

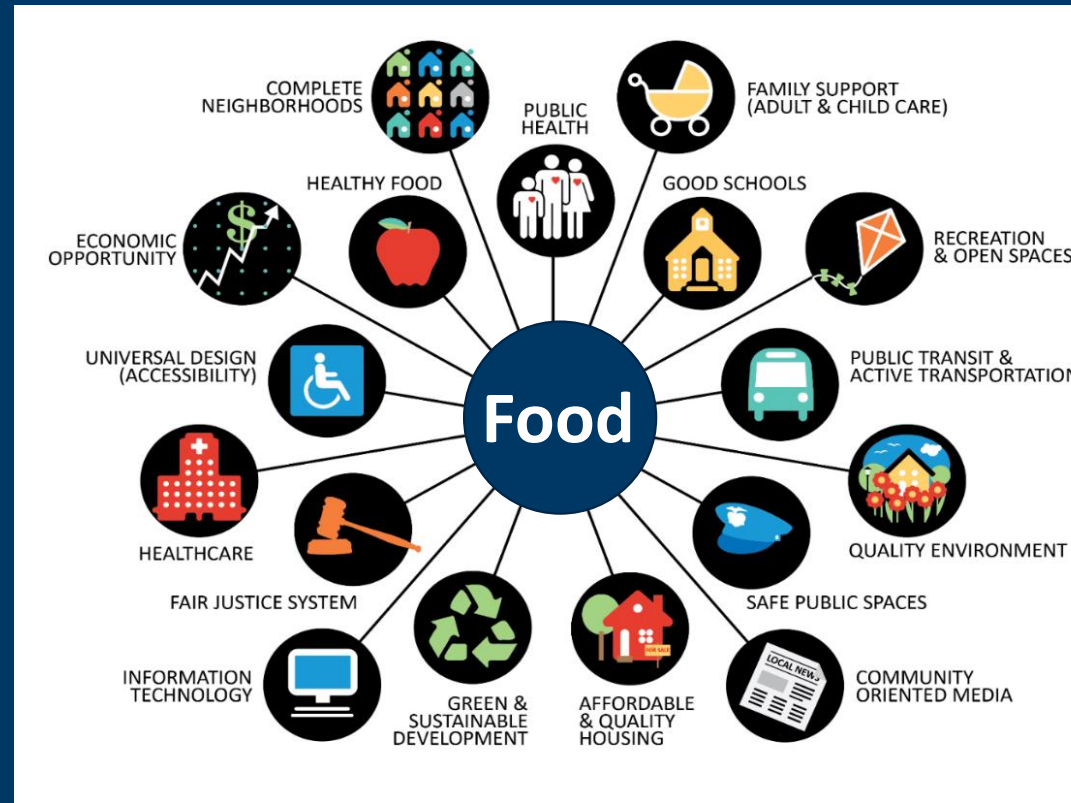
Creating the conditions in which all people can thrive

Edward P. Ehlinger, MD, MSPH

Public Health Metaphysician

March 9, 2021

Food is an essential element (medicine) in creating the conditions in which all people can thrive.



Social and environmental conditions facilitate food as a medicine for ourselves and our communities.

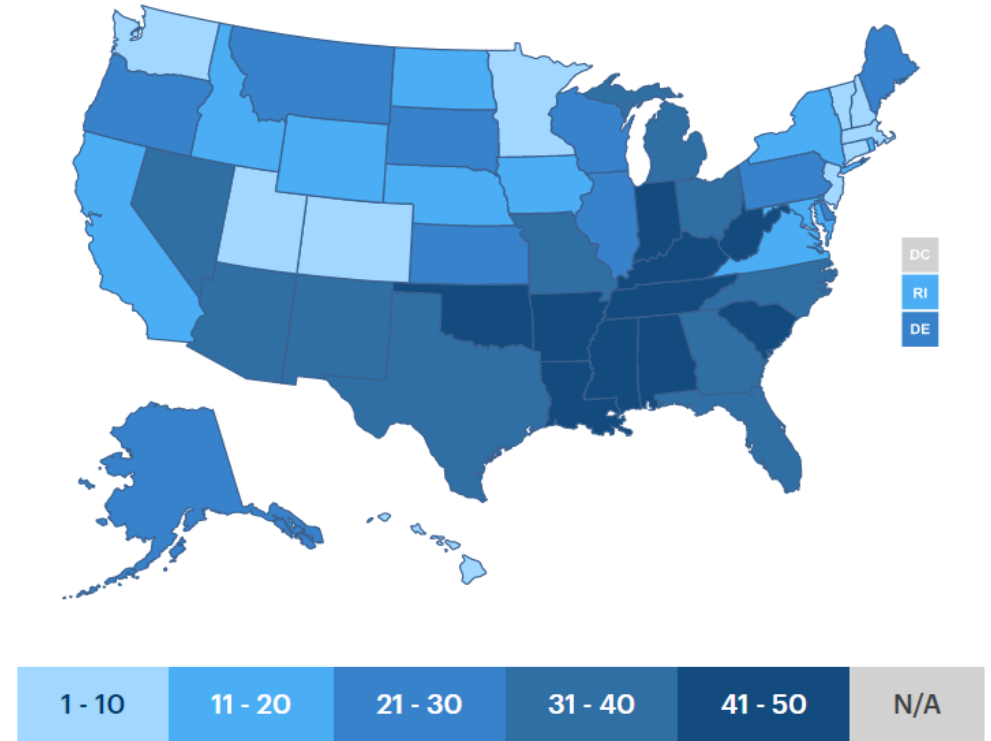
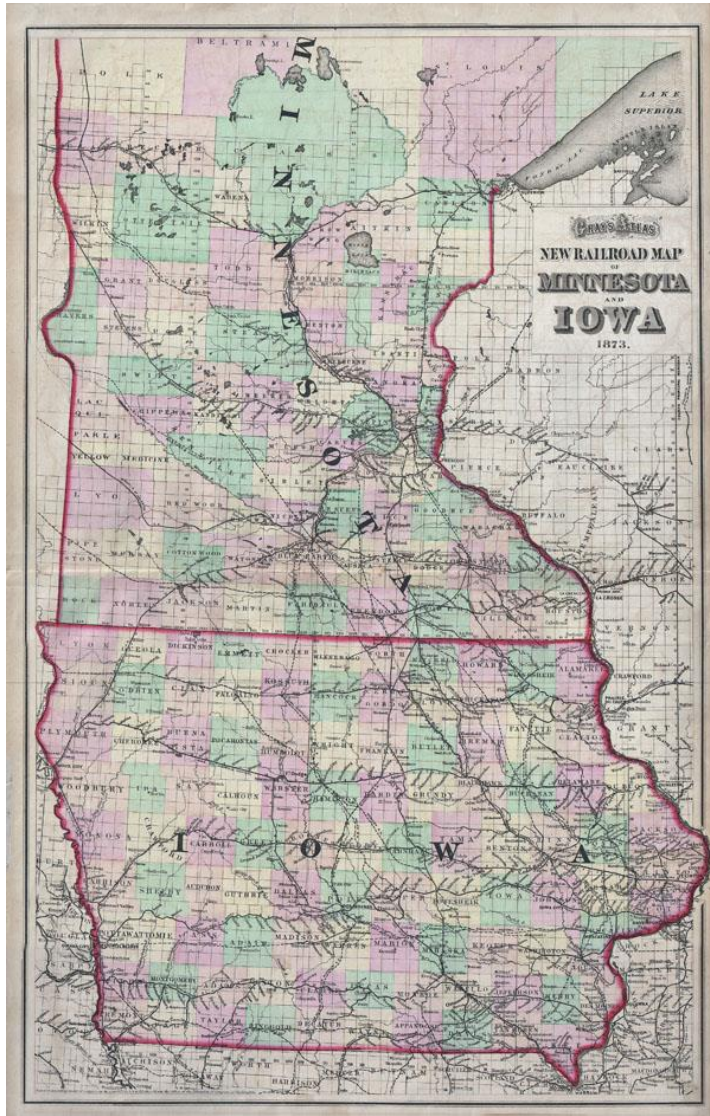
Creating the conditions in which all people can thrive

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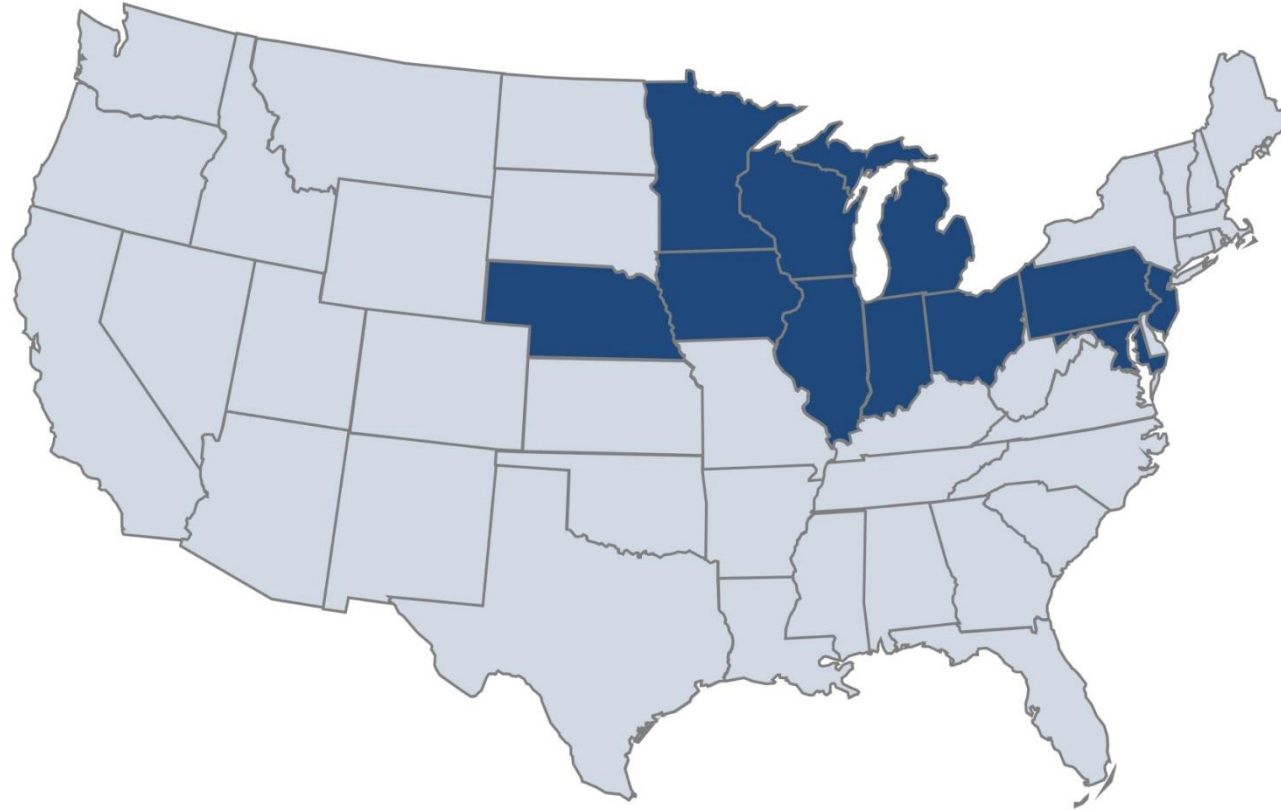
March 9, 2021

Minnesota and Iowa – much in common



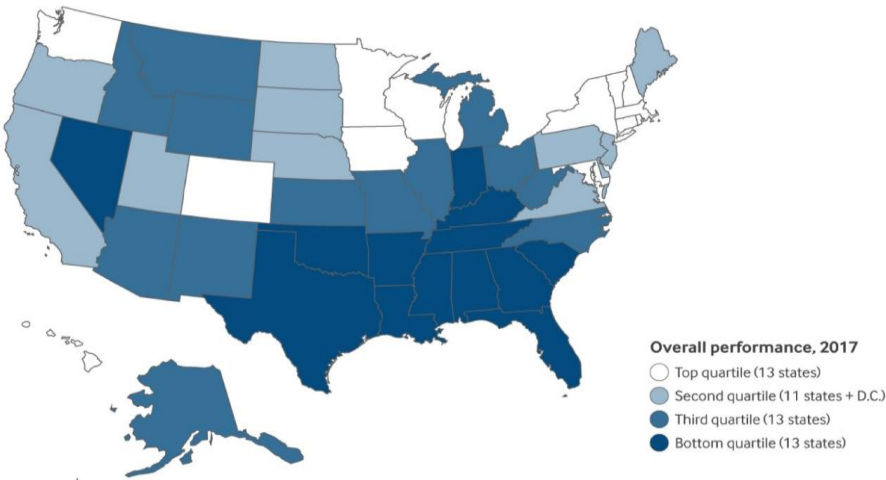
State Health Rankings

Big 10 States



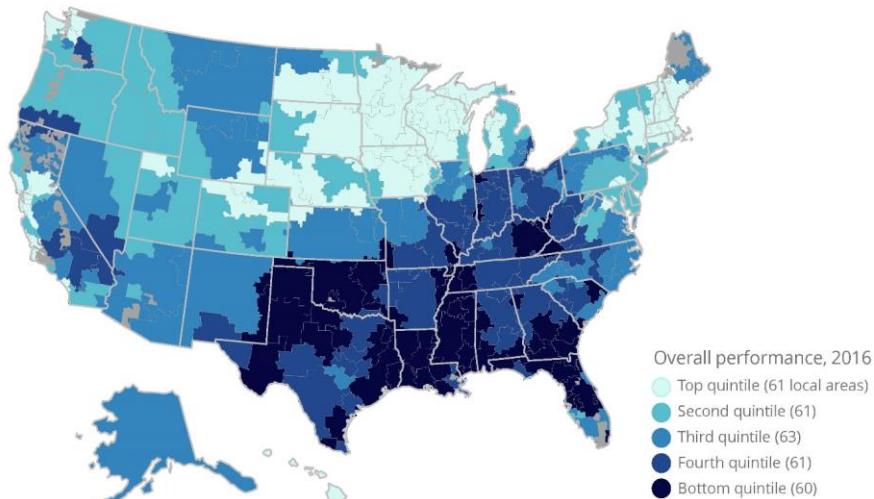
Commonwealth Fund Rankings on State and Local Health System Performance

Overall State Health System Performance: Scorecard Ranking, 2017

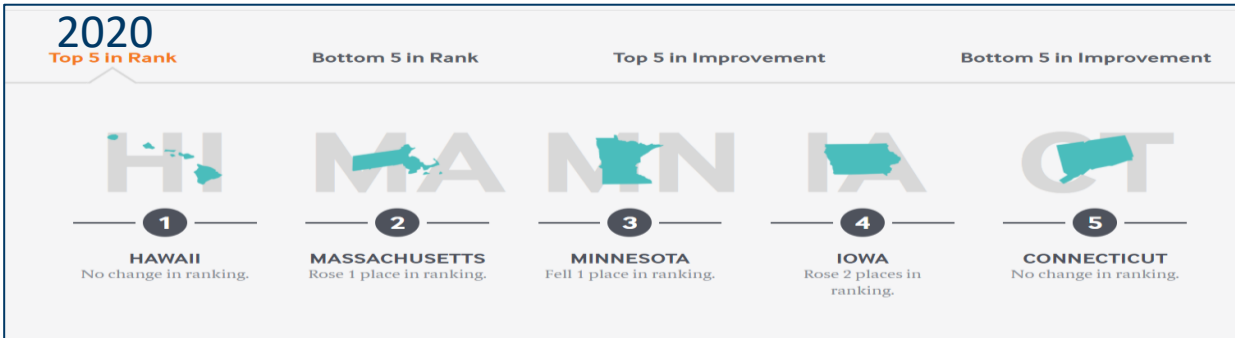


Source: D. C. Radley, D. McCarthy, and S. L. Hayes, *Aiming Higher: Results from the Commonwealth Fund Scorecard on State Health System Performance 2017 Edition*, The Commonwealth Fund, March 2017.

Overall Local Health System Performance: Scorecard Ranking, 2016



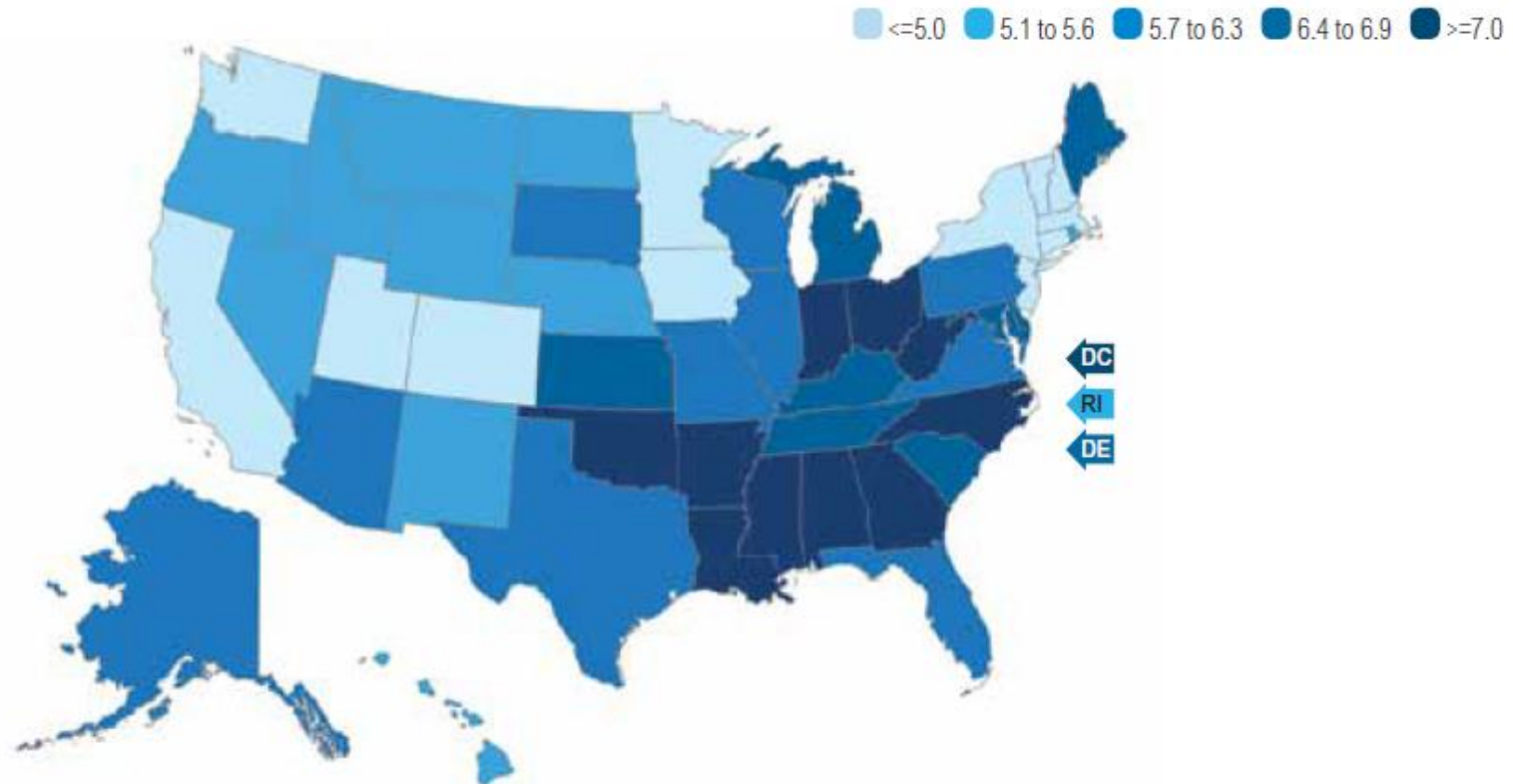
Source: Commonwealth Fund Scorecard on Local Health System Performance, 2016 Edition.



