



NHSMUN

WHA

UPDATE PAPER

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Analucia Tello

Sofia Velasco
Renata Venzor

Dear Delegates,

Welcome to the World Health Assembly (WHA)! My name is Arushi Parikh and I will be your Assistant Director for Session 1 for NHSMUN 2025! This is my first year on staff, but it will be my fourth year attending this conference. I attended NHSMUN for three years as a delegate and hope to give all of you the same amazing experience I had.

I am a freshman at UCLA in Los Angeles, California, studying human biology, society, and public affairs. I am very passionate about international relations and public policy, especially in terms of how it relates to healthcare policies and legislation (which explains why I am in WHA). Outside of school, I am on a Bollywood dance team at my school and love to read books, watch Netflix, and try new coffee places. I am a huge food lover so if you ever need food or coffee recommendations in NYC during the conference at any point, feel free to ask.

MUN contributed so much to my high school journey and were some of my favorite memories from meeting my best friends, traveling to conferences and staying up all night for midnight crisis, and meeting so many new people from all over the place. MUN helped me build confidence, public speaking skills, understand different perspectives, and push me toward a career in public policy. I was Secretary-General of my school's MUN senior year helping novices prepare for conferences, write background guides, and give speeches. I remember my first time at NHSMUN, I was very freaked out, but my best advice would be to just keep an open mind and be willing to collaborate. I am excited to continue helping delegates through NHSMUN and hope everyone walks away learning something new.

My fellow Assistant Director, Ava, and I are pleased to present an Update Paper on the recent information about "nonessential" healthcare. On top of the Update Paper, the background guides will give a strong foundation for the topics we want you to focus on during the committee. Be sure to keep researching and staying up-to-date on these important topics and looking forward to meeting with you all soon!

Sincerely,

Arushi Parikh

World Health Assembly Assistant Director

Session I

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Dear WHA Delegates,

Welcome to the World Health Assembly (WHA), at NHSMUN! I am Ava Zanetti, one of your two Assistant Directors, along with Arushi. I attended NHSMUN as a delegate for the past two years and this year will be my first year on staff. Along with staffing this event, I will be an Alumni Chair for my high school's first MUN event (HSCMUN).

I am currently a first-year at the University of Western Ontario, in London (Canada). I am studying Political Science, Philosophy, and Economics, with Advanced Entry Opportunity to Ivey Business School. I have many interests, ranging from finance to politics and public policy, along with the technology sphere. Outside of class, I am part of my university's rowing team, a writer for the Ivey AEO Blog, along running marathons on the side. I also love reading (especially non-fiction), so feel free to give me some recommendations!

Whether this is your first MUN event or tenth, I hope you take this opportunity to learn, engage, and open your minds to new ideas. MUN, especially on a global scale such as NHSMUN, is an amazing opportunity to learn from others with different perspectives, life experiences, and opinions. Take this opportunity to meet new people, debate (respectfully) and broaden your own opinions and notions on topics inside and outside of debate. In such a large committee, it can be scary to put yourself out there and share your county's policy. My best piece of advice is to remember all the work you have put in for this event and apply that in the debate.

Myself, along with Arushi, are very excited for March and can't wait to meet you all! Please stay up to date on pressing issues and topics across the world - not only for our conference but for your knowledge and understanding.

Looking forward to an exciting few days of debate,

Ava Zanetti

World Health Assembly Assistant Director

Session I

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Sofia Velasco

Renata Venzor

Fellow Delegates,

Welcome to the World Health Assembly! My name is Valentina Baldini and I will be one of the Assistant Directors for the WHA Committee for Session II, and I could not be more excited. This is my first year being part of the NHSMUN Staff. However, I attended this amazing conference once as a delegate in the UNTOC (United Nations Office on Drugs and Crime) committee in NHSMUN 2023.

I live in Lima, Peru and I am currently applying to universities, as I just finished doing the second year of the IB. My MUN career began back in 2020 when I was in 8th grade. My passion for public speaking was the primary factor that made me join the MUN team at my school. I had the opportunity to assist at different online conferences, and in 2022 I finally went to one in person. In 2023, I traveled to New York, to debate in NHSMUN with my school delegation. That same year I was awarded the opportunity to be the Secretary-General of my school's conference, a title that I proudly carried with great responsibility.

This not only reflected my hard work but also my compromise with my team and this amazing activity. At the end of 2023, I entered "Peruvian Universities", a MUN university team. Being part of it led me to participate in Harvard WorldMUN in Taipei, Taiwan 2024. During my time at MUN, I have acquired different skills. By proposing solutions to conflicts, I was able to develop my creativity and empathy. I have also strengthened my skills of leadership and negotiation, and my ability to speak in public and share my ideas. MUN also taught me what perseverance is and how to not give up until I achieve my goals.

Besides MUN, I enjoy playing Basketball in my free time. I have belonged to my school's basketball team since I was 11 years old. I also consider myself a fan of photography. I love to take pictures of nature and since the beginning of 2022, this has become one of my favorite hobbies. I also like to help those who are in need. Every time that I have the opportunity to participate in voluntary service experiences, I am happy to be part of them.

I am eager to hear your ideas on the topics that you will debate and see how, through intense debate, you reach for innovative and creative solutions. In addition, it is important to bear in mind the diplomacy, empathy, and respect towards other delegates, always listening to everyone's ideas and demonstrating interest in the committee.

I wish you all the best of luck,

Valentina Baldini

World Health Assembly Assistant Director

Session II

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Renata Venzor

Hello Delegates,

Congratulations on becoming members of the 2025 NHSMUN conference, and welcome to the World Health Assembly! My name is Yuna Chenette, and I am one of the Assistant Directors for the WHA Committee for Session II. I could not be more excited and honored to be a member of the amazing NHSMUN 2025 staff. I am so excited to meet you all and share these next few days with everyone! I previously attended NHSMUN in 2024 as a part of DISEC, and other accompanying conferences years prior.

I am from New York City in the United States, and I study in Washington, DC., where I am a student in International Affairs and Business. My current interests lie in our global scene, how the interaction of other countries impacts our global community, and Model UN was what inspired my interest to study the world and how it works. I have participated in Model UN for eight years: first starting in middle school, then high school, and now, college.

Each year, I learned more and more about the world and how it worked; diplomacy and its values; and how we, as humans, could achieve global peace. It motivated me to work and research hard, developing a greater love for the subject. Prioritizing global issues and finding diplomatic solutions are vital to ensuring a better future for the world, and it also helps in building the next generation; by empowering and employing the future of our world, our global community can continue to thrive and become better than the past.

