

# Social Determinants of Health

DUSON Dean's Lecture Series Inaugural Presentation  
November 30, 2021

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# An Opportunity for Conversations about Health and the Role of Nursing



The Building Upon Excellence Dean's Lecture Series

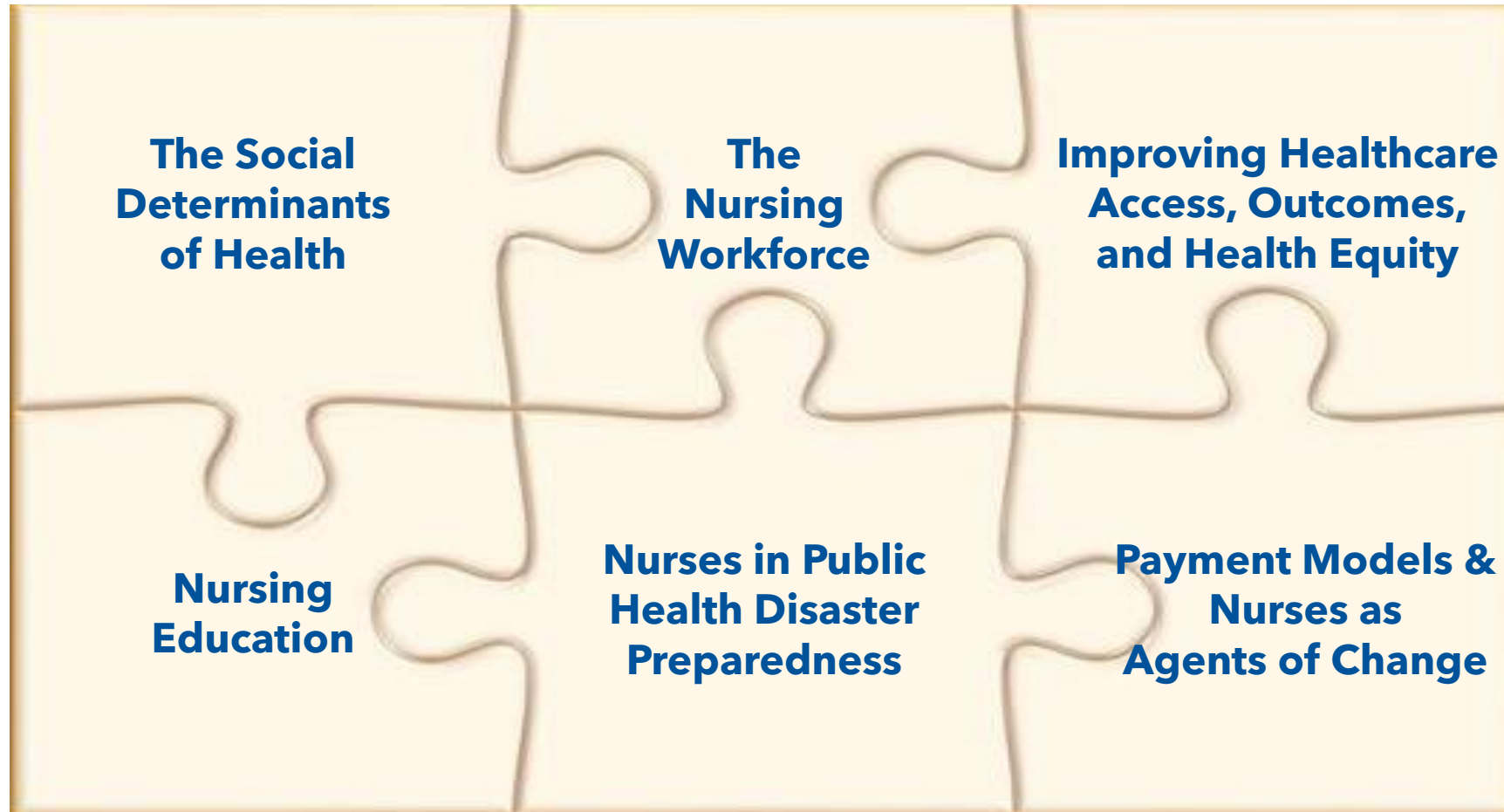
## **Purpose:**

- Engage in conversations about the current context and future directions for impact in healthcare
- Critically think together about new ways to leverage nurses for addressing pressing health and social challenges

## **Format:**

Symposia with experts and innovators in health, healthcare, and nursing.

# Key Focus Areas of the DUSON Dean's Lecture Series

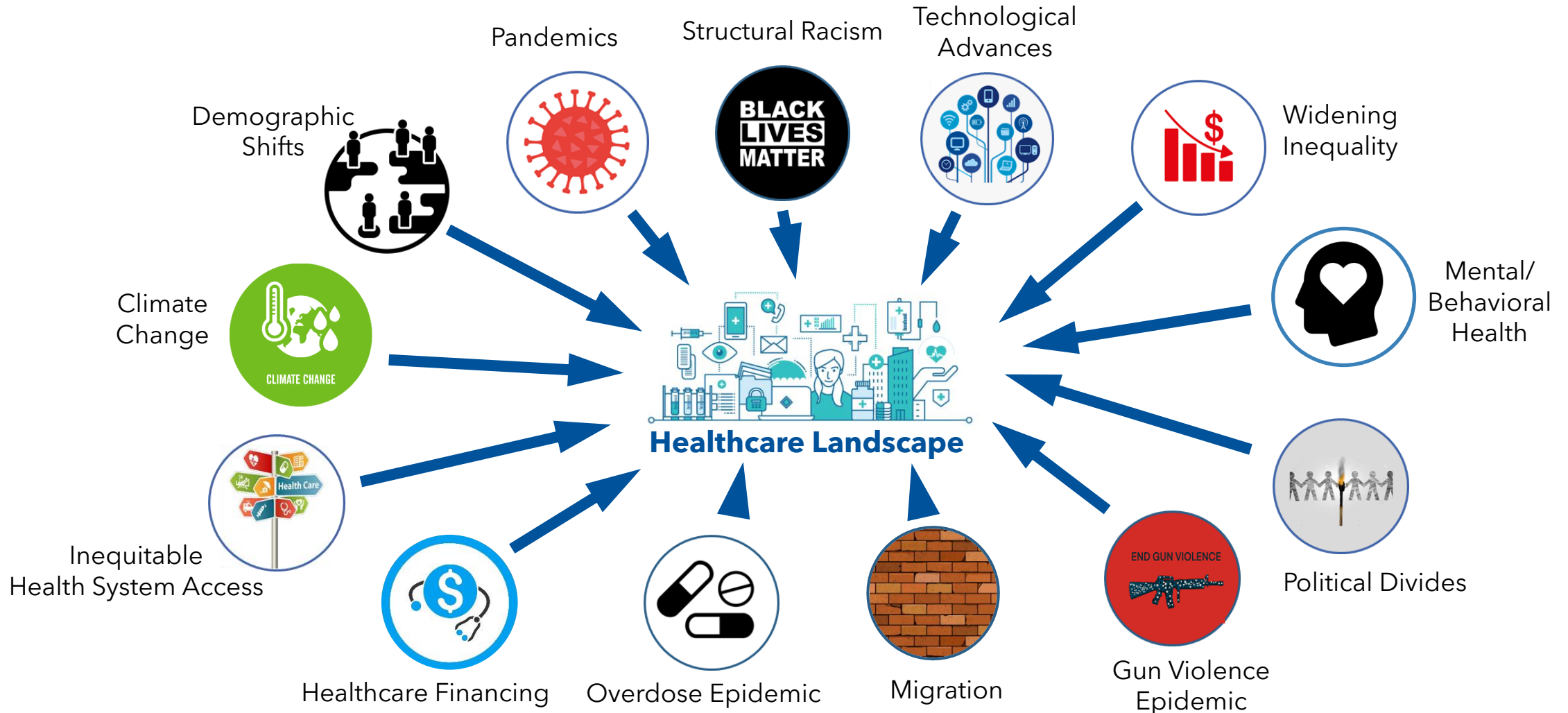




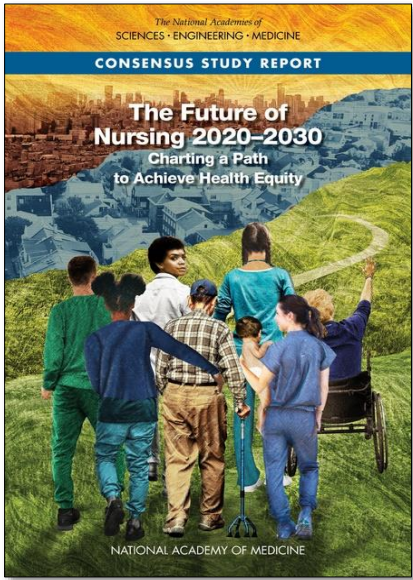
**The Social  
Determinants  
of Health**

# The Changing Context of Healthcare

The current healthcare landscape is undergoing **significant change** and is being shaped by **large-scale transformative events**, including **contemporary** and **chronic** health and social welfare inequities.



# The Nursing Profession is Discussing Solutions to Cotemporary Challenges in Healthcare



## NASEM, 2021

The Future of Nursing 2020-2023: Charting a Path to Achieving Health Equity



## NINR, 2021

Strategic Plan Working Group Draft Framework for 2022-2026

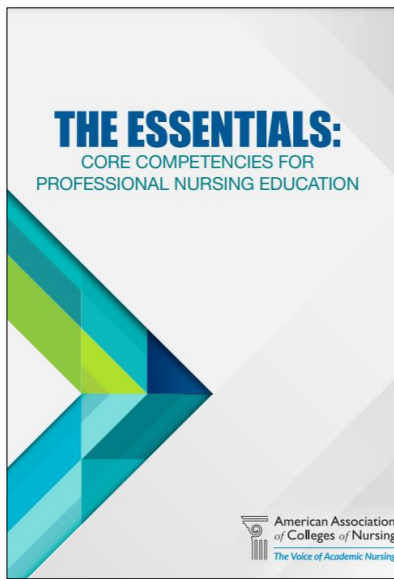


## NASEM, 2021

Implementing High-Quality Primary Care: Rebuilding the Foundation of Healthcare

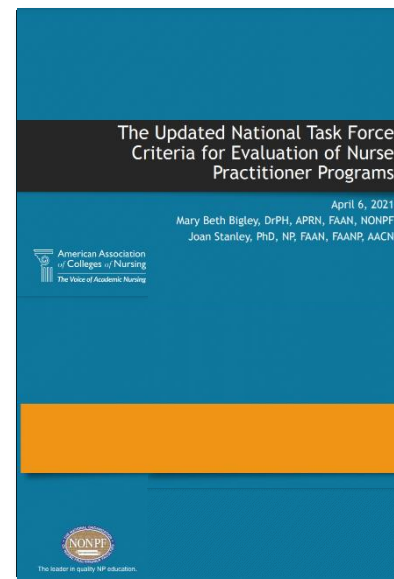
## AACN, 2021

The Essentials: Core Competencies for Professional Nursing Education



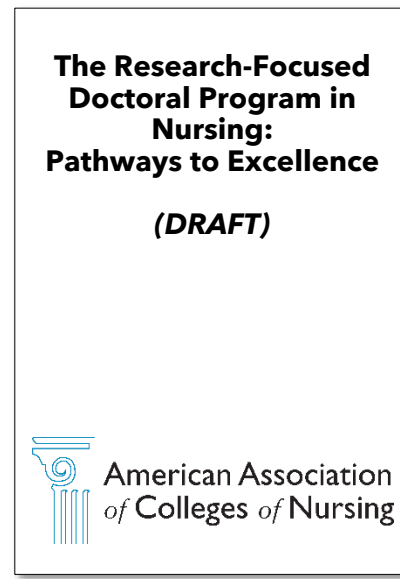
## NONPF, 2021

The Updated National Task Force Criteria for Evaluation of Nurse Practitioner Programs

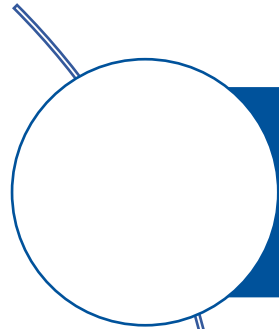


## AACN, 2021

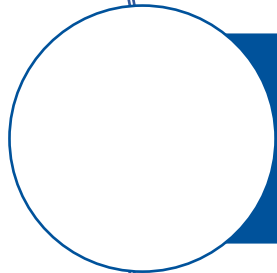
The Research-Focused Doctoral Program in Nursing: Pathways to Excellence (DRAFT)



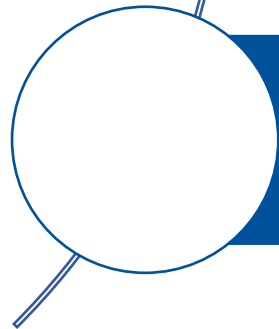
# Overview



**The Determinants of Health in the United States**



**The Mechanisms of Social Determinants of Health:  
Principles, Theories, and Evidence**



**A Nurse-Led Framework for Addressing the Social  
Determinants of Health**

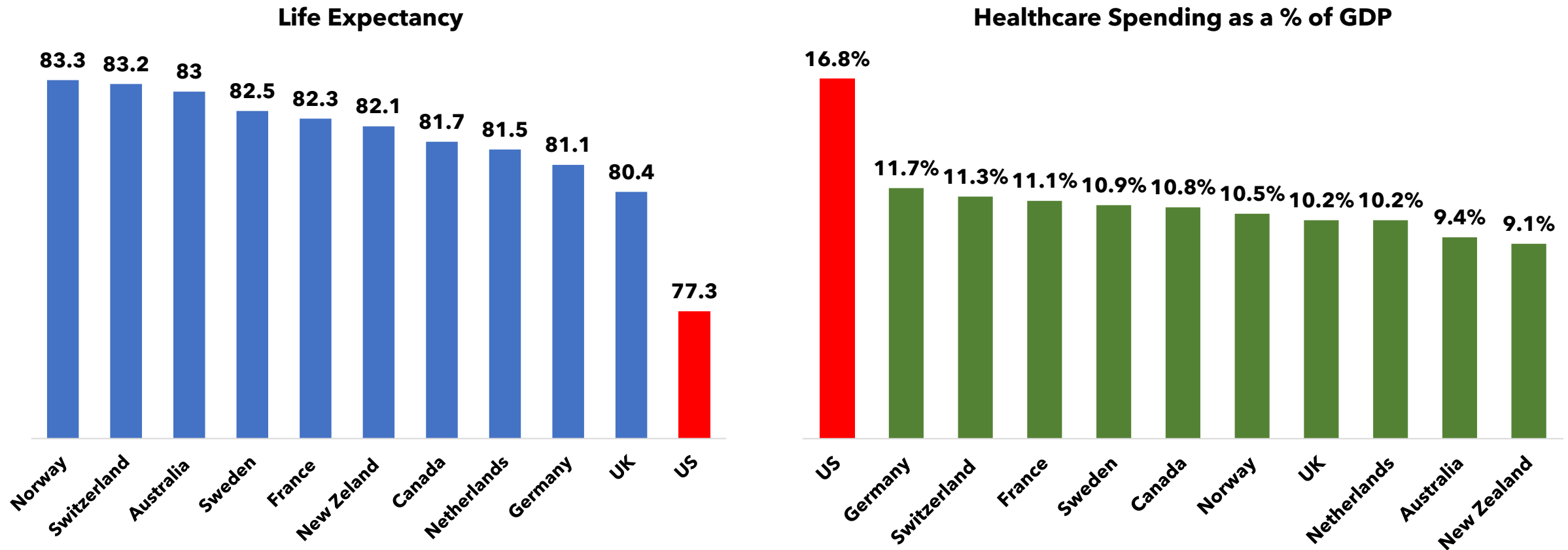


# The Determinants of Health in the United States



# A Global Perspective on Health Outcomes in the United States

The US has the **lowest life expectancy**, but the **highest healthcare expenditure** relative to other developed nations.



