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Socioeconomic Inequalities in Health: What they look like and what can be done about them

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“[poverty] projects its nagging, prehensile tentacles in lands and villages all over the world.... This problem of poverty is not only seen in the class division between the highly developed industrial nations and the so-called underdeveloped nations; it is seen in the great economic gaps within the rich nations themselves....

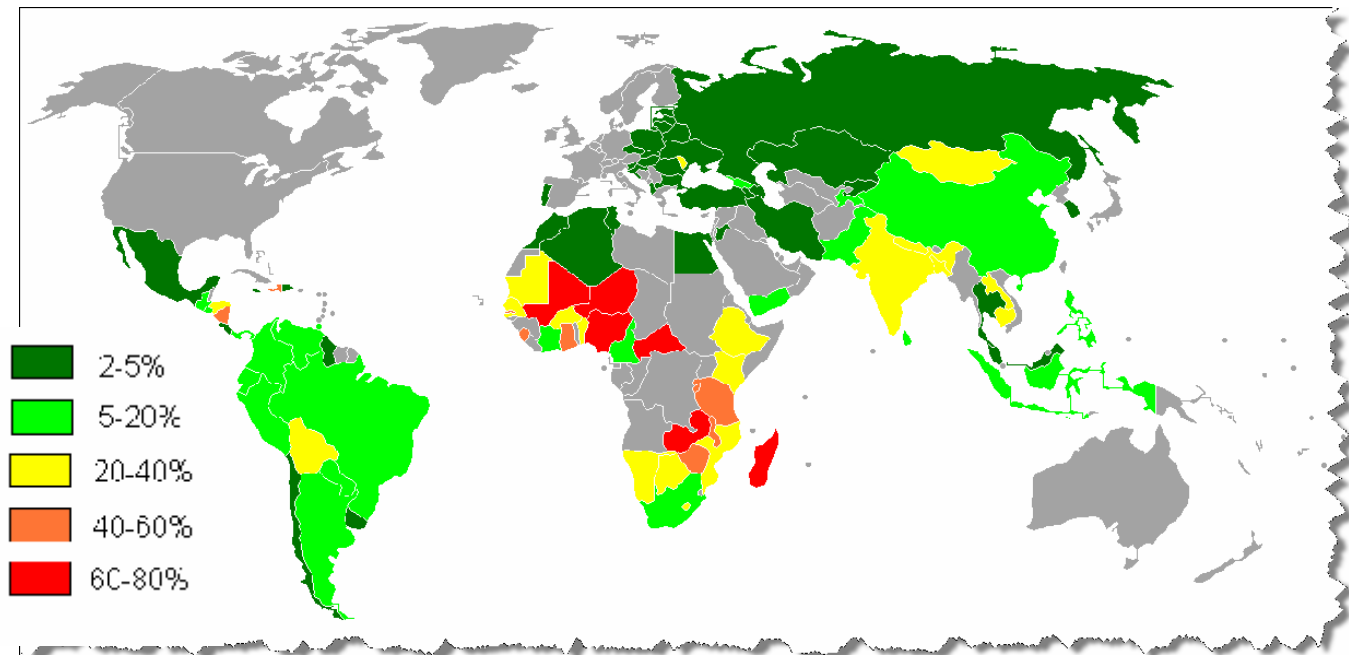
The corrosive character of inequality

...it is obvious that if man is to redeem his spiritual and moral "lag", he must go all out to bridge the social and economic gulf between the "haves" and the "have nots" of the world. Poverty is one of the most urgent items on the agenda of modern life.

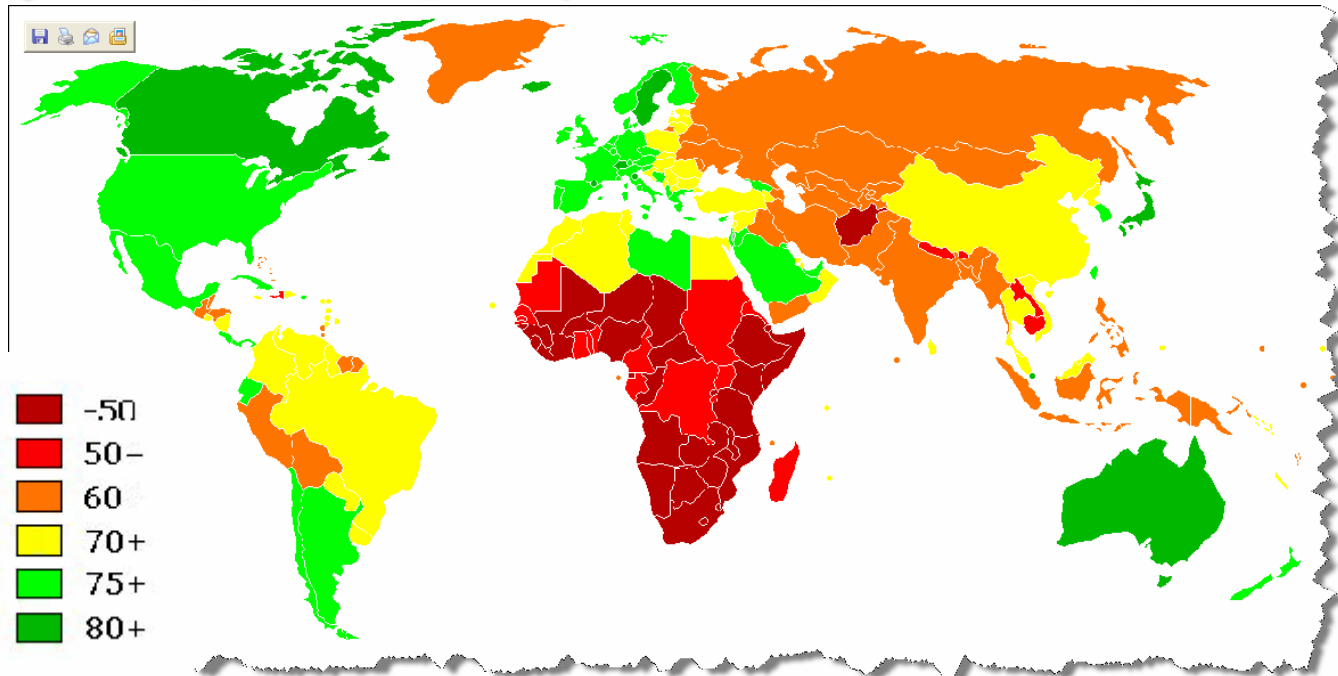
...In the final analysis, the rich must not ignore the poor because both rich and poor are tied in a single garment of destiny. All life is interrelated, and all men are interdependent. The agony of the poor diminishes the rich, and the salvation of the poor enlarges the rich. “