MUN was something that I used to do many things: learn, whether by researching; writing papers; giving speeches; or discussing change. However, Model UN was also a place where I was able to openly project and express ideas on how to solve problems, the execution of such plans, and how to be an effective leader. MUN also built me, as an individual, in the sense that I was able to work collaboratively with people more, build strong connections, and strengthen my leadership skills.

Apart from my professional and academic life, in my time, I love reading books and watching TV shows. My favorite novel is Reading Lolita in Tehran by Azar Nafisi, which details the life of a professor (Nafisi) and what it was like to be a woman in Iran, after the Iranian Revolution of 1979.

There are so many stories to be told coming in and out of NHSMUN, and you, delegates, are the ones who will do so. This experience is truly one to be cherished and remembered. Be proud of who you are and how far you have come to attend this unique, special, and opportunity-filled conference. I am so excited to interact with every one of you and hear what your opinions, ideas, and solutions are to the topics you will be working on.

Yuna Chenette

World Health Assembly Assistant Director

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WHA

NHSMUN 2025

TOPIC A: MITIGATING HIGH LEVELS OF EXPOSURE TO CARCINOGENIC AGENTS

Photo Credit: Lamiot

Introduction

The issue of carcinogens poses a significant global health challenge.¹ Carcinogens cause sickness by affecting how cells work. This includes exposure to tobacco smoke, chemical substances, and radiation. Workers in industries like manufacturing, construction, and agriculture often face greater risks.² This highlights the necessity for more labor laws and protections as new job sectors emerge. The processions should be focused on increasing safety from harmful exposures in the workplace. To help protect public health, safety measures are stronger through creating better restrictions, information-sharing, and safer workplaces.³

It is essential to tackle the challenges created by new jobs and weak labor protections, specifically in growing industrial areas. In Western Europe, there is an increase in cancer-related deaths associated with workplace exposure to carcinogens. This trend highlights the risks that workers in sectors like construction, logging, and manufacturing face.⁴ These industries frequently expose employees to dangerous chemicals without adequate safety measures. Although some countries have created measures to reduce these carcinogens, such as mandating protective gear, sickness linked to carcinogens remains high. For example, Western Europe still reports some of the highest cancer-related death rates in the world. This demonstrates we quickly need stronger worker protections and ways to keep workers from health risks.

Most importantly, preventing exposure to carcinogens requires a consistent and attentive approach to protect public health and ensure workplace safety. In many industries, workers often encounter dangerous chemicals, highlighting the need for personal protective equipment (PPE) and safety measures. Using strategies, such as reducing direct contact with harmful chemicals, can greatly lower risks.⁵ Global initiatives like the World Health Organization's 2024-2030 plan in Southeast Asia to do this. It aims to decrease cancer

cases by raising awareness, enhancing workplace conditions, and improving access to healthcare.⁶ These safety measures show the importance of working together to reduce exposure to carcinogens and protect workers.

Emerging Job Markets and New Labor Protections

New industries are emerging, creating new needs for worker protection. Carcinogens and how it has affected worker health is now a significant public health concern. Western Europe has the largest death rates from cancers caused by carcinogens, according to the Global Burden of Disease (GBD) tracker. This might come as a surprise because of the region's strong regulations.⁷ In this region, most carcinogens linked to cancer cases are caused by factory work.⁸ This includes chemical-producing factories, such as clothing, food, and more. This highlights the relationship between industrial development and public health outcomes. Many countries enforce hard rules, such as Sweden.

The Swedish Work Environment Authority implements strict workplace safety regulations.⁹ Their approach is centered on

1 Johannes Rainer, "Cancer as a global health crisis with deep evolutionary roots," *Global Transitions*, Volume 6 (January 2024): 45-65, <https://doi.org/10.1016/j.glt.2024.01.001>

2 WorkSafe Queensland, "Industry specific psychosocial hazards and factors," *WorkSafe Queensland*, accessed January 6, 2025, https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0025/22957/industry-specific-psychosocial-risk-factors.pdf.

3 Johan Högberg and Jill Järnberg, "Approaches for the Setting of Occupational Exposure Limits (OELs) for Carcinogens," *Critical Reviews in Toxicology* 53, no. 3 (March 16, 2023): 131-67, <https://doi.org/10.1080/10408444.2023.2218887>.

4 National Institute for Public Health and the Environment (RIVM), "Work-related cancer in the European Union: Size, impact and options for further prevention," *RIVM Letter report 2016-0010*, 2016. <https://www.rivm.nl/bibliotheek/rapporten/2016-0010.pdf>.

5 OMS US EPA, "EPA Efforts to Reduce Exposure to Carcinogens and Prevent Cancer," www.epa.gov, accessed January 19, 2023, <https://www.epa.gov/environmental-topics/epa-efforts-reduce-exposure-carcinogens-and-prevent-cancer>.

6 "Stop Carcinogens at Work! New Roadmap on Carcinogens Website Goes Live!," Safety and Health at Work EU-OSHA, last modified Sep 12, 2024, <https://osha.europa.eu/en/highlights/stop-carcinogens-work-new-roadmap-carcinogens-website-goes-live/>;

7 Institute for Health Metrics and Evaluation, "GBD Results," accessed January 25, 2025. <https://vizhub.healthdata.org/gbd-results/>.

8 European Cancer Organisation, "Cancer Screening Data," accessed January 25, 2025, <https://www.europecancer.org/screening/impact/cancer-screening-data.html/>.

