Population Health & Judicial Decision-Making

Salus Populi: Educating the Judiciary About the Social Determinants of Health



A collaboration of the Center for Health Policy and Law and the Institute for Health Equity and Social Justice Research. With support from Salus Populi the Robert Wood Johnson Foundation and the W.K. Kellogg Foundation

Introduction to the Social Determinants of Health & Population Health

Social Determinants of Health

The "conditions in the environments in which 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" (Healthy People 2030).



1t's estimated that social determinants of health contribute to 80-90% of things that can be changed to promote healthy outcomes for a population, with medical care accounting for only 10-20%.

Sanne Magnan, *Social Determinants of Health 101 for Health Care*, NAT'L ACAD OF MED (2017), https://nam.edu/social-determinants-of-health-101-for-health-care-five-plus-five/.

Social Determinants of Health

Economic stability

Employment, food insecurity, housing instability, and poverty

2. Education access and quality

 Early childhood development and education, enrollment in higher education, high school graduation, and language and literacy

3. Neighborhood and built environment

 Access to foods that support healthy dietary patterns, crime and violence, environmental conditions, and quality of housing

4. Social and community context

Civic participation, discrimination, incarceration, and social cohesion

Direct and Indirect Pathways

SDOH: Educational Access and Quality

Direct

- Access to healthy school meals, opportunity for physical activity.
- Language and literacy

Indirect

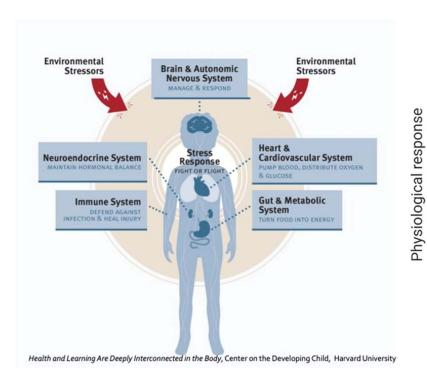
• Lack of quality education impacts ability to see higher education, higher earning jobs with benefits.



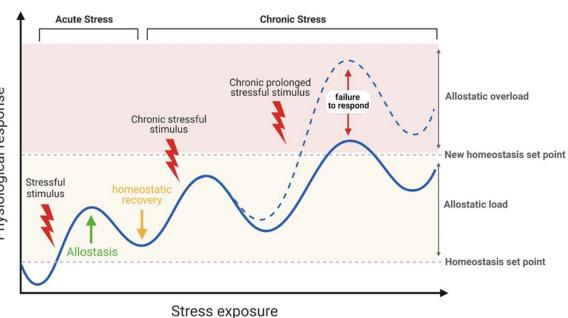
Salud America

How does the social become biological?

