



# 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

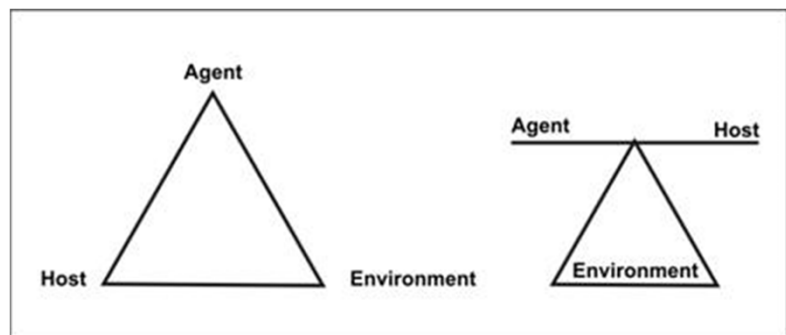
Historical theories

- Miasma
- Divine retribution
- Humoral imbalance

Germ Theory

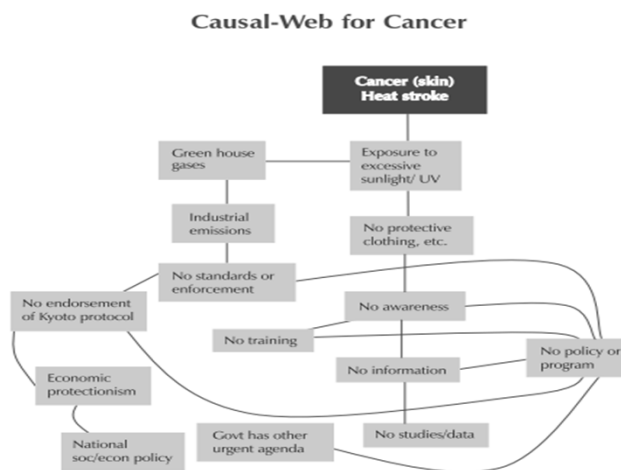
Epidemiologic Triad

Web of causation



Source: CDC

## Web of Causation



Source: WHO

## Population health

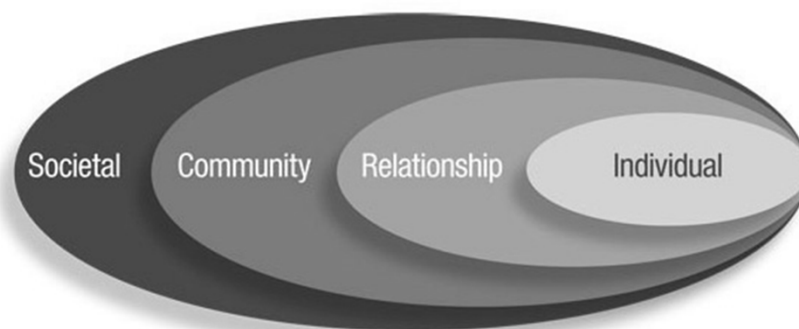
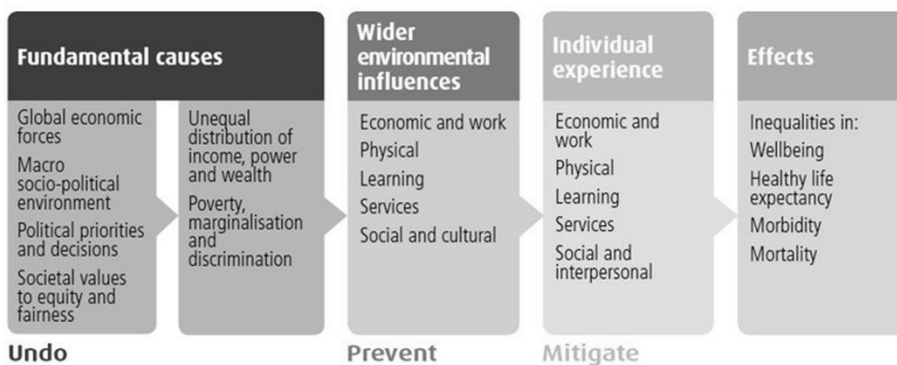