9 "Acts and Regulations about Work Environment - Arbetsmiljöverket," Swedish Work Environment Authority, accessed January 25, 2025, <https://www.arbetsmiljoverket.se/>.

the mandatory “substitution principle.” It requires employers to replace dangerous substances with less harmful alternatives whenever possible.¹⁰ The “substitution principle” is where chemicals that pose a risk to humans or the environment can’t be used or sold. This is unless they are substituted with ingredients that pose little to no hazard. It should be able to be used as effectively as the toxic chemicals.¹¹ An example of the substitution principle is found in the food industry, where food additives like titanium dioxide are banned, as they are carcinogens to the human body.¹²

This principle, being a part of Sweden’s Work Environment Act, allows the country to keep monitoring exposure. This is done throughout workplaces, conducting regular inspections and providing workers with training programs to reduce the exposure to and risk of carcinogens.¹³ Most notably, Sweden has implemented lifetime health monitoring for workers in high-risk industries.¹⁴ These combined measures have resulted

in Sweden maintaining one of the lowest rates of occupational cancer. This is despite its highly industrialized economy. The Swedish model demonstrates that robust regulatory frameworks can effectively protect workers without impeding economic growth. The country has accomplished this by implementing processes, such as inspections of factories, worker health, and analysis of how the country’s economy is changing. All of this helps determine whether or not some industries are harmed or helped by regulation.¹⁵

Sweden, as a part of the European Union, also adheres to the European Union’s “STOP Carcinogens at Work” initiative. This initiative serves as an example of effective public education. The initiative teaches workers and the general public about dangerous substances and how to prevent exposure to them.¹⁶ It also provides resources to educate on carcinogens, and other valuable resources to keep citizens informed and safe.¹⁷

In contrast, countries with rapidly growing textile industries

[av.se/en/work-environment-work-and-inspections/acts-and-regulations-about-work-environment/](https://www.av.se/en/work-environment-work-and-inspections/acts-and-regulations-about-work-environment/).

¹⁰ Swedish Work Environment Authority, “Acts and Regulations about Work Environment - Arbetsmiljöverket”

¹¹ “Substitution of Hazardous Substances,” Swedish Chemicals Agency, accessed January 25, 2025, <https://www.kemi.se/en/guidance-for-companies/substitution-of-hazardous-substances>.

¹² “The REACH Regulation,” Swedish Chemicals Agency, last accessed January 25, 2025, <https://www.kemi.se/en/rules-and-regulations/the-reach-regulation>.

¹³ Swedish Work Environment Authority, “Acts and Regulations about Work Environment - Arbetsmiljöverket”

¹⁴ “Non-Official Translation Work Environment Act (1977:1160),” Swedish Government, last accessed January 25, 2025, <https://www.government.se/contentassets/86e9091526644e90b78d2ff937318530/sfs-19771160-work-environment-act/>.

¹⁵ Gabriel Michanek, “The Precautionary Principle in Sweden,” *De Lege*, (November 2024): <https://doi.org/10.33063/dl.vi.459>.

¹⁶ “Discover the risks for your sector or occupation,” STOP carcinogens at work, last modified August 30, 2024, <https://stopcarcinogensatwork.eu/search-occupations/>.

¹⁷ STOP carcinogens at work, “Discover the risks for your sector or occupation”



Factories in Bangladesh

Credit: Fahad Faisal

demonstrate the challenges faced by emerging economies in protecting workers.¹⁸ An example is the country of Bangladesh. Despite contributing significantly to the country's GDP, the rapidly growing textile industry has been challenging for workers. With limited enforcement of existing safety regulations and inadequate ventilation in facilities, workers are being harmed every day.¹⁹

Employees often lack Personal Protective Equipment (PPE) and receive little to no training on chemical handling. The absence of systematic health monitoring only adds to these issues.²⁰ These problems have led to higher levels of respiratory illness and cancer among textile workers. This highlights the need for stronger labor protections in emerging markets.²¹ Even though it may seem that Bangladesh is not tackling the problem, it is rather a failure to enforce existing regulations that have created harmful workplaces. In Bangladesh, the 2013 Labor Amendment Act proclaimed the creation of safety committees in factories. This should be done in factories with over 50 workers. Appointing safety and welfare officers to workplaces with 500 or more employees should also be done.²² In workplaces with over 5,000 employees, the Amendment mandated Health Centers be established.

Worker safety is also a deep concern when it comes to exposure to toxic carcinogens. What constitutes strong worker protection is not easy to define. Yet, there are key factors that are essential in these safety programs. This includes workers' rights, health, and safety. In the United States, for example, workers are subject to many rights, including healthy work environments.²³ In addition, it is important to take into account how government and administrative factors affect

this problem. Administrative controls play a vital role in maintaining worker safety.²⁴ These include implementing worker rotation programs to limit exposure to carcinogens and establishing safe procedures for handling chemicals. Developing response protocols to emergencies and conducting regular safety checks are also good examples of this. These worker rotation programs regulate the amount of time workers are in an environment handling toxic substances. This allows them to not be overexposed to such toxic chemicals. Thus, this proposed program could provide a start to safer workplaces.

The always-changing technology and industries continue to introduce new working hazards requiring innovative protective measures. Many emerging sectors present unique challenges that demand focus and attention. The semiconductor industry, crucial to modern technology, involves exposure to numerous potentially carcinogenic substances. Workers regularly encounter harmful chemicals in their work.²⁵ Countries like Taiwan and South Korea have developed specialized regulations for this sector, implementing clean room protocols, advanced air filtration systems, automated chemical handling systems, and regular health screening for workers.²⁶ The rapid growth of electric vehicle production has led to expanded battery manufacturing, introducing new exposure risks. Workers face potential exposure to cobalt dust, nickel compounds, lithium particles, and organic solvents. China, as the world's largest battery producer, has implemented specific regulations for this industry, but enforcement remains inconsistent.²⁷ China has implemented regulations that provide workers with access to healthcare and time off, as well as protective equipment.²⁸ However, this is only found to be in the main, large, industrial

18 "Labour Market Profile -Bangladesh," Danish Trade Union Development Agency, last accessed January 25, 2025, <https://www.ulandssekretariatet.dk/wp-content/uploads/2024/03/LMP-Bangladesh-2024-final.pdf>.

19 "The World Bank in Bangladesh," World Bank, last modified October 4, 2023, <https://www.worldbank.org/en/country/bangladesh/overview>.

20 "Epidemiological Highlights," World Health Organization, last modified April 27, 2024, https://cdn.who.int/media/docs/default-source/searo/bangladesh/bangladesh---rohingya-crisis---pdf-reports/ewars/2024/ewars-w17-2024.pdf?sfvrsn=1c7d34e8_2&download=true.

21 "Bangladesh Data | World Health Organization," World Health Organization, accessed January 25, 2025, <https://data.who.int/countries/050>.

22 Sadia Korobi, "Worker Safety in Bangladesh: Tragedy Turned into Triumph," Fair Observer, last modified November 21, 2024, <https://www.fairobserver.com/politics/worker-safety-in-bangladesh-tragedy-turned-into-triumph/>.

23 "Worker Protection Standard Compliance Monitoring Program | US EPA," US EPA, accessed July 31, 2013, <https://www.epa.gov/compliance/worker-protection-standard-compliance-monitoring-program>.