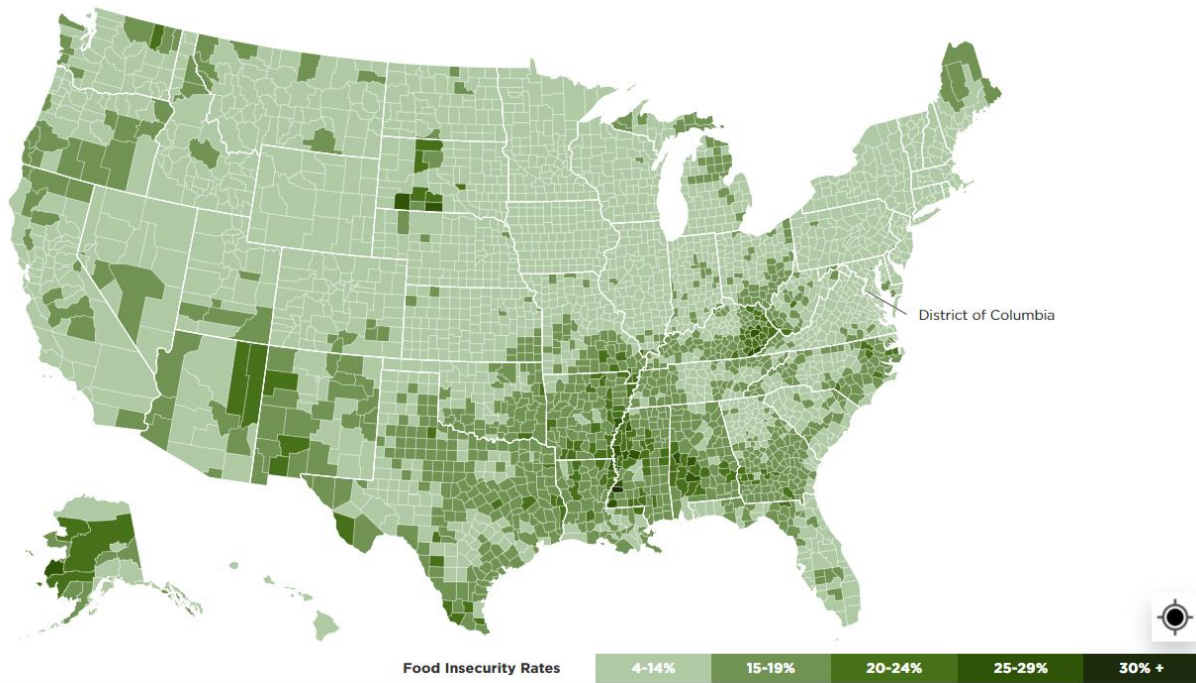
Infant Mortality

Infant Mortality by State

Number of infant deaths (before age 1 year) per 1,000 live births

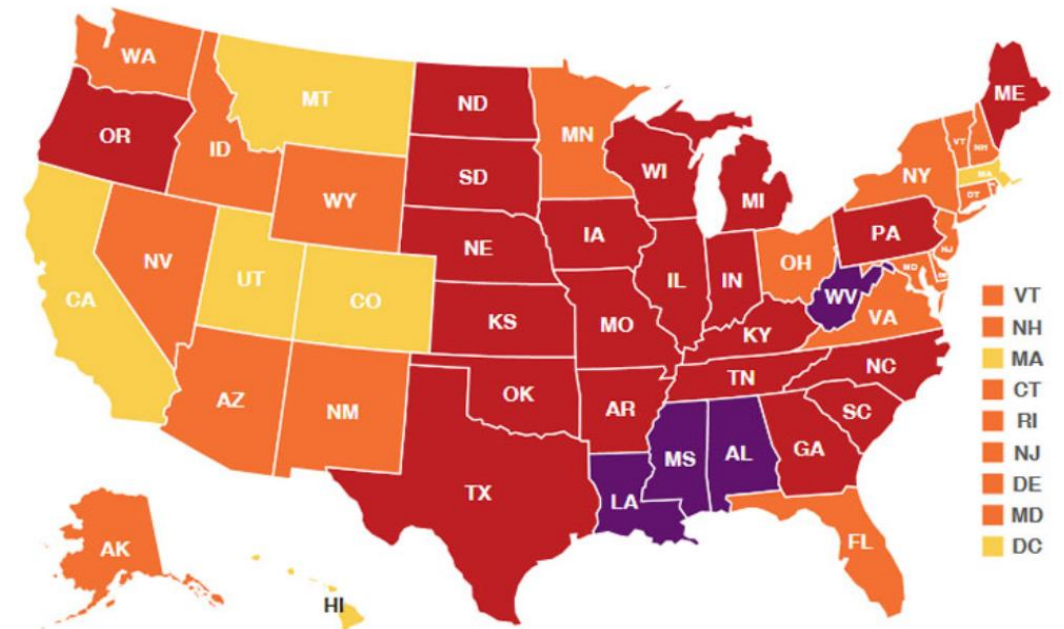


Food Insecurity and Obesity in the U.S.



Percent of obese adults (Body Mass Index of 30+)

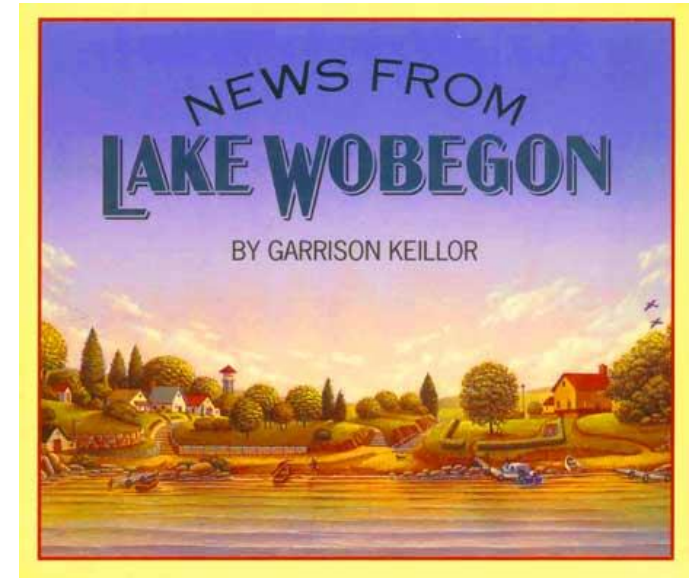
0 - 9.9% 10 - 14.9% 15 - 19.9% 20 - 24.9% 25 - 29.9% 30 - 34.9% 35%+



Minnesota and Iowa: healthy states

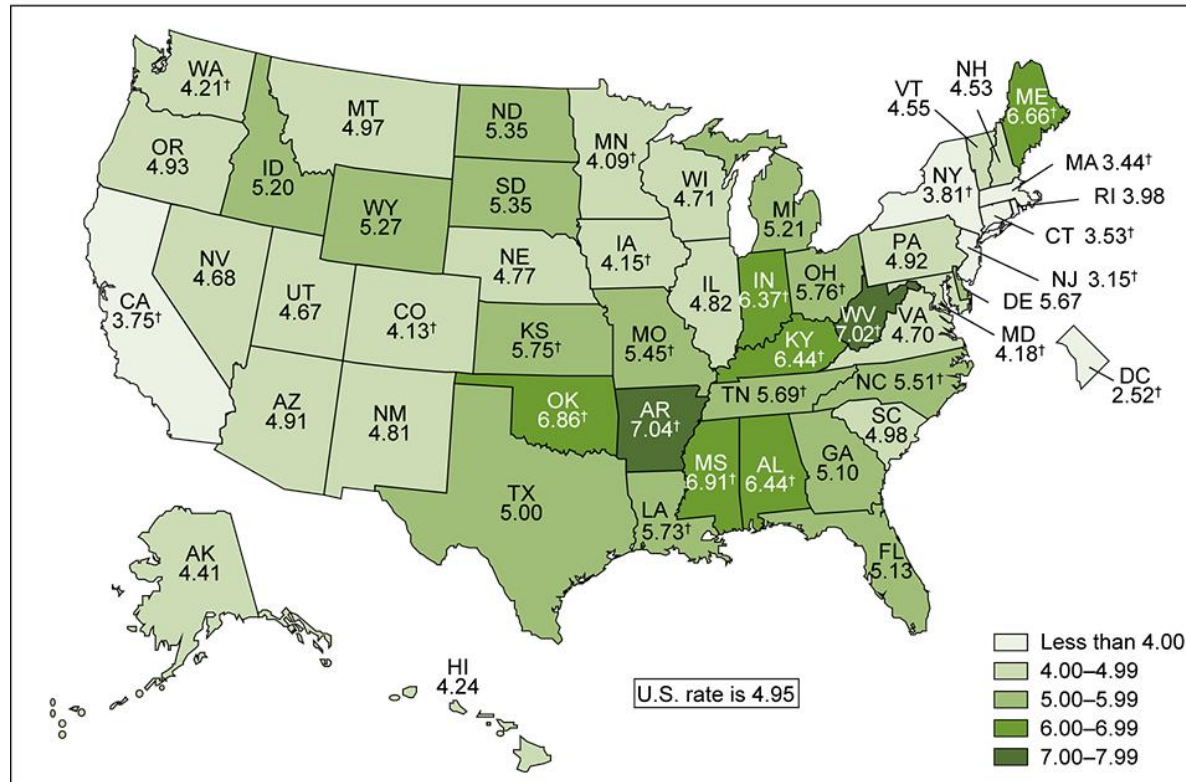


Minnesota! (Iowa!)
Where the women are strong,
The men are good looking,
And (almost) all of our health statistics
are above average –
Unless you are
a person of color or
an American Indian or GLBTQIA or
have a disability.



Infant Mortality Rates for White and Black Infants

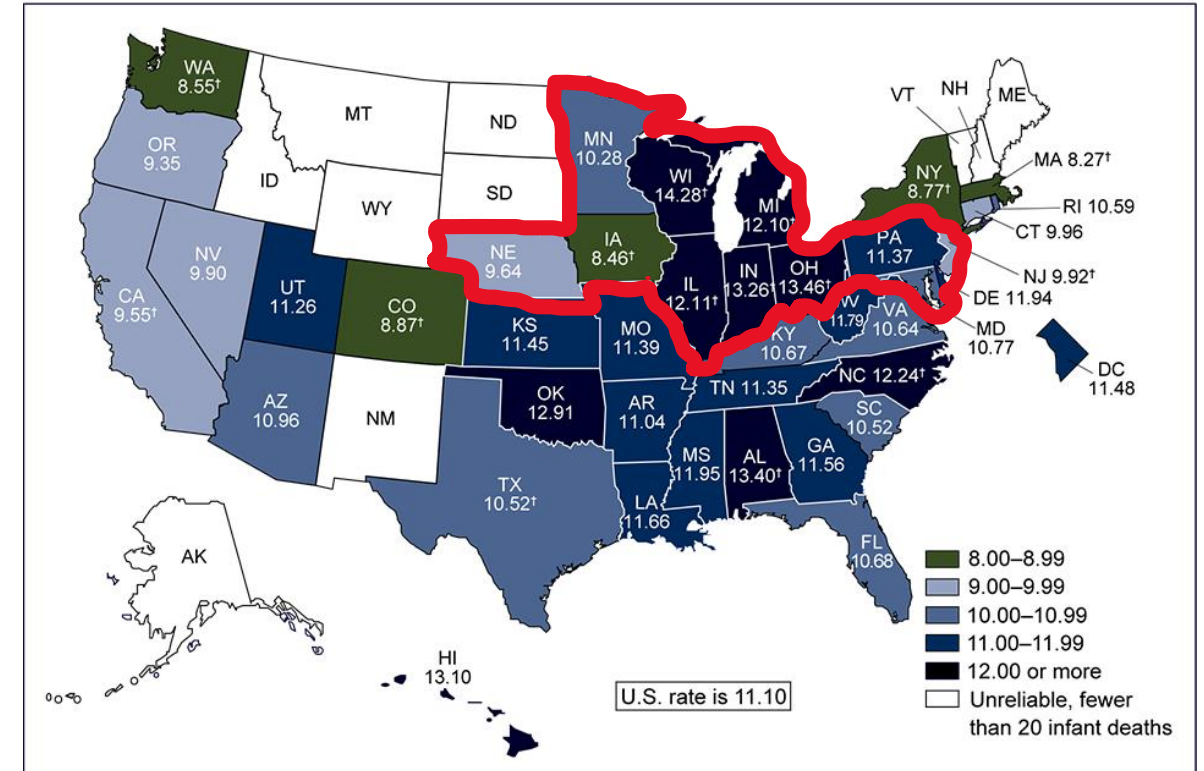
Figure 2. Infant mortality rates for infants of non-Hispanic white women, by state: United States, 2013–2015



† Significantly different from the U.S. rate.

NOTES: Rates ranged from 2.52 to 7.04 per 1,000 live births. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db295_table.pdf.
SOURCE: NCHS, National Vital Statistics System.

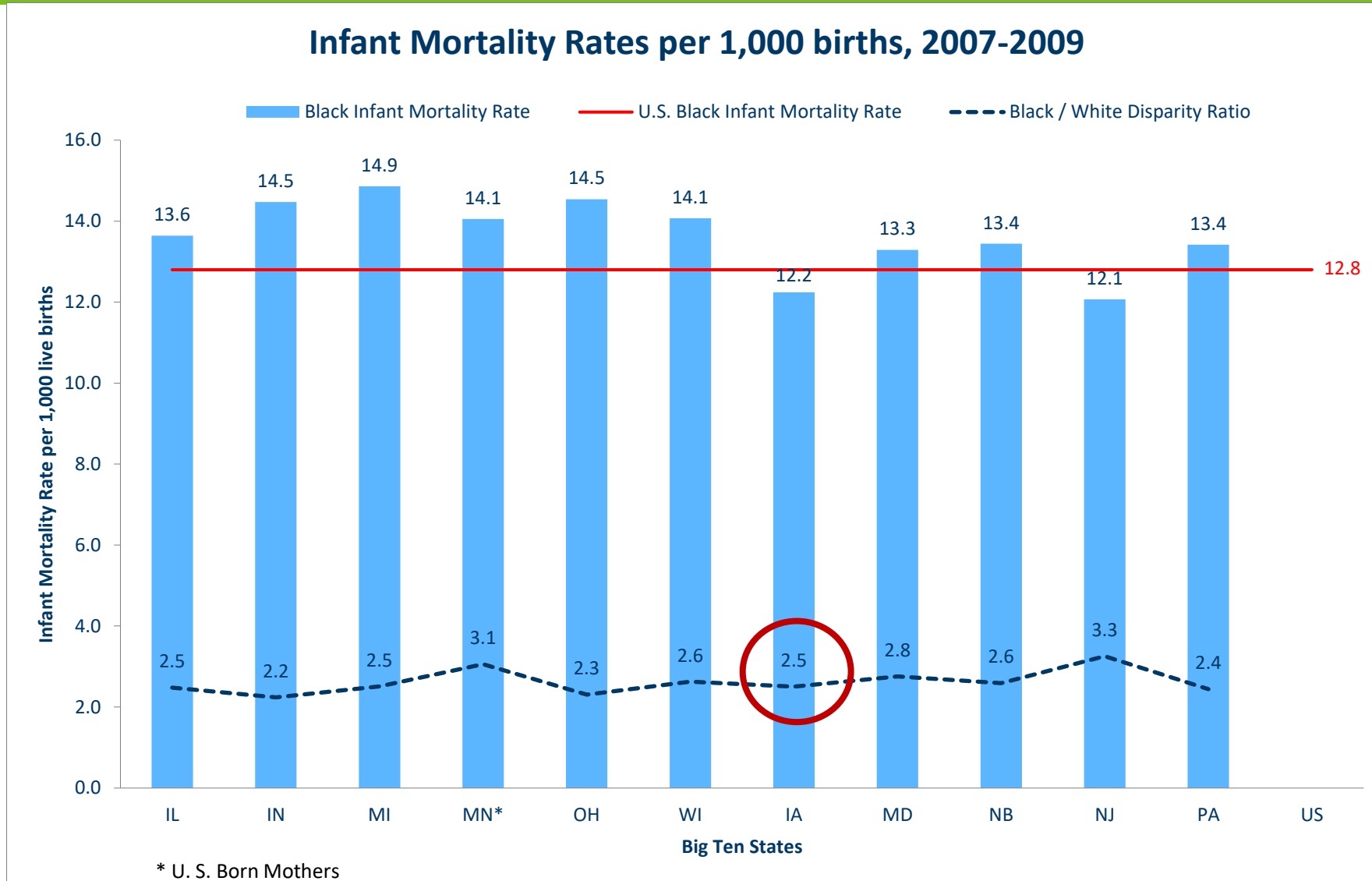
Figure 3. Infant mortality rates for infants of non-Hispanic black women, by state: United States, 2013–2015



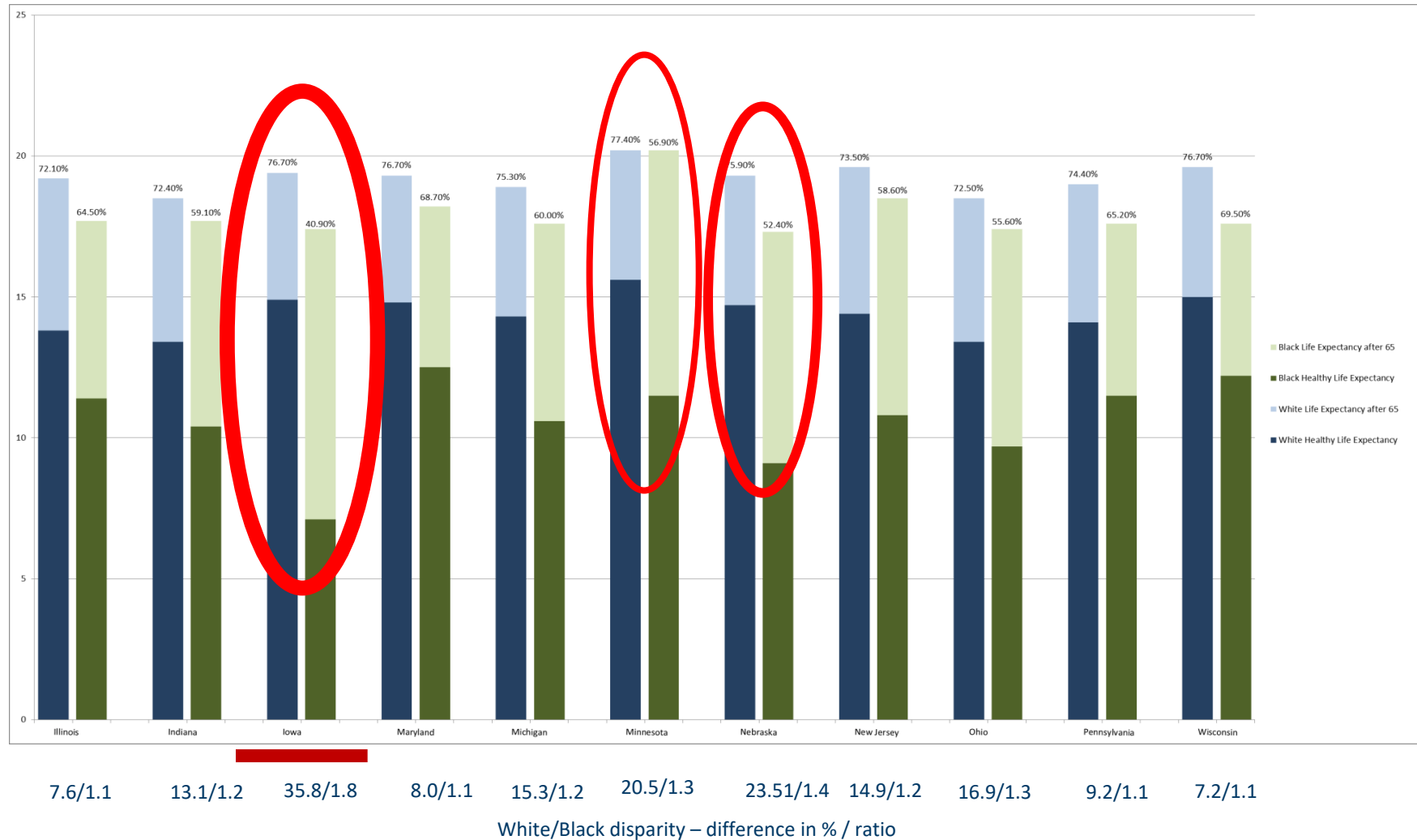
† Significantly different from the U.S. rate.

NOTES: Rates ranged from 8.27 to 14.28 per 1,000 live births. Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db295_table.pdf.
SOURCE: NCHS, National Vital Statistics System.

