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Global Model WHO 2024

COMMITTEE A1

STUDY GUIDE

**CLIMATE CHANGE,
POLLUTION AND HEALTH**

Geneva, Switzerland
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The Most Accurate Simulation of the World Health Assembly

Global Model WHO

Committee A1

Climate Change, Pollution and Health (High School)

This study guide is designed to help you navigate the complex topics of climate change, pollution, and health as you prepare for the Global Model WHO A1 simulation. Use it alongside the official UN document as a reference. The guide includes key questions to prompt deeper thinking, facts to expand your knowledge, and a glossary to clarify important terms. Be sure to consult the page and paragraph numbers listed for each comment to see exactly what section of the document it addresses.

As you read through each section, reflect on the questions provided to help shape your arguments and anticipate counterpoints. The guide also offers insights that can aid in forming well-rounded, innovative solutions during debates. Use this resource to complement your own research and strengthen your overall understanding of the issues.

IMPACTS OF CHEMICALS, WASTE AND POLLUTION ON HEALTH

Things to Think About

Page 1, Paragraph 3

How do you think rising temperatures will affect our health and daily lives?

Suggested answers (Can you find other examples?):

- Increased temperatures can lead to heat exhaustion, heatstroke, and exacerbate cardiovascular and respiratory conditions.
 - *Example:* In 2019, heatwaves in Europe caused thousands of deaths due to heatstroke and dehydration, particularly among the elderly.
- Warming temperatures allow disease-carrying insects, like mosquitoes and ticks, to expand their habitats into regions where they didn't exist before.
 - *Diseases Spread:* Malaria, dengue fever, Lyme disease (Vector-borne diseases).

- Stronger hurricanes are becoming more common in a warmer climate as a result of climate change. As the strength of hurricanes increases, more intense rain falls in a shorter period of time which cannot be absorbed quickly enough by the ground or waterways resulting in rapid flooding. The flooding causes contaminants from farms and industrial sites that are toxic to people to end up in streams, rivers and private wells. Anyone who comes in contact with the flood water is at risk of [water-borne diseases](#), particularly people who are immunocompromised or have open wounds.
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Glossary (Page 1, Paragraph 2)

- **Hazardous Pesticides:**
Chemical compounds used to control pests that pose significant risks to human health, animals, or the environment. These pesticides have properties that make them dangerous if improperly handled, including toxicity, persistence in the environment, or potential to cause adverse effects through exposure.
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Did You Know That...

Page 1, Paragraph 2 The World Health Organization (WHO) is a UN agency established in 1948 with the mission to enhance global public health. WHO addresses various health issues, including those caused by the effects of climate change and pollution. WHO's role includes:

- Researching the impacts of climate change and pollution on health.
- Guiding policy development.
- Fostering international collaboration.
- Providing technical support to Member States to mitigate health risks resulting from environmental damage caused by human activity.

Page 1, Paragraph 2 The World Health Organization (WHO) recognizes several chemicals of public health concern due to their adverse effects on human health, such as:

- **Asbestos:** Linked to lung cancer and mesothelioma.
- **Lead:** Associated with neurological impairments, especially in children.
- **Mercury:** Can cause neurological and developmental damage.
- **Pesticides:** Certain types can be harmful, causing various health issues.

- Benzene: Known to increase the risk of leukemia.
- Arsenic: Associated with cancer and skin lesions, and can impact cardiovascular health

Page 1, Paragraph 3

DID YOU KNOW THAT...

As glaciers and permafrost melt due to climate change, they may release ancient viruses and bacteria that have been frozen for centuries. Some scientists fear that this could lead to the resurgence of diseases that modern humans have not encountered or have no immunity against. For example, in Siberia in 2016, a reindeer carcass thawed during an unusually warm summer, releasing anthrax spores that infected both animals and humans.