Martin Luther King Jr., Nobel Prize Address, 1964

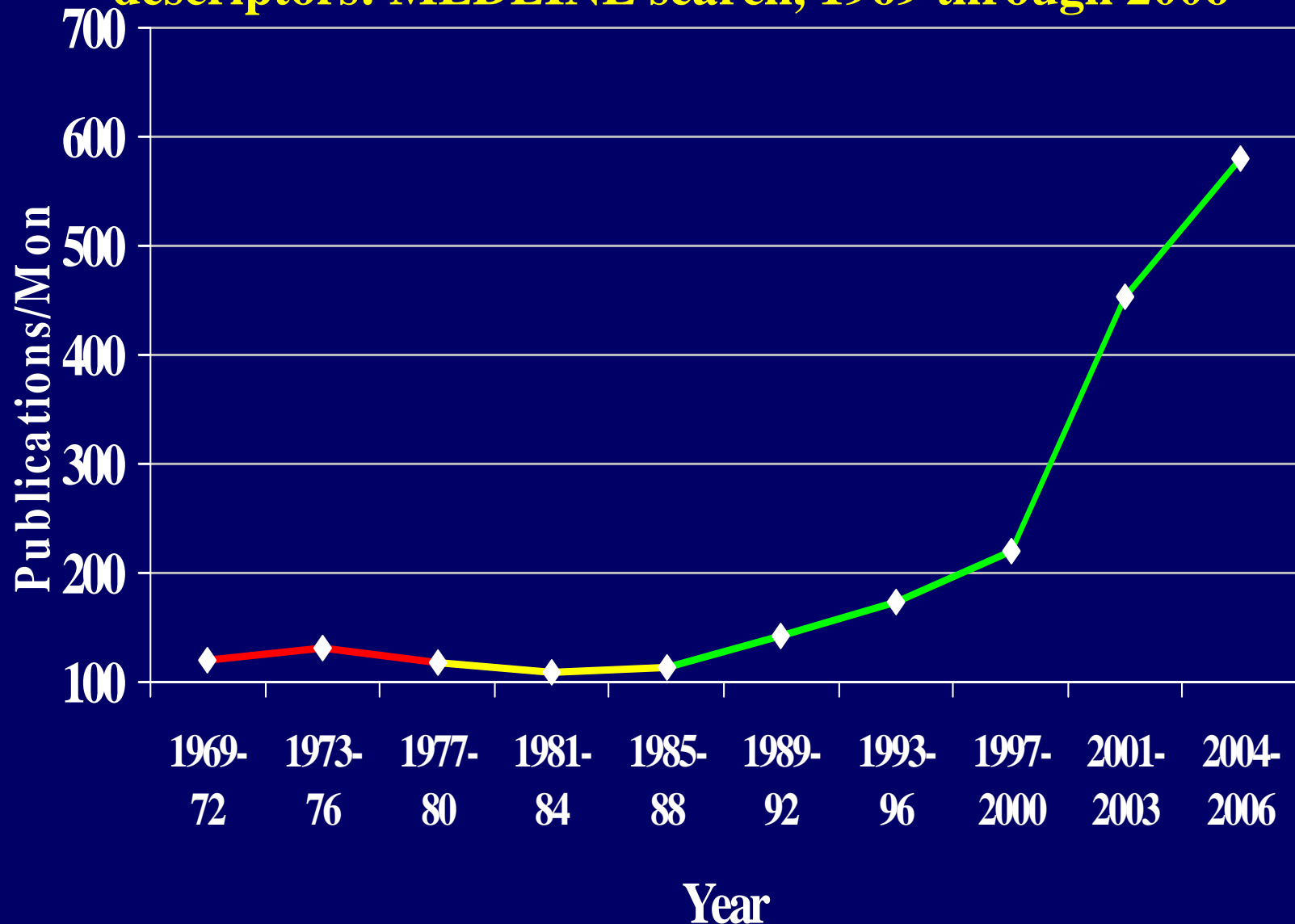
% living
< \$1/day



Life
expectancy
at birth



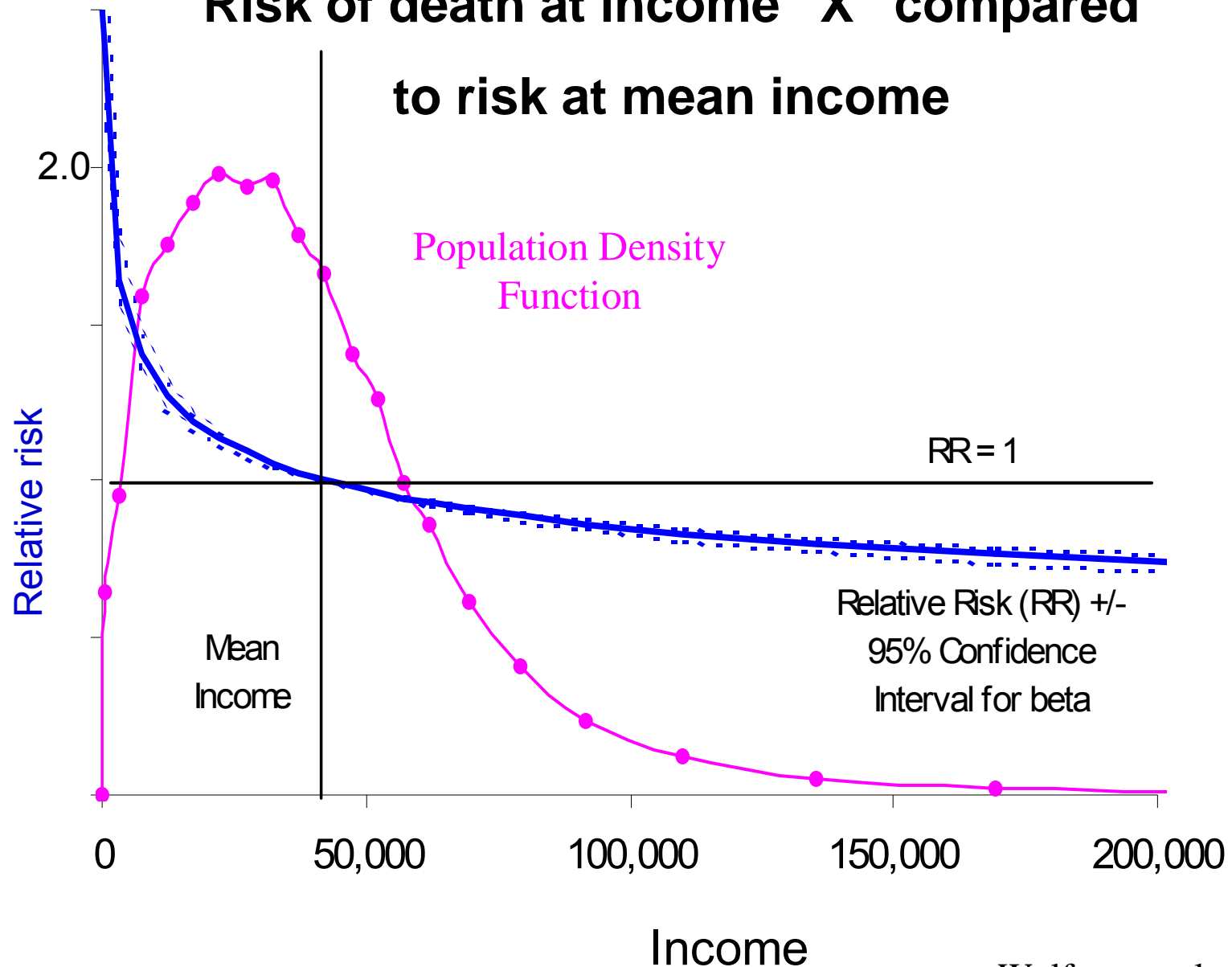
Number of publications per month with social class, socioeconomic factors, income or poverty listed as descriptors: MEDLINE search, 1969 through 2006



Socioeconomic Position and Health

- Widespread
- All age groups affected
- Affects multiple organs
- Not fixed in time
- Most risk factors patterned by SEP

Risk of death at income "X" compared to risk at mean income

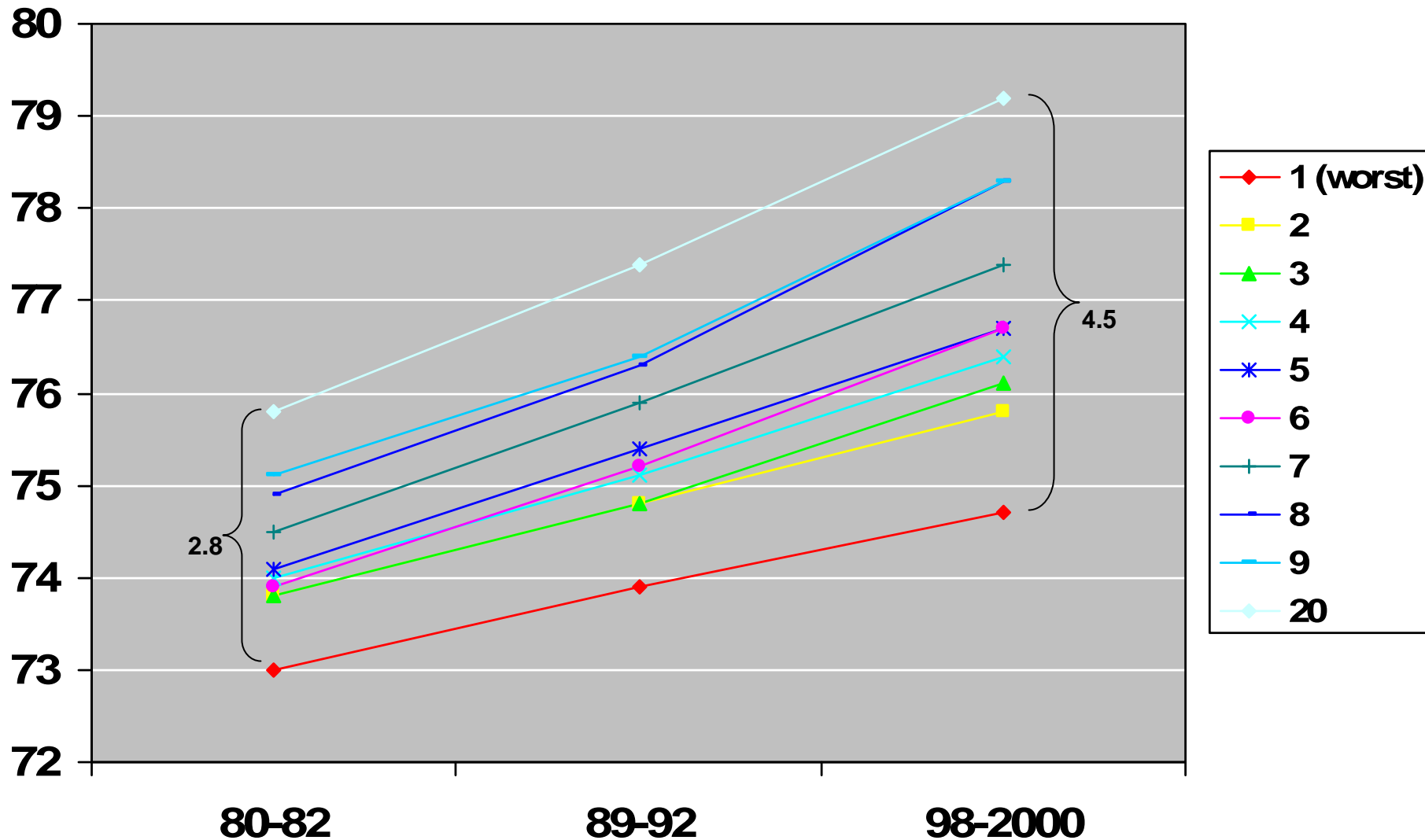


Socioeconomic Position is Related to Many Diseases and Causes of Death (e.g.)