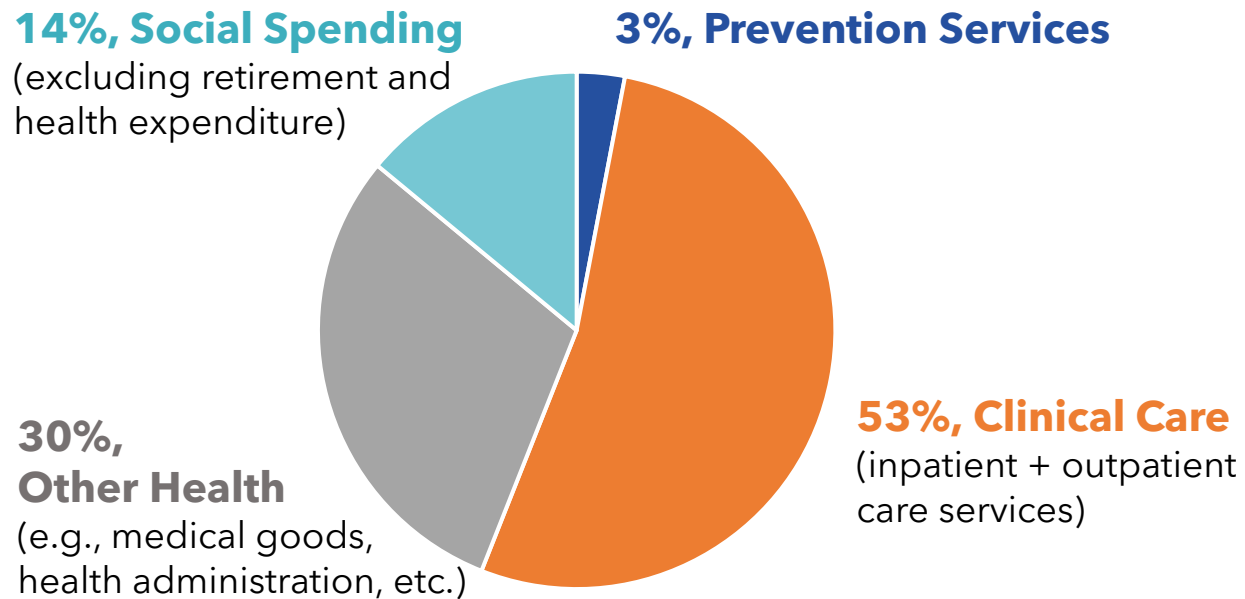
# Misalignment of US Health & Social Expenditure with Modifiable Determinants of Health

**US combined annual health and social expenditure exceeds**

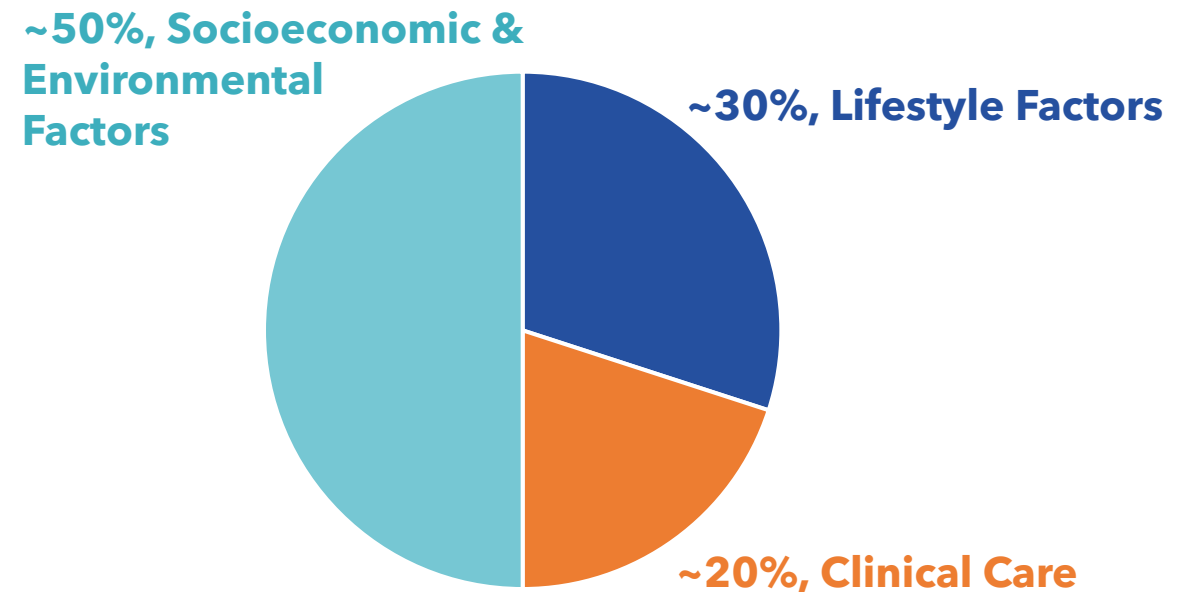
**\$4 trillion**

but the allocation of funds is **misaligned with modifiable determinants of health**

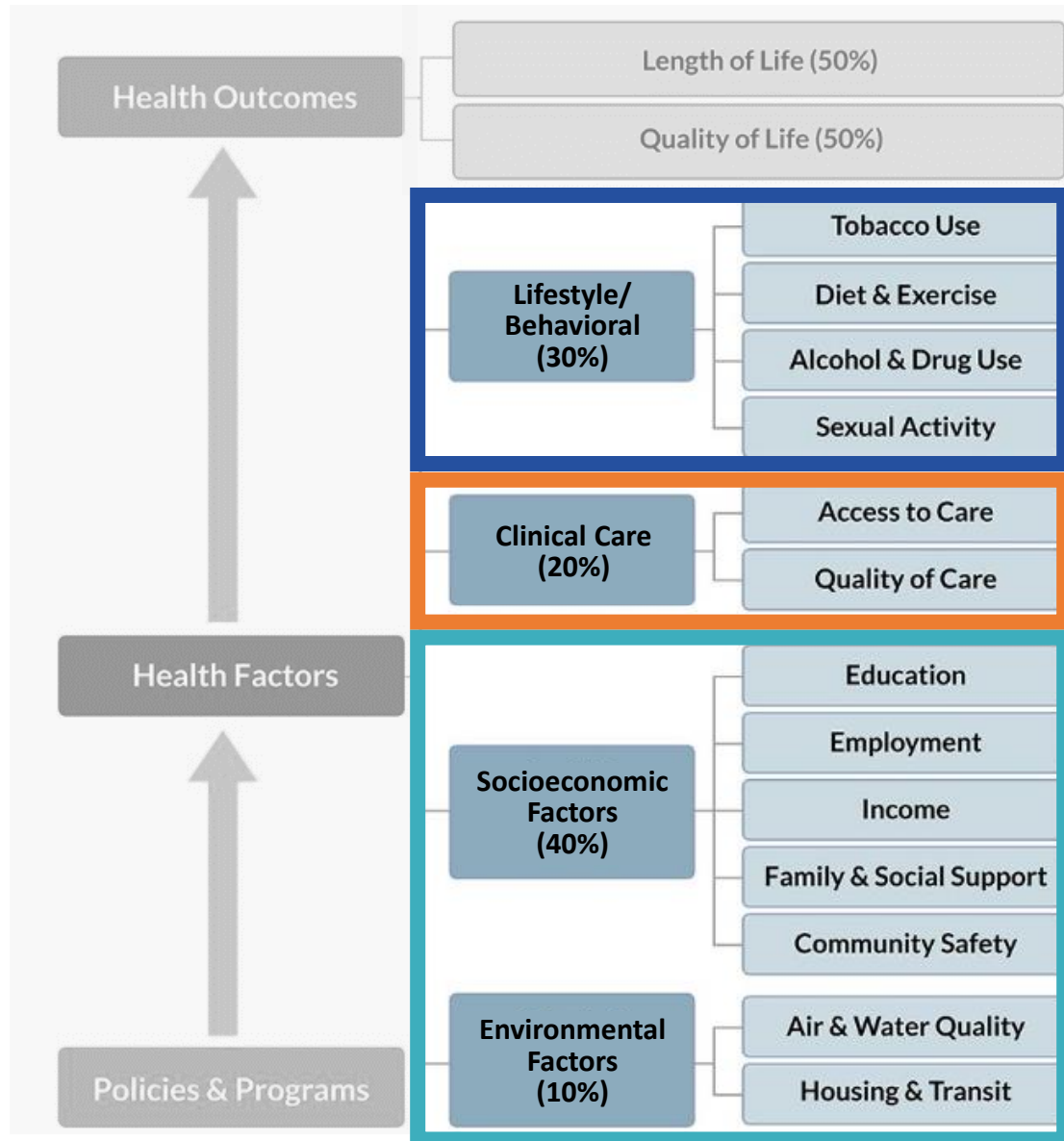
## Proportion of US Health and Social Expenditure



## Relative Importance of Modifiable Determinants of Health



# What are Modifiable Determinants of Health?



## Modifiable Determinants of Health

are **lifestyle/behavioral**, **clinical care**, and **socioeconomic/environmental** factors that influence immediate and long-term health outcomes.

## Unequal distribution

of modifiable determinants of health in the population **produces health inequities**

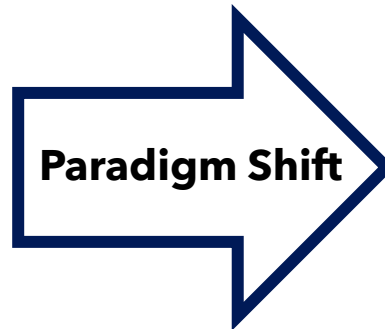


# Shifting the Explanatory Paradigm for Health Disparities and Inequities

## Traditional Explanatory Paradigm for Health Disparities and Inequities

- 1 Tendency to characterize disparities by sociodemographic factors (e.g., race/ethnicity, SES, sex/gender, etc.)
- 2 Tendency to view health disparities as associated with “vulnerable communities”
- 3 Tendency to view health disparities from a deficiency-focused perspective

*(e.g., “why do communities do poorly?”)*



## Contemporary Explanatory Paradigm for Health Disparities and Inequities

- 1 Explores underlying drivers of health disparities and inequities
- 2 Focuses on exposure, susceptibility, and social processes as explanatory variables
- 3 Acknowledges resilience as an important factor in addressing health disparities and inequities

*(e.g., “why do communities do as well as they do despite challenges?”)*

# Broad Domains of SDOH vs Mechanisms of Influence

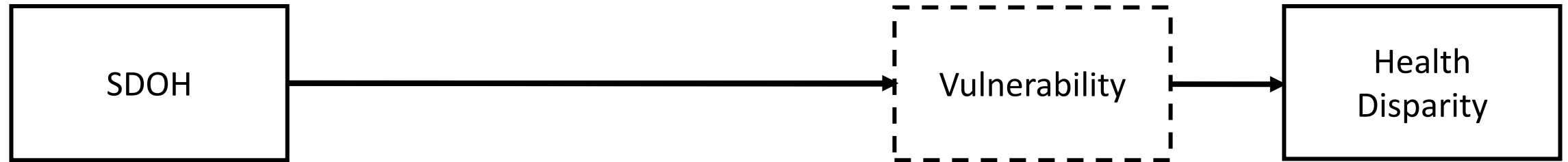


## Healthy People 2030 SDOH Framework:

*Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.*



# Traditional Conceptualization of SDOH Impact on Health Disparities

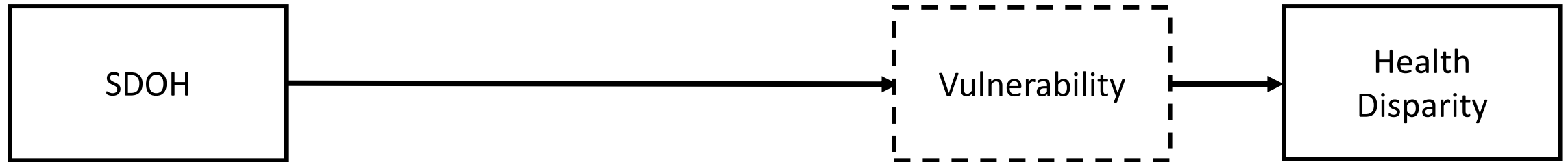


## Vulnerability as Traditionally Conceptualized:

Applied to groups as an attribute of communities experiencing health inequities; predominantly along the lines of race/ethnicity, socioeconomic status, sexual orientation/gender identity, etc.

