case, it is essential to examine the technical foundations of gene editing technologies:

CRISPR-Cas9 mechanisms: This system, originally discovered as a bacterial immune mechanism, works by means of an RNA-guided Cas9 enzyme that can cut specific DNA sequences with extraordinary precision. The versatility and accessibility of this technology have democratized genetic research, allowing its use even in laboratories with limited resources.

Types of gene editing:

Somatic editing: Modifications in non-reproductive cells with effects limited to the individual

Germline editing: Alterations in eggs, sperm, or early embryos that can be inherited

Accuracy and off-target effects: Although CRISPR is highly specific, unwanted edits can occur in similar regions of the genome, with potentially catastrophic consequences.

The He Jiankui Case: A Detailed Chronology

The experiment conducted by He Jiankui represents a turning point in the history of bioethics. A thorough analysis reveals multiple layers of scientific irresponsibility:

Experimental Context: Seven couples were selected where the man was HIV-positive.

In vitro fertilization was performed, followed by gene editing at the embryonic stage.

The CCR5 gene, which encodes an HIV co-receptor, was modified.

Ethical and Scientific Issues:

Absence of medical necessity: Effective methods exist to prevent vertical transmission of HIV.

Unknown risks: The CCR5 gene has multiple immunological and neurological functions.

Lack of long-term follow-up: No protocols were established to monitor the girls.

Ethical Review Process:

- The informed consent documents concealed the experimental nature of the procedure.
- Ethical approval certificates were falsified.
- Misleading terminology was used (“vaccine development program”).

International response and WHO actions

The revelation of the experiment sparked immediate global condemnation and led the WHO to take concrete action:

Establishment of the Advisory Committee (2019):

Multidisciplinary composition with 18 international experts mandate to develop global governance standards

Key recommendations:

- International registry of human gene editing research
- Staged technical and ethical evaluation for research projects
- Reporting mechanisms for unethical practices

Institutional Limitations:

- Lack of binding capacity of guidelines
- Dependence on the political will of member states
- Absence of independent verification mechanisms
- Current Challenges in Global Regulation

The current regulatory landscape presents multiple challenges:

Regulatory Fragmentation:

- Countries such as the United Kingdom allow research on embryos up to 14 days old
- Germany completely prohibits germline manipulation
- China has implemented stricter regulations post-He Jiankui

Commercial Pressures:

- Biotechnology startups pushing for premature clinical applications
- Genetic tourism to countries with lax regulations

Technological Gaps:

- Development of “gene drive” techniques that could alter entire

populations
- Use of artificial intelligence to design more precise editing systems

Long-Term Implications

The consequences of the He Jiankui case transcend science:

Effects on Genetic Diversity:
- Possible reduction in human genetic variability
- Unintentional creation of susceptibilities to new diseases

Social Considerations:
- Risk of digitized eugenics
- Deepening inequalities in access to genetic improvements

Legal Challenges:
- Gaps in responsibility for transgenerational effects
- Conflicts in the definition of genetic damage

Recommendations for an Effective Regulatory Framework

Based on the case analysis and lessons learned, the following are proposed:

Institutional Strengthening:
- Creation of an international regulatory body with binding authority
- Certification system for laboratories and researchers

Transparency and Oversight:
- Global platform for reporting studies in real time
- Independent audit mechanisms

Responsible Research:
- Prioritization of somatic applications over germline applications
- Development of reversal systems for gene editing

The case of the genetically edited twins represents an urgent wake-up call for the international community. While gene editing technologies promise to revolutionize medicine, their misuse could have irreversible consequences for the human species. The WHO, as the leading global health agency, must take a more proactive role in creating binding standards that balance scientific innovation with the protection of fundamental human rights.

The way forward requires transnational collaboration, radical transparency in research, and inclusive social dialogue that considers not only what we can do, but what we must do as a global society. The decisions we make today about regulating these technologies will shape the genetic future of humanity for generations to come.

