COMMITTEE GUIDE

WHO



World Health Organization

Mariana Guerra and Juliana Gómez

2025



Contents

- 1. Presidents' Letter
- 2. Topic 1: Substandard and Falsified Antibiotics as a Threat to Global Health
 - I. History/Context
 - II. Current Situation
 - III. Key Points of the Debate
 - IV. Guiding Questions
 - V. Bibliography
- 3. Topic 2: Tackling Obesity as a Global Health Concern
 - I. History/Context
 - II. Current Situation
 - III. Key Points of the Debate
 - IV. Guiding Questions
 - V. Bibliography



1. Presidents' Letter

Dear Delegates,

As you may know, the United Nations is an organization that seeks peace, prepares for future conflicts, and is committed to helping those in need. In this new version of CCBMUN, in the World Health Organization committee, you will debate and negotiate in order to reach safe agreements about some current health issues. Representing your country allows you to possess a different point of view than the one you may have as an individual, whilst being in this committee will allow you to tackle crucial health issues and to change the future of medicine.

We are Mariana Guerra and Juliana Gómez, both 10th graders from Colegio Colombo Británico. We'll be your presidents for the World Health Organization in this XXIII edition of CCBMUN. This is our first time as presidents in any model, however, we have a lot of experience as we have participated in six and eleven models respectively. During these models we had the opportunity to meet amazing delegates and wonderful presidents, who inspired us to step outside of our comfort zone and try out this new role. We are so excited to create a fun and engaging committee where all our delegates can explore and learn new topics. Furthermore, we have meticulously planned an engaging committee environment designed to challenge and inspire all the participants. Each delegation is expected to demonstrate a deep understanding of the selected topics, fostering insightful discussions and collaborative problem-solving.

We recognize and value the diverse backgrounds and experiences that each delegate brings to the table. Whether this is your first Model UN conference, or whether you have participated in several, always remember that your perspective is a valuable asset in the model. We are confident in your abilities and look forward to the thoughtful contributions you will make as you embody your assigned roles.

Finally, we would like to assure you that we will be eager to help with any possible questions or problems that you may have regarding the model or committee. Make sure to reach out to us if you have any questions; we'll put our whole heart into it. We look forward to meeting you all at CCBMUN XXIII!

Best wishes, Mariana Guerra and Juliana Gómez WHO Chair who@ccbcali.edu.co





Topic 1: Substandard and Falsified Antibiotics as a Threat to Global Health

I. History/Context

The discovery of antibiotics in the early 19th century has revolutionized modern medicine and reduced the number of deaths from bacterial infections. Over the years, antibiotics have saved millions of lives and are considered essential for performing surgeries, managing chronic illnesses, and treating common diseases. However, their effectiveness is under serious threat, not only because of over- or misuse, which causes antimicrobial resistance (AMR), but also because of the increasing circulation of substandard and falsified (SF) antibiotics.

Antibiotics are the most counterfeited medicines and account for 28% of global <u>counterfeit</u> <u>medicines</u>. Counterfeit antibiotics are estimated to make up 5% of the global <u>antibiotic</u> market. (Delepierre et al., 2012)

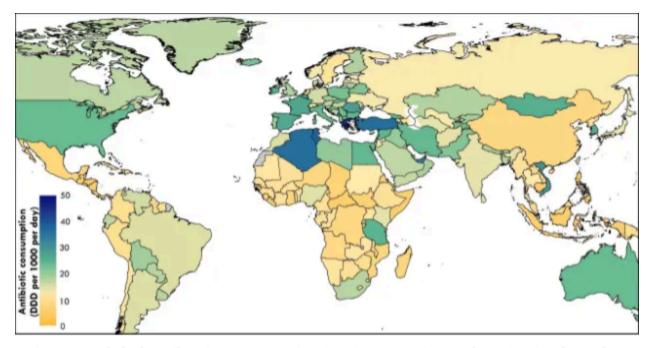


Figure 1. Global antibiotic consumption in 204 countries and territories (2018) (Global Antibiotic Consumption & Use — GRAM Project, 2018)



Substandard antibiotics are a serious global health concern, specifically in low- and middle-income countries. They may be authorised medical products that fail to meet requirements such as quality standards and specifications, often due to poor transport and manufacturing. This can lead to treatment failure, prolonged illness, increased mortality, and contribute to the rise of antimicrobial resistance.

Falsified antibiotics are counterfeit products. They may include products without or having insufficient active ingredients, with the wrong active ingredient, and/or containing other toxic chemicals, impurities, or bacteria. They also bypass the process of quality control, safety, and efficacy, important if the product is to be authorized. Because of this, they can be a serious threat to health.

Countries spend an estimated US\$30.5 billion per year on substandard and falsified medical products, posing a major global health and economic challenge. Specifically, for antibiotics, the estimated economic impact is substantial, with approximations ranging from US\$10 billion to US\$200 billion. These estimates primarily focus on market size but often rely on poor or undisclosed methodologies, highlighting the need for more accurate data or analysis. The US\$30.5 billion figure reflects direct spending losses, whereas the US\$10–200 billion estimate for antibiotics includes both direct costs and wider economic consequences such as treatment failures, lost productivity, and antimicrobial resistance.

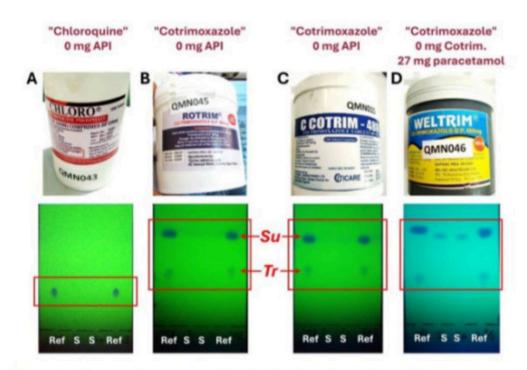


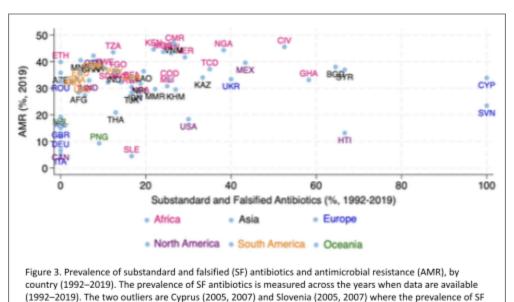
Figure 2: Antibiotics which do not contain the declared active pharmaceutical ingredients. (GPHF | Latest News, 2025)



In many parts of the world, in low or middle-income countries, people often cannot afford to buy the antibiotics they need, or they may face shortages in their healthcare systems. As a result, patients tend to use alternative sources, including local markets, unregulated pharmacies, and online sellers where antibiotics are sold at the lowest price.