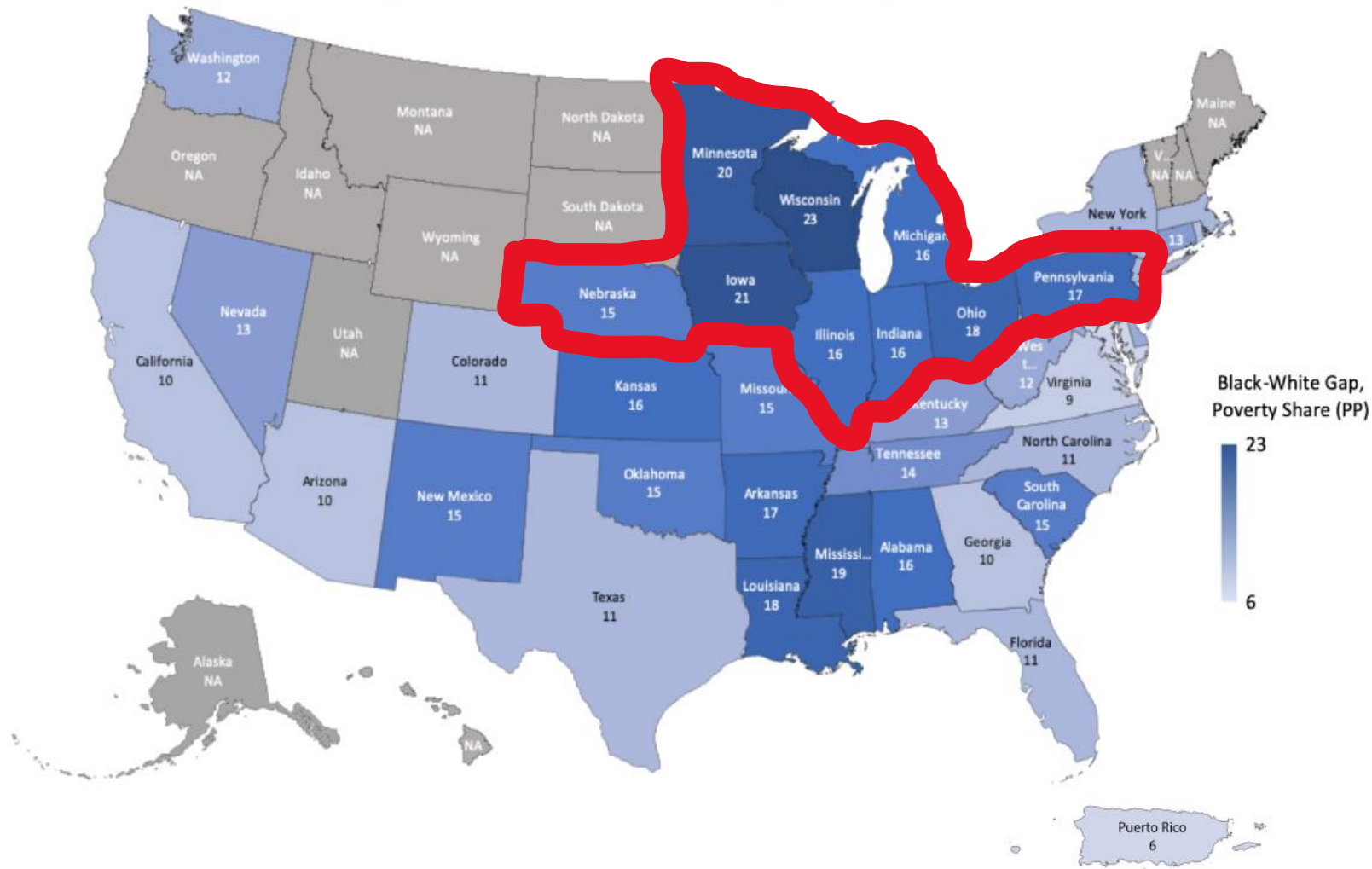
Disparities in Infant Mortality Rates



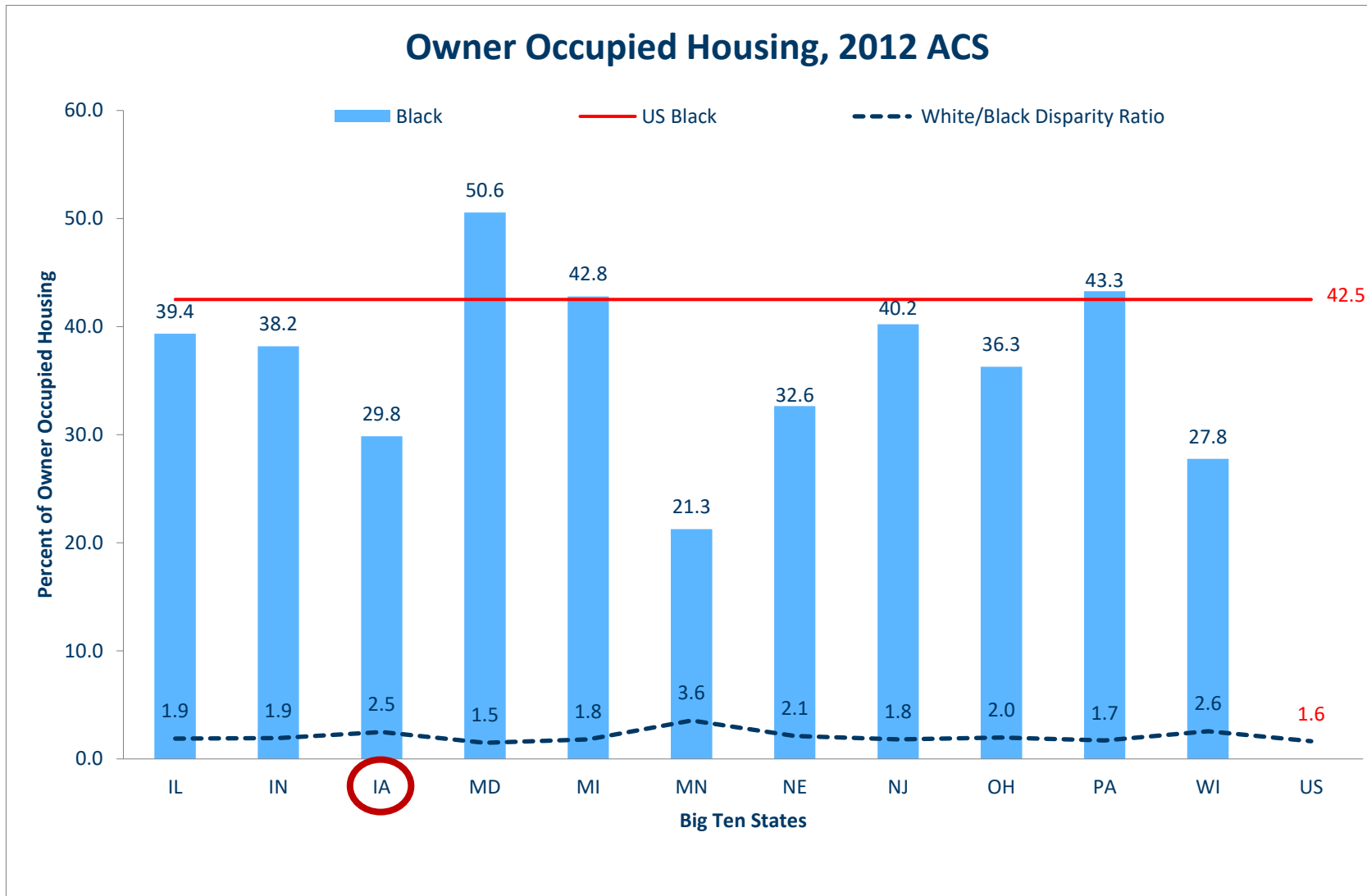
Life Expectancy/Healthy Life Expectancy After age 65 - By Race



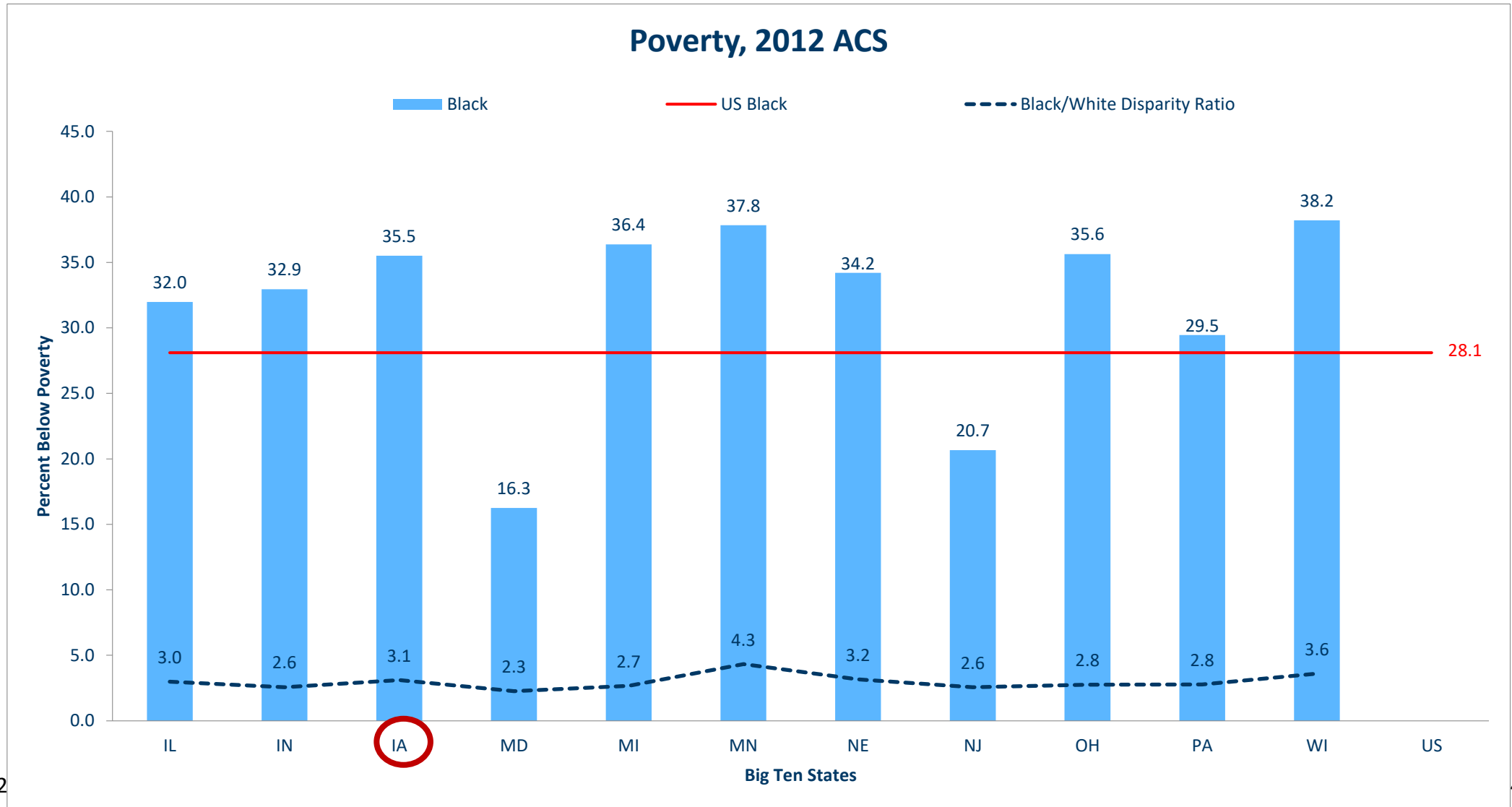
Black White Gap in Overall Poverty



Owner Occupied Housing

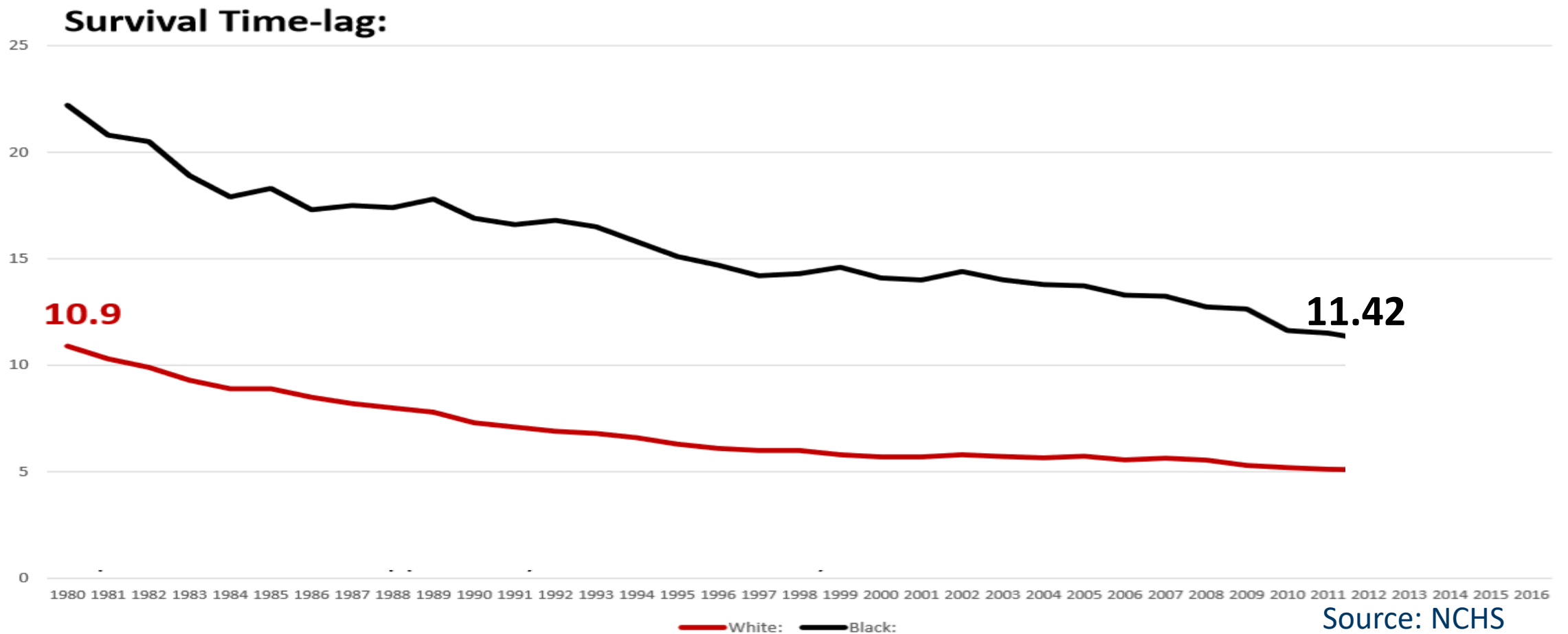


Poverty in Big 10 States



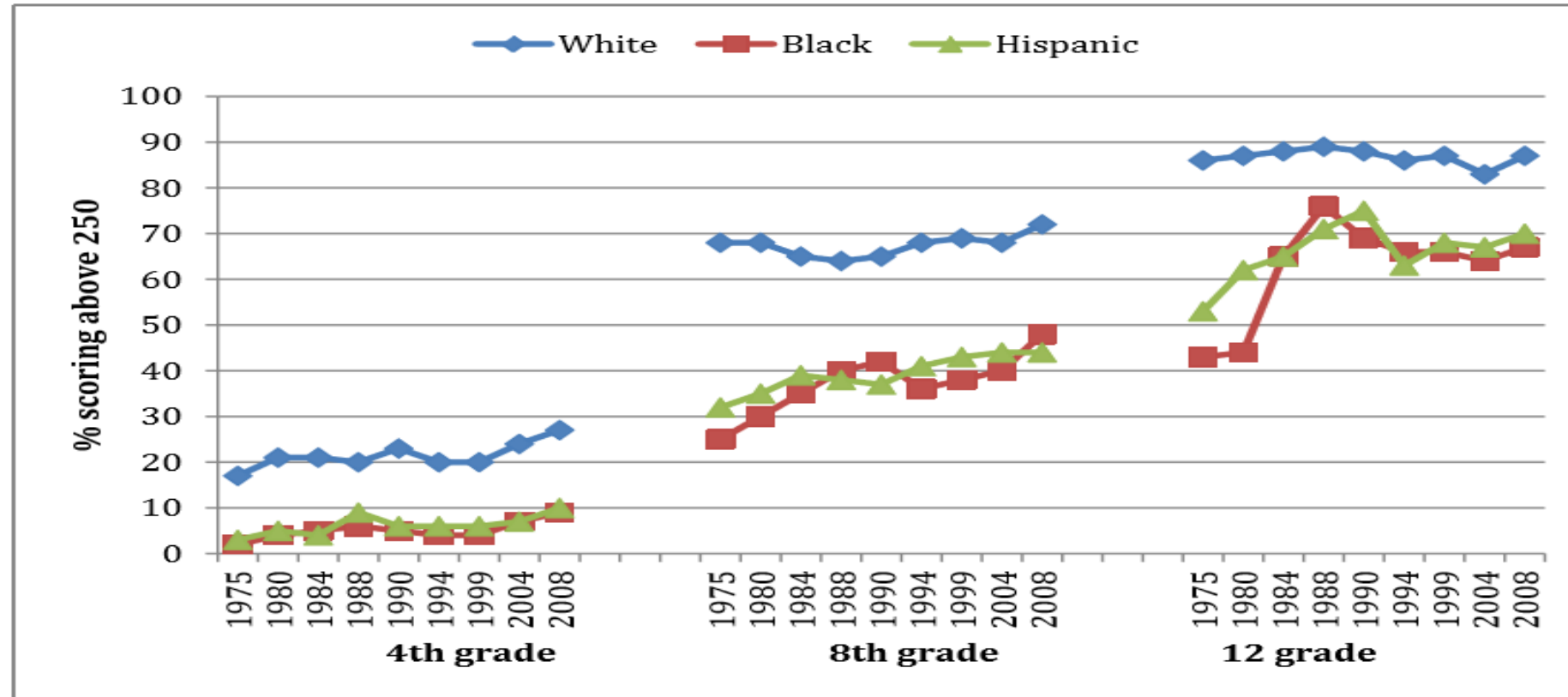
What we are doing to advance health equity is not working.
And may, in fact, be inhibiting progress.

US IMR, 1980-2016: White and Black Race



What we are doing to advance educational equity is not working. And may, in fact, be inhibiting progress.

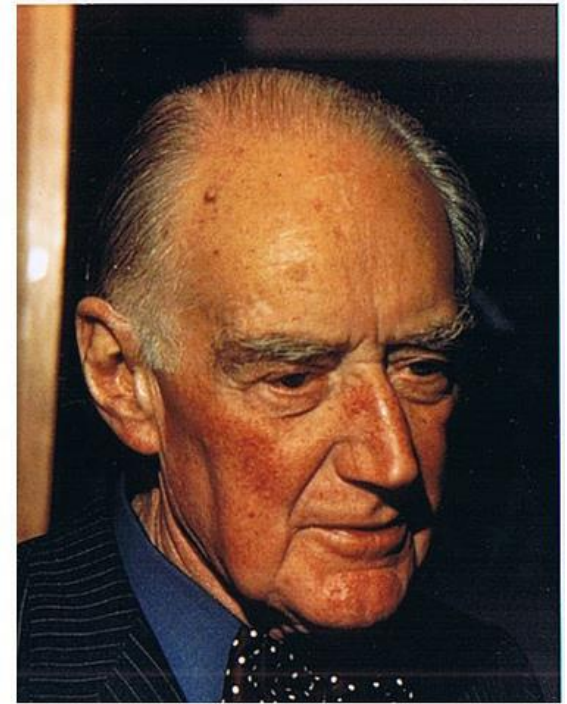
Figure 2: Percent Reading Scores at or above 250 for 4th, 8th, and 12th grades



Source: Educational Digest, NAEP 2010; Reading scores above 250 reflect ability to search for specific information while reading, interrelate ideas and make generalizations about literature, science, and social studies materials.

Theses Outcomes and Trajectories Should Be Intolerable and Unacceptable

“The landmarks of political, economic and social history are the moments when some condition passed from the category of the given into the category of the intolerable. I believe that the history of public health might well be written as a record of successive re-definings of the unacceptable.”

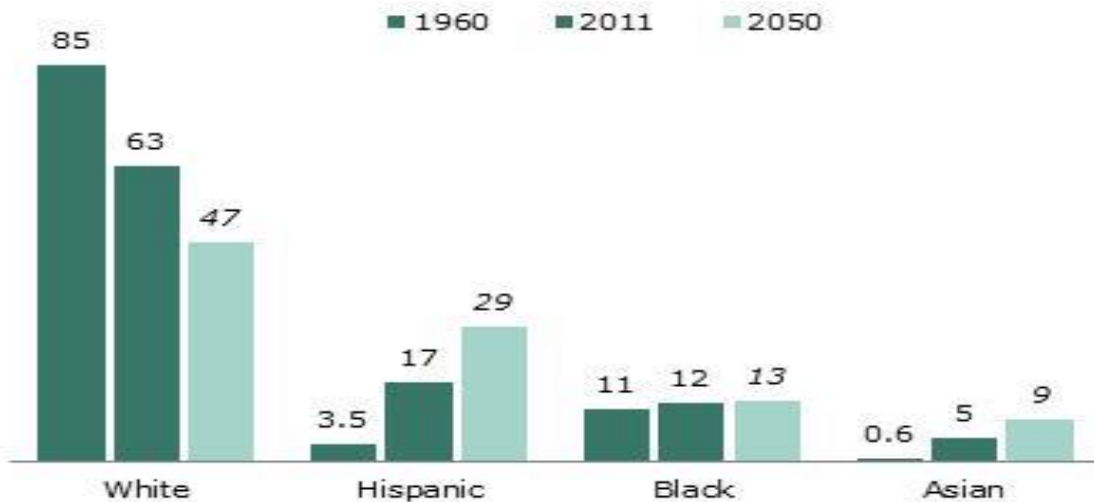


Geoffrey Vickers

Why Should People Be Concerned About Equity?

Population by Race and Ethnicity, Actual and Projected, 1960, 2011 and 2050

% of total



Note: All races are non-Hispanic; American Indian/Alaska Native not shown. Projections for 2050 indicated by light green bars.

Source: Passel, Jeffrey, and D'Vera Cohn. 2008. "U.S. Population Projections: 2005-2050." Washington, D.C.: Pew Hispanic Center, February; Census Bureau 2011 population estimates.

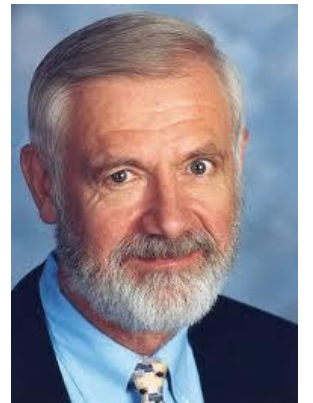
PEW RESEARCH CENTER

It's a social justice problem...

"The philosophy behind science is to discover truth.

