



CENTER ON SOCIAL DISPARITIES IN HEALTH
University of California, San Francisco

How do economic inequality and racism create health inequality?

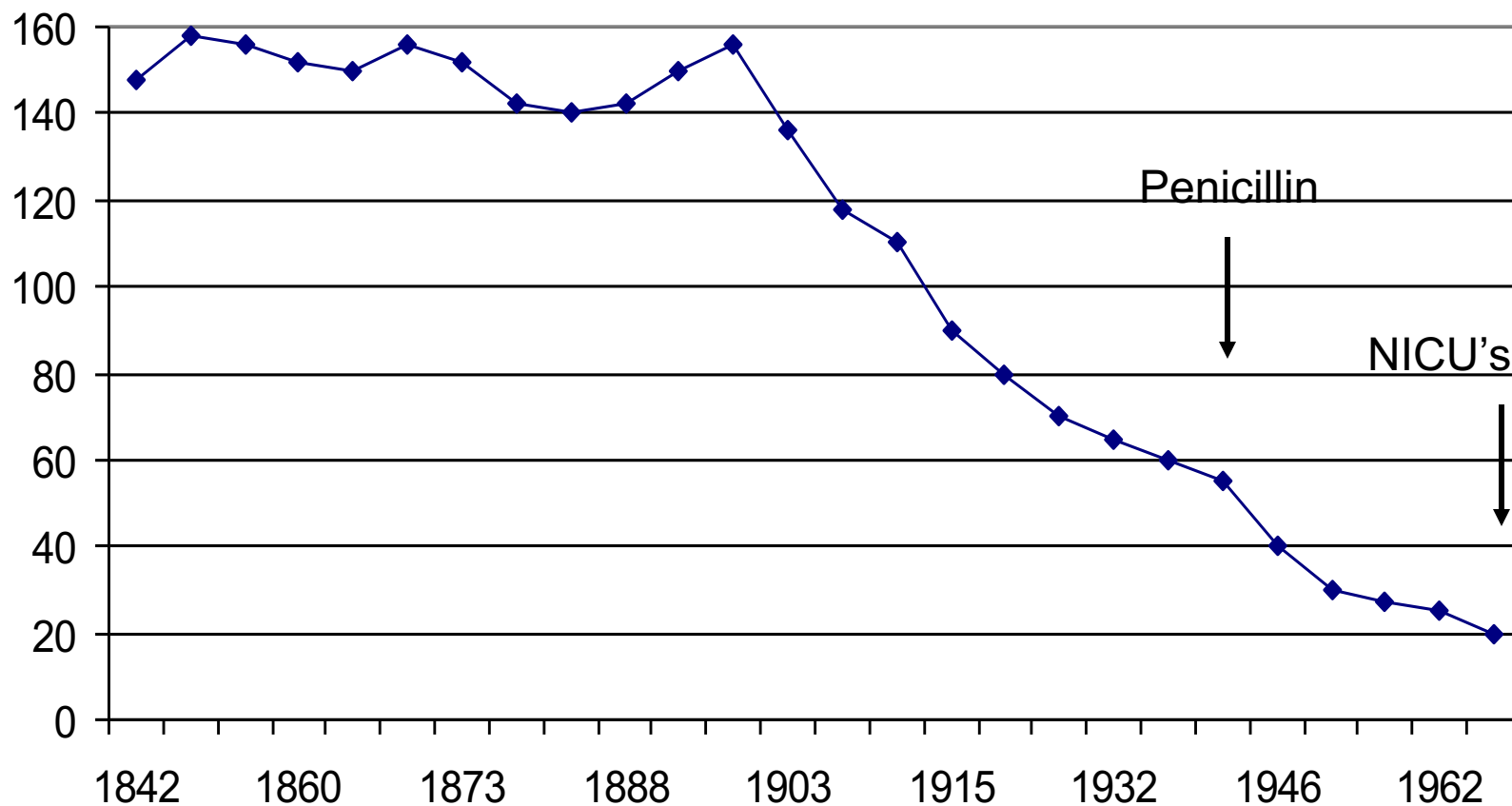
Conference on Inequality
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University of California, San Francisco

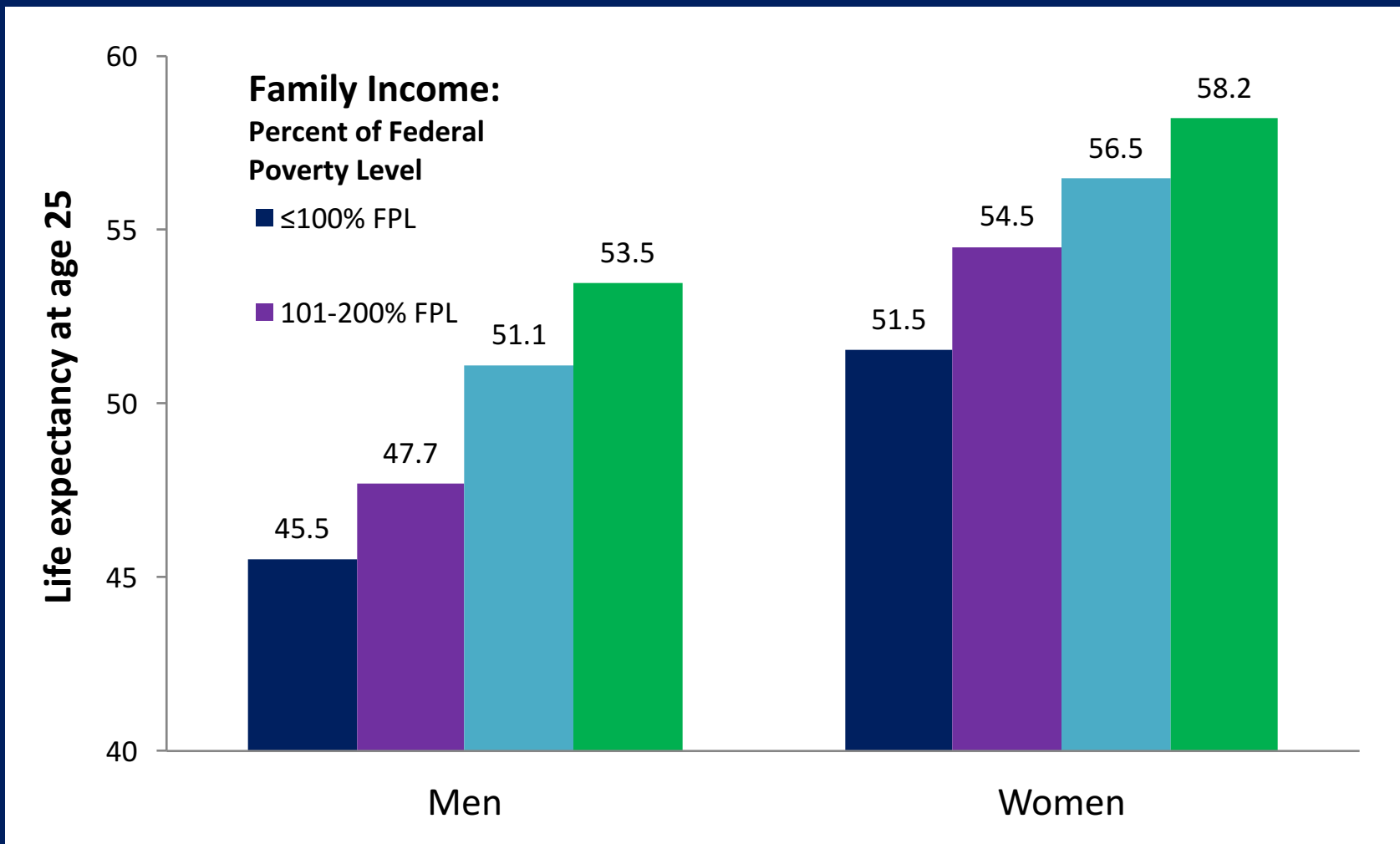
More health care spending but less health: Life expectancy

1	Japan (82.3 years)
2	Australia
3	Canada
4	Spain
5	Sweden/Switzerland
6	Israel
7	Iceland
8	New Zealand
9	Italy
10	Norway
11	Ireland
12	United Kingdom
13	Greece
14	Austria
15	Netherlands
16	Luxembourg
17	Germany
18	Belgium
19	Finland
20	Korea
21	Denmark
22	Portugal
23	United States (78.2 years)
24	Chile
25	Slovenia
26	Czech Republic

Improved living conditions, not medical care, explain infant mortality decline in England and Wales

