

Addressing Health Disparities and the Social Determinants of Health in Athletic Training Clinical Practice and Education

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Conflict of Interest Disclosure

- No conflicts of interest to disclose and no financial assistance was received in developing this presentation.
- The views expressed in these slides and today's discussion are mine
- My views may not be the same as the views of my institution or my colleagues.
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NATM #2018

NATIONAL
ATHLETIC
TRAINING
MONTH

**COMPASSIONATE
CARE FOR ALL**

MARCH 2018



Objectives

Following this presentation, attendees should be able to:

- 1) Describe the social determinants of health (SDH), health disparities, and the International Classification of Functioning, Disability and Health (ICF)
- 2) Examine the *Framework for Educating Health Professionals to Address the Social Determinants of Health*¹ in developing curricular changes for AT programs and continuing education;
- 3) Implement individual, organizational and collaborative practices to assess SDH, minimize adverse childhood experiences (ACEs) and mitigate health disparities and downstream impacts.
- 4) Advocate for ATs to be included with other healthcare professionals as key resources in combating health disparities with institutional and community stake holders.

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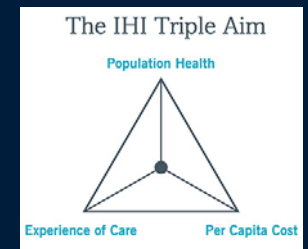
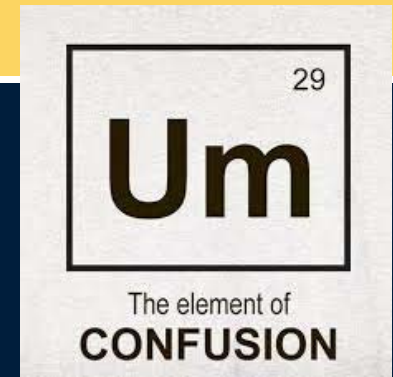
Outline

- **Healthcare** industry disruption & **AT** progression
- **SDH**, **health disparities**, International Classification of Functioning, Disability and Health (ICF) and the Socioecological Model of Health
- **Adverse Childhood Experiences (ACEs) and Health**
 - Influences of hypercortisolemia, **resiliency/persistence**, **protective effect** of exercise/athletics
- **Showcase the** National Academy of Sciences' *Framework for Educating Health Professionals to Address the Social Determinants of Health* ¹
- **Discuss strategies that clinicians and educators can implement into**
Clinical practice/education Didactic Education Advocacy

Industry Disruption

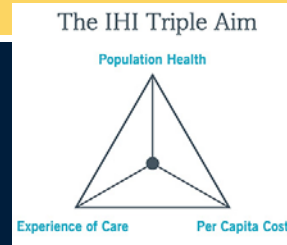


- Private and Public Transportation
- Retail stores
- Manufacturing
- Travel & Hospitality
- PCs, Mainframes & Servers
- Healthcare?





Industry Disruption



Now:

- Retail based
- School based*
- Worksite based*
- Telemedicine*
- Hospital system consolidation
- Home health*



Then:

- Private practice
- House calls
- Hospitals
- Ambulatory Surgical Centers
- Skilled Nursing Facilities
- Hospice

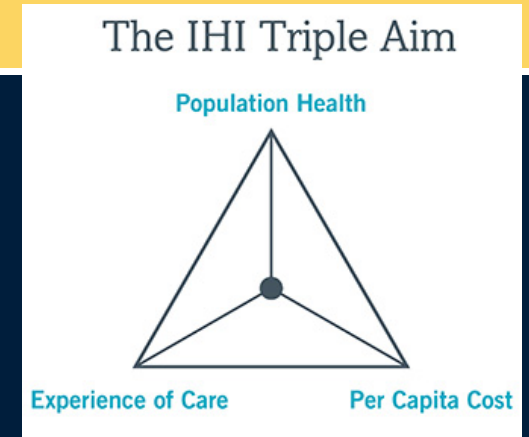
*ATs are progressive, adaptable, innovative & collaborative.



Healthcare Industry Disruption

- The Triple Aim

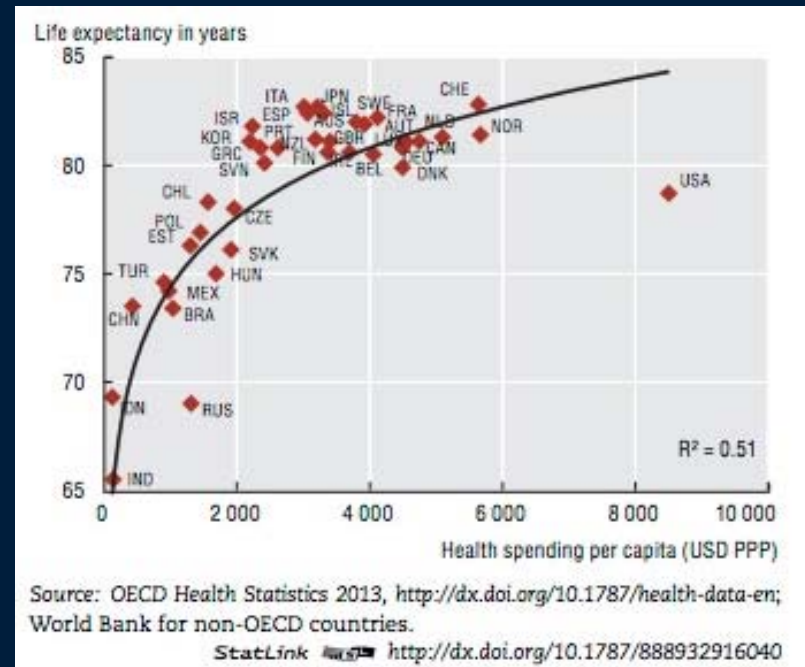
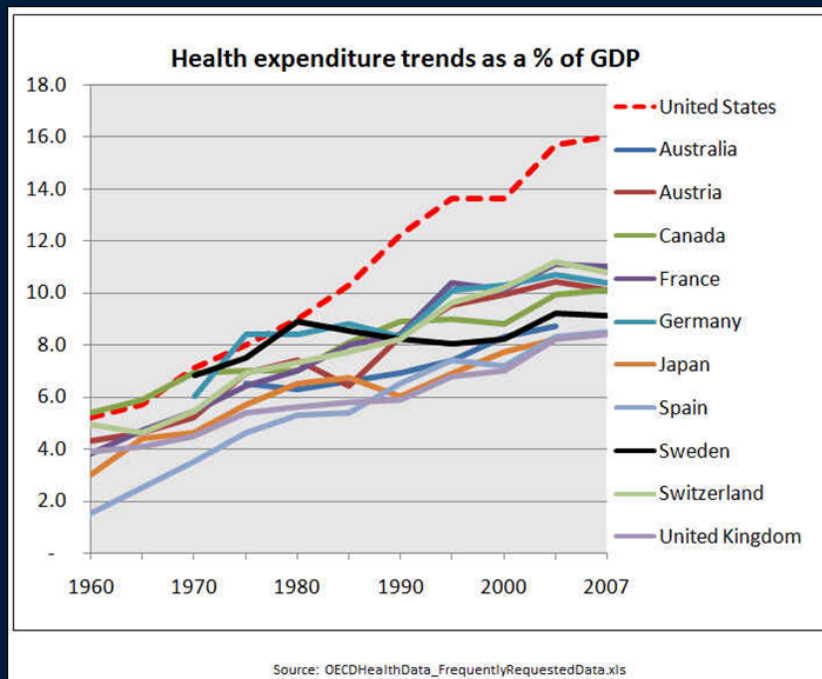
- Reduce unsustainable costs
- Improve the experience of care, the outcomes for all, and minimize disparities among patients
- Improve population health



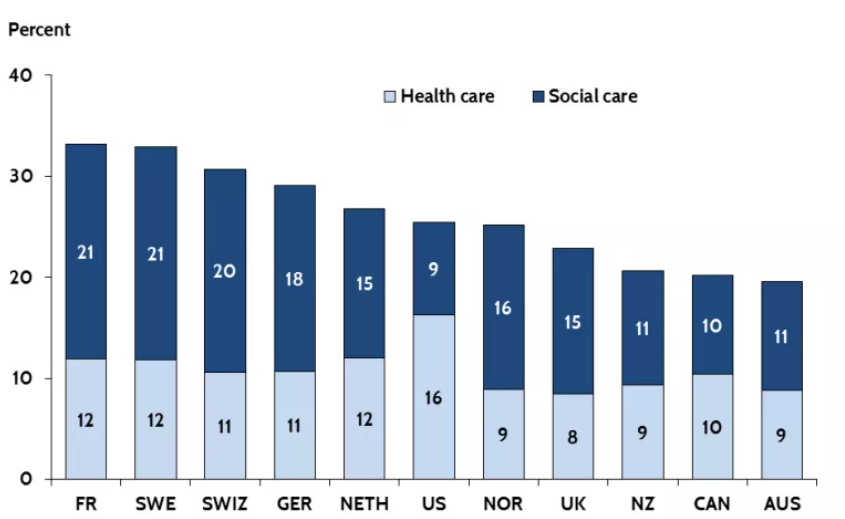
“Health begins well before illness or injury”

“It is better, cheaper, and more sustainable to remain healthy than to provide care and attempt to return from illness or injury.”

Health care Industry Disruption



Health care Industry Disruption



*Mental health and substance use services may be provided within the medical home or in the medical neighborhood.

How do we convince “them” that “we” offer value?

fungible
[fuhn-juh-buhl]
adjective Law
- (especially of goods) being of such nature or kind as to be freely exchangeable or replaceable, in whole or in part, for another of like nature or kind.

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The vision

A health system that performs optimally in promoting, protecting, and restoring the health of individuals and populations and helps each person reach his or her full potential for health and well-being

Core goals

Better health and well-being

High-value health care

Strong science and technology

Action priorities

- Pay for value
- Empower people
- Activate communities
- Connect care

Essential infrastructure needs

- Measure what matters most
- Modernize skills
- Accelerate real-world evidence
- Advance science

How do we convince “them” that “we” offer value?



Healthcare Specialists

- Prevention Focused
- Acute Incidences of Minor Illness or Injury
- Chronic Disease and Complex Care
- Care at the End of Life

Vital Directions for Health and Health Care

Priorities from a National
Academy of Medicine Initiative

In an uncertain time for U.S. health policy, how can we
build a shared vision for progress?

#NAMVitalDx

nam.edu/VitalDirections

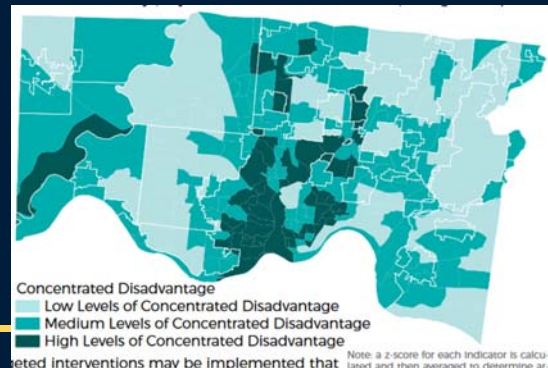
Health Disparities and the Social Determinants of Health

Health inequities, also termed disparities, are

“the unfair and avoidable differences in health between groups of people within countries and between countries” (WHO, 2015).

