

*Taking the Life Course Perspective to Promote Preconception  
Health and Health Care: Towards the Promise for Equity in  
Birth Outcomes  
Winston Salem, NC. November 22, 2011*

# The Impact of Social Disadvantage on Preconception Health and Health Care Inequities

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# The Opportunity:

**Preconception/Interconception health thought to be critical to improve birth outcomes and to close black/white gap in preterm birth and infant mortality**

*Centers for Disease Control and Prevention. Recommendations for improving preconception health and health care: United States: a report of the CC/ATSDR Preconception Care workgroup and the Select Panel on Preconception care. MMWR Morb Mortal Weekly Rep 2006;55:1-23.*

*American College of Obstetricians and Gynecologists. The importance of preconception care in the continuum of women's health care: Committee on Gynecologic Practice No: 313. Washington, DC: The College; 2005.*

## **Perinatal Periods of Risk Analysis**

- *Demonstrates that Black women would derive differential benefit from preconception vs prenatal care*

[http://www.citymatch.org/ppor\\_data.php](http://www.citymatch.org/ppor_data.php)

# The Problem:

But:

- We have a hard time achieving early and consistent participation in prenatal care—what makes us think we will do any better with preconception health?
- We have a hard time changing population risk behavior prevalence at any time along the life course—what makes us think we can do better with preconception health?

*(smoking cessation, breastfeeding, nutrition, physical activity)*

- Unequal participation in PCH by vulnerable populations (e.g. ethnicity, income) will exacerbate disparities in perinatal outcomes

# Eliminating Disparities in ICC Study (EDIC, Hogan, PI) funder: NIH /NICHD

*This study was designed to understand what influences Black women's participation in interconceptional preventive care*

## Objectives:

- 1.** Describe participation rates in a special interconceptional care program
- 2.** This ICC program was unique in that all commonly known barriers have been addressed. We wanted to identify what else predicted participation.

# Methods

## Data Source and Study Design:

A secondary analysis of data from women in the intervention arm of an interconceptional care clinical trial in Philadelphia (n=442)

*(Philadelphia Collaborative Preterm Prevention Project Culhane, PI)*

- Sleep, mood, stress intervention
- Weight control
- Maternal infection (BV) treatment
- Periodontal treatment
- Housing intervention
- Smoking cessation
- Barriers reduced: Childcare, social support, transportation, payment, etc..

## Interventions included:

# Results

## Population Description

### Philadelphia resident women

- All of the women in the study population had previously experienced a premature birth.
- The majority of the women were African American (84.7%),
- Mean age of 25 years,
- Not married (88%),
- Live in households with more than 3 people (69.3%),
- Had at least a high school education (66.6%).
- Most women did not engage in high-risk behaviors, such as smoking, drug use or alcohol use (69.7%, 84.7, and 88%, respectively).

# Results

- The average overall (in-clinic) participation rate for appointments was 52 percent (std 0.43)
- The highest participation levels were in the housing intervention (38%, std 0.43)
- Lowest were in the infection intervention (0.06, std 0.23)

# *Proportion of Women by Care Utilization Status (N=442)*

<b>Characteristic</b>	<b>N (%)</b>
<b>Did not attend any scheduled appointments</b>	<b>78 (17.6%)</b>
<b>Attended 0 to 50% of scheduled appointments</b>	<b>116 (26.2%)</b>
<b>Attended 51 to 99% of scheduled appointments</b>	<b>157 (35.5%)</b>
<b>Attended All scheduled appointments</b>	<b>91 (20.6%)</b>

