

## Exploring Global Public Health: Concepts and Challenges

### Background:

In today's interconnected world, global public health stands as a critical pillar of our collective well-being. The COVID-19 pandemic served as a monumental test for humanity, pushing the boundaries of our population's health and healthcare systems to the brink and leaving behind valuable lessons. As we navigate the aftermath of COVID-19, it becomes imperative for each of us to actively shape the future of global health. This seminar aims to offer an in-depth exploration of the multifaceted realm of global public health, covering essential concepts, historical insights, governance frameworks, and contemporary hurdles. Led by the professionals in the field, participants will delve into the intricate challenges of addressing health disparities, pandemics, and environmental health issues on a global scale.

### Learning Objectives:

- 1. Foundational Understanding:** Gain an in-depth understanding of global public health concepts, historical developments, and the roles of key international actors such as the WHO and UN.
- 2. Epidemiological Insights:** Analyze disease patterns, the impact of globalization on disease transmission, and the social determinants of health driving health inequities.
- 3. Global Health Security:** Explore emerging infectious disease threats, pandemic preparedness, and the interconnectedness of human, animal, and environmental health.
- 4. Health Systems and Access:** Examine challenges in accessing healthcare, strategies for strengthening health systems, and progress towards achieving universal health coverage (UHC).
- 5. Immunization Programs:** Investigate the importance of vaccines in public health, vaccine hesitancy phenomena, and strategies to improve immunization coverage.
- 6. Humanitarian Emergencies:** Understand public health principles and interventions in humanitarian crises, including mental health support and capacity building.
- 7. Maternal and Child Health:** Assess maternal and child mortality trends, reproductive health services, and strategies to enhance maternal and child health outcomes.
- 8. Environmental Health:** Explore the health impacts of environmental degradation, sustainable development goals related to health, and global initiatives for environmental health protection.

**Teaching Methods:**

The course employs a variety of interactive teaching methods, including lectures, discussions, case studies, and guest speaker presentations. Participants will engage with relevant literature and resources to deepen their understanding of each topic.

**Target Audience:**

This course is designed for graduate students and professionals interested in gaining a comprehensive understanding of global public health issues and interventions. It is particularly relevant for those pursuing careers in public health, international development, healthcare management, and related fields.

**Seminar Structure:**

The course spans 11 weeks, with each week focusing on a specific theme within global public health. Sessions include lectures, discussions, and opportunities for collaborative learning and knowledge exchange.

**Week 1: Introduction to Global Public Health**

1. Overview of Global Public Health: Concepts and Definitions
2. Historical Perspectives on Global Health
3. Global Health Governance: WHO, UN, and Other Key Actors
4. Key Challenges in Global Public Health: Inequities, Epidemics, and Environmental Health

**Required Readings:**

1. Physiopedia [Internet]. [cited 2024 May 17]. Overview of Global Health. Available from: [https://www.physio-pedia.com/Overview\\_of\\_Global\\_Health](https://www.physio-pedia.com/Overview_of_Global_Health)
2. Palilonis MA. An Introduction to Global Health and Global Health Ethics: A Brief History of Global Health.
3. Kelley PW. Global Health: Governance and Policy Development. *Infect Dis Clin North Am*. 2011 Jun;25(2):435–53.
4. Raviglione MCB, Tediosi F, Villa S, Casamitjana N, Plasència A, editors. *Global Health Essentials* [Internet]. Cham: Springer International Publishing; 2023 [cited 2024 May 17]. (Sustainable Development Goals Series). Available from: <https://link.springer.com/10.1007/978-3-031-33851-9>

## Week 2: Global Burden of Disease

1. Epidemiological Transition and Disease Patterns
2. Communicable and Non-communicable Diseases
3. Social Determinants of Health and Health Inequities
4. Role of Globalization in Disease Transmission

### Required Readings:

1. Global Burden of Disease (GBD) [Internet]. [cited 2024 May 17]. Available from: <https://www.healthdata.org/research-analysis/gbd>
2. Our work: communicable and noncommunicable diseases, and mental health [Internet]. [cited 2024 May 17]. Available from: <https://www.who.int/our-work/communicable-and-noncommunicable-diseases-and-mental-health>
3. Social determinants of health [Internet]. [cited 2024 May 17]. Available from: <https://www.who.int/health-topics/social-determinants-of-health>
4. Frenk J, Gómez-Dantés O, Knaul FM. Globalization and Infectious Diseases. *Infect Dis Clin North Am.* 2011 Sep;25(3):593–9.