DEVELOPMENT OF PROPOSALS FOR A SCIENCE-POLICY PANEL

Glossary (Page 2, Paragraph 4)

- Science Policy Panel: A science policy panel is a group of experts that bridges the gap between scientific research and public policy. These panels are designed to inform and guide policymakers by providing evidence-based insights and recommendations on specific issues.

Things to Think About

Page 2, Paragraph 3

What do you think are the main benefits of researching the cost-effectiveness and benefits of health interventions?

Suggested answers (Can you find other examples?):

- Identifies strategies that provide the best health outcomes relative to their cost.
- Enables policymakers to make informed decisions about resource allocation.
- Ensures funding is used effectively to maximize public health benefits.
- Helps prioritize interventions that offer the greatest return on investment in terms of health improvements.

- Provides precise data to guide the creation of more effective public health policies and practices.
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RELEVANCE OF THE PROPOSALS TO WHO'S EXISTING ACTIVITIES

Did You Know That...

Page 2, Paragraph 7(a)

Air pollution causes about 7 million deaths annually, more than the combined deaths from malaria, tuberculosis, and AIDS. During the COVID-19 pandemic, global air quality temporarily improved due to reduced vehicle emissions and industrial activity. Exposure to fine particulate matter from car emissions, industrial activity, and wildfires can trigger asthma, heart disease, strokes, and lung cancer. Climate change exacerbates air pollution by increasing the frequency of wildfires and smog, which release harmful pollutants into the air.

Contaminated drinking water is also a major health concern which contain bacteria that cause diseases like cholera, dysentery, and typhoid, particularly in areas with poor water sanitation infrastructure.

Glossary (Page 2, paragraph 7 (a))

- **Additives:**
Substances added to something in small quantities, typically to improve or preserve it. In the context of food, additives are used to enhance flavor, appearance, or shelf-life.
 - **Toxicants:**
Poisonous substances that can cause harm to living organisms. Toxicants can be found in the environment, food, water, or as a result of human activity and can cause various health problems.
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Glossary (Page 3, Paragraph 7e)

- **Chemical Risk Assessments:**
Chemical risk assessment is a scientific process used to evaluate the potential health risks associated with exposure to chemicals. It involves identifying hazards, evaluating dose-response relationships, assessing exposure levels, and characterizing the overall risk.
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Glossary (Page 3, Paragraph 7g)

- Microplastics:

Tiny plastic particles less than 5 millimeters in size. Microplastics originate from the breakdown of larger plastic items or are manufactured as small particles. They are found in oceans, rivers, and soils, posing environmental and health risks.

- Cross-cutting:

Affecting multiple sectors or areas; having an impact across various fields or disciplines. Cross-cutting issues are those that influence a wide range of activities or sectors and require a coordinated approach to address effectively.

- Pharmaceuticals:

Medicines or drugs made to prevent, treat, or cure illnesses in humans and animals. They include a wide range of products, from pain relievers to antibiotics, and are used to manage health conditions and improve well-being.

Things to think about...

Page 4, paragraph 10

Before creating new entities like a working group on a particular issue Member States want to make sure it will duplicate work that is already being carried out by other bodies. As noted in the Glossary, a Working Group is usually formed with a specific task in mind. What is the added value of the having the WHO join the ad hoc working group?

Glossary: (Page 4, paragraph 10)

- Ad hoc open-ended working group:

An ad hoc open-ended working group is a temporary, flexible group formed for a specific task or issue, open to various stakeholders, including member states and NGOs.

- Horizon scanning:

Horizon scanning is the process of identifying and analyzing emerging trends and future developments to anticipate challenges and opportunities.

Things to think about...

Page 4, paragraph 12 (b)

Why is it crucial to have health-related experts on the panel, especially for health-related assessments? What potential biases or issues might arise that could compromise the work of the panel if health-related experts are not included in the panel? What role do health experts have in making sure that policies are science- and evidence-based?

Page 4, paragraph 12 (e)

Did you know that....

WHO's efforts in disseminating the panel's outputs can bridge the gap between research and policy?

