



Social Determinants of Health

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Disclosures

I have no pertinent financial disclosures or conflicts of interest.

Learning Objectives

- Define Social Determinants of Health
- Understand the relationship between social factors and disease states
- Apply population health principles to medical care
- Investigate precedents to inequities in your patient population

Social Determinants of Health - WHO

The non medical factors that influence health outcomes
Conditions in which people are born, grow, work and age
Wider set of forces shaping the conditions of daily life

- Economic policies and systems
- Development agendas
- Social norms
- Social policies
- Political systems.

Importance

30-55% of health outcomes determined by non medical factors
 Larger influence than within health sector
 Exceeds impact of lifestyle choices
 Impacts all disease states and general wellness
 Highlighted in moments of crisis

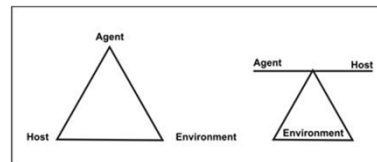
- COVID-19
- Natural disasters

Disease Causation

Historical theories

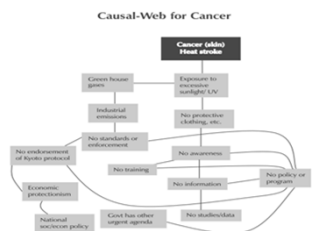
- Miasma
- Divine retribution
- Humoral imbalance

Germ Theory
 Epidemiologic Triad
 Web of causation



Source: CDC

Web of Causation



Source: WHO

Population health



Figure 1.2. The Social-Ecological Model: A Framework for Prevention

Source: CDC

Inequity factors



Molony, Elspeth & Duncan, Christine. (2016). Income, Wealth and Health Inequalities — A Scottish Social Justice Perspective. *AIMS Public Health*, 3, 255-264. 10.3934/publichealth.2016.2.255. - (CC BY 4.0)

Maslow's Hierarchy of Need



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Inequity v Injustice

Right to health – WHO 1946

The World Health Organization (WHO) Constitution of 1946 declared that the “enjoyment of the highest attainable standard of health”—defined as “**a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity**”—“is one of the fundamental rights of every human being”

Application to Medical Care

- Disease state
- Demographic features
- Location/community

Asthma

- Individual
 - Smoking status, activity, adherence to medications
- Relationship
 - Smoke exposure, parental participation
- Community
 - Access to health services, emergency response
- Environment
 - Air quality index, walkable neighborhoods
- Societal
 - Zoning policy, environmental policy, healthcare coverage, affordable safe housing, occupational safety protections



COVID-19

- Pathogen
 - Covid-19 Virus/variants
- Host factors
 - Comorbidities, smoking status, social behaviors, occupation, mode of transportation
- Environmental
 - Population density, household density
- Interpersonal
 - Primary contacts and exposures, occupations
- Community
 - Cultural norms and expectations, modes of transportation, resource availability
- Policy
 - Mask policies, vaccination policies, public relations and health education



Image credit: Davian Ho for the [Innovative Genomics Institute](#) (CC BY-NC-SA 4.0)

Racial inequity

- Individual
 - Chronic stress of systemic racism vs privilege
 - Access to economic, academic, and social opportunities
- Interpersonal/family
 - Generational trauma, lack or presence of generational wealth
- Community
 - History of trauma, discrimination, de facto segregation
- Policy/societal
 - Historical and present exclusion from resources, systemic racism

Socio Economic Status

- Individual
 - Limited economic, political, and social opportunity
- Interpersonal/family
 - Cycle of poverty, higher risk of trauma exposure
- Community
 - Concentrated areas of low or high resources, low or high educational quality and access, low or high healthcare quality or access
- Policy/Societal
 - Greater influence in policy in communities with wealth, unequal distribution of resources

Sex

Individual

- Disparate access to opportunities, unequal access to appropriate healthcare

Interpersonal/family

- Familial and cultural values promoting or limiting access to opportunities and health care resources

Community

- Expectations of gender roles and systemic discrimination

Policy/Societal

- Discriminatory laws, health policies, and health practices widening inequities, limited representation in research vs overrepresentation

Religious affiliation

Individual

- Majority or minority religion status, protective factors of belief and community vs limitations of religious structure, discrimination by religious affiliation

Interpersonal/Family

- Protective factor of cohesion vs splintering or restriction

Community

- Protective features of community support, Marginalization/exclusion, control vs support from religious leadership

Policy/Societal

- Aligned vs exclusive policies, codified discrimination

Orientation and gender identity

Individual

- Social isolation, discrimination, limited access to resources, risk of violence

Interpersonal

- Loss of family support, majority peer relationships

Community

- Marginalization/isolation, exclusion from broader community resources

Policy/Societal

- Codified discrimination, marriage legalization

Impacts

- Access to resources- financial, social, healthcare, educational, housing stability
- Social capital, generational wealth
- Limited representation in medical research

Black Maternal Health

Effect

Black maternal mortality is 3x higher than white counterparts

Significance persists with stratification by SES, education

Individual experience

Comorbidities, inadequate pre and post natal care, chronic stress

Larger environmental factors

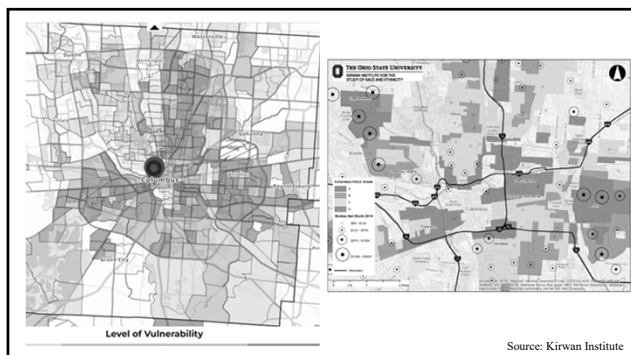
Structural racism, bias in care providers, limited access to care/variable quality of care



Intersections of Risk

Interconnected determinants concentrate by zone/community

- Resource availability
- Historical/present exclusion- Racism, discrimination
- Financial
 - Concentrated poverty + concentrated wealth
- Social/interpersonal
 - Primary household members, local community resources
- Education
 - Access to quality primary education, access to higher education in individual and community
- Life/quality of life expectancy
- Childhood Opportunity Index
- Impact of external events
- Social Vulnerabilities index



Conclusions

- Social determinants of health are universal and relevant to health outcomes
- Health outcomes are more closely related to social determinants of health than to medical care
- Health inequity is largely driven by social determinants of health
- Health disparities are consequences of larger factors of community, environment, policy, and societal values

Additional Resources

Documentary

Unnatural Causes: Is inequality making us sick?
Frontline: Growing up poor in America

Reading

The Health Gap: Michael Marmot
Medical Apartheid: Harriet A Washington

Organizations

Kirwan Institute- OSU
CDC- Healthy People, WHO- Development goals
National Community Reinvestment Council