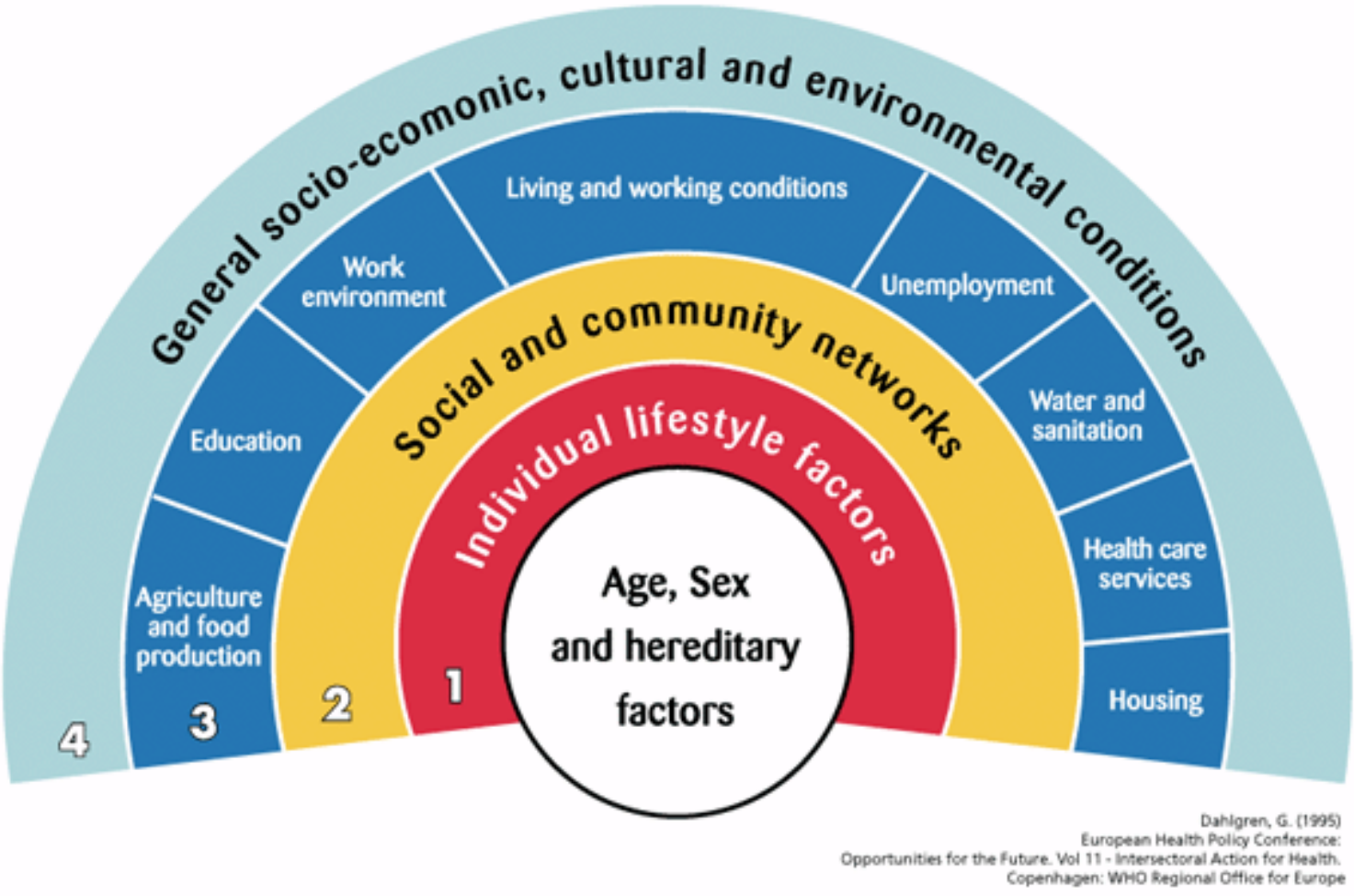
The social determinants of health are

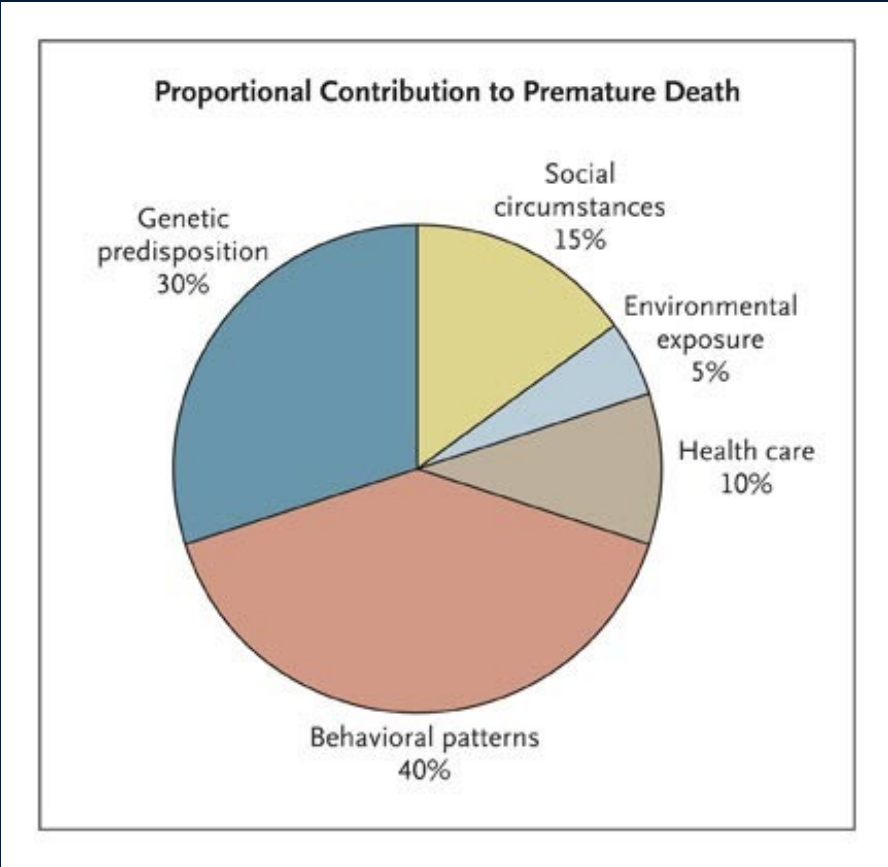
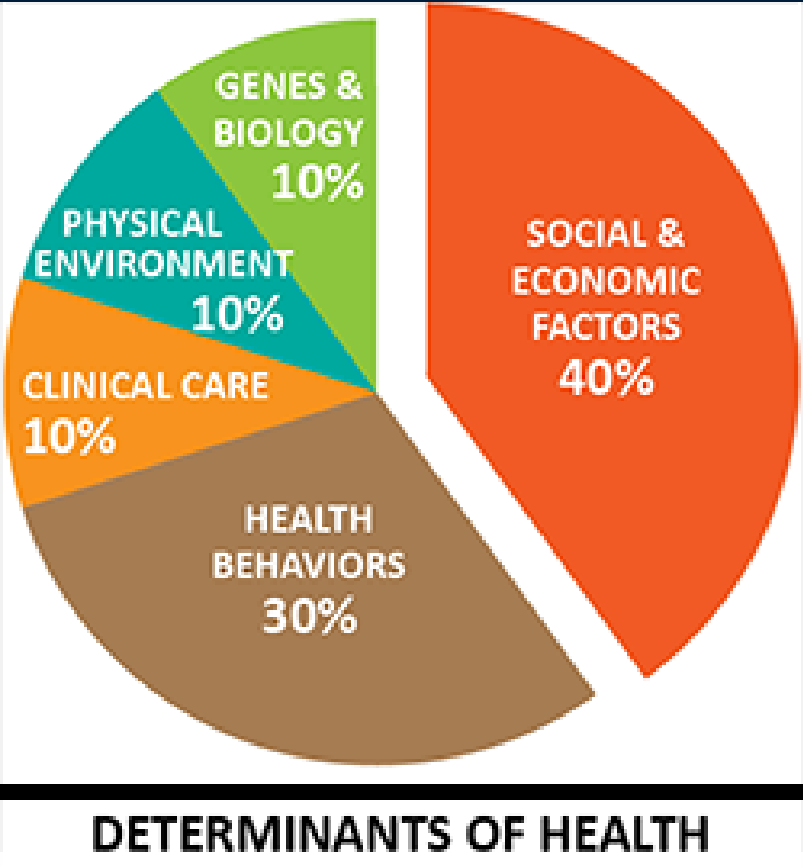
“the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life” (WHO, 2015)



Social Determinants of Health







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Depictions of the SDH and Health Disparities



The Blind Side, 2009

Poverty, Food Insecurity,
Housing Insecurity,
Education, Discrimination
Social Isolation, Violence



Stand and Deliver, 1988

Poverty, Discrimination,
Housing Insecurity,
Education Disparity,
Violence, Explicit/Implicit Bias

Depictions of the SDH and Health Disparities



The Breakfast Club, 1985

Socioeconomic Status,
Verbal Abuse, Education,
Social Isolation, Violence,
Mental Health