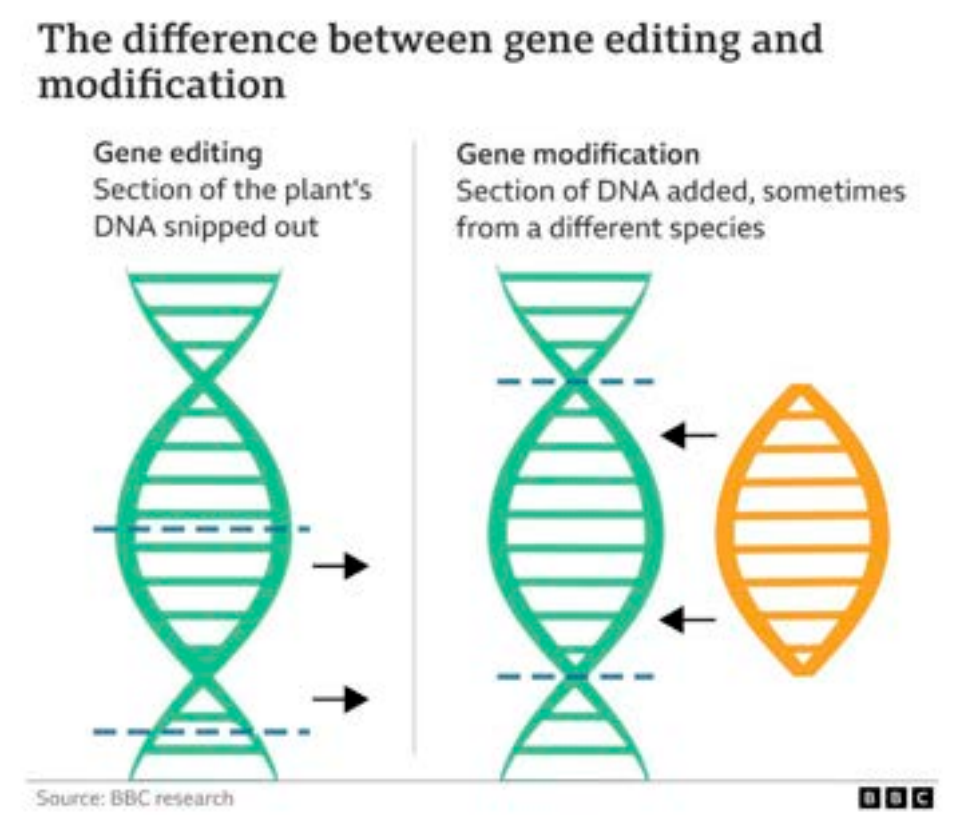

Image taken from BBC

d). Main deterrences for the topic's development:

Gene editing has emerged as one of the most transformative technologies of the 21st century, with the potential to redefine the boundaries of medicine and biology. Systems like CRISPR-Cas9 allow for DNA modification with unprecedented precision, offering hope for curing previously untreatable genetic diseases. However, this capability carries profound ethical and social implications, particularly when applied to human embryos, where changes can be passed on to future generations. The World Health Organization (WHO) has attempted to establish global regulatory frameworks for these practices, but the case of Chinese scientist He Jiankui—who in 2018 genetically modified two twin girls—revealed serious deficiencies in international oversight systems. This incident not only exposed the risks of science operating without adequate ethical safeguards, but also raised fundamental questions about who should determine the limits of human genetic modification and under what criteria.

He Jiankui's experiment, which resulted in the birth of the first genetically modified babies, Lulu and Nana, was universally condemned by the scientific and bioethics communities. The researcher used CRISPR-Cas9 to deactivate the CCR5 gene in human embryos, allegedly to confer resistance to HIV—an intervention whose benefits did not justify the unknown risks. The procedure was conducted without proper ethical oversight, circumventing both Chinese regulations and international standards, and the twins' parents signed consent forms without fully understanding the potential risks. Moreover, the CCR5 gene plays immunological and neurological roles beyond its function in HIV infection, potentially causing unforeseen consequences for the girls' health. This case demonstrated how the absence of effective control mechanisms can lead to dangerous and irresponsible experiments that put not only individuals, but humanity as a whole, at risk.

