

Committee: World Health Organization (WHO)

Issue: Evaluating the effects of overuse of essential medicines for cosmetic purposes on citizens suffering from Noncommunicable Diseases (NDCs)

Student Officer: Konstantina Apostolopoulou

Position: Deputy President

PERSONAL INTRODUCTION

Dear all,

My name is Konstantina Apostolopoulou, and I am a student in the 10th grade in the German School of Athens (DSA), who started MUN in 2022. It is my honor to be serving, for the first time, as a Deputy President of the World Health Organization for this year's ACGMUN. I trust you will all be able to engage in fruitful debate, exchange ideas, find effective solutions to the issues you are presented with, and, of course, have fun. As a student officer, I will not only be there to help you while you study for the conference and whilst the committee is in session, but also guide you through any difficulties you might face during your time as delegates.

All in all, I'm looking forward to our collaboration, especially during the conference. If you find yourself in need of any help, don't hesitate to contact me!

Best Regards,

Konstantina Apostolopoulou (konstantina@newera.gr)

TOPIC INTRODUCTION

Noncommunicable Diseases (NDCs), more commonly known as chronic diseases, are conditions that are not airborne or transferred via direct contact with a patient. They are the result of the genetic and psychological patterns of an individual as well as the state of the environment that they live in. Some of the most common and detrimental NDCs include cancers, diabetes, cardiovascular, and chronic respiratory diseases.

Noncommunicable Diseases make up 80% of all premature deaths and could affect all of the human population. Be that as it may, 77%¹ of NDC deaths are recorded in low and middle-income countries. Factors such as tobacco use, smoking, alcohol overconsumption, lack of physical activity, malnutrition, air pollution but also gene inheritance disorders, such as Huntington's disease, all play a vital role in increasing the risk of death via an NDC.²

The World Health Organization (WHO) defines essential medicines as medications that "satisfy the priority health care needs of the population", such as combating physical and mental disorders and play a vital role in maintaining global health equity. Overuse of essential medicines is regularly recorded during and after plastic and reconstructive surgery, as some of the most used medicines are anesthetics and opioid analgesics. Not only are these drugs addictive, but they also damage the nervous system and respiratory function, which can lead to premature death.³

People with Noncommunicable Diseases (NDCs) usually come into contact with essential medicines during the aftermath of surgery. As the patients have a weakened body and immune system, this type of medicine relieves some of the struggles. Despite this, overuse of said medicine worsens the patient's health, which is why this needs to be combatted effectively.

¹ "Non Communicable Diseases." *World Health Organization (WHO)*, 16 Sept. 2023, www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

²World Health Organization. "Non Communicable Diseases." *World Health Organization (WHO)*, 16 Sept. 2023, www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

³ "Non Communicable Diseases." *World Health Organization (WHO)*, 16 Sept. 2023, www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

DEFINITION OF KEY TERMS

Cosmetic

“Substances that you put on your face or body that are intended to improve your appearance”⁴

Reconstructive surgery

A surgery to restore dysfunctional organs or bring body parts back to their normal appearance⁵

Opioid analgesics

Painkillers commonly used in cosmetic surgery with the risk of damaging the nervous system and other organs⁶

Transdermally

When a substance, usually medicine, is absorbed through the skin onto one’s bloodstream⁷

Complementary and Alternative Medicine (CAM)

“Medical products and practices that are not part of standard medical care”⁸

Health literacy

“The degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others”⁹

⁴ "Cosmetic." *Cambridge Dictionary | English Dictionary, Translations & Thesaurus*, www.dictionary.cambridge.org/dictionary/english/cosmetic

⁵ "Definition of RECONSTRUCTIVE SURGERY." *Merriam-Webster: America's Most Trusted Dictionary*, 21 Nov. 2023, www.merriam-webster.com/dictionary/reconstructive%20surgery.