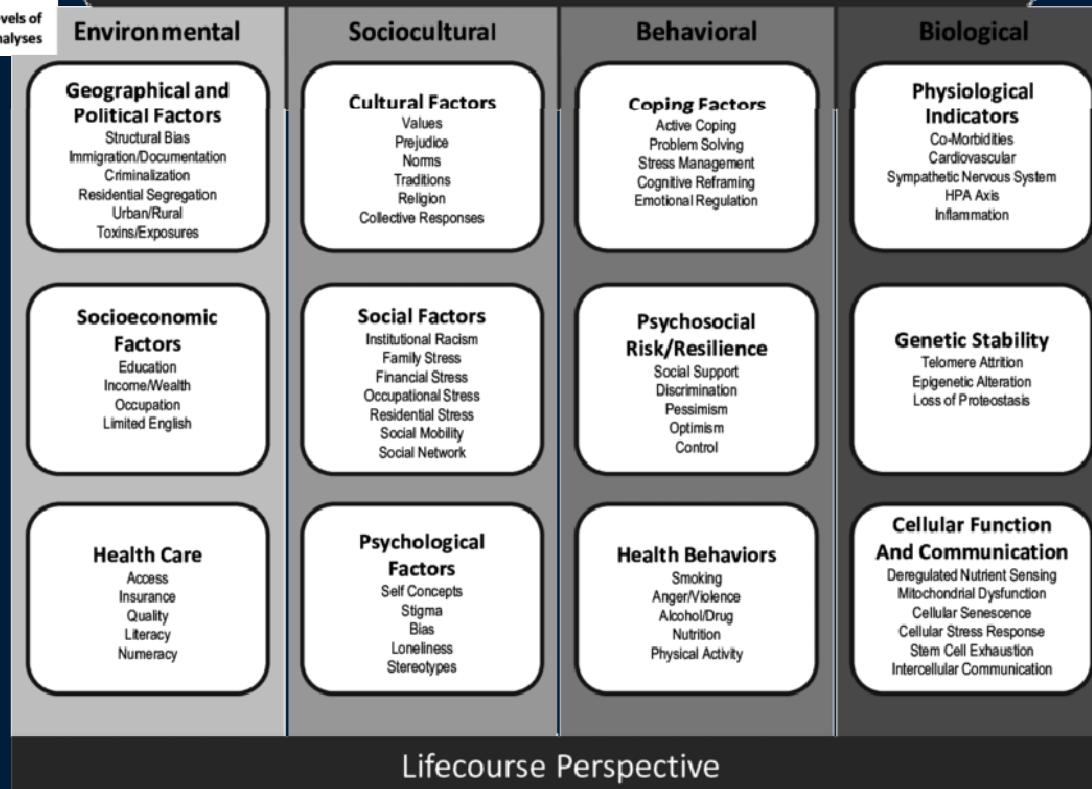
Boyz n the Hood, 1991

Poverty, Discrimination
Housing Insecurity,
Incarceration, Education
Violence,

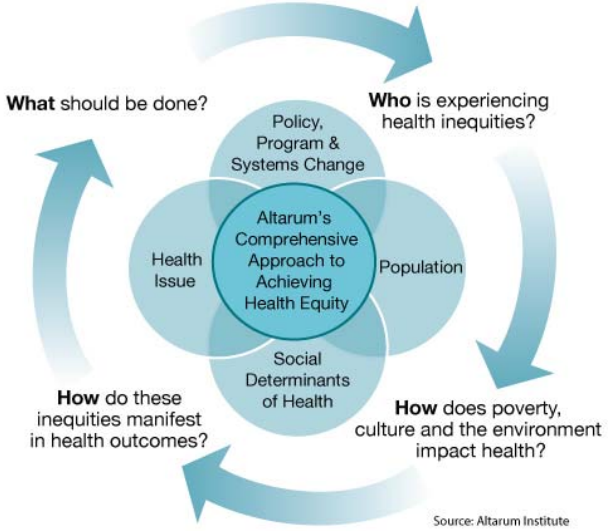
Health Disparities

FUNDAMENTAL FACTORS: Ethnicity, Gender, Age, Race, Disability Status, Identity*

**Levels of Analyses



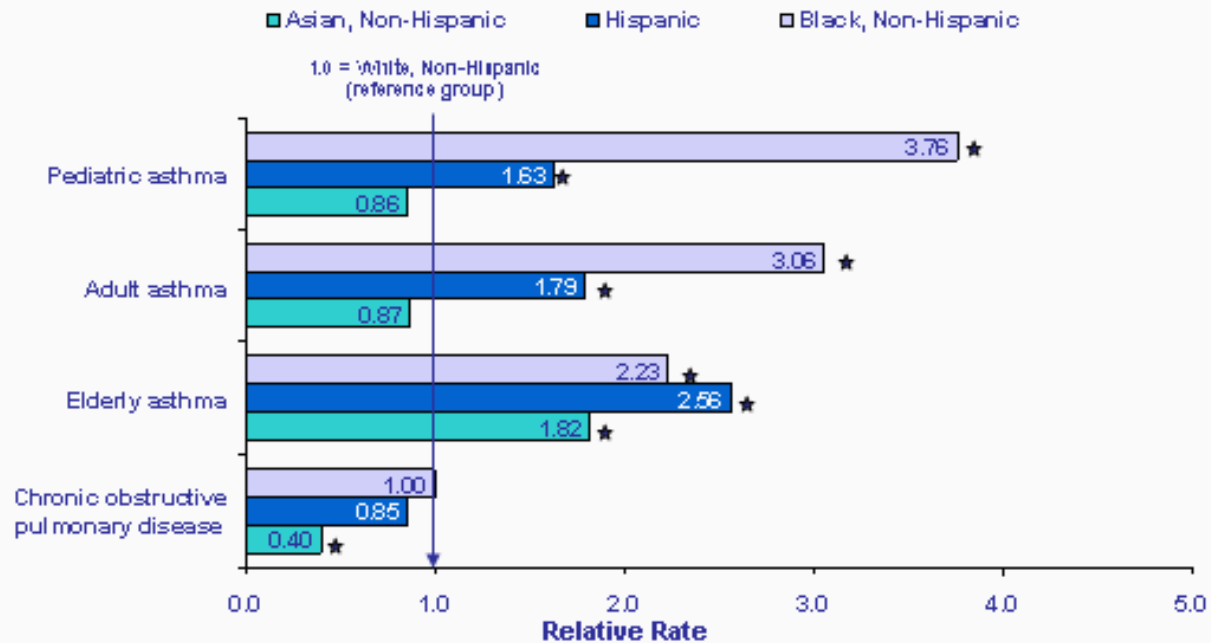
Health Disparities



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Figure 3. Potentially preventable hospitalization rates for chronic respiratory diseases among minorities relative to whites, risk adjusted, 2003



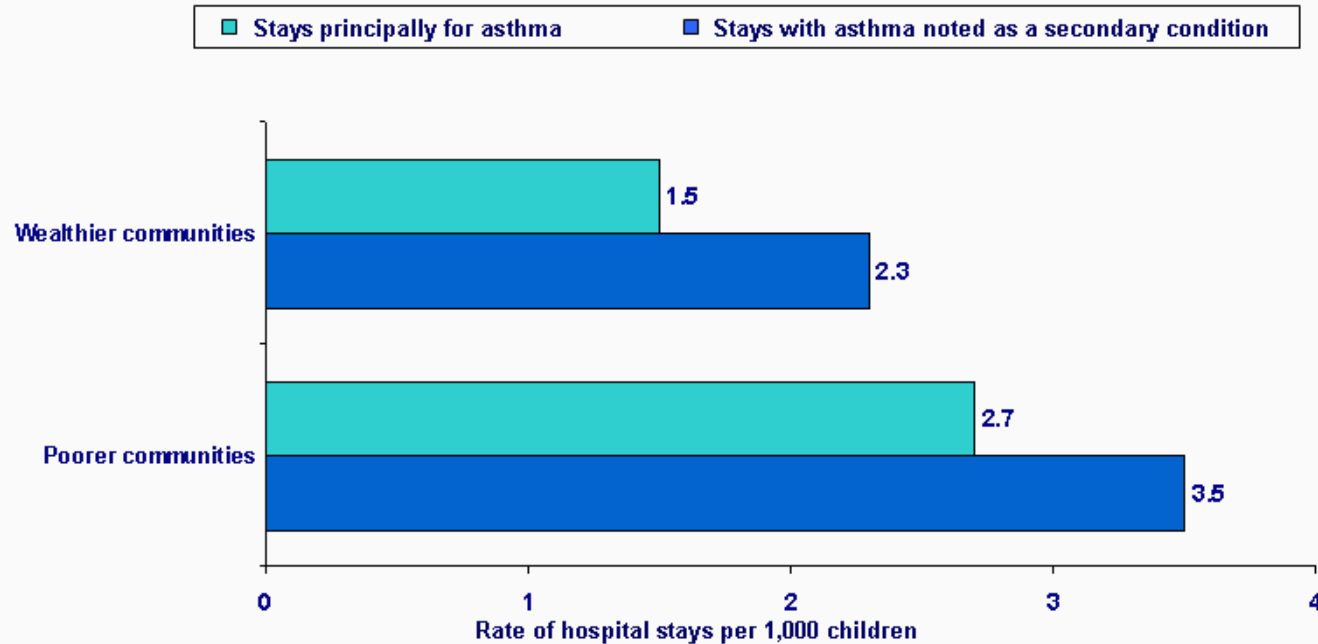
* Significant at $p \leq 0.05$

Source: Agency for Healthcare Research and Quality, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, State Inpatient Databases, disparities analysis file, 2003. This file is designed to provide national estimates of disparities using weighted records from a sample of hospitals from the following 23 states: AZ, CA, CO, CT, FL, GA, HI, KS, MD, MA, MI, MO, NH, NJ, NY, PA, RI, SC, TN, TX, VA, VT, and WI.

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Figure 2. Rate of pediatric hospital stays principally for asthma was 76 percent greater in poorer communities compared to wealthier communities, 2006 *



Children were defined as patients younger than 18 years of age. Newborns were excluded.

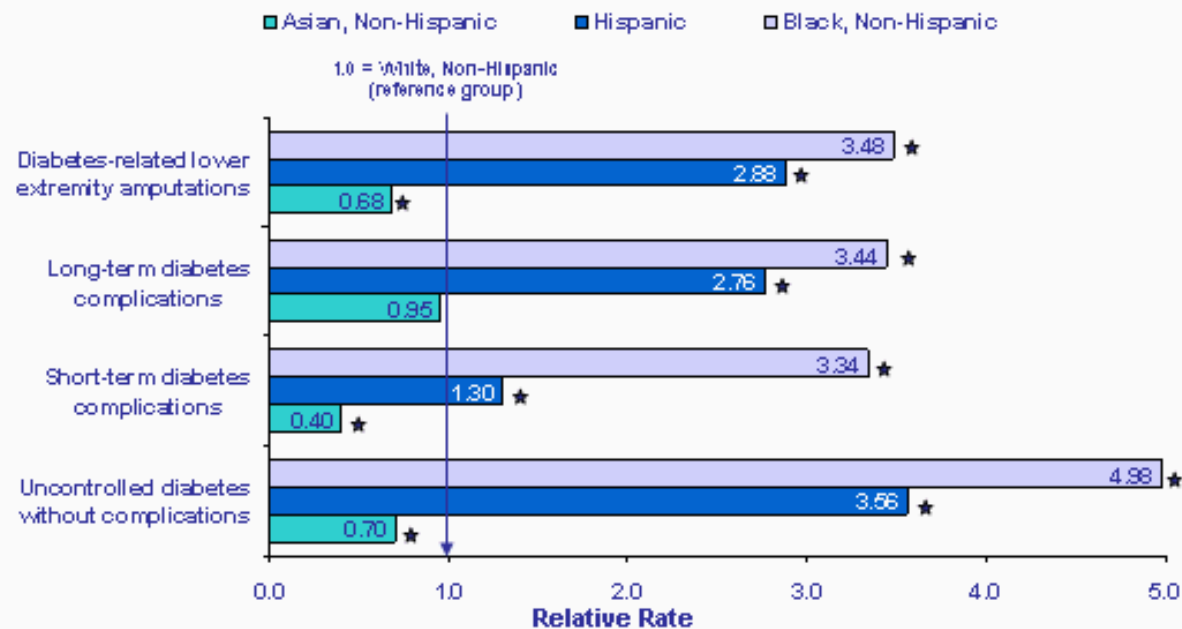
Note: The denominator for the rates was derived from 2006 Claritas Population Data. "Poorer communities" included zip codes with median income level less than \$37,000; "wealthier communities" included zip codes with median income level greater than or equal to \$37,000.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Kids' Inpatient Database, 2006.