According to a World Health Organization report, about 10% of medicines on the global market are counterfeit (Md Hasanuzzaman Shohag et al., 2023). Two hundred and sixty-five studies that estimated the prevalence of poor-quality essential medicines in low- and middle-income countries were identified. Among 96 studies that tested 50 samples or more (67,839 total drug samples), the overall prevalence of poor-quality medicines was 13.6% (Ozawa et al., 2018). Of the antibiotics on sale, sulfamethoxazole-trimethoprim was found to have the highest failure frequency, followed by ampicillin, amoxicillin, ciprofloxacin, and tetracycline.

Countries most affected by substandard and falsified antibiotics



Substandard and falsified antibiotics are especially prevalent in certain regions where healthcare facilities face significant challenges, including limited access to affordable medicine, weak law enforcement, and restrictive antibiotic policies. Regulatory policies on antibiotic prescriptions are more common in high-income countries than in low-income countries. That's why many of these falsified antibiotics are most commonly found in developing nations across Africa, Asia, and parts of Latin America. These regions have overstrained public health services, making them vulnerable to the distribution and sale of poor-quality and counterfeited medications. "It's not difficult to get to the hospital, the



antibiotics is 100%. (Maffioli et al., 2025)

biggest problem is the delay to be seen, and sometimes the lack of pills at the hospital, which compels us to buy at the private pharmacy where [antibiotics] are so expensive and we do not have money to pay." (focus group discussion 4, man, 30–45 years, Mozambique) (Do et al., 2021)

Sub-Saharan Africa is one of the regions most affected by this issue. Many of the countries in this region have become a major target for the circulation of substandard and falsified antibiotics. In fact, up to 169,271 annual deaths are associated with SF antibiotics used to treat pneumonia in children. (Wasike, 2023) Beyond the human cost, the financial impact is significant; estimates indicate that treating patients who had used SF antibiotics in Sub-Saharan Africa costs between \$12 million and \$44.7 million per year. Furthermore, a recent United Nations report states that half of the medicines in Africa might be classified as substandard or falsified (SF). For example, on 23 April 2025, the World Health Organization issued a product alert for falsified HEALMOXY (Amoxicillin) 500mg capsules identified in the WHO African region, where they have been found in Cameroon and the Central African Republic. To understand more about the problem, please follow this link: SF medicines in Nigeria.

In addition, Asia, Latin America and North America are also significant contributors in the growing health crisis due to substandard and falsified (SF) antibiotics. For example, in Colombia and Venezuela, authorities dismantled a major network, arresting 25 people for trafficking expired and counterfeit antibiotics, and seizing over 90,000 pills (Cawley, 2023). North America, despite its strong regulations, remains a leading target for these products, receiving 50% of known fake medicine cases in 2017. In Asia, the situation is critical, with about 13.6% of essential medicines and 12.4% of antibiotics classified as substandard or falsified.

II. Current Situation

Medicine quality problems

An important issue affecting healthcare quality is the incidence of falsified antibiotics. These medications are often produced using substandard or illegal methods, rather than replicating authentic antibacterials. They are particularly common in nations with lower income, where individuals may struggle to afford properly regulated medicines. The use of





these falsified drugs can worsen treatment results and raise antibiotic resistance. Even in countries that possess a greater amount of resources, limited access to healthcare can cause some individuals to purchase antibiotics from unregulated sellers online, raising the chances of receiving counterfeit products.

Factors like medical inaccessibility, poor regulatory systems and lack of awareness have led to the ineffective treatment of bacteria, causing death. The rise of falsified medical products and antibiotics has brought a new global concern to medicine globally, which is why countries seek to strengthen their regulatory systems to reduce the appearance of falsified medicines to a global level; regulations would preserve patient health and safety, impede the entrance of fraudulent medicines into the supply chain and strengthen the security surrounding the manufacture, delivery, and supply of products. Whilst the implementation of these regulations is important globally, they are mostly needed in low-income countries.

Health threats and risks of substandard and falsified antibiotics

Medical products which are substandard or falsified have a serious negative influence on public health and may even have deadly consequences. Unknowingly taking medications that contain dangerous substances or using improper dosages may result in poisoning, failure of treatment, and disease progression. They also increase Antimicrobial Resistance (AMR); bacteria that are resistant to antibiotics can spread faster as a result of these types of products, making once-treatable diseases life-threatening. As families spend their savings on inadequate care and health systems spend essential resources on repairing the damage caused by these drugs, the financial effects can also be far-reaching.

The infiltration of falsified or substandard antibiotics into the markets means that communities become vulnerable, and trust in healthcare systems and providers declines. This problem has worldwide impacts, with no region being unaffected, and both developed and developing nations must deal with the problem. For example, in the US, it is easy to buy antibiotics online without a prescription, and there is often no control as to the quality of the products being offered (Mainous et al., 2009). In Colombia, it is easy to buy antibiotics in any pharmacy with no prescription, whilst in Nigeria, medicines are sold in open street markets. Low-quality medicines present a serious public health risk, particularly in emerging economies and developing countries, and may have a significant impact on the national clinical and economic burden. Criminal organizations are often





involved in the distribution of falsified jobs, endangering the lives of people who try to combat the problem.

In the past, attention has largely focused on the increasing availability of deliberately falsified drugs, but substandard medicines are also reaching patients because of poor manufacturing and quality-control practices in the production of genuine drugs (either branded or generic). Substandard medicines are widespread and represent a threat to health because they can inadvertently lead to healthcare failures, such as antibiotic resistance and the spread of disease within a community, as well as death or additional illness in individuals.



Figure 6: Government officials taking away fake drugs in Abidjan, Ivory Coast Mwai, P. (2020, January 17).

In order to address substandard manufacturing practices, a concerted effort is required on the part of governments, drug manufacturers, charities, and healthcare providers to ensure that only drugs of acceptable quality reach the patients.