In response to the scandal, the WHO established a Human Genome Editing Advisory Committee in 2019, tasked with developing global standards for these technologies. Among its key recommendations was a temporary moratorium on human germline editing until rigorous safety protocols and

international ethical consensus were established. The committee also proposed the creation of a global registry of gene editing research to ensure transparency, as well as comprehensive risk assessments demonstrating clear medical benefits with no less invasive alternatives available. However, these guidelines face significant limitations, as the WHO lacks binding authority to enforce its recommendations on member states. This lack of coercive power has resulted in a fragmented regulatory landscape, with countries such as China, the United States, and several European nations adopting radically different approaches to human genomic editing.

Beyond regulatory challenges, the He Jiankui case raises fundamental questions about the future of human genetic modification and its social implications. The possibility of permanently altering the human gene pool could lead to modern forms of eugenics, where certain genetic traits are valued over others, exacerbating social inequalities. Additionally, there is a risk that these technologies could be used to create genetic “enhancements” rather than to treat diseases, resulting in a designer baby market accessible only to the wealthy. The long-term consequences of these interventions are unpredictable, as they could impact not only individual health but also the genetic diversity of our species. The case of the genetically modified twins serves as a warning about the dangers of technological advancement without careful consideration of the ethical, legal, and social dimensions of such profound interventions in human biology.

To address these challenges, a more robust global regulatory framework is needed—one that goes beyond the current non-binding recommendations. This could include the creation of specific international treaties on human genomic editing, backed by verification mechanisms and sanctions for countries that fail to comply with agreed standards. Furthermore, it is essential to establish radical transparency protocols requiring the detailed publication of all human gene editing experiments, along with international peer review systems. The WHO could strengthen its role by convening a global convention on genomic editing, similar to the framework established for biological weapons, but tailored to the unique challenges of this technology. At the same time, it is crucial to involve the general public in

these debates, as decisions regarding the use of these technologies will affect all of humanity and should not be left solely in the hands of scientists or policymakers.

The He Jiankui case represents a turning point in the history of science and medical ethics, highlighting the urgent need to develop effective global regulatory frameworks for human genomic editing. While these technologies offer unprecedented potential to treat and prevent serious diseases, they also carry existential risks that must be managed with the highest level of precaution. The WHO, as the leading global health authority, has the responsibility to lead this process—but its success will depend on the active cooperation of member states and the international scientific community. The future of human genomic editing must be built on the pillars of scientific caution, social equity, and respect for fundamental human rights, ensuring that these technological advances benefit all of humanity—not just a privileged few. The lessons of the genetically modified twins should guide us toward a future where scientific innovation goes hand in hand with ethical wisdom and global responsibility.

Procedure

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Universidad de los Andes
Colombia

Procedure

During the committee we are going to follow the Harvard Procedure established by the MONUA handbook, specifically on page 35, it is crucial for you not only to know the points and motions but also the format to be managed on the documents and the voting process. Here we provide you with most of the motions in English. In any case of doubt feel completely free to approach.

Español	Inglés
Punto de Orden	Point of Order
Punto de Privilegio Personal	Point of Personal Privilege
Punto de Información	Point of Information
Punto de Información al Orador	Point of Information to the Speaker
Punto de Relevancia	Point of Relevance
Moción para Abrir Sesión	Motion to Open the Session
Moción para Establecer la Agenda	Motion to Set the Agenda
Moción para Iniciar una Sesión Extraordinaria de Preguntas	Motion for an Extraordinary Questioning Session
Moción para Abrir Caucus Moderado	Motion to Open a Moderated Caucus
Moción para Abrir Caucus No Moderado	Motion to Open an Unmoderated Caucus
Moción para Extender el Tiempo	Motion to Extend the Time
Moción para Suspender un Debate	Motion to Suspend the Debate
Moción para Reanudar un Debate	Motion to Resume the Debate
Moción para Cerrar el Debate	Motion to Close the Debate
Moción para Introducir un Papel de Trabajo	Motion to Introduce a Working Paper
Moción para Introducir un Proyecto de Resolución	Motion to Introduce a Draft Resolution
Moción para Dividir la Pregunta	Motion to Divide the Question
Moción para Reordenar la Votación	Motion to Reorder the Voting Procedure
Moción para Entablar un Proyecto de Resolución	Motion to Enter into Consideration of a Draft Resolution
Moción para Votación de Papeles Resolutivos	Motion to Vote on Draft Resolutions
Moción para Cerrar Agenda	Motion to Close the Agenda