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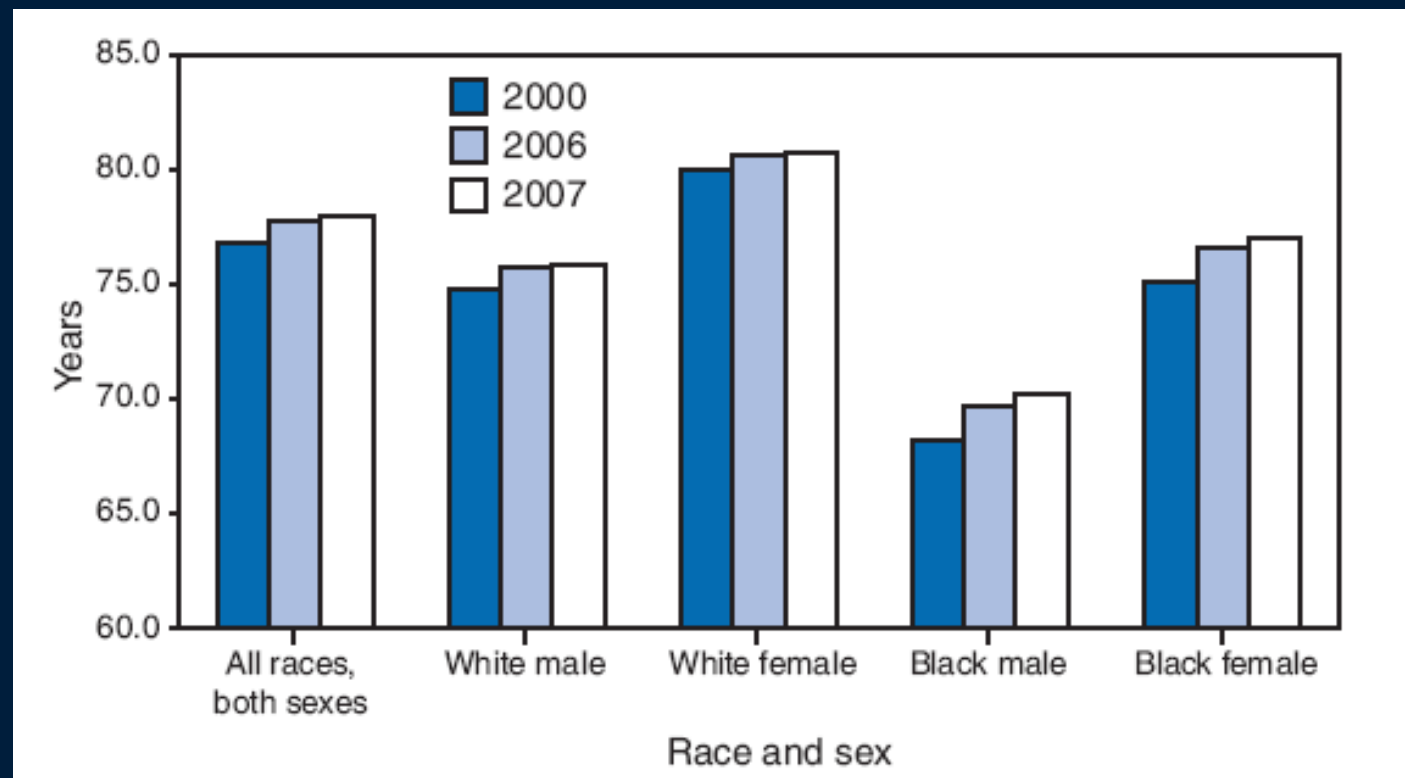
Figure 1. Potentially preventable hospitalization rates for diabetes among minorities relative to whites, risk adjusted, 2003



★ Significant at $p \leq 0.05$

Source: Agency for Healthcare Research and Quality, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, State Inpatient Databases, disparities analysis file, 2003. This file is designed to provide national estimates on disparities using weighted records from a sample of hospitals from the following 23 states: AZ, CA, CO, CT, FL, GA, HI, KS, MD, MA, MI, MO, NH, NJ, NY, PA, RI, SC, TN, TX, VA, VT, and WI.

Life Expectancy



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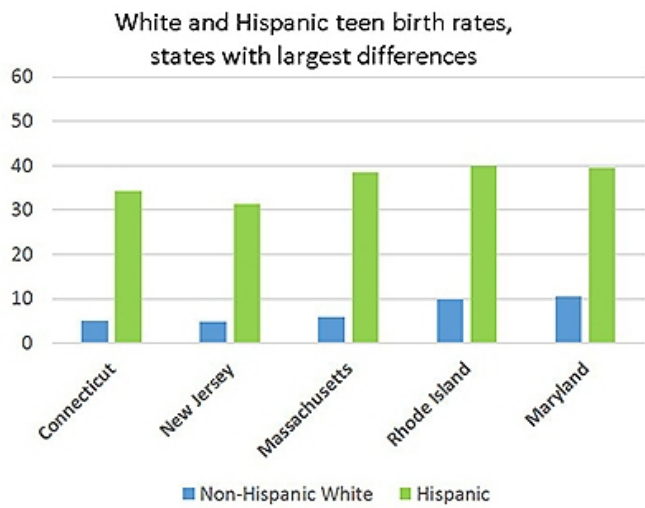
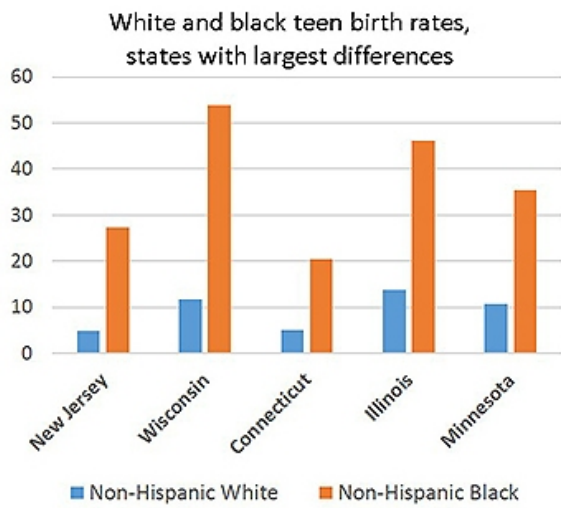
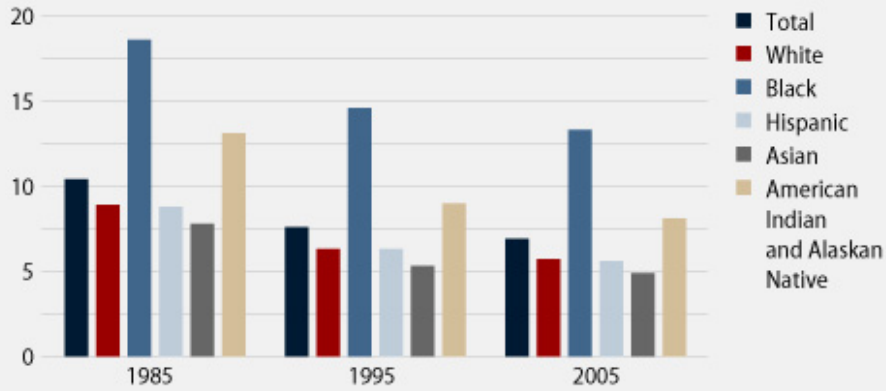


FIGURE 3
Infant mortality rate: deaths per 1,000 live births, by race and ethnicity

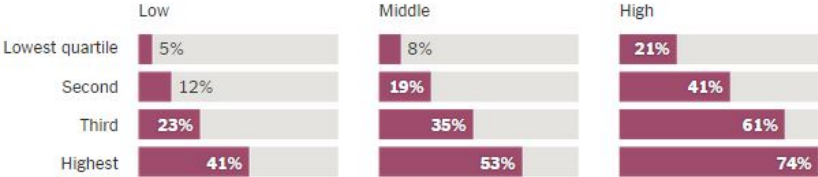


Educational Achievement

The Advantage of Wealth in College

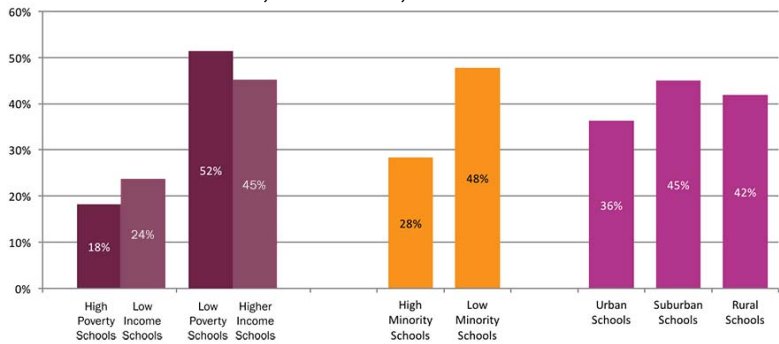
A low-income college student with top math scores has the same chance of graduating with a bachelor's degree (41 percent) as a rich student with mediocre scores.

B.A. completion rate in three socio-economic groups, ranked in four groups of math test scores.

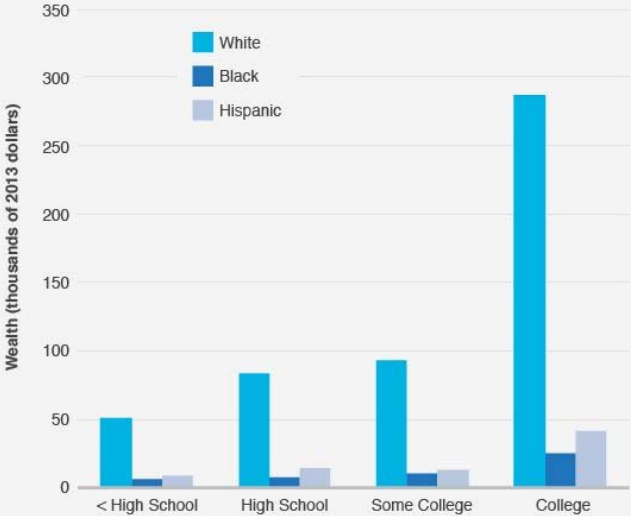


Source: Department of Education: Education Longitudinal Study

College Completion Rates Six Years after High School Graduation, Class of 2009, Public Non-Charter Schools



Median Wealth By Race & Education (2013)