- Low birth weight, and prematurity
- Childhood injuries
- Diabetes
- Asthma
- Depression
- Oral health
- Heart Disease
- Most cancers
- Stroke
- Vision and Hearing impairment
- Dementia
- etc.

Across
many
organ
systems
and stages
of life

Trends in Life Expectancy by County Deprivation Decile: United States, 1980-2000

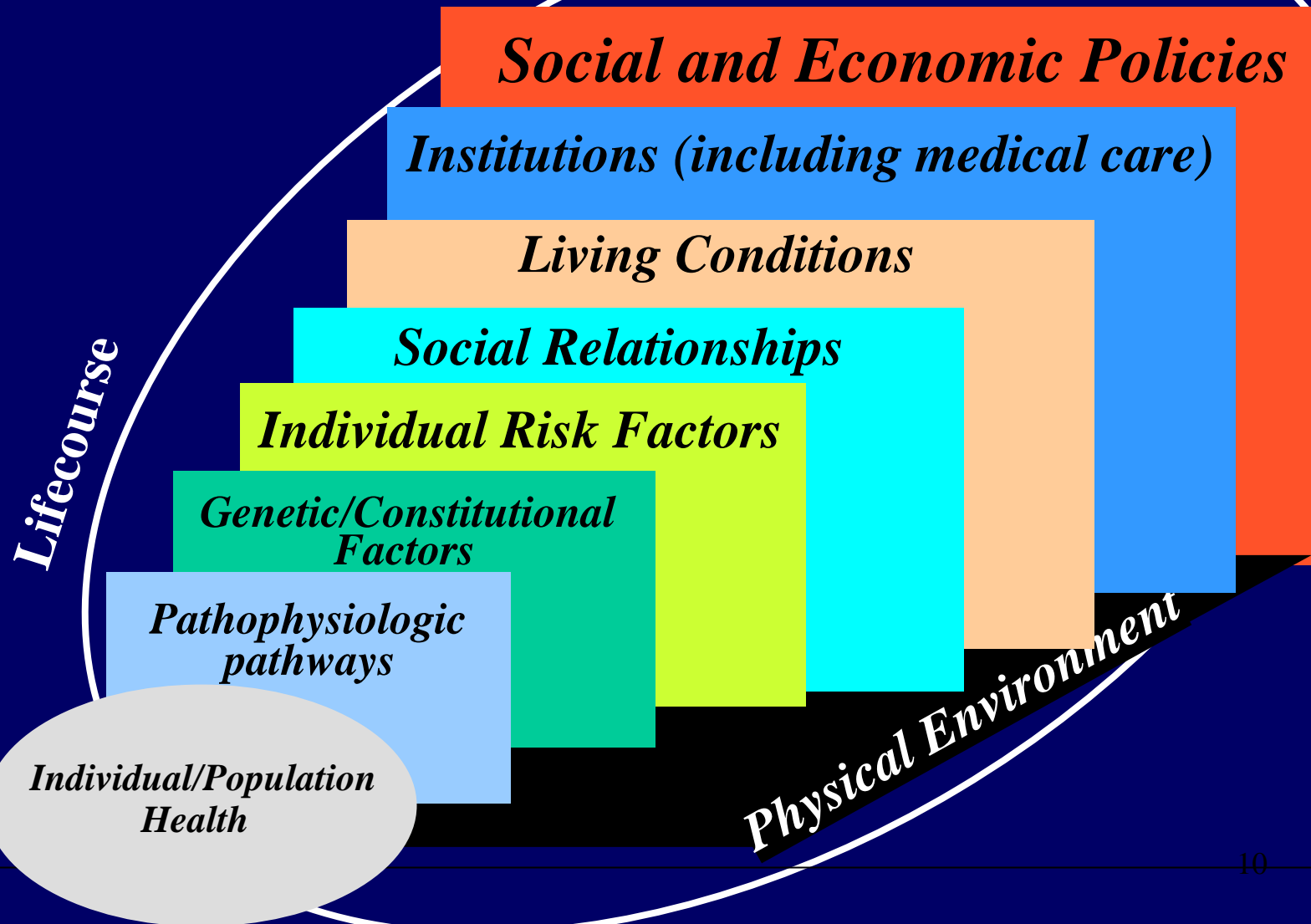


Deprivation index: education, occupation, wealth, income distribution, unemployment, poverty, housing quality

Many Behavioral, Social, and Environmental Risk Factors are Patterned by Socioeconomic Position (e.g.)

- smoking
- physical inactivity
- obesity
- excessive alcohol use
- illegal drug use
- other risky behaviors
- social isolation
- lack of access to health care
- poor indoor and outdoor air quality
- dangerous work and residential settings
- etc.

Determinants of Population Health and Health Inequalities



Myra— An American (and elsewhere) Tragedy

Myra is now 12 years old. Her parents have been unemployed on and off for most of her life, including the entire year before she was born. They move from apartment to apartment as one health or job crisis follows another and are evicted because they are unable to pay the rent on time. Often they reach the end of the month with little money to spend on food or other necessities. An occasional treat following a payday for one of her parents is a fast food hamburger, fries, and 32 oz. soft drink. They live in a neighborhood bereft of parks but with a surplus of abandoned buildings and crime. School is a refuge for Myra—it is safe and she has friends there, but the teachers are burdened by too many students, too few books, too little pay, and too little training. There is no recess, physical or health education, school nurse or counselor, or computer training. (continued next slide)

Myra— An American (and elsewhere) Tragedy, cont.

Some days she just doesn't feel like getting out of bed and going to school, so she just stays home and watches television. Her mother has a minimum wage cleaning job in a mall an hour's ride away by bus, with a work schedule that changes unpredictably from day to day. She is employed on an hourly basis by a subcontractor to the mall and receives no health, retirement, or other benefits. Her father is a non-union carpenter, but works only intermittently due to the poor economy and because he had been previously injured in a fall from unsafe scaffolding. Because of the fall and lack of proper medical treatment he has lost some mobility. Needless to say, her parents do not have any health insurance and have to rely on public clinics and emergency rooms for care.

Myra's Life up to Age 12

- Parental Unemployment & Poverty
- Vulnerable Occupational Status for Parents
- Residential Instability & Poor Housing
- Inadequate Schooling
- Food Insufficiency and “Binging” on Fast/Junk Food
- “Under-endowed” & Dangerous Neighborhoods
- Poor Access to and Poor Quality Health Care

Myra's Health (Current)

- Current (at increased risk for, at least)
 - Obese
 - Poor oral health
 - Asthma
 - Increased susceptibility to communicable diseases
 - Injuries
 - Depression
 - Type II diabetes
 - Early sexual activity and associated risks
 - Early illegal and legal substance use
 - Other behavioral and social risks (gang membership, aggression, victimization, social isolation, etc.)

Myra's Health (Future)

- Future (at increased risk for)
 - Early pregnancy and IUGR births
 - Hypertension
 - Obesity
 - Cardiovascular disease
 - Diabetic complications
 - COPD
 - Musculoskeletal disorders and mobility limitations
 - Depression
 - Abuse
 - Behavioral & Social (illegal involvements, victimization, adverse occupational trajectories, etc.)

What Can be Done to Close the Gap between Myra's Health and that of those Better Off Socioeconomically?