24 "1910 Subpart I - Personal Protective Equipment," Occupational Safety and Health Administration, accessed January 25, 2025 <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910SubpartI>.

25 "What the Building Chips in America Act Could Mean for Public Health and the Environment," Environmental Working Group, accessed October 25, 2024, <https://www.ewg.org/news-insights/news/2024/10/what-building-chips-america-act-could-mean-public-health-and-environment>.

26 "Key Takeaways of the Amendment to the Occupational Safety and Health Act (Summary)," KOSHA, last modified December 12, 2024, <https://www.kosha.or.kr/english/legislation/occupationalSafetyAndHealth.do?mode=view&articleNo=452850&article.offset=0&articleLimit=10>.

27 "The State Administration of Work Safety (SAWS)," International Safety Consultants, accessed August 11, 2024, <https://www.internationalsafetyconsultants.com/the-state-administration-of-work-safety-saws/>.

28 "Comments and Suggestions on Amending the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases,"

cities. Smaller ones, such as those in suburban and rural areas, do not provide such levels and do not meet the standards set forth by the Chinese government.

The challenge of protecting workers from carcinogen exposure in emerging job markets requires a multifaceted approach. It should combine robust regulations, technological innovation, and economic incentives. Success stories like Sweden demonstrate that strong worker protections need not impede economic growth, while cases like Bangladesh illustrate the human cost of inadequate regulations.²⁹ As new industries emerge and evolve, regulatory frameworks must adapt to address new risks while maintaining fundamental protections. The future of worker safety depends on the ability to learn from past experiences while innovating to meet new challenges. The global community must prioritize the development and implementation of comprehensive labor protections. They should look to ensure that economic growth does not come at the cost of worker health. This requires continued international cooperation and investment in research and monitoring systems. Commitment to enforcing protective

measures across all industries and regions is also needed.

Preventative Measures to Combat Carcinogen Exposure

The impact of carcinogens on health is a complex topic. As research regarding cancer continues to evolve, there are more discoveries regarding carcinogen's interaction with the human body.³⁰ When exposed to them for extended periods, there is a risk of changing the body's composition. These changes, far away from the risk of cancer development, also have short and long-term health consequences.³¹ It is important to note that not all exposure to carcinogens will result in cancer. However, all exposure does elevate the risk of developing cancer. While long-term exposure can generate almost immediate symptoms, low exposure may not generate any symptoms for years. Preventing exposure to carcinogens requires an approach focused on reducing contact with known cancer-causing substances. Many substances individuals work within the manufacturing sector contain cancer-causing

International Labour Organization, last modified June 30, 2021, <https://www.ilo.org/publications/comments-and-suggestions-amending-law-people%E2%80%99s-republic-china-prevention>

²⁹ Swedish Chemicals Agency, "The REACH Regulation"

³⁰ "What You Need to Know about Carcinogens," Centers for Disease Control and Prevention, last modified June 19, 2023, <https://my.clevelandclinic.org/health/articles/25081-carcinogens/>.

³¹ "Health Effects of Exposure to Substances and Carcinogens," Centers for Disease Control and Prevention, accessed January 25, 2025, <https://wwwn.cdc.gov/TSP/substances/ToxOrganSystems.aspx>.



Detail view of the specialised protective equipment
Credit: CEphoto, Uwe Aranas

carcinogens such as arsenic, alcohol, asbestos, and benzene.³² These individuals should use Personal Protective Equipment (PPE), and companies should implement safety protocols. Other forms of protection include minimizing direct contact with hazardous chemicals, including using natural cleaning products, avoiding plastics containing Bisphenol A (BPA), and ensuring proper ventilation.

Preventive measures can take form in many different ways. One important way in which prevention can be done is through government regulations. For example, regulations regarding the workplace. The United States requires employers to provide air filtration masks. This prevents employees from inhaling toxic carcinogens, which is a way of lowering the risk of explosion to carcinogens.³³ Regulations on the limitation of exposure to BPA can show a great example of preventive measures to reduce carcinogen exposure. BPA is a chemical typically used for the manufacturing of plastics and resins.³⁴ While it has many uses, the most typical can be seen in water dispensers, plastic food containers, and reusable water bottles. It can also be found in the protective layer of coatings and linings of packaged foods. Because of the regular contact it has with food, it is easy for BPA to be ingested by humans.³⁵

In the most recent BPA safety examination conducted by the European Food Safety Authority (EFSA), health effects on the reproductive, developmental, and metabolic systems were identified.³⁶ A study by EFSA found that the safe daily limit for BPA is 0.2 nanograms per kilogram of body weight, a significant drop from the old limit of four nanograms.³⁷ Because of this, in December 2024, the Health and Food Safety Commission of the European Union implemented a ban on BPA in food contact material. This means that BPA

will not be allowed in products that come into contact with food or drinks.³⁸ Some of them include coating on metal cans, reusable plastic drink bottles, water distribution coolers, and other kitchenware.³⁹ This demonstrates the European Union's strong commitment to preventing exposure to carcinogens. This ban continues previous BPA bans on infant bottles and similar products that were implemented by the commission.⁴⁰

Industrial and agricultural workers must limit exposure to known carcinogens through careful handling and protective measures. Regular environmental testing and being mindful of potential carcinogens in everyday products can significantly reduce cancer risks. Proper disposal of toxic materials and advocating for stricter environmental regulations are crucial steps in protecting against cancer-causing substances. Several countries and global groups are working on making it easier to find carcinogens in workplaces to keep their citizens informed and healthy.

In the EU, the "STOP Carcinogens at Work" initiative teaches about dangerous substances and prevention. It does so by providing resources to educate more about carcinogens, and other valuable resources to keep citizens informed and safe. The EU's Agency for Safety and Health at Work, a part of the STOP initiative, puts into detail the many ways in which carcinogens can affect and impact an individual's health in the short and long term.⁴¹ The STOP initiative contains basic prevention strategies, facts about carcinogens, cancers, and how they are linked, and occupations and their linked exposures. This can also be seen with the WHO's 6-year plan from 2024-2030 in South East Asia.⁴²

Rising global cancer rates are a public health problem caused by industrial growth, population increases, and more exposure

32 "Cancer-Causing Substances," National Cancer Institute, accessed January 25, 2025 <https://www.cancer.gov/about-cancer/causes-prevention/risk/substances>.