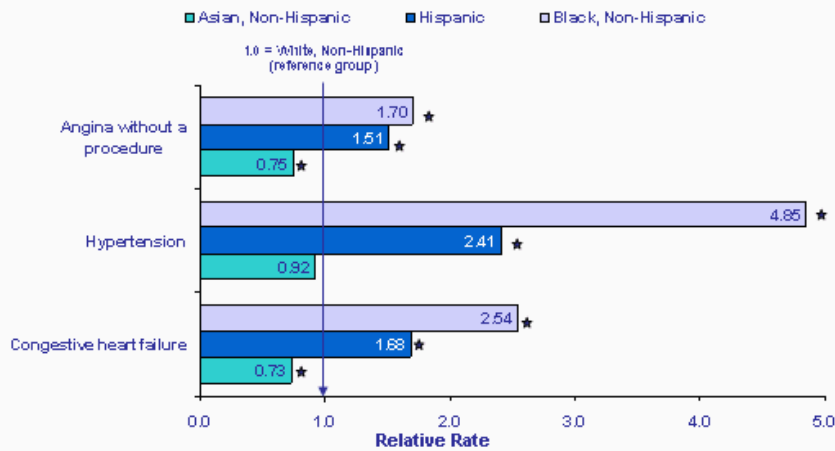


Demos

Sources: Federal Reserve

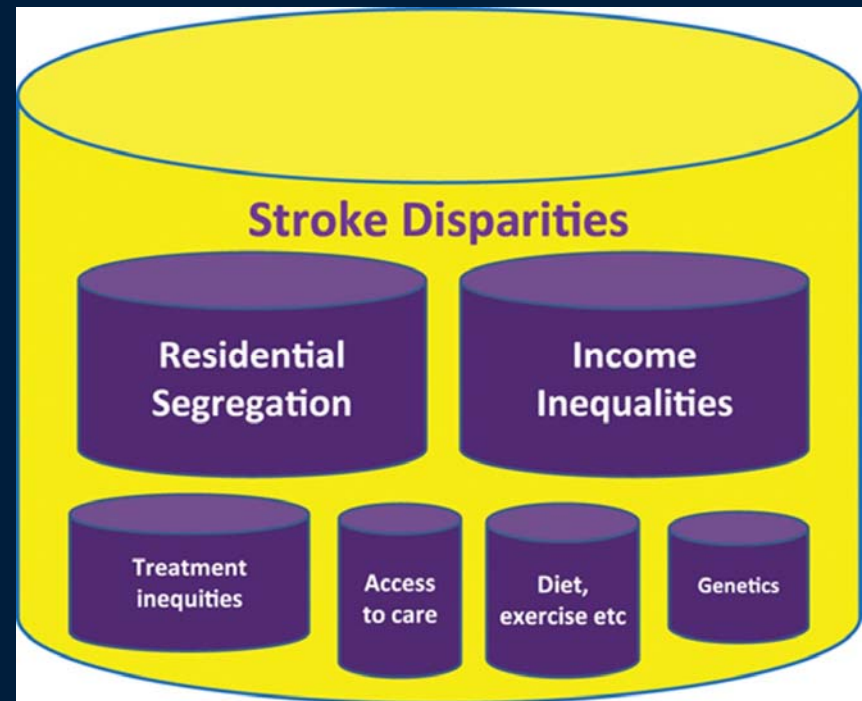
Heart Disease, Stroke, & Hypertension

Figure 2. Potentially preventable hospitalization rates for circulatory diseases among minorities relative to whites, risk adjusted, 2003



★ Significant at p < 0.05

Source: Agency for Healthcare Research and Quality, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, State Inpatient Databases, disparities analysis file, 2003. This file is designed to provide national estimates on disparities using weighted records from a sample of hospitals from the following 23 states: AZ, CA, CO, CT, FL, GA, HI, KS, MD, MA, MI, MO, NH, NJ, NY, PA, RI, SC, TN, TX, VA, VT, and WI.

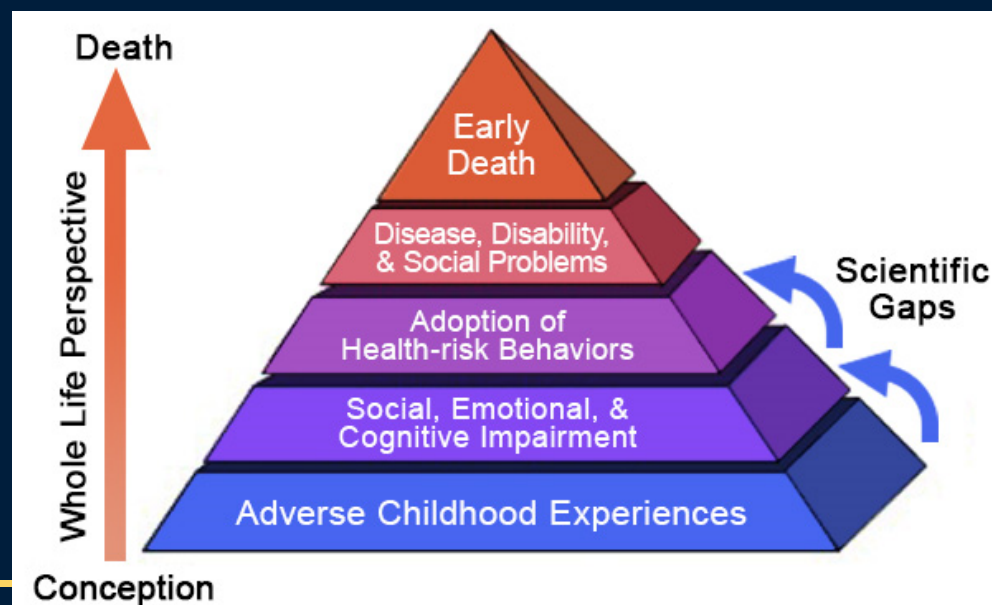


Adverse Childhood Experiences

- Physical abuse
- Sexual abuse
- Emotional abuse
- Physical neglect
- Emotional neglect
- Intimate partner violence
- Mother treated violently
- Substance misuse within household
- Household mental illness
- Parental separation or divorce
- Incarcerated household member

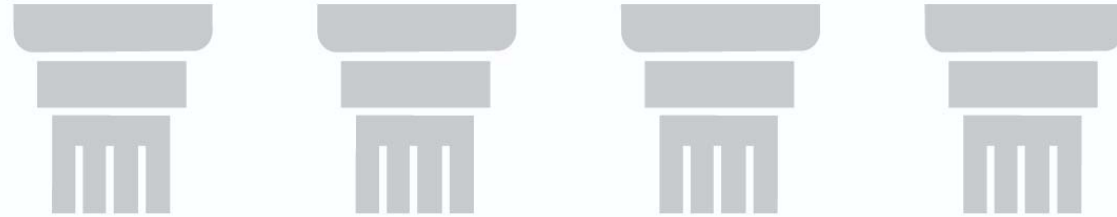
Adverse Childhood Experiences

- ACEs are common.
- ACEs cluster with individuals reporting multiple
- ACEs have a dose-response relationship



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AT STRATEGIC ALLIANCE



CERTIFICATION
CONSUMER
PROTECTION

ACCREDITATION
QUALITY
EDUCATION

ADVOCACY
PROFESSIONAL
DEVELOPMENT

RESEARCH
SCHOLARSHIP

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AT STRATEGIC ALLIANCE



Code of Professional Responsibility

- 1: Patient Care
- 2: Competence
- 3: Professional
- 4: Research
- 5: Social
- 6: Business Practices

The Strategic Alliance



2020 Standards

2. Frame work

8. Interprofessional Education (IPE)

17. Patients of varying socioeconomic statuses

56-68 Core Competencies

57. Social Determinants of Health

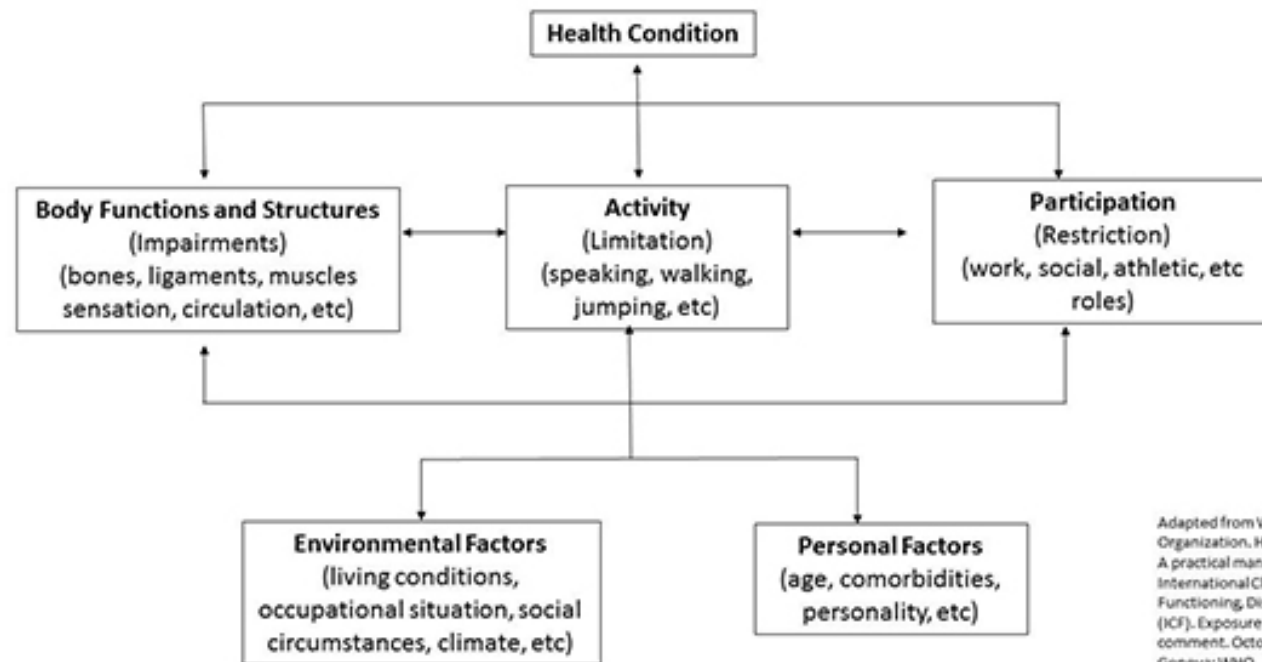
60. International Classification of Functioning, Disability and Health (ICF)

61. Interprofessional Education/Practice



The Strategic Alliance

Figure 1: ICF Model



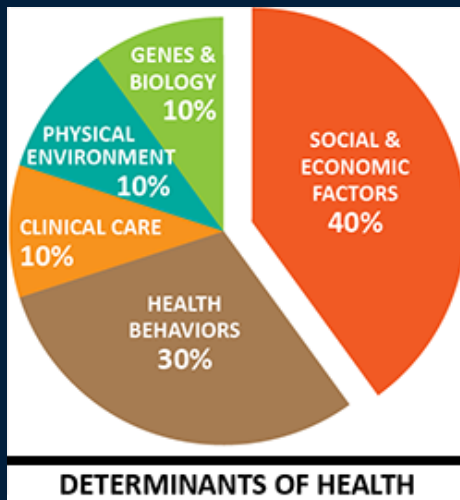
Adapted from World Health Organization. How to use the ICF: A practical manual for using the International Classification of Functioning, Disability and Health (ICF). Exposure draft for comment. October 2013. Geneva: WHO



NATA Foundation

Research Funding Priorities:

- Effectiveness and cost-effectiveness
- Patient-oriented and quality-of-life outcomes measures
- Conditions typically managed by ATs
- Education of Athletic Trainers
- Foundations for clinical practice



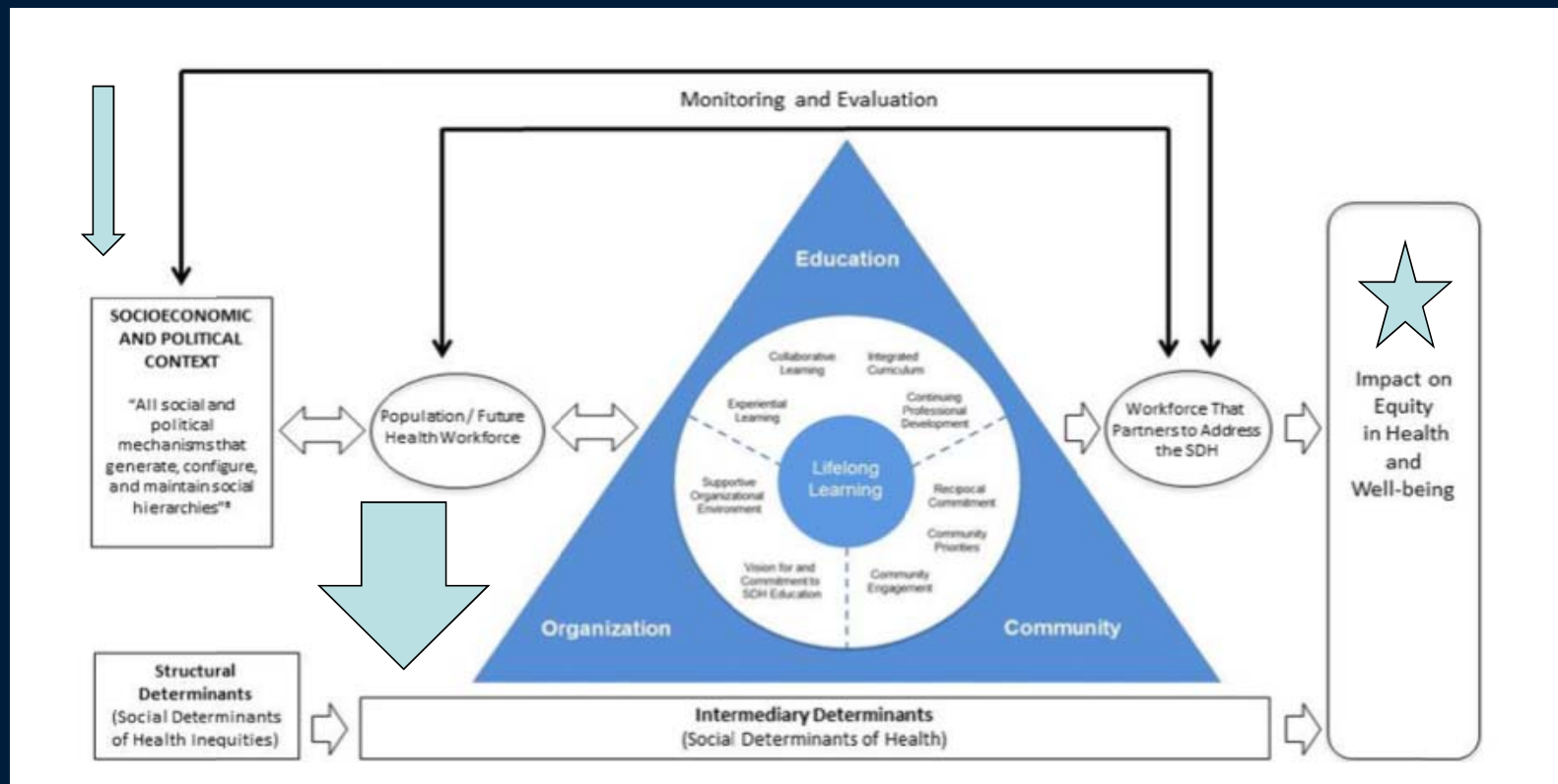
What can
we do?



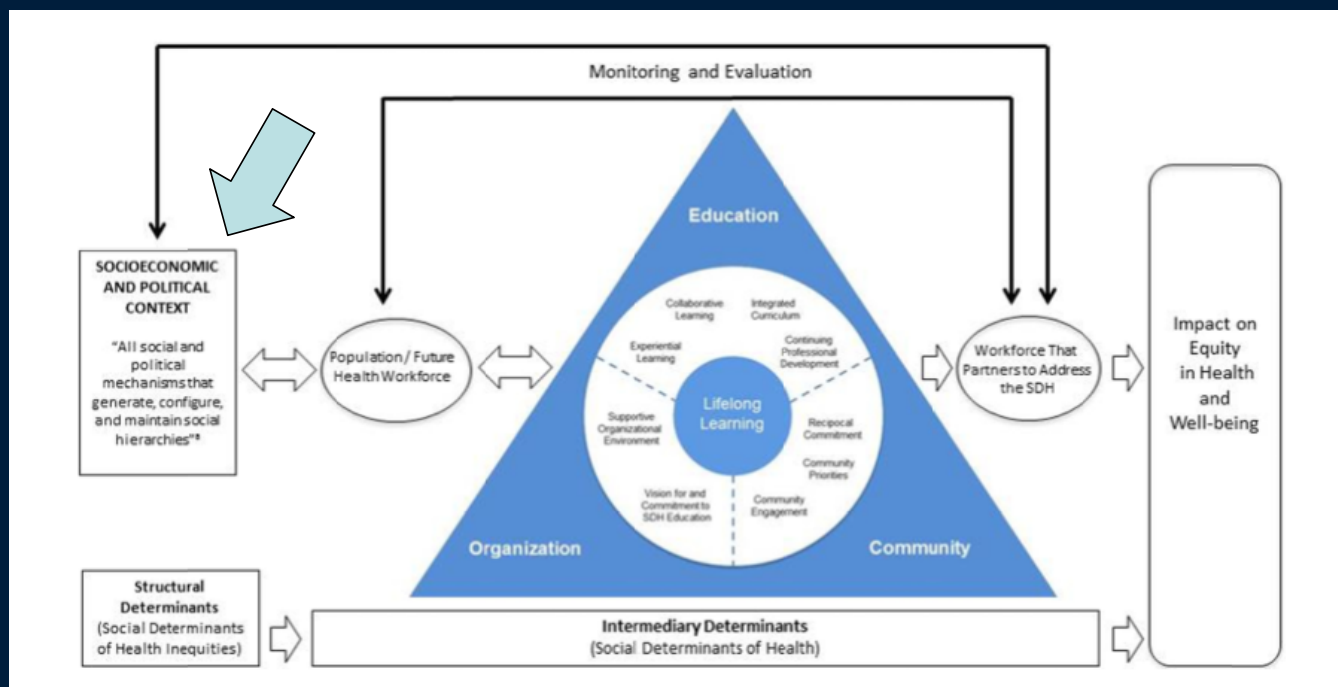
What can
I do?



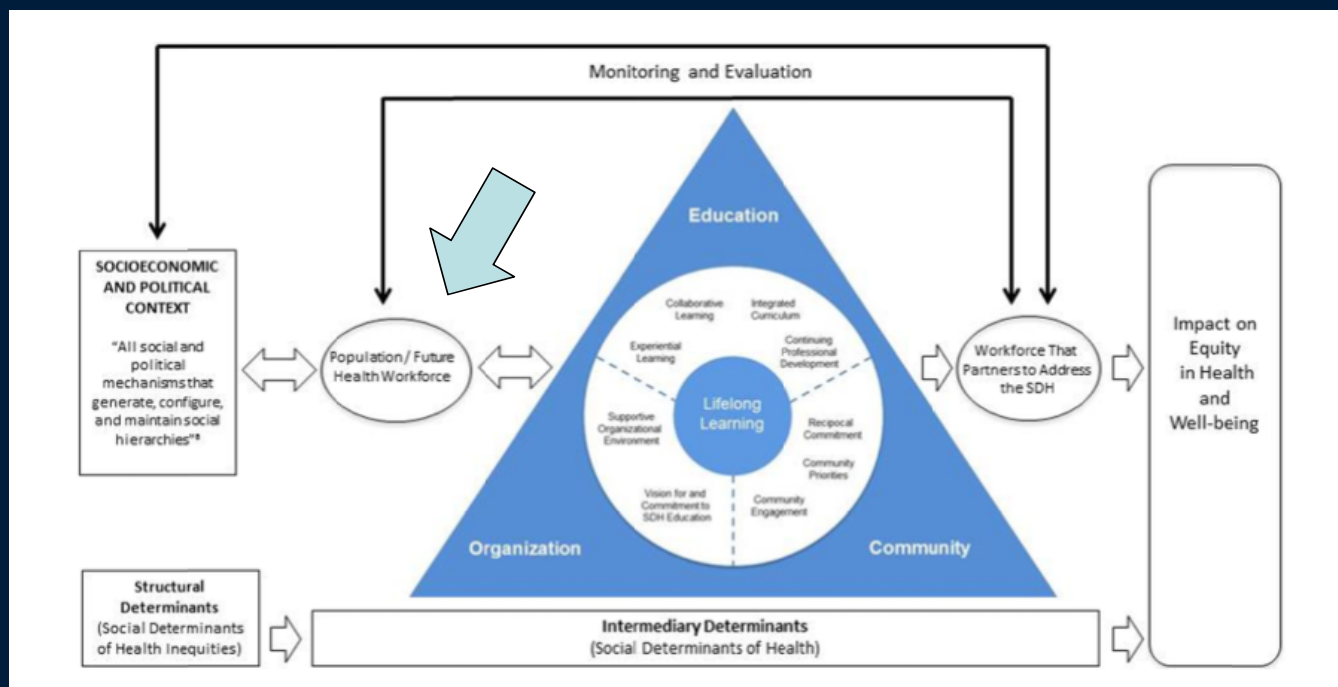
Framework for Educating Health Professionals to Address the Social Determinants of Health¹



Understanding Context: Health in All Policies



Health Workforce: Recruitment and Representation



Imbedding Social Determinants

Education

- Experiential Learning
- Collaborative Learning
- Integrated Curriculum
- Continuing Professional Development

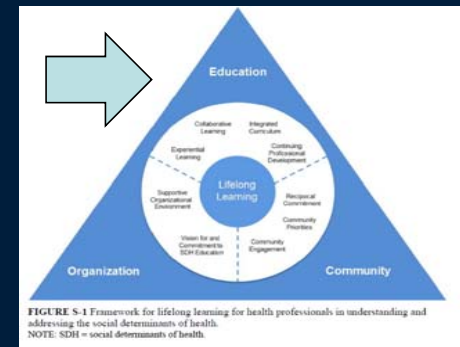


FIGURE S-1 Framework for lifelong learning for health professionals in understanding and addressing the social determinants of health.
NOTE: SDH = social determinants of health.