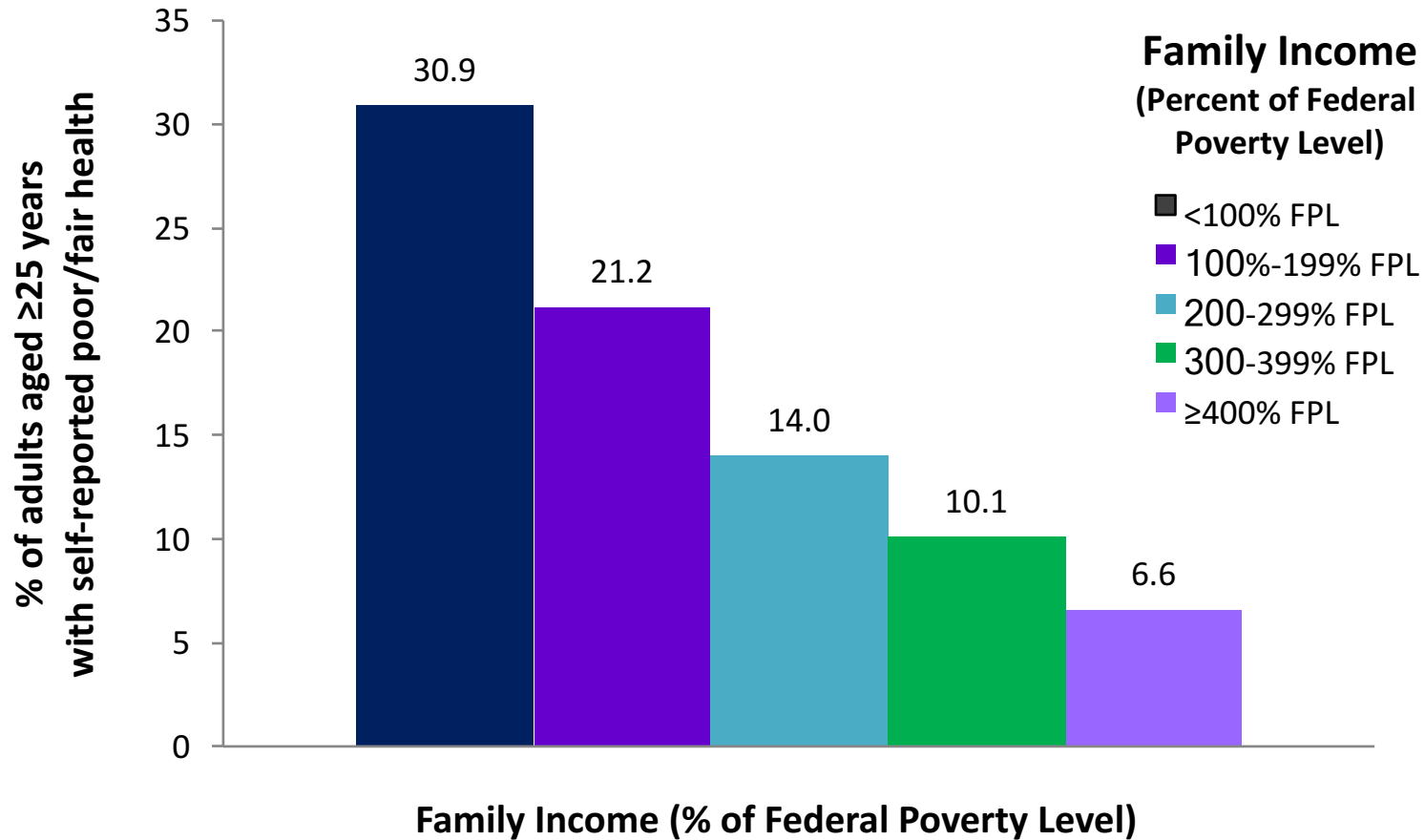


Higher income, longer life: Life expectancy at age 25



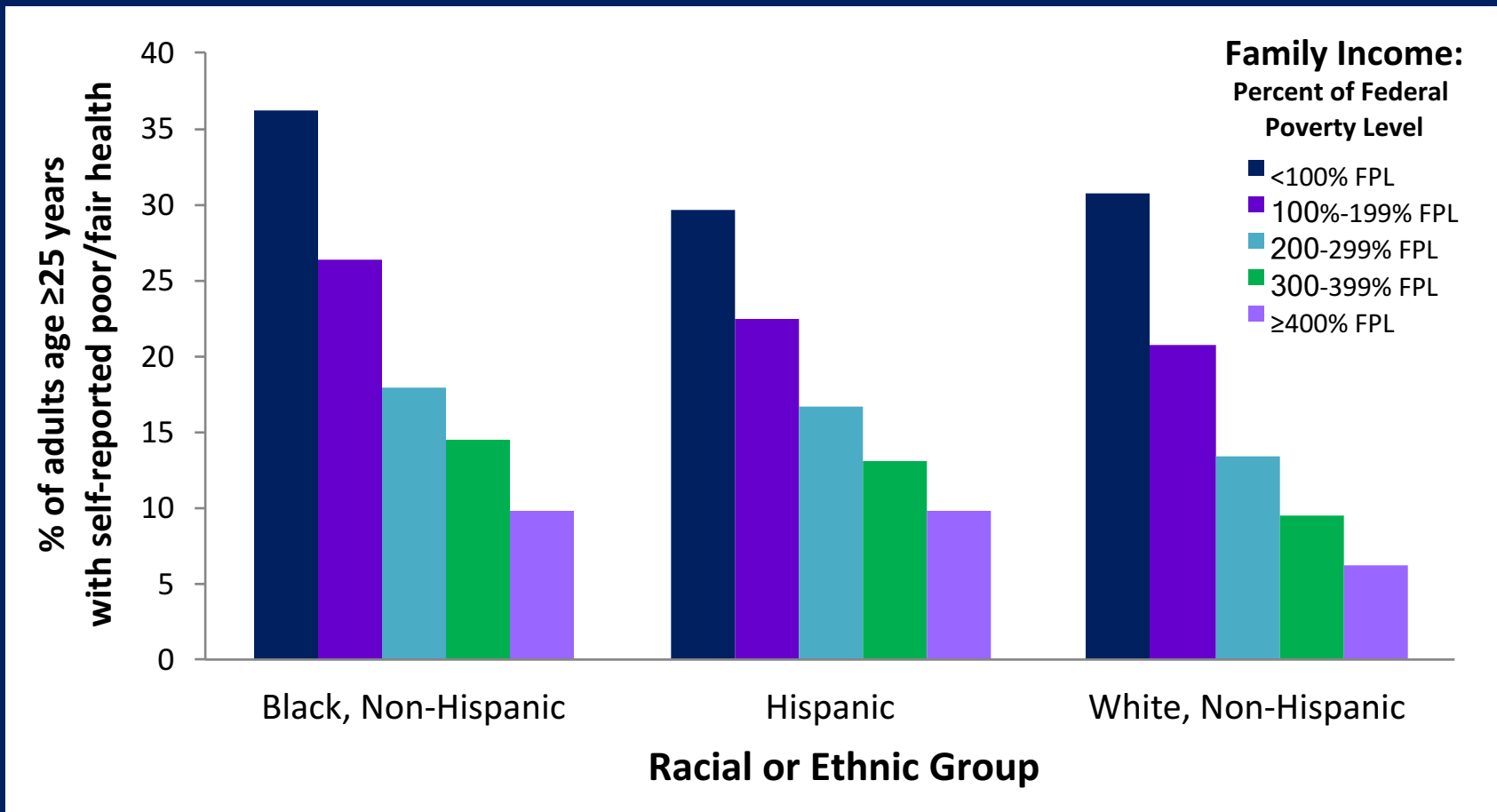
Source: National Longitudinal Mortality Study, 1988-98.

Higher income, better health: Poor/fair self-reported health, age 25+



Source: National Health Interview Survey (NHIS) 2001-2005.
Age-Adjusted.

Racial/ethnic differences do not explain differences in adult health by income



Analyses by Braveman et al., UCSF.
Data source: NHIS 2001-2005. Age-adjusted.

How could income affect health?

A blue-tinted image of a money bag with a dollar sign and coins. The bag is made of a textured material, possibly canvas, and is tied at the top with a rope. A large, bold dollar sign (\$) is printed on the front of the bag. Several coins are scattered on the surface in front of the bag. The background is a plain, light color.