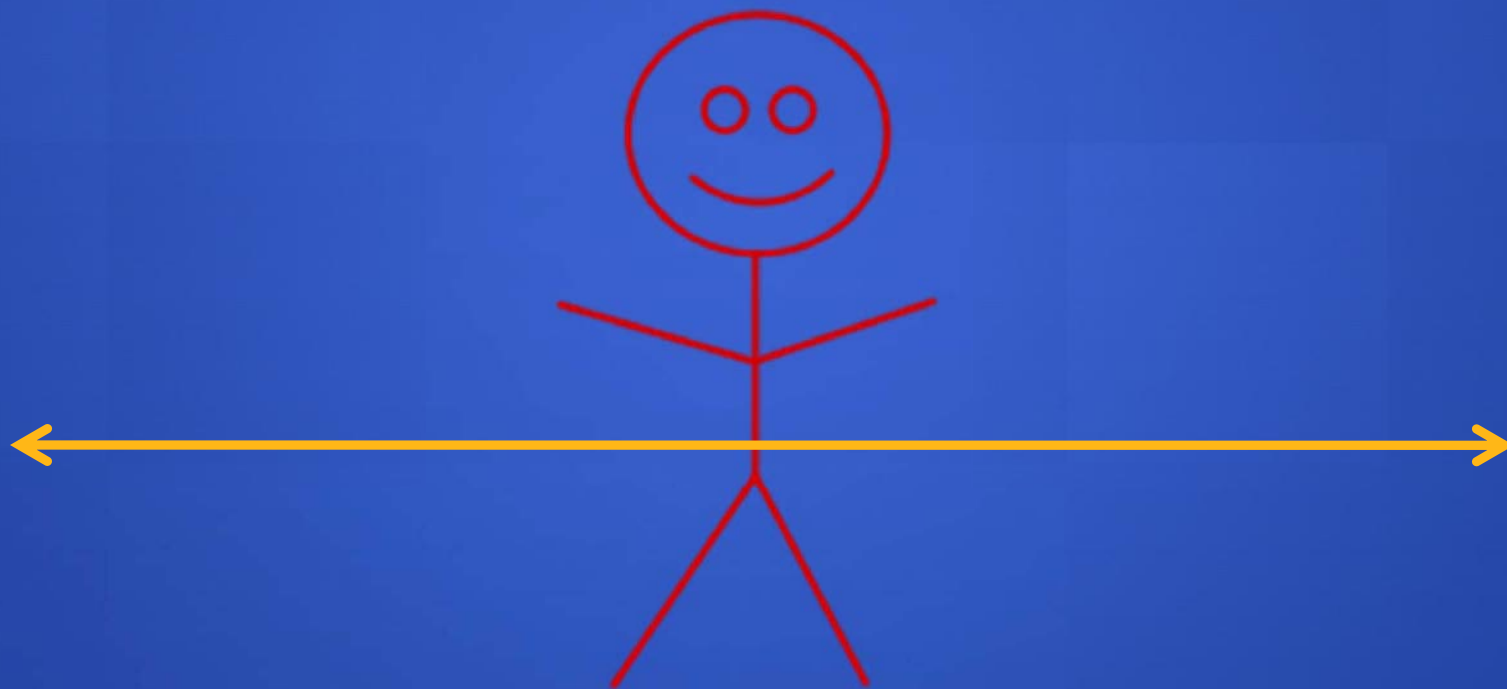
# *Conclusion*

- Removing common barriers to care does not eliminate all access barriers for vulnerable women.
- There are unknown factors beyond these barriers that impact on participation in interconceptional care. These factors are related to contextual issues (enabling factors)
- New paradigms are needed to explain what additional factors serve as barriers to preventive care participation for vulnerable women because existing known factors do not explain

**Need to identify a way to design  
preconception health delivery  
approaches that address the unique  
contextual circumstances facing Black  
women**