Figure 1.2. The Social-Ecological Model: A Framework for Prevention

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



Author: User: Tigeralee GFDL and Creative Commons Attributions 3.0

## 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

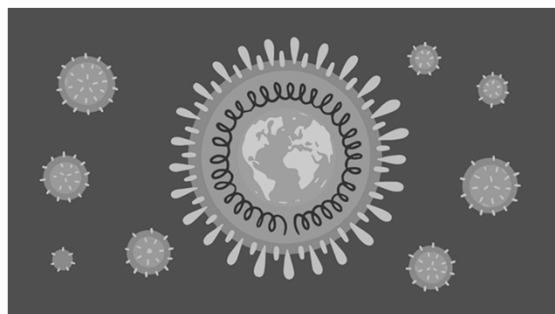


Image credit: Davian Ho for the [Innovative Genomics Institute](#) (CC BY-NC-SA 4.0)

## 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

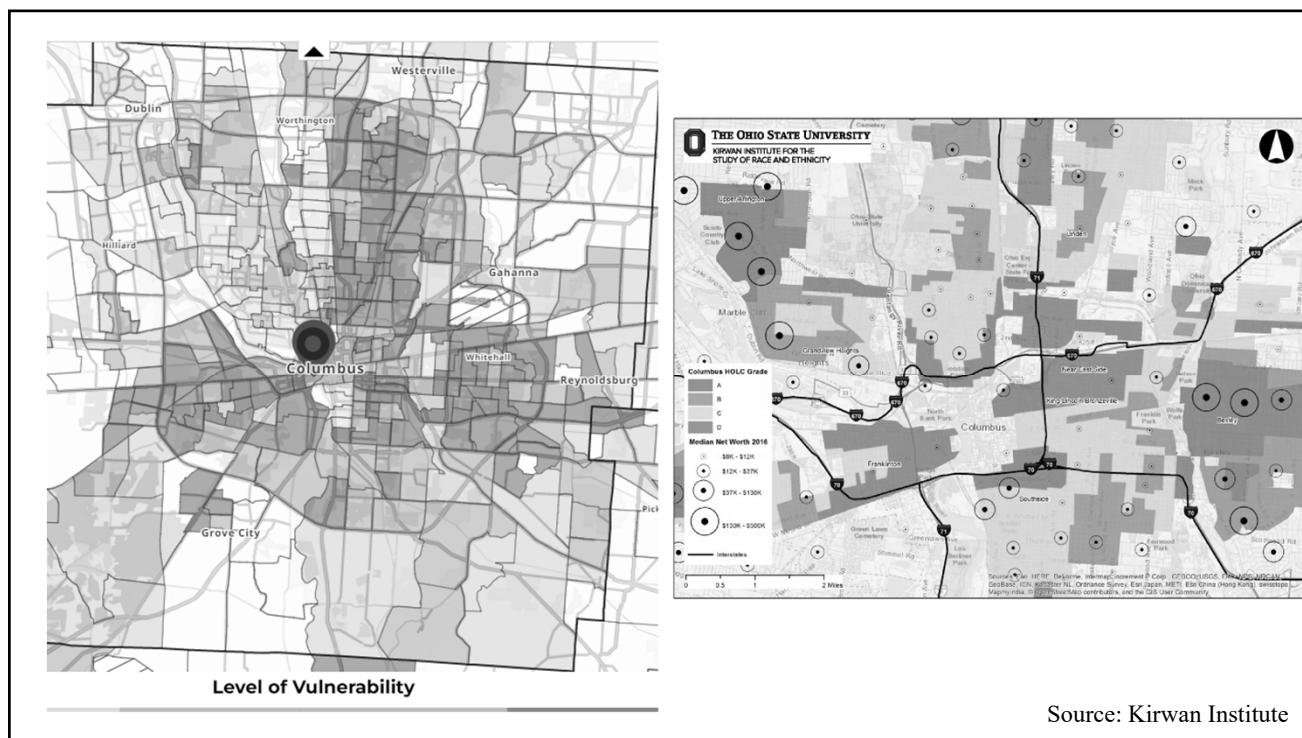
Structural racism, bias in care providers, limited access to care/variable quality of care



# 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