Vulnerable populations include those in low- and middle-income countries, which do not possess sufficient resources to provide adequate

amounts of medicine for the majority of their population. Additionally, developing countries in Asia, Africa, and Latin America have been heavily affected by the counterfeit drug market, considering that they present many of the previously mentioned factors and have large low-income populations with medicinal needs. In those countries, counterfeit or poor-quality medicines are appraised to be more than 30% of all marketed medicines, with this rate being higher than 50% in certain regions. These countries, especially India and China, are also the sources of falsified medicines. The European Commission estimates that 75% of all globally distributed counterfeit medicines originate in India.

Action taken by the World Health Organization

On May 26th, 2025, a conference was scheduled to take place in which the World Health Organization would discuss the global crisis surrounding substandard and falsified medicines. Unfortunately, WHO has a lack of available budget due to money being spent on other major global health threats recently, so only a small panel met to discuss the



issue, with the actual conference being postponed until November 2025. The panel concluded that this is a global health threat, as the falsification of antibiotics will affect millions of lives, whilst billions of dollars will have to be invested to repair the damage done. Additionally, the mechanism steering committee suggested a "theory of change", which consists of a three-phase process that ensures the antibiotics that exit fabrics are safe and ready to use.



Figure 7: Panel discussion addressing the Global Crisis of Substandard and Falsified Medicines.

The World Health Organization committee recognizes the particular danger this situation presents for low-income countries, mostly the ones located in Africa, where around 20% of medicines are falsified, and where thousands of deaths have been recorded annually due to fake antibiotics.

As the conference was postponed until November, any reform that can be done to the WHO MSM (Member State Mechanism) regarding substandard and falsified medical

products will have to wait until the conference takes place.

The AMATA (African Medicines Agency Treaty Alliance) expressed its concern about this topic as well, suggesting a ratification of the AMA (African Medicines Agency) treaty to fight against substandard and falsified medicines to ensure patients stay safe.

Current solutions

As a response to the current situation, more than 170 countries have focused on implementing AMR national action plans to tackle all the problems of antibiotic misuse. Also, it is important to raise awareness to consumers about the dangers of purchasing antibiotics from unregulated sources. To combat this growing threat, pharmaceutical companies and regulatory authorities are turning to advanced technologies to authenticate medications and to deter counterfeiters.



One approach is advanced package labeling technologies, such as blockchain, Radio Frequency Identification (RFID), holograms, QR codes, and 2D barcodes. However, package labeling can be ineffective if drugs are repackaged at any point along the supply chain. As a result, "on-drug labeling" is also being explored to prevent counterfeits from reaching patients.

Here are three emerging technologies to stop counterfeits:

DNA tagging: adds unique DNA markers to drugs to help prevent counterfeiting. It's hard to copy and easy to check, but it needs expensive, specialist equipment. The University of Southern California patented a system using RFID and DNA tags to stop fake or illegally sold products. A company called Applied DNA Sciences also offers similar DNA tagging services.

Blind watermarking: embeds binary digits (bits) onto the surface of Fused Deposition Modeling (FDM) 3D-printed tablets. The benefit of this process is that it doesn't impact the appearance, weight, or API content of medications, nor the printing time needed to make the tablets. Further, a computer, FDM 3D printer, and a paper scanner are all that are needed for detection. However, this process only works on straight, flat tablets, and only certain polymers can be used.

Promoting local manufacturing: Efforts have been shown by countries such as Nigeria, trying to combat the falsification of antibiotics by promoting local manufacturing.

III. Key points of the debate

- Harms caused by falsified and substandard antibiotics
- Protection of patients exposed to falsified medicine
- Substandard and falsified medical products sold online
- The creation of regulatory processes, focusing on low and middle income countries





- Control and regulation of antibiotic manufacturing
- The guarantee of access to lifesaving medicine at all times for vulnerable populations

IV. Guiding questions

- 1. Has your country experienced issues with substandard or falsified antibiotics? If so, what has been the government's response to these challenges?
- 2. What impact has the circulation of poor-quality antibiotics had on your country's public health system and its ability to treat infectious diseases?
- 3. What national laws or policies regulate the manufacturing, import, and sale of antibiotics, and how strictly are they enforced?
- **4.** How does your country ensure that antibiotics available to the public meet international safety and quality standards?
- 5. What role does your country's healthcare system play in detecting and reporting cases of substandard or falsified antibiotics?
- **6.** How does your country educate the public and healthcare workers about the dangers of using fake or low-quality antibiotics?

V. Bibliography

ABC International. (2022, August 10). China tiene el primer y único dron militar hipersónico del mundo. Abc. https://www.abc.es/internacional/china-primer-unico-dron-militar-

Addisu Afrassa Tegegne, Anbessa Bekele Feissa, Gemmechu Hasen Godena, Tefera, Y., Hassen Kebede Hassen, Yildiz Ozalp, & Suleman, S. (2024). Substandard and falsified antimicrobials in selected east African countries: A systematic review. PloS One, 19(1), e0295956–e0295956. https://doi.org/10.1371/journal.pone.0295956

 $AMATA. (2025, May\ 26). \ WHA78\ AMATA\ statement\ on\ substandard\ and\ falsified\ medical\ products\ |\ IFPMA.\ IFPMA.$

https://www.ifpma.org/news/wha78-amata-statement-on-substandard-and-falsified-medical-products/



Cavany, S., Nanyonga, S., Hauk, C., Lim, C., Tarning, J., Sartorius, B., Dolecek, C., Caillet, C., Newton, P. N., & Cooper, B. S. (2023). The uncertain role of substandard and falsified medicines in the emergence and spread of antimicrobial resistance. Nature Communications, 14(1), 6153. https://doi.org/10.1038/s41467-023-41542-w

Cawley, M. (2017, March 27). Fake Medicine Bust Exposes Lucrative Venezuela-Colombia Trade. InSight Crime

https://insightcrime.org/news/brief/counterfeit-medicine-bust-exposes-lucrative-venezuela-colombia-trade/

Chiara, F. (2022, September 14). Center for Infectious Disease Research and Policy. CIDRAP. https://www.cidrap.umn.edu/substandard-and-falsified-antibiotics-neglected-drivers-antimicrobial-resistance-0

Delepierre, A., Gayot, A., & Carpentier, A. (2012). Update on counterfeit antibiotics worldwide; Public health risks. Médecine et Maladies Infectieuses, 42(6), 247–255. https://doi.org/10.1016/j.medmal.2012.04.007