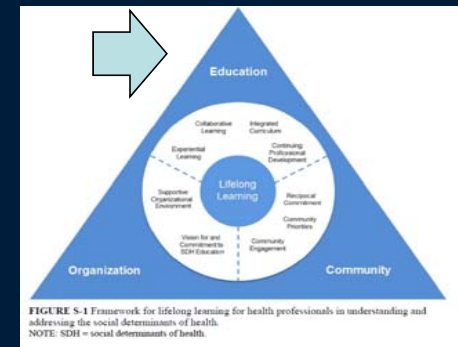
Institute of Medicine (2016) *Framework*

Education

Recommendation 1:

Use framework to create...

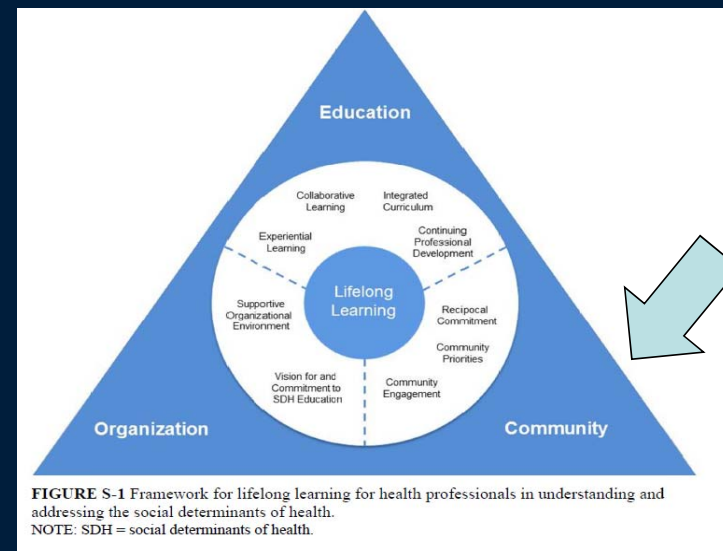
“lifelong learners who appreciate the value of relationships and collaborations for understanding and addressing community-identified needs and for strengthening community assets”



Institute of Medicine (2016) *Framework*

Community

- Reciprocal Commitment
- Community Priorities
- Community Engagement



How often do we ask patients and communities - What's important to you as a group? What barriers are in your way?

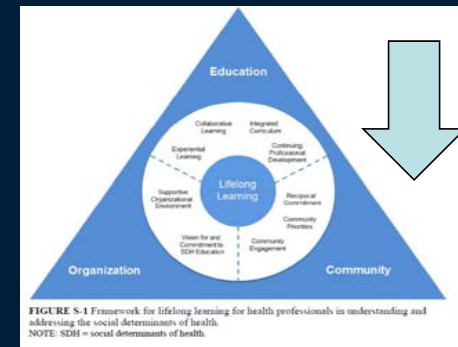
Institute of Medicine (2016) *Framework*

Community

Recommendation 2:

“Take action on the SDH
in, with, and across communities,”

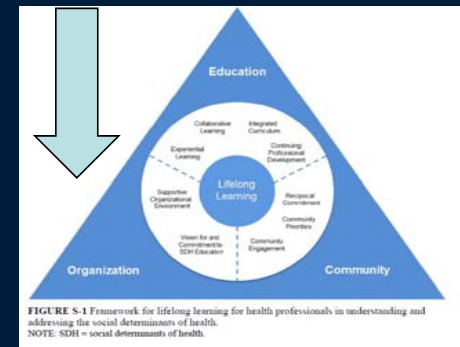
“partnering with communities to increase the inclusivity and diversity
of the health professional student body and faculty”



Institute of Medicine (2016) *Framework*

Organization

- Vision and Commitment



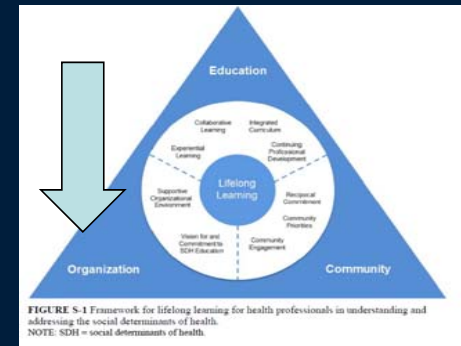
- Supportive organizational environment

Institute of Medicine (2016) *Framework*

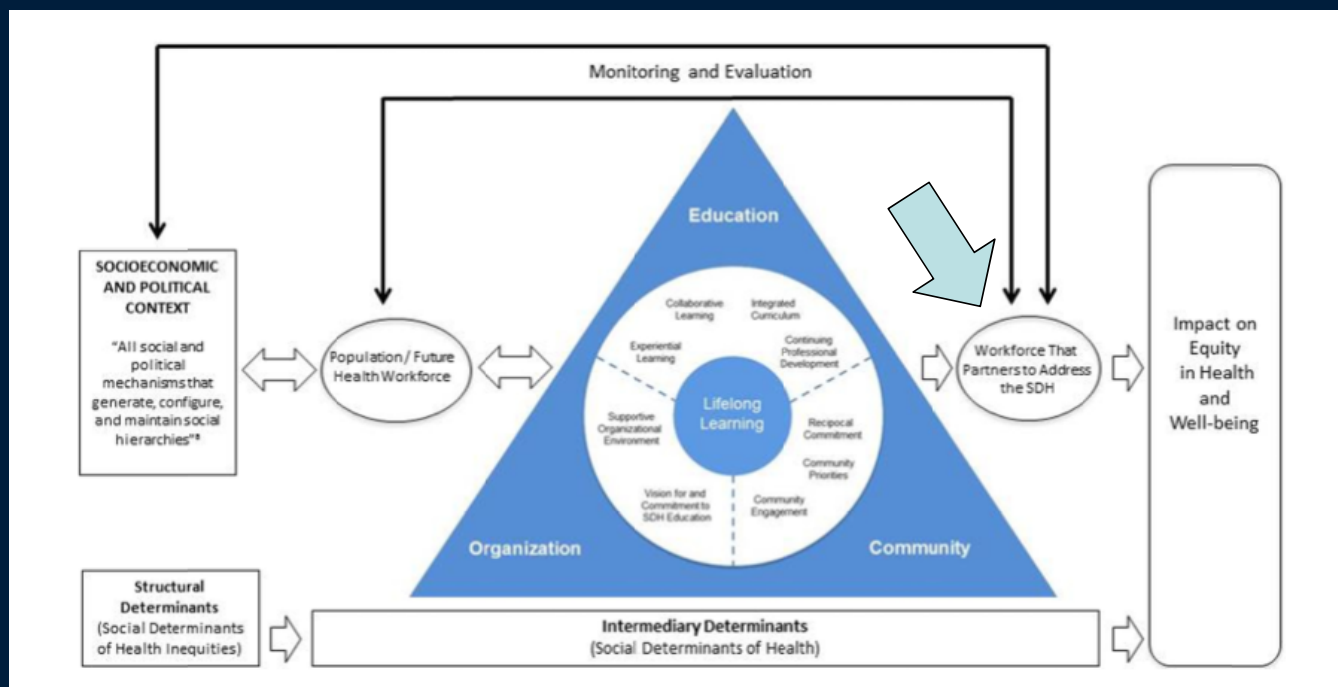
Organization

Recommendation 3:

“foster an enabling environment that supports and values the integration of the framework’s principles into their mission, culture, and work.”

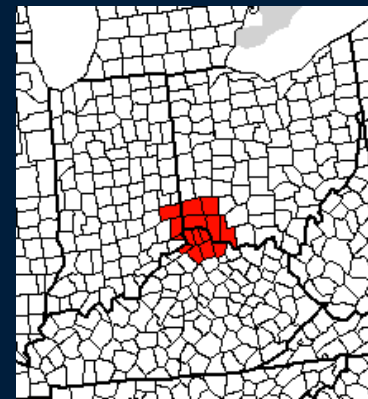


Health Workforce: Recruitment and Representation

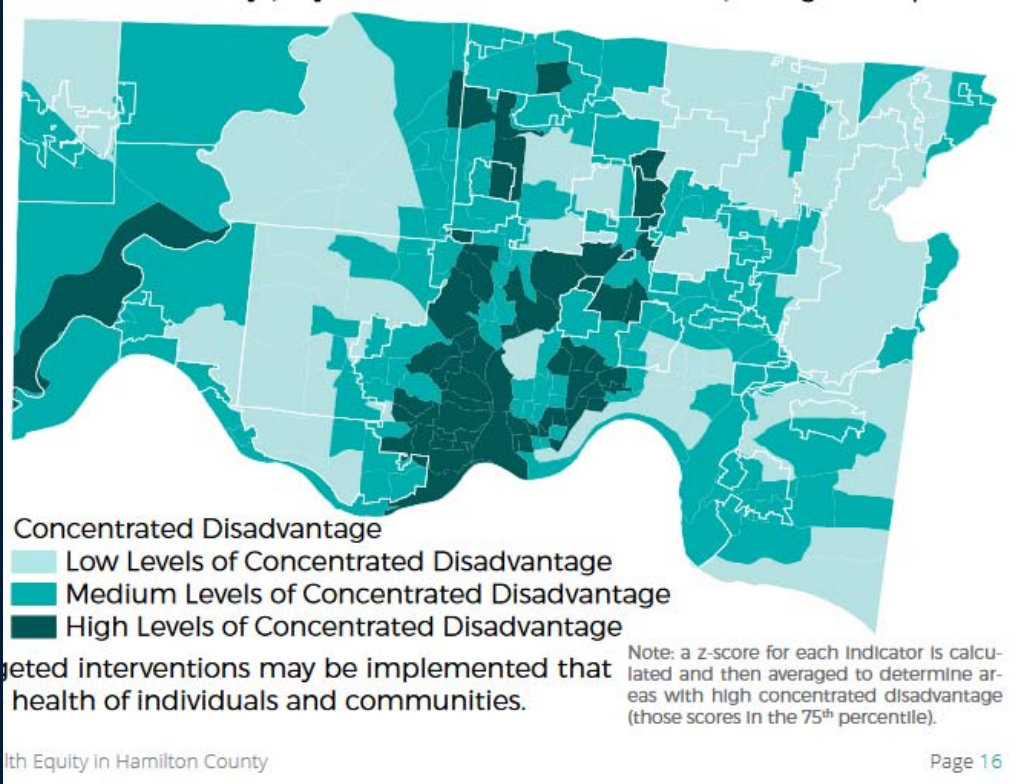


Community Context

- Cincinnati
- Hamilton County
- Tri-State Region



Community Context – Concentrated Disadvantage



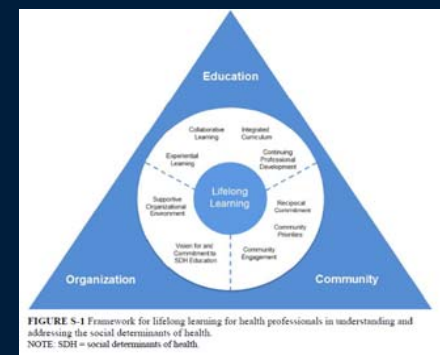
Educational Strategies

- Where and how do you address the Social Determinants of Health in your education, continuing education and clinical practice?
- How do students/clinicians come to understand the extent that patients and clients face concerns beyond the biological and as a result of social and environmental factors?
- How do you acquire the knowledge and tools to address patients' needs and access the resources available in the community in which they live, work, and play?