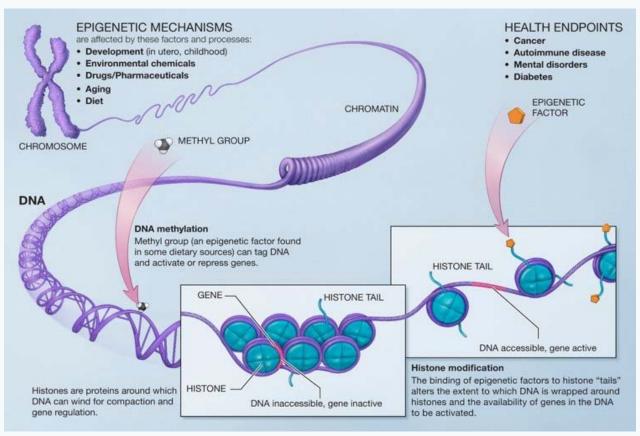
Allostatic Load



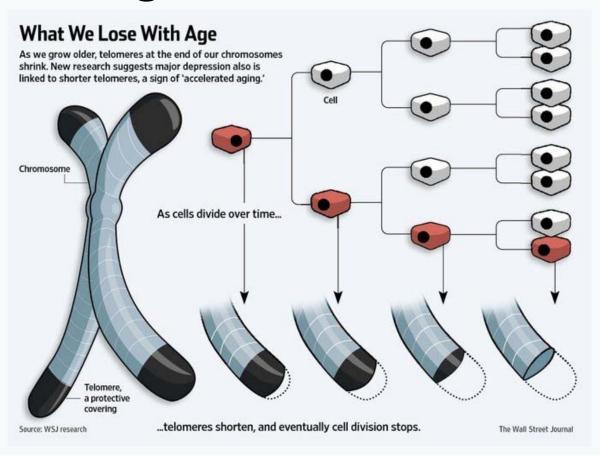
Stress Response



Epigenetics



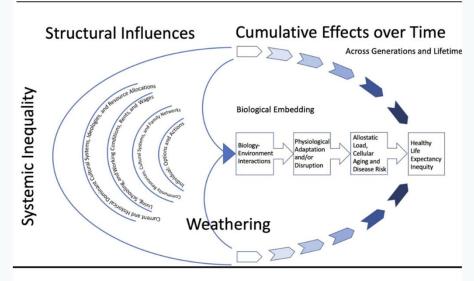
Telomere Length



Introduction to "Weathering" Concept

 A theory that chronic stress from systemic issues/oppression, such as racism and societal stress and strain, causes accelerated health decline and premature aging, particularly in marginalized groups.

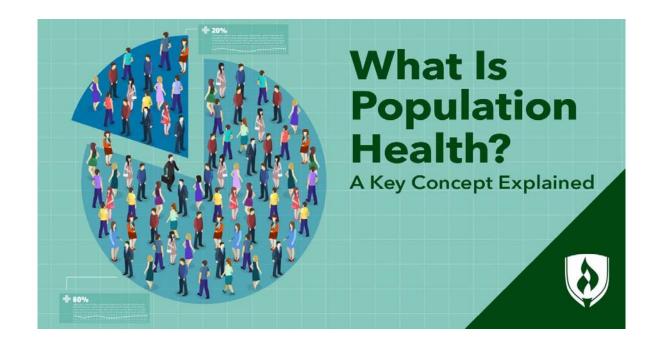
Figure 1. Weathering Conceptual Model [Color figure can be viewe at wileyonlinelibrary.com]



Mechanisms of Weathering

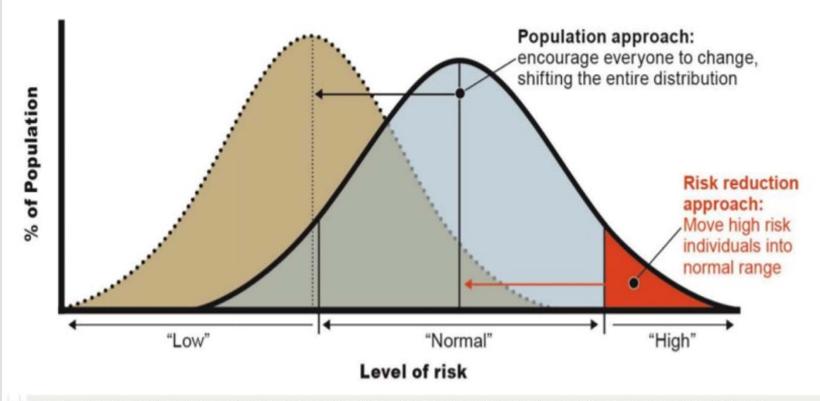
- Chronic Stress: Constant exposure to environmental, material, or social stress physically changes the body at a cellular level.
- Physiological Impact: This unrelenting stress leads to "wear and tear" on the body's systems, speeding up aging processes

Population
health is the
study of health
outcomes found
in a group of
individuals



The Bell-Curve Shift in Populations

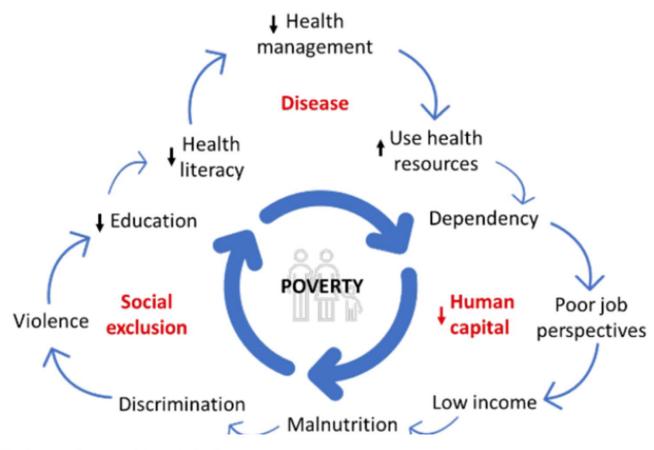
Shifting the whole population into a lower risk category benefits more individuals than shifting high risk individuals into a lower risk category



Rose, G. (2001). Sick individuals and sick populations. International journal of epidemiology, 30(3), 427-432.