Do, N. T. T., Vu, H. T. L., Nguyen, C. T. K., Punpuing, S., Khan, W. A., Gyapong, M., Asante, K. P., Munguambe, K., Gómez-Olivé, F. X., John-Langba, J., Tran, T. K., Sunpuwan, M., Sevene, E., Nguyen, H. H., Ho, P. D., Matin, M. A., Ahmed, S., Karim, M. M., Cambaco, O., & Afari-Asiedu, S. (2021). Community-based antibiotic access and use in six low-income and middle-income countries: a mixed-method approach. The Lancet Global Health, 0(0). https://doi.org/10.1016/S2214-109X(21)00024-3

Global antibiotic consumption & use — GRAM Project. (2018). Www.tropicalmedicine.ox.ac.uk. https://www.tropicalmedicine.ox.ac.uk/gram/research/global-antibiotic-consumption

GPHF | Latest News. (2025). Gphf.org. https://www.gphf.org/en/news/meldungen.htm

HealthPolicyWatch. (2025, May 27). WHO Delays Falsified Medicine Mechanism Reform Amid Health Crisis - Health Policy Watch. Health Policy Watch.

https://healthpolicy-watch.news/who-delays-falsified-medicine-mechanism-reform-amid-health-crisis/

Jean-Marteau. (n.d.). Substandard and Falsified Medical Products. https://www.icn.ch/sites/default/files/2023-04/PS E Substandard and Falsified Medical Products 0.pdf

Maffioli, E. M., Lu, Y., & Anyakora, C. (2025). Substandard and falsified antibiotics are associated with antimicrobial resistance: a retrospective country-level analysis. BMJ Global Health, 10(6), e017078. https://doi.org/10.1136/bmjgh-2024-017078

Md Hasanuzzaman Shohag, Syed Abdul Kuddus, Esfat M. Saim Brishty, Salman Sakir Chowdhury, Md Tofazzal Hossain, Hasan, M., Sabrin Islam Khan, Hossain, M., & Hasan Mahmud Reza. (2023). Post-market quality assessment of 22 ciprofloxacin brands by HPLC available in Bangladesh market. Heliyon, 9(6), e17180–e17180. https://doi.org/10.1016/j.heliyon.2023.e17180

Melia, E., English, A., & Naughton, B. D. (2024). The impact of global falsified medicines regulation on healthcare stakeholders in the legitimate pharmaceutical supply chain: a systematic review. Frontiers in Medicine, 11. $\frac{\text{https://doi.org/}10.3389/\text{fmed.}2024.1429872}{\text{https://doi.org/}10.3389/\text{fmed.}2024.1429872}$

Mwai, P. (2020, January 17). Fake drugs: How bad is Africa's counterfeit medicine problem? Bbc.com; BBC News. https://www.bbc.com/news/world-africa-51122898

NaTHNaC - Falsified antibiotics reported in WHO African Region. (2025). Travelhealthpro.org.uk. https://travelhealthpro.org.uk/news/842/falsified-antibiotics-reported-in-who-african-region





Ndaki, P. M., Mwanga, J. R., Mushi, M. F., Konje, E. T., Mwita, S. M., & Mshana, S. E. (2025). Drivers of inappropriate use of antibiotics among community members in low- and middle-income countries: a systematic review of qualitative studies. BMC Public Health, 25(1). https://doi.org/10.1186/s12889-025-21553-6

NHS. (2017, October). Antibiotics. Nhs.uk. https://www.nhs.uk/medicines/antibiotics/

Ozawa, S., Evans, D. R., Bessias, S., Haynie, D. G., Yemeke, T. T., Laing, S. K., & Herrington, J. E. (2018). Prevalence and Estimated Economic Burden of Substandard and Falsified Medicines in Low- and Middle-Income Countries. JAMA Network Open, 1(4), e181662. https://doi.org/10.1001/jamanetworkopen.2018.1662

Pathak, R., Gaur, V., Himanshu Sankrityayan, & Jaideep Gogtay. (2023). Tackling Counterfeit Drugs: The Challenges and Possibilities. Pharmaceutical Medicine, 37(4), 281–290. https://doi.org/10.1007/s40290-023-00468-w

Runde, D. F., Askey, T., & McKeown, S. (2020). The OECD Faces a Decision Point in 2021. Csis.org. https://www.csis.org/analysis/oecd-faces-decision-point-2021

Schäfermann, S., Hauk, C., Wemakor, E., Neci, R., Mutombo, G., Ngah Ndze, E., Cletus, T., Nyaah, F., Pattinora, M., Wistuba, D., Helmle, I., Häfele-Abah, C., Gross, H., & Heide, L. (2020). Substandard and Falsified Antibiotics and Medicines against Noncommunicable Diseases in Western Cameroon and Northeastern Democratic Republic of Congo. The American Journal of Tropical Medicine and Hygiene, 103(2), 894–908. https://doi.org/10.4269/ajtmh.20-0184

Wasike, A. (2023, February 2). Half a million lives lost to fake medicines in sub-Saharan Africa: UN. Www.aa.com.tr.

https://www.aa.com.tr/en/africa/half-a-million-lives-lost-to-fake-medicines-in-sub-saharan-africa-un/2804 374

WHO. (2017, November 28). 1 in 10 medical products in developing countries is substandard or falsified. <u>Www.who.int</u>.

 $\frac{https://www.who.int/news/item/28-11-2017-1-in-10-medical-products-in-developing-countries-is-substandard-or-falsified}{dard-or-falsified}$

World Health Organization. (2024, December 3). Substandard and falsified medical products. Who.int; World Health Organization: WHO.

https://www.who.int/news-room/fact-sheets/detail/substandard-and-falsified-medical-products

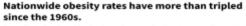


Topic 2: Tackling Obesity as a Global Health Concern

I. History/Context

Obesity refers to the excessive fat accumulation that is considered a risk to health at a global level. This issue has risen at an alarming rate since the 20th century, turning it into an overlooked global crisis. According to the World Health Organization (WHO) levels of obesity have increased significantly since the 1970s, and people who suffer from obesity include individuals from all age groups, but adults have always made up the majority of the percentage of obese people around the globe. This disease presents major risk factors to health, which may provoke different chronic diseases such as heart disease, diabetes and various types of cancer.