Before the conference starts, all delegates MUST send their Position Paper to both DAIS, the score of this document will be considered during the first session, all the papers should be in the DAIS emails **before August 13 at 23:59.**

The final document of the committee will be a draft resolution, the DAIS will establish specific points associated with the structure but it is important for the delegates to read the general rules about the draft resolutions and the amendments to be made, delegates can find this rules from the **Article 100 to the Article 107 of the Handbook.**

Aspects of performance evaluation:

- **Argumentative quality:** This can be understood as how your speech is reasonable and aligned with the topic to be managed during the committee, also this includes the process of formulating and answering questions.

- **Oratory:** It is not only important what you say but also how you say it, the delegates must make an impact in every intervention and space.

- **Lobby:** Is about how the delegates unfolds during the times of unmoderated caucus and permanent lobby, not only to lead this space but also the ability to hear and incorporate the contributions of other delegates.

- **Use of the Harvard Procedure:** This aspect involves the quality of the motions and points proposed, also the correct use of the different resources the procedure offers.

- **Use of English:** Since the committee is in English, it is crucial for the delegates to be understood but others and also this aspect involves the use of parliamentary language.

- **Topic Management:** All the interventions and proposals need to be aligned and creative around the two proposed topics so delegates need to expose that knowledge thoroughly.

- **Quality and Application of Scientific Data:** Since this committee and the topics to be discussed are technical and scientific, delegates must have a good use and context of the Data and terms, also this evaluates the rigorosity and veracity of the data delegates bring to the committee.

- **Document production:** This section includes the position paper delegates must send before the conference starts, also the press releases, working papers, amendments and contributions to the draft resolution.

- **Foreign Policy:** It is important for the delegates to be completely aligned with their foreign policy, we will evaluate this during your proposals and alliances you make during the conference.

- **Human Quality:** The respect among the delegates and to the DAIS, also the importance of helping others. All delegates will start with a score of 5 susceptible to changes due to any bad behaviors.

Glossary

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Glossary

a. Cluster Deputy: “A senior-level officer appointed by a cluster lead agency to support and coordinate cluster activities at country level” (United Nations OCHA Glossary).

b. Emergency Medical Team (EMT): “groups of health professionals that are organized to provide direct clinical care to populations affected by emergencies” (World Health Organization).

c. European Civil Protection and Humanitarian Aid Operations (ECHO): “the European Commission’s department responsible for implementing the EU’s humanitarian aid and civil protection policy” (European Commission).

d. Flash Appeal: “a strategic document issued by the humanitarian community to address immediate life-saving needs in the first weeks of an emergency” (United Nations OCHA Glossary).

e. Humanitarian Access: “the ability of humanitarian actors to reach people in need and to provide assistance and protection in a timely and effective manner” (United Nations OCHA Glossary).

f. International Federation of Red Cross and Red Crescent Societies (IFRC): “the world’s largest humanitarian network, consisting of 191 National Societies, working to assist vulnerable people before, during and after disasters” (IFRC).

g. International Health Regulations (IHR): “an international legal instrument that is binding on 196 countries to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide” (World Health Organization).

h. International Humanitarian Law (IHL): “that branch of international law which seeks, for humanitarian reasons, to limit the effects of armed conflict” (International Committee of the Red Cross).

i. Médecins Sans Frontières (MSF) / Doctors Without Borders: "an international, independent, medical humanitarian organisation that delivers emergency aid to people affected by armed conflict, epidemics, natural disasters and exclusion from health care" (Médecins Sans Frontières).

j. Peacekeeping: "the deployment of a United Nations presence in the field, usually with military, police and civilian components, to help countries navigate the difficult path from conflict to peace" (United Nations).

k. Sector coordination Group (Cluster): "a group of humanitarian organizations and stakeholders coordinating needs, resources and response activities within a specific sector" (United Nations OCHA Glossary).

