

Global Health Starter Kit for Pre-Doctoral Dental Education

Module 4: Social Determinants and Risks

The process of creating and designing this module took place in the following order:

Competencies → Learning Objectives → Evaluation Metric → Content → Pedagogy → Evaluation Measure

Module	Themes	Related Competencies	Collaborating Author (with Brittany Seymour- project PI)
4	Social determinants for health and disease worldwide	1.2.1, 1.2.2, 2.1.2, 2.1.5, 2.2.3, 2.3.1	<p><u>Jennifer Kasper, MD, MPH</u> Assistant Professor Department of Social Medicine Harvard Medical School Chair, Global and Community Health Committee HMS Scholars in Medicine Program</p> <p><u>Karen Sokal-Gutierrez MD, MPH</u> Clinical Professor Pediatrics UC Berkeley-UCSF Joint Medical Program</p>

Related competencies:

- 1.2.1. Identify and describe common risk factors of oral diseases.
- 1.2.2. Identify and describe common (social) determinants of oral disease.
- 2.1.2. Understand and apply health promotion and risk reduction strategies (such as health eating, cessation of tobacco, and reduction of harmful alcohol use).
- 2.1.5. Identify patient populations at increased risk for oral diseases and ensure regular attendance through oral health professionals.
- 2.2.3. Identify barriers to access and use of health and oral health services (e.g., affordability, lack of insurance or providers, cultural and geographic issues); facilitate solutions to overcome them.
- 2.3.1. Advocate for relevant strategies to prevent and reduce risk factors based on an advocacy strategy to identify, mobilize, and connect relevant stakeholders/actors.

Learning objectives:

- Define the social determinants of health
- Describe the social gradient in health
- Explain the concept of the 'bottom billion,' their indicators and characteristics
- Define the Biomedical Model and Sociocultural Models for health and discuss the advantages and disadvantages of each

Evaluation metric:

Pass:

- Student is able to describe the social determinants of health in general terms (e.g. social, political, economic, environmental, and physical conditions into which people are born, live and grow, learn, work, and play that impact their health and quality of life, beyond their individual physiology and behaviors.)
- Student is able to list at least three major social determinants of health (e.g. income, housing, employment, race, gender, etc.)
- Student is able to describe the social gradient in health as an inverse relationship between income level and poor health (e.g. higher income means better health.)
- Student is able to explain who the 'bottom billion' are (e.g. the poorest billion people in the world who are not experiencing the benefits of global development at the same rate as the rest of the world) and list at least two characteristics (e.g. they used to be concentrated

primarily in low income countries, today they are mostly in middle income nations, they have poorer health outcomes compared to the global average, including average lower life expectancy, and higher maternal and child mortality and malnutrition rates.)

- Student is able to explain the Biomedical Model for health (e.g. relies on the scientific process and evidence-based practices, provides a physiological understanding of how the body functions, what happens when a viral or bacterial invasion occurs, and how to treat it, isolates cause and effect)
- Student is able to give at least two advantages (e.g. demonstrated success, universal, evidence-based) and at least two disadvantages of the Biomedical Model for health (e.g. does not account for context or human behavior, people are not always receptive)
- Student is able to explain the Sociocultural Model for health (e.g. examines the personal, social, and cultural influences on the experience of illness and care, beyond physiology, considers how people define health and pursue care based on their beliefs, customs, cultural and religious practices, and social networks)
- Student is able to give at least two advantages (e.g. takes into account cultural practices and behaviors) and at least two disadvantages of the Sociocultural Model for health (e.g. not universal, can lead to counterproductive stigma/stereotypes around traditional/alternative medicine)

Critical error:

- Student is unable to generally describe the social determinants of health and cannot name at least three examples
- Student is unable to describe the social gradient in health or the relationship between health and income
- Student is unable to explain the basic concept of the 'bottom billion,' (e.g. billion poorest people in the world, are not seeing the same rates of improvement as the rest of the world)
- Student cannot list at least three characteristics and/or indicators of the 'bottom billion'
- Student is unable to describe the Biomedical Model for health and cannot list at least two advantages and disadvantages
- Student is unable to describe the Sociocultural Model for health and cannot list at least two advantages and disadvantages

Content: Social and societal determinants of health, vulnerable populations, the Bottom Billion, sociocultural and biomedical models for health

Pedagogy:

Lecture: Interactive Presentation

In-class activity: Meet Joe

Pre-readings:

- World Health Organization. Closing the gap in a generation: health equity through action on the social determinants of health. COMMISSION ON SOCIAL DETERMINANTS OF HEALTH | FINAL REPORT – EXECUTIVE SUMMARY ONLY. 2008
http://apps.who.int/iris/bitstream/10665/43943/1/9789241563703_eng.pdf
- Sumner A. Global Poverty and the New Bottom Billion: What if Three-Quarters of the World's Poor Live in Middle-Income Countries? Institute of Developmental Studies. September 2010;1-43. Accessed on February 12, 2018 at:
https://www.cgdev.org/sites/default/files/1424922_file_Sumner_brief_MIC_poor_FINAL.pdf

- Watt RG. Social determinants of oral health inequalities: implications for action. *Community Dent Oral Epidemiol* 2012; 40 (Suppl. 2): 44–48.
<https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1600-0528.2012.00719.x>

Additional optional reading:

- Barnes-Josiah D, et al. The “Three Delays” as a framework for examining maternal mortality in Haiti. *Soc Sci. Med.* 1998; (46)8; pp. 981-993.
- Haram, L. (1991). Tswana Medicine in Interaction with Biomedicine. *Social Science and Medicine*, 33(2), 167-175.

Evaluation method: This module can be effectively evaluated using short answer, essay, or multiple-choice questions. The evaluation metric may be used to inform short answer questions, the following questions may be used, or the instructor may wish to write the evaluation based on how the module was taught and what was covered.

1. Which of the following below is the *best* potential approach to reducing risk of oral disease due solely to social determinants?

- Oral hygiene instruction, including brushing at home with fluoridated toothpaste
- Caries risk assessment
- A policy requiring fresh fruits and vegetables in school lunches**
- Patient education

2. The following is the definition of what term?

“At different points in the life course from early life to old age, oral diseases are socially patterned across the entire social hierarchy. Oral diseases are directly related to socioeconomic position in a stepwise graded fashion.”

- Oral Health Socioeconomic Status
- Social Gradient of Oral Health**
- Oral Disease Disparity Scale
- Lifespan Disparities

3. Which social determinant is the strongest predictor of health?

- Tobacco use
- Diet
- Income**
- Access to a health care provider
- Health insurance

4. In today’s sustainable development era, the focus on the Bottom Billion aims to concentrate on which of the following:

- The lowest income nations of the world
- People, despite their locations, who are living in extreme poverty**
- Primarily sub-Saharan Africa, China, and India
- Countries with a GNI per capita of \$1025 or less

5. Which of the following are indicators of the Bottom Billion, compared to the global average?

- Lower life expectancy
- Lower child mortality rates before the age of 1 year
- Higher rates of chronic child malnutrition
- Higher rates of NCDs
- All but d**

6. Which model for health is represented by the following statement:

“Vaccines have the same physiologic mechanism whether administered in the United States or Rwanda. This is why they work, why they have led to a global reduction in vaccine-preventable illnesses such as measles and polio.”

- a. Sociocultural Model
- b. Universal Coverage Model
- c. Biomedical Model**
- d. Primary Care Model