The philosophy behind medicine is to use that truth for the benefit of your patient.

The philosophy behind public health is social justice."



William Foege
CDC director
1977-1983

It's a math problem

Why Should We Care About Equity?

We have vested interests in the outcomes.



Martin Luther King , Jr.

*“We may have all
come on different
ships, but we're in the
same boat now.”*



Senator Paul Wellstone

*“We all do better
when we all do
better.”*



Michael Harrington
Author of “The Other America.”

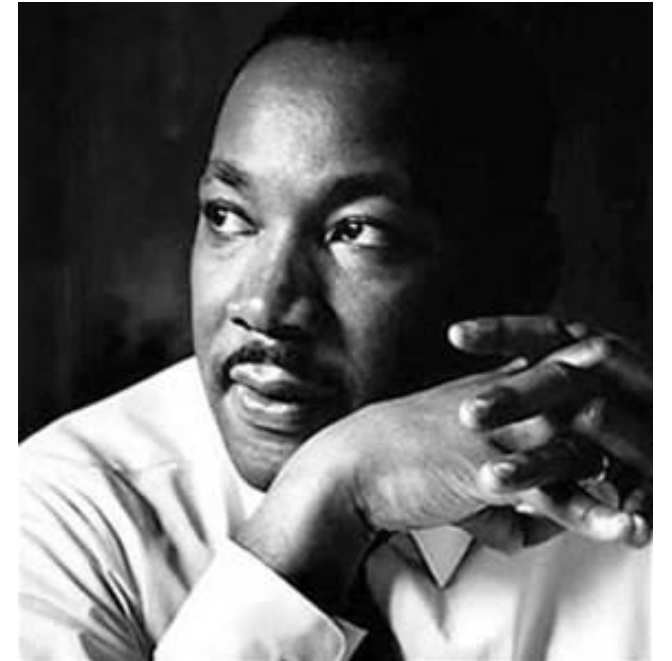
*“One cannot raise the
bottom of society
without benefitting
everyone above.”*

Why Should We Care About Equity?

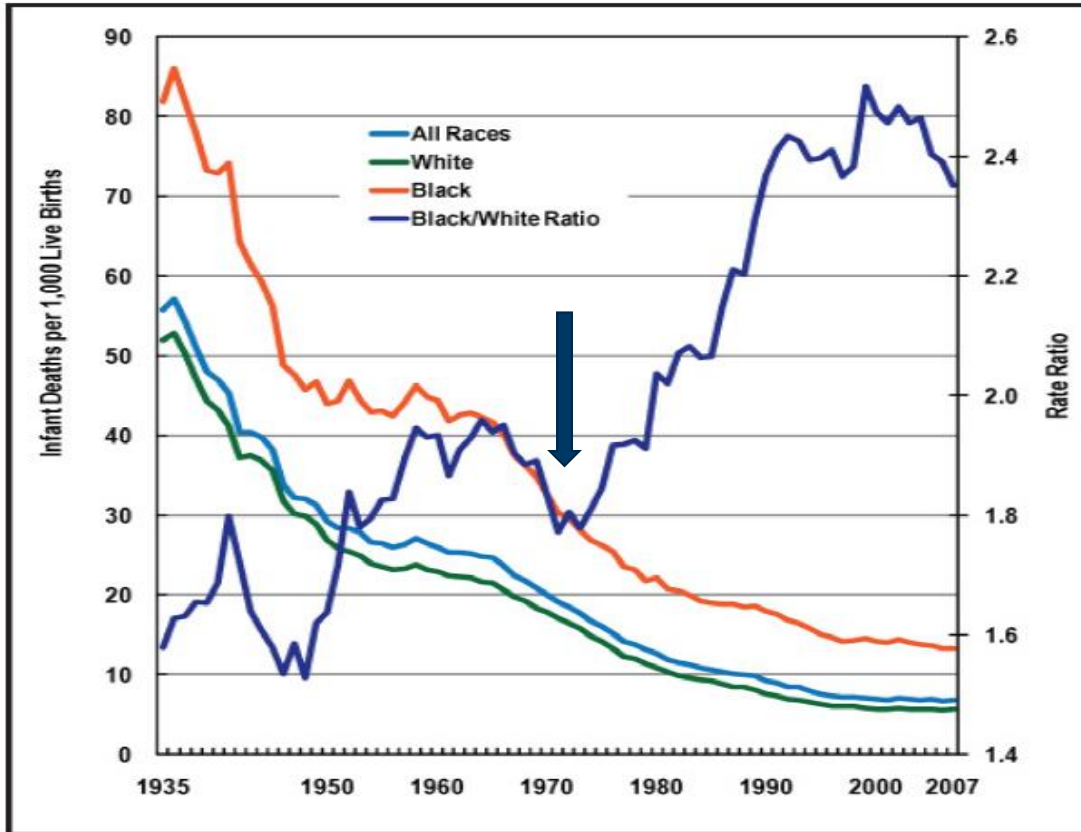
We have vested interests in the outcomes.

“Injustice anywhere is a threat to justice everywhere. ... Whatever affects one directly, affects all indirectly.”

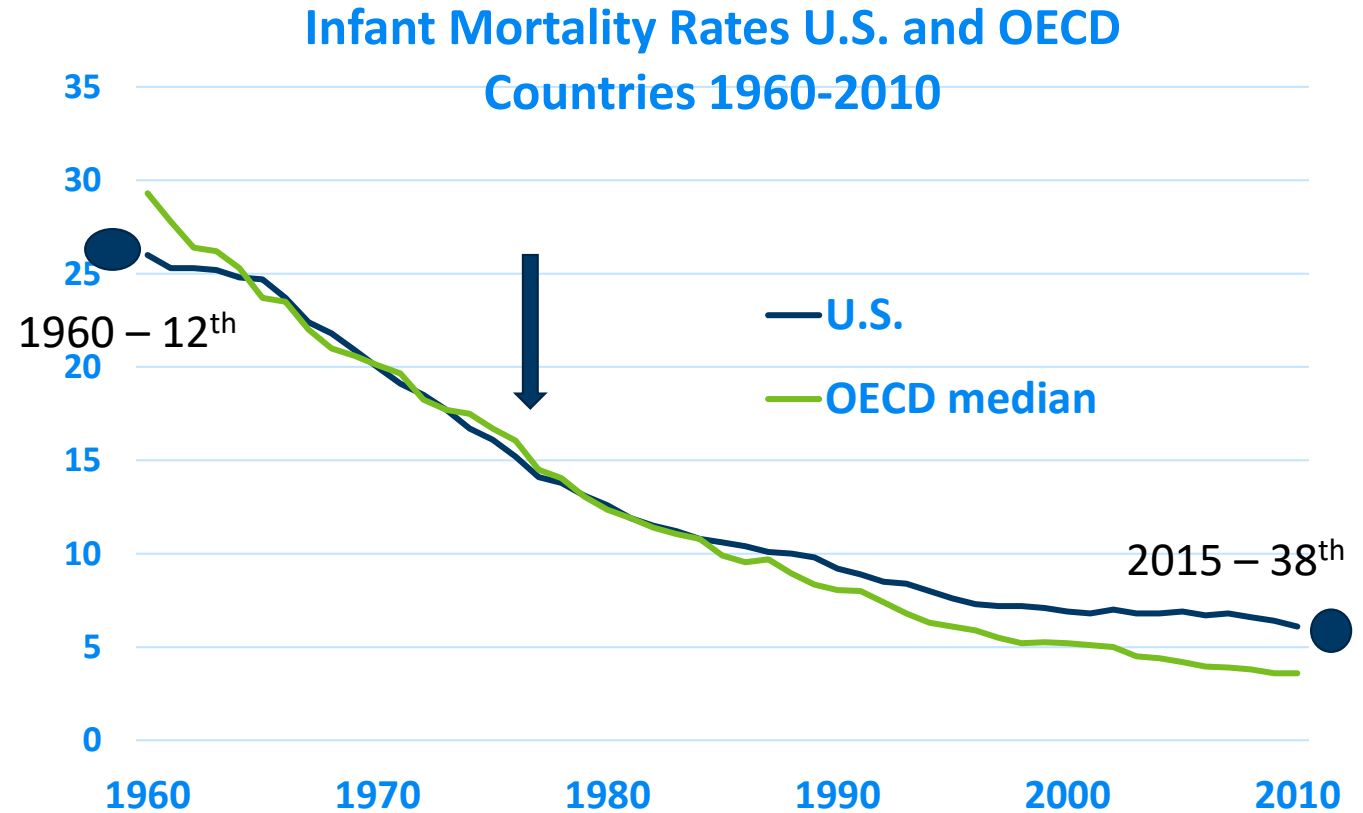
MLK, Jr, Letter from Birmingham Jail, April 16, 1963



“Injustice anywhere... ..is a threat to justice everywhere.”

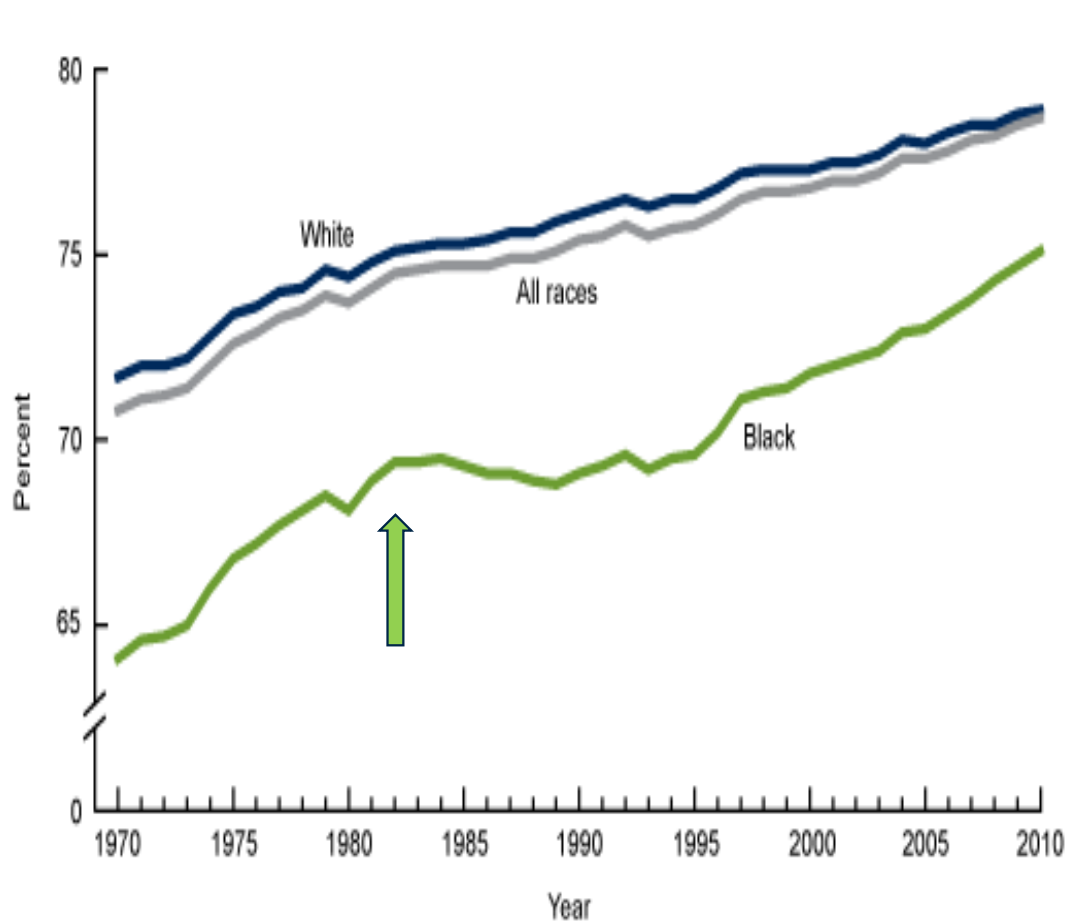


Mortality Rates by Race and
Black/White Ratio US, 1935 – 2007



“Injustice anywhere...

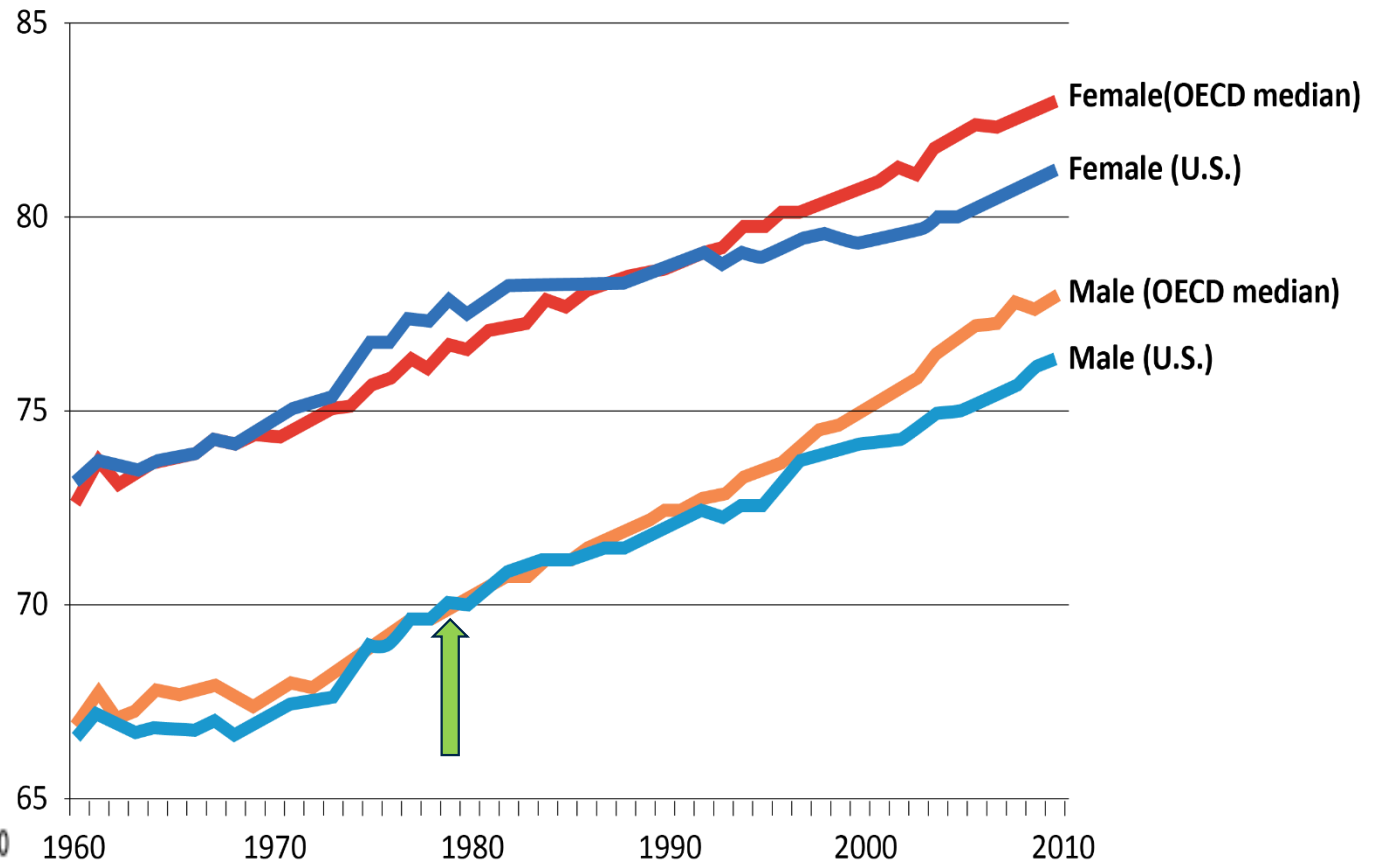
...is a threat to justice everywhere.”



**Life Expectancy, by race: United States,
1970 - 2010**

3/9/2021

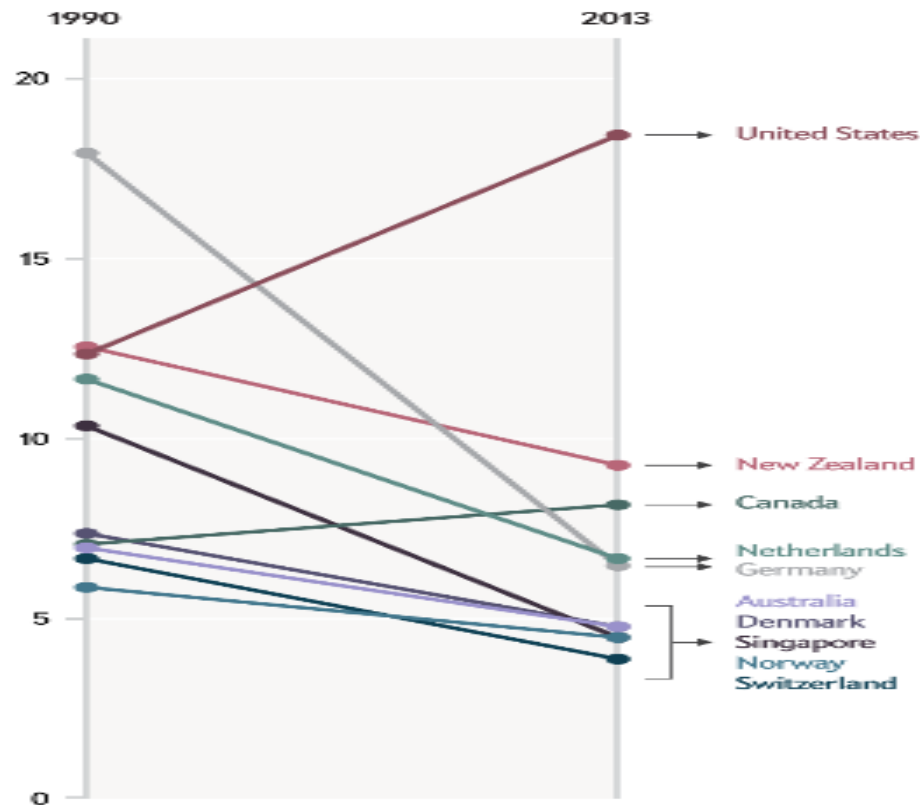
SOURCE: CDC/NCHS, National
Vital Statistics System, Mortality.



**Life Expectancy at Birth US and OECD Countries by
Gender 1960-2010**

U.S. Ranked 49th in Maternal Mortality in 2008

Maternal Mortality Ratio (MMR) by Developed Country
Maternal deaths per 100,000 live births



Source: Institute for Health Metrics and Evaluation

Graphic by Tiffany Farrant-Gonzalez, for **SCIENTIFIC AMERICAN**

U.S. maternal mortality rates continue to climb even as other developed countries improve.

African-American women were 3.2 times more likely to die due to pregnancy/childbirth than white women.

African-American
34.8 DEATHS
per 100,000 live births



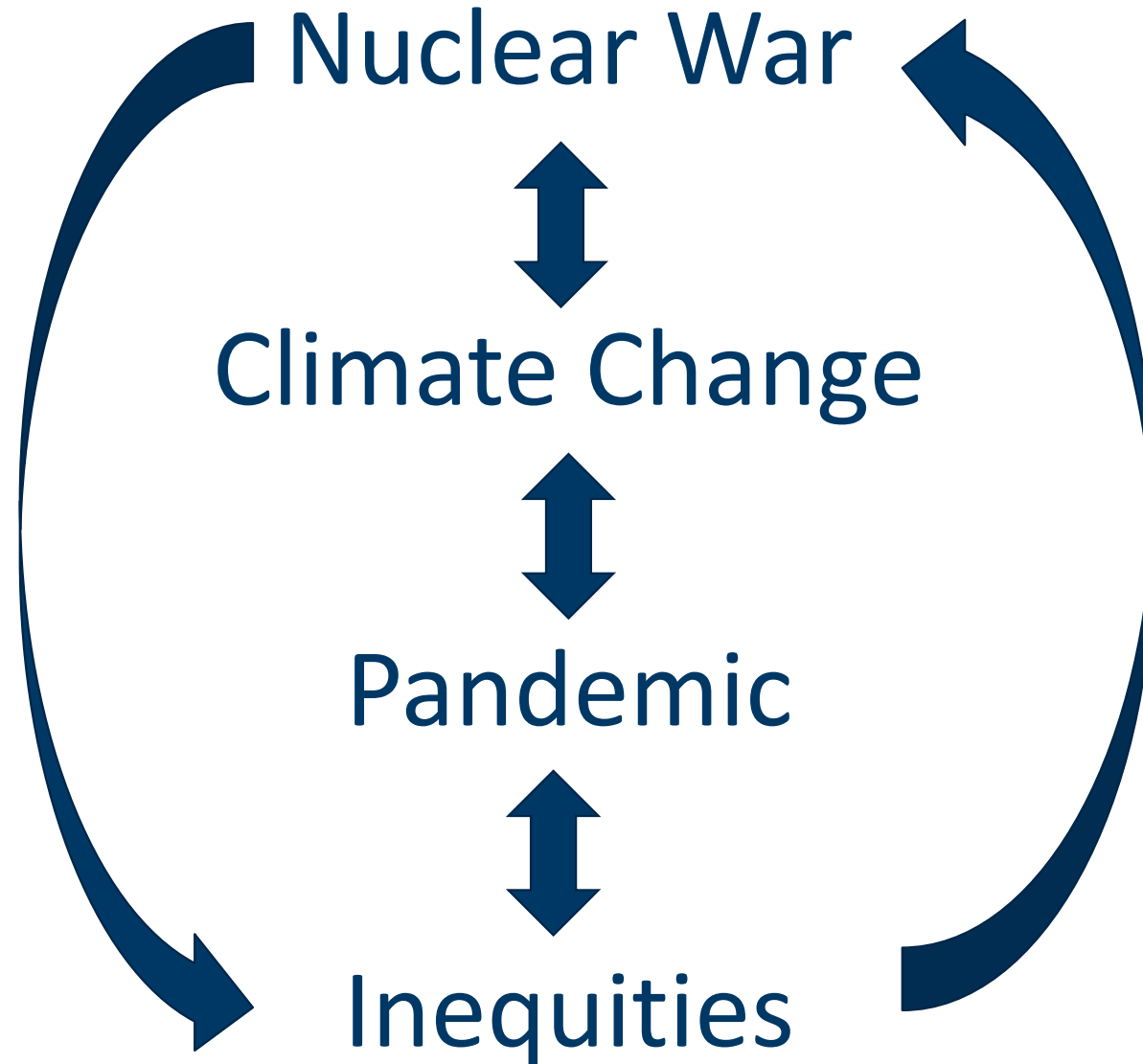
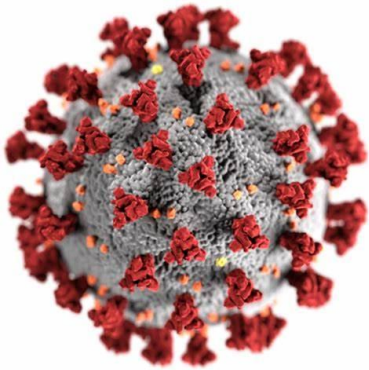
Caucasian

11 DEATHS
per 100,000 live births



Data from UNICEF, WHO, UN Population Fund, and World Bank with standardized methodology.