⁶ The Free Dictionary. "Opioid Analgesics." *TheFreeDictionary.com*, medical-dictionary.thefreedictionary.com/opioid+analgesics

⁷ Merriam Webster Dictionary. "Definition of TRANSDERMAL." *Merriam-Webster: America's Most Trusted Dictionary*, www.merriam-webster.com/dictionary/transdermal

⁸ "Complementary and Alternative Medicine (CAM)." *National Cancer Institute*, 12 June 2023, www.cancer.gov/about-cancer/treatment/cam#:~:text=Complementary%20and%20alternative%20medicine%20includes,part%20of%20standard%20medical%20care

⁹ "What is Health Literacy? Take Action. Find Out." *Centers for Disease Control and Prevention*, 11 July 2023, www.cdc.gov/healthliteracy/learn/index.html#:~:text=Personal%20health%20literacy%20is%20the,actions%20for%20themselves%20and%20others

BACKGROUND INFORMATION

Causes and dangers of Noncommunicable Diseases

One of the primary reasons for NDCs is poverty. This is also the reason why so many lower- and middle-income countries struggle with the highest rates of NDCs globally. Tackling poverty is a complex issue, meaning that it requires multi-level solutions, one of those being the Sustainable Development Goal (SDG) 1.

Furthermore, one of the most effective ways to combat NDCs is via an early diagnosis. Be that as it may, up until this point in time, the majority of NDCs have not been diagnosed early enough leading to their surge. Least Economically Developed Countries (LEDCs) and Least Developed Countries (LDCs) are prone to such an issue due to their lack of economic growth and weak healthcare systems.

When talking about NCDs, take into consideration that their biggest cause is inheritance. NDCs are not airborne or transmitted through contact. The majority of NDCs are part of an individual's genes, which consequently means their continuation into further generations if not tackled correctly. Some gene diseases that lead to NDCs are Turner syndrome and hemophilia.

Apart from a risk for a surge in NDCs through their inheritance from the next generations, NDCs are known for weakening the immune and nervous systems of an individual. This, in turn, makes them more vulnerable to outside factors, including diseases, such as COVID-19. If people who have an NDC ignore the risks of worsening their condition, such as smoking and alcohol use, they might be led to premature death.



Figure 1: The four most common Noncommunicable Diseases¹⁰

Dangers of overuse of essential medicine

Essential medicines are drugs used in various surgical and medical procedures. One such medicine category is opioid analgesics, commonly used as painkillers. One of those is morphine: it can be transmitted in ways such as intravenously or transdermally. The danger hidden behind morphine, and most other essential medicines, is that it is highly addictive.

As mentioned, essential medicines usually weaken the immune system and damage the nervous system. Having a strong immune system means having more resistance against viruses and diseases that enter one's body. Moreover, the immune system makes healing, from wounds for instance, more rapid. A weakened immune system is unable to fully complete its purpose leading to more vulnerable individuals.

Additionally, under a weakened immune system, it has been recorded that essential medicines could potentially destroy one's organs, as well as completely damage the nervous system. This way, people with weakened resistance to viruses, bacteria, and diseases are likely to become severely sick.

¹⁰Indus Health Plus. "NCD - Non Communicable Diseases, NCDs Prevention Facts." *Indus Health Plus*, www.indushealthplus.com/ncds-non-communicable-diseases.html.