Income can shape:

- **Medical care**
- **Nutrition & physical activity options**
- **Housing & neighborhood conditions**
- **Services**

Which can affect:

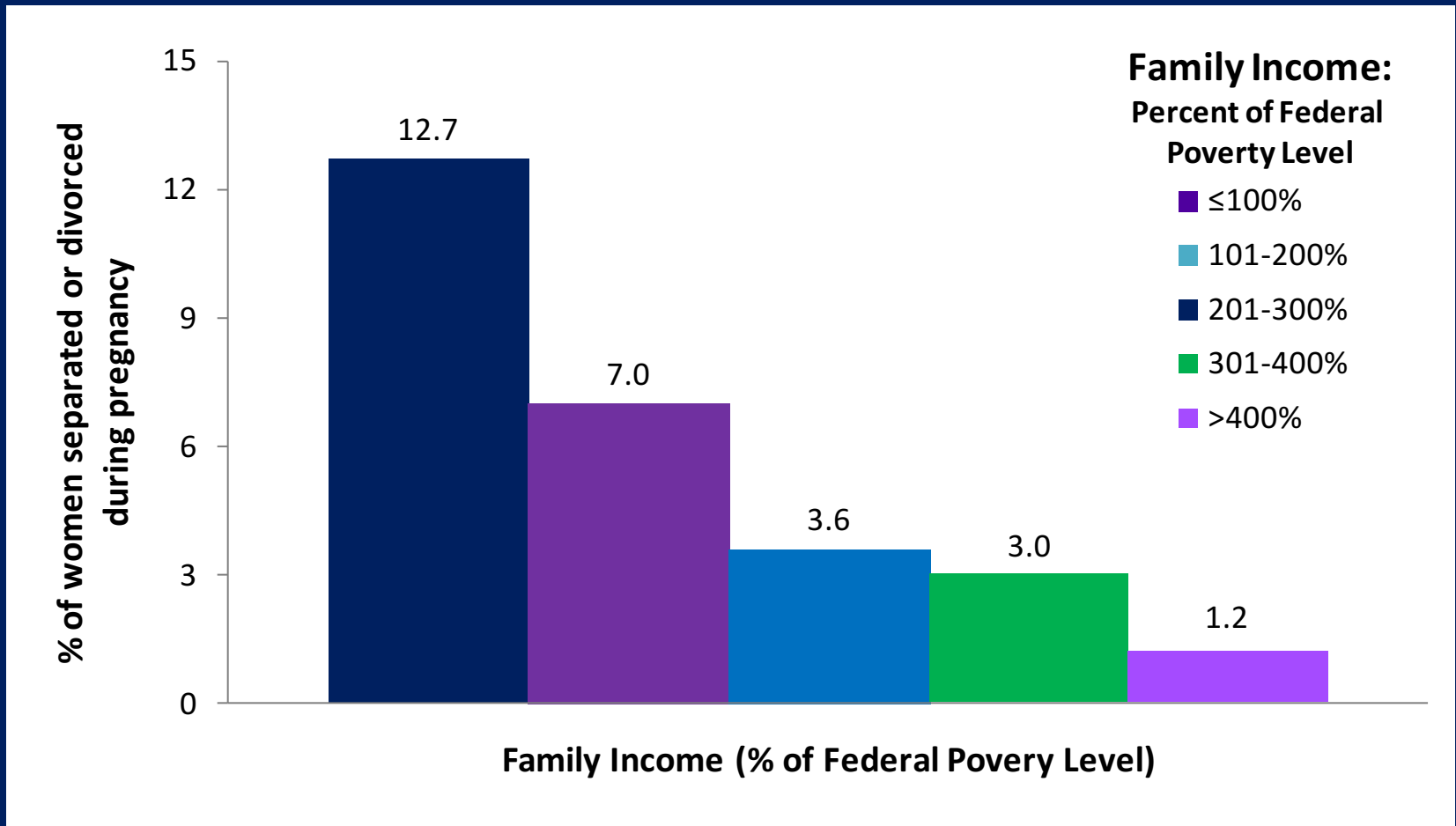
- **Stress**
- **Family stability**

Parents' income shapes offspring's:

- **Education**
- **Occupation**
 - **Income**
 - **Work conditions**

Less income, more stressors.

Separation or divorce during pregnancy (similar patterns for 11 major stressors)



Income shapes neighborhood options.

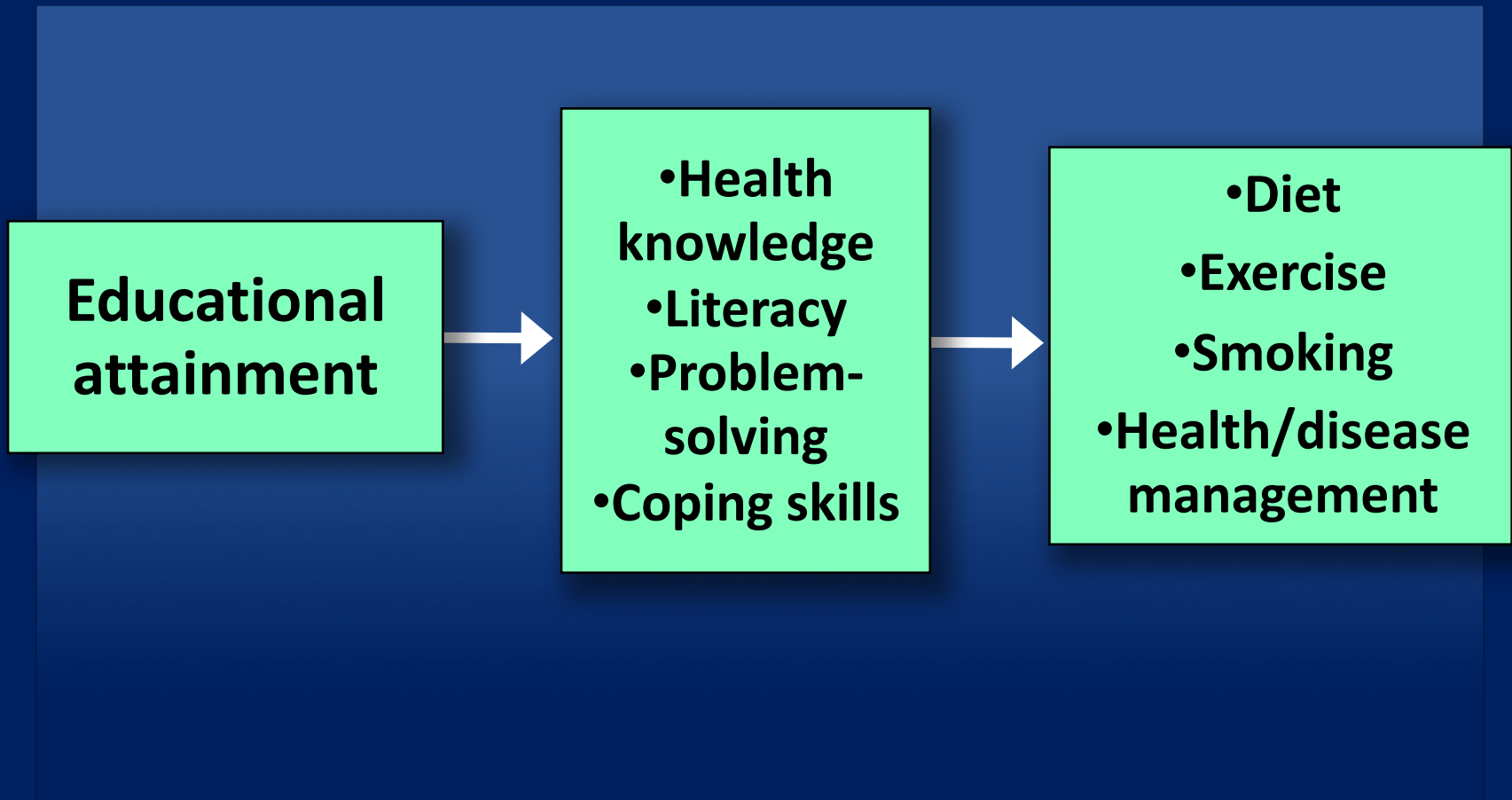
How could a neighborhood affect health?