In the late 19th and early 20th centuries, scientific and medical communities began to notice excessive weight gain amongst the populations. As industrialization advanced,



Age-adjusted nationwide obesity and severe obesity rates according to Nationa Health and Nutrition Examination Surveys

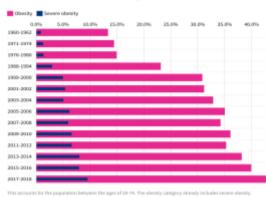


Figure 8: Chart showing nationwide obesity rates since the 1960s until 2018. USAFacts. (2023, March 21). US obesity rates have tripled over the last 60 years.

mechanical labour began to replace some of the physically demanding jobs, especially factory and construction labour. Urbanization brought changes in people's lifestyle, including how they moved, ate and lived. As this happened, higher body weight and increased incidences of disease, such as heart conditions and diabetes, were recorded at a global level. By the 1920s and 1930s, early research began to identify excessive weight as a medical concern, though public health messaging around it remained minimal.

Meanwhile, the medical understanding of obesity advanced. Researchers began to understand that it was not simply a result of individual choices or lack of willpower, but a complex condition

influenced by genetics, environment, and socioeconomic status. Nonetheless, public awareness lagged behind scientific understanding. For much of the 20th century, the issue was largely underrecognized in both public discourse and policy-making, despite increasing evidence of its connection to chronic illnesses such as cardiovascular disease. By the 1970s, the term "obesity epidemic" began appearing more often, and average body



weight had increased. Researchers began investigating obesity not just as a personal health issue but as a population-wide public health challenge.

The influence of large multinational food corporations was highlighted as part of the problem. Fast food chains expanded globally, and marketing strategies became targeted towards both children and adults. In many countries, particularly in North America and Europe, sugary breakfast cereals, soft drinks, and highly processed snacks became dietary staples. These products were heavily promoted on television and through other forms of media later on. By the late 20th century, even developing countries began to feel the

effects of these global dietary changes, especially as economic growth brought about new patterns of consumption.

Αt the same time, medical understanding also advanced; the discovery of hormones like insulin and leptin helped clarify the biological processes related weight regulation. Obesity research expanded to include behavioural psychology, epidemiology,

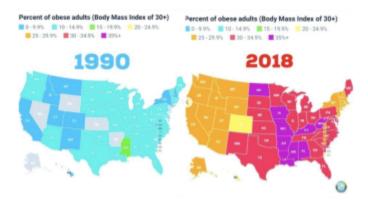


Figure 9: Percentage of obese adults in the United States in 1990 and 2018 Woodbury, R. (2023, January 19).

nutrition science. Although treatments for obesity were being developed, including medications and surgical interventions, prevention remained underemphasized in many national health strategies.

Obesity is not uniformly distributed across the globe. High-income countries like the United States and the United Kingdom, have struggled with obesity for decades, but middle- and low-income countries are being increasingly affected. The nutrition transition, where traditional diets are replaced by diets high in sugar, fat, and processed foods, has been an important factor in the increase of obesity rates. In countries like Mexico and India, obesity rates have surged in recent decades, particularly in urban areas.

The obesity rate in low-income countries has also increased, but with the added problem of the "double burden of malnutrition". This refers to both underweight and overweight in the same community. Underweight children are more vulnerable to disease, and malnutrition means no micronutrients, which are essential for the body to create enzymes and other essential hormones and substances in the body. Yet, being overweight also presents immense problems to the body, as excessive fat accumulation presents equally



dangerous risks to the body, not being able to function properly. Obese people often suffer from malnutrition as they are not eating the nutrients that they need for the body to function properly. The problem has grown due to the aggressive marketing by multinational companies of cheap processed foods with little nutritional value. Given the complexity and scale of the obesity crisis, countries have adopted a variety of strategies to address it. These efforts generally fall into three broad categories: policy and regulation, public health campaigns and community-based interventions.

Despite various initiatives, global obesity rates continue to rise, indicating that isolated efforts may not be sufficient. Experts emphasize addressing systemic and commercial determinants of health. This includes regulating food marketing to children, curbing the influence of the ultra-processed food industry, and reshaping environments to support physical activity.

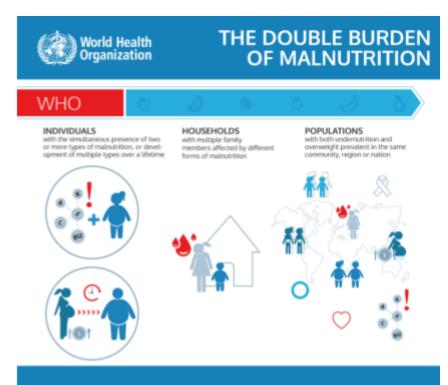


Figure 10: Double burden of malnutrition in communities and how it can affect different environments WHO EMRO | Double burden of nutrition | Nutrition site. (n.d.).

There is also growing recognition of the role that social inequality plays in obesity. People in lower socioeconomic groups are disproportionately affected, often due to limited access to healthy foods, safe exercise spaces and healthcare services.

Throughout the 1980s and 1990s, more countries started collecting national health data that highlighted the growing obesity rates at a global level. As a response, many governments introduced dietary guidelines and educational programmes,

with the purpose of encouraging better nutrition and more physical activity. However, these early efforts often placed the burden on citizens to make correct choices, avoiding



addressing the larger environmental and economic systems that made unhealthy choices more accessible and affordable.

Countries have promoted individual responsibility and created structural changes that make healthier lifestyles more attainable. As the world continues to grapple with dual challenges of overnutrition and undernutrition, tackling obesity will remain a top public health priority.

II. Current Situation

Obesity is one of the most pressing public health challenges of the 21st century and has reached epidemic proportions globally. Once associated with high-income countries, obesity is now also a problem in low and middle-income countries. The global obesity rate has almost tripled since 1975, creating a persistent public health challenge (WHO, 2021). According to the World Obesity Atlas, estimates indicate that by 2030, 1 in 5 women and 1 in 7 men globally will suffer from obesity, and by 2050, over 3.8 billion adults and 746 million children will be overweight or obese (World Obesity Federation, 2022). High-income countries continue to report some of the highest rates of obesity.