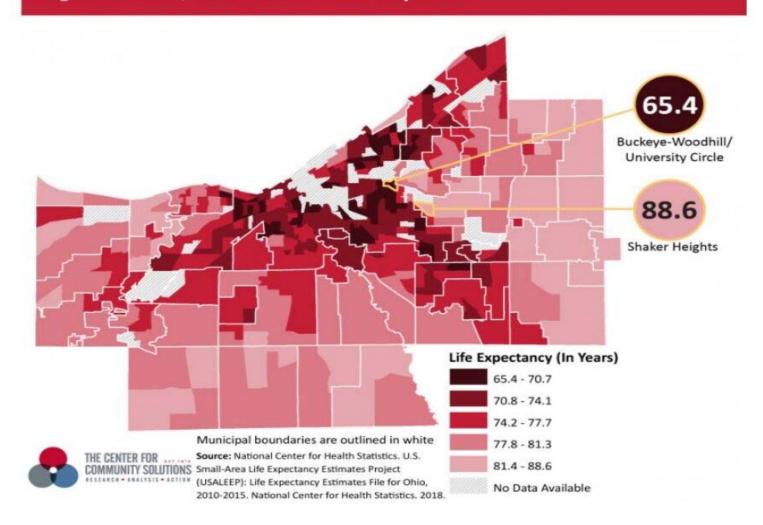
Graphic adapted from de Beaumont Foundation and Trust for America's Health. (January 2019) "Social Determinants and Social Needs: Moving Beyond Midstream" Poverty as a Social Determinant of Health



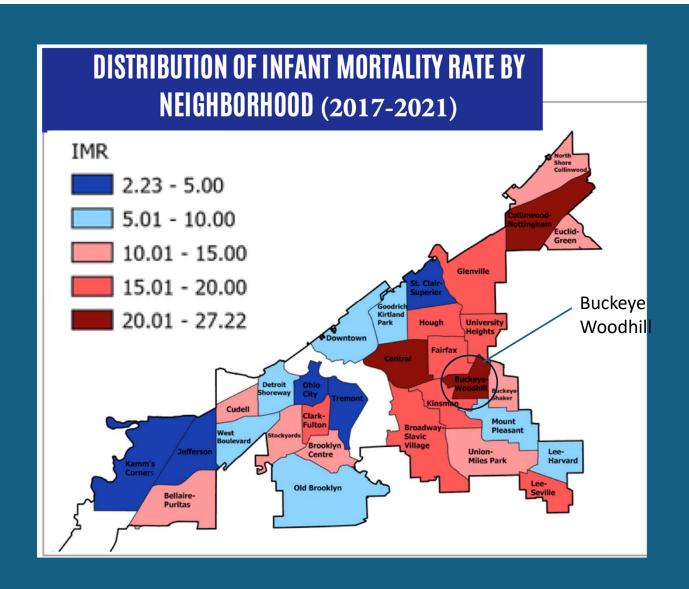
The impacts from the vicious circle of poverty.

Community Health of Children and Adolescents in Sub-Saharan Africa - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/figure/The-impacts-from-the-vicious-circle-of-poverty_fig1_371284499 [accessed 7 Nov 2025]

There is a **23 year difference** in life expectancy between these two neighborhoods, **less than 2 miles apart**.

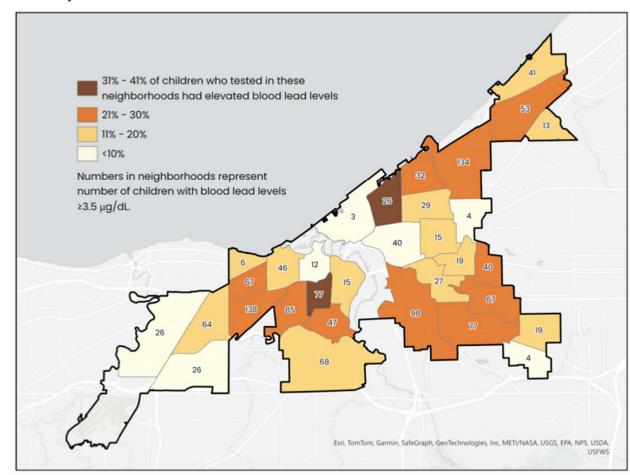


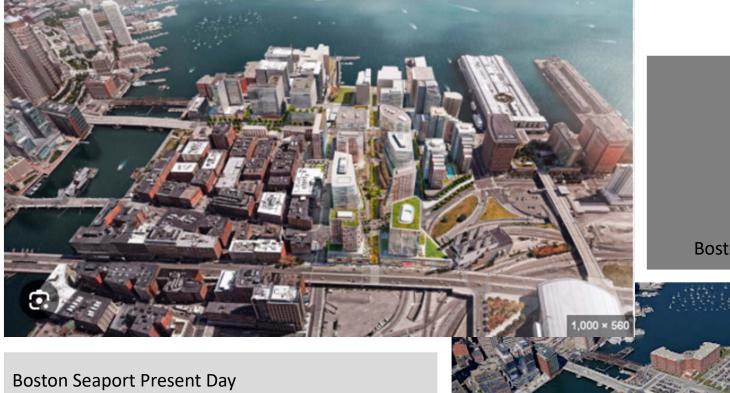
Ohio Infant Mortality by County



Neighborhood and Built **Environment as** a SDOH

Elevated blood lead levels are not equally distributed across the city. Some neighborhoods have higher rates of children with elevated BLLs ≥3.5 µg/dL compared to others.