- Pollution, toxic waste
- Safe places to exercise
- Access to healthy food
- Ads for harmful substances
- Social networks & support
- Norms, role models, peer pressure
- Quality of schools
- **Racial segregation tracks Blacks & Latinos into poorer neighborhoods than Whites of similar income**

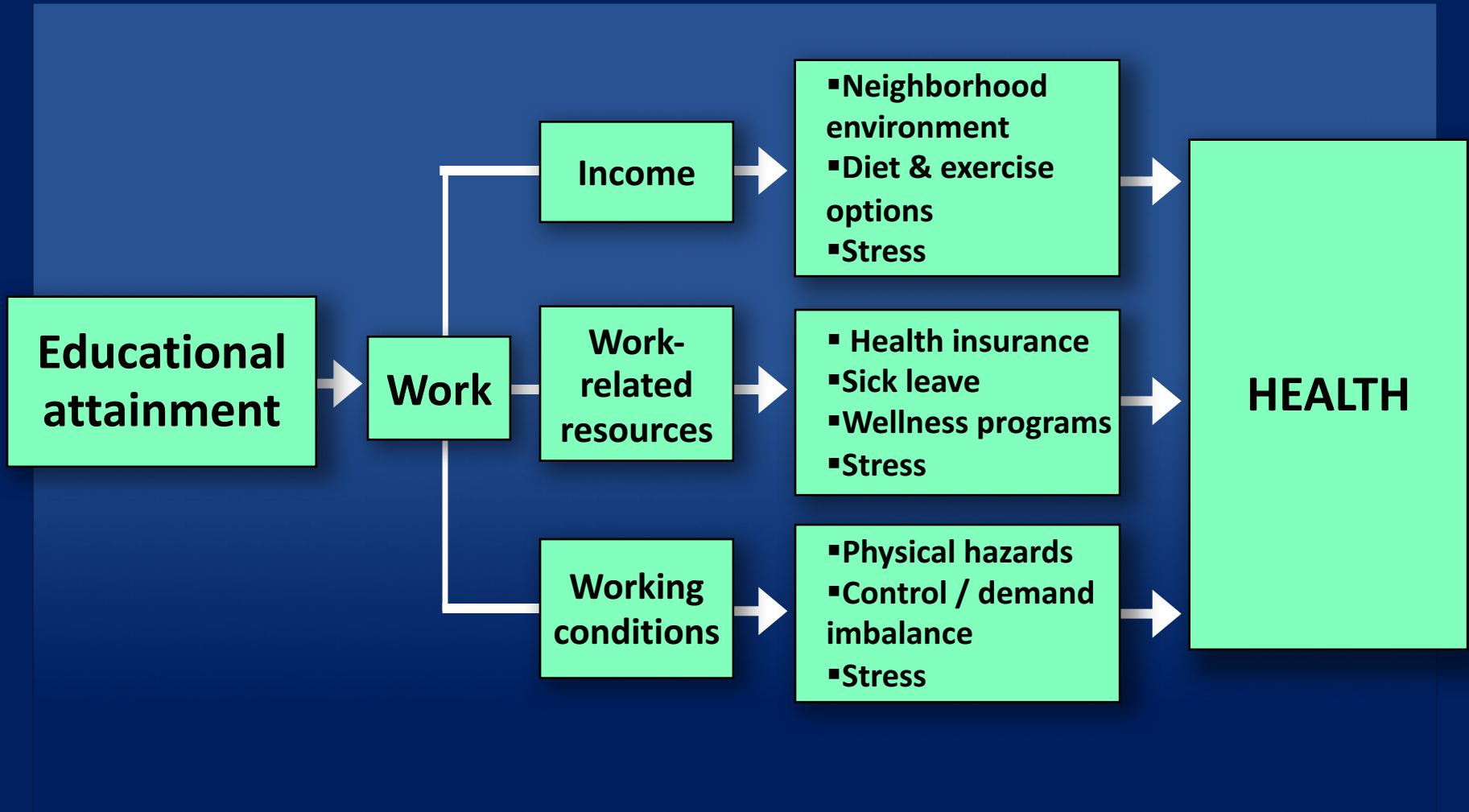


Image: <http://www.seattlemet.com/news-and-profiles/publicola/articles/some-rich-architects-mansion>.

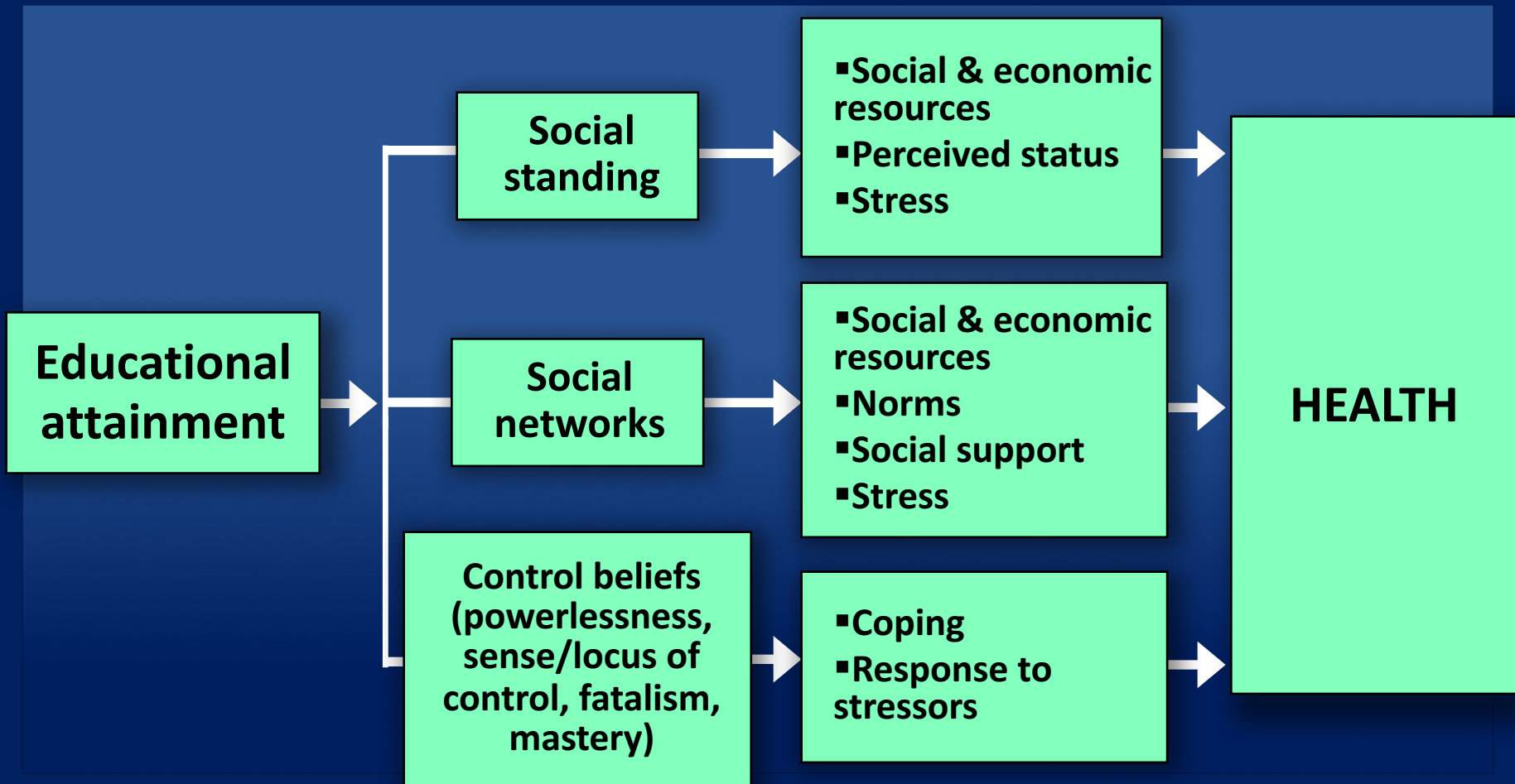
Education can shape health-related behaviors by determining knowledge and skills