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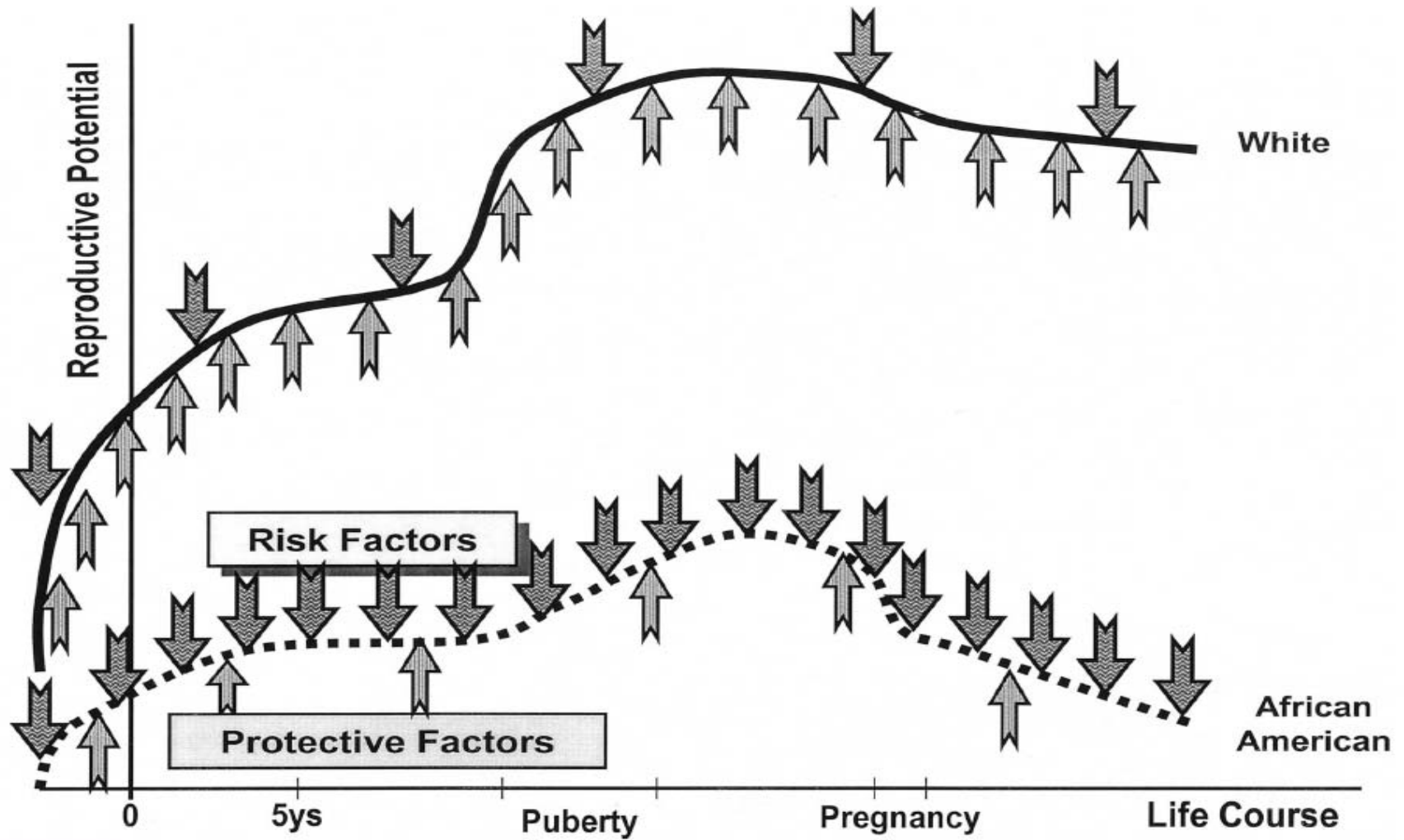
**What could these  
additional factors  
be?**