→ ***“vulnerable communities”***

# Traditional Conceptualization of SDOH Impact on Health Disparities



## Lacks consideration of:



### ***Social processes***

Interactions between persons, groups, or systems



### ***Susceptibility***

Chance of morbidity/mortality given exposure to a risk factor; susceptibility is biological



### ***Exposure***

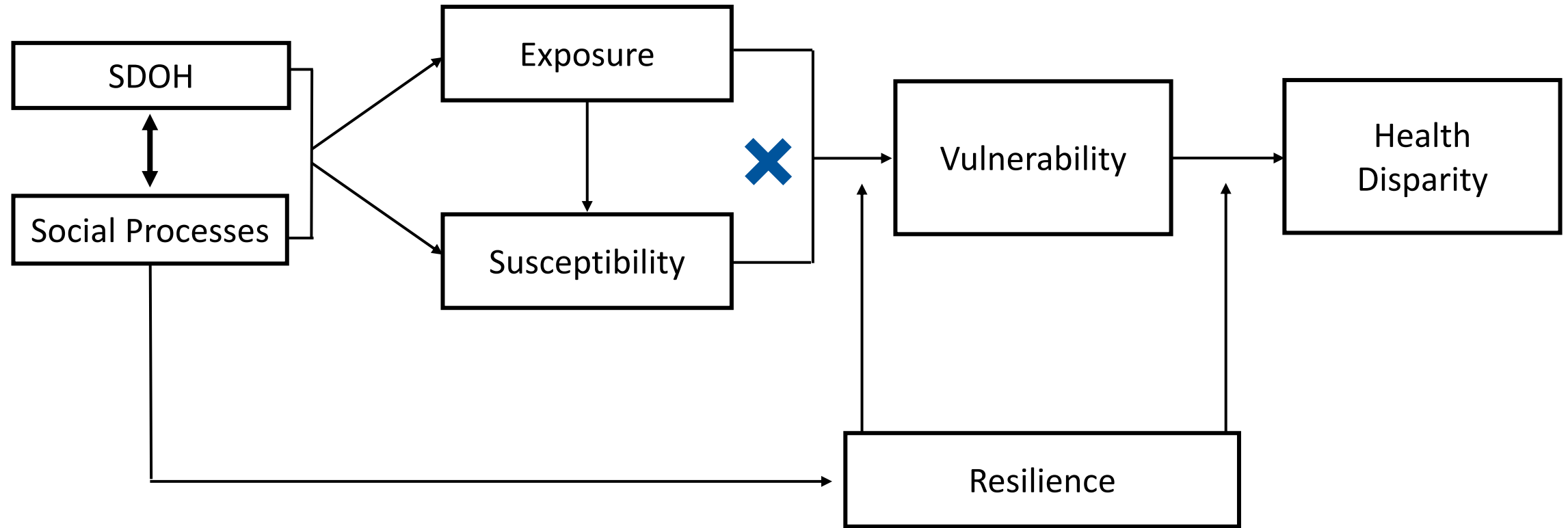
Condition of being affected by a health risk or protective factor; exposure is environmental



### ***Resilience***

Ability to thrive despite adversity

# Moving Towards Understanding the Mechanisms of Social Determinants of Health



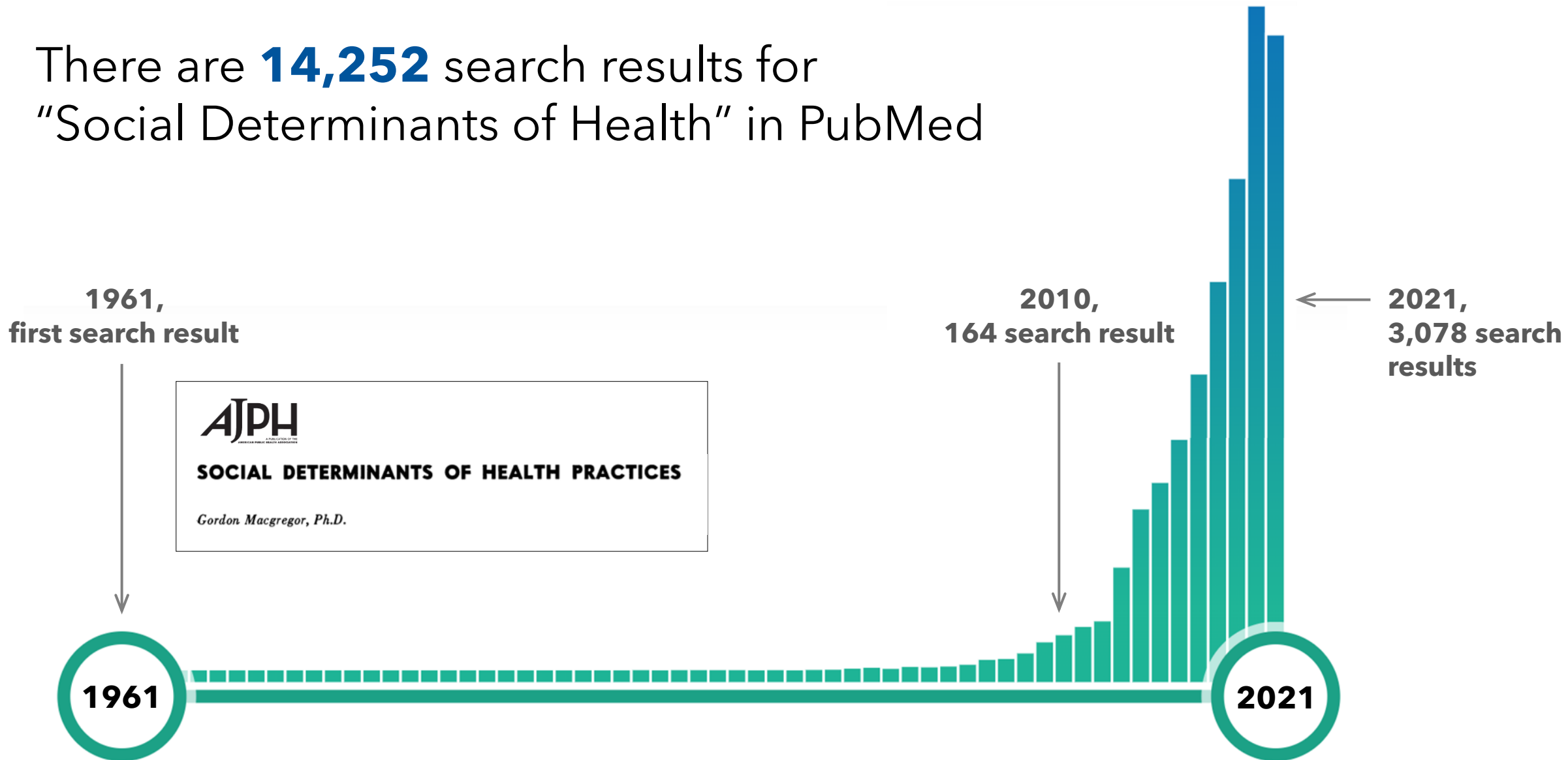




# **The Mechanisms of Social Determinants of Health: Principles, Theories, and Evidence**

# A Wealth of Conceptual and Empirical Literature on the SDOH

There are **14,252** search results for "Social Determinants of Health" in PubMed



# Principles About the Mechanisms of SDOH Emerge from the Literature

Landmark conceptual and empirical research supports ***principles about the mechanisms in which social determinants impact health:***



**Underlying Causes  
Beyond Individual Factor  
Drive Health Inequities**



**Context Matters -  
The Structural  
Production of Risk**



**Environmental  
Disadvantage is not  
Deterministic**



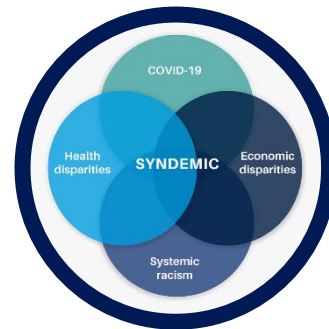
**SDOH Influence Manifests  
Over the Life Course**



**SDOH Can Operate Through  
Biological Embedding**



**SDOH Can Operate  
Intergenerationally**



**The Impacts of SDOH  
Cluster and Interact  
Synergistically**



**Social Injustices and  
Structural Racism Shape  
the Impact of SDOH**

# Principle #1:

## Underlying Causes Beyond Individual Factors Drive Health Disparities and Inequities



### Underlying Causes Beyond Individual Factor Drive Health Inequities

### Fundamental Causes Theory

Landmark theory that moved beyond individual “risk factor epidemiology” to propose distal factors as fundamental for shaping health disparities and inequities.



**Distal factors/exposures** influence **individual risk** and **protective** factors, and shape disease and health outcomes



Distal factors (i.e., education, SES, etc.) represent **fundamental causes** of inequities in disease.



Fundamental causes **disrupt access to resources** that are important in avoiding or mitigating negative health outcomes.

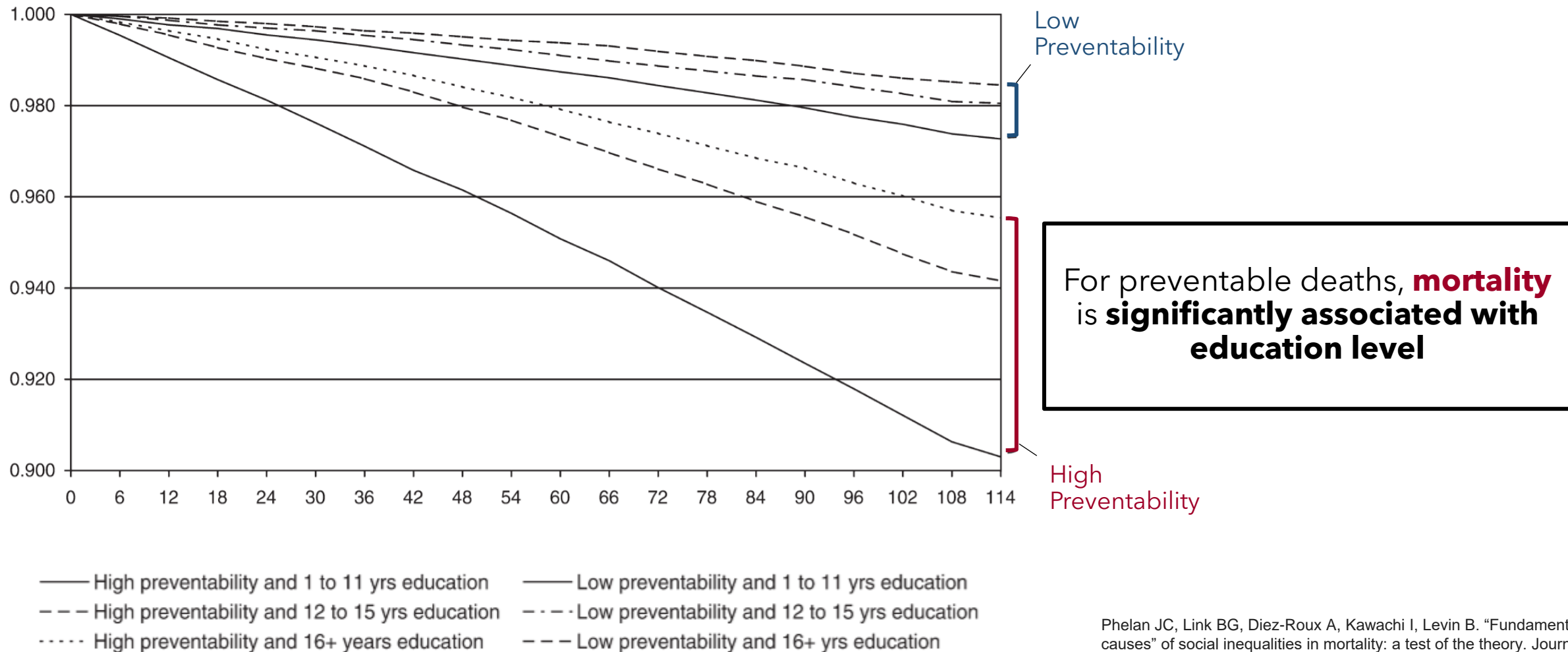


Fundamental causes act through **complex mechanisms** and on **diverse health outcomes** → difficult to quantify total effect



# Empirical Evidence: The Value of Education for Improving Health

**Figure.** Cumulative Survival by Education and Preventability of Death Ages 45 to 64 at Baseline



Phelan JC, Link BG, Diez-Roux A, Kawachi I, Levin B. "Fundamental causes" of social inequalities in mortality: a test of the theory. Journal of health and social behavior. 2004 Sep;45(3):265-85.

# Principle #2: Context Matters – The Structural Production of Risk



## Context Matters - The Structural Production of Risk

### Risk Environment Framework:

#### Type of Environment

Landmark framework that characterizes the structural production of disease risk and outcomes

#### Understanding the risk environment:



Comprises all risk-factors exogenous to the individual



The social situations, structures, and places where factors exogenous to the individual interact to produce disease risk

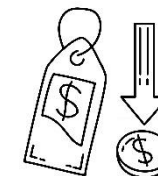
#### Four types of risk environment:



Physical



Social



Economic



Policy



# Context Matters: A Tale of Two Communities

**Community A**



**Community B**



# Principle #3: Environmental Disadvantage is not Deterministic

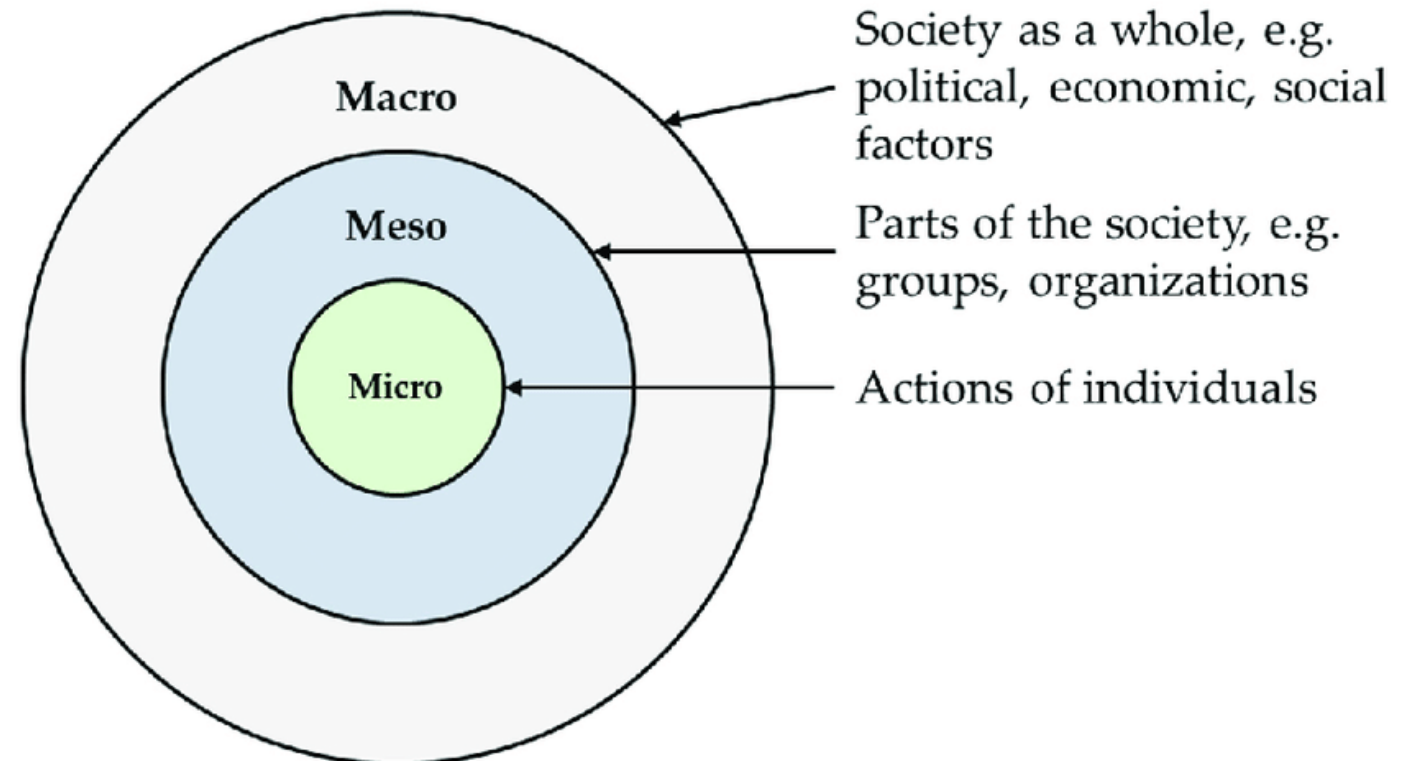


**Environmental Disadvantage is not Deterministic**

## Risk Environment Framework:

Level of Influence

The Risk Environment Framework outlines influences at three distinct levels that interact to reinforce or weaken the effect of one another.







