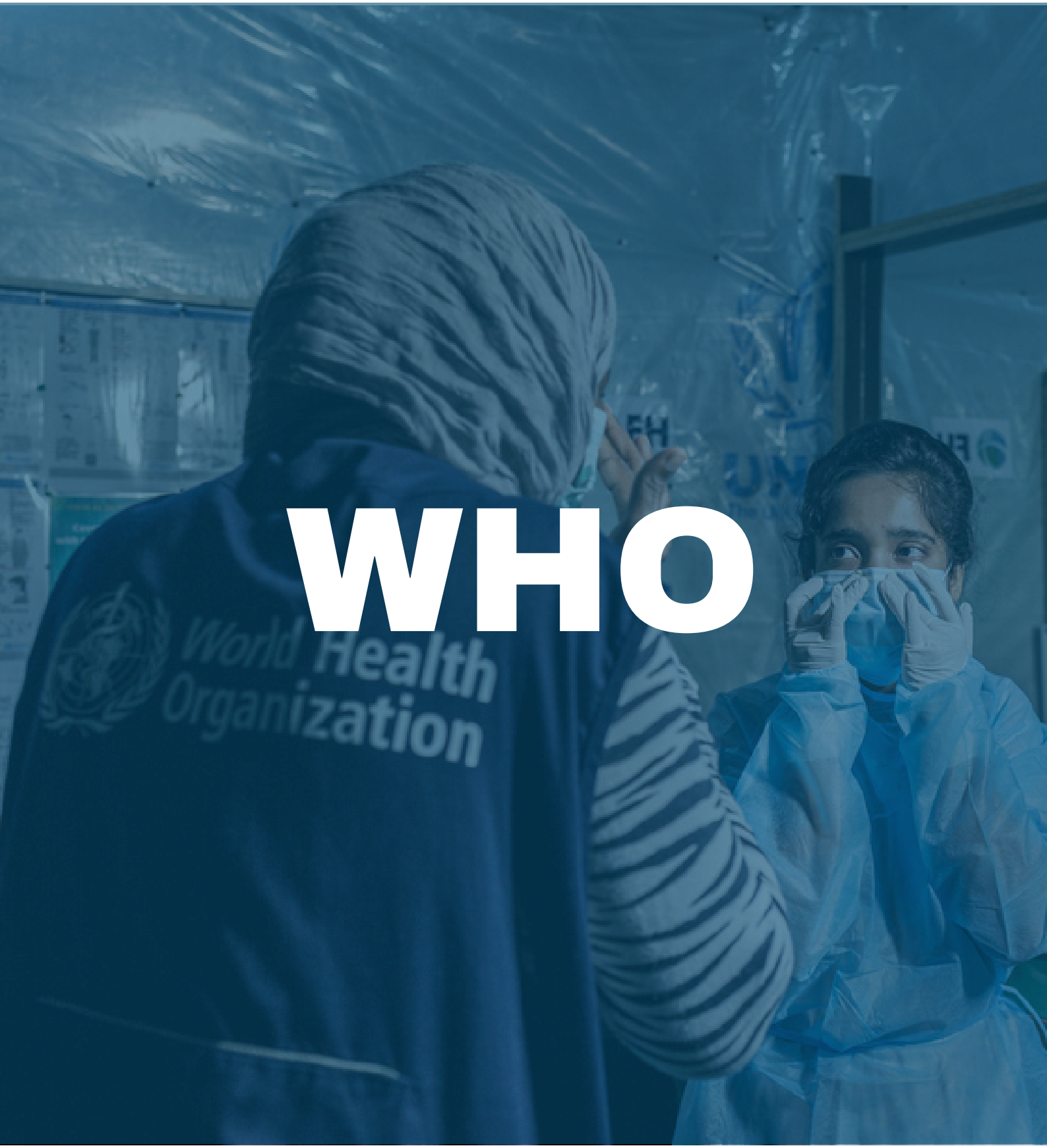
CIDEB MUN '24



WHO

Director
Sofia Hernández

Moderator
Cordelia Pérez

Topic A: Equitable Access to Vaccines and Medicines in Developing Countries

Topic B: Discussing technological advancements and its ethical repercussions.

Committee: World Health Organization.

