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Health and Energy Modules

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MODULE 1: HEALTH (Week 1)

Why is health such an important site for understanding global processes? How do you see the effects of economic, political, and cultural globalization on your own health?

What is global health?

Global health becomes one of the crucial types of global governance in modern times, especially our current time. However, even though it is extensively discussed, its definition is poorly known. According to Koplan et al (2009), global health is *“an area for study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health emphasizes transnational health issues, determinants and solutions; involves many disciplines within and beyond the health sciences and promotes inter-disciplinary collaboration; and is a synthesis of population-based prevention with individual-level clinical care.”*

Watch: What is Global Health by School of Global Studies, Thammasat University

https://www.youtube.com/watch?v=TW8TeaPevyA&feature=emb_title

If you learn more about global health, its indicators and issues, please click WHO's link below:

<https://www.who.int/data/gho>

As we may realize, even if our first impression on health issues can be that health is related to medicine and natural science, we can't actually think health outside of its social context. It is closely connected to politics, policy, sociology, economics, and cultural studies.

Read a short article on **interdisciplinary side** of global health:

https://en.wikibooks.org/wiki/Issues_in_Interdisciplinarity_2018-19/Imperialism_in_Global_Health

Reading statistics in global health:

Looking at the problems in two different dimensions:

Watch: <https://www.youtube.com/watch?v=jbkSRLYSojo> by Hans Rosling -The Joy of Stats- BBC Four

Watch: <https://www.youtube.com/watch?v=Oolcsj9ysvs> A comment on Hans Rosling By Roland Paulsen

13 main challenges listing currently by WHO:

<https://www.globalcitizen.org/en/content/most-urgent-health-challenges-for-the-2020s/>

Why do we have global health problems?



THE REASONS OF GLOBAL HEALTH PROBLEMS:

1. PANDEMICS
2. ENVIRONMENTAL FACTORS
"Climate change is thought by many global health experts to be the greatest threat to human health" (Macpherson).
3. ECONOMIC INEQUALITIES AND ACCESS TO HEALTH CARE
4. POLITICAL FACTORS
ex: refugee migration, conflicts that destroys infrastructures for transportation, water, sanitation
5. NONCOMMUNICABLE DISEASES
ex: Heart disease, stroke, cancer, diabetes. These and other noncommunicable diseases (NCDs) account for 70 percent of all deaths worldwide. They can be attributed to genetic, physiological, environmental, and behavioral factors.
6. ANIMAL HEALTH, FOOD SOURCING, AND SUPPLY
Most diseases transmitted humans from animals.

SOURCE: <https://www.sgu.edu/blog/medical/what-is-global-health/>

Facing future challenges for global health

Antibiotic (Antimicrobial) resistance

Watch: <https://www.youtube.com/watch?v=gnQL-brl-9I> by Earthling Ed

Suggested video: How can we solve the antibiotic resistance crisis? By Gerry Wright (TED-ED)

<https://www.youtube.com/watch?v=ZvhFeGEDFC8>

MODULE 2: ENVIRONMENT (Week 2)

What is biodiversity?

Biodiversity refers to the variety of life and its processes, including the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.

Read Introduction(Biodiversity) : <https://www.oercommons.org/courses/understanding-biodiversity/view>

Amazon rainforest is one of the largest biodiverse locations on earth. At least 10% of the earth's biodiversity comes from Amazon rainforest. Thus, it places a substantial part in combating climate change.

Watch: <https://www.youtube.com/watch?v=pRZKGLIc9DA> by What If Youtube channel.

How long would it take for the world's largest rainforest to burn down? If we don't do anything to stop it, we'll soon find out. The Amazon rainforest creates 20% of the Earth's oxygen. It also holds the secrets to treating some of our most deadly diseases. If we destroy the Amazon rainforest, the consequences would be disastrous, and they'd be felt all around the world. Could we survive without it?

What are the main reasons for loss of biodiversity?

Watch: Biodiversity is collapsing worldwide. Here's why by Our Changing Climate Channel

<https://www.youtube.com/watch?v=1cvMX82iwRM>

Biodiversity is a measure of the variety and variability of life, and climate change is causing the decline of biodiversity in numerous ecosystems **via extreme weather, sea-level rise, and habitat destruction**. Biodiversity matters because without such a variety of life and species, ecosystems begin to collapse ultimately affecting the livelihoods of communities reliant on healthy, biodiverse ecosystems. Biodiversity loss caused by climate change ultimately means species extinctions and a disconnect between animals and plants.

Why is climate change being a critical global issue?

Watch: Causes and Effects of Climate Change by National Geographic

https://www.youtube.com/watch?v=G4H1N_yXBIA

The important points in the video:

The Greenhouse effect- It is caused by the atmospheric accumulation of gases such as carbon dioxide and methane. These gases warm the Earth's surface. Why? Human activities, such as burning fossil fuels can increase the amount of carbon dioxide in the atmosphere.

Climate change has negative consequences on our **oceans, weather, food, and health.**

How can we overcome climate change problem?

Watch: Three Solutions That Can Slow or Stop Climate Change by collaboration of NOVA & PBS

<https://www.youtube.com/watch?v=YoZF16PZYoU>

Summary:

1. Transforming to Renewable Energies
2. Adapt Mediterranean or plant-based diet
3. Reduced Food Waste
4. Reduced deforestation

Is only individual action being sufficient for combating climate change?

Watch: <https://www.youtube.com/watch?v=RSgXcFdHxFl&t=287s>

Suggested Readings:

If you are interested in Amazon rainforest fires and deforestation, please see the article below as well.

<https://www.bbc.com/news/world-latin-america-49450925> (Ten readers' question answered regarding Amazon rainforest fires.)

<https://www.theguardian.com/news/2018/mar/12/what-is-biodiversity-and-why-does-it-matter-to-us> I highly recommend you read this article regarding biodiversity. The article discusses the problems of coffee and cacao as well. It focuses on similar issues in the video of Biodiversity is collapsing worldwide. Here's why, but also focuses on the particular animals' future in the context of loss of biodiversity, such as insects and animals under the sea. The article also asks crucial questions, such as what it should be done for eliminating the loss of biodiversity.