## Week 3: Infectious Disease Threats and Global Health Security

1. Emerging Infectious Diseases: Pandemics and Epidemics
2. Disease Surveillance and Early Warning Systems
3. One Health Approach: Integrating Human, Animal, and Environmental Health
4. International Health Regulations and Global Health Diplomacy

### Required Readings:

1. Doorn HR van. The epidemiology of emerging infectious diseases and pandemics. *Medicine.* 2021 Oct 1;49(10):659–62.
2. McCoy D, Roberts S, Daoudi S, Kennedy J. Global health security and the health-security nexus: principles, politics and praxis. *BMJ Glob Health.* 2023 Sep 25;8(9):e013067.
3. National Academies of Sciences E, Division H and M, Health B on G, States C on GH and the F of the U. Infectious Diseases, Pandemic Influenza, and Antimicrobial Resistance: Global Health Security Is National Security. In: *Global Health and the Future Role of the United States* [Internet]. National Academies Press (US); 2017 [cited 2024 May 17]. Available from:
4. Kickbusch I, Liu A. Global health diplomacy—reconstructing power and governance. *Lancet.* 2022;399(10341):2156–66.
5. da Silva MAD, Skotnes-Brown J. Emerging Infectious Diseases and Disease Emergence: critical, ontological and epistemological approaches. *Isis.* 2023 Sep;114(Suppl 1):S26–49.

## **Week 4: Health Systems and Universal Health Coverage (UHC)**

1. Challenges in Access to Healthcare: Geographical, Financial, and Cultural Barriers
2. Health Systems Strengthening and Primary Health Care
3. UHC as a Global Health Goal: Progress and Challenges
4. Case Studies on Successful UHC Implementation

### **Required Readings:**

1. UHC2030. Healthy Systems for Universal Health Coverage: A Joint Vision for Healthy Lives [Internet]. Geneva: World Health Organization and the World Bank; 2018 [cited 2024 May 20]. Available from: <http://hdl.handle.net/10986/29231>
2. Universal health coverage (UHC) [Internet]. [cited 2024 May 20]. Available from: [https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-\(uhc\)](https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc))
3. Kieny MP, Bekedam H, Dovlo D, Fitzgerald J, Habicht J, Harrison G, et al. Strengthening health systems for universal health coverage and sustainable development. *Bull World Health Organ.* 2017 Jul 1;95(7):537–9.
4. Papanicolas I, Rajan D, Karanikolos M, Figueras J. Assessing health systems performance for UHC: Rationale and Approach. In: *Health system performance assessment: A framework for policy analysis* [Internet] [Internet]. European Observatory on Health Systems and Policies; 2022 [cited 2024 May 20]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK590193/>

## **Week 5: Vaccine Hesitancy and Immunization Programs**

1. Importance of Vaccines in Public Health
2. Vaccine Development, Safety, and Efficacy
3. Vaccine Hesitancy: Causes and Consequences
4. Strategies to Address Vaccine Hesitancy and Improve Immunization Coverage

### **Required Readings:**

1. MacDonald NE. Vaccine hesitancy: Definition, scope and determinants. *Vaccine.* 2015 Aug 14;33(34):4161–4.
2. Shen S (Cindy), Dubey V. Addressing vaccine hesitancy. *Can Fam Physician.* 2019 Mar;65(3):175–81.
3. How Vaccines are Developed and Approved for Use | CDC [Internet]. 2023 [cited 2024 May 20]. Available from: <https://www.cdc.gov/vaccines/basics/test-approve.html>
4. Singh P, Dhalaria P, Kashyap S, Soni GK, Nandi P, Ghosh S, et al. Strategies to overcome vaccine hesitancy: a systematic review. *Syst Rev.* 2022 Apr 26;11:78.

## **Week 6: Health in Humanitarian Emergencies: Principles and Practice for Public Health**

1. Introduction to Humanitarian Emergencies
2. Public Health Challenges in Humanitarian Emergencies
3. Principles of Public Health Response
4. Essential Public Health Interventions
5. Health Systems Strengthening and Capacity Building

### **Required Readings:**

1. Singh P, Dhalaria P, Kashyap S, Soni GK, Nandi P, Ghosh S, et al. Strategies to overcome vaccine hesitancy: a systematic review. *Syst Rev.* 2022 Apr 26;11:78.
2. Public Health Challenges During a Humanitarian Crisis | Rollins School of Public Health | Emory University | Atlanta GA [Internet]. [cited 2024 May 20]. Available from: <https://sph.emory.edu/news/news-release/2023/10/public-health-challenges-during-humanitarian-crisis.html>
3. Al-Awlaqi S, Dureab F, Tambor M. The National Health Cluster in Yemen: assessing the coordination of health response during humanitarian crises. *Int J Humanitarian Action.* 2022 Dec;7(1):9.