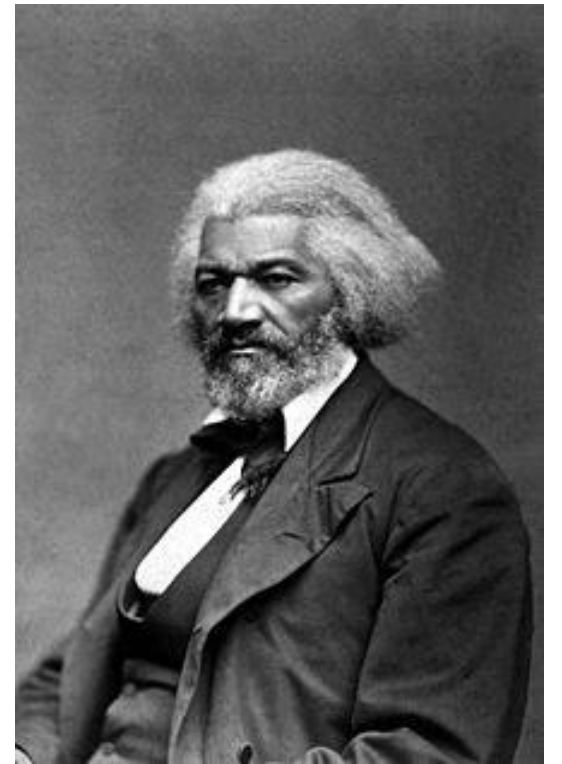
Equity and Social Justice are Existential Issues



Frederick Douglass

Social reformer, abolitionist, orator, writer, and statesman

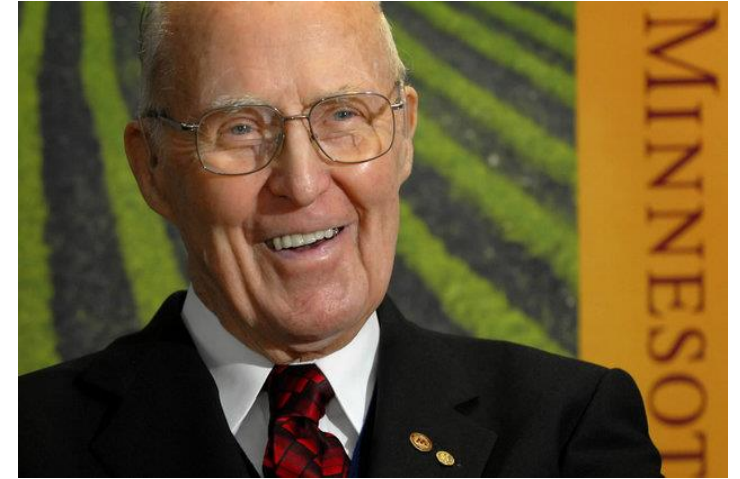
“Where justice is denied, where poverty is enforced, where ignorance prevails, and where any one class is made to feel that society is an organized conspiracy to oppress, rob and degrade them, neither persons nor property will be safe.”



One more thing Minnesota and Iowa have in common

Norman Borlaug

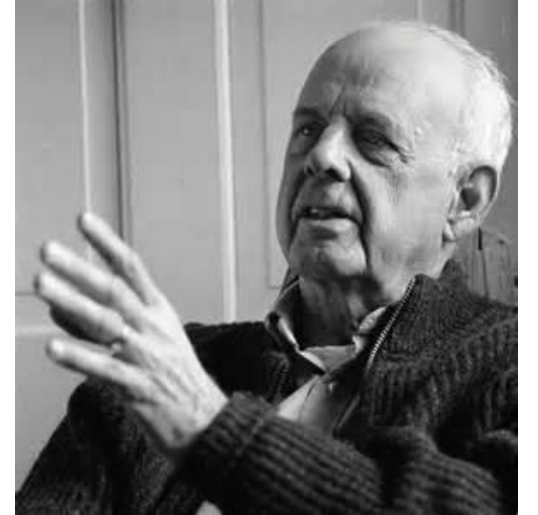
- Collegiate National Wrestling Hall of Fame,
- Introduced High School Wrestling to Minnesota and Little League Baseball to Mexico.
- Nobel Peace Prize,
- Presidential Medal of Freedom,
- Congressional Gold Medal,
- National Medal of Science.
- Established the World Food Prize
- Only scientist in National Statuary Hall in Washington DC.
- “The father of the Green Revolution” - credited with saving over a billion people from starvation



Critique of Green Revolution

*“...A **bad solution** solves for a single purpose or goal, such as increased production. And it is typical of such solutions that they achieve stupendous increase in production at exorbitant biological and social costs...**Good solutions** recognize that they are part of a larger whole. They solve more than one problem and don’t create new problems. A **good solution** should not enrich one person by the distress of impoverishment of another.”*

Wendell Berry Iowa Review



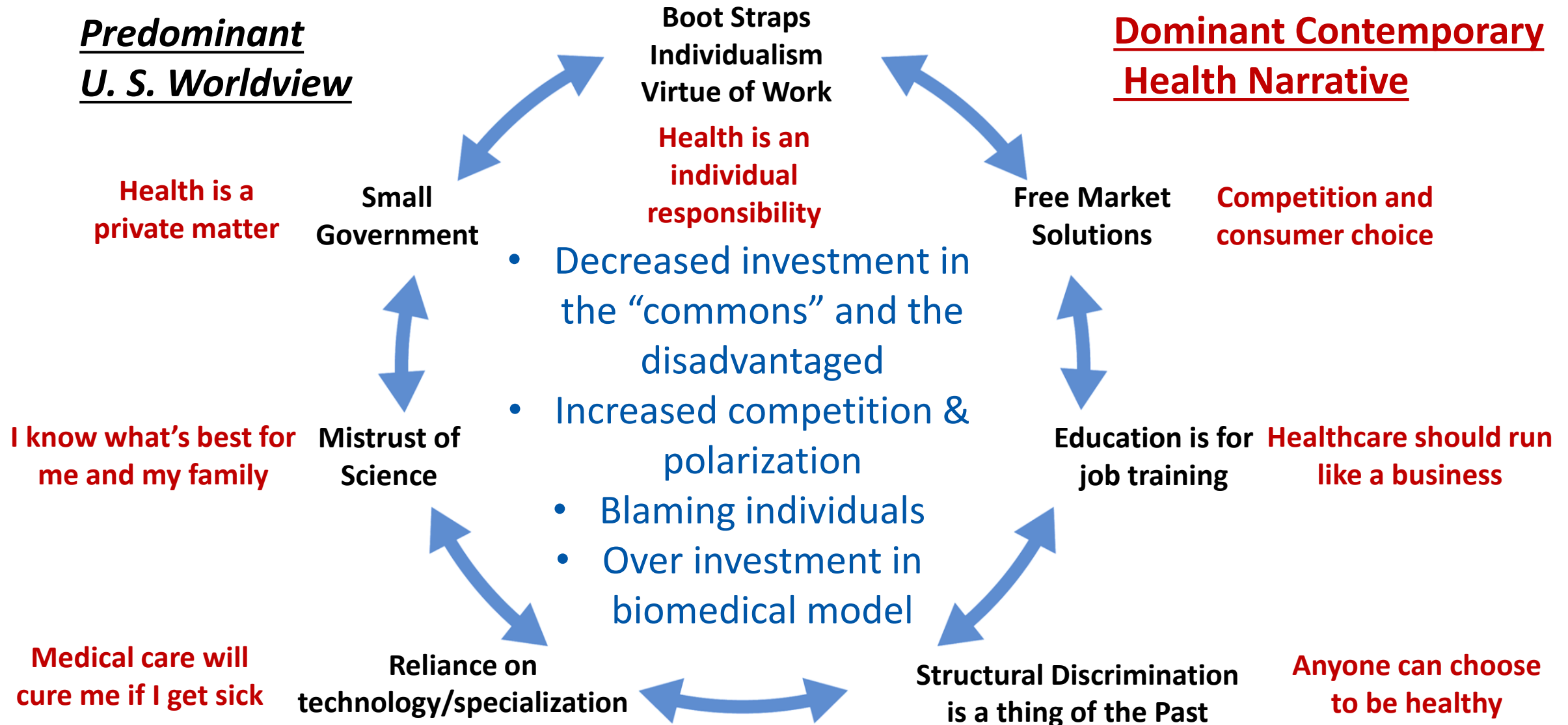
Norman Borlaug on problem-solving

*"...I have worked with the production of more and better wheat for feeding the hungry people, but **wheat is merely a catalyst, a part of the picture. I am interested in the total development of human beings. Only by attacking the whole problem can we raise the standard of living for all people in all communities, so that they will be able to live decent lives. This is something we want for all people on this planet.**"*

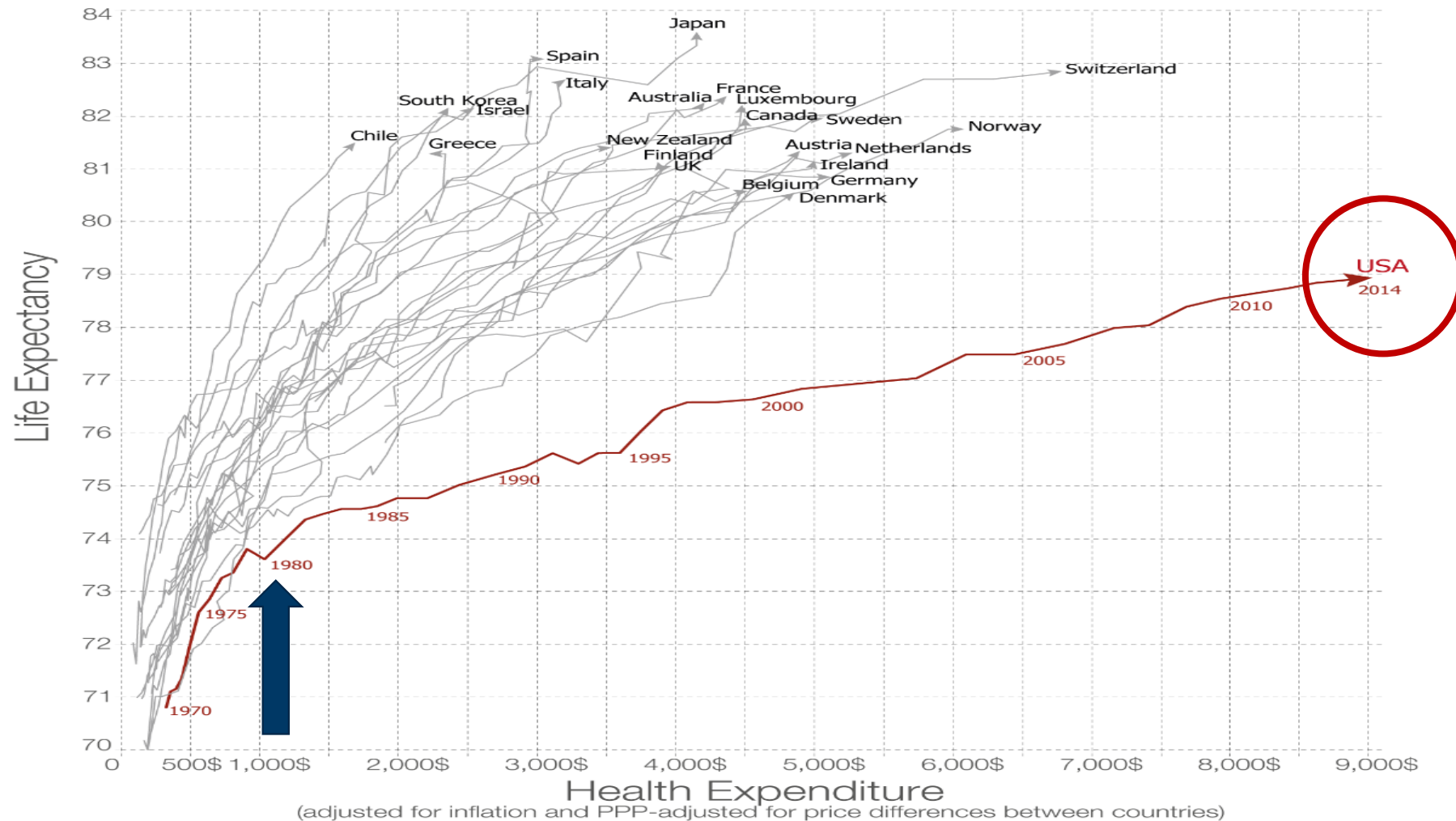


Norman Borlaug
March 25, 1914 –
September 12, 2009

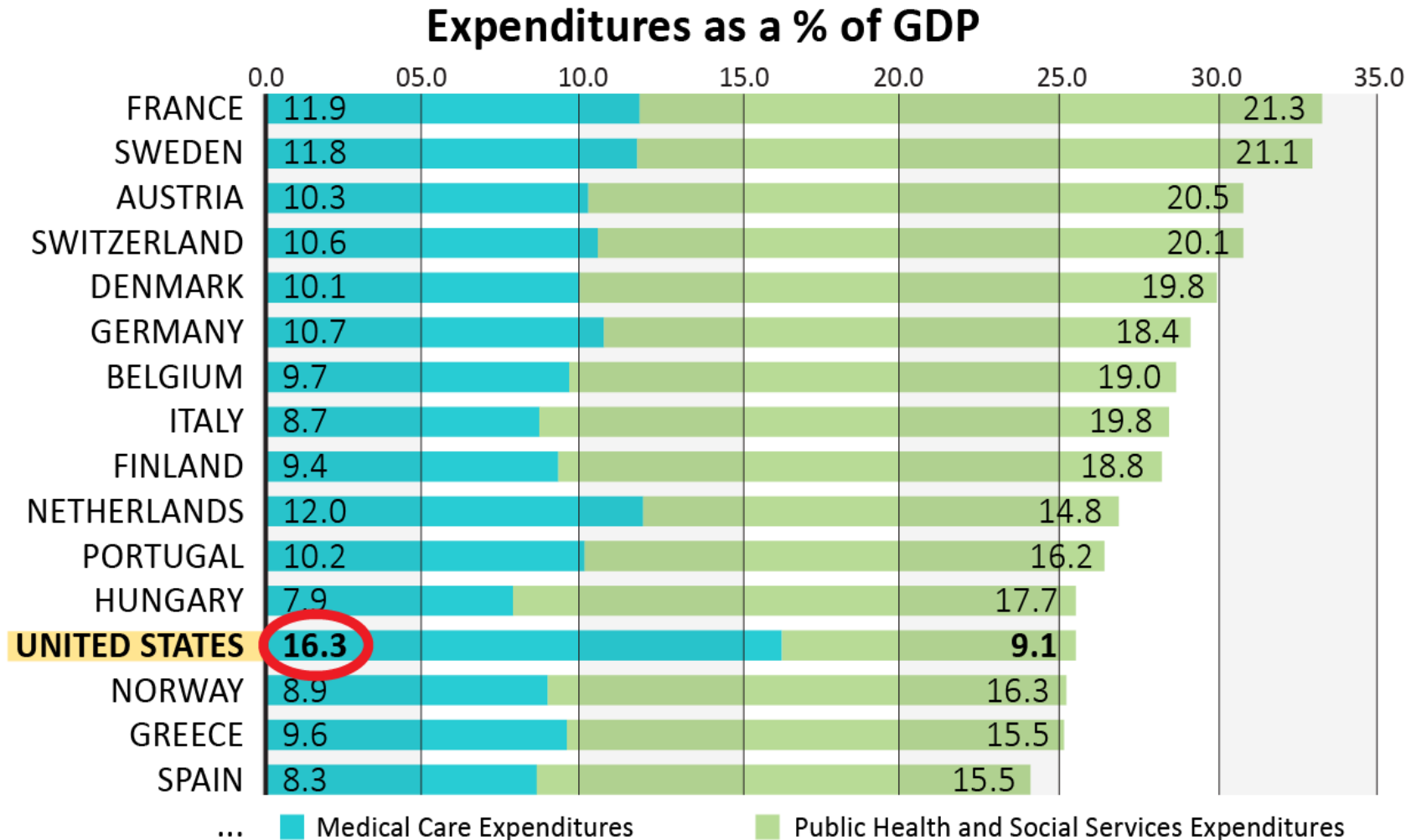
Why haven't we focused on “attacking the whole problem (and) the total development of human beings”?



Life expectancy vs health expenditures - U.S. and OECD Countries 1970 - 2014



Total Investment in Health and Human Services



In OECD countries, for every \$1 spent on health care, about \$2 is spent on public health and social services.

In the U.S., for every \$1 spent on health care, about 55 cents is spent on public health and social services.

We need to change how we do our work

“Public health is what we, as a society, do collectively to assure the conditions in which (all) people can be healthy.”