Director: Sofia Iriel Hernández López

Moderator: Cordelia Pérez Espinosa

Dear Delegates,

We cordially welcome you all to CIDEBMUN 2024! We are thrilled to have you join us for what promises to be an engaging and enriching experience. It is a pleasure and honor for us to be your chair for the World Health Organization (WHO) committee in this edition of CIDEBMUN. As delegates, you will have the opportunity to address some very important global health issues facing our world today. Your dedication, and collaboration will be crucial in finding innovative solutions that will help solve this problems. The goal is not just to represent your assigned country but to work together towards common objectives that can lead to real change. We look forward to your active participation and are excited to see the resolutions you develop.

If there are any questions, do not hesitate to contact us so we can provide you with support in whatever you may need.

Wishing you all the best, delegates; may you achieve great success

Sincerely,

WHO Chair

Introduction to the Committee

The World Health Organization (WHO) is an organ part of the United Nations and has a purpose to ensure the highest possible level of health for all human beings emphasizing health as a fundamental human right.(Britannica, 2021). WHO's constitution was established on April 7, 1948 - Day in which we celebrate World Health Day. It was founded as an agency of the UN after World War ll to address the global health issues that followed it.

WHO operates in the World Health Assembly and discusses matters such as epidemic control, combating communicable and non-communicable diseases, coordinating international health responses during emergencies, drug standardization, and social well-being.

The World Health Organization has relied on national institutions to tackle global health challenges. Since its early days, WHO has partnered with national laboratories and research centers to standardize and monitor health initiatives around the globe. Its origins date back to the League of Nations, starting with the World Influenza Centre in 1947 (WHO, 2024). By choosing to collaborate with existing institutions rather than establish new ones, WHO has fostered greater national participation in its mission to improve global health outcomes (WHO, 2024). This model has become a cornerstone of WHO's approach to addressing international health crises and advancing medical research worldwide.

Topic A Introduction

Despite vaccination being regarded as one of the most effective primary public health measures, misconceptions about this prevention method, coupled with inequitable distribution, have emerged as significant barriers to vaccine acceptance and availability across various public healthcare systems (National Library of Medicine, 2022). In many developing countries, systemic issues such as poverty, inadequate healthcare infrastructure, and political instability exacerbate the challenges of ensuring equitable access to vaccines and medicines. These factors contribute to disparities in health outcomes, leaving vulnerable populations at greater risk of vaccine-preventable diseases (National Library of Medicine, 2022).

According to WHO in 2023, an estimated of 14.5 million children missed out on any vaccinations, leading to the designation of this population as “zero-dose children” (WHO, 2024). The COVID-19 pandemic has further underscored these inequities, as many nations faced significant barriers in securing vaccine supplies, revealing a stark divide in global health access. The lessons learned during this crisis highlight the urgency of addressing these disparities to prevent the resurgence of diseases that were previously under control (National Library of Medicine, 2023).

Topic A History and Timeline

The history of vaccination reveals significant inequities, particularly in developing countries. Since the invention of the first smallpox vaccine in 1796, vaccination efforts and awareness programs have emerged worldwide. The World Health Organization (WHO) launched its first major vaccination initiative, the Expanded Programme on Immunization (EPI), in 1974, aiming to increase vaccination rates in low-income areas. However, challenges such as weak healthcare systems and political instability made it difficult to reach all populations effectively. According to a report by the WHO, although EPI successfully immunized millions of children, coverage varied significantly, with many rural and conflict-affected areas lagging behind urban regions (WHO, 2020).

Similarly, other initiatives intended to promote access to vaccinations have faced obstacles. For example, the Global Polio Eradication Initiative, started in 1988, highlighted these inequities, as conflict-affected regions like Afghanistan and parts of Africa reported much lower vaccination rates compared to more stable areas (GAVI, 2021). The COVID-19 pandemic further exacerbated these disparities, with many low-income countries struggling to secure enough vaccine supplies, while wealthier nations hoarded doses. The WHO estimated that approximately 23 million children worldwide missed routine vaccinations in 2021, with many of these children living in low-income countries (WHO, 2022). These historical and contemporary challenges illustrate the urgent need for coordinated global efforts to ensure equitable access to vaccines for all populations.