# Environmental Disadvantage is not Deterministic: A Tale of Two Swimmers

Swimmer A



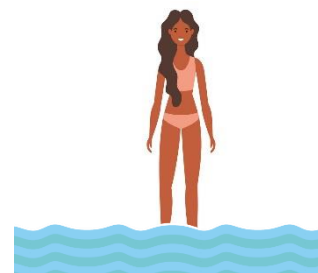
Macro:  
Prevalence of  
Sharks



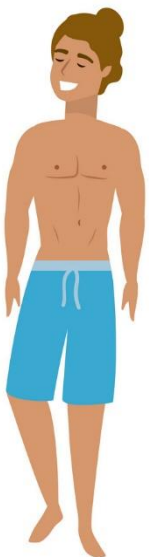
Meso:  
Pool has Lifeguard &  
Medical Care



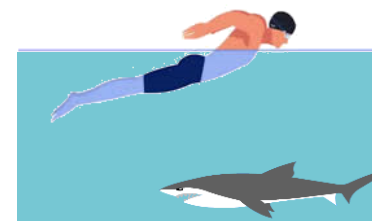
Micro:  
Decision to go  
Into the Deep End



Swimmer B



Same  
Prevalence



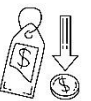



Different  
Outcome

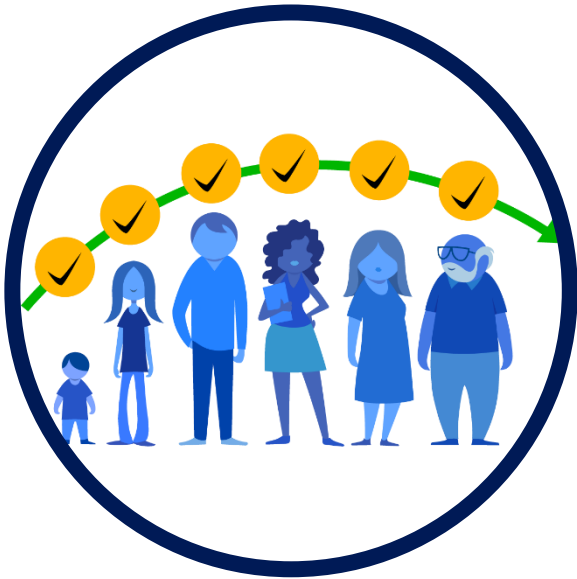


# Risk Environment Framework: An Applied Exemplar

## Structural Analysis: COVID-19 Associated Deaths in the Bronx

	<b>Macro Environmental Risk</b>	<b>Meso Environmental Risk</b>	<b>Micro Environmental Risk</b>
Physical 	Availability of affordable housing	Neighborhood & household density/isolation	Individual exposure to COVID-19 in neighborhood/household
Social 	Historical harm and trauma associated with healthcare in underserved communities	Low trustworthiness of health care systems	Individual mistrust of healthcare; forgone care
Economic 	Neighborhood poverty	Scarcity of affordable and healthy food sources (i.e., food desert)	Unhealthy food purchases/diet, obesity
Political 	Lack of COVID-19 mitigation guidelines for socioeconomically disadvantaged households	Suboptimal COVID-19 messaging; misinformation	Misconceptions/lack of information regarding COVID-19

# Principle #4: SDOH Influence Manifests Over the Life Course



## SDOH Influence Manifests Over the Life Course

### Life Course Perspective:

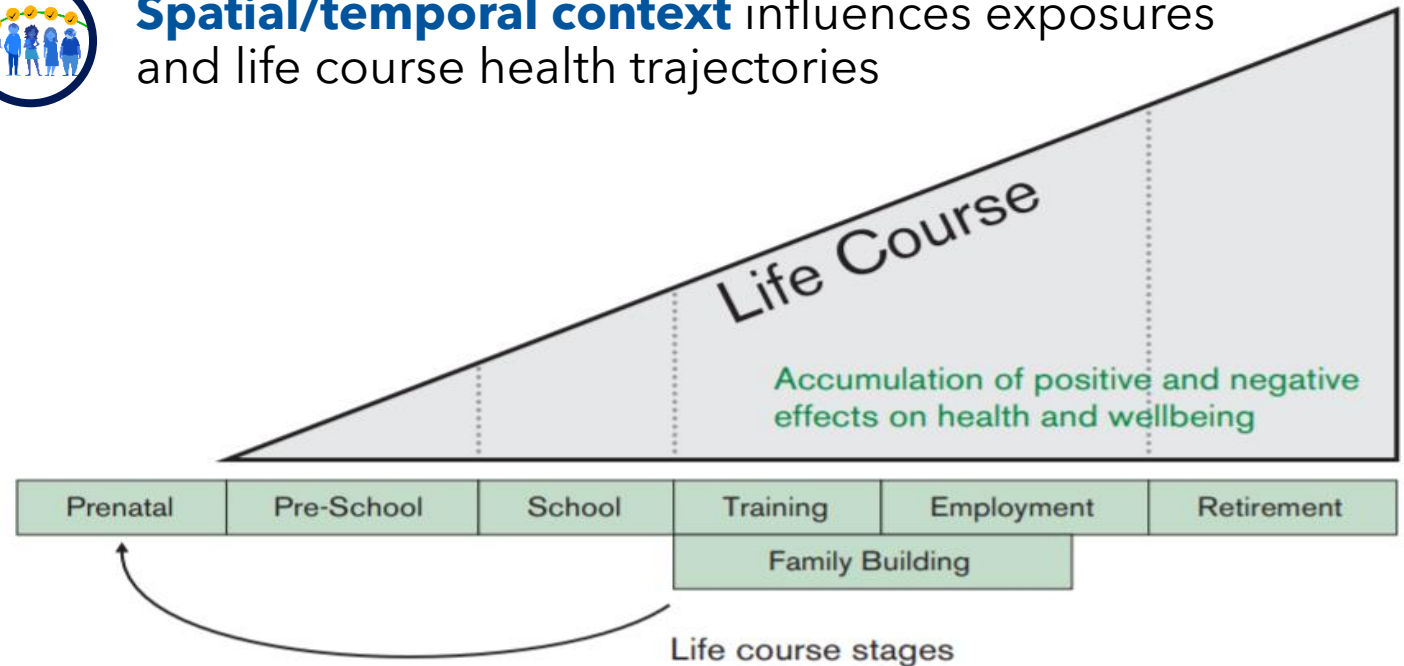
The life course framework suggests **social, economic, psychological, and environmental influences accumulate over the life course** to shape health behaviors, mental and physical health.



**Early-life exposure** to risk or protective SDOH factors **impacts health outcomes later in life**



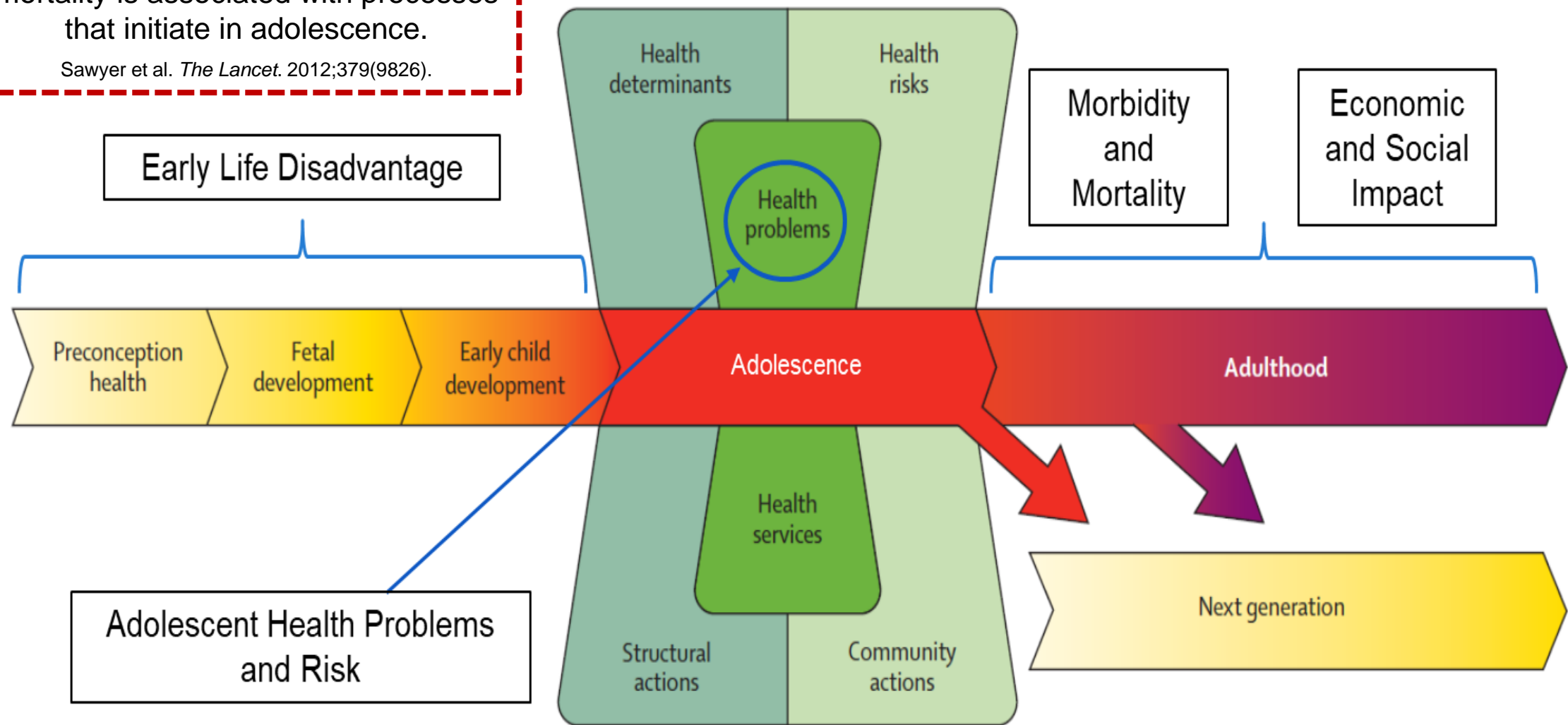
**Spatial/temporal context** influences exposures and life course health trajectories





# A Case Example: Adolescence as a Critical Developmental Period

**~70%** of global premature adult mortality is associated with processes that initiate in adolescence.  
Sawyer et al. *The Lancet*. 2012;379(9826).





# Empirical Evidence: Protective Factors in Adolescents Shape Adult Health

Research shows that **protective influences in adolescence are associated with reduced risk of negative health outcomes in adulthood**, independent of adolescent baseline risk factors.

## Adolescent Family Connectedness

(Associated adult outcomes with unit increase on 30-point scale)

Dichotomous Outcomes	n	Multivariable Models		
		aOR	95% CI	
<b>Adult Sexual Health</b>				
2+ Sexual Partners (past 12 mo.)	10,064	0.96***	0.94	0.98
Condom nonuse (past 12 mo.)	10,055	0.99	0.97	1.01
STI diagnosis	11,141	0.96***	0.94	0.98
<b>Adult Substance Use</b>				
Prescription drug misuse	11,956	0.94***	0.92	0.97
Other illicit drug use	11,974	0.95***	0.93	0.97

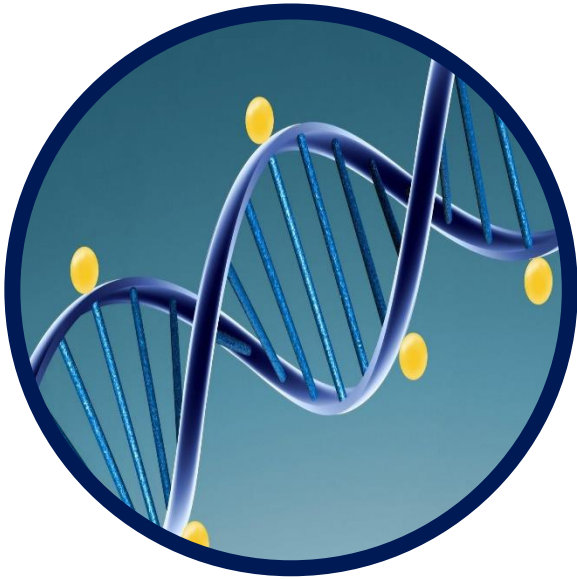
## Adolescent School Connectedness

(Associated adult outcomes with unit increase on 30-point scale)

Dichotomous Outcomes	n	Multivariable Models		
		aOR	95% CI	
<b>Adult Sexual Health</b>				
2+ Sexual Partners (past 12 mo.)	10,064	0.98**	0.96	0.99
Condom nonuse (past 12 mo.)	10,055	0.99	0.97	1.00
STI diagnosis	11,141	0.98*	0.96	1.00
<b>Adult Substance Use</b>				
Prescription drug misuse	11,956	0.97***	0.96	0.99
Other illicit drug use	11,974	0.98**	0.96	0.99

Multivariable models include school & family connectedness, sociodemographic characteristics, and relevant baseline risk factors.

# Principle #5: SDOH Can Operate Through Biological Embedding



## SDOH Can Operate Through Biological Embedding

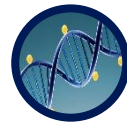
### Biological Embedding Framework

Biological Embedding: The process by which **social conditions initiate** and **sustain biological** changes that have short- and long-term effects on physical health and well-being.