Boston Seaport circa 2010

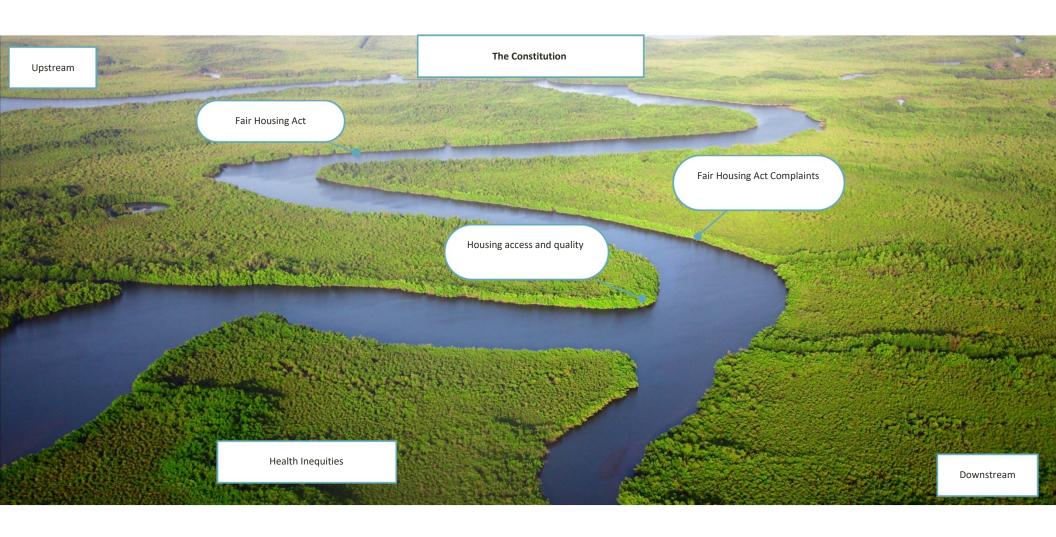
Employment as a SDOH



Law and Judicial Decision Making as a Social Determinant of Health



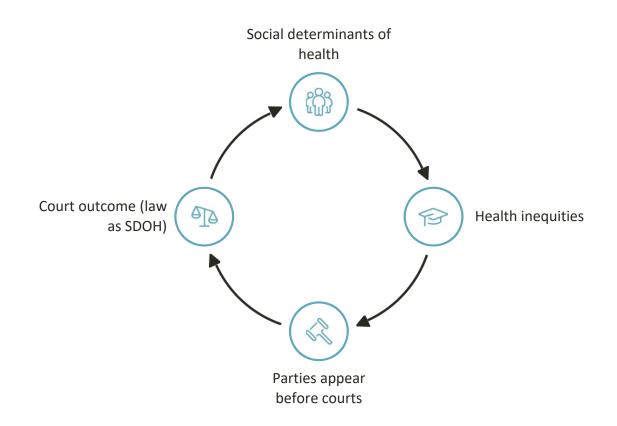
Law as a Social Determinant of Health



Judicial Decisions as a Social Determinant of Health

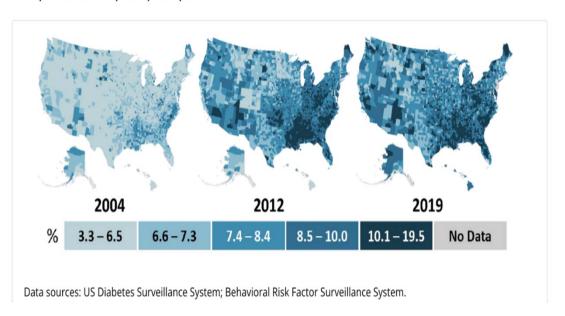


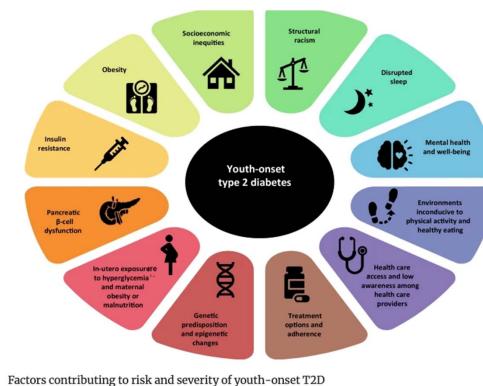
How SDOH play out in the Courts: A Vicious or Virtuous Cycle?