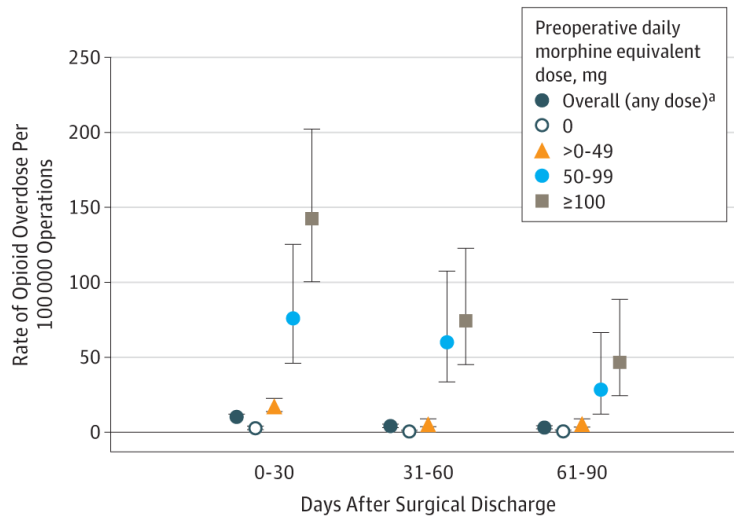


Figure 2: Rate of Opioid overdose per 100,000 operations per age

Essential medicine overuse in a cosmetic context

Medicinal plastic surgery falls under the spectrum of cosmetic surgeries. This type of surgery includes the essential medicine used in medical procedures. The most celebrated and used essential medicines in this category are opioid analgesics. Drugs such as morphine, heroin, and fentanyl, one stronger than the other, are also on the list of opioid analgesics. These drugs, as well as almost all opioid analgesics, are given transdermally via skin patch or powder and can be inhaled, ingested, or absorbed. Consuming such drugs can lead to drug abuse due to their addictive nature. Taking Fentanyl as an example, one of the strongest opioid analgesics in the medical world, this very commonly used essential medicine has been proven to cause serious damage to the organs, blurred eyesight or blindness for instance¹¹, and the nervous system, such as chronic anxiety. An overuse of Fentanyl likely occurs due to its form, as it is rather complicated to diagnose a patient and prescribe a specific amount of the drug.

Moreover, for those in need of essential medicines in order to treat a disease, NDCs included, the use of such medicines in every cosmetic surgery can lead to shortages. The distribution and prices of said medicine play a vital role in its accessibility, especially in LEDCs. If the medicine does not reach its target destination in time or a shortage occurs, people's needs will not be covered. Shortage of essential medicine would also mean that many patients will not be able to have

¹¹ "Fentanyl Side Effects: Common, Severe, Long Term." *Drugs.com*, 7 Aug. 2023, www.drugs.com/sfx/fentanyl-side-effects.html#serious-side-effects

access to the treatments that might include said medicine in their procedure as a whole.

It should be taken into consideration, whether or not it is appropriate to use such specific medicine in procedures that are accessible to the majority. All people have the same right to access these medicines, but what happens when those in need might start to get neglected due to factors, such as the income interest of the companies?

Relations between NDCs and essential medicines

The term “essential medicines” was first introduced in the medicinal world during the 1970s by the World Health Organization alongside a list of all the medicines that were considered essential at the time.¹² Essential medicines are used in a variety of surgeries and used either in anesthetics or during post-surgery periods. These necessary medical procedures can be accessed by many people affected by Noncommunicable Diseases. If a person with an NDC comes in contact with an essential medicine, their body’s response to the substance will likely be negative due to their already weakened immune and nervous system. Be that as it may, the post-surgery period could be painful, with the most effective way to tackle it is essential medicine.

A young woman was diagnosed with type 2 diabetes and started treatment for the disease. Alongside the medicine prescribed in order to combat the NDC, she is taking essential medicine for cosmetic purposes unaware of the fact that it will likely have side effects: the woman started to experience skin irritation, dizziness, hypertension, and even lactic acidosis. Over time, her condition worsens, but she manages to partially recover from that experience. The reaction between the medicines left behind was hair loss, kidney damage, and permanent skin damage. This case, along with other similar ones, was studied by researchers in the National Library of Medicine (NLM) and helped conclude the more there should be more strict guidelines regarding cosmetics to avoid any more such cases.¹³

¹² World Health Organization. "WHO Model Lists of Essential Medicines." *World Health Organization (WHO)*, July 2023, www.who.int/groups/expert-committee-on-selection-and-use-of-essential-medicines/essential-medicines-lists.