Upstream Policies to:

1. Reduce "Child" Poverty and Increase Opportunity
2. Education and Training
3. Invest in Healthy Communities
4. Reduce Marginalization by Race, Ethnicity, and Nativity
5. Increase Access to Quality Health Care
6. End Compound Dis-interest

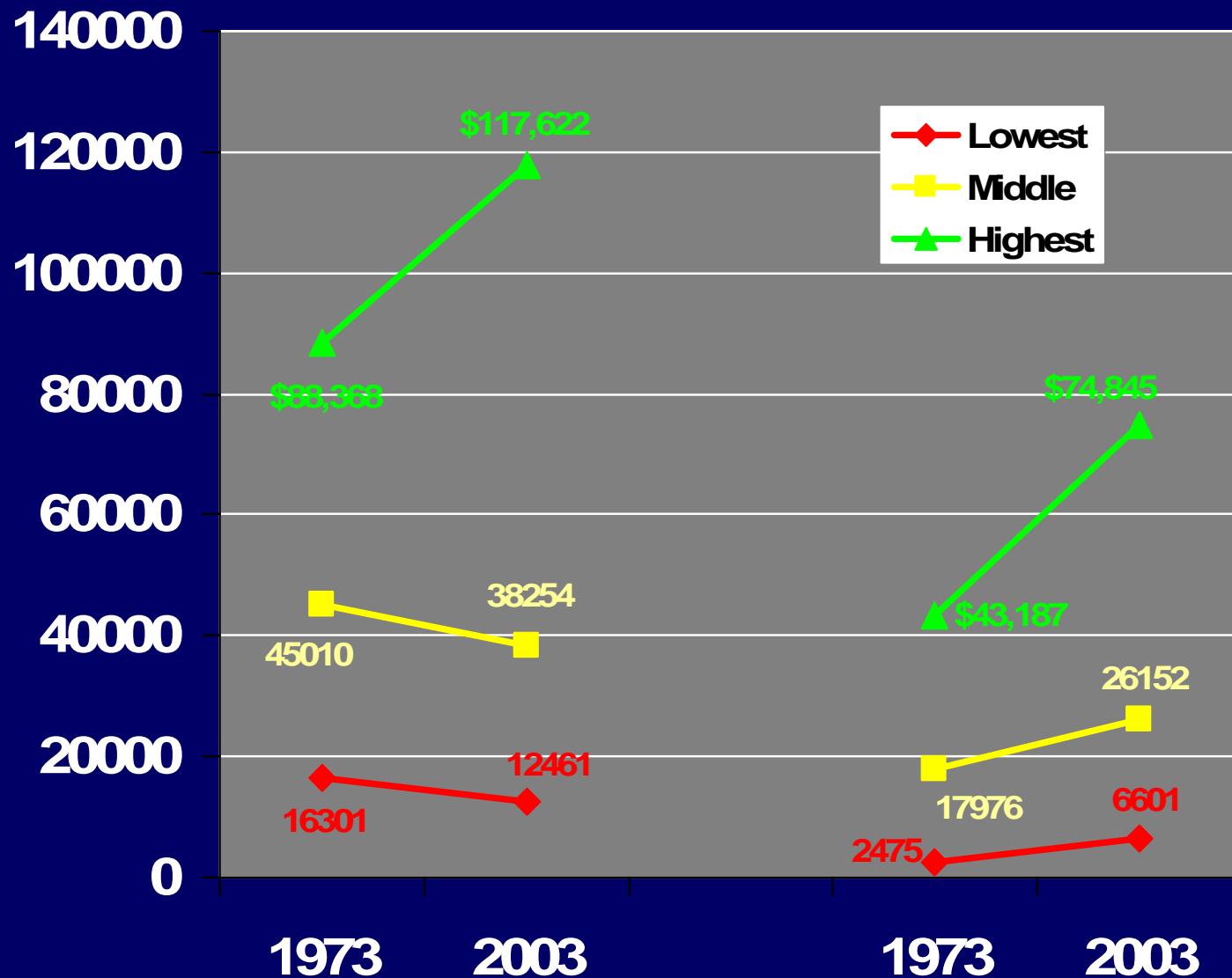
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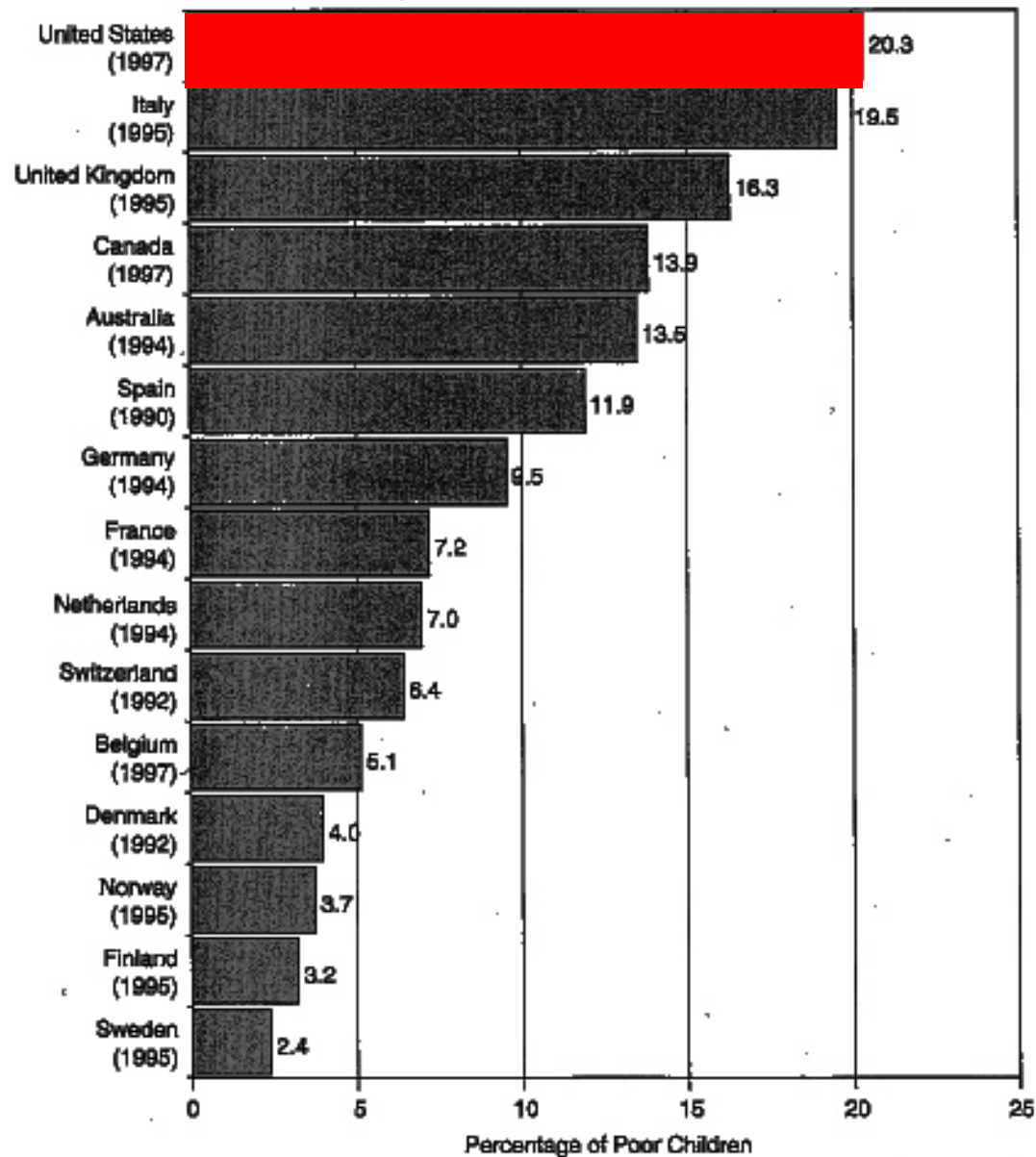
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Mean annual earning (wages & salaries) by quintile