Childhood Obesity and Youth Onset of Type 2 Diabetes

Figure 3. Age-adjusted, county-level prevalence of diagnosed diabetes among adults aged 20 years or older, United States, 2004, 2012, and 2019





How can courts mitigate health inequities?

More upstream

Interpreting the state constitution

Reviewing administrative regulations

Understanding causation

Designing court processes

Problemsolving courts Exercising and reviewing discretion

Setting rules of evidence re: experts

More downstream

Clinicians' Illusion

"The clinician samples the population currently suffering from the disease (a 'prevalence' or census sample), while research samples tend to more nearly represent the population ever contracting the disease (an 'incidence' sample). The clinician's sample is biased toward cases of long duration, since the probability that a case will appear in a prevalence sample is proportional to its duration, hence 'the clinician's illusion." (Cohen & Cohen, 1984

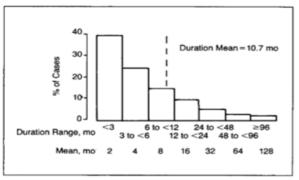
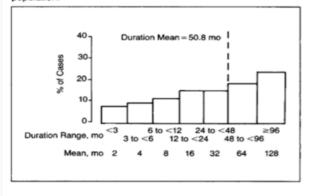
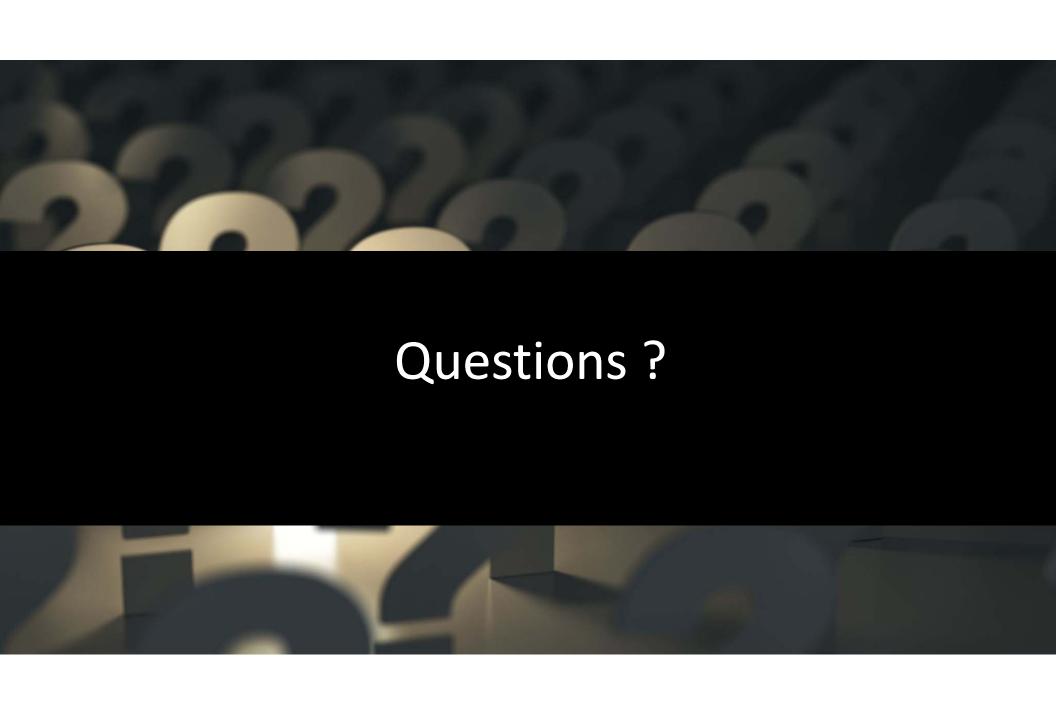


Fig 1.—Distribution of illness duration in population, (Sum of X times percent values for seven intervals in Fig 1 is 1,068. This is now divisor for weighted percentages. For example, percent of lowest interval for rounds sample is 2[40]/1,068 = 7.5%; for next highest, 4[25]/1,068 = 9.4%; etc.)

Fig 2.—Distribution of illness duration in clinic sample from same population.





Post-Session Survey for Attendees

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