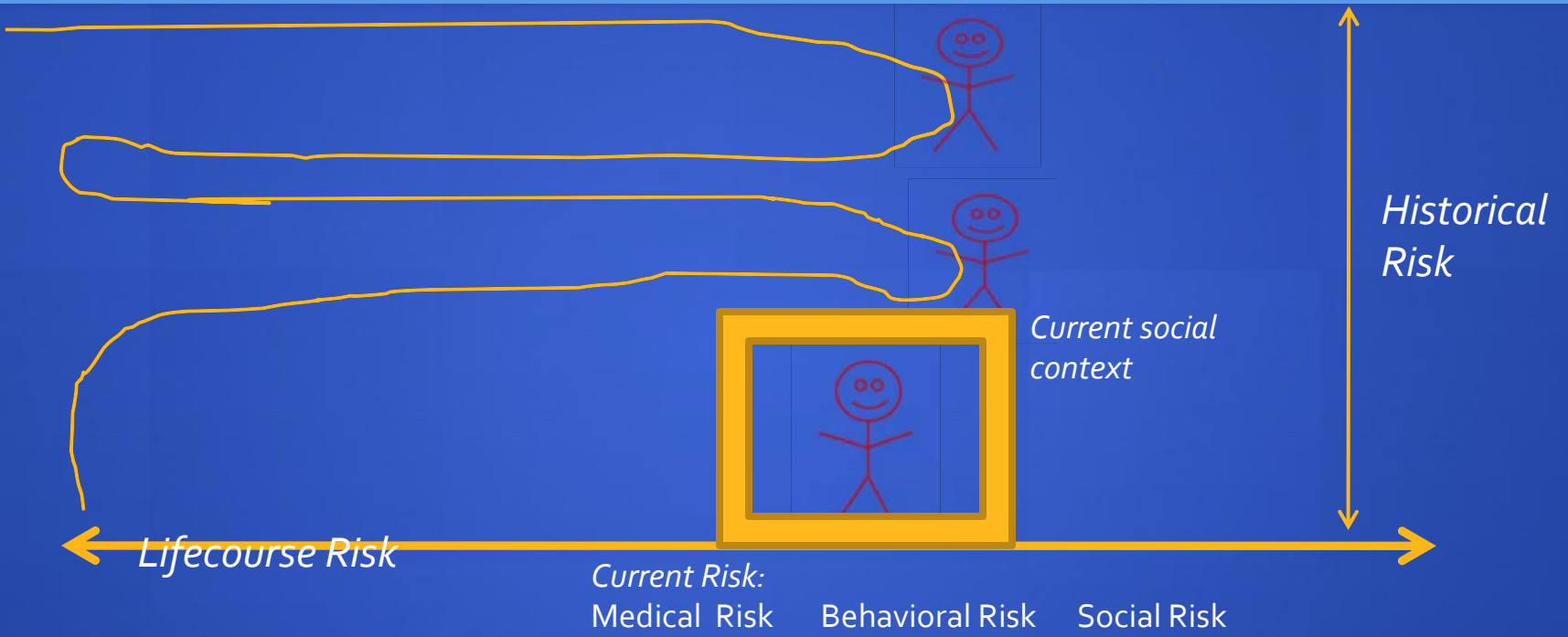


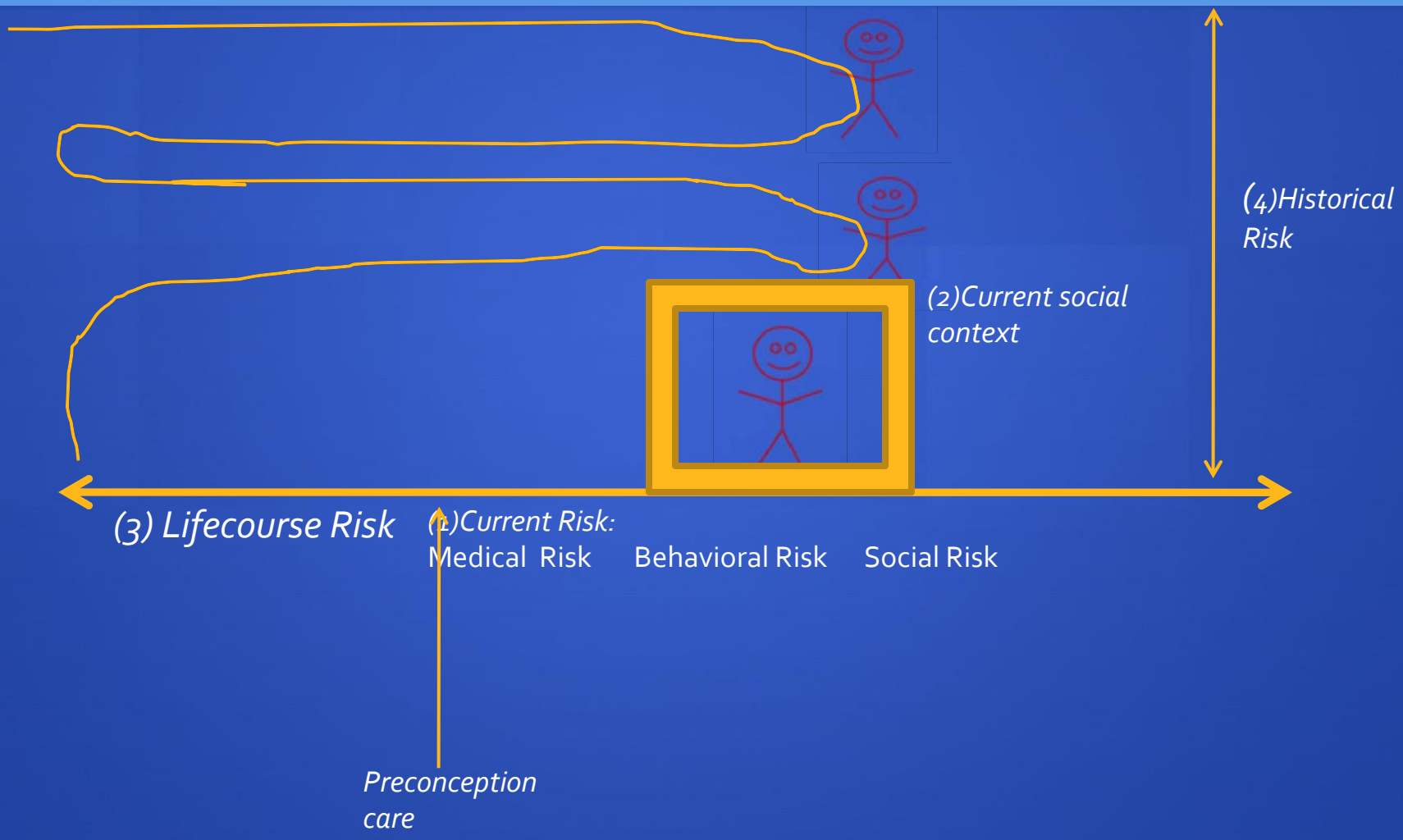






**Fig. 1.** How differential exposures to risk factors (downward arrows) and protective factors (upward arrows) over the life course affect developmental trajectories and contribute to disparities in birth outcomes. The lower reproductive potential of African American women, relative to White women, results from their cumulative exposure to more risk factors and less protective factors across the life span, particularly during sensitive periods of development.





**What is unique about the experiences of African American women that puts them at higher risk of morbidity and mortality?**



# Close Up: Social Disadvantage, Lifecourse and Structural Risks

- **Historic Risk**
- **Accumulated disadvantage**
- **Current social disadvantage**
- **Structural embodiment of inequality**
- **Epigenetic Risk**

# Historical Contribution

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# AFRICAN AMERICAN CITIZENSHIP STATUS & HEALTH EXPERIENCE FROM 1619 TO 2006

TIME SPAN	CITIZENSHIP STATUS -YRS	Experience accounts for this proportion of time in US	STATUS	HEALTH & HEALTH SYSTEM EXPERIENCE
1619-1865	<b>246 years</b>	63.73%	Chattel slavery	Disparate/inequitable treatment poor health status & outcomes. "Slave health deficit" & "Slave health sub-system" in effect
1865-1965	<b>100 years</b>	25.91%	Virtually no citizenship rights	Absent or inferior treatment and facilities. <i>De jure</i> segregation/ discrimination in South, <i>de facto</i> throughout most of health system. "Slave health deficit" uncorrected
1965-2006	<b>41 