Current Issues

In the 21st century, significant issues continue to challenge equitable access to vaccines and medicines in developing countries.Vaccine hesitancy has also emerged as a critical issue, fueled by misinformation, cultural beliefs, and distrust in healthcare systems. A 2021 study found that vaccine hesitancy rates were significantly higher in certain regions, with many individuals expressing concerns over vaccine safety and efficacy (UNICEF, 2021). This hesitancy complicates efforts to achieve herd immunity and control preventable diseases. The COVID-19 pandemic has starkly highlighted these inequities, revealing the disparities in vaccine access between wealthy and low-income countries. While high-income nations rapidly secured COVID-19 vaccines for their populations, many developing countries struggled to obtain sufficient doses. As a result, the WHO estimated that approximately 23 million children missed routine vaccinations in 2021, with many of these children living in low-income countries (WHO, 2022). This situation underscores the urgent need for global action to ensure equitable access to vaccines.

As of October 2024, hospitals in Gaza are currently overwhelmed without access to essential resources, severely hampering vaccination efforts. The blockade on Gaza restricts access to medical supplies and vaccines, leaving many children without routine immunizations, which increases the risk of outbreaks of preventable diseases. The current political conflict, along with the dangerous situations healthcare workers must face have made the immunization campaign the challenge of a lifetime (The Conversation, 2024). Outbreaks of infectious diseases like polio have a significant effect on the survival and wellbeing of children and overall society, so the need for a new, safe and effective vaccination campaign is a critical step (The Conversation, 2024).

Quorum

- United States
- China
- India
- Brazil
- Germany
- France
- Russia
- United Kingdom
- South Africa
- Japan
- Indonesia
- Nigeria
- Mexico
- Canada
- Saudi Arabia
- Italy
- Australia
- Turkey
- Pakistan
- Egypt

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UN Action

Efforts to make vaccines available for everyone go back to the 18th century, with the first smallpox vaccine developed in 1796 (WHO, 2024). Since then, global organizations like the United Nations (UN) and the World Health Organization (WHO) have played important roles in promoting vaccination. Over time, their focus has shifted from fighting individual diseases to addressing the bigger problem of unequal access to vaccines, especially in poorer and conflict-affected areas. One of the key programs is WHO's Expanded Programme on Immunization (EPI), started in 1974. Its goal was to increase vaccination rates worldwide, focusing on diseases like diphtheria, measles, and polio (WHO, 2024). Although it was very successful, EPI still faces problems reaching people in remote, rural, and politically unstable regions.

To help with this, WHO works with international partners to strengthen local healthcare systems and get vaccines to even the hardest-to-reach areas.

Since 2021, UN teams worldwide have also provided important support to speed up vaccine distribution in the most vulnerable areas. This support includes helping with logistics, medical needs, and the economic impact in countries like Albania, Azerbaijan, Bhutan, and Brazil (UNSDG, 2021). Their work has helped solve problems like storing vaccines properly and fighting misinformation, which continues to hurt vaccination efforts. The UN's commitment to fair vaccine distribution was tested during the COVID-19 pandemic. In response, the UN teamed up with groups like GAVI (the Vaccine Alliance), COVAX (COVID-19 Vaccines Global Access), and UNICEF to launch a huge global vaccination campaign. The COVAX initiative, co-led by WHO, GAVI, and the Coalition for Epidemic Preparedness Innovations (CEPI), was created to make sure poorer countries could get COVID-19 vaccines (WHO, 2024). Despite challenges with logistics and supply, by 2024, COVAX has delivered over 1.5 billion doses to more than 140 countries, helping to reduce vaccine inequality (WHO, 2024).

The UN has also worked to address the return of preventable diseases in war zones. For example, in Gaza, hospitals are overwhelmed because they don’t have enough resources, making it hard to run normal vaccination programs. The ongoing conflict and lack of medical supplies have led to outbreaks of diseases like polio (The Conversation, 2024). The UN, along with WHO and other aid groups, continues to push for safe access to healthcare and vaccines in these dangerous areas.