men and women ages 25-64, 1973 and 2003

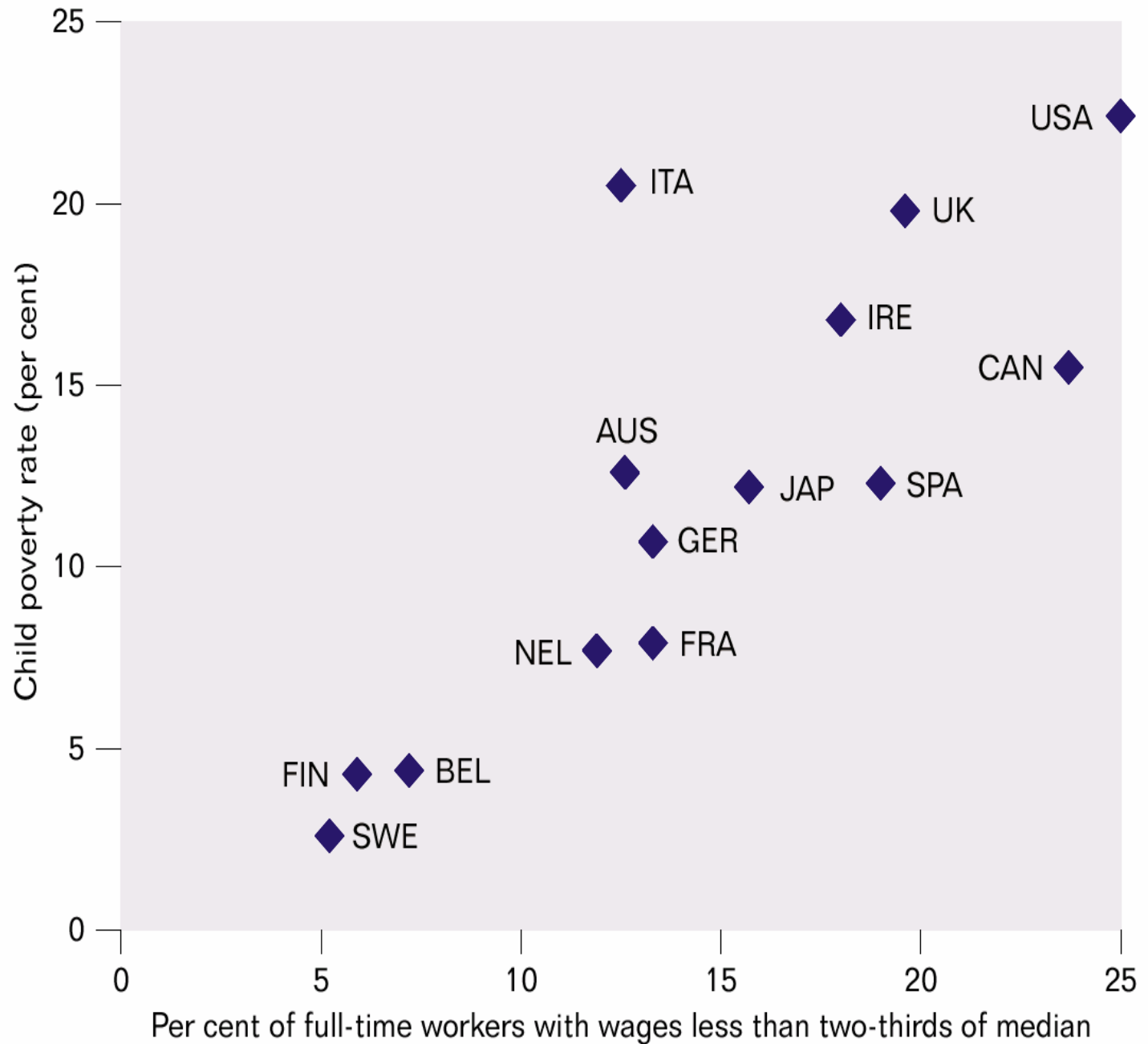


**FIGURE 1.1 Child Poverty Rates in Fifteen Countries
in the 1990s**



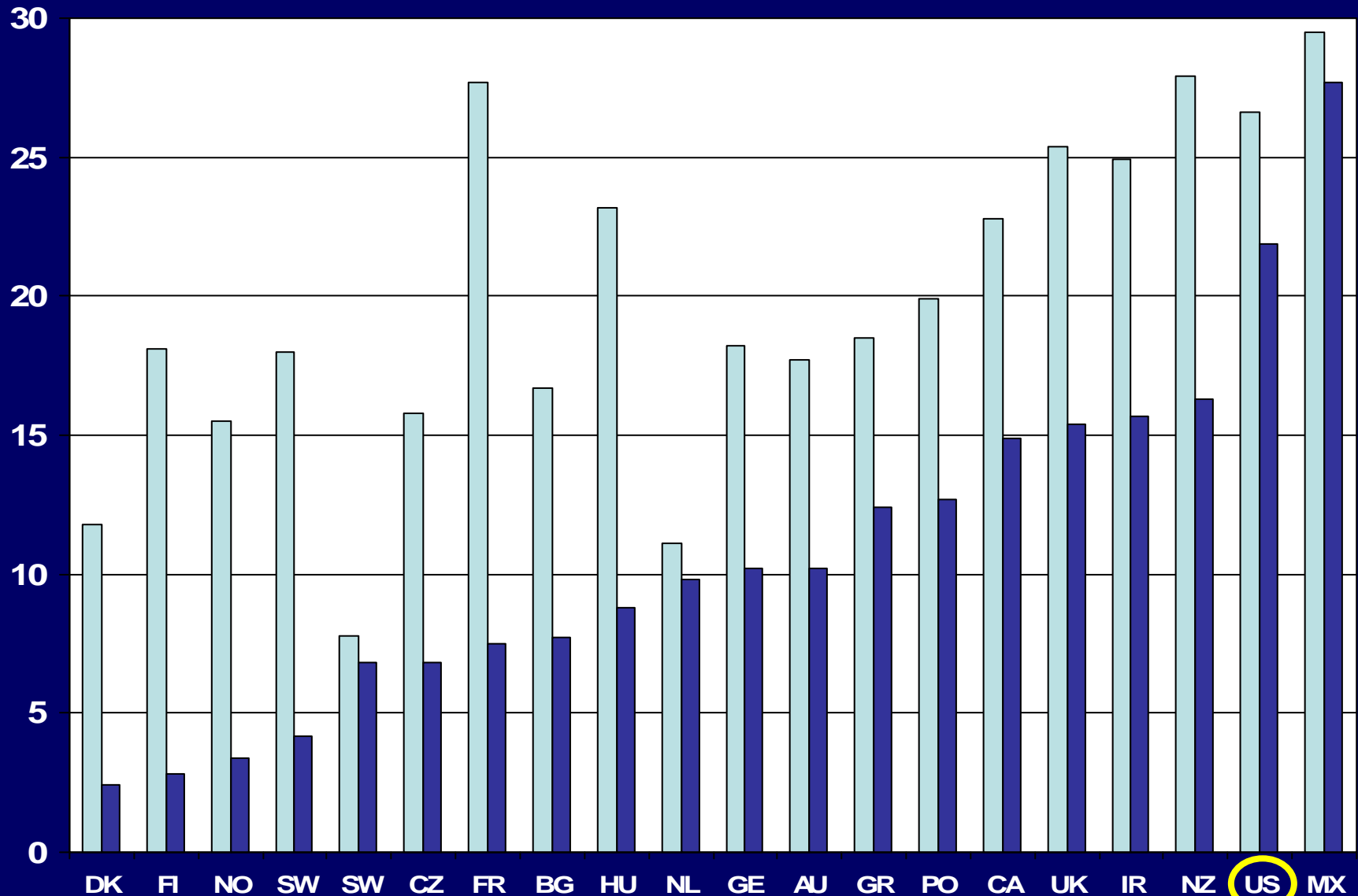
Source: Authors' calculations, using data from the Luxembourg Income Study.

Low Wages and Child Poverty

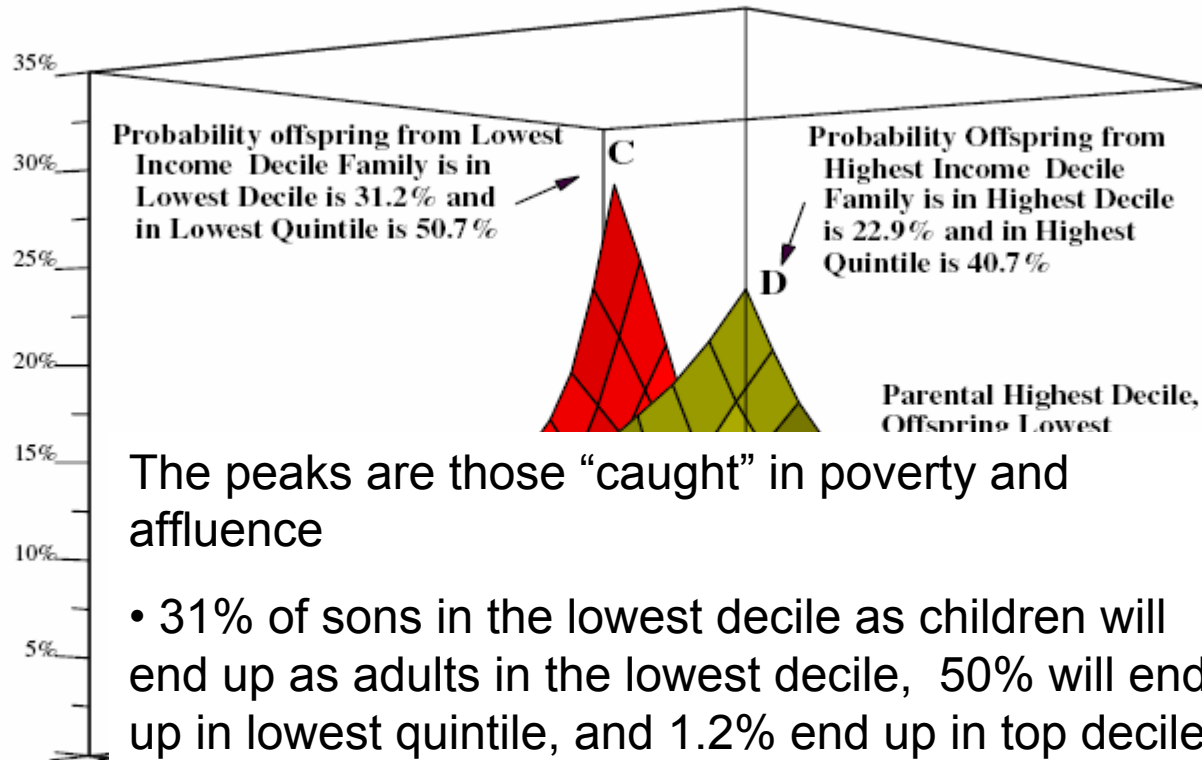


Impact of Taxes and Transfers on Child Poverty

(defined as 50% of median post-tax and transfer income)



Probability of Offspring Attaining Given Income Decile, by Parents' Income Deciles, U.S.



- 31% of sons in the lowest decile as children will end up as adults in the lowest decile, 50% will end up in lowest quintile, and 1.2% end up in top decile
- 23% starting in top decile will end up in top decile, 41% in top quintile, and 2.4% in the lowest decile
- Downward mobility from the top quartile to the bottom quartile is 5 X greater for Blacks vs Whites
- Wealth?