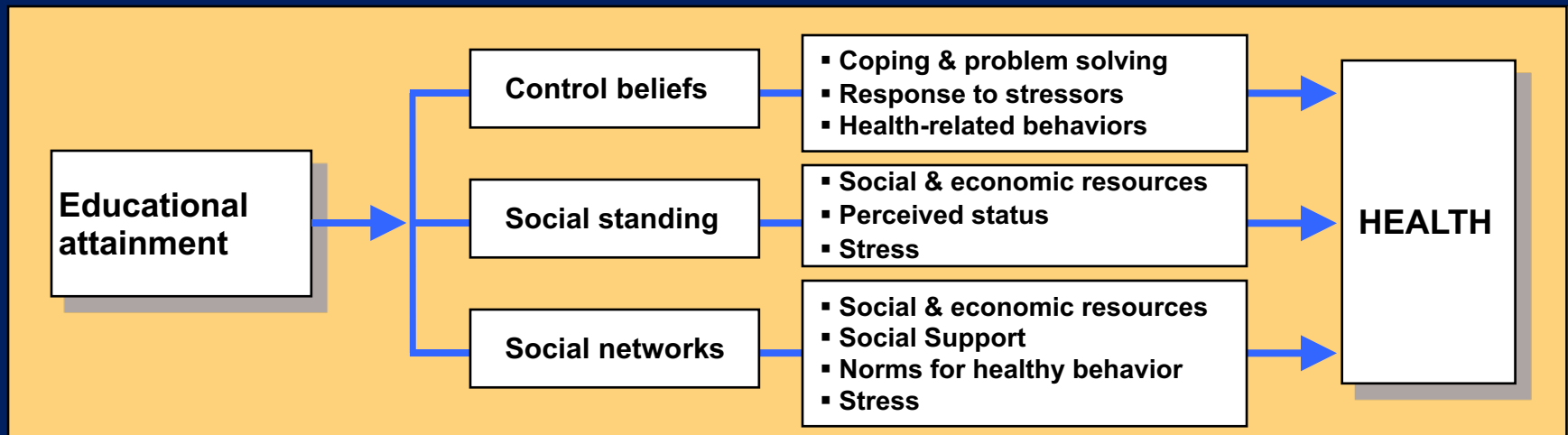
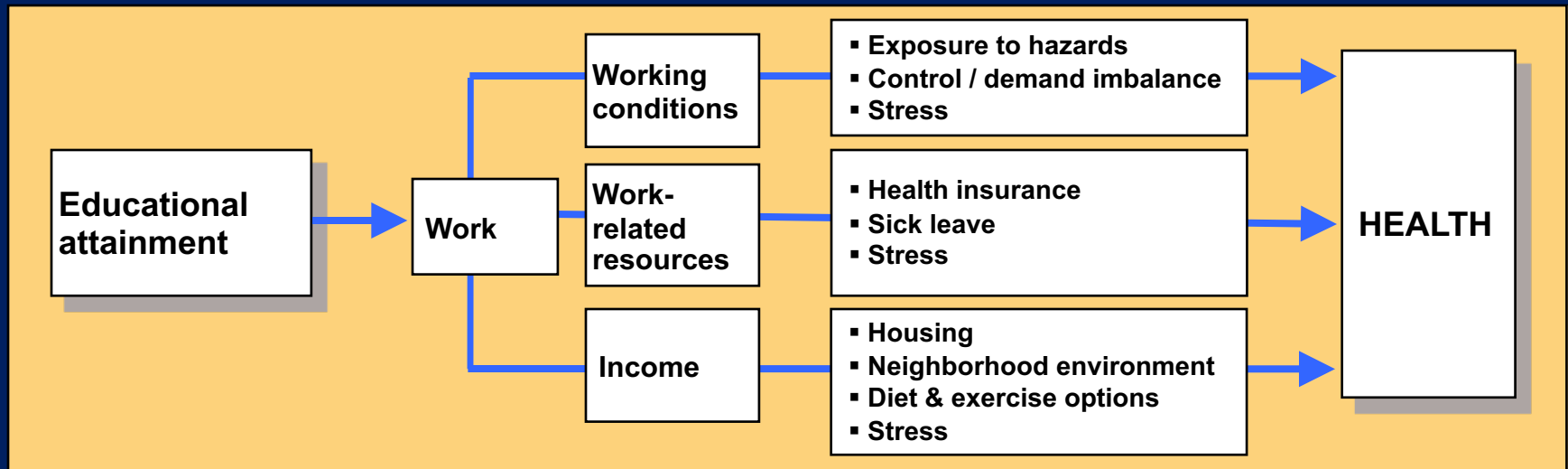
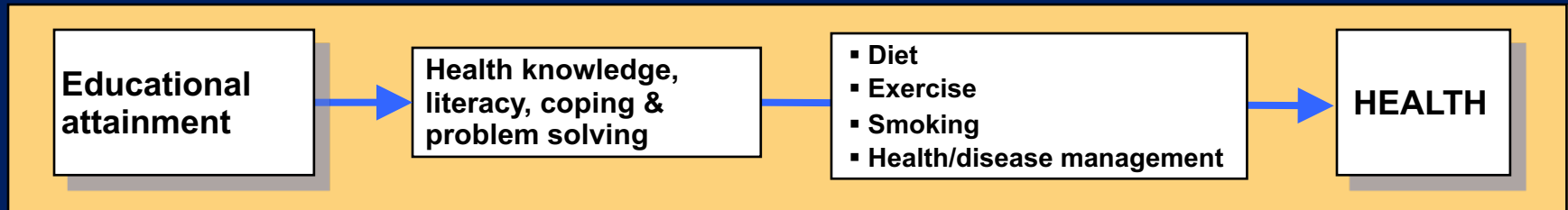
Other plausible pathways from education to health, e.g., via work & income



Psychosocial pathways from education to health



How could education affect health?





How could racial discrimination harm health?

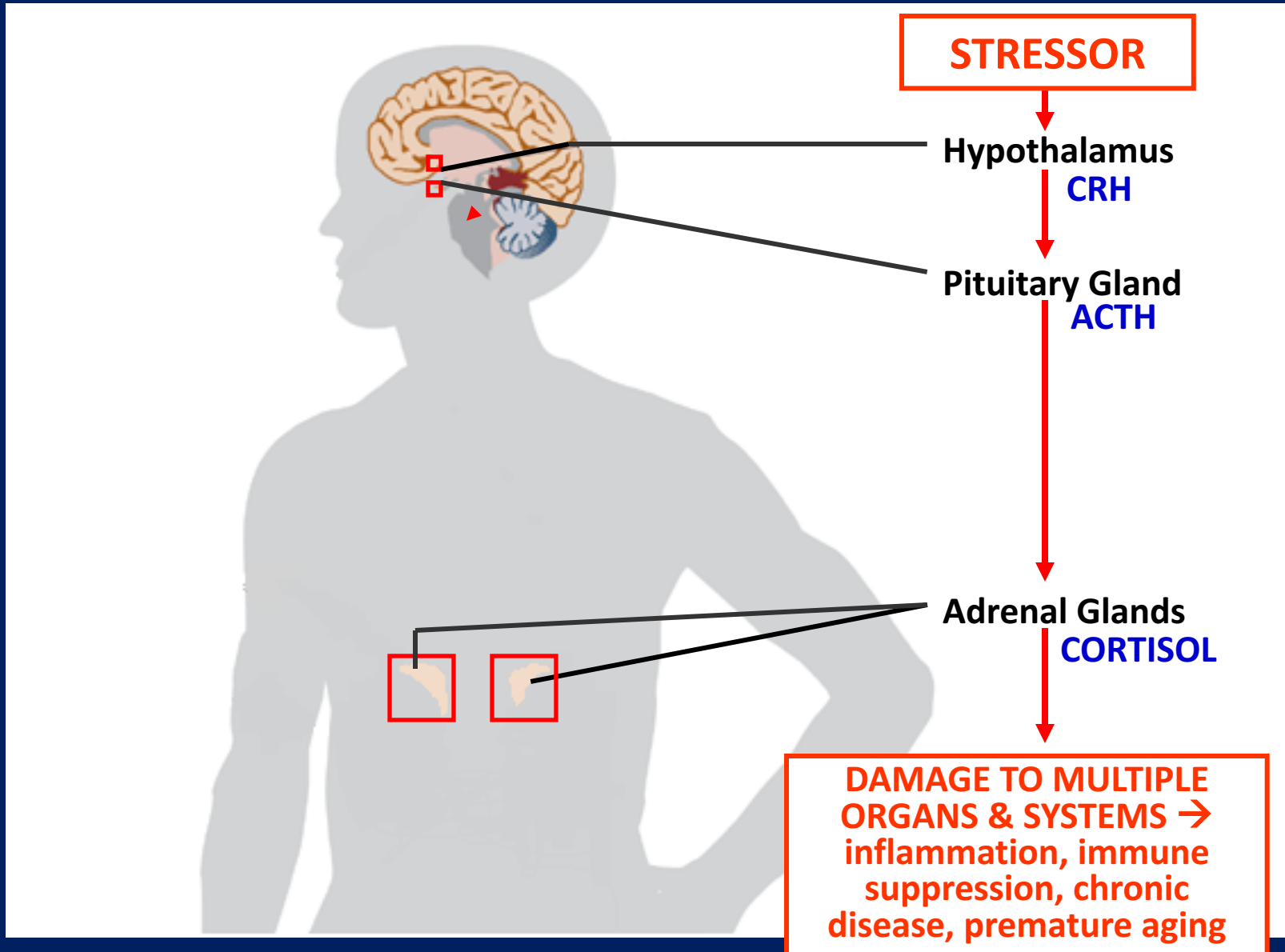
- **Socioeconomic effects: The legacy of formerly legal discrimination-- lower incomes, wealth, education, occupations & poorer neighborhoods**
 - Race captures unmeasured socioeconomic factors
- **Psychological effects: Chronically stressful experiences related to racial discrimination**
 - Chronic vigilance & subtle experiences could harm health, even without overt incidents
 - Potential effects on self-esteem/self-doubt
 - Experienced by all socioeconomic groups



The stress-health link: Biologically plausible?