Glossary (Page 4, paragraph 12 (f))

- **Capacity Building:**

In the context of WHO, capacity building refers to strengthening the abilities, skills, resources, and systems of individuals, organizations, and governments to improve public health outcomes and address health challenges more effectively. This typically includes:

- Providing health workers, policymakers, and communities with the knowledge and skills needed to address specific health issues;
- Helping countries develop and improve their healthcare infrastructure to ensure they can deliver quality healthcare services;
- Assisting governments in formulating and implementing health policies; and empowering local communities to take active roles in promoting health, preventing disease, and managing healthcare resources.

ENDING PLASTIC POLLUTION

Did You Know That...

Page 5, paragraph 13
Plastic does not decompose but breaks into smaller pieces over time. These microplastics are now found in human blood, stool, and even placentas, raising concerns about health impacts. Over 3,600 chemicals used in food packaging, representing about 25% of known food contact chemicals (FCCs), have been detected in human bodies, meaning they are entering our bodies through food packaging.

Large areas of floating plastic debris, known as "garbage patches," have formed in the ocean. The Great Pacific Garbage Patch is estimated to be twice the size

of Texas, highlighting the massive scale of plastic pollution. Marine animals, from plankton to whales, mistakenly ingest plastic debris, leading to malnutrition and death.

Glossary (Page 5, paragraph 14)

Petrochemicals: Petrochemicals are chemical products derived from petroleum or natural gas.

Endocrine disruptors: Chemicals that can interfere with the endocrine (hormonal) system in animals and humans.

Page 5, paragraph 15

An example of innovation in this context is the development of biodegradable medical plastics. These new materials are designed to break down more quickly and safely than traditional plastics, reducing environmental impact from waste. For instance, some biodegradable plastics used in medical devices and packaging are made from plant-based sources like corn starch or sugarcane, which decompose more readily in natural environments, thus minimizing long-term pollution and harm.

Glossary (Page 5, paragraph 15)

Primary Health Care: Primary health care is often the first point of contact with the healthcare system. and provides a comprehensive, accessible, affordable community-based form of care designed to meet the majority of an individual's health needs throughout their life. It focuses on prevention, wellness, the treatment of common illnesses and conditions and health education.

POSSIBLE OPTIONS FOR WHO'S ROLE IN THE INSTRUMENT ON PLASTIC POLLUTION

Glossary, Page 5, paragraph 17

Ratified: Refers to the formal approval or confirmation of an agreement, treaty, or legislation by a governing or official body like a legislature. In the context of international agreements, ratification is the second step in a process by which a country officially agrees to be bound by the terms of a treaty after it has been negotiated and signed.

Page 5, Footnote 1

The report referenced in the footnote on how to create a circular economy is very important to read.

Things to Think About

Page 6, Paragraph 18

During the COVID pandemic, there was a dramatic increase in single-use plastics associated with masks and PPE.

- What policies or regulations could be implemented to address the use of single-use plastics while ensuring public health is not compromised in future health emergencies?
 - What are some viable alternatives to single-use plastics in these applications that can provide the same health benefits without contributing to pollution?
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NEXT STEPS

Things to Think About

Page 6, Paragraph 20

This can be achieved through continuous engagement with national health ministries and risk assessment institutions, offering workshops, and capacity-building initiatives, and sharing best practices. Additionally, WHO can ensure real-time communication and updates on the science-policy panel and plastic pollution developments, facilitating informed decision-making and prompt responses to emerging health issues related to these initiatives.

Glossary (Page 6, paragraph 22)

- **Binding** Instrument:
Refers to something that imposes a legal obligation or requirement. A binding agreement or contract is enforceable by law. WHO primarily issues recommendations, guidelines, and resolutions, but they do not have the authority to make binding decisions on member states.
- **Draft** Provisions:
Refers to preliminary or proposed terms of an agreement subject to revision and discussion before finalization. Draft provisions outline the intended rules and obligations, and are often amended during the drafting process before being formally adopted.

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