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In 2001, only an estimated 68% of all students who enter 9th grade will graduate with a regular diploma in 12th grade.

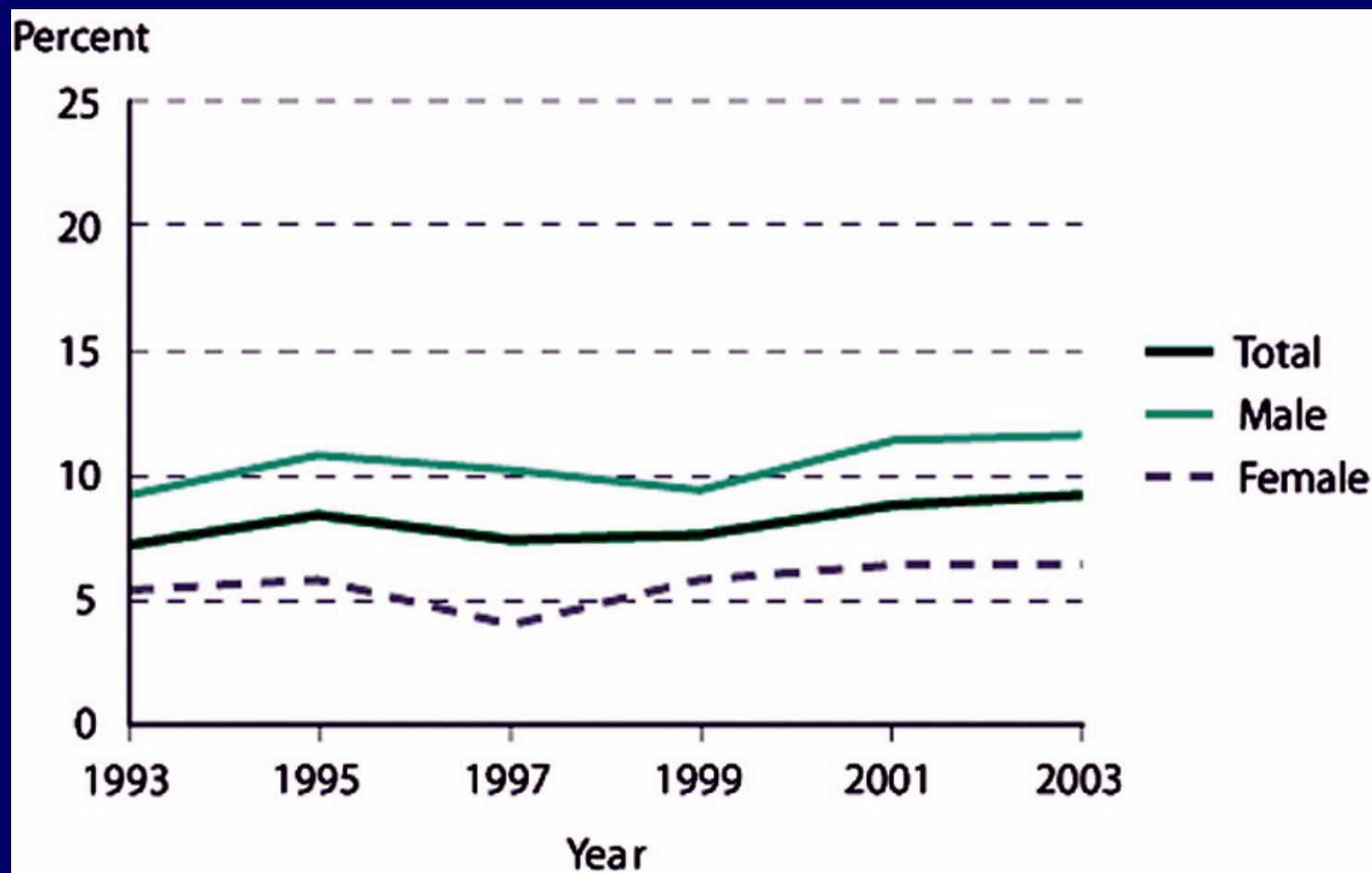
74.9% for White students

50.2% for Black students

51.1% for Native American students

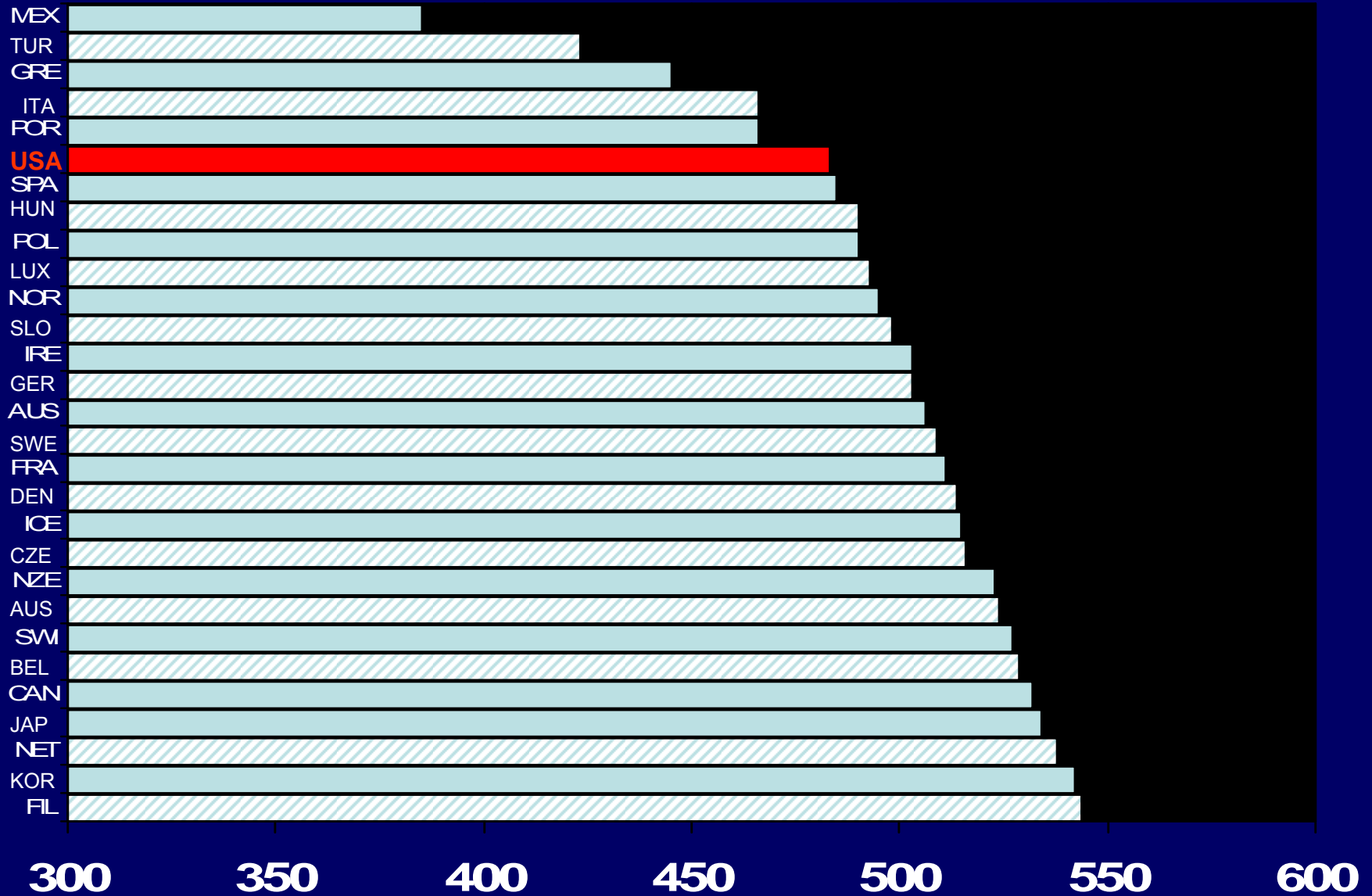
53.2% for Hispanic students

Percentage of students in grades 9-12 who reported being threatened or injured with a weapon on school property during the previous 12 months



Combined Mathematics Literacy Scores by Country

15 year olds, PISA 2003



Funding of Education

State governments provide > 90% of funds for K-12 education

53% comes from property taxes (83.9% NM to 38.2% NE)