- **Advances in neuro-science indicate how social factors like income, education, and racial discrimination “get into the body”**
- **Multiple pathways, mechanisms, & brain regions have been identified in stress response: HPA axis, ANS, immune system, metabolic & vascular responses**
 - **Cortisol, epinephrine, cytokines, telomerase...**
 - **Changes in brain architecture & function in young children exposed to adversity**
- **Chronic stress is likely a major contributor to both socioeconomic and racial/ethnic inequalities in health**

How could stress affect health?

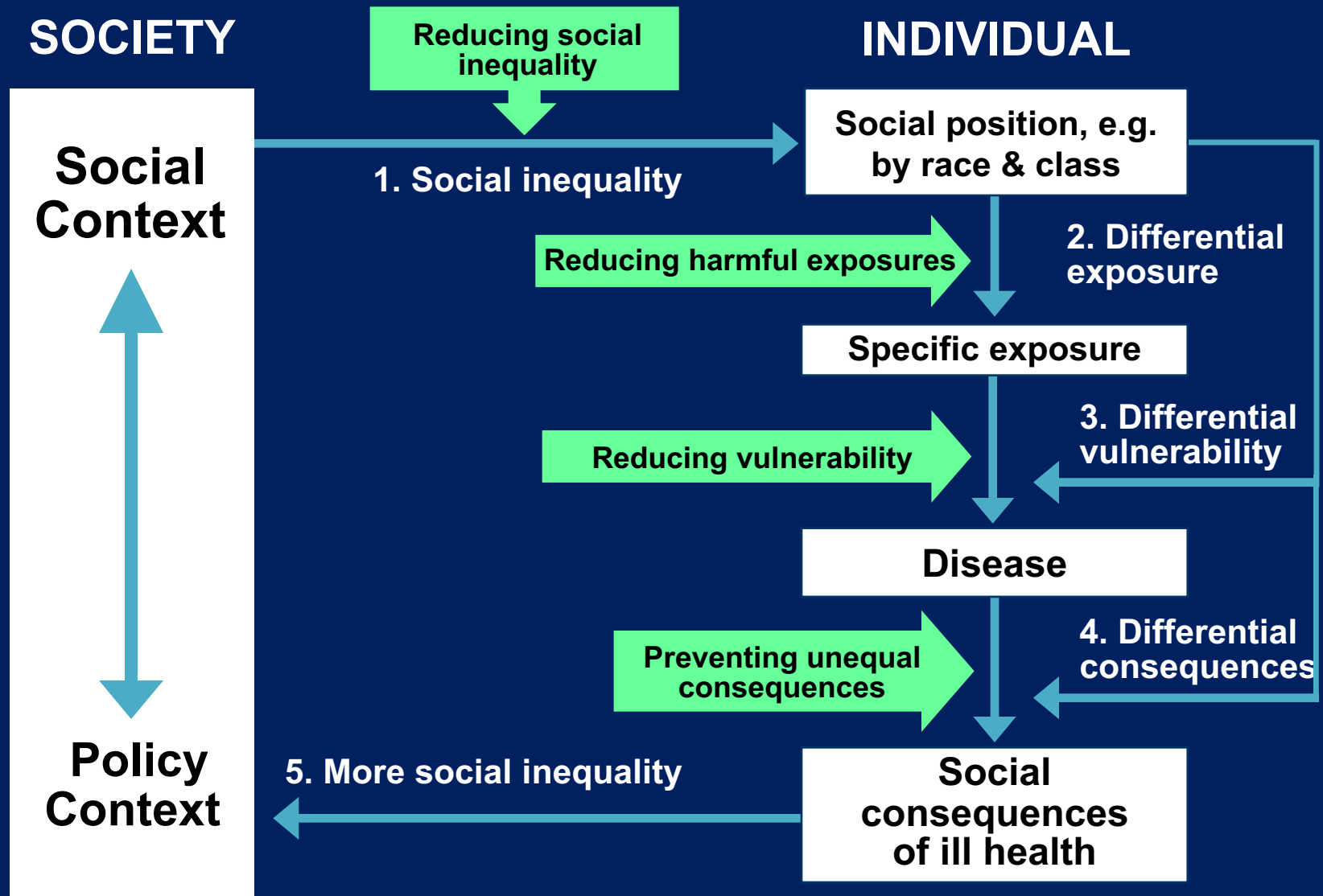




Major scientific advances re the social determinants of health

- **Advances in neuro-science indicate how social factors like income, education, racial discrimination and stress “get into the body”**
- **Chronic stress is likely a major contributor to both socioeconomic and racial/ethnic inequalities in health**
- **Childhood experiences shape adult health**
- **Understanding how racism shapes health across generations**
- **Epigenetics: “Genes load the gun; the environment pulls the trigger” (J Stern, UC Davis)**

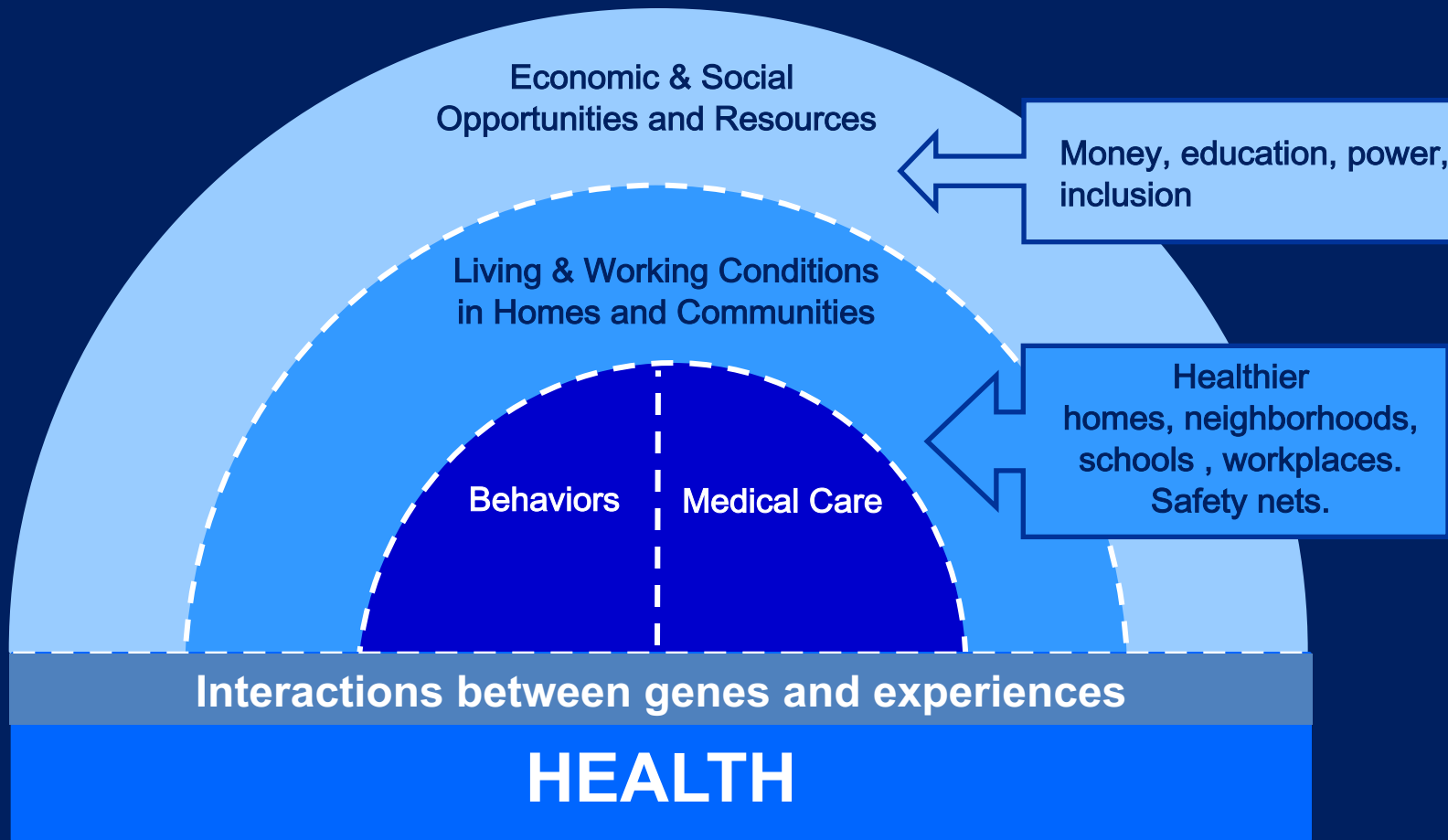
What produces health disparities across the life course and across generations?