*The Future of Public Health
Institute of Medicine, 1988*

Living Conditions Impact Health

Communities of Opportunity

- Social/economic inclusion
- Thriving small businesses and entrepreneurs
- Grocery stores
- Parks & trails
- Sufficient healthy housing
- Good transportation options and infrastructure
- Financial institutions
- Home ownership
- Better performing schools
- IT connectivity
- Strong local governance

Good
Health
Status

Poor
Health
Status

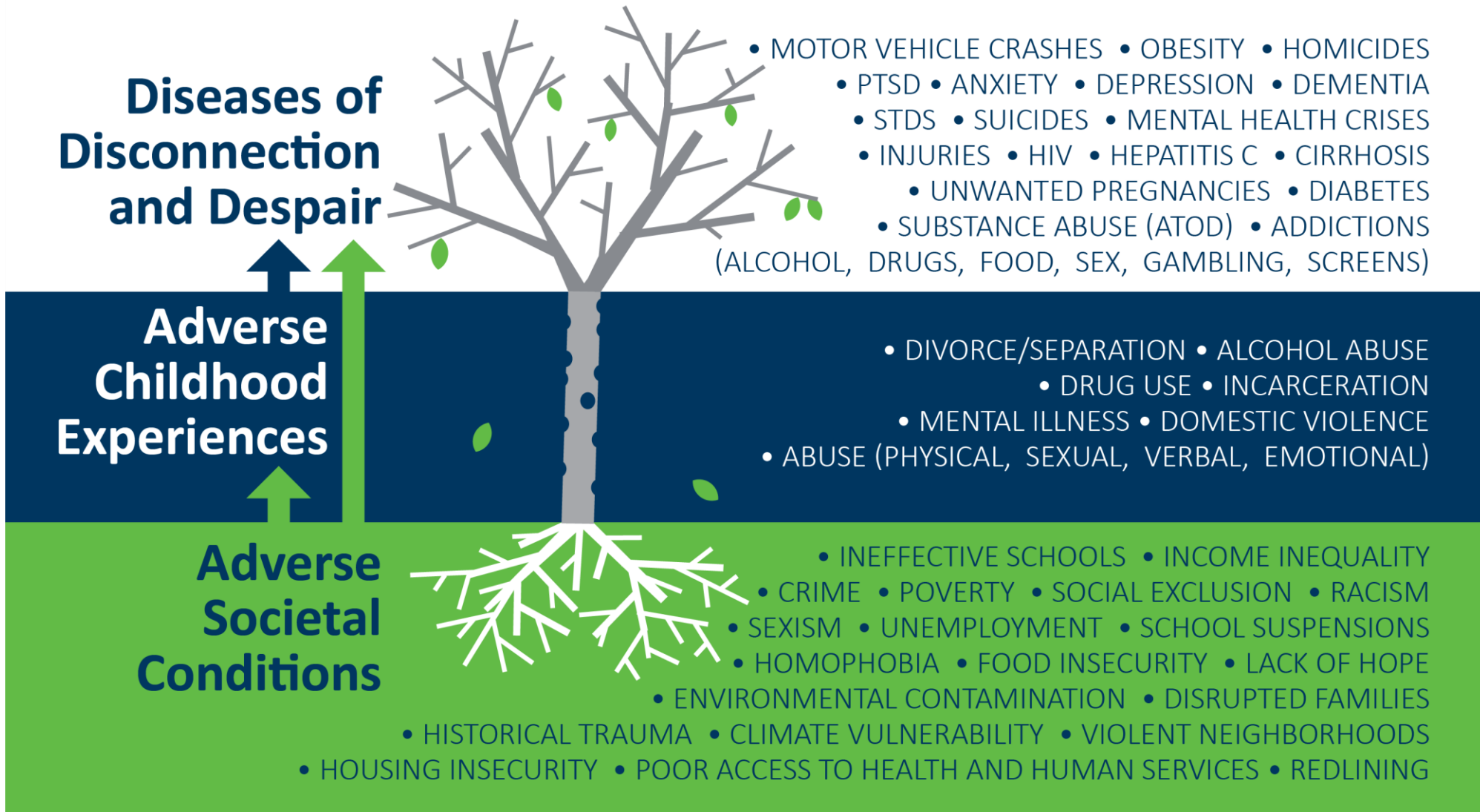
Contributes
to health
disparities:

- Obesity
- Diabetes
- Asthma
- Cancer
- Injury

Low-Opportunity Communities

- Social/economic exclusion
- Few small businesses
- Fast food restaurants
- Unsafe/limited parks
- Rental housing/foreclosure
- Poor and limited housing stock
- Few transportation options
- Payday lenders
- Poor performing schools
- Pollution/contaminated drinking water
- Limited IT connections
- Weak local governance

Diseases of Disconnection and Despair



Estimated Annual Deaths Caused by Selected Social Factors

High School Graduation

245,000

Racial Segregation

176,000

Low Social Support

162,000

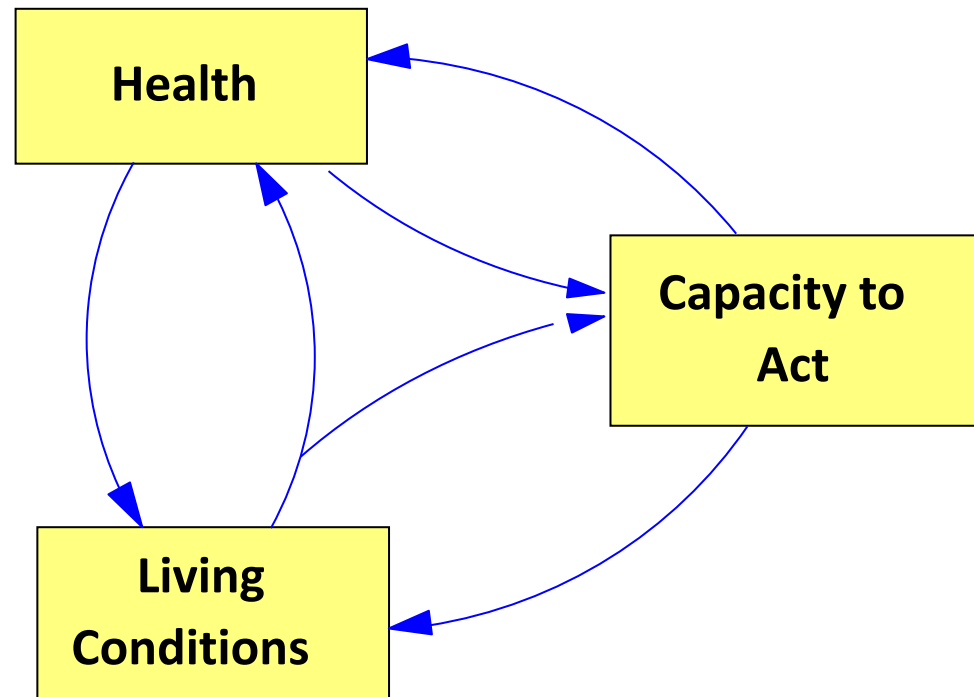
Individual Poverty

133,000

Income Inequality

119,000

Changing the Conditions that Affect Health Requires the Capacity to Act

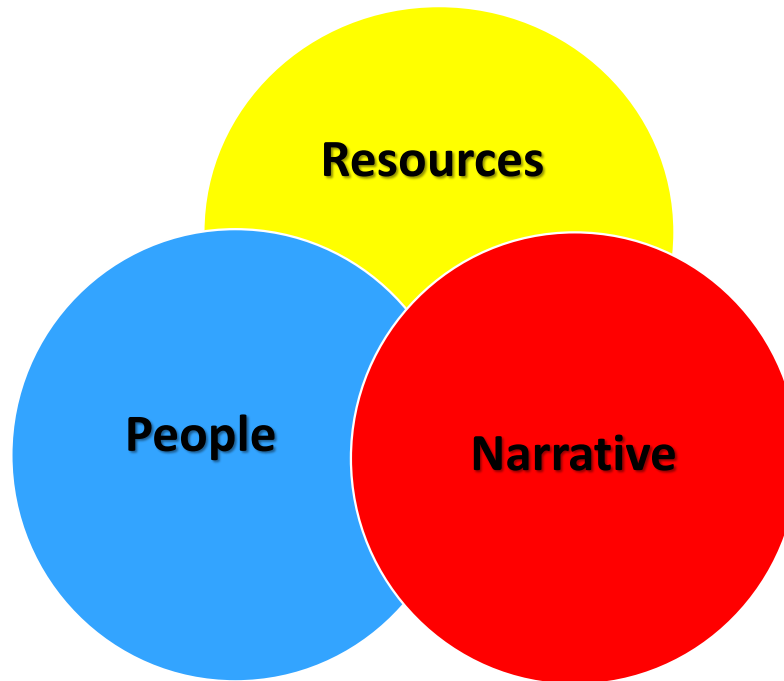


Structure work to achieve our overall aim: Create/Strengthen our “Capacity to Act”

Organize:

Resources: Identify/shift the way resources, systems and processes are structured.

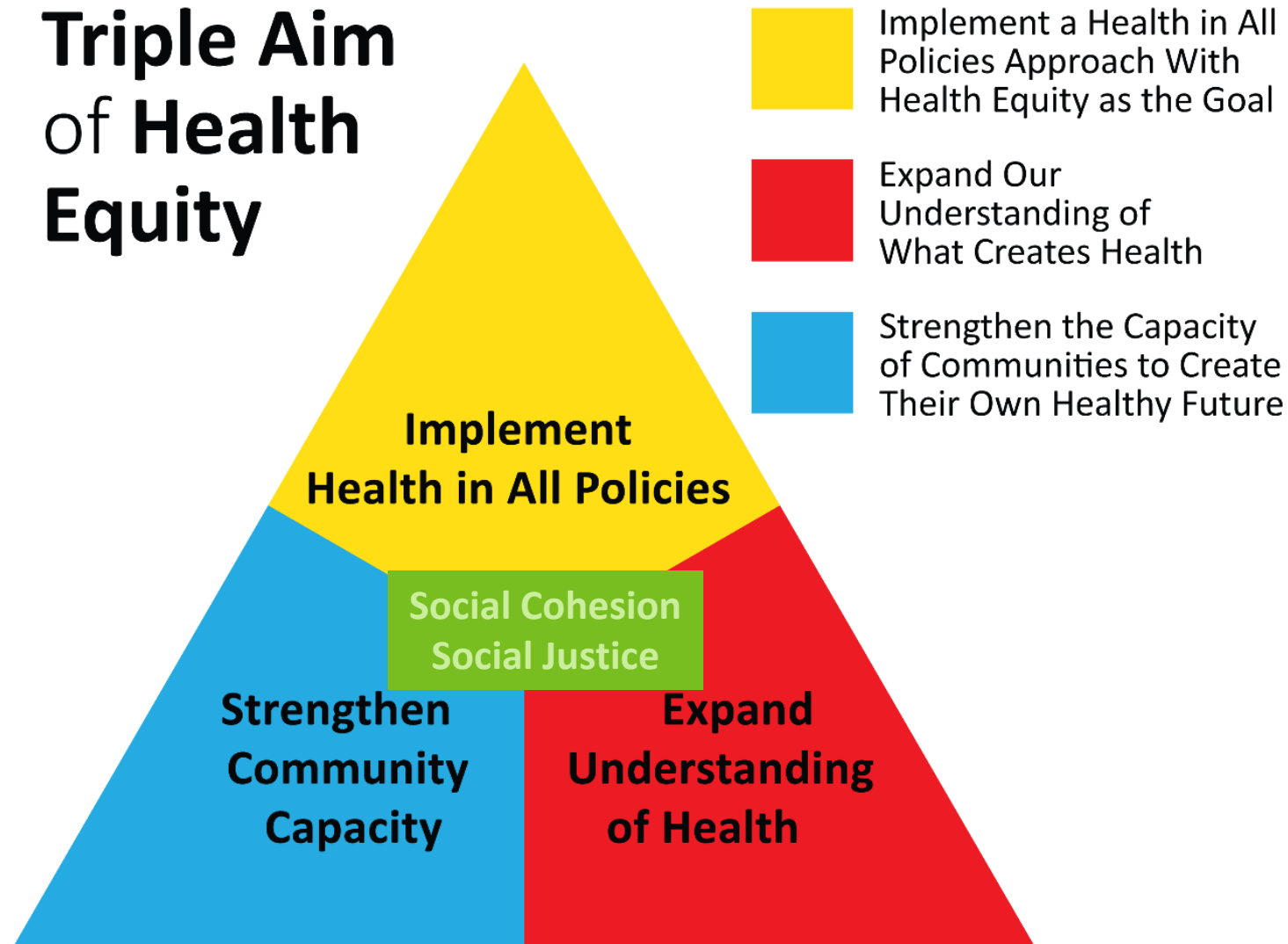
People: Directly impact decision makers, develop relationships, align interests.



Narrative: Align the narrative to build public understanding and public will.

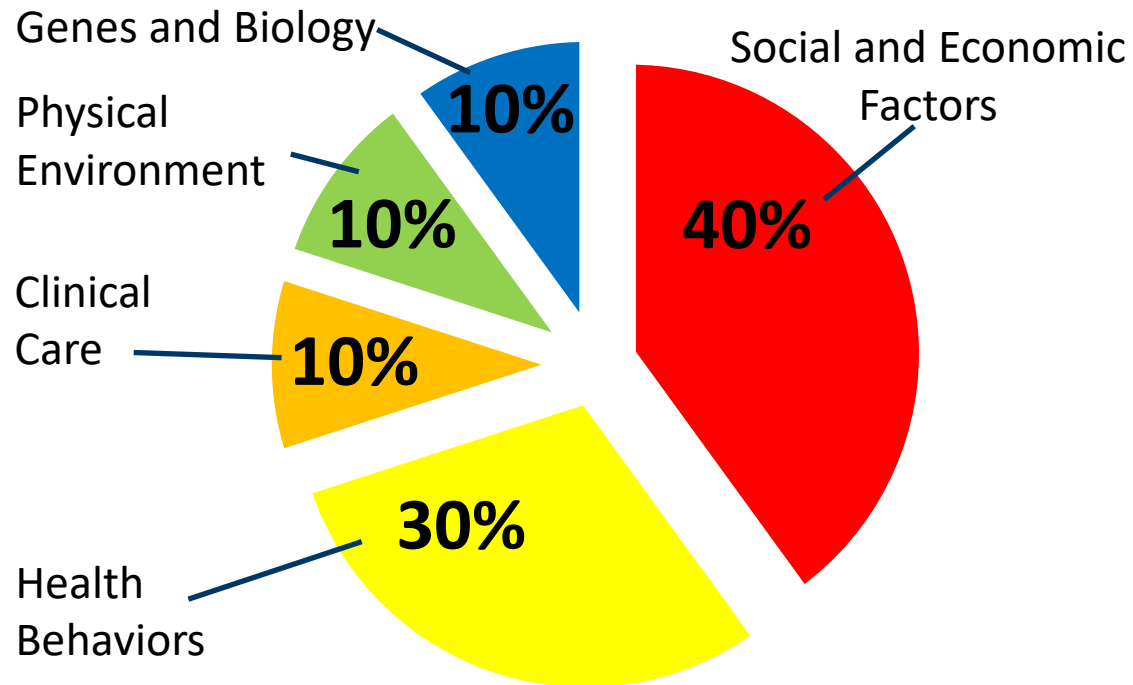
To Advance Health Equity and Optimal Health for All we need to influence policies and change living conditions

Triple Aim of Health Equity



Expand the Understanding of What Creates Health

Determinants of Health



Determinants of Health Model based on frameworks developed by: Tarlov AR. *Ann N Y Acad Sci* 1999; 896: 281-93; and Kindig D, Asada Y, Booske B. *JAMA* 2008; 299(17): 2081-2083.

World Health Organization. Ottawa charter for health promotion. International Conference on Health Promotion: The Move Towards a New Public Health, November 17-21, 1986 Ottawa, Ontario, Canada, 1986. Accessed July 12, 2002 at <http://www.who.int/hpr/archive/docs/ottawa.html>.

Vital conditions for health (WHO)

- Peace
- Shelter
- Education
- Food
- Income
- Stable eco-system
- Sustainable resources
- Social justice and equity
- IT connectivity
- Mobility

Conditions and circumstances in which people are born, live, work, and age

Is the healthy choice a possible choice?

Living Conditions

Communities of Opportunity

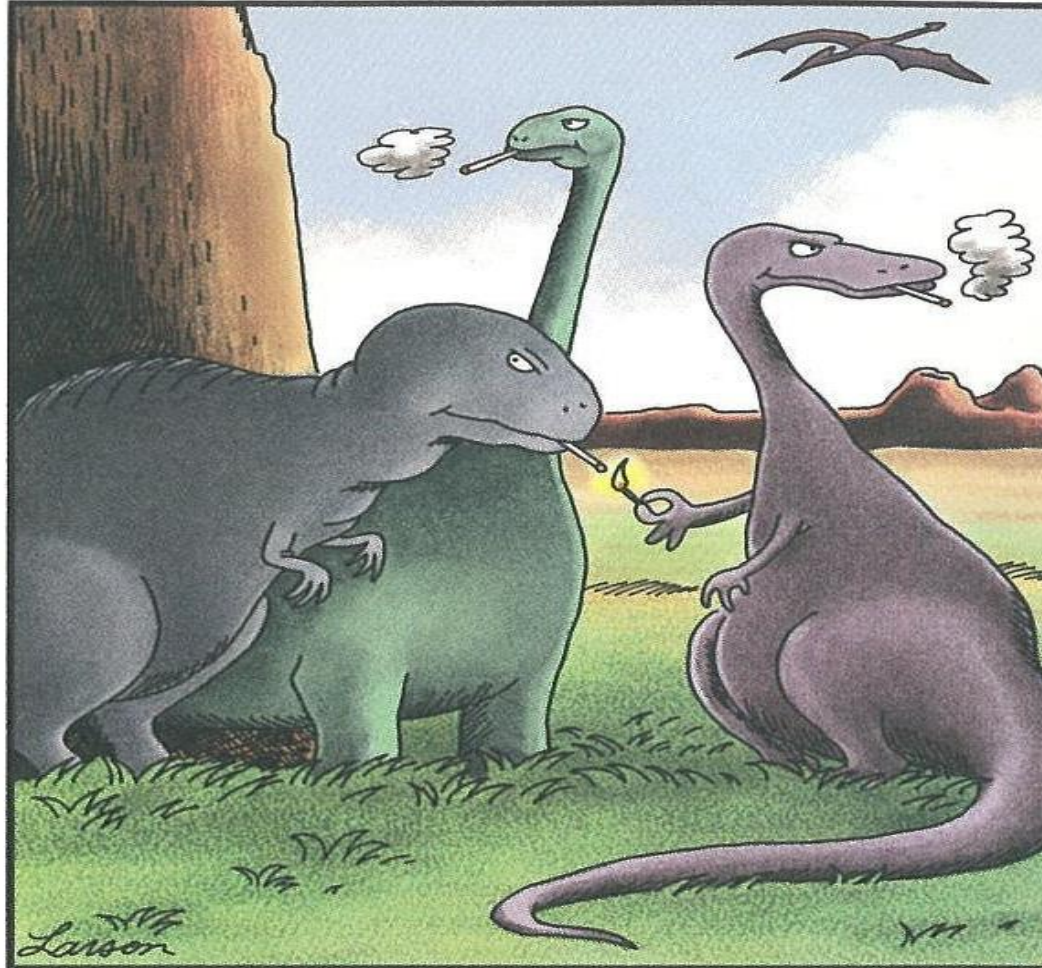
- Social/economic inclusion
- Thriving small businesses and entrepreneurs
- Grocery stores
- Parks & trails
- Sufficient healthy housing
- Good transportation options and infrastructure
- Financial institutions
- Home ownership
- Better performing schools
- IT connectivity
- Strong local governance

Good Health Status

Poor Health Status

Contribute to health disparities

- Obesity
- Diabetes
- Asthma
- Cancer
- Injury



The real reason dinosaurs became extinct

- MOTOR VEHICLE CRASHES • OBESITY • HOMICIDES
- PTSD • ANXIETY • DEPRESSION • DEMENTIA
- STDS • SUICIDES • MENTAL HEALTH CRISES
- INJURIES • HIV • HEPATITIS C • CIRRHOSIS
- UNWANTED PREGNANCIES • DIABETES
- SUBSTANCE ABUSE (ATOD) • ADDICTIONS
- ALCOHOL, DRUGS, FOOD, SEX, GAMBLING, SCREENS)

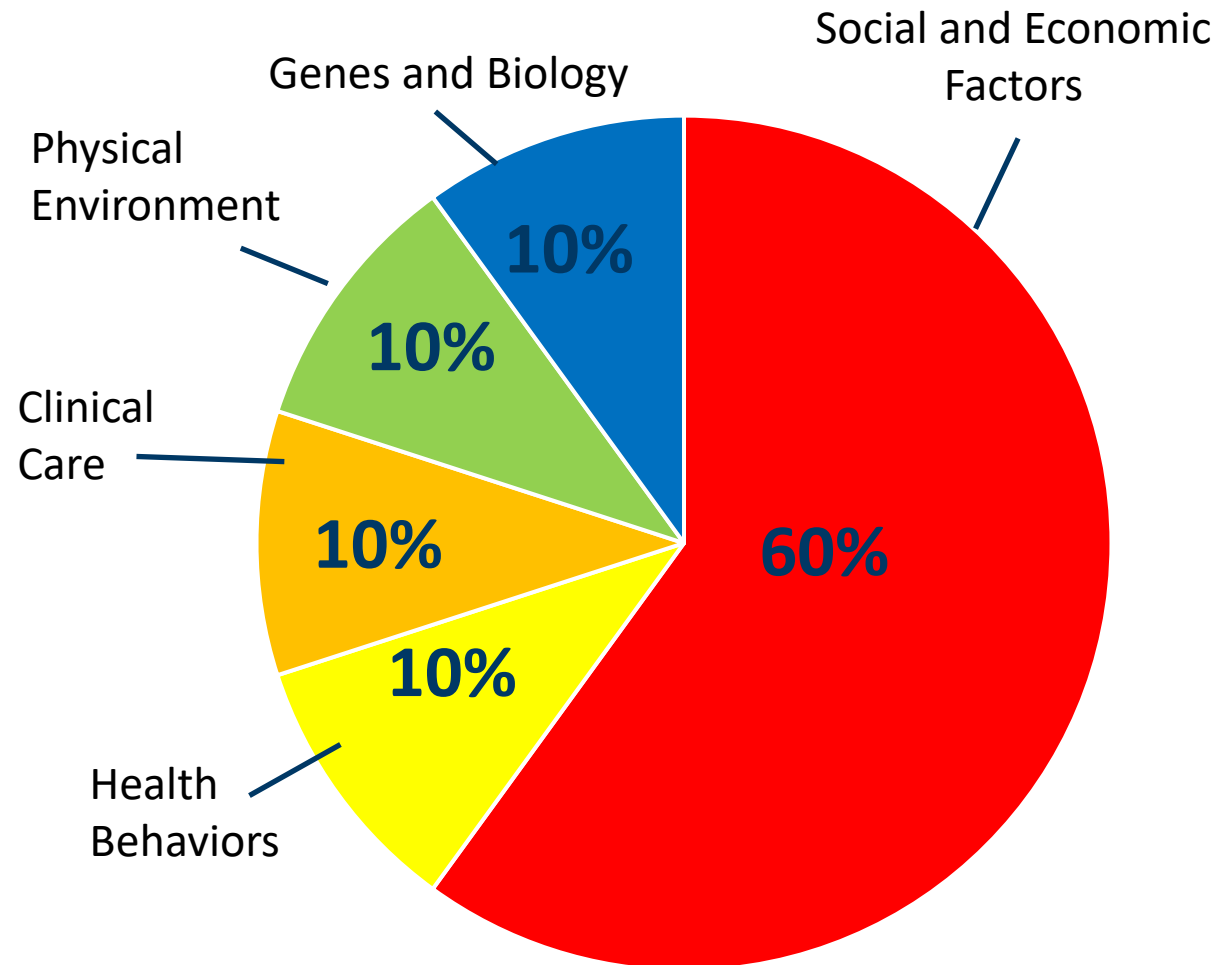
- DIVORCE/SEPARATION • ALCOHOL ABUSE
- DRUG USE • INCARCERATION
- MENTAL ILLNESS • DOMESTIC VIOLENCE
- ABUSE (PHYSICAL, SEXUAL, VERBAL, EMOTIONAL)