Local funds provide from 90% (NH) to 21% (AL) of funding

Significant Disparities Exist in Funding/student (1st vs 4th quartile)*

by poverty status- \$1,436

by minority status - \$ 964

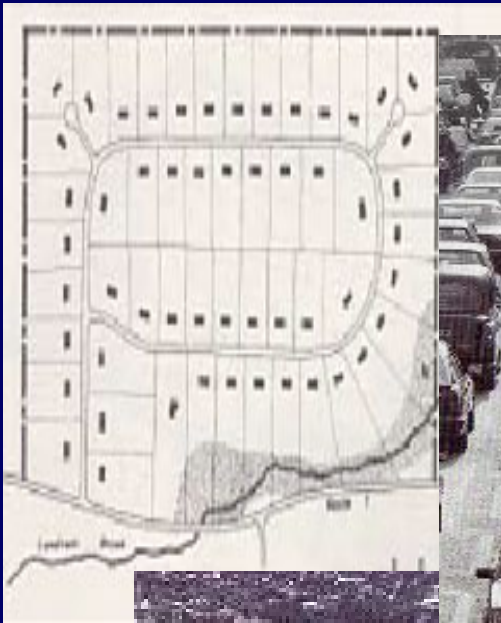
These Number Add Up

	Σ for class of 25	Σ for school of 400	Σ for HS of 1500
New York	\$57,000	\$912,000	\$3,420,000
Pennsylvania	\$17,900	\$286,400	\$1,074,000

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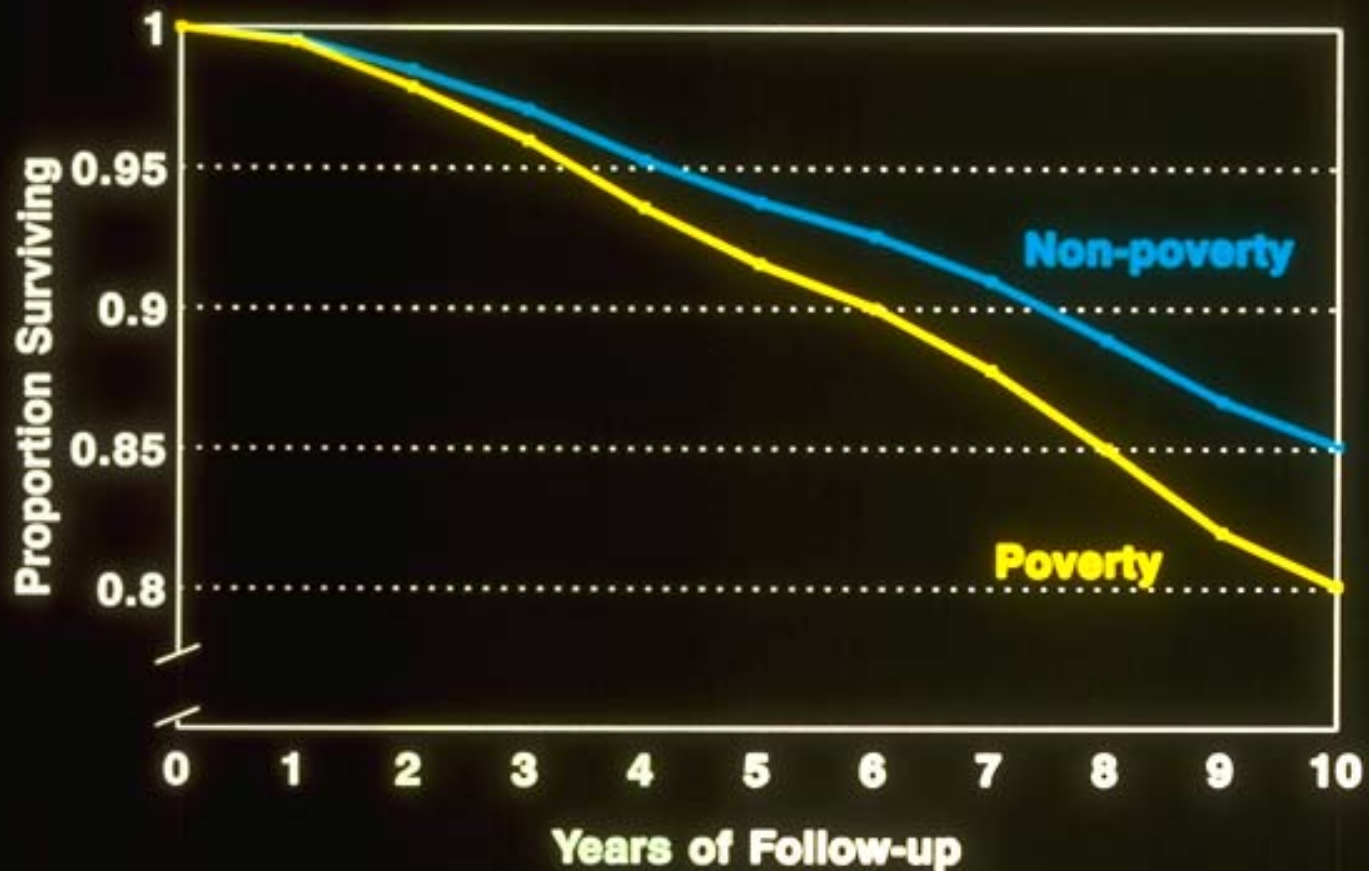
Poverty Area Characteristics

Oakland, CA: 1965

41% of the Population:

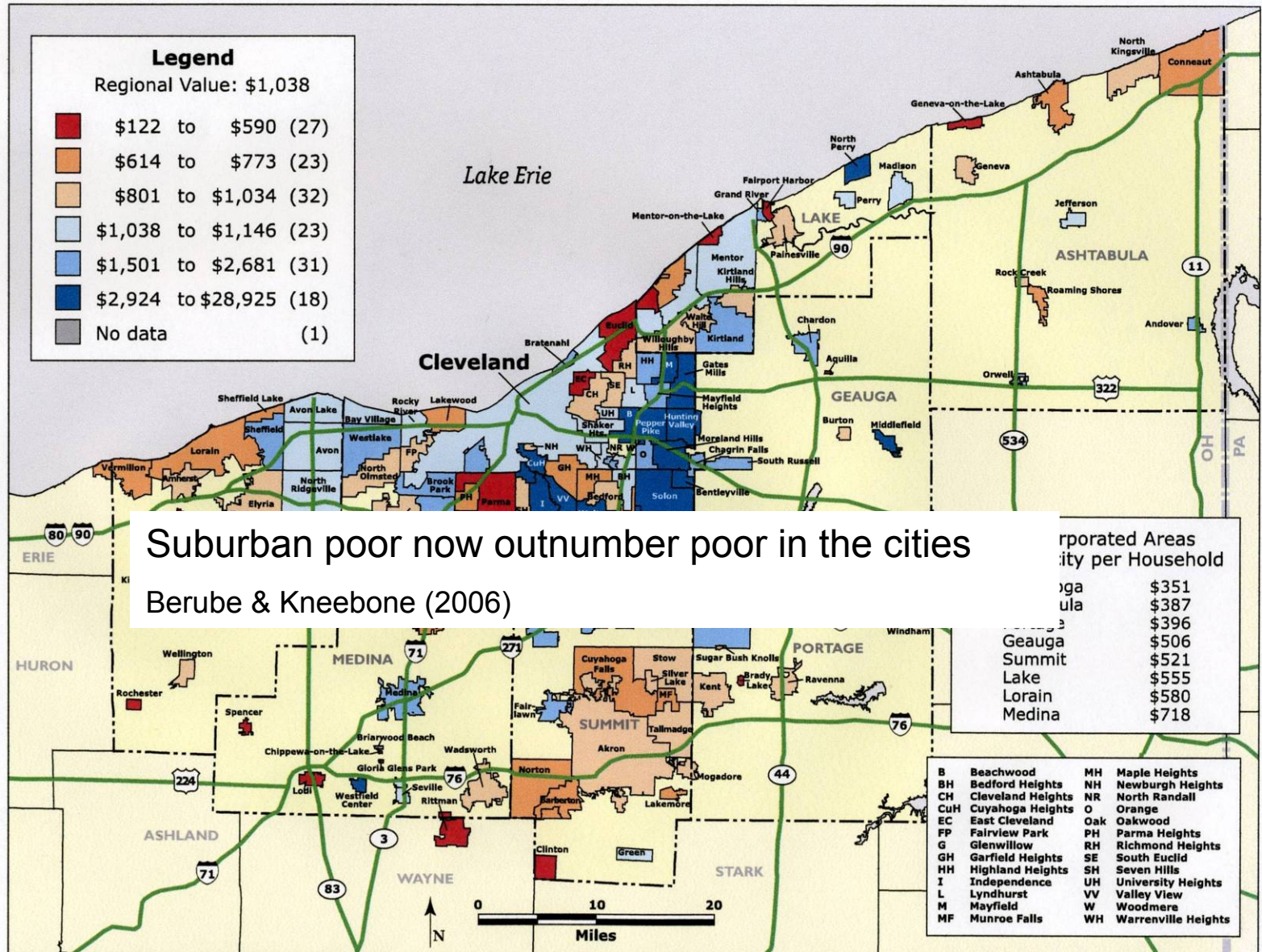
Unemployed Males	66%
Unemployed Females	61%
General Assistance Recipients	94%
Aid to Families with Dependent Children	85%
Aid to Disabled	73%
Police Workload	65%
TB Cases	68%
Poor Housing	75%
Housing without Private Bath	89%

Age-adjusted Survival by Poverty Area Residence Alameda County Study: 1965-1974, White Females