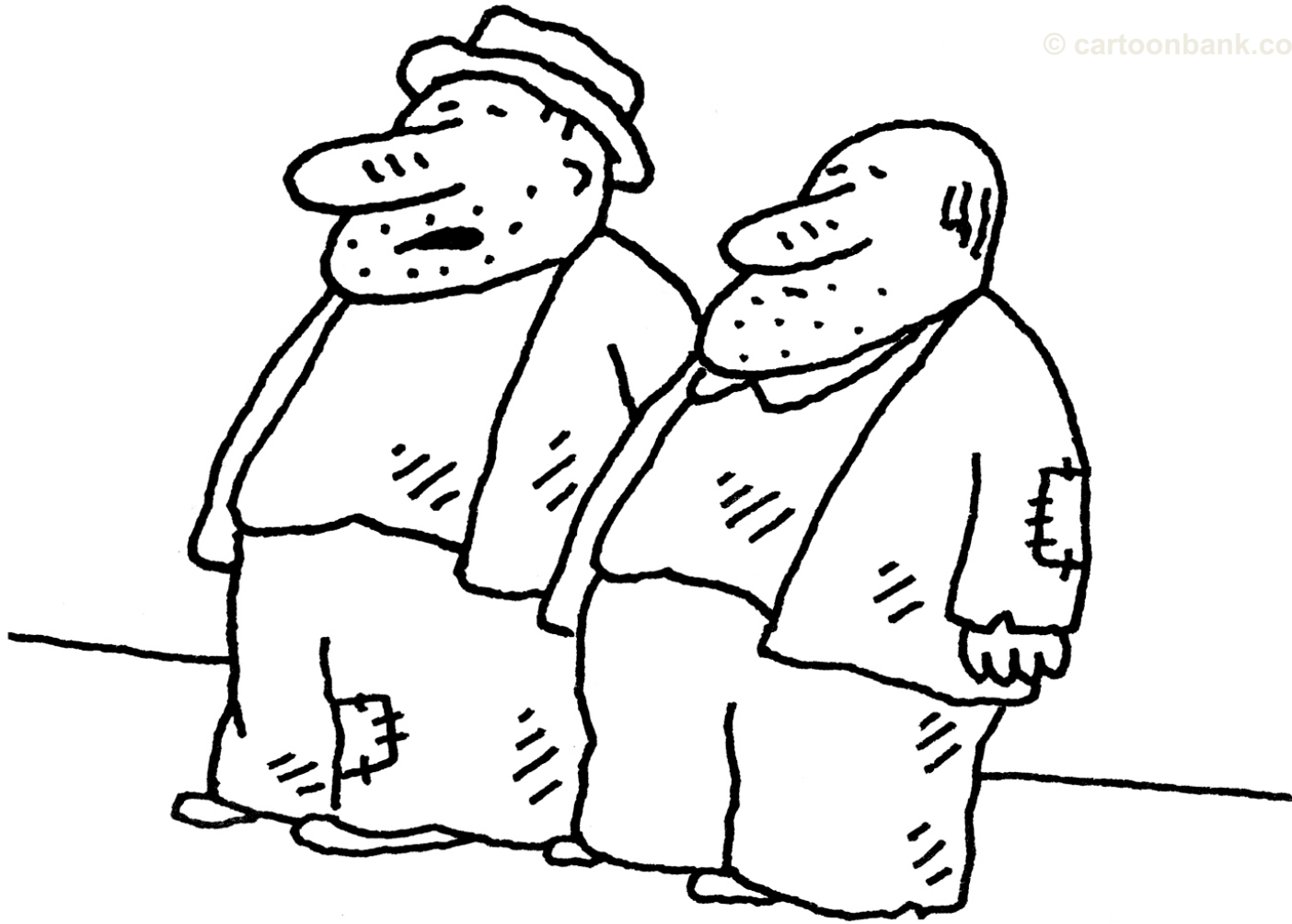


Find a way to keep your stress level down. What works for me is making a ton of money & having practically free health care.



Reducing health inequality by addressing “the causes of the causes”