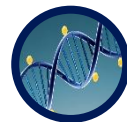
#### Properties of Biological Embedding:



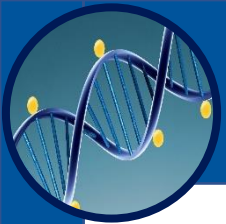
Social conditions **alter biological processes** (e.g., epigenetic, neurodevelopmental, immune, endocrine)



Alterations in biological processes are **stable** and **long-term**



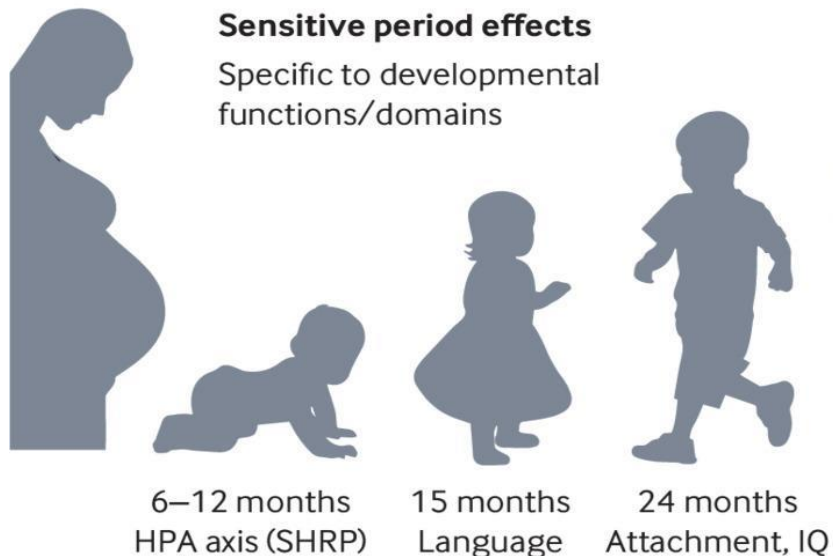
Altered biological processes impact health, wellbeing, learning, and/or behavior **over the life course**



# A Case Example: Childhood Psychosocial Adversity

## Childhood psychosocial adversity

- Care environment mediates stress
- Prenatal maternal stress, depression
  - Postnatal caregiver unavailability/absence (mental illness, substance abuse, death)
  - Depriving environments (eg institutional care)
  - Child abuse or neglect

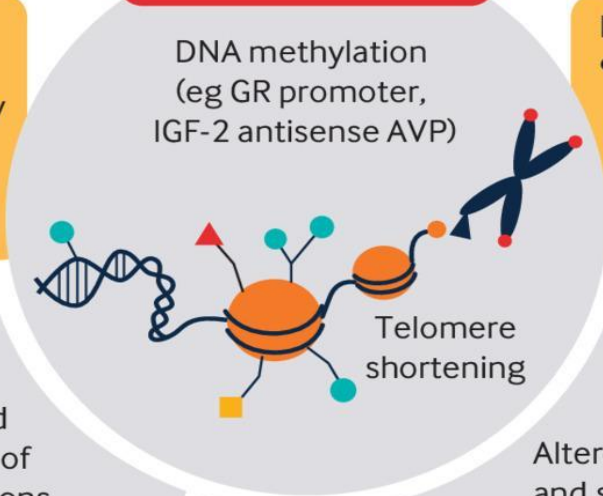


## Biological change

**Genetic endowment**  
Genetic variants alter susceptibility to adversity

- eg 5-HTTLPR, BDNF, FKBP<sub>5</sub>, MAOA poly-morphisms

## Epigenetic changes

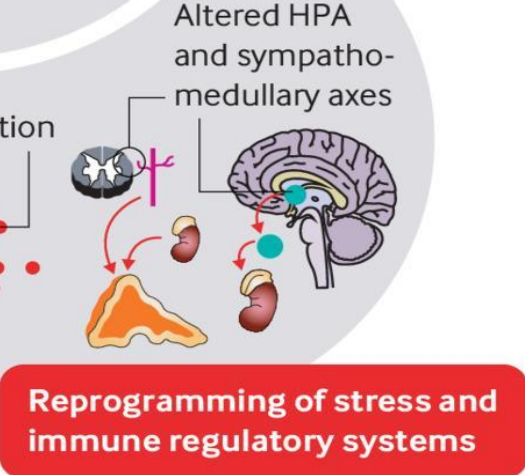
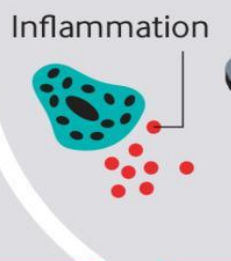


**Developmental trajectory**

- Biological change is embedded in behaviour (e.g. substance use, exercise, diet, stress management)

- Reduced volume of key regions
- Neurotransmitter changes
- Altered functional activity, tract connectivity

## Neurodevelopmental disruption

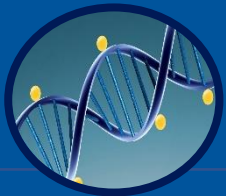


## Reprogramming of stress and immune regulatory systems

## Adult outcomes

- Increased risk of:**
- Cognitive deficits
  - Disease
  - Psychopathology
  - Social problems, (unemployment, incarceration)

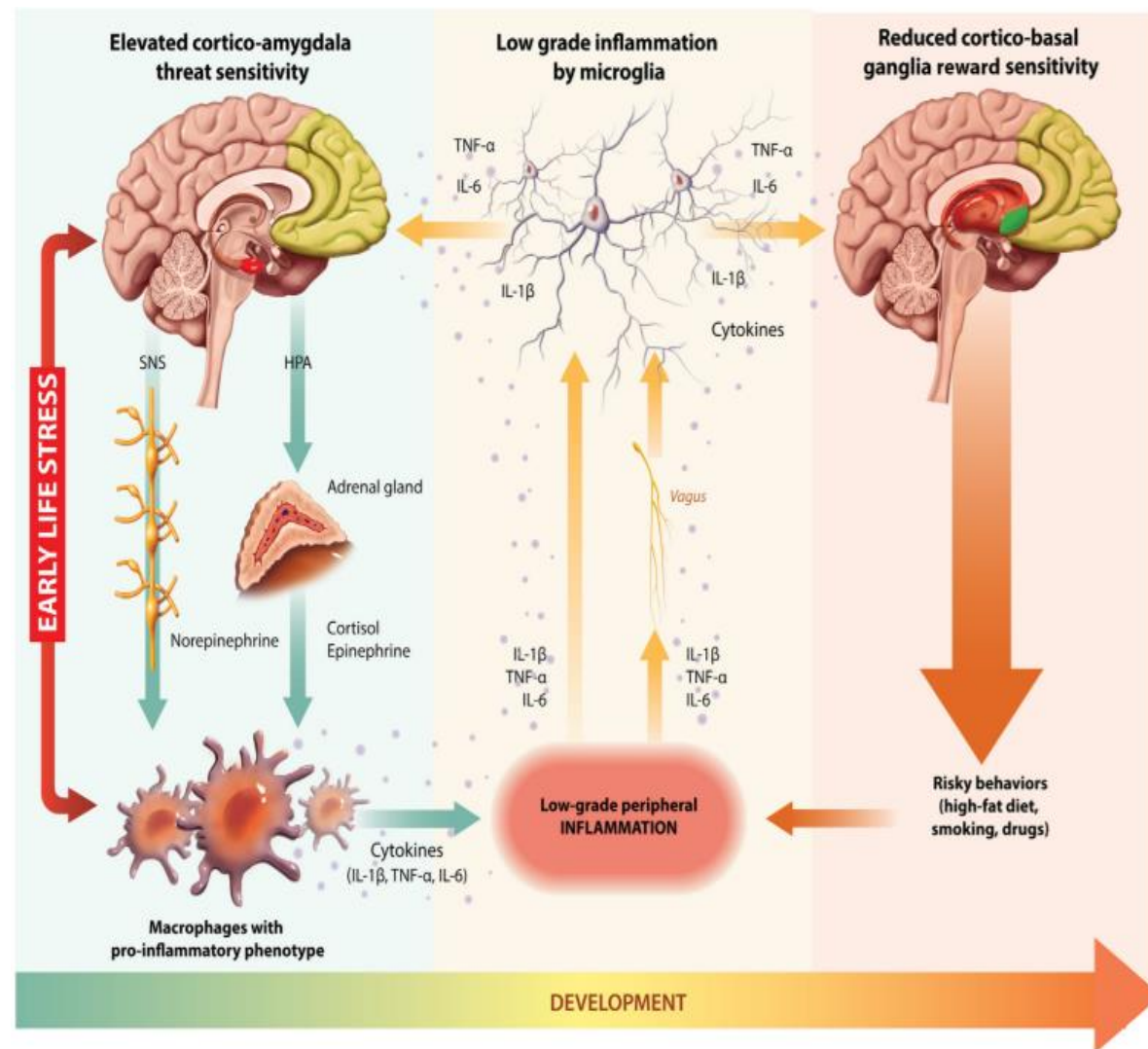
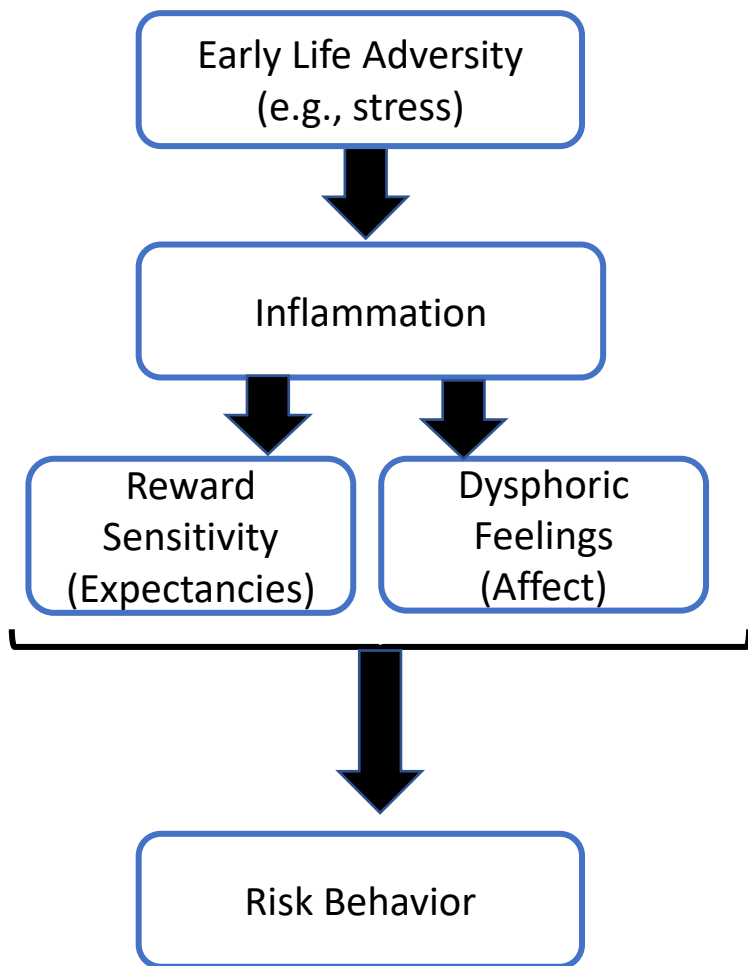




# Decision-Making, Behavior, and Biological Embedding

**Figure.** Biological Embedding of SDOH to Impact Decision-Making and Risk Behavior (A Case Example)

**SDOH**  
↓  
**Biological Embedding**  
↓  
**Decision-Making**  
↓  
**Behavior**







# SDOH Can Operate Through Biological Embedding

Biological embedding is **dynamic** and reflects **ongoing interactions** between the environment and biological processes to affect health, social, and behavioral outcomes

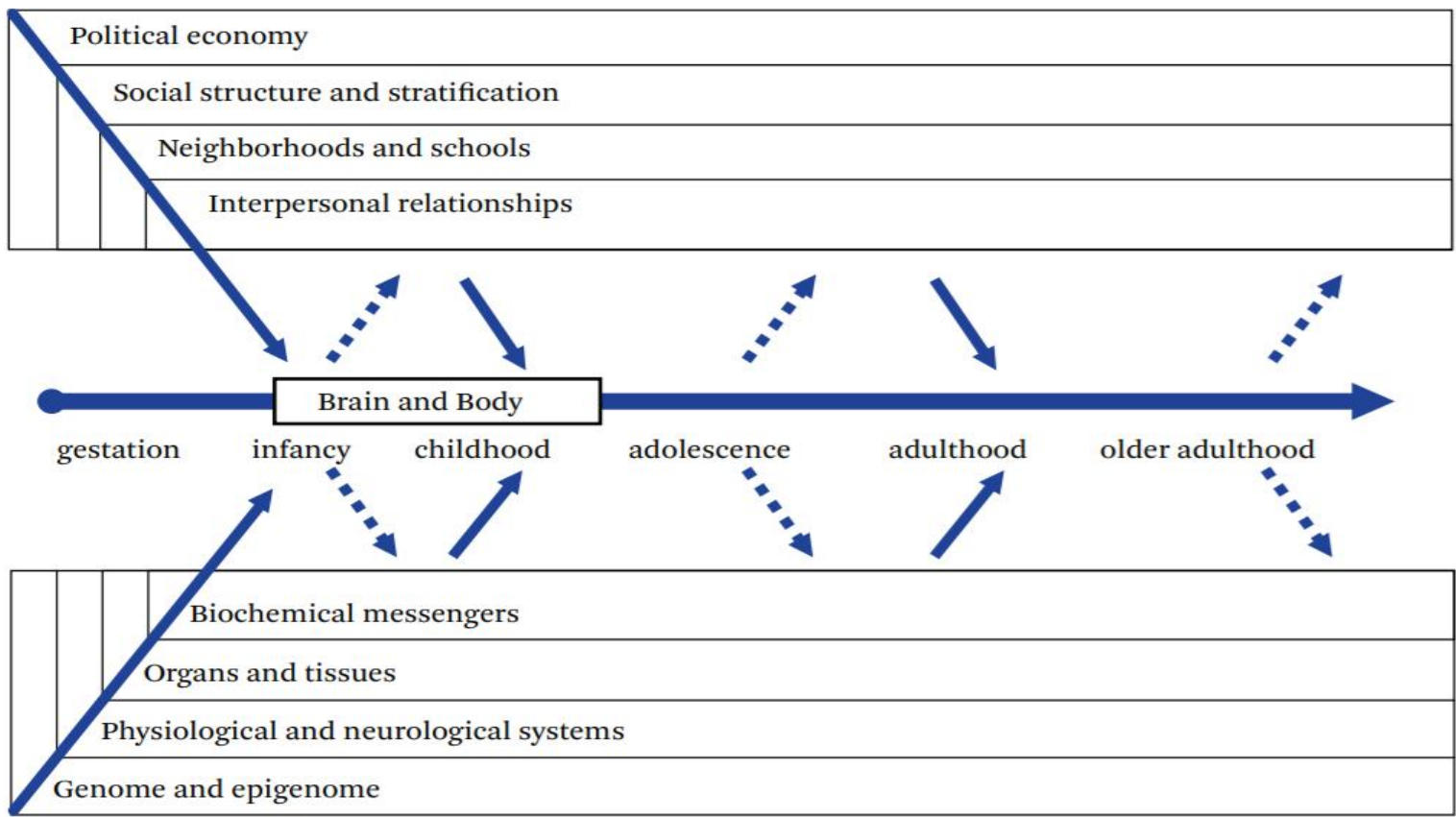
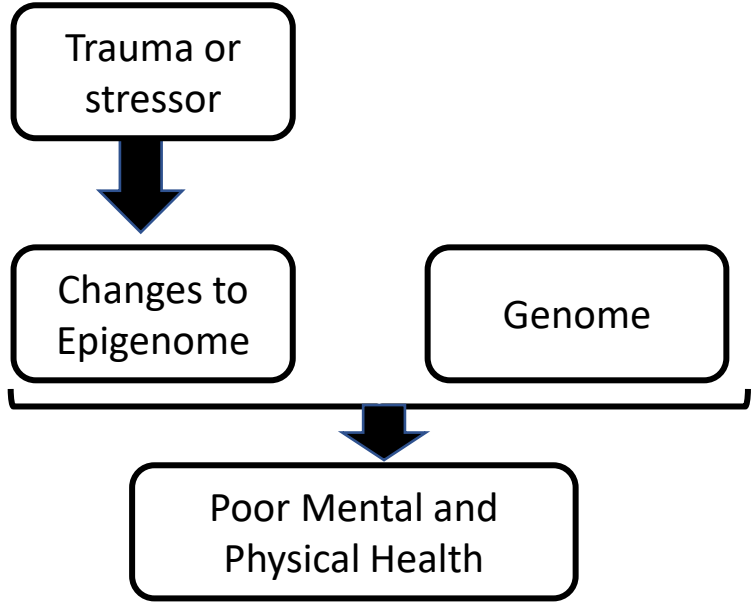
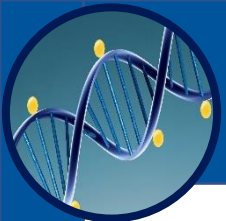