33 "1910.1003 - 13 Carcinogens (4-Nitrobiphenyl, Etc.)," Occupational Safety and Health Administration," accessed January 25, 2025, <https://doi.org/10/1910.1003>.

34 "Bisphenol A in food is a health risk," European Food Safety Authority, last modified April 19, 2023, <https://www.efsa.europa.eu/en/news/bisphenol-food-health-risk>.

35 European Food Safety Authority, "Bisphenol A in food is a health risk."

36 European Food Safety Authority, "Bisphenol A in food is a health risk."

37 European Food Safety Authority, "Bisphenol A in food is a health risk."

38 "Commission adopts ban of Bisphenol A in food contact materials," European Commission, last modified December 19, 2024, https://food.ec.europa.eu/food-safety-news-0/commission-adopts-ban-bisphenol-food-contact-materials-2024-12-19_en.

39 European Commission, "Commission adopts ban of Bisphenol A in food contact materials."

40 European Commission, "Commission adopts ban of Bisphenol A in food contact materials."

41 "Dangerous Substances - Safety and Health at Work - EU-OSHA," n.d. <https://osha.europa.eu/en/themes/dangerous-substances>.

42 Healthier Populations & Non-Communicable Diseases, *WHO South-East Asia Regional Strategy for Comprehensive Cancer Prevention and Management 2024-2030*. *Who.int*. World Health Organization, 2024. <https://www.who.int/publications/i/item/9789290211709>.

to cancer-causing substances. As the world becomes more industrialized and connected, health risks change. The link between economic growth, workplaces, and cancer requires many different ways to prevent and reduce risks. To tackle this growing problem, everyone needs to work together: governments, businesses, healthcare workers, and individuals. Delegates must focus on strategies that protect health, like stronger environmental rules, safer workplaces, better safety equipment, and more public awareness about everyday cancer risks.

Conclusion

The global challenge of protecting workers from carcinogenic exposure represents a critical intersection of public health, economic development, and regulatory policy. The complexity of addressing workplace carcinogens requires a multifaceted approach that balances industrial progress with worker safety. However, there are still contrasts between countries with robust regulatory frameworks, and those still developing comprehensive protections. Many developing countries remain relaxed as they try to make their business environment as friendly as possible for companies. This difference highlights both the possibilities and challenges in creating effective worker safety programs. Gaps must be filled between these standards. However, standards must be implemented deliberately. This will ensure developing countries will not become overburdened with regulation enforcement. The evidence presented underscores several key findings. In addition to the workspace, implementing preventive measures to reduce exposure to carcinogens in day-to-day activities is crucial. While framework regulations have been proven to be important, other measures should also be considered.

The global community must remain committed to eliminating exposure to carcinogens through a combination of technological innovation, regulatory oversight, and international cooperation. This requires sustained investment in research, monitoring systems, and enforcement mechanisms. The future of health safety depends on our ability to learn from past experiences while innovating to meet new challenges.

Success requires a balanced approach that recognizes both the

necessity of development and the fundamental right to health. Through continued international cooperation, investment in preventive measures, and commitment to enforcement, we can work toward a future where economic progress does not come at the cost of anyone's health. The examples set by countries with strong protections demonstrate that this goal is both achievable and essential for sustainable development in the 21st century.



WHA

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TOPIC B:
ACCESS TO “NON-ESSENTIAL” HEALTHCARE

Photo Credit: Helitak430

Introduction

The failure to develop and properly support ‘nonessential’ healthcare services can cause financial, medical, and emotional strain on people and families worldwide. These services are not provided under most health care plans, resulting in many of these services being ignored. Although not considered a ‘technical’ emergency as it does not need to be addressed immediately, these issues will become more serious over time. Without the proper preliminary care in place, they become a technical emergency over time. Recent developments around the world highlight the importance of these services, showing how preliminary steps in healthcare are vital to citizens’ health. Recent developments have been highlighted in the oral healthcare sector and the use of AI in elderly care. These topics have broad implications across the world, with the potential to harm and, in contrast, develop our ‘nonessential’ healthcare services.

For oral healthcare, prevention is key. While there are many ways to prevent teeth diseases, a quick, easy, and often noticeable way is through the use of fluoride. Fluoride is a mineral that can be found in many products, from food and water to medical products. Studies have shown how the proper amount of daily consumption of fluoride can have multiple preventive oral health benefits. This can lead to a reduced need to access oral healthcare. However, there have been discussions regarding the toxicity of fluoride, and whether or not it should be removed from drinking water. In another sector, the need for elderly care has increased in the same measure as the rise of life expectancy across the world. New technologies, such as the use of Artificial Intelligence (AI) have positively contributed to making this type of care more accessible. However, as it is still very new, there are a lot of risks and improvements that are needed for it to be effective.

New policies and technological developments will have broad implications for many sectors of ‘nonessential’ healthcare. These policy decisions will determine what care will be accessible to groups across the world. Within the UN’s Sustainable Development Goals (SDGs), Goals 3, 6, and 9 are directly related to the World Health Assembly (WHA) and its mandate. These include Goal 3: Good Health and Well-Being, Goal 6: “Clean Water and Sanitation, and Goal

9: “Industry, Innovation, and Infrastructure.”¹ Solutions to nonessential healthcare services tie directly to these larger SDGs. Developing policies around these nonessential services will allow these health issues to be targeted before they develop into larger ailments. Providing these services will take policy action and technological development.²

Possible Effects of the Removal of Fluoride in Water

Fluoride is a mineral that can be added to foods and water, naturally occurring in soil and rocks.³ In the healthcare sector, fluoride has been used to strengthen teeth and reduce cavities.⁴ Fluoride in water has worked to protect the oral health of many as it not only reduces cavities but also works to prevent tooth decay and other dental health issues.⁵ Teeth have a protective outer layer called the enamel that is made up of minerals.⁶ Because of daily use, the enamel of teeth is naturally lost, thus leaving teeth unprotected. While the protection of teeth by using fluoride has been proven to be effective for years, concerns regarding its toxicity have been raised. The scientific community accepts that using fluoride in low quantities, such as the ones contained in over-the-counter products creates health benefits.⁷ While fluoride can

1 “THE 17 GOALS | Sustainable Development,” United Nations, accessed December 20, 2024, <https://sdgs.un.org/goals>.

2 United Nations, “THE 17 GOALS | Sustainable Development.”

3 “Fluoride,” Cleveland Clinic, accessed January 20, 2025, <https://my.clevelandclinic.org/health/treatments/11195-fluoride>.