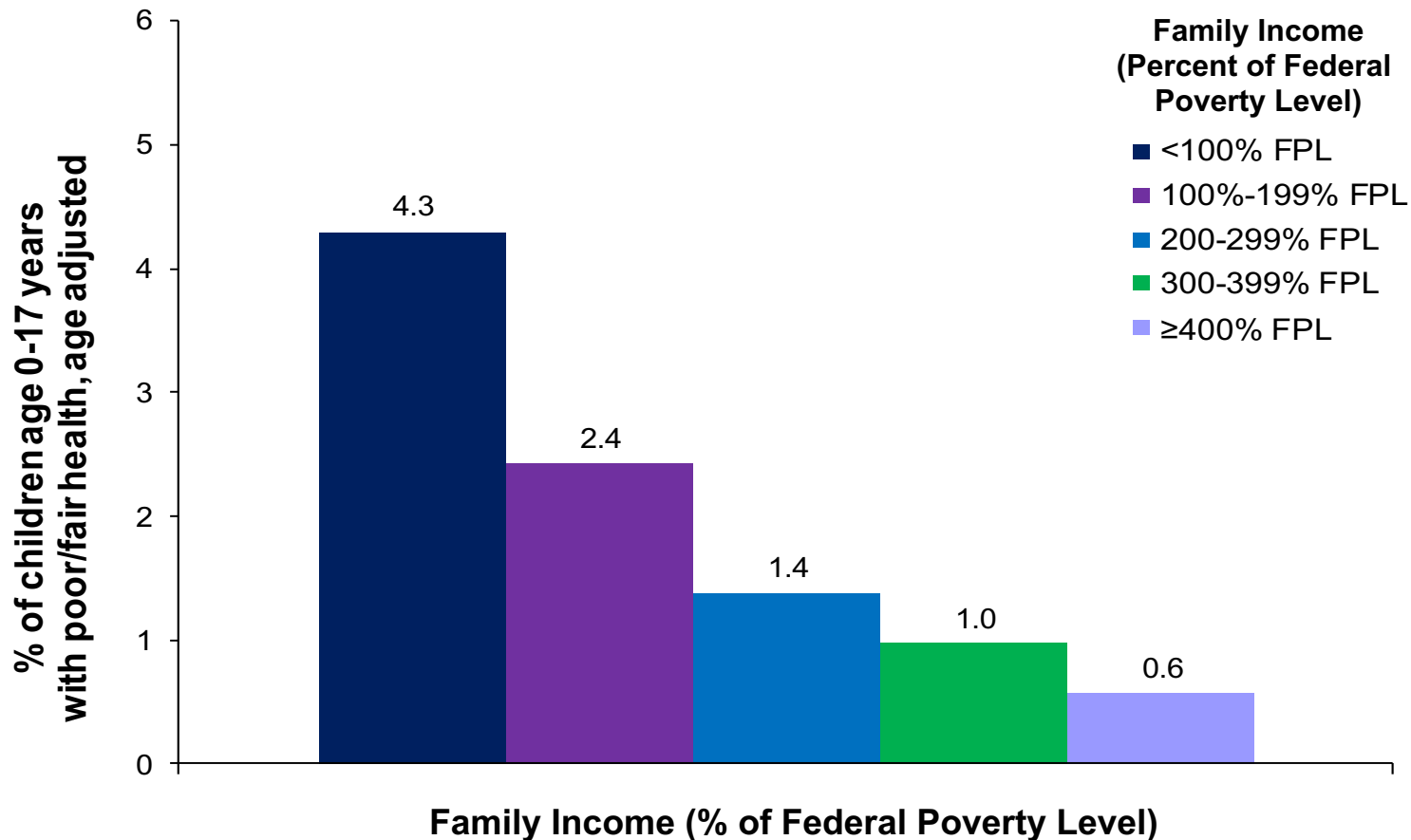




C. Barrett

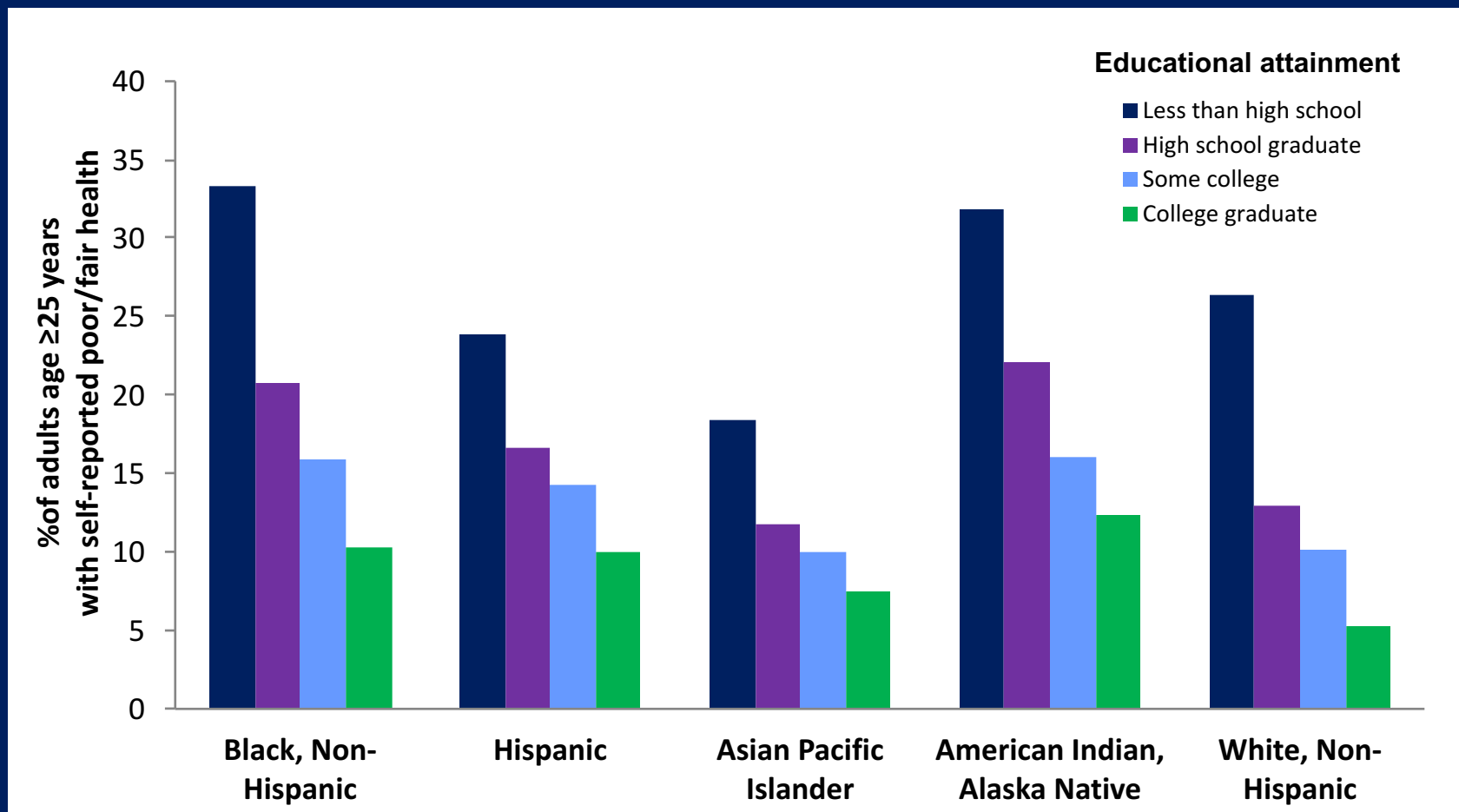
“Good news—I hear the paradigm is shifting.”

Higher income, healthier children: Poor/fair child health reported by parent



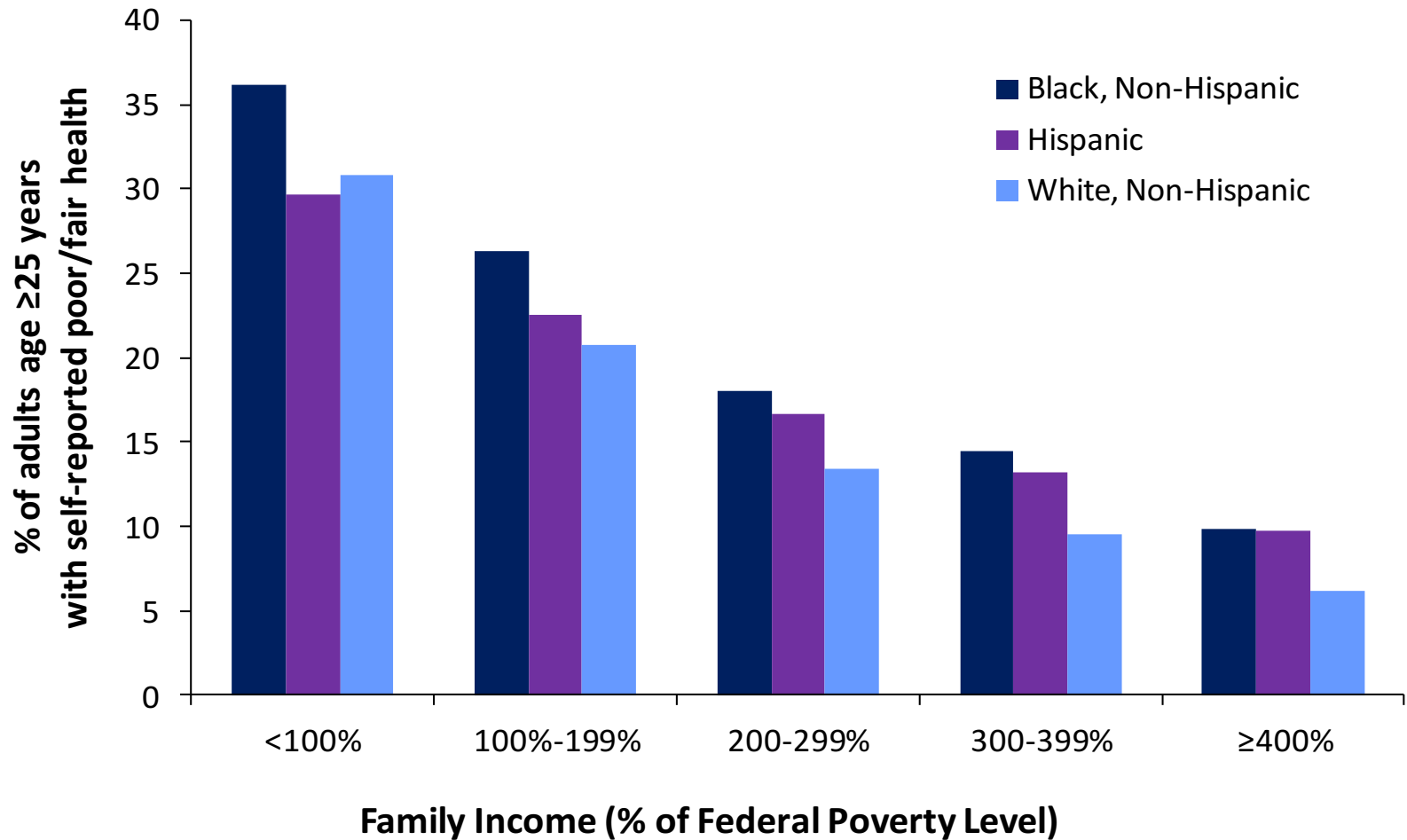
Source: National Health Interview Survey (NHIS) 2001-2005.

Racial/ethnic differences do not explain adult health differences by education



Braveman, Egerter et al., 2009.
Data source: BRFSS. Age-adjusted.

Both race and income matter



Braveman et al. analyses of NHIS 2001-2005.
Age-Adjusted.



UPSTREAM:
The source

DOWNSTREAM:
Exposure and health effects

Reducing health inequality by addressing “the causes of the causes”