Guiding Questions

1. What are the primary barriers to equitable access to vaccines in developing countries?
2. How has the COVID-19 pandemic impacted vaccination rates and access in low-income countries?
3. What role do international organizations, such as WHO and GAVI, play in addressing vaccine inequities?
4. How does vaccine hesitancy contribute to disparities in immunization rates, and what are potential solutions to combat this issue?
5. In what ways do conflict and instability in regions like Gaza affect public health initiatives, particularly vaccination programs?
6. What historical lessons can be drawn from past vaccination initiatives to inform current and future strategies?
7. How can global partnerships be strengthened to ensure a more equitable distribution of vaccines and medicines?
8. What are the implications of vaccine inequities on global health security and the prevention of future pandemics?

Recommended Websites

Information revolving the topic:

- https://wellcome.org/what-we-do/infectious-disease/coronavirus-covid-19/access
- https://www.cdc.gov/vaccines/basics/vaccine-equity.html#:~:text=Who%20Benefits%20from%20Vaccine%20Equity,of%20diseases%20prevented%20by%20vaccines.
- https://www.unicef.org/supply/reports/vaccine-markets-prioritizing-and-scaling-towards-equitable-access

Reliable newspapers:

- The New York Times
- Amnesty International
- The Conversation
- BBC

References

"Access to Vaccination among Disadvantaged, Isolated and Difficult-to-Reach Communities in the WHO European Region: A Systematic Review." National Library of Medicine National Center for Biotechnology Information, 28 June 2022, www.ncbi.nlm.nih.gov/pmc/articles/PMC9324407. Accessed 9 Oct. 2024.

Breen, Liz, and Sarah Schiffling. "Gaza: Polio Vaccination Drive Faces Hurdles Despite a Pause in the Conflict." The Conversation, theconversation.com/gaza-polio-vaccination-drive-faces-hurdles-despite-a-pause-in-the-conflict-237900.

COVAX. 7 Oct. 2024, www.who.int/initiatives/act-accelerator/covax.
"Global Inequities in Access to COVID-19 Health Products and Technologies: A Political Economy Analysis." National Library of Medicine National Center for Biotechnology, 8 June 2023, www.ncbi.nlm.nih.gov/pmc/articles/PMC10247888. Accessed 9 Oct. 2024.

History of Smallpox Vaccination. www.who.int/news-room/spotlight/history-of-vaccination/history-of-smallpox-vaccination?topicsurvey=ht7j2q)&gad_source=1&gclid=Cj0KCQjw05i4BhDiARIsAB_2wfDDHFNG0kCY5uvQtoACXDJnVB1fhyiHfk6d4NKf3XPKcOE1PvmuX1QaAgWKEALw_wcB.

"Hostilities in the Occupied Palestinian Territory." United Nations, WHO-PHSA-oPt-020524-FINAL., United Nations, 2 May 2024, www.un.org/unispal/wp-content/uploads/2024/05/WHO-PHSA-oPt-020524-FINAL.pdf. Accessed 9 Oct. 2024.

Immunization Coverage. World Health Organization, 15 July 2024, www.who.int/news-room/fact-sheets/detail/immunization-coverage.

"Supporting the Most Vulnerable and Making COVID-19 Vaccines Accessible to All." UNSDG, unsdg.un.org/latest/stories/stronger-coordination-support-most-vulnerable-promote-vaccine-equity-and-combat-covid-misinformation.

Topic B Introduction

Technological advancements in the last century have transformed our everyday life aspects. This has benefited the medical field in simple and very complex aspects. Nowadays, the access to good quality, affordable, and appropriate health products is indispensable, without these medical devices, common medical procedures would not be possible. Medical devices are used in many diverse settings, health technologies are used to diagnose illness, to monitor treatments, to assist disabled people and to intervene and treat illnesses. Today, there are an estimated 2 million different kinds of medical devices on the world market, categorized into more than 7000 generic devices groups. (WHO, 2024) For this health technologies, policies, and strategies already exist.

The issue arises when introducing more recent innovations like artificial intelligence (AI), operating robots, and genetic editing devices. Even though these developments would greatly enhance diagnostic accuracy, personalized treatments, and surgical precision, they also present a big ethical dilemma, which is built around concerns over patient privacy, the potential for AI to replace human decision-making, along with the lack of equity regarding the access to these advanced technologies. As medicine continues to evolve, it is crucial to address these ethical challenges to ensure that technological progress aligns with principles of fairness, safety, and human dignity (Gordon, AMA, 2021).