- INEFFECTIVE SCHOOLS • INCOME INEQUALITY
- CRIME • POVERTY • SOCIAL EXCLUSION • RACISM
- SEXISM • UNEMPLOYMENT • SCHOOL SUSPENSIONS
- HOMOPHOBIA • FOOD INSECURITY • LACK OF HOPE
- ENVIRONMENTAL CONTAMINATION • DISRUPTED FAMILIES
- CLIMATE VULNERABILITY • VIOLENT NEIGHBORHOODS
- LACK OF ACCESS TO HEALTH AND HUMAN SERVICES • REDLINING

ited States:

ent marketing tobacco
t marketing alcohol
nt marketing soda (by

Expand the Understanding of What Creates Health



Social Determinants of Health (Vital Conditions for Community Well-being)

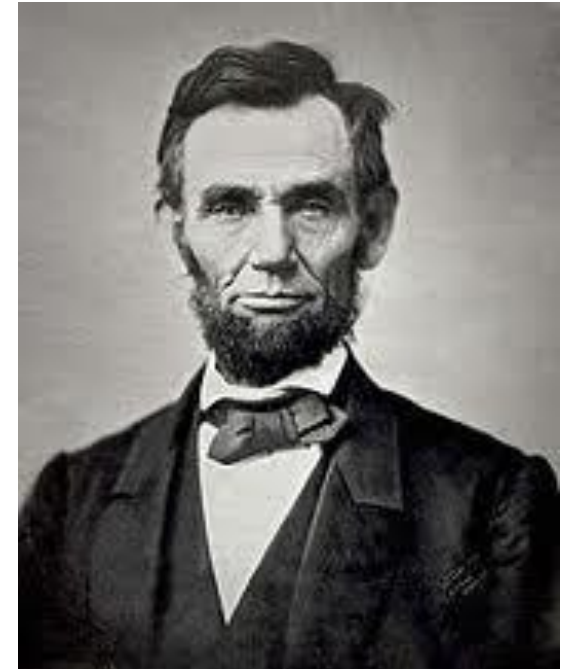
- Shaped by the distribution of money, power, social policies, & politics that are beyond the control of the individual.
- Disproportionately affect People of Color and American Indians
- **Structural racism**

Ehlinger's beliefs about the contributions to health determinants

Expand our understanding about what creates health: Importance of Narrative

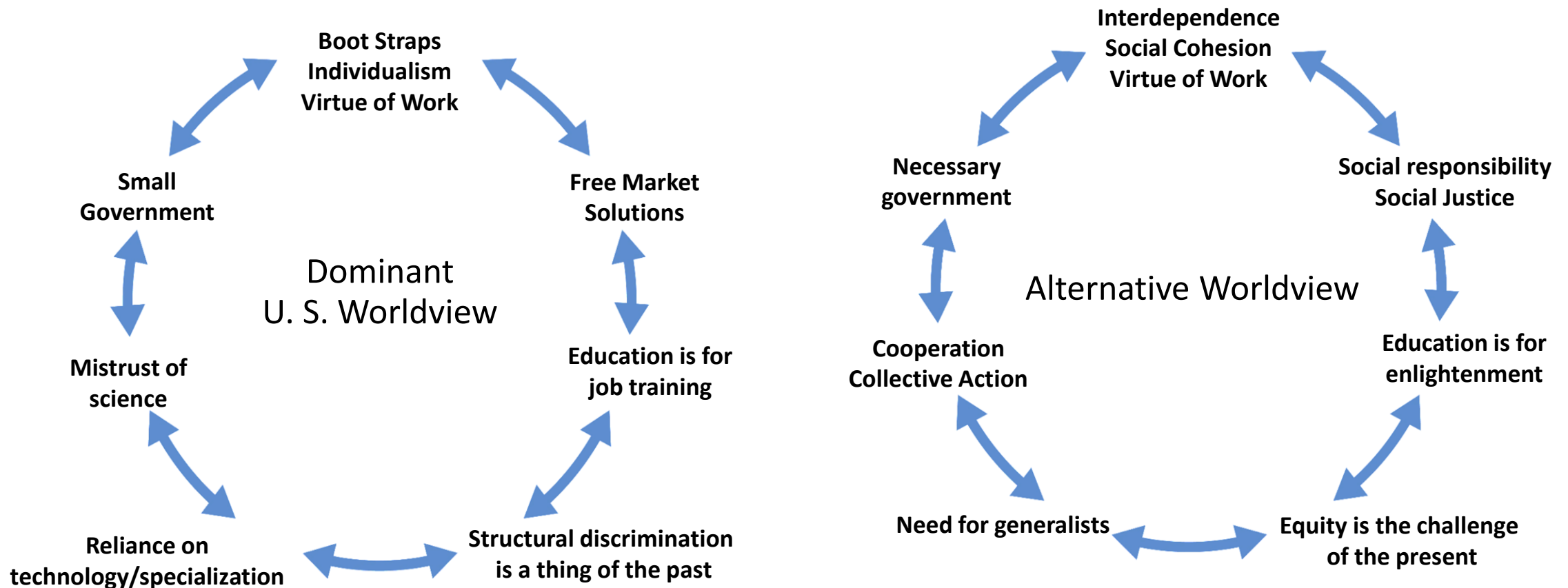
“Public sentiment is everything. With public sentiment, nothing can fail; without it nothing can succeed.”

-Abraham Lincoln



Expand the understanding about what creates health.

Contrasting/Alternative Worldviews



Alternative Health Narrative



Implement a Health in All Policies and Sectors Approach with Health Equity as the Goal

- **Minimum Wage**
- **Paid Leave**
- **Criminal justice**
- **Energy**
- **Transportation**
- **Broadband connectivity**
- **E-Health**
- **Housing/Homelessness**



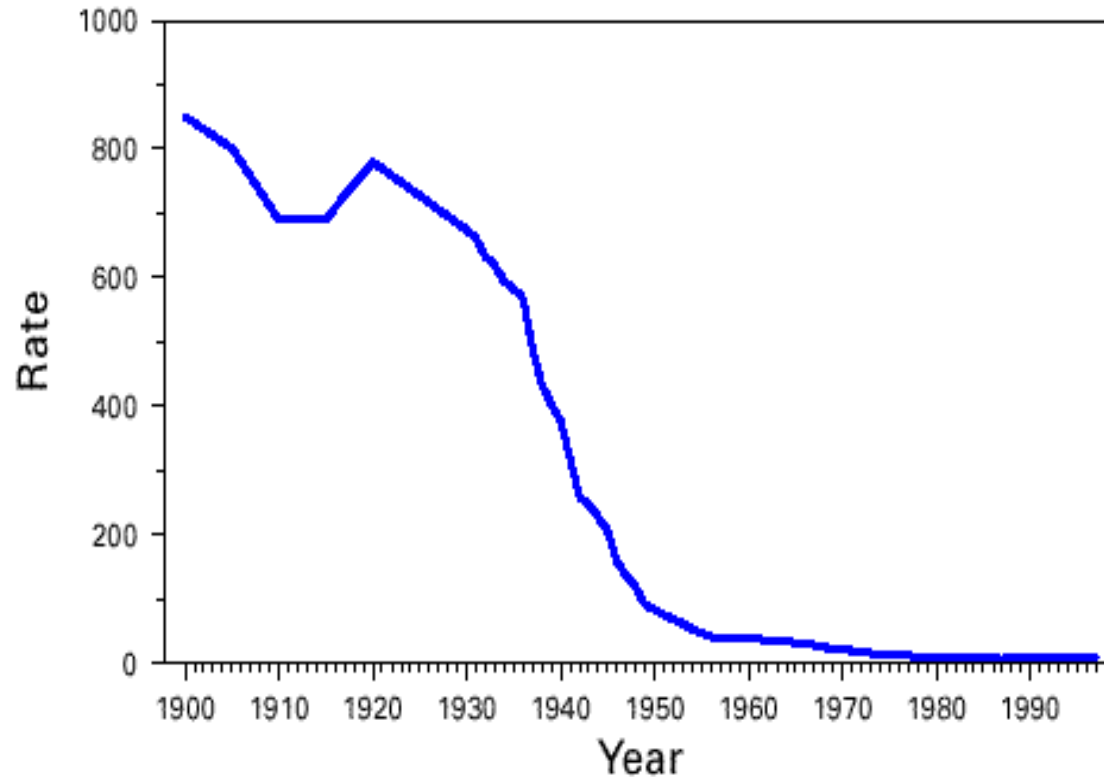
- **Air/Water quality**
- **Ag Buffer strips**
- **Food Charter**
- **Marriage Equity**
- **Payday Lending**
- **Freedom to Breathe**
- **Health Care Reform**
- **Climate Change**

At local, state, and national levels in both public and private sectors.

19th Amendment to the US Constitution (1920)

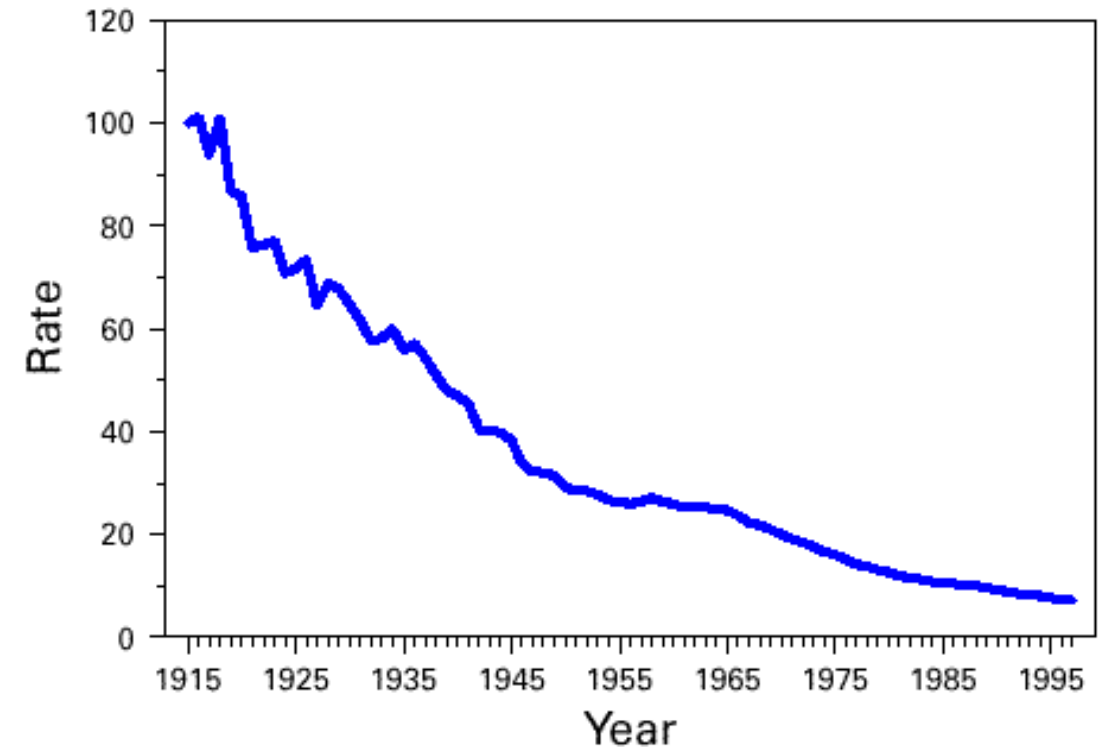
Greatest Public Health Achievement of the 20th Century (arguably)

FIGURE 2. Maternal mortality rate,* by year — United States, 1900–1997



*Per 100,000 live births.

FIGURE 1. Infant mortality rate,* by year — United States, 1915–1997

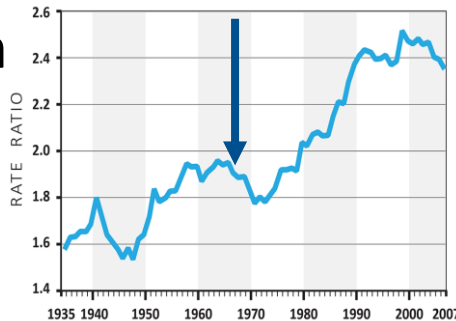


*Per 1000 live births.

War on Poverty Components

1965-1967 - 89th Congress

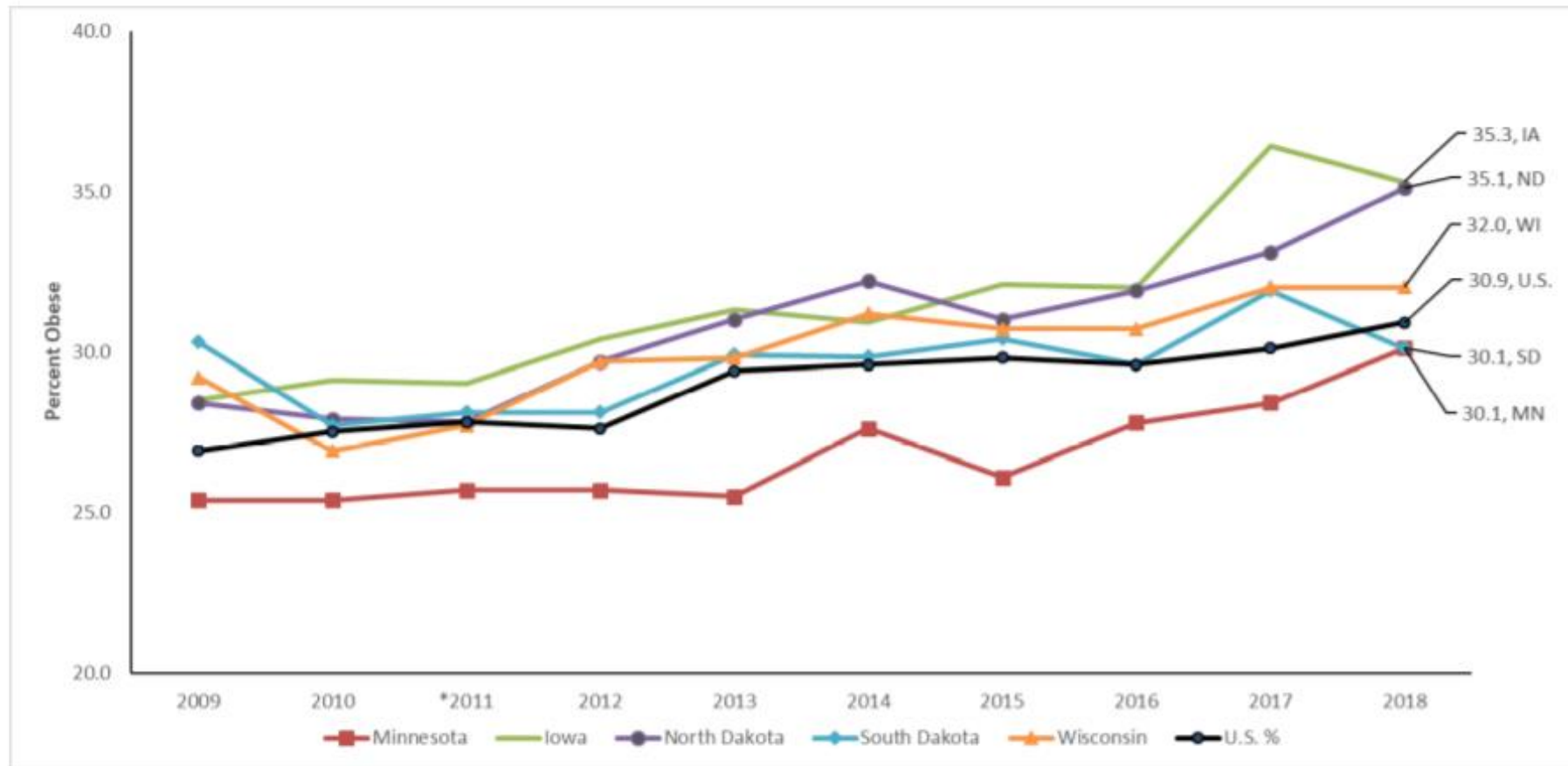
- Title V – C & Y, MIC, FP Projects
- Head Start
- Medicare and Medicaid
- School lunch program
- Neighborhood health centers
- Food stamps
- Elementary & Higher Education Act
- Education of the Handicapped Act
- Housing & Urban Development Act
- Voting Rights Act
- Vocational Rehabilitation
- Job Corps
- VISTA
- Peace Corps



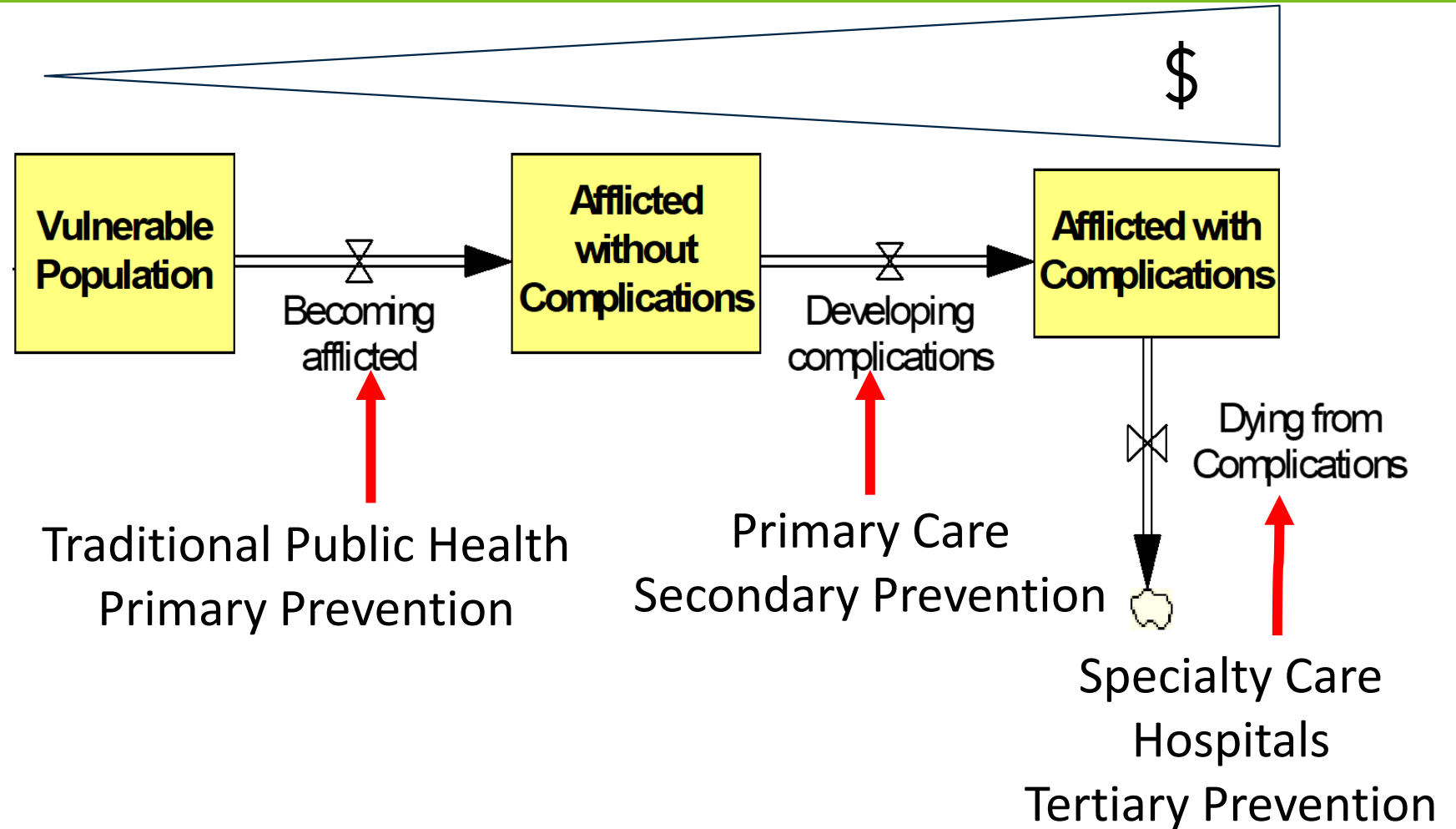
- Older Americans Act
- Freedom of Information Act
- Cigarette labeling and advertising act
- Public Works & Economic Development Act
- National Foundation on the Arts and Humanities Act
- Immigration and Nationality Act
- Motor Vehicle Air Pollution Control Act,
- Highway Beautification Act,
- National Traffic and Motor Vehicle Safety Act
- National Historic Preservation Act,
- National Wildlife Refuge System Act,
- Department of Transportation Act,
- Etc.