Educational Strategies - Examples

- Community Action Poverty Simulations licensed by the
 - Missouri Association for Community Action (MACA) and
 - hosted by the Ohio Association of Foodbanks. (IPE)
- OxFam Hunger Banquet (AT/HW)
- Food Insecurity
 - SNAP and WIC application and meal planning
- Community Assessment Projects
- Mental Health - Hearing Voices Simulation
- Good Samaritan Free Health Clinic – Rehab and Diabetes Clinics
- Discovering Opportunities for Outreach and Reflection (DOOR)
 - Service learning trip to urban cities



Clinical Strategies



- Where and how do you assess the Social Determinants of Health in your clinical practice with patients, families, teams or groups of patients?
- How do you assess the social and environmental factors that patients face and may impede their quality of life, rate of healing, or plan of care?
- Once you have information from and about the patient, how do you support and collaborate with the patient to access resources available in the community OR advocate for additional resources?

Clinical Strategies - Examples

Accountable Health Communities

Core Health-Related Social Needs Screening Questions

Housing Instability

Transportation Needs

Food Insecurity

Utility Needs

Interpersonal Safety

HealthLeads

Financial Resource Strain

Need for childcare

Exposure to Violence

Level of Education

Sociodemographic information

Employment

Social Isolation & Supports

Behavioral/Mental Health

Clinical Strategies - Examples










Recommended Screening Tool

Health Leads' screening toolkit is licensed under a Creative Commons CC BY-SA 4.0 license, which means you can freely share and adapt the tool however you like. All we ask is you include attribution to Health Leads and, if you modify the tool, that you distribute the modifications under the same licensing structure. Full details on the Creative Commons license are available here: <https://creativecommons.org/licenses/by-sa/4.0/>

Example introductory text: This form is available in other languages. If you do not speak English, call (800) 555-6666 (TTY: (800) 777-8888) to connect to an interpreter who will assist you at no cost.

Name: _____ Phone number: _____

Preferred Language: _____ Best time to call: _____

	Yes / No
 In the last 12 months*, did you ever eat less than you felt you should because there wasn't enough money for food?	<input type="checkbox"/> Y <input type="checkbox"/> N
 In the last 12 months, has the electric, gas, oil, or water company threatened to shut off your services in your home?	<input type="checkbox"/> Y <input type="checkbox"/> N
 Are you worried that in the next 2 months, you may not have stable housing ?	<input type="checkbox"/> Y <input type="checkbox"/> N
 Do problems getting child care make it difficult for you to work or study ? <small>(leave blank if you do not have children)</small>	<input type="checkbox"/> Y <input type="checkbox"/> N
 In the last 12 months, have you needed to see a doctor, but could not because of cost ?	<input type="checkbox"/> Y <input type="checkbox"/> N
 In the last 12 months, have you ever had to go without health care because you didn't have a way to get there ?	<input type="checkbox"/> Y <input type="checkbox"/> N
 Do you ever need help reading hospital materials ?	<input type="checkbox"/> Y <input type="checkbox"/> N
 I often feel that I lack companionship .	<input type="checkbox"/> Y <input type="checkbox"/> N
 Are any of your needs urgent? For example: I don't have food tonight, I don't have a place to sleep tonight	<input type="checkbox"/> Y <input type="checkbox"/> N
 If you checked YES to any boxes above, would you like to receive assistance with any of these needs?	<input type="checkbox"/> Y <input type="checkbox"/> N

*time frames can be altered as needed

In the last 12 months have you

- Eaten less than desired/needed due to a lack of funds?
- Had your utilities threatened to be turned off?
- Worried about available housing?
- Had difficulty with work/school due to childcare?
- Gone without healthcare due to cost?
- Had difficulty reading/understanding health information?
- Are any of your needs urgent?
- Would you like to receive assistance with any of these needs?

Do we discuss SDH with patients?
When can we?
When should we?

If we do discuss these issues with
patients and families,
what then?

Should the PPE include more questions about the SDH?

What is the role of the PPE?

- Promote health and safety of the athlete
- Identify risk factors for preventable death and disability
- Determine clearance for participation

**PREPARTICIPATION PHYSICAL EVALUATION
PHYSICAL EXAMINATION FORM**

Name _____ Date of birth _____

1. PHYSICIAN REMINDERS

- Consider additional questions on more complex issues
 - Do you feel depressed, sad, or under a lot of pressure?
 - Do you ever feel sad, hopeless, depressed, or anxious?
 - Do you feel safe at your home or residence?
 - Have you ever tried cigarettes, chewing tobacco, snuff, or dip?
 - During the past 30 days, did you use chewing tobacco, snuff, or dip?
 - Do you drink alcohol or use any other drugs?
 - Have you ever taken medical steroids or used any other performance supplement?
 - Have you ever taken any supplements to help you gain or lose weight or improve your performance?
 - Do you take a stool softener, laxative, or diet pills?
- Consider relevant questions on cardiovascular symptoms (questions 5-14).

EXAMINATION

Height	Weight	Sex	DOB	Corrected	Y	N
5' / 1 / 2 / 3		Male / Female	MM/DD/YY		<input type="checkbox"/>	<input type="checkbox"/>

MEDICAL

Appearance

- Mental status: alert and oriented, high pitched, hoarse, breath, normal, tachycardia, bradycardia, arrhythmia, and aortic > height, by history, chest, MM, acute insufficiency

Eyes/ears/nose/throat

- Pupils equal
- Hearing

Lymph nodes

Heart

- Murmurs (location, timing, intensity, etc.) (valvular)
- Location of point of maximal impulse (PMI)

Lungs

- Crackles/rales/ wheezes/ rhales/ rales/ rhales

Abdomen

Genitourinary/rectal exam only

Skin

- Hx of lesions suggestive of MRSA, skin cancer

Neurologic

MUSCULOSKELETAL

Neck

Back

Shoulders

Elbows/Forearms

Wrists/hands/fingers

Hip/thigh

Knee

Leg/ankle

Feet/toes

Functional

- Rock-sock, straight leg

Consider ECG, chest x-ray, and refer to cardiologist for abnormal cardiac history or exam.
Consider follow-up in 6-12 months, depending on severity of abnormal findings.
Consider further evaluation or transfer to appropriate specialty if findings are significant/abnormal.

Cleared for all sports without restriction
 Cleared for all sports without restriction with recommendations for further evaluation or treatment for _____

Not cleared

Pending further evaluation
 For any sports
 For certain sports
 Reason: _____

Recommendations: _____

I have examined the above-named student and completed the preparticipation physical examination. The athlete does not present apparent clinical contraindications to participate in the sport(s) as outlined above. A copy of the physical exam is on record in my office and can be made available to the school at the request of the parent. If conditions arise after the athlete has been cleared for participation, the physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).

Name of physician (print type) _____ Date: _____
 Address: _____ Phone: _____
 Signature of physician _____ MD or DO

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Should the PPE include more questions about the SDH?

HEEADSSS Psychosocial Interview 3.0 for Adolescents

- H Home
- E Education and Employment
- E Eating
- A Activities
- D Drugs
- S Suicide/Depression
- S Sexuality
- S Safety

**PREPARTICIPATION PHYSICAL EVALUATION
PHYSICAL EXAMINATION FORM**

Date of birth: _____

PERFORM THESE QUESTIONS

- Consider additional questions on more sensitive issues:
 - Do you feel stressed out or under a lot of pressure?
 - Do you ever feel sad, hopeless, depressed, or anxious?
 - Do you feel safe at your home or residence?
 - Have you ever used cigarettes, chewing tobacco, snuff, or dip?
 - During the past 30 days, do you use chewing tobacco, snuff, or dip?
 - Do you drink alcohol or use any other drugs?
 - Have you ever taken anabolic steroids or used any other performance supplement?
 - Have you ever taken any supplements to help you gain or lose weight or improve your performance?
 - Do you wear a seat belt, use a helmet, and use condoms?
- Consider relevant questions on cardiovascular symptoms (questions 5-14).

Weight	Weight	□ Male	□ Female
BP	/	/	/
HR	/	/	/
APPEARANCE		NORMAL	ABNORMAL FINDINGS
<ul style="list-style-type: none"> Martin stigmata (yellowish discoloration, periorbital edema, arachnoid webbing) WBC count > 15,000 (by venipuncture, myeloma, MM, acute leukemia) 			
DEVELOPMENTAL			
<ul style="list-style-type: none"> Plaque, redness Healing Lymph nodes 			
HEENT			
<ul style="list-style-type: none"> Mucous (accumulation, draining, suppurative, etc.) (nasal) Location of point of maximal impulse (PMI) 			
HEENT			
<ul style="list-style-type: none"> Simultaneous femoral and radial pulses 			
HEENT			
<ul style="list-style-type: none"> Abdominal Genitourinary (males only) Testes HIV lesions suggestive of MRSA, fungal infections 			
HEENT			
<ul style="list-style-type: none"> Neurologic 			
HEENT			
<ul style="list-style-type: none"> Neck Back Shoulder/arms Elbow/forearm Wrist/hand/fingers Hip/thigh Knee Leg/ankle Foot/heel Functional Dock walk, single leg hop 			
<small>*Consider ECG, echocardiogram, and other laboratory or imaging for abnormal cardiac history or exam. *Consider ECG, echocardiogram, and other laboratory or imaging for abnormal cardiac history or exam. *Consider complete evaluation in tandem with pediatric cardiologist if history of significant cardiac disease.</small>			
<input type="checkbox"/> Cleared for all sports without restriction <input type="checkbox"/> Cleared for all sports without restriction with recommendations for further evaluation or treatment for _____			
<input type="checkbox"/> Not cleared <input type="checkbox"/> Pending further evaluation <input type="checkbox"/> For any sports <input type="checkbox"/> For certain sports Reason: _____			
Recommendations: _____			
I have examined the above named patient and completed the preparticipation physical examination. The athlete does not present apparent clinical contraindications to practice and participation in the sport(s) as noted above. A copy of the physical exam to be reviewed by my office and can be made available to the school at the request of the parents. If conditions arise after the athlete has been cleared for participation, the physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).			
Name of physician (print type) _____ Date _____ Address _____ Phone _____ Signature of physician _____ M.D. D.O.			
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One Example: Food Insecurity

Educate Patients and Families of the Influence of Diet on:

rate of healing

comorbidities

energy balance

academic/work performance

exercise tolerance

athletic/work performance

Resources:

SNAP, WIC, Summer Food Service Sites, Free/Reduced Lunch programs, Food Pantries, Feed American Weekend Backpack program

How and where do you share these resources and minimize stigma?

Organizational Commitment

- How does your organization foster a commitment to the whole person?
- How can you contribute as a team member for your patients?
- What changes might need to be considered given your population?



Invitation for Dialogue

Opportunities?

Challenges and Barriers?

Strategies?

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