Topic B History and Timeline

Since its founding in 1948, WHO has been instrumental in addressing global health concerns. With the rise of modern technology, WHO has had to adapt its policies to cope with new challenges. The ethical dilemmas posed by technological advancements and diagnoses made, improving recovery times and reducing risks. However, these advancements raised ethical questions related to patient autonomy and the extent of informed consent, particular when procedures became more complex and outcomes less predictable. The burgeoning fie of medical AI began to emerge, with early algorithms designed for diagnostic purposes. This advancement led to concerns about algorithmic bias, the reliability of AI in clinical decision-making, and the potential for depersonalization of care as machines began to play a larger role in patient treatment.

1940-1960

The period from 1940 to 1960 saw significant advancements in medical technology, particularly in the fields of radiology and surgical techniques. The introduction of penicillin during World War II revolutionized treatment for bacterial infections, marking a major milestone in pharmaceutical technology. However, as new treatments became available, ethical concerns began to surface. Questions regarding informed consent, particularly in the context of experimental treatments and human trials, emerged as key ethical issues. The introduction of early medical imaging technologies, like X-rays and ultrasound, also raised concerns about patient privacy and the potential for misuse of medical data.

1961-1980

Between 1961 and 1980, the development of advanced medical devices, such as dialysis machines and pacemakers, transformed patient care. While these technologies significantly improved outcomes for individuals with chronic conditions, they also brought ethical dilemmas to the forefront. The question of who should have access to life-saving technologies became increasingly pressing, particularly as disparities in healthcare access were highlighted. The establishment of ethical guidelines for clinical trials during this time aimed to protect human subjects, but the balance between innovation and ethical standards remained a contentious issue. Additionally, the introduction of robotic surgery in the late 1970s began to raise questions about the role of machines in the operating room and the implications for patient safety and physician accountability.

1981-2000

The 1980s and 1990s marked a period of rapid advancement in medical technologies, including the emergence of minimally invasive surgical techniques and the early developer of AI in healthcare. Technologies such as laparoscopic surgery and advanced imaging (e.g., MRI and CT scans) significantly changed how procedures were performed and diagnoses made, improving recovery times and reducing risks. However, these advancements raised ethical questions related to patient autonomy and the extent of informed consent, particular when procedures became more complex and outcomes less predictable.

Current Issues

From the 2000's technological advancements in medicine accelerated significantly. The increasing use of robots in surgical procedures enhanced precision but also raised concerns about the role of human judgment in surgical practices. Ethical implications surrounding technology in medicine became critical, particularly regarding patient privacy and data security, as healthcare providers increasingly turned to digital platforms for consultations and diagnoses.

Additionally, the implementation of electronic health records raised questions about data ownership and consent, as patients grew more aware of how their personal health information was being utilized. The integration of artificial intelligence (AI) into diagnostic processes and treatment recommendations further intensified discussions about transparency, and the necessity of maintaining a human touch in healthcare. As we transitioned into the 2020's, the integration of artificial intelligence, machine learning, and robotics into medicine reached unprecedented levels, with AI applications for predictive analytics, personalized medicine, and robotic-assisted surgeries promising improved patient outcomes and efficiency. However, these advancements also underscored significant ethical repercussions, including concerns about data privacy, algorithmic bias, and potential disparities in access to advanced technologies, which became central to discussions regarding the future of healthcare.

The COVID-19 pandemic accelerated the adoption of telehealth and AI-driven diagnostics, prompting urgent ethical considerations around equity in healthcare access, informed consent in digital environments, and the implications of automation in patient care. As technology continues to evolve, it is crucial to maintain ongoing dialogue about the ethical frameworks necessary to guide these advancements, ensuring that they benefit all individuals equitably.

UN Action

In 2004, WHO launched the Global Health Ethics initiative to address the ethical implications of emerging medical technologies, particularly in response to growing debates surrounding telemedicine and digital health. By 2007, the organization released a report on Ethical Issues in Global Health, which highlighted the challenges posed by technological advancements, particularly the disparities in access to new treatments and the need for stronger data privacy regulations.