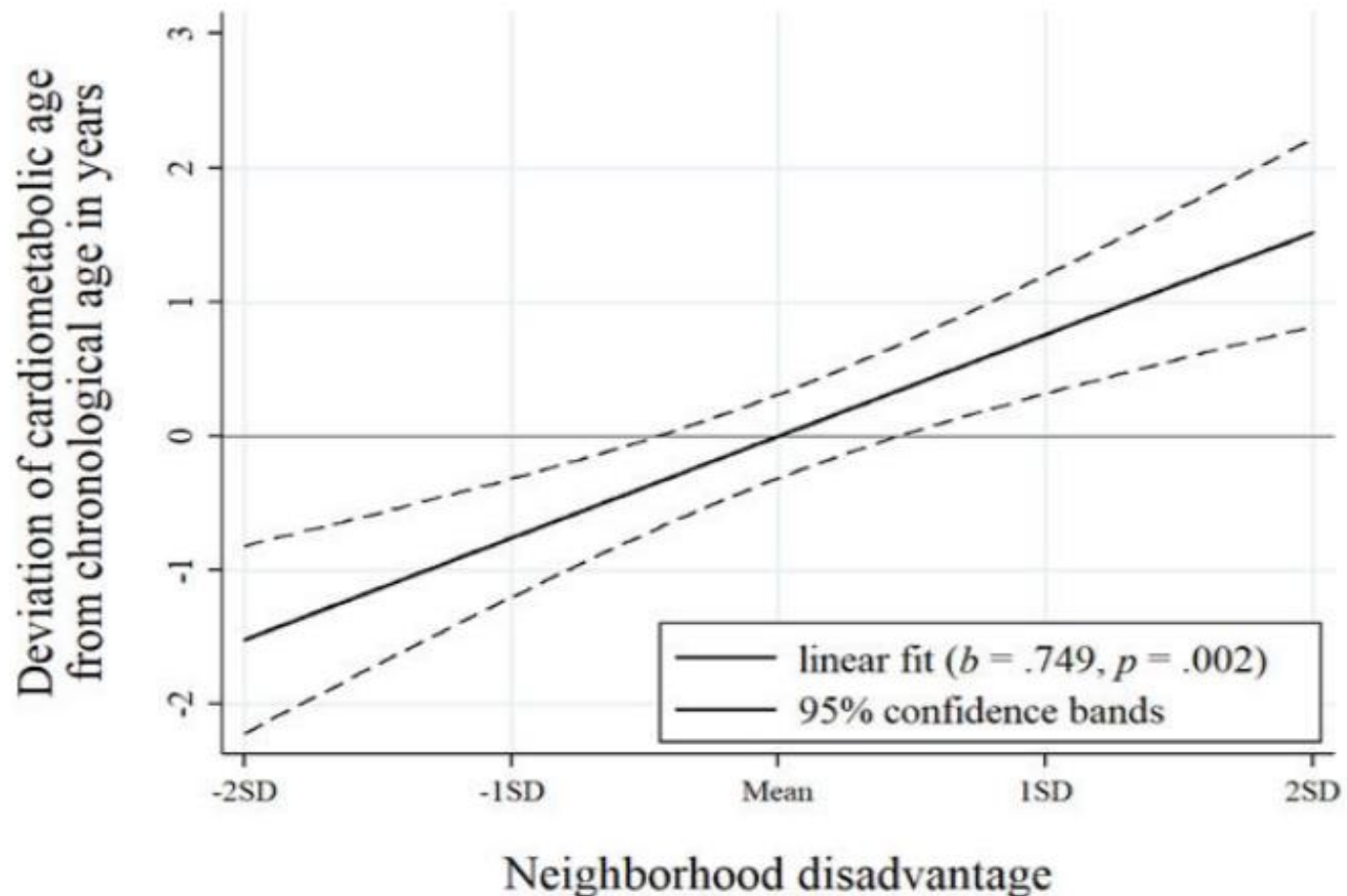
Figure. Epigenetic Embedding (Example)





# Biological Embedding: An Empirical Example

**Figure.** Association between neighborhood disadvantage and accelerated cardiometabolic aging



Neighborhood disadvantage is associated with **accelerated cardiometabolic aging**

# Principle #6: SDOH Can Operate Intergenerationally



## SDOH Can Operate Intergenerationally

### Framework of Biosocial Inheritance

Biosocial Inheritance: "The processes through which social adversity is transmitted across generations through mechanisms both biological and social in nature."

### Three Types of Biosocial Inheritance

#### Cross-Generational

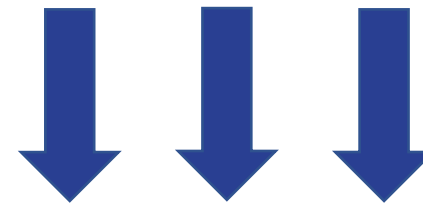
SDOH (Parent)



Health of the next generation (fetus)

#### Multi-Generational

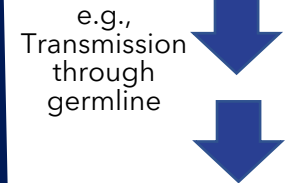
SDOH



Health of multiple generations simultaneously

#### Transgenerational

SDOH



Multiple generations consecutively

### **Biosocial Inheritance Mechanisms**

#### Biological

- Epigenetic
- Immune
- Neuroendocrine
- Metabolic programming

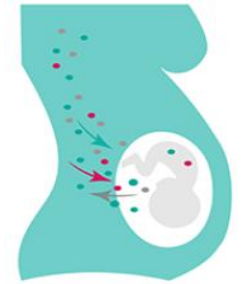
#### Social

- Social arrangements
- Historical context
- Political-economic context



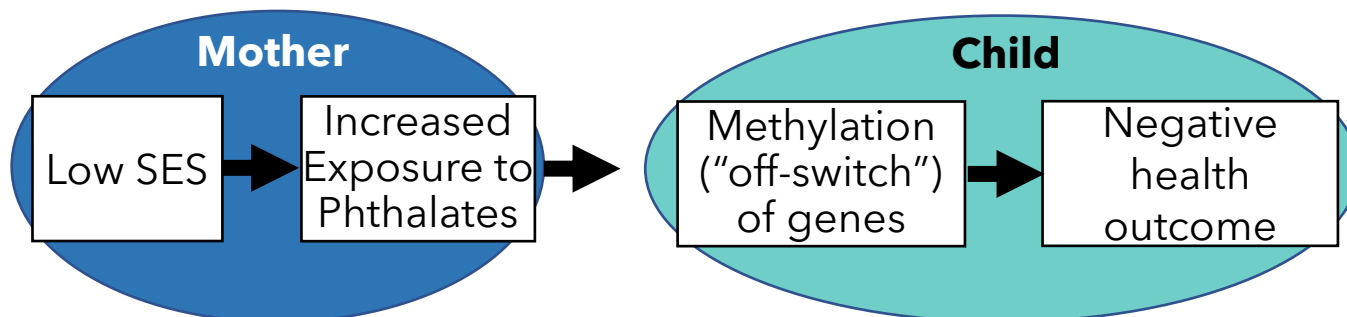
# Biosocial Inheritance of SDOH: Cross-Generational

## Cross-Generational Environmental Exposure to Endocrine Disruptors (Phthalate) During Pregnancy

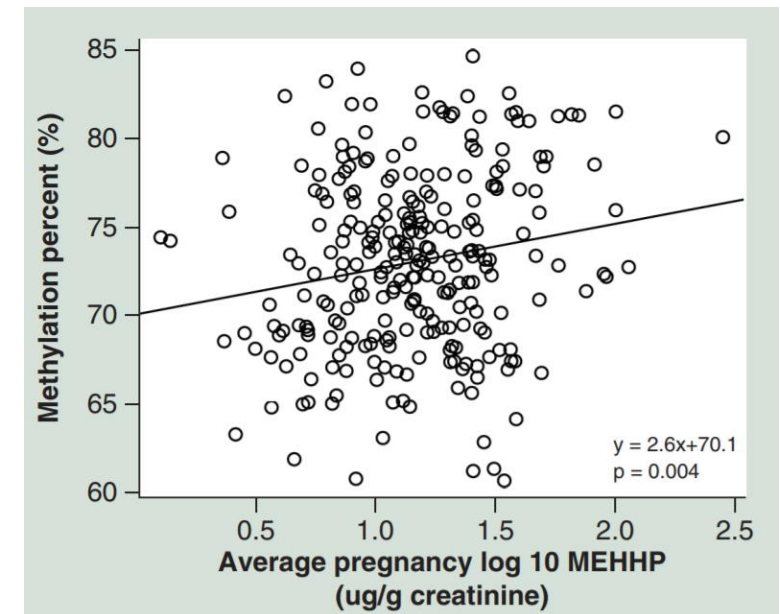


US women of reproductive age in the lowest quartile of overall SES have **~ 2 times** the exposure to phthalate as compared to the highest quartile of SES.

Phthalate exposure has adverse effects on health outcomes in children, including **birth weight**, **gestational age**, **preterm birth**, **diabetes**, and **asthma**



**Figure.** DNA methylation of imprinted genes in children with prenatal phthalate exposure

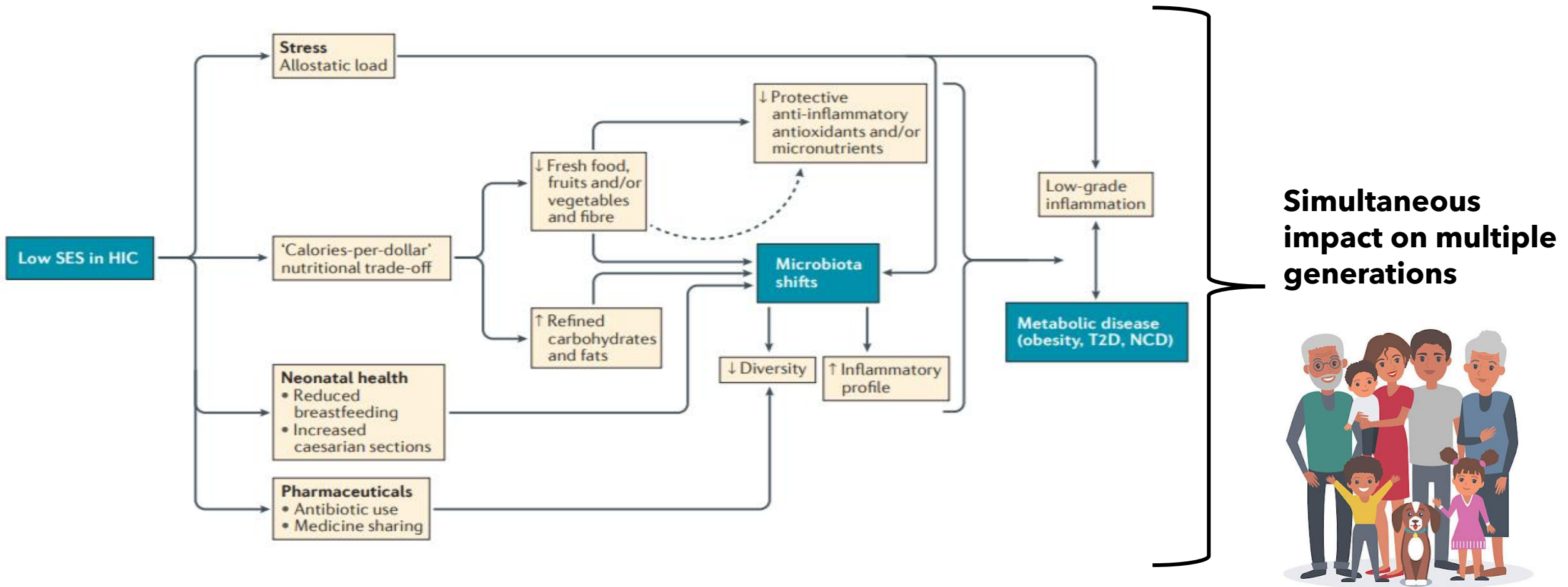


Tindula G, Murphy SK, Grenier C, Huang Z, Huen K, Escudero-Fung M, Bradman A, Eskenazi B, Hoyo C, Holland N. Epigenomics. 2018 Jul;10(7):1011-26. Kobrosly RW, Parlett LE, Stahlhut RW, Barrett ES, Swan SH. Environmental research. 2012 May 1;115:11-7.