Obesity rates in Minnesota and neighboring states

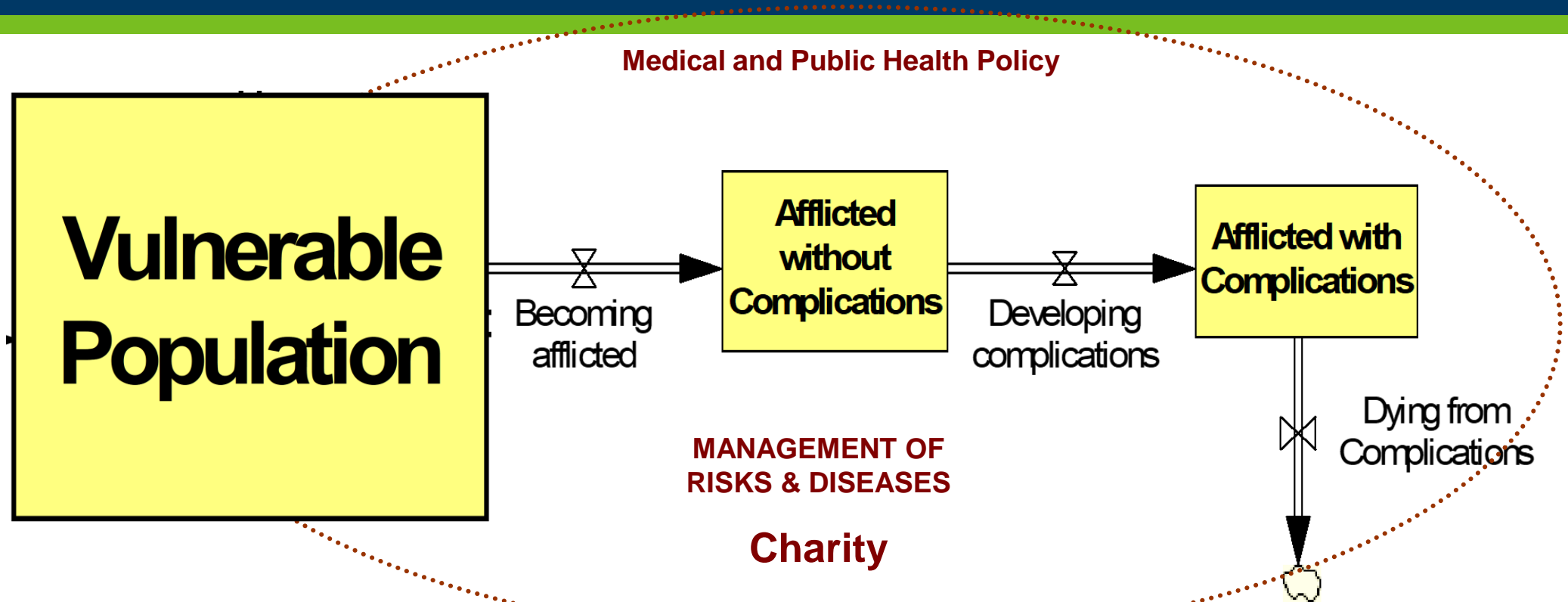
Figure 3. BRFSS obesity rates 2009-2018: Minnesota and neighboring states



Strengthen the Capacity of Communities to Create Their Own Healthy Future



Strengthen the Capacity of Communities to Create Their Own Healthy Future

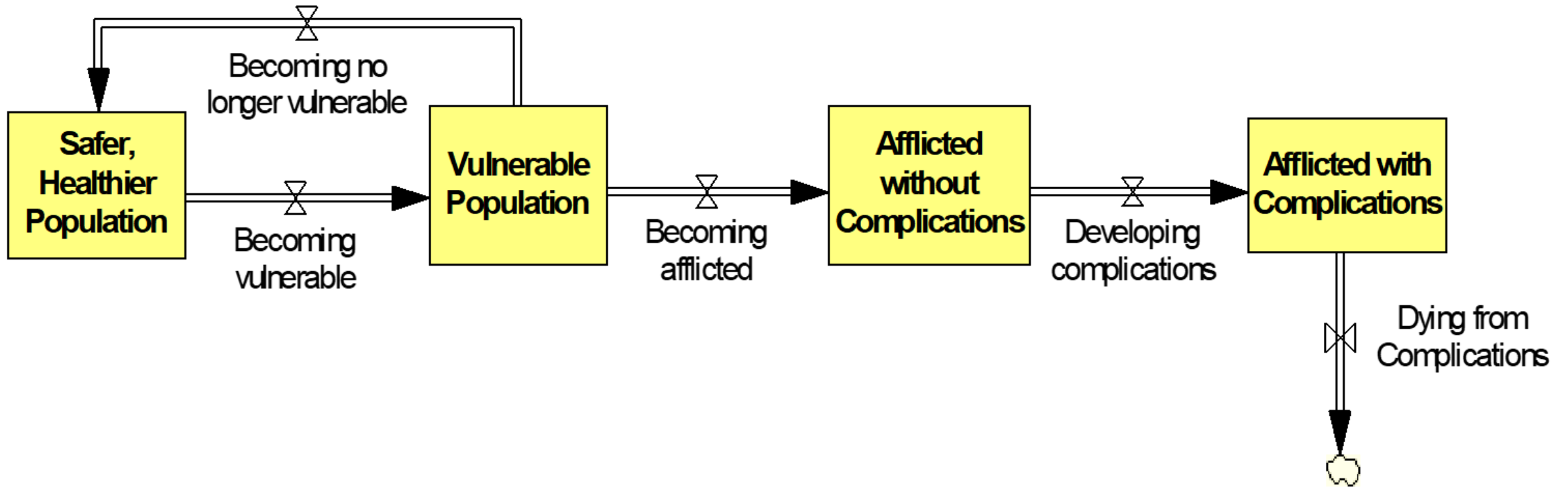


World of Providing...

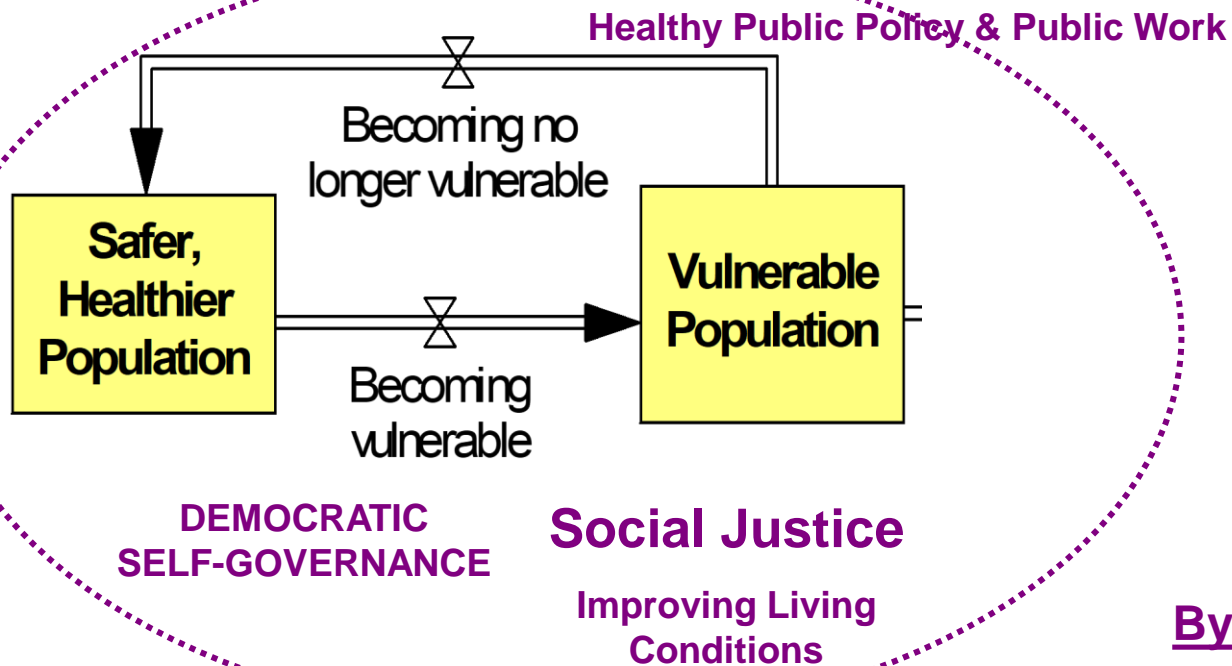
- Health education
- Screening tests
- Disease management
- Charity

- Pharmaceuticals
- Clinical services
- Physical and financial access
- insurance
- Etc...

Strengthen the Capacity of Communities to Create Their Own Healthy Future



Strengthen the Capacity of Communities to Create Their Own Healthy Future



“...the community in the fullest sense is the smallest unit of health...to speak of the health of an isolated individual is a contradiction in terms.”

Wendell Berry

By Strengthening...

World of Transforming...

- Deprivation
- Dependency
- Violence

- Environmental decay
- Stress
- Insecurity
- Etc...

- Democracy
- Food Security and Food Sovereignty
- Mutual accountability
- Leaders and institutions
- Plurality

- Freedom
- Foresight and precaution
- The meaning of work
- Etc...

Social Cohesion/Belonging

“The greatest epidemic today is not TB, HIV or leprosy, it is being unwanted. Being unwanted, unloved, uncared for, forgotten by everybody is a much greater hunger, a much greater poverty, than the person who has nothing to eat.”



**Mother Teresa
Saint Teresa of Calcutta**

- A community ethic that works toward the well-being of and embraces a responsibility for all community members, fights exclusion and marginalization, promotes trust, and creates a sense of belonging.
- Elements of **social cohesion** are:
 - **social capital** – the resources that result from people working together toward a common goal,
 - **social mobility** – the ability to move up in social or economic status,
 - **social inclusion** – having connection to, ownership of, and responsibility for community goals; having a **sense of belonging** – being wanted & needed.



Health is in relationships – Health is in community

“A proper community is a commonwealth: It answers the needs, practical as well as social and spiritual, of its members - among them the need to need one another.” *The Art of the Commonplace*



Wendell Berry

Health is in belonging

Asking the Right Questions Can Advance Health Equity

<http://www.health.state.mn.us/divs/chs/healthequity/>

Expand Understanding

- *What values underlie decision-making process?*
- *What is assumed to be true about the world and the role of the institution in the world?*

Health in All Policies

- *What are the health and equity implications of the policy/program?*
- *Who is benefiting and who is left out? Are you creating partnerships?*

Support Community Capacity

- *Who is at the decision-making table, and who is not? Who set the table?*
- *Who is being held accountable and to whom? Who has the power?*

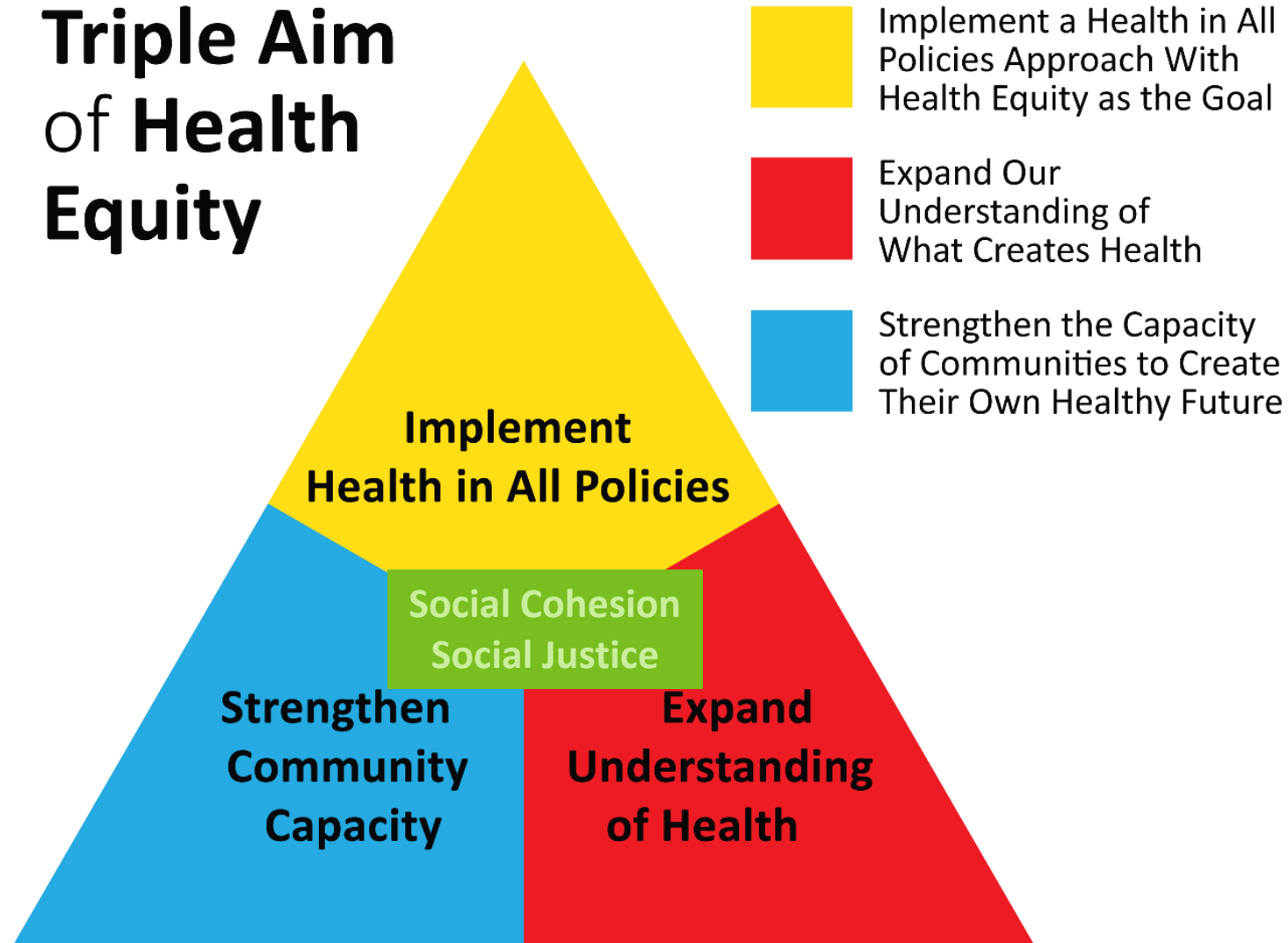
Build Social Cohesion/Belonging/Social Justice

- *Are relationships being created and strengthened?*
- *Is it inclusive? Do people feel like they belong?*
- *Are we building social capital?*
- *Does everyone have the opportunity to thrive?*



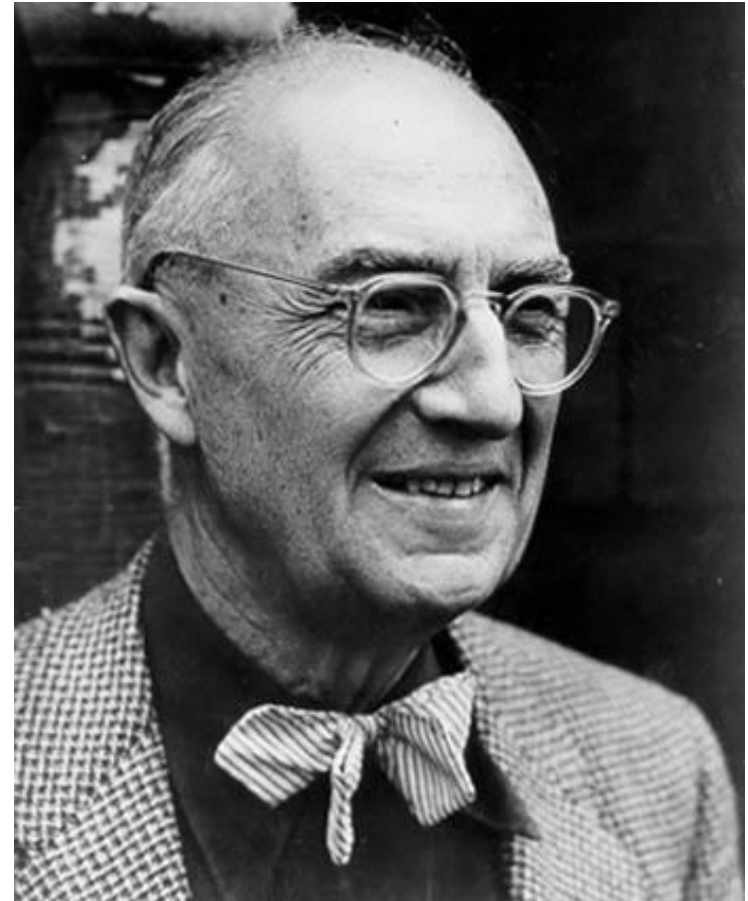
What would it look like if equity was the starting point for decision-making?
Our work would be different.

Triple Aim of Health Equity



William Carlos Williams, MD
"Asphodel, That Greeny Flower"

*It is difficult
to get the news from poems
yet men die every day
for lack
of what is found there.*



Dream Deferred

What happens to a dream deferred?
Does it dry up
Like a raisin in the sun?
Or fester like a sore--
And then run?
Does it stink like rotten meat?
Or crust and sugar over--
like a syrupy sweet?
Maybe it just sags
like a heavy load.
Or does it explode?



Dream Deferred

by Langston Hughes

Written in 1951

Don't Defer Your Dreams Keep Your Eyes on the Prize 2013

We can't defer our dreams,
or be deterred by other schemes
Keep your eyes on the prize, hold on.

We must embrace our dream
with health equity as the theme
Keep your eyes on the prize hold on.

**Hold on, hold on, Keep your eyes on
the prize, hold on .**

We help everyone to cope
when we nurture seeds of hope
Keep your eyes on the prize, hold on.

The seeds we plant today,
promise all a better day
Keep your eyes on the prize, hold on.

**Hold on, hold on. Keep your eyes on
the prize, hold on.**

Keep Your Eyes on the Prize

Everyone can be healthy
when we have food sovereignty
Keep your eyes on the prize, hold on.

That's why we're here today
to help find a better way
Keep your eyes on the prize, hold on.

**Hold on, hold on. Keep your eyes on
the prize, hold on.**

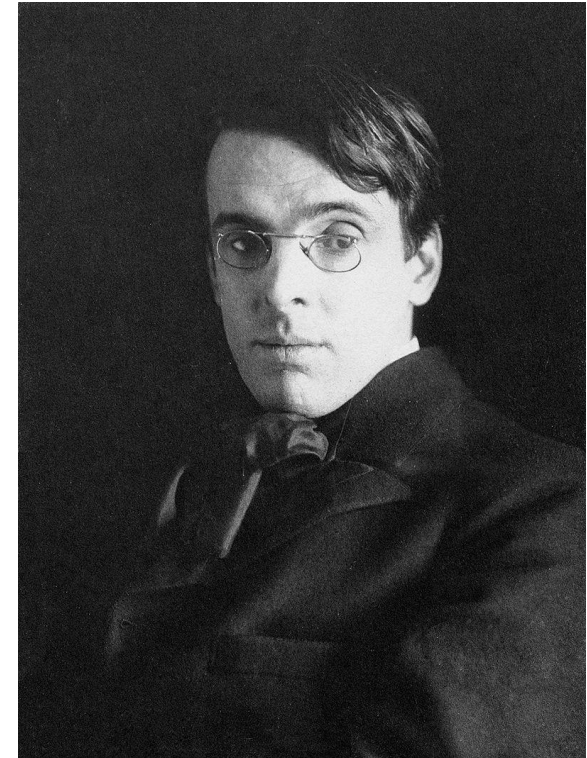
We all must take a stand,
when there's inequity in our land
Keep your eyes on the prize, hold on.

Social justice is our goal
for the community as a whole
Keep your eyes on the prize, hold on.

**Hold on, hold on. Keep your eyes
on the prize, hold on.**

“What happens to a dream deferred?”
Langston Hughes

*“In dreams begins
responsibility.”*



William Butler Yeats

BAMBELELA – NEVER GIVE UP

Nurture your dreams

Bambelela, bambelela,
O bambelela, bambelela
Bamba, bamba, bamba, bamba, bamba,
bamba, bamba, bambelela

Never give up, never give up,
O never give up, never give up,
Never, never, never, never, never,
never, never, never give up.

Nurture your dreams, nurture your dreams.
O nurture your dreams, nurture your dreams,
Always, always, always, always, always,
always, always, always nurture your dreams.

We all belong, we all belong,
O we all belong, we all belong
Always, always, always, always, always, always,
Always know we belong.

Gwendolyn Brooks

*“Live not for Battles Won.
Live not for The-End-of-the-Song.
Live in the along.”*



Gwendolyn Brooks
First African American to receive the Pulitzer Prize
First African-American woman inducted into the
American Academy of Arts and Letters.

The Red Wheelbarrow

William Carlos Williams, 1883 - 1963

so much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens.



so much depends
upon

a public health
perspective

glazed with belonging
& social justice

beside the world's
needs.



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BAMBELELA – NEVER GIVE UP