¹³ "An Observational Study on Adverse Reactions of Cosmetics: The Need of Practice the Cosmetovigilance System." *PubMed Central (PMC)*, www.ncbi.nlm.nih.gov/pmc/articles/PMC7292860/.

Methods used to treat Noncommunicable diseases

An effective method to treat cancer, one of the most dangerous and common NCDs, is chemotherapy. This procedure is used to kill cancer cells, shrink tumors, and prevent the reoccurrence of cancer cells. Chemotherapy uses drugs to achieve these goals. Plant alkaloids, such as vincristine and vinblastine are used during, before, and after the medical procedure. Plant alkaloids are opioid analgesic-type essential medicines, which are commonly used in surgical procedures as painkillers.

The majority of essential medicines are used during medical plastic surgeries. These fall under the spectrum of cosmetic surgeries and are the most effective on people with NDCs. Medical plastic surgery is a type of cosmetic surgery focused on reconstructing parts of the body. This includes organs, such as the heart. People affected by NDCs undergo such surgeries in addition to their normal treatments, depending on what NDC they have.¹⁴

Palliative care is a method used to treat and minimize the symptoms of NDCs, which include pain, nausea, or psychological effects, such as anxiety.¹⁵ This method is effective on people affected by NDCs because they are more affected by stimuli, due to their weakened immune and nervous systems.

MAJOR COUNTRIES AND ORGANIZATIONS INVOLVED

United States of America

The government of the United States of America has actively contributed to combating the spread of NDCs, especially in low- and middle-income countries, focusing primarily on treating cancer caused by factory gases and smoking. In the past, the U.S.'s response to NDC treatment was minimal. Be that as it may, nowadays, the U.S. has been included in discussions on health diplomacy, and scientific research parties, as well as providing technical assistance, such as medical scanners, for the diagnosing of NDCs. Although there not being a specific organization created by the

¹⁴ Rochester University. "Overview of Plastic Surgery - Health Encyclopedia - University of Rochester Medical Center." *Welcome to URM - Rochester, NY - University of Rochester Medical Center*, www.urmc.rochester.edu/encyclopedia/content.aspx?ContentTypeID=85&ContentID=P0113
1.

¹⁵ "Palliative Care Definition | What is Palliative Care." *Tools and Training for Clinicians | Palliative Care Programs | Center to Advance Palliative Care*, www.capc.org/about/palliative-care/.

States, state departments such as the Center for Disease Control and Prevention the National Institute of Health (NIH), or the U.S. Agency for International Development (USAID) are in charge of tackling the issue of NDCs nationally and internationally via strengthening already existing prevention and treatment mechanisms or limiting tobacco screenings in media.¹⁶

Serbia

The Republic of Serbia, alongside the World Bank, has set about the Serbia Noncommunicable Diseases Prevention and Control Program, which will be implemented by Serbia's Ministry of Health by 2029. The project's objective is to improve the healthcare system in order to tackle the cases of NDCs more effectively, while also preventing new cases from arising.¹⁷ In 2019, Serbia was hit with a massive wave of NDC deaths, with the number of deaths reaching 94.9%, an increase that had not been recorded since the early 2000s.¹⁸ After this wave, the life expectancy of the population dropped, despite the positive response of the government towards minimizing the impact, and eventually eliminating, the issue.¹⁹

Kenya

Noncommunicable Diseases have greatly affected the Sub-Saharan area because of its underdeveloped economy and medical systems. One of the countries affected by the issue is Kenya. As a lower-middle-income country, Kenya is already facing a plethora of challenges alongside the rising cases of NDCs, such as hypertension. In order to combat this, the Republic of Kenya has launched a five-year action plan that will help strengthen the health system's response capacity for NDCs through methods such as monitoring of cases and research and development.

¹⁶ "The U.S. Government and Global Non-Communicable Disease Efforts." *KFF*, Global Health Policy, 13 Mar. 2019, www.kff.org/global-health-policy/fact-sheet/the-u-s-government-and-global-non-communicable-diseases/.