## Multi-Generational Impact of SES

**Figure.** Interplay Between Low SES, Microbiota, and Metabolic Diseases in Higher Income Countries (HIC)





## Transgenerational Transmission of Trauma

### Parental Exposure

Parent

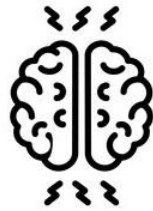


**Experience of Traumatic Event**

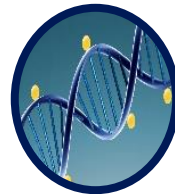
E.g., The Holocaust, the Tutsi Genocide, Slavery



### Impact on Parent



PTSD Symptoms



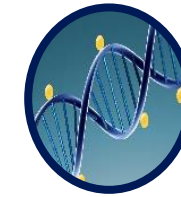
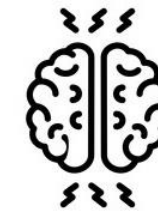
Biological Impact (e.g., methylation of inflammatory genes)



Morbidity (e.g., Depression)

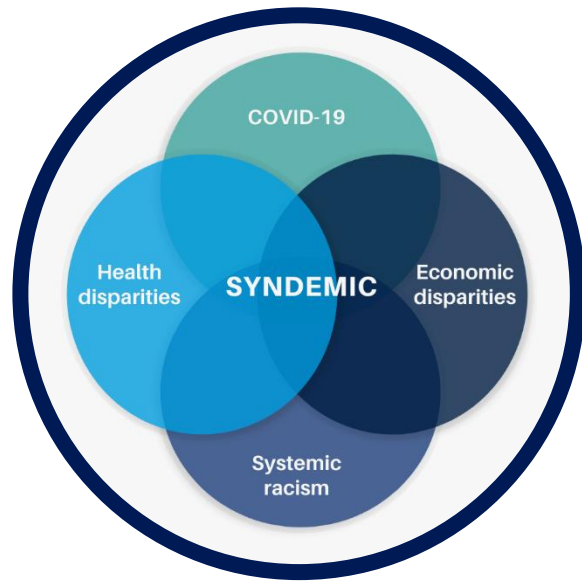


### Impact on Offspring



Offspring

# Principle #7: The Impacts of SDOH Cluster and Interact Synergistically



## The Impacts of SDOH Cluster and Interact Synergistically

Singer M, Clair S, Medical anthropology quarterly. 2003;17(4):423-41.  
Mayer, K. H., and K. K. Venkatesh. American Journal of Reproductive Immunology. 2011. 65(3):308-316.; Strathdee, S. A., & Sherman, S. G. Journal of urban health: bulletin of the New York Academy of Medicine, 2003. 80(4 Suppl 3).

## Syndemic Theory:

A **syndemic** is defined as two or more clustered epidemics interacting synergistically within a community or population, resulting in excess disease burden.

There are two underlying mechanisms that produce syndemics:



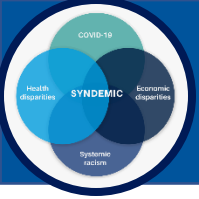
**Biological synergism**, e.g.: inflammation due to STIs facilitating transmission or acquisition of HIV.

AND / OR



**Socio-contextual synergism**, e.g.: increased risk of sexual HIV acquisition among substance users due to disinhibited sexual behavior under the influence.

***The SDOH may operate through both biological (e.g., inflammatory response) and socio-contextual synergisms***



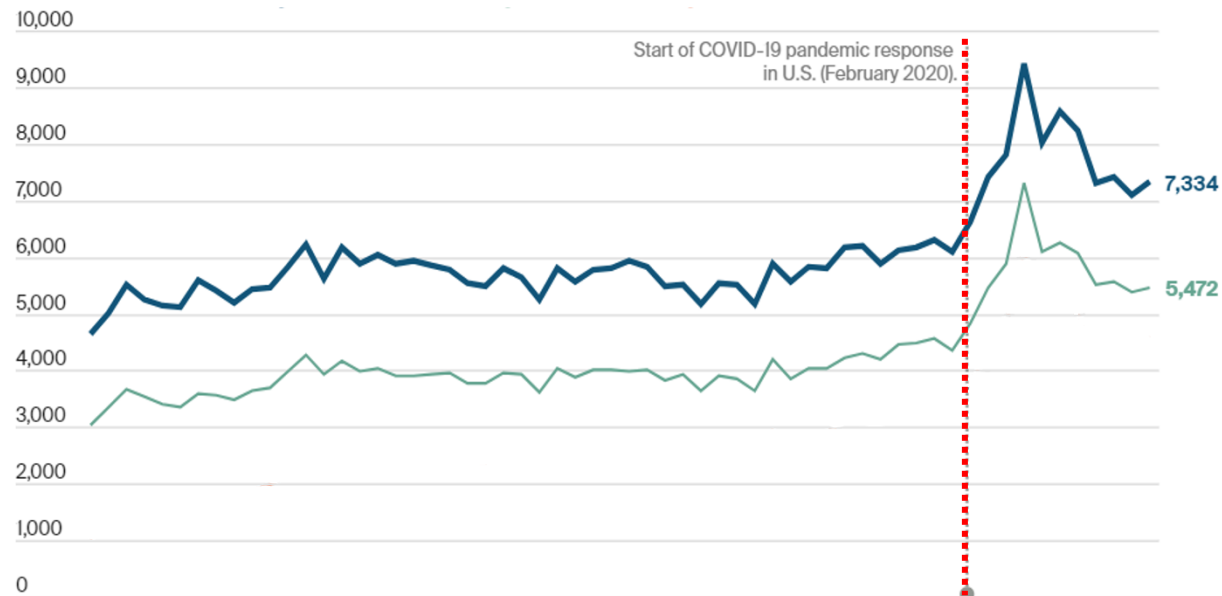
# A Syndemic Perspective on COVID-19: Examples

## Synergies:

### Record-Level Increase in Overdose Deaths During Pandemic

- **Elevated substance use** during the COVID-19 pandemic
- Increased **solitary drug use** has contributed to increasing overdose deaths
- Drugs obtained from **unknown/unreliable sources** has increased risk of overdose (cutting/mixing)
- The pandemic **disrupted access to SUD treatment**

### Monthly Overdose Deaths, 2016-20



## Clustering:

### COVID-19, Obesity, and Structural Racism



#### Perspective

## COVID-19, Obesity, and Structural Racism: Understanding the Past and Identifying Solutions for the Future

Sara N. Bleich<sup>1,\*</sup> and Jamy D. Ard<sup>2</sup>

<sup>1</sup>Department of Health Policy and Management, Harvard T.H. Chan School of Public Health, Boston, MA, USA

<sup>2</sup>Department of Epidemiology and Prevention, Wake Forest School of Medicine, Winston-Salem, NC, USA

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<https://doi.org/10.1016/j.cmet.2021.01.010>

*“Long-standing **systemic inequalities**—fueling unequal access to critical resources such as healthcare, housing, education, and employment opportunities—are largely responsible for the significant race disparities in obesity and COVID-19. Because of this legacy, public health emergencies like the COVID-19 pandemic disproportionately impact communities of color, exacerbated by high rates of pre-existing chronic diseases like obesity.”*



# Principle #8: Social Injustices & Structural Racism Shape the Impact of SDOH



## Social Injustices and Structural Racism Shape the Impact of SDOH

Krieger N. Theories for social epidemiology in the 21st century: an ecosocial perspective, *Int J Epidemiol*. 2001;30(4):668–677.; Krieger N. Methods for the scientific study of discrimination and health: an ecosocial approach. *Am J Public Health*. 2012;102(5):936-944.

### Ecosocial Framework:

Ecosocial Theory conceptualizes **health inequities** as **biological expressions of social processes**—the result of social injustices.

Example Structural Racism:

**Racism: An exploitative and oppressive social process**



**Racial/ethnic social inequalities**



**Racial/ethnic health inequities**

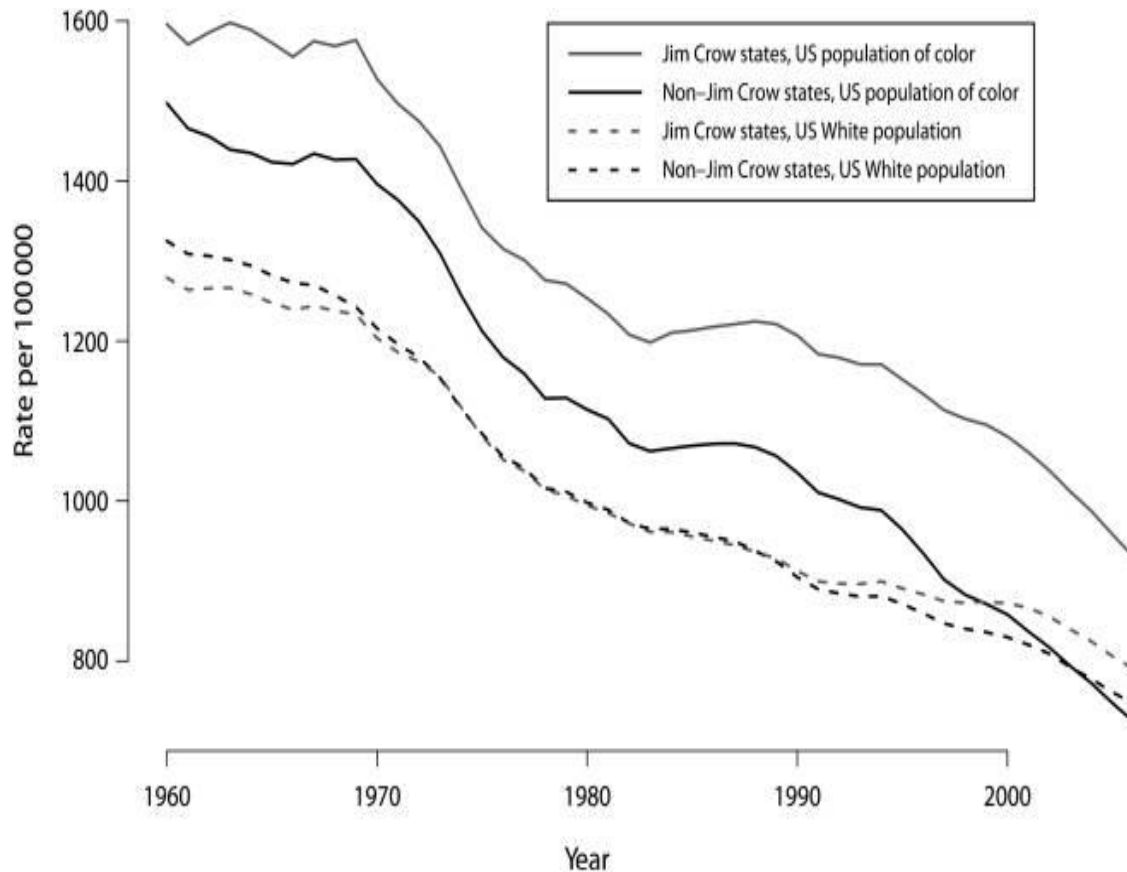
Dynamic, multi-level social and biological processes embedded within historical context



# Empirical Examples: The Impact of Structural Racism

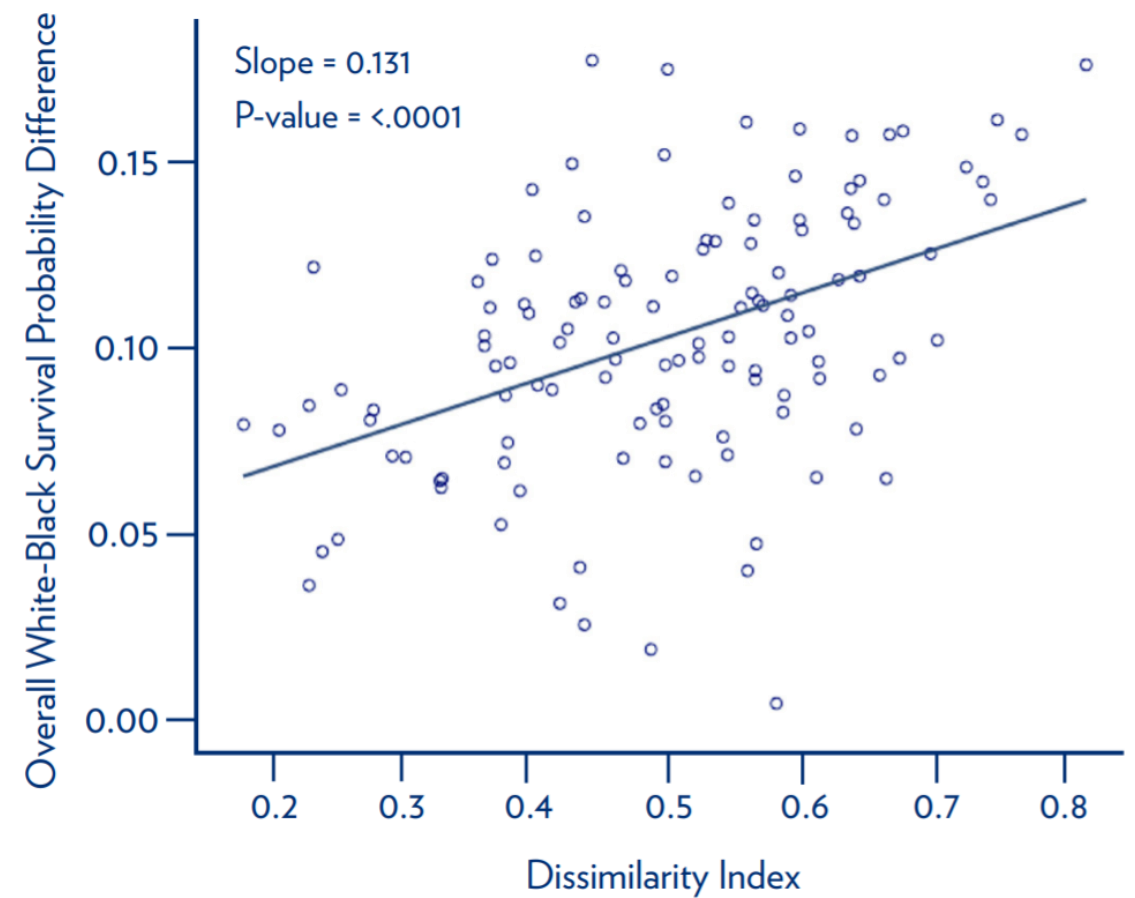
## Structural Racism: Historical Context

US racial/ethnic inequities in all-cause mortality, 1960–2006.



## Structural Racism: Residential Segregation

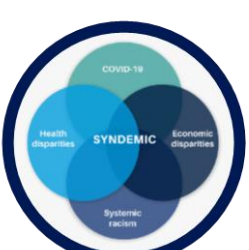
Racial Gap in Survival vs. Segregation.



# What Does All This Mean?

## 8 Principles About Mechanisms of the Social Determinants of Health:

Where do we go from here?