## **Week 7: Mental Health and Well-being**

1. Global Mental Health: Burden and Challenges
2. Social Determinants of Mental Health
3. Mental Health Promotion and Prevention Strategies
4. Mental Health Services Delivery and Integration into Primary Care

### **Required Readings:**

1. About Mental Health [Internet]. 2024 [cited 2024 May 20]. Available from: <https://www.cdc.gov/mentalhealth/learn/index.htm>
2. Arias D, Saxena S, Verguet S. Quantifying the global burden of mental disorders and their economic value. *eClinicalMedicine* [Internet]. 2022 Dec 1 [cited 2024 May 20];54. Available from: [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(22\)00405-9/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(22)00405-9/fulltext)
3. Compton MT, Shim RS. The Social Determinants of Mental Health. *FOC.* 2015 Oct;13(4):419–25.

## **Week 8: Maternal and Child Health**

1. Maternal and Child Mortality: Trends and Disparities
2. Reproductive Health Services and Family Planning
3. Child Nutrition and Growth Monitoring
4. Strategies to Improve Maternal and Child Health Outcomes

### **Required Readings:**

1. Maternal mortality [Internet]. [cited 2024 May 20]. Available from: <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality>
2. Family planning/contraception methods [Internet]. [cited 2024 May 20]. Available from: <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>
3. Child growth [Internet]. [cited 2024 May 20]. Available from: <https://www.who.int/health-topics/child-growth>
4. General (OSG) O of the S. STRATEGIES AND ACTIONS: IMPROVING MATERNAL HEALTH AND REDUCING MATERNAL MORTALITY AND MORBIDITY. In: The Surgeon General's Call to Action to Improve Maternal Health [Internet] [Internet]. US Department of Health and Human Services; 2020 [cited 2024 May 20]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK568218/>

## **Week 9: A social and sustainable vision for surgery at the global scale**

1. The history, missions and challenges of global surgery
2. Digital solutions for global surgical care
3. Social surgery and the deliberative model of care
4. Surgery and environmental sustainability

### **Required Readings:**

1. Missions, Humanitarianism, and the Evolution of Modern Global Surgery - Danielle I. Ellis, Don K. Nakayama, Tamara N. Fitzgerald, 2021 [Internet]. [cited 2024 May 20]. Available from: <https://journals.sagepub.com/doi/10.1177/0003134820979181>
2. Qin R, Alayande B, Okolo I, Khanyola J, Jumbam DT, Koea J, et al. Colonisation and its aftermath: reimagining global surgery. *BMJ Glob Health*. 2024 Jan 4;9(1):e014173.

3. Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development - The Lancet [Internet]. [cited 2024 May 20]. Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60160-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60160-X/fulltext)
4. Malhotra K, Wong BNX, Lee S, Franco H, Singh C, Cabrera Silva LA, et al. Role of Artificial Intelligence in Global Surgery: A Review of Opportunities and Challenges. *Cureus*. 15(8):e43192.
5. Cunha MF, Pellino G. Environmental effects of surgical procedures and strategies for sustainable surgery. *Nat Rev Gastroenterol Hepatol*. 2023 Jun;20(6):399–410.

## **Week 10: Health Beyond Borders**

1. Health as a matter of international relations and diplomacy
2. Health in the European Union
3. G7 and G20 negotiating for health
4. Youth involvement in health promotion and policy

### **Required Readings:**

1. Administrator. World Health Organization - Regional Office for the Eastern Mediterranean. [cited 2024 May 20]. Global health needs global health diplomacy. Available from: <http://www.emro.who.int/health-topics/health-diplomacy/about-health-diplomacy.html>
2. Kickbusch I, Liu A. Global health diplomacy—reconstructing power and governance. *Lancet*. 2022;399(10341):2156–66.
3. Health in the European Union – facts and figures [Internet]. [cited 2024 May 20]. Available from: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Health\\_in\\_the\\_European\\_Union\\_%E2%80%93\\_facts\\_and\\_figures](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Health_in_the_European_Union_%E2%80%93_facts_and_figures)
4. Beton H. The Global Governance Project. 2023 [cited 2024 May 20]. G20 and G7 convergence key for a new global health order. Available from: <https://www.globalgovernanceproject.org/g20-and-g7-convergence-key-for-a-new-global-health-order/hatice-beton/>
5. McBride B, Hawkes S, Buse K. Soft power and global health: the sustainable development goals (SDGs) era health agendas of the G7, G20 and BRICS. *BMC Public Health*. 2019 Jun 24;19(1):815.