In 2012, WHO established the Global Observatory on Health Research and Development to monitor health technology innovations, with a focus on AI in healthcare and the ethical use of big data. In 2015, it published a comprehensive report on the ethical considerations of genomics and personalized medicine, stressing the importance of informed consent, privacy protection, and the potential for discrimination based on genetic information. The Global Summit on Digital Health in 2018 further emphasized the ethical challenges of AI in healthcare, including the misuse of health data and algorithmic biases.

The COVID-19 pandemic in 2020 accelerated the adoption of digital health technologies, prompting WHO to issue ethical guidelines to ensure transparency, equity, and privacy in the use of AI-driven diagnostics, contact tracing, and telehealth. In 2021, WHO released its first Global Strategy on Digital Health 2020-2025, aiming to provide a framework for the ethical development of digital health tools and ensuring universal access, particularly for vulnerable populations. By 2022, WHO established the Ethics and Governance of Artificial Intelligence for Health working group to create guidelines addressing issues like algorithmic bias, data ownership, and transparency in AI decision-making.

In 2023, the UN held discussions on the ethics of using AI and genomics in global healthcare during its High-Level Meeting on Universal Health Coverage, focusing on ensuring that vulnerable populations have access to cutting-edge medical technologies and that ethical guidelines are globally standardized. Looking ahead to 2024, the UN's ongoing efforts to regulate advanced technologies in healthcare are expected to include

In 2023, the UN held discussions on the ethics of using AI and genomics in global healthcare during its High-Level Meeting on Universal Health Coverage, focusing on ensuring that vulnerable populations have access to cutting-edge medical technologies and that ethical guidelines are globally standardized. Looking ahead to 2024, the UN's ongoing efforts to regulate advanced technologies in healthcare are expected to include a new global framework addressing the ethics of genome editing, such as CRISPR, and AI-powered medical devices, with the World Health Organization (WHO) continuing to lead in developing these guidelines to ensure equitable access and ethical use.

Guiding Questions

1. What are the most significant technological advancements in healthcare over the past decade, and how have they improved patient outcomes?
2. What ethical challenges arise from the integration of artificial intelligence (AI) in healthcare decision-making?
3. How do advancements in raising ethical concerns related to gene editing and genetic privacy?
4. How can international guidelines and regulations be developed to standardize ethical practices surrounding the use of advanced medical technologies globally?
5. What implications do digital health technologies have for patient privacy and data security, and how can these risks be mitigated?
6. How can WHO and member states collaborate to address the ethical repercussions of technological advancements in healthcare, and what best practices can be implemented to guide this collaboration?

Recommended Websites

Information revolving the topic:

- https://www.who.int/health-topics/medical-devices#tab=tab_1
- https://www.who.int/activities/assessing-the-progress-of-health-technology-assessment-use
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8826344/

Reliable newspapers:

- The New York Times
- BBC

References

About WHO. (s. f.). https://www.who.int/about

Health Ethics & Governance (HEG). (2021, 28 junio). Ethics and governance of artificial intelligence for health. https://www.who.int/publications/i/item/9789240029200

Naik, N., Hameed, B. M. Z., Shetty, D. K., Swain, D., Shah, M., Paul, R., Aggarwal, K., Ibrahim, S., Patil, V., Smriti, K., Shetty, S., Rai, B. P., Chlosta, P., & Somani, B. K. (2022). Legal and Ethical Consideration in Artificial Intelligence in Healthcare: Who Takes Responsibility? Frontiers In Surgery, 9. https://doi.org/10.3389/fsurg.2022.862322

Universal Declaration on Bioethics and Human Rights. (2023, 1 marzo). UNESCO. https://www.unesco.org/en/ethics-science-technology/bioethics-and-human-rights

World Health Organization: WHO. (2019, 10 octubre). Ethics. https://www.who.int/health-topics/ethics-and-health

World Health Organization: WHO. (2020, 2 julio). Medical devices. https://www.who.int/health-topics/medical-devices#tab=tab_1

World Health Organization: WHO. (2021, 2 septiembre). Health technology assessment - Global. https://www.who.int/health-topics/health-technology-assessment#tab=tab_1