¹⁷ World Health Organization. *Concept Environmental and Social Review Summary Concept Stage (ESRS Concept Stage)*. World Health Organization (WHO), 2023, documents1.worldbank.org/curated/en/099040623103022846/pdf/P1806190f33a2003c08d750ea8851fae283.pdf

¹⁸ "Serbia Share of Deaths from Noncommunicable Diseases, 1960-2022 - Knoema.com." *Knoema*, World Data Atlas, 23 Dec. 2022, knoema.com/atlas/Serbia/topics/Health/Mortality-rate-by-cause/Share-of-deaths-from-noncommunicable-diseases#.

¹⁹ World Health Organization. *World Health Organization (WHO)*, 13 Apr. 2018, www.who.int/europe/publications/m/item/better-noncommunicable-disease-outcomes--country-assessment--serbia-%282018%29.

The plan will have concluded its cycle in 2025 and will have not only tackled NDC cases but also root problems, such as air pollution and alcohol overconsumption, that the country has been faced with. Kenya advocates for such development plans in other countries of the Sub-Saharan area.²⁰

People's Republic of China

After experiencing a surge in NDCs, the PRC entered the NDC Scorecard Project, an action hosted by the GRANDSOUTH Bank since 2015, intending to limit the surge of NDC cases on an international level, as well as documenting and evaluating prevention methods with the help of stakeholders. The project focuses on governance, research, and surveillance, with China scoring among the top 5 countries and thus having decreased their NDC rates effectively.²¹ During the PRC's time in the project, the government created a national NDC campaign to decrease health illiteracy to ensure that the knowledge earned is put into ameliorating the quality of life in the country since it is considered a valid way of combating NDCs.²²

World Medical Association

The World Medical Association strives for effective solutions to the surge in NDC cases on a global scale. Through means such as limiting alcohol and tobacco use, adopting holistic approaches to combating the cases, and adequate access to health care for all, the WMA strengthens healthcare responses and prevention methods for the diseases. Moreover, the WMA has conducted several studies on Chronic and Lifestyle, as well as Bacteria and Virus Transmitted noncommunicable diseases. Having given their support to various projects and campaigns tackling NDCs, such as the PEN-PLUS strategy of the WHO in Africa, the World Medical Association has helped many countries, especially Least Developed Countries (LDCs), decrease their NCD death rates and tackle potential surges in said rates.²³

²⁰ UNESCO. "Kenya Launches Five-year Plan to Control Non-communicable Diseases." *UNESCO*, 20 Apr. 2023, www.unesco.org/en/articles/kenya-launches-five-year-plan-control-non-communicable-diseases

²¹ Zhu, Xiao-Lei. "China's Efforts on Management, Surveillance, and Research of Noncommunicable Diseases: NCD Scorecard Project." *PubMed*, 2017, pubmed.ncbi.nlm.nih.gov/29221521/

²² Yang, Jing, et al. "Increasing Health Literacy in China to Combat Noncommunicable Diseases." *PubMed*, 18 Dec. 2020, pubmed.ncbi.nlm.nih.gov/34594821/

²³ World Medical Association. "Non-Communicable Diseases." *WMA – The World Medical Association – The World Medical Association*, www.wma.net/what-we-do/public-health/non-communicable-diseases/.

International Pharmaceutical Federation

The International Pharmaceutical Federation has created a policy statement on the role of pharmacists in tackling NDCs. The statement was adopted in 2006 and has been active ever since. In the statement, the FIP urges governments and policy makers to ensure requisite access to healthcare, a human-centered health policy or combat the primary causes of NDCs. Alongside those guidelines, the FIP calls upon its member organizations, member states, and pharmacists to offer quality support to patients, improve NDC identification measures and enhance the technology used to combat NDCs.²⁴