4 Cleveland Clinic, “Fluoride”

5 Public Health On Call, “Why Fluoride Is Necessary for Public Health,” *Johns Hopkins Bloomberg School of Public Health*, November 26, 2024, <https://publichealth.jhu.edu/2024/why-is-fluoride-in-our-water>.

6 Public Health On Call, “Why Fluoride Is Necessary for Public Health.”

7 Public Health On Call, “Why Fluoride Is Necessary for Public Health.”

be harmful in large quantities, it would be difficult to reach that level with fluoride in over-the-counter products, food, and water. However, controversial reports have shown that fluoride was associated with diseases such as arthritis, bone fractures, bone cancer, IQ loss, neurodevelopmental disorders, and thyroid disease.⁸

As part of its natural composition, tap water can contain many minerals, including fluoride. Because of the toxicity concern, many people have asked for the removal of this mineral from water. Most recently, the US Health and Human Services Secretary has stated that they will work on the removal of fluoride from the US water system.⁹ Even before adding fluoride to water, many people across the United States were benefiting from fluoride. Fluoride is naturally present in water worldwide, with an estimated 50 million people who drink water containing water that is one-part per million with fluoride.¹⁰ Arguments to continue with the removal cite a recent ruling made in California. The ruling called for further investigation into fluoridated water. The judge was presented

8 “RFK Jr: Fact-checking his views on health policy,” BBC, November 15, 2024, <https://www.bbc.com/news/articles/c0mzk2y41zvo>.

9 Public Health On Call, “Why Fluoride Is Necessary for Public Health.”

10 Public Health On Call, “Why Fluoride Is Necessary for Public Health.”

11 Soph Warnes, “3 charts that help explain fluoride in drinking water,” CNN, November 23, 2024, <https://www.cnn.com/2024/11/23/health/fluoride-drinking-water-dg/index.html>.

12 Public Health On Call, “Why Fluoride Is Necessary for Public Health,” *Johns Hopkins Bloomberg School of Public Health*, November 26, 2024, <https://publichealth.jhu.edu/2024/why-is-fluoride-in-our-water>.

13 Soph Warnes, “3 charts that help explain fluoride in drinking water.”

14 Soph Warnes, “3 charts that help explain fluoride in drinking water.”

15 “About Dental Fluorosis,” *Center for Disease Control*, May 15, 2024, <https://www.cdc.gov/oral-health/about/about-dental-fluorosis.html>.

with a report with potential links between fluoridated water and IQ loss.¹¹ This report has been highly criticized and controversial, needing larger investigations to prove true. Another concern that has been voiced has been the potential impact of fluoride on the neurocognitive development of fetal and early childhood exposure to the mineral.¹² While researchers are currently unsure about what levels could cause this issue, it is a primary concern for countries like India, China, and Iran who naturally have high concentrations of fluoride present in their soil.

The CDC estimates that the addition of fluoride in drinking water is responsible for a 25 percent decrease in cavities in children.¹³ Cavities can cause serious harm if not treated properly and within a reasonable amount of time. The World Health Organization (WHO) states that fluoride at the right levels can prevent cavities, but when the concentration is too high for a long time it can cause fluorosis.¹⁴ Fluorosis can cause white or brown spots to appear on teeth and in severe cases, it can make teeth more susceptible to breakage.¹⁵

Concentration of dissolved fluoride in ground water

Credit: S.G. Robson and E.R. Banta, U.S. Geological Survey

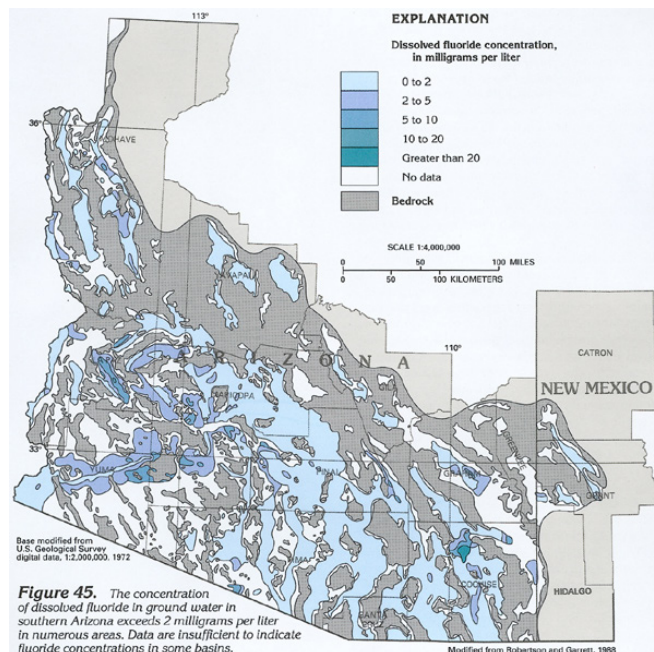


Figure 45. The concentration of dissolved fluoride in ground water in southern Arizona exceeds 2 milligrams per liter in numerous areas. Data are insufficient to indicate fluoride concentrations in some basins.

Another important thing to consider when deciding on fluoride is the existing alternatives for it. Some dentists are skeptical about whether oral health issues have been reduced due to the fluoride levels in water or modern toothpaste and dental services. Dr. Hu, a professor of preventive medicine at the University of Southern California (USC), stated that it is difficult to conclude. She states that it becomes difficult to say if and to what extent there are significant benefits to continuing water fluoridation programs. Dr. Hu said this considering that there are alternative, easily accessible sources of fluoride to reduce tooth decay.¹⁶ Because of the concerns this has generated, different approaches to fluoride have been taken by different countries. One example can be seen in Iceland. Instead of drinking water having a specific amount of fluoride in it, they implemented a school program.¹⁷ Children who attended school participated in twice-a-month ‘rinsing’ programs, where they got access to fluoride treatments to compensate for the loss of it in drinking water.¹⁸