l. United Nations High Commissioner for Refugees (UNHCR): "the United Nations agency mandated to aid and protect refugees, forcibly displaced communities and stateless people, and to assist in their voluntary repatriation, local integration or resettlement to a third country" (United Nations).

m. United Nations Office for the Coordination of Humanitarian Affairs (OCHA): "the part of the United Nations Secretariat that is responsible for bringing together humanitarian actors to ensure coherent action in emergencies" (United Nations).

n. Water, Sanitation and Hygiene (WASH): "an approach to public health that aims to prevent disease and promote health through the provision of safe water, sanitation and hygiene services" (World Health Organization).

o. Human genome: The genome is the entire set of DNA instructions found in a cell. In humans, the genome consists of 23 pairs of chromosomes located in the cell's nucleus, as well as a small chromosome in the cell's mitochondria. A genome contains all the information needed for an individual to develop and function. (National Human Genome Research Institute)

p. CRISPR-Cas 9: CRISPR/Cas9 is a gene-editing technology which involves two essential components: a guide RNA to match a desired target gene, and Cas9 (CRISPR-associated protein 9)—an endonuclease which causes a double-stranded DNA break, allowing modifications to the genome. (National Library of Medicine)

q. Biotechnology: technology that utilizes biological systems, living organisms or parts of this to develop or create different products. (Norwegian University of Science and Technology)

r. Big Data: Biological big data are a massive amount of data generated from multi-omics experiments, such as genomics, transcriptomics, proteomics, metabolomics, phenomics, glycomics, epigenomics, and other omics. (Chaudhari et al., 2024)

s. Sanitary Emergencies: An occurrence or imminent threat of an illness or health condition, caused by bioterrorism, epidemic (ex: gastrointestinal, malaria, Dengue, Zika) or pandemic disease (ex: flu, Avian Flu, Ebola), or (a) novel and highly fatal infectious agent or biological toxin, that poses a substantial risk of a significant number of human facilities or incidents or permanent or long-term disability. (Inter-agency Network for Education in Emergencies)

t. Pandemic preparation frame: (Pandemic prevention, preparedness and response accord) Member States of the World Health Organization have agreed to a global process to draft and negotiate a convention, agreement or other international instrument under the Constitution of the World Health Organization to strengthen pandemic prevention, preparedness and response. (World Health Organization)

u. Moratorium: Members of the Society have no intention of cloning human beings, where this act is defined as the duplication of an existing or previously-existing human being. (Society for developmental biology)

v. Sanitary International Regulation: The IHR are an instrument of international law that is legally-binding on 196 countries, including the 194 WHO Member States. (World Health Organization)

w. Antimicrobial resistance: Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites no longer respond to antimicrobial medicines. As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become difficult or impossible to treat, increasing the risk of disease spread, severe illness, disability and death. (World Health Organization)

x. Genomic sequencing: Is a laboratory procedure that determines the order of all, or most, of the nucleotides in the genome of these disease-causing microbes. By examining the sequence data at a community level, public health officials can better understand how microorganisms move through populations and change over time. (Centers for Disease Control and Prevention)

y. Telemedicine: Telemedicine is defined in Romania as “the totality of medical services provided remotely, in a secure manner, by means of information technology and electronic means of communication without the simultaneous physical presence of the medical staff and the patient, that aim to establish the diagnosis, indicate the treatment, monitor certain diseases or indicate disease prevention methods” (UNICEF)

z. Epidemiologic Surveillance: Is the ongoing, systematic collection, analysis and interpretation of health data. Disease surveillance data is used to determine the need for public health action. (NSW Health)

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Guiding questions

1. What are the primary barriers to the establishment and maintenance of medical infrastructure in conflict zones like the Gaza Strip?

2. How can the WHO ensure the neutrality and safety of healthcare workers and facilities in ongoing conflict settings?

3. In what ways can international humanitarian law support or hinder the delivery of medical aid in areas under blockade or siege?

4. What strategies can be implemented to improve the coordination between local health authorities, NGOs, and international bodies in war-torn regions?