TIMELINE OF EVENTS

Date	Description of event
1970	First introduction of NDCs in the medicinal world
1977	First introduction of essential medicine use for cosmetic purposes
2000	Surge in Noncommunicable Diseases in Europe
2009	95% of Serbia’s deaths are caused by NDCs
2015	GRANDSOUTH Bank creates the NDC Scorecard Project
26 May 2016	United Nations Inter-Agency Task Force on the Prevention and Control of Non-Communicable Diseases is proposed by Belarus
15 June 2016	United Nations Inter-Agency Task Force on the Prevention and Control of Non-Communicable Diseases is created

²⁴ International Pharmaceutical Organization. *FIP STATEMENT OF POLICY The role of pharmacists in noncommunicable disease*. FIP, 2019, www.fip.org/file/4338.

28 June 2020	NLM declares the need for stricter guidelines in the cosmetics industry
2021	Kenya launches an NDC monitoring project
11 April 2022	WHO publishes and creates the NDC Progress Monitor

RELEVANT UN RESOLUTIONS, TREATIES AND EVENTS

United Nations Inter-Agency Task Force on the Prevention and Control of Non-Communicable Diseases, 15 June 2016 (E_RES_2016_5)

This resolution was adopted by the Economic and Social Council (ECOSOC) on July 27th, 2016. It calls for the usage of science, technology, and innovation in the sector of development. Within its clauses, the resolution mentions the SDG Sustainable Development Agenda of 20230 and calls upon member states to implement an information and communication system to further develop methods to cease or minimize the impact NDCs have on a global scale. As a whole, the resolution proposes plausible solutions that have been implemented and brought us one step closer to sustainable development²⁵

World Health Organization Noncommunicable Diseases Progress Monitor 2022, 11 April 2022²⁶

The first of such reports was issued in 2025 and ever since then, it has played a pivotal role in monitoring the increase, decrease and overall rate of NDCs on an international level. The research for these reports is conducted in over 190 member states, where specific target goals are set and monitored. By virtue of the results presented in the report, member states have been able to implement new policies and actions to reduce the impact NDCs have on their people.

Global status report on noncommunicable diseases 2014 / World Health Organization

²⁵ Economic and Social Council. "United Nations Inter-Agency Task Force on the Prevention and Control of Non-Communicable Diseases :." *United Nations Digital Library System*, 2016, digitallibrary.un.org/record/834515?ln=en

²⁶ ---. "Noncommunicable Diseases Progress Monitor 2022." *World Health Organization (WHO)*, 11 Apr. 2022, www.who.int/publications/i/item/9789240047761.

This report, issued in 2014 by the WHO, focuses on “attaining the nine global noncommunicable diseases targets”, which include reducing and controlling NCD cases globally, as well as tackling core problems that cause NDCs. Ever since the first issue the WHO has been releasing such a report almost annually, estimating NDC death and case rates, and proposing solutions and data to be discussed. This way, NDCs are being tackled on a national and international level at once.

United Nations Inter-Agency Task Force on the Prevention and Control of Non-Communicable Diseases: draft resolution / Belarus, Japan and Russian Federation, 26 May 2016 (E/2016/L.16)²⁷

This draft resolution, submitted by the states of Belarus, Japan, and the Russian Federation and presented in the ECOSOC, focuses on the actions of the NDC prevention task force. Such actions include encouraging and bolstering international cooperation and communication, supporting the implementation of solutions that will aim towards fulfilling the SDG Sustainable Development Agenda 2030, as well as requesting further discussion on the topic within the United Nations. Some solutions mentioned in the draft resolution were included in E_RES_2016_5.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

‘Healthier Together’ EU non-communicable diseases (NCDs) initiative

With this initiative the European Union attempts to limit the effect and reoccurrence of NDCs. This action has been implemented since 2022 and will be concluded in 2027. During this period, the EU will be researching and developing new prevention and combating methods for NDCs, helping member states adopt a more holistic approach to the matter and create new guidelines that will tackle the issue on an international level. So far, 156 Million Euros have been donated to reach Sustainable Development Goal 3 and a new NDC sub-group was created in the Steering Group on Health Promotion, Disease Prevention and Management of Non-Communicable Diseases²⁸