For example, Iceland has taken a different approach to giving access to fluoride to their citizens. The larger issue is access to fluoride, which many smaller and less wealthy countries and communities do not have access to. John Fawell, a visiting professor at Cranfield University, stated this in an article for CNN. He mentioned fluoridation in water being “considered to be particularly beneficial for deprived communities and families who are unable or culturally unwilling to access dental hygiene and dental services.” Nonessential healthcare services, which oral care falls underneath, are not accessible to many. This means that fluoride in water may be the only access children in less fortunate situations can have to this preventative care. By adding fluoride to water supplies, it serves as a passive public health intervention where all groups can participate in oral hygiene. A waterBest 2022 study analyzed the effect of bottled water with fluoride, conducting the study over multiple cities and with multiple age groups. Much of the world’s bottled water does not have detectable fluoride in it, or at least not at optimal levels. Many of these bottles go through

reverse osmosis, which removes the fluoride altogether. Even so, the bottles and groups that did have fluoridated water showed promising results in this study. In six-year-olds, the appearance of dental caries (i.e. cavities), went down by 54 percent on average, showcasing fluorides’ effectiveness.⁵

Although fluoride is added to modern toothpaste and dental care, many do not have access to this ‘nonessential’ service. Fluoride in water allows all citizens of a country to have access to dental care elements and prevent cavities. The UN, through its SDGs, wants to prioritize good health and well-being along with clean water and sanitation with goals three and six. There is an evident need to focus on prioritizing further research studies on the effects on children. This should be done in addition to testing areas to allow getting a broader picture of the issue at hand. Removing fluoride from water may have adverse effects on many communities, doing more harm than good. If countries are to take out fluoride, without doing the proper research first, citizens will suffer the consequences.

Use of AI and Digital Technology to Enhance Elderly Care

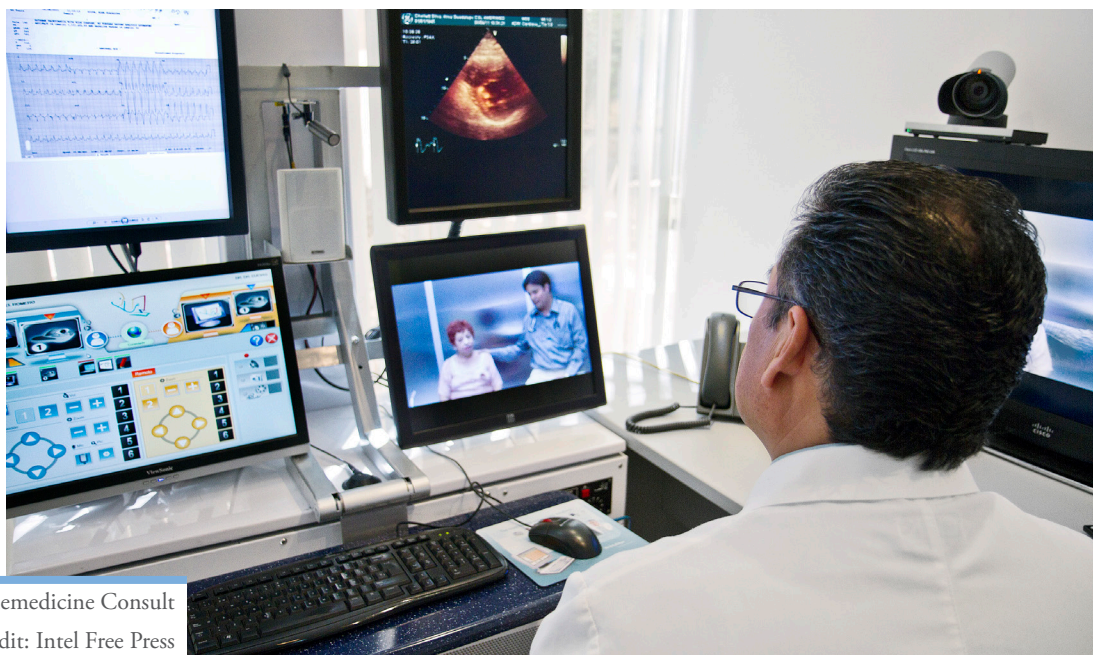
Elder care is becoming a major concern for policymakers due to the world’s aging population and rising life expectancy. According to the WHO, the proportion of the global elderly population is projected to nearly double by 2050. It is expected to increase from 12 percent in 2015 to 22 percent. This means there will be a rise from 703 million people aged 65 and older to 1.5 billion by mid-century.¹⁹ This growth will create more challenges in long-term care facilities. To address this challenge, it is important to prioritize solutions that allow older adults to live independently in their homes for as long as possible. The rise of artificial intelligence (AI) has started to transform elder care. It offers innovative tools to enhance the quality of life for seniors. While AI may initially seem intimidating to older adults, it gives convenience, access, and

¹⁶ BBC Verify Team. 2024. “RFK Jr: Fact-checking his views on health policy.” BBC. <https://www.bbc.com/news/articles/c0mzk2y41zvo>.

¹⁷ Soph Warnes, “3 charts that help explain fluoride in drinking water.”

¹⁸ Soph Warnes, “3 charts that help explain fluoride in drinking water.”

¹⁹ World Health Organization, “Ageing and Health,” accessed December 17, 2024, <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>.



Telemedicine Consult
 Credit: Intel Free Press

companionship. AI is changing fields such as public health, medicine, and therapy by predicting health risks, supporting drug development, and personalizing treatments.²⁰

In-person medical visits can be inconvenient and stressful, especially for those who need to travel far or need physical assistance. AI-powered wearables, such as watches and bracelets, and remote monitoring technologies allow healthcare providers to track patients’ data without in-person appointments.²¹ Online medicine or telemedicine platforms also increase access to healthcare, particularly for seniors in rural or remote areas. For instance, in Singapore, a software program on tablets measures geriatric symptoms and performs retinal scans. This gives the same insights that you could receive at an in-person hospital.²² This means seniors can use this tool to get the same information they would at a hospital, saving them time, money, and energy.

Aging is often correlated with chronic conditions, reduced mobility, difficulty breathing, and cognitive decline. AI algorithms analyze data from wearable devices to detect

early warning signs of illness, suggest treatment plans, and predict complications. For example, AI can identify changes in behavior or posture that might signal an accident or fall. If this happens, it can signal caregivers to act quickly to stop this. It can also monitor cognitive functions like memory and attention to detect early signs of potential cognitive decline, and even analyze language patterns to identify mental health concerns such as depression or anxiety.²³ AI can enhance seniors’ independence by automating home safety measures, such as detecting gas leaks or preventing falls. The concept of “aging in place” is the ability to live independently and comfortably in your own home and community as you age instead of moving to an assisted living facility or nursing home. Systems that promote “aging in place” use motion sensors, wearable devices, and environmental monitors to help seniors safely navigate their homes.²⁴ AI-enabled technology makes sure that they follow their medication schedules and live in a safe environment.