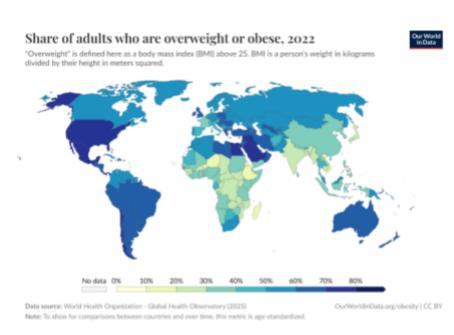


Figure 11: Global share of adults who are overweight or obese (2022) World Health Organization - Global Health Observatory (2025)

North America

In the United States, the adult obesity rate reached 42.4% in 2021, the highest in country's history (CDC, 2024). Similarly, Canada reports over 30% obesity among adults, which was over three times higher 9% than the registered in 1981, with rising rates among adolescents (Canada, 2025).



Middle East

The situation is equally concerning in the Middle East, according to the World Health Organization; countries such as Kuwait, Qatar, and Saudi Arabia report obesity rates exceeding 35% driven by sedentary lifestyles, which are characterized by prolonged periods of inactivity and high-calorie diets (AlAbdulKader et al., 2020).

Pacific Islands

Pacific Island nations like Nauru, Tonga, and Samoa exhibit some of the highest obesity rates globally, surpassing 50% of the adult population.

Latin America

Latin America also faces an urgent crisis. In Mexico, approximately 28% of adults are obese and 14% of adolescents are also overweight, ranking among the highest obesity rates in the world (LIMARP, n.d.). In Latin America and the Caribbean, 1 in 4 adults is obese (UNICEF, 2019).

Asia

Meanwhile, Asia has experienced a rapid rise in obesity rates due to urbanization and dietary transitions. India and China now struggle with the "double burden" of malnutrition and obesity, as processed food consumption increases and physical activity declines.

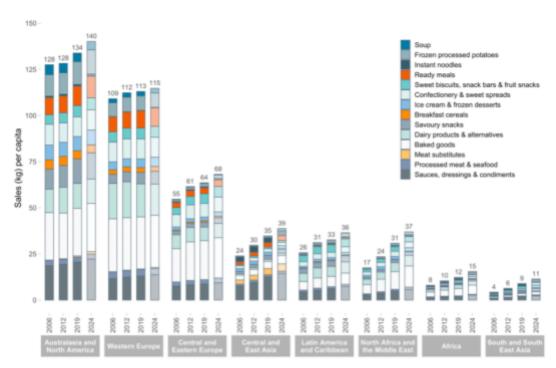
Key Drivers of Obesity

The obesity epidemic is fueled by behavioural, economic, environmental and cultural factors. One of the most significant problems is the dramatic shift in dietary patterns worldwide (Wang, 2017). The consumption of processed foods, rich in sugars, unhealthy fats, and salt, has become widespread in many societies, unaware that it can increase at least 10% of cardiovascular diseases and 12% of cancer (Babalola et al., 2025). Also, sugary beverages alone account for a large share of daily calorie intake in several countries, and these drinks are heavily consumed and marketed to children and adolescents.





Economic factors also contribute significantly. In many low and middle income countries (LMICs), unhealthy food is cheaper and more accessible, but is often low in nutrients. Fresh fruits, vegetables, and other healthier items are often more expensive. Also, aggressive marketing by multinational food corporations, particularly in unregulated markets, further compounds this issue. In urban settings, the "nutrition transition" means a shift in dietary patterns and physical activity levels, as societies evolve economically and socially, leading to a diet that is energy-dense but nutrient-poor, often paired with declining physical activity levels.



Sedentary lifestyles play another important role.

Figure 12: Ultra-processed food sales (kg) per capita by region, 2006-19 with projections to 2024. Baker, et al. (2020).

Urbanization and technological advances have significantly reduced opportunities for physical activity. Office jobs, increased use of cars, and the popularity of screen-based entertainment have made inactivity common. According to the World Health Organization, nearly one-third of the world's adult population (31%), 1.8 billion adults, are inactive and do not meet recommended physical activity levels, contributing to weight gain.

Social and cultural factors also shape obesity trends. In some cultures, larger body size is associated with wealth or beauty, which can discourage weight management efforts. For example, in Mauritania in Africa, girls were traditionally overfed to make them fat, as this



was regarded as desirable for marriage. Additionally, insufficient education in schools and medical settings around nutrition and health literacy contributes to poor dietary choices. These factors create an "obesogenic environment," which refers to "an environment that promotes gaining weight and one that is not conducive to weight loss" within the home or workplace (Swinburn, et al., 1999).

The introduction of multinational food companies into a country is often associated with an increase in obesity. Many people in low-income countries are experiencing a food transition where local markets are being replaced by large chain supermarkets. When these stores appear in their neighbourhoods, people tend to buy fewer items in local markets and buy more unhealthy processed food, which is readily available in supermarkets. The introduction of big chain supermarkets has been linked to a rise in obesity in different parts of the world.

Health Impacts

The consequences of obesity extend beyond appearance - they include serious health complications, psychological issues, along with enormous economic costs. Medically, obesity is a leading risk factor for heart disease and strokes, type 2 diabetes, severe COVID-19 symptoms, and several cancers, including breast and colorectal cancers (Mayo Clinic, 2023). Oxford University researchers found that individuals with a Body Mass Index (BMI) of 30-35 have a reduced life expectancy of about 3 years, while those above 40 lose eight to ten years of life (University of Oxford, 2009).

WHO CLASSIFICATION OF WEIGHT STATUS	
WEIGHT STATUS	BODY MASS INDEX (BMI), kg/m ²
Underweight	<18.5
Normal range	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	≥ 30
Obese class I	30.0 – 34.9
Obese class II	35.0 – 39.9
Obese class III	≥ 40

Figure 13: BMI chart with obesity classifications adopted from the WHO 1998 report. ([Figure, BMI Chart With Obesity Classifications...] - StatPearls, n.d.)



Mental health consequences are also significant. People living with obesity often experience effects on their emotional well-being, made worse by weight stigma and bias. Mental health impacts include depression, anxiety and social stigma, leading to social isolation. Obesity-related stigma has been compared to racial or gender discrimination in terms of psychological and social impact (Nicolau et al., 2023).