## Next Steps:

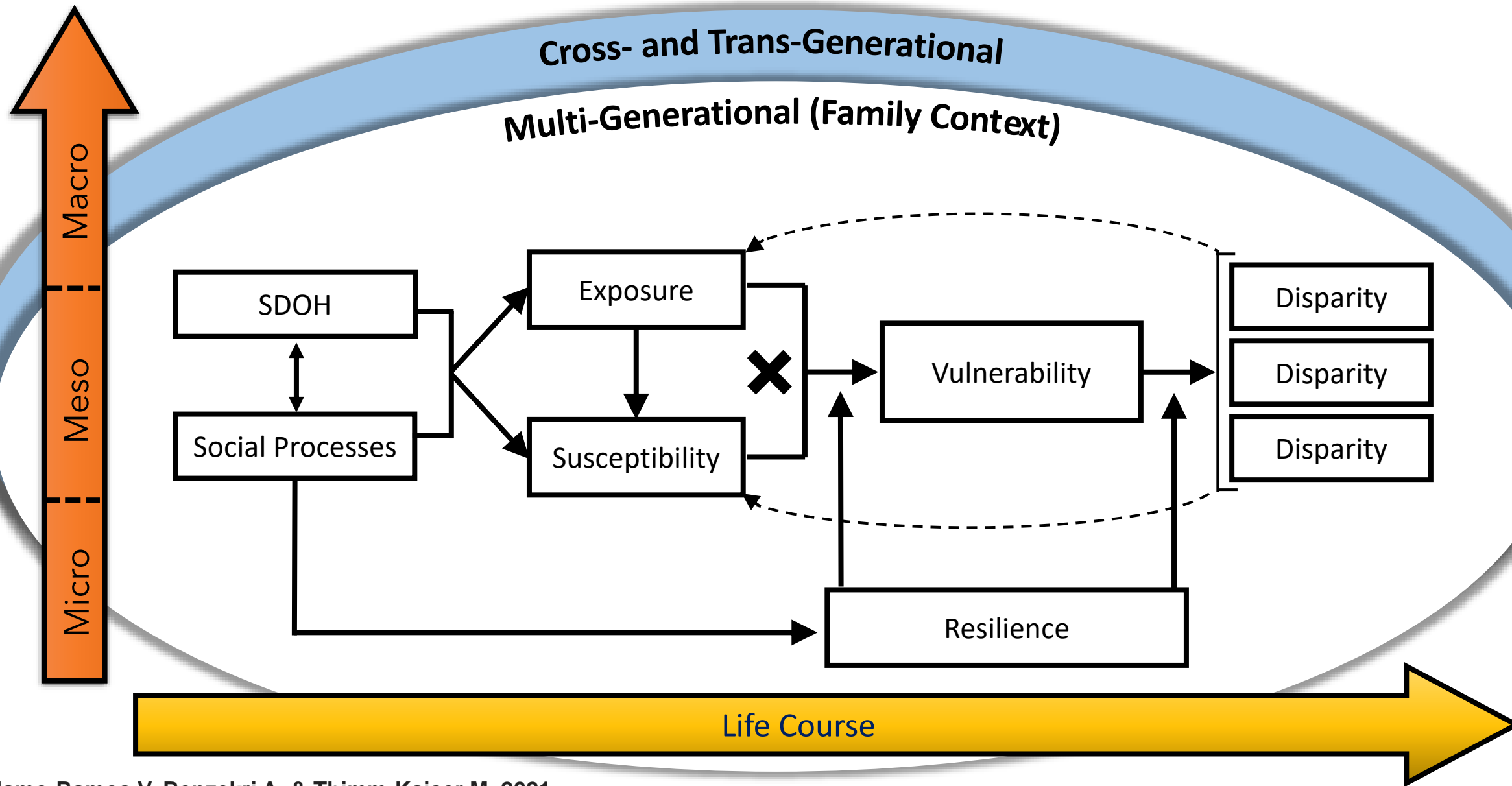
1

Integration of SDOH principles and mechanisms into a framework with applicability and utility

2

Conceptualization of applied mitigation approaches aligned with SDOH principles and mechanisms

# A Unified Framework of Principles and Mechanisms of SDOH



# Opportunities for Mitigation of SDOH

## SDOH Principle



Underlying Causes Beyond Individual Factor Drive Health Inequities



## Approach for Mitigation

**Meaningful Community Engagement in Identifying Data-Driven Priority Disparities & Disparity Drivers**



Context Matters - The Structural Production of Risk



**Decentralized Community-Based Care Tailored to Context (vs. Centralized One-Size-Fits-All)**



Environmental Disadvantage is not Deterministic



**Health-Social Service Partnerships that Amplify Protective/Resilience Factors at Multiple Levels**



SDOH Influence Manifests Over the Life Course

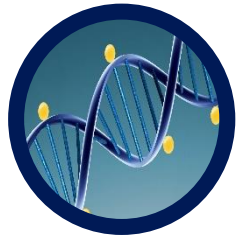


**Proactive Intervention Focus on Prevention and Health Promotion (vs. Reactive Focus on Treatment)**

# Opportunities for Mitigation of SDOH

## SDOH Principle

## Approach for Mitigation



SDOH Can Operate Through Biological Embedding



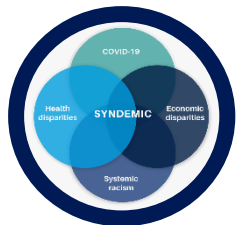
**Leverage Biological Markers of Negative SDOH Impact to Inform Intervention**



SDOH Can Operate Intergenerationally



**Family-Based Approaches to Healthcare, Prevention, and Health Promotion**



The Impacts of SDOH Cluster and Interact Synergistically



**Comprehensive, Interdisciplinary, Team-Based Care Within a Value-Based Framework**



Social Injustices and Structural Racism Shape the Impact of SDOH



**Health Care System Responsiveness to Exposures and Susceptibility (vs. Deficiency-Focused Perspective)**



# **A Nurse-Led Framework for Addressing the Social Determinants of Health**

# Nurses are Uniquely Positioned to Implement Approaches for SDOH Mitigation

## Key Nursing Workforce Characteristics for SDOH Mitigation:

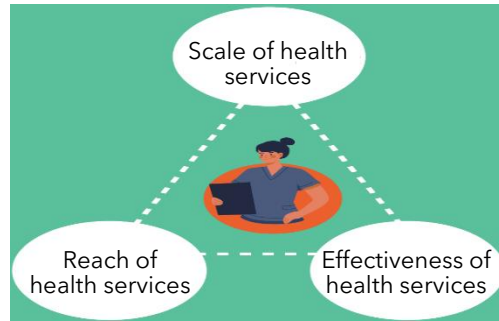
**Largest segment of the healthcare and public health workforce**

More than

4 mil

nurses in the US

**Indispensable for scale, reach and effectiveness of health services**



**Most trusted profession for nearly 20 years running**



Most trusted profession since 2002



## Key Nursing Competencies for SDOH Mitigation:

### Clinical care expertise

(i.e., nurses are highly trained clinicians delivering most direct patient care services in the US)

### Care coordination

(i.e., nurses routinely coordinate interdisciplinary care teams and comprehensive patient care plans)

### Whole-person perspective on health

(i.e., nursing takes a holistic view of health and wellbeing that goes beyond biomedical treatment of disease)

### Locational flexibility

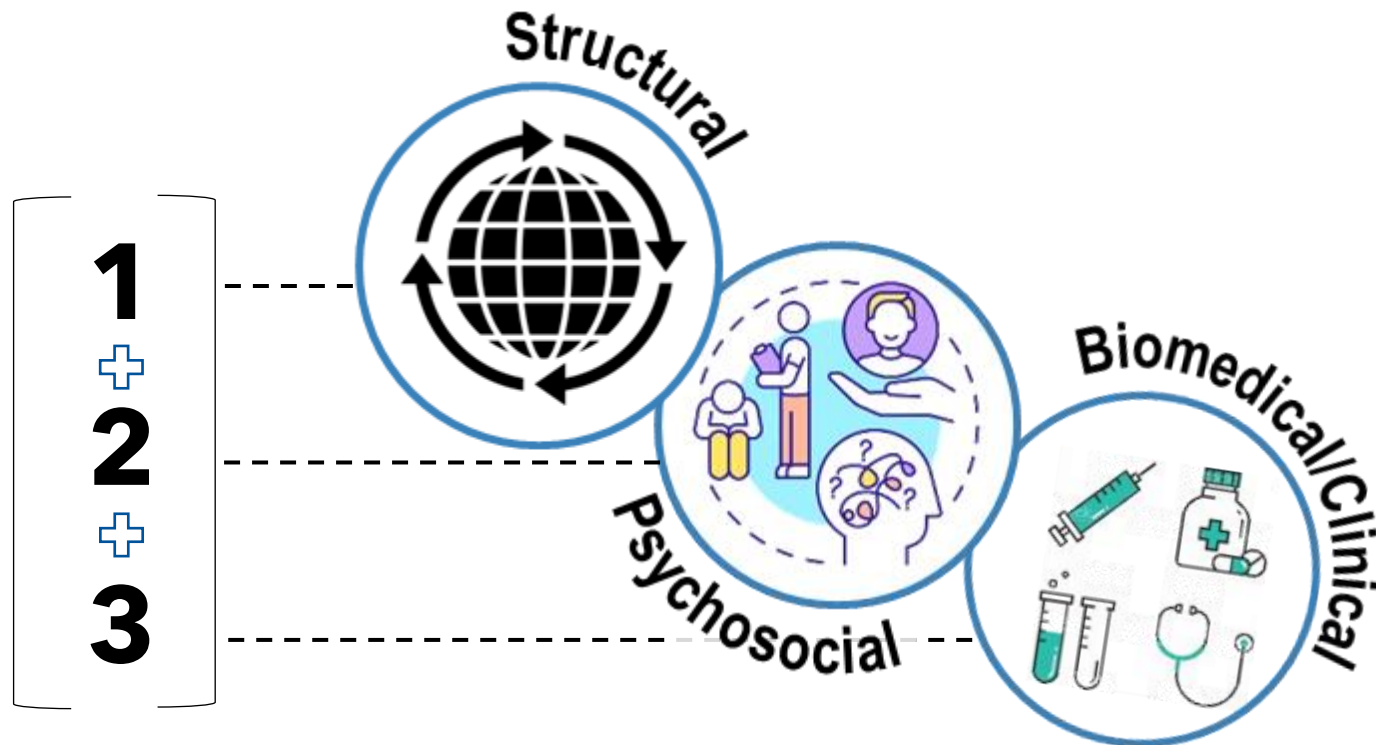
(i.e., nurses provide services in a variety of centralized and decentralized settings, including clinics, schools, homes, etc.)





# Future Directions for Addressing the SDOH and Advancing Health Equity

Development, evaluation, and scale-up of **integrated, nurse-led strategies** that address the mechanisms of SDOH at three distinct levels—**multi-level interventions**:



# Exemplar:

## A Multi-Level Toolbox for Nurse-Driven Intervention

1



2



3

Structural

Psychosocial

Biomedical/  
Clinical



### Community Engagement in Identifying Priority Disparities & Drivers

Systematic, community-engaged health needs assessment as formative work for intervention development



### Health-Social Service Partnerships that Amplify Protective/Resilience Factors

Active navigation to ancillary services for psychosocial support (e.g., transportation, food assistance, etc.)



### Family-Based Approaches to Health & Prevention

The family defined as unit of intervention; family involvement in care self-management, and prevention



### Proactive Intervention Focus on Prevention and Health Promotion

Delivery of behavioral & bio-medical prevention interventions for each stage of the life course.



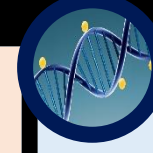
### Decentralized Community-Based Care Tailored to Context

Nurse home visits for primary care + nurse telehealth platform and home health tech



### Health Care System Responsiveness to Exposures & Susceptibility

Assessment and targeted mitigation of exposures and susceptibility indicators (e.g., stress, microbiota shifts)



### Biological Markers of Negative SDOH Impact to Inform Intervention

Routine assessment of biomarkers for SDOH impact + trend tracking at individual, family and community levels (e.g., AI-based approaches)



### Comprehensive, Interdisciplinary, Team-Based Care

Nurse-coordinated interdisciplinary care teams within a value-based reimbursement scheme



# Key Considerations for All Stages of the Intervention Life-Cycle

## Formative Intervention Development Phase

- ❑ Relationship-building with key community stakeholders
- ❑ Community needs assessment to identify priority health disparities & underlying drivers
- ❑ Define multi-level intervention package based on community needs and priorities



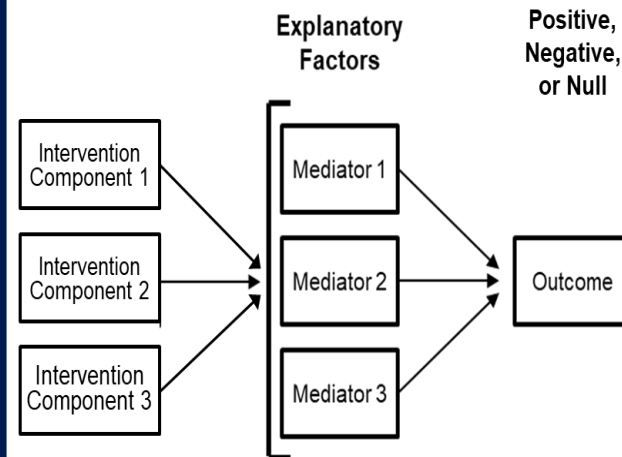
## Intervention Implementation Phase

- ❑ Aligning service delivery with community needs and priorities
- ❑ Hiring and training of a diverse care team across all levels (positionality)
- ❑ Ongoing involvement of key community stakeholders



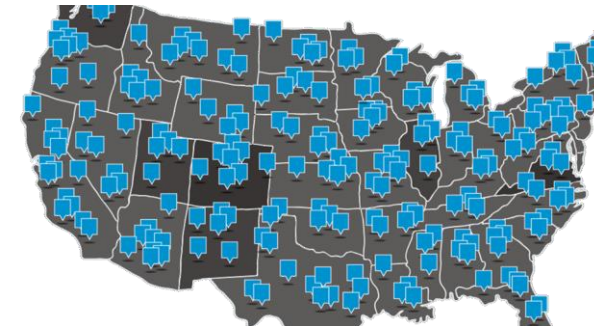
## Intervention Evaluation Phase

- ❑ Understand the mediators of intervention effects and relative contributions of “active intervention components”
- ❑ Use insights to iterate & optimize the multi-level intervention



## Intervention Scale-up Phase

- ❑ Implementation and evaluation of multi-level intervention in different contexts, informed by implementation science approach
- ❑ Engage policy makers, decision makers, and the community to promote scale-up



# What Does This Mean for DUSON?

## 5 Priorities for DUSON's Role in Positioning Nurses as Leaders in Addressing the Social Determinants of Health