Social isolation is another large challenge for seniors, especially those who are unwilling or unable to move into nursing homes

20 Taha Shiwani et al., “New Horizons in Artificial Intelligence in the Healthcare of Older People,” *Age and Ageing* 52, no. 12 (December 19, 2023): afad219, <https://doi.org/10.1093/ageing/afad219>.

21 Forbes, “AI To Benefit Humanity: Innovations In Senior Care,” accessed December 17, 2024, <https://www.forbes.com/councils/forbestechcouncil/2024/01/30/ai-to-benefit-humanity-innovations-in-senior-care/>.

22 Srikanta Padhan et al., “Artificial Intelligence (AI) and Robotics in Elderly Healthcare: Enabling Independence and Quality of Life,” *Cureus* 15, no. 8 (n.d.): e42905, <https://doi.org/10.7759/cureus.42905>.

23 Padhan et al.

24 “Harnessing Artificial Intelligence for Health,” accessed December 17, 2024, <https://www.who.int/teams/digital-health-and-innovation/harnessing-artificial-intelligence-for-health>.

or long-term care facilities. AI helps reduce loneliness through virtual assistants and chatbots that engage in conversations, play games, and provide companionship. Conversational AI tools, such as Amicus Brain’s caregiver apps, even allow you to play personalized games and give recommendations to support individuals with conditions like Alzheimer’s.²⁵ An ongoing study in Thailand with Stanford Faculty shows the use of sensors and remote monitoring that allows seniors to extend their capacity to live at home, which serves as another example of “aging in place”. In India, the elder care sector is transforming as Indian businesses are taking over the digital ecosystem. Businesses like Samarth Care, Emoha Eldercare, and Khyall are offering digital literacy training, entertainment content, and interactive sessions to combat loneliness. They are bridging the digital divide among seniors using Large Language Models (LLMs) for predictive analysis. Similarly, Foxo Health is an Indian-based AI that acts as a personal health assistant offering tailored insight into users’ health profiles by analyzing blood reports, symptoms, and other critical data.²⁶

Despite these promises, AI is still a very new concept with many problems associated with it. Data privacy and security risks, such as data breaches, remain major concerns. Especially when handling sensitive patient information. Any incidents can result in devastating consequences for healthcare systems worldwide, putting patient trust and safety in danger. Additionally, biases in AI training data can lead to misdiagnosis or unequal treatment, particularly for underrepresented demographic groups.²⁷ For instance, an AI system might misinterpret health variations between ethnicities due to insufficient or biased data. These inaccuracies can lead to misdiagnosis or mistreatment that can harm an individual. It can also lead to more errors if AI learns from incorrect data. Datasets may fail to represent the diversity of the general population or be skewed by past ageist stereotypes, increasing disparities. The rise of AI has also introduced new regulatory and legal issues. Ethical conflicts may arise when AI-generated recommendations conflict

with patient or family preferences. Another problem is that much of the elderly population are not used to this type of technology so they might not be willing to trust or follow its recommendations. Similarly, some healthcare professionals and the general public remain skeptical of AI’s reliability and accuracy.²⁸ This distrust can potentially render the technology ineffective or useless.

Given these challenges, it is important to approach AI as a potential solution but remain considerate of its limitations. Countries with the resources and capabilities to implement AI should prioritize strategies to mitigate its risks and address its unintended consequences while setting boundaries to not become overly reliant on this technology. As the aging adult population increases, AI can be used to make lives easier but it is important to keep in mind that the emotional and compassionate aspects of caregiving are irreplaceable. The integration of AI in senior care offers unique opportunities and can play a vital role in promoting well-being for adults and caregivers alike.

Conclusion

The rising prevalence of epidemics and diseases has placed a significant strain on healthcare resources worldwide. While access to basic healthcare remains a persistent challenge, non-essential healthcare services are becoming increasingly inaccessible, despite how important they are for long-term health and well-being. For instance, the severe shortage of family physicians delays routine care and places burdens on specialized doctors. Greater government support and financial incentives for family medicine could help address this gap by increasing the number of physicians, reducing unnecessary hospital visits, and improving patient outcomes. In terms of oral care, fluoride is a mineral that is being studied for its effects on drinking water and its correlation to cavities in children. Fluoride is being added to water and modern toothpaste but

25 Bartosz Sawik et al., “Robots for Elderly Care: Review, Multi-Criteria Optimization Model and Qualitative Case Study,” *Healthcare* 11, no. 9 (April 30, 2023): 1286, <https://doi.org/10.3390/healthcare11091286>.

26 Team YS, “How Indian Startups Are Innovating Elder Care;” accessed December 17, 2024, <https://yourstory.com/2024/12/how-indian-startups-are-innovating-elder-care-data-centres-ai-govt>.

27 Charu Singh, Ashish Gulia, and Naveen Bansal, “Artificial Intelligence in Healthcare: Pros and Cons,” *Indian Journal of Medical Sciences* 75 (August 19, 2023): 35–35, https://doi.org/10.25259/IJMS_171_2023.

28 “Generative AI, Cybersecurity among Top Risks for Healthcare Provider Organizations in 2025,” Security Info Watch, December 13, 2024, <https://www.securityinfowatch.com/healthcare/press-release/55249732/generative-ai-cybersecurity-among-top-risks-for-healthcare-provider-organizations-in-2025>.

this is another “nonessential service” that many countries do not have access to, limiting the quality of dental care. On top of these challenges is the ongoing addiction crisis which is worsened because of the limited access to treatment resources, prohibitive costs, and the stigma surrounding substance use disorders.

Additionally, the integration of AI in healthcare has many benefits but can also lead to new challenges such as bias, privacy concerns, and the need for improved accuracy. The best way to address these issues is by focusing on expanding the scope and quality of healthcare coverage, which can be done by looking at the amount of importance each of your countries places on “non-essential” healthcare sectors. Many of these problems slow down progress toward the United Nations’ Sustainable Development Goals (SDGs) established in 2015, particularly SDG 2 (ending malnutrition), SDG 3 (promoting good health), and SDG 4 (ensuring quality education). Conditions like myopia, visual impairment, and oral diseases indirectly contribute to malnutrition, premature mortality, and barriers to children’s education. Taking this into consideration, it is extremely important to develop effective solutions to further develop and enhance the nonessential healthcare sector to improve the health and quality of humans across the world.

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