Economic Impacts

Economically, in 2019, obesity-related healthcare costs were comparable to 1.8% gross domestic product (GDP) on average across the eight countries presenting the highest obesity rates. The rates ranged from 0.8% in India to 2.4% in Saudi Arabia. By 2060, the economic impacts of obesity are projected to grow 3.6% of GDP on average, ranging (Okunogbe et al., 2021). "The World Obesity Atlas 2023, published by World Obesity Federation, predicts that the global economic impact of overweight and obesity will reach \$4.32 trillion annually by 2035 if prevention and treatment measures do not improve. At almost 3% of global GDP, this is comparable with the impact of COVID-19 in 2020." (World Obesity Federation, 2023). Additionally, in the United States, annual obesity-related medical expenses already surpass \$170 billion, driven by costs associated with diabetes, hypertension, and heart diseases (M.D, 2025).

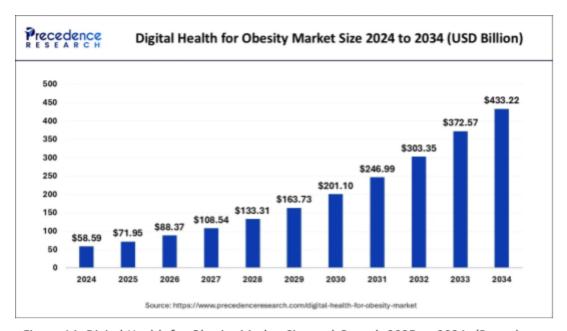


Figure 14: Digital Health for Obesity Market Size and Growth 2025 to 2034. (Precedence Research, 2025)



Global Strategic Responses

Despite the magnitude of the obesity crisis, global responses remain inadequate. The World Obesity Atlas (2025) reports that only 7% of countries have health systems equipped to manage obesity effectively, while the other two-thirds of countries worldwide lack or have only implemented one of five key policies in place to address obesity. WHO advocates a whole-society approach, integrating health systems, education, urban planning, and food policies. (A Whole-of-Society Approach Responding to NCDs: WHO GCM/NCD | Knowledge Action Portal on NCDs, 2025).

Policy interventions are central to current efforts. Sugar-sweetened beverage taxes, implemented in countries like Mexico, South Africa, and the UK, have successfully reduced consumption and generated revenue for health programmes. "Over 10 years, the SSB tax is predicted to prevent 239,900 cases of obesity; of these, 39% would be in children." (Obesity Evidence Hub, 2024). Front-of-pack nutritional labeling, pioneered in Chile and Peru, and then copied in other Latin American countries, have labels highlighting products that are high in calories, sugars, sodium or saturated fats, aiming to help consumers make healthier choices. Restrictions on junk food advertising, especially targeting children, are increasingly being adopted worldwide.



Figure 15: Worldwide SSB taxes (Forberger et al., 2022) (April 2021; ©2021 Global Food Research Program, University of North Carolina at Chapel Hill (UNC)

Urban planning strategies crucial. Designing walkable neighbourhoods, expanding public parks, and ensuring safe spaces for physical activity encourage healthier lifestyles. Healthcare systems are beginning to treat obesity as a chronic disease, moving beyond BMI to consider metabolic health.

Additionally, medical innovations like GLP-1

receptor agonists are a class of medications used primarily to treat type 2 diabetes, and in some cases, obesity. They mimic the effects of the naturally occurring hormone GLP-1, helping to regulate blood sugar levels, promote weight loss, and potentially offer



cardiovascular benefits. This medication offers new hope for effective weight reduction, although affordability remains a barrier for LMICs, and there are some dangerous risks to the long-term use of these medicines (Iacobucci, 2025)

Addressing obesity requires comprehensive, multi-level approaches that go beyond behaviour changes. Governments play a crucial role in shaping healthier environments through regulatory measures, such as taxing sugar-sweetened beverages. At the same time, health communication strategies must leverage global data to raise awareness across communities, workplaces, and youth organizations (Miranda & M. Carillo, 2024; Nsubuga et al., 2006).

Disease monitoring and surveillance are another key priority. Countries should strengthen their data systems by maintaining national health surveys, integrating electronic health records, and incorporating school nutrition programmes, thereby ensuring the accurate tracking of obesity trends (Nsubuga et al., 2006).

Ultimately, targeting young populations is crucial, as childhood and adolescence are pivotal periods for developing healthy habits. Early prevention reduces the risk of obesity persisting into adulthood, lowering susceptibility to cardiometabolic diseases. Prevention strategies should include restrictions or bans on advertising and marketing of unhealthy foods to children, controls on political contributions by the food industry, and evaluation of food industry commitments to improve formulations and marketing. Schools should eliminate soft drinks and confectionery in vending machines, replacing them with healthier options such as low-fat dairy products (Lobstein et al., 2022). To find out how different countries have tackled their obesity problems, please use the following link: How other nations are beating obesity

III. Key points of the debate

- Harm caused by increasing obesity rates
- Obesity as an officially recognized and treatable disease
- Obesity prevention strategies
- The role of education in tackling obesity





- Ensuring equitable access to healthy food
- Regulations to control the promotion of and access to unhealthy food options
- Addressing socioeconomic factors contributing to obesity in urban and rural areas

IV. Guiding questions

- 1. Has your country suffered an increase in obesity rates over the last decade? If so, what extra costs has this brought to the health care system?
- 2. What percentage of adults and children are considered to be obese or overweight in your country?
- 3. What is the link between multinational food companies and rising obesity in your country, if any?
- 4. How do cultural practices affect the rates of obesity in your country?
- 5. Does your country have any guidelines or education programmes to combat rising obesity rates?
- 6. How does your government regulate the sale and/or consumption of processed and unhealthy food?
- 7. Has your country focused on medical treatments for obesity in the primary healthcare system?
- 8. How much should governments be responsible for regulating the obesity levels of their citizens? What international agreements could be made concerning the control of levels of obesity, if any?