²⁷ "United Nations Inter-Agency Task Force on the Prevention and Control of Non-Communicable Diseases :." *United Nations Digital Library System*, May 2016, www.digitallibrary.un.org/record/830707?ln=en

²⁸ European Union. "EU Non-communicable Diseases (NCDs) Initiative: Guidance Document." *Public Health*, www.health.ec.europa.eu/publications/eu-non-communicable-diseases-ncds-initiative-guidance-document_en

NLM/NCBI: Identifying the most effective essential medicines policies for quality use of medicines

In this study, the National Library of Medicine and the National Center for Biotechnology Information replicate three WHO data-sets and evaluate their use and effectiveness on people affected by Noncommunicable Diseases. Alongside this, the research team evaluated the policies regarding the use and overuse of medicine in general. Only 5 of 11 applied policies were effective in the majority of countries, meaning that this legislation is not appropriate for all countries to implement.²⁹

WHO Global Action Plan for the Prevention and Control of NCDs, 2013–2020

The WHO's Action Plan will serve as the base for the creation of policies for Member States, WHO, other UN organizations, NGOs, and intergovernmental and private sector organizations to evaluate and eventually adopt. This initiative includes 9 goals, one of which aims to reduce global NCD rates by 25% until 2025. This Action Plan was proposed and first adopted in 2013 and is still going on today.³⁰

POSSIBLE SOLUTIONS

Using Complementary and Alternative Medicine after surgeries

The use of Complementary and Alternative Medicine³¹, also known as CAM, has become increasingly popular. Albeit their key role in the postoperative phase, they are not direct alternatives for essential medicines. There are many different types of CAM practices, the most celebrated ones being those that strive to bring together the body and mind to help a patient reach a calmer state. Some examples of such CAM practices are meditation, hypnosis, or prayer. Another well-known CAM practice is acupuncture, a traditional Chinese medicinal practice that uses needles, pressure, and

²⁹ Holloway, Kathleen A., et al. "Identifying the Most Effective Essential Medicines Policies for Quality Use of Medicines: A Replicability Study Using Three World Health Organisation Data-sets." *PubMed*, 6 Feb. 2016, e www.pubmed.ncbi.nlm.nih.gov/32027679/

³⁰ ---. "Global Action Plan for the Prevention and Control of NCDs 2013-2020." *World Health Organization (WHO)*, 10 May 2015, www.who.int/news/item/10-05-2015-global-action-plan-for-the-prevention-and-control-of-ncds-2013-2020.

³¹ "Complementary and Alternative Medicine (CAM) | History & Facts." *Encyclopedia Britannica*, 17 Oct. 2013, www.britannica.com/science/complementary-and-alternative-medicine.

heat on target points to relieve a patient from pain or other symptoms³². This practice is known to relieve cancer patients of nausea caused by chemotherapy.

Researching alternatives

Considering medicinal value, essential medicines are favored because of their efficiency and rapid results. Be that as it may, it is highly likely that they do more harm than good, as they can damage crucial parts of the human body and organs. Researching alternatives to essential medicines will not only lower the rates of premature deaths from Noncommunicable Diseases but also bring forth new research methods that might be useful for future research on similar problems.

WHO training course on Noncommunicable Diseases

According to the WHO, there is a need for more expertise in the field of Noncommunicable Diseases. Taking that into consideration, the WHO is collaborating with international medical institutes and experts to raise the expertise level in the field. Through a series of seminars and workshops, new and experienced doctors and medical workers are called upon to join to gain some more knowledge and insight on the matter. Promoting this training course to the target audience will ensure that the lack of expertise rate drops in a short time.

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³² National Cancer Institute. "Acupuncture." *National Cancer Institute*, 12 July 2023, www.cancer.gov/about-cancer/treatment/cam/patient/acupuncture-pdq.

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