5. How can the WHO leverage technology and remote medical solutions to reach populations in inaccessible conflict zones?

6. What role should regional powers and neighboring countries play in ensuring medical support reaches affected civilians?

7. How can infrastructure be rebuilt or made resilient in the aftermath of targeted attacks on healthcare systems?

8. What accountability mechanisms can be established to address deliberate attacks on medical facilities and personnel?

9. How should mental health care be integrated into emergency medical responses in conflict-affected areas?

10. How can funding mechanisms be improved to ensure a rapid and sustained response to health crises in conflict zones?

11. What are the current global regulations regarding human genome editing, and how consistent are they across countries?

12. How should the WHO address violations of international ethical standards, such as in the case of He Jiankui?

13. What criteria should be used to evaluate whether a genetic intervention is ethically and medically justified?

14. Should there be a binding international treaty on human genetic modification? If so, what should it include?

15. How can the WHO ensure transparency and oversight in ongoing gene editing research globally?

16. What is the role of public consultation and engagement in shaping policy around emerging biotechnologies?

17. How can global guidelines be adapted to keep up with rapidly advancing technologies in genetic manipulation?

18. What mechanisms can be implemented to prevent the commercialization and unequal access to genetic enhancement technologies?

19. How should potential long-term societal and biological risks be weighed against the short-term benefits of genetic interventions?

20. What lessons can be drawn from the He Jiankui case to shape future governance of biotechnology and gene editing?

Attachments

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Attachments

Appendix 1: Geneva convention for the amelioration of the wounded and sick : The articles mentioned on the academic guide deepen on the protection of the wounded, medical establishments and sanitary personnel. (GENEVA CONVENTION FOR THE AMELIORATION OF THE CONDITION OF THE WOUNDED AND SICK IN ARMED FORCES IN THE FIELD OF 12 AUGUST 1949)

Appendix 2: The wrecking of Gaza's health system goes beyond its hospitals: This article by The Economist focuses on the statistics and eventual collapse of the health system in Gaza since the conflict has started. https://www.economist.com/middle-east-and-africa/2024/02/22/the-wrecking-of-gazas-health-system-goes-beyond-its-hospitals?utm_medium=cpc.adword.pd&utm_source=google&ppccampaignID=19495686130&ppcadID=&utm_campaign=a.22brand_pmax&utm_content=conversion.direct-response.anonymous&gad_source=1&gad_campaignid=19495464887&gbraid=0AAAADBuq3Je7-_oHa76JVkaXhXPqxUrY&gclid=Cj0KCQjwxo_CBhDbARIsADWpDH4shkJw-HYCF-YOHRwSdVpHIzegww2AuMUP89OwPMsVHydFMK8eFjwaAI-JEALw_wcB&gclsrc=aw.ds

Appendix 3: Resolution 2286 of the UNSC: addresses the protection of medical personnel and facilities in armed conflict. Unanimously adopted on May 3, 2016, the resolution condemns attacks against hospitals, medical staff, and humanitarian workers, especially those operating under international law. It reaffirms that such attacks are violations of international humanitarian law and may constitute war crimes. The resolution urges all parties in conflict to respect and protect medical services, ensure accountability for violations, and facilitate unhindered humanitarian access. It also calls for improved data collection, reporting mechanisms, and preventive measures to safeguard healthcare delivery in conflict zones. 2286

Appendix 4: World Health Organization. (n.d.). Newsroom: Occupied Palestinian Territory: If you want to know more about the case of study we invite you to read this news.
https://www.emro.who.int/opt/news/index.html

Appendix 5: How CRISPR lets you edit DNA: This 5 minute video by TED-Ed gives a brief insight of how this tool works and makes it pretty easy to understand.
https://www.youtube.com/watch?v=6tw_JVz_IEc

Appendix 6: He Jiankui defends "first gene-edited babies": This BBC article is one of the firsts to come out since the case started.
https://www.bbc.com/news/world-asia-china-46368731

Appendix 7: The gene editing scandal that shook the world: This video is completely about all the controversy and context of the He Jiankui Case.
https://www.youtube.com/watch?v=rAp1gnYRIH4

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