V. Bibliography

AlAbdulKader, A. M., Tuwairqi, K., & Rao, G. (2020). Obesity and Cardiovascular Risk in the Arab Gulf States. *Current Cardiovascular Risk Reports*, 14(7). https://doi.org/10.1007/s12170-020-00642-8

Babalola, O. O., Akinnusi, E., Ottu, P. O., Bridget, K., Oyubu, G., Ajiboye, S. A., Waheed, S. A., Collette, A. C., Adebimpe, H. O., Nwokafor, C. V., Oni, E. A., Aturamu, P. O., & Iwaloye, O. (2025). The impact of





ultra-processed foods on cardiovascular diseases and cancer: Epidemiological and mechanistic insights. *Aspects of Molecular Medicine*, *5*, 100072. https://doi.org/10.1016/j.amolm.2025.100072

Canada, (2025). Examining the health consequences of obesity over time - Statistics Canada. Statcan.gc.ca. https://www.statcan.gc.ca/o1/en/plus/7877-examining-health-consequences-obesity-over-time

CDC. (2024, September). *Obesity and severe obesity prevalence in adults: United States*, August 2021–August 2023. CDC.gov; CDC. https://www.cdc.gov/nchs/products/databriefs/db508.htm

Cleveland Clinic. (2023, July 3). *GLP-1 Agonists*. Cleveland Clinic; Cleveland Clinic. https://my.clevelandclinic.org/health/treatments/13901-glp-1-agonists

lacobucci, G. (2025). GLP-1 agonists: 82 deaths linked to adverse reactions, UK data show. BMJ, r390. https://doi.org/10.1136/bmj.r390

LIMARP. (2021, July 10). Obesity: Causes And Consequences - LIMARP. https://www.limarp.com/en/blog/obesity/obesity-causes-consequences/

Live Healthy MD. (2025, February 13). The Hidden Costs of Obesity: More Than Just Medical Bills | Live Healthy MD. Live Healthy MD. https://www.livehealthymd.com/blog/the-hidden-costs-of-obesity/

Lobstein, T., Baur, L., & Uauy, R. (2022). Obesity in Children and Young people: a Crisis in Public Health. Obesity Reviews: An Official Journal of the International Association for the Study of Obesity, 5 Suppl 1(5), 4–104. https://pubmed.ncbi.nlm.nih.gov/15096099/

Mayo Clinic. (2023, July 22). *Obesity*. Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/obesity/symptoms-causes/syc-20375742

Midgley, E. (2024, March). Obesity Crisis: New IAEA Database to Help Countries Tackle Nutrition Challenges. laea.org.

https://www.iaea.org/newscenter/news/obesity-crisis-new-iaea-database-to-help-countries-tackle-nutrition-challenges

Miranda, J., & M. Carillo, R. (2024, May 15). A New Roadmap For Obesity Prevention | Think Global Health. Council on Foreign Relations. https://www.thinkglobalhealth.org/article/new-roadmap-obesity-prevention

Nicolau, J., Tofé, S., Bonet, A., Sanchis, P., Pujol, A., Ayala, L., Gil, A., & Lluís Masmiquel. (2023). Effects of weight stigma on BMI and inflammatory markers among people living with obesity. *Physiology & Behavior*, 262, 114088–114088. https://doi.org/10.1016/j.physbeh.2023.114088

Nsubuga, P., White, M. E., Thacker, S. B., Anderson, M. A., Blount, S. B., Broome, C. V., Chiller, T. M., Espitia, V., Imtiaz, R., Sosin, D., Stroup, D. F., Tauxe, R. V., Vijayaraghavan, M., & Trostle, M. (2006). *Public Health Surveillance: a Tool for Targeting and Monitoring Interventions*. Nih.gov; The International Bank for Reconstruction and Development / The World Bank. https://www.ncbi.nlm.nih.gov/books/NBK11770/

Obesity Evidence Hub. (2024, March 21). Countries that have implemented taxes on sugar-sweetened beverages (SSBs) | Obesity Evidence Hub. Obesity Evidence Hub.

https://www.obesityevidencehub.org.au/collections/prevention/countries-that-have-implemented-taxes-on-sugar-sweetened-beverages-ssbs

Okunogbe, A., Nugent, R., Spencer, G., Ralston, J., & Wilding, J. (2021). Economic Impacts of Overweight and obesity: Current and Future Estimates for Eight Countries. *BMJ Global Health*, 6(10), e006351. https://doi.org/10.1136/bmjgh-2021-006351



Rebori, M. (2010). What is Obesogenic Environment? Extension | University of Nevada, Reno. https://extension.unr.edu/publication.aspx?PublD=2810

Suri, S. (2023, December 4). *The malnutrition paradox: Lessons from China*. Orfonline.org; OBSERVER RESEARCH FOUNDATION (ORF).

https://www.orfonline.org/expert-speak/the-malnutrition-paradox-lessons-from-china-49520

UNICEF. (2019, November 19). United Nations calls for urgent action to curb the rise in hunger and obesity in Latin America and the Caribbean. Www.unicef.org.

https://www.unicef.org/lac/en/press-releases/united-nations-calls-urgent-action-curb-rise-hunger-and-obesity-latin-america-and

University of Oxford. (2009, March 18). *Moderate obesity takes years off life expectancy*. Www.ox.ac.uk. https://www.ox.ac.uk/news/2009-03-18-moderate-obesity-takes-years-life-expectancy

Wang, Y. (2017). Potential mechanisms in childhood obesity: causes and prevention (I. Romieu, L. Dossus, & W. C. Willett, Eds.). PubMed; International Agency for Research on Cancer. https://www.ncbi.nlm.nih.gov/books/NBK565802/

WHO. (2021, June 9). *Obesity*. Who.int; World Health Organization: WHO. https://www.who.int/news-room/facts-in-pictures/detail/6-facts-on-obesity

WHO. (2024, March 4). Study finds Pacific accounts for 9 of the 10 most obese countries in the world. Www.who.int.

https://www.who.int/westernpacific/about/how-we-work/pacific-support/news/detail/04-03-2024-study-finds-pacific-accounts-for-9-of-the-10-most-obese-countries-in-the-world

WHO. (2025). A whole-of-society approach responding to NCDs: WHO GCM/NCD | Knowledge Action Portal on NCDs. Knowledge-Action-Portal.com. https://www.knowledge-action-portal.com/en/about/gcm

WHO EMRO | Double burden of nutrition | Nutrition site. (n.d.). World Health Organization - Regional Office for the Eastern Mediterranean. https://www.emro.who.int/nutrition/double-burden-of-nutrition/index.html

World Obesity Federation. (2022). One billion people globally estimated to be living with obesity by 2030. World Obesity Federation.

https://www.worldobesity.org/news/one-billion-people-globally-estimated-to-be-living-with-obesity-by-20

World Obesity Federation. (2023). Economic impact of overweight and obesity to surpass \$4 trillion by 2035. World Obesity Federation.

 $\underline{https://www.worldobesity.org/news/economic-impact-of-overweight-and-obesity-to-surpass-4-trillion-by-\underline{2035}$