Survival curve from Cox model, estimated at age=60

CLEVELAND REGION: Tax Capacity per Household by Municipality, 1998



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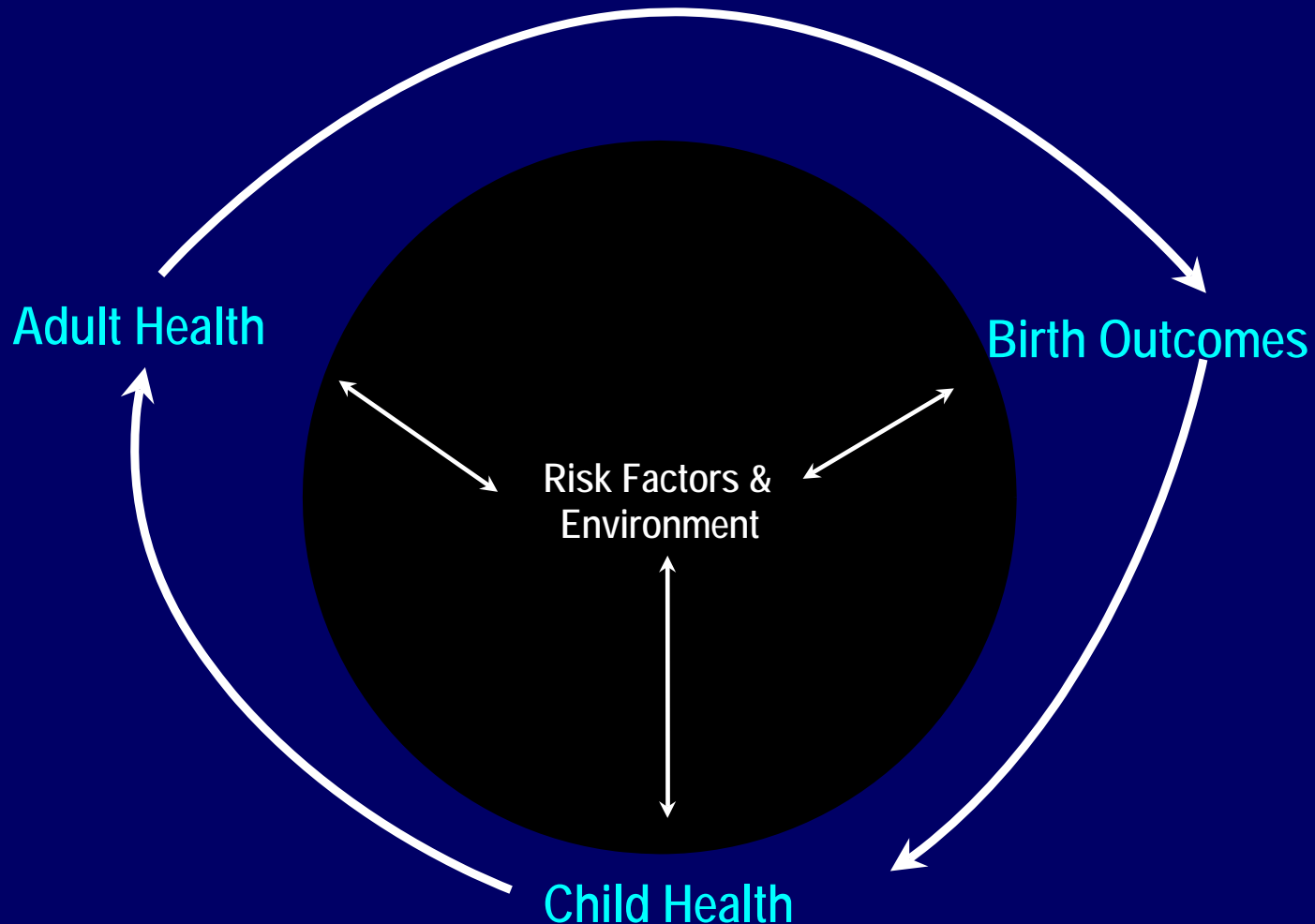
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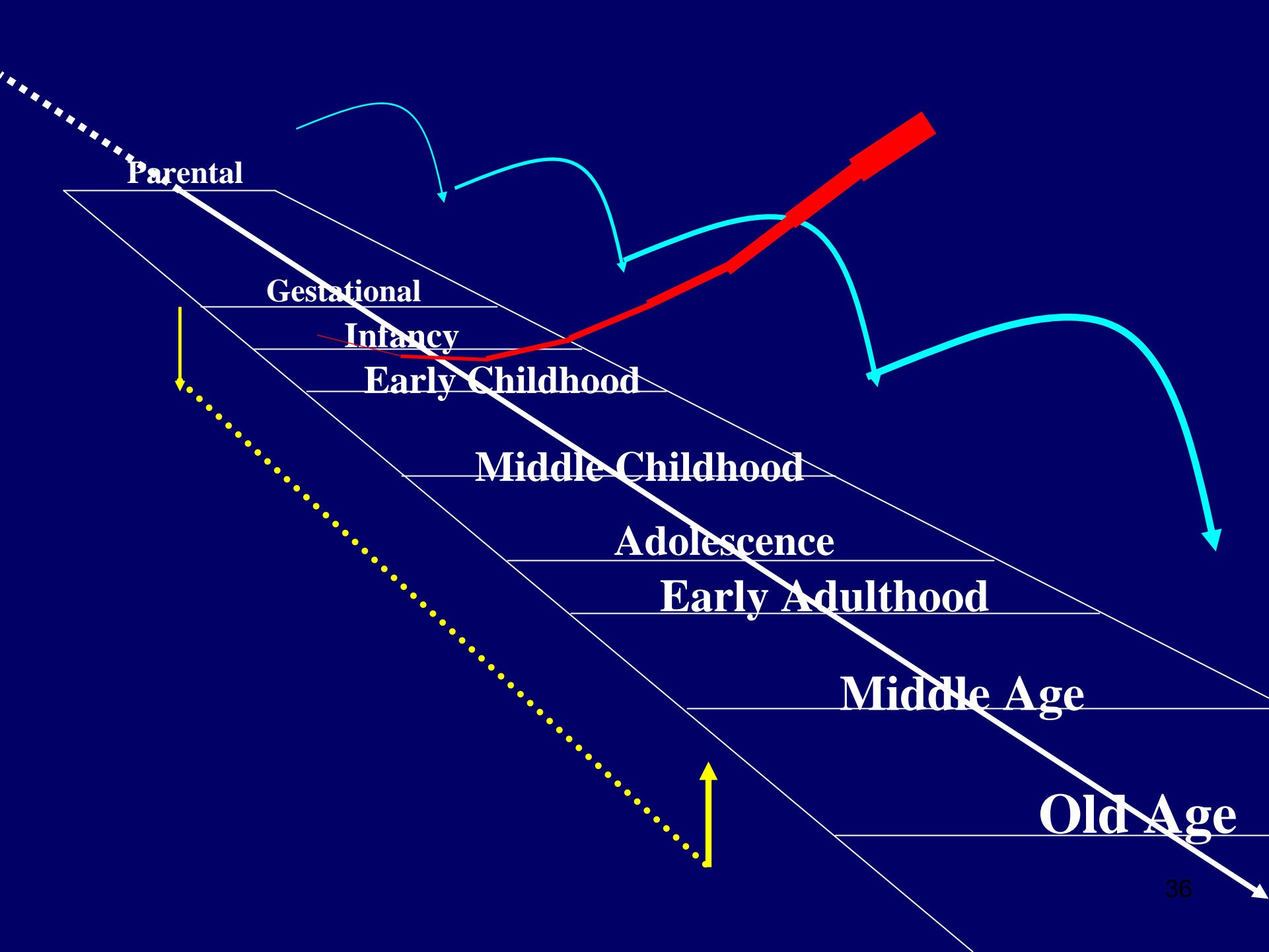
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“The childhood shows the man, As the morning shows the day”

John Milton. *Paradise Lost* (1667), Line 220-221.





Compound Dis-interest

- Myra's life (and others like her) represents a policy of **“compound dis-interest.”**
- Time after time, system after system, there has been a failure to sustain and nourish the capacity for health and development. It is not difficult to envision how the fragility of her parent's situation in an unstable economy that has stripped away many social protections, neighborhoods bereft of resources and oversupplied with problems, an over-burdened and under-resourced educational system, and a failed social, public health and social insurance system could put Myra's health and development at risk. Nor is it hard to imagine that these forces played out over a life course could act synergistically, compounding the threats to Myra's development and health over her life course and even acting on subsequent generations.

Compound Dis-interest

Myra, her parents, and perhaps her future children are but a thread in the unraveling quilt created by compound dis-interest and consequent health disparities. With little imagination one can visualize a society filled with Myras and Maxes, where there is a compounding of dis-interest that blankets current and future generations, where a vision of healthy and productive lives for all is blocked by exponentially expanding disadvantage and blocked capability. Where the gap between what is possible and what is realized grows larger and larger.

If we mind this gap, and if we pay attention to the social and economic policies that produce it, we just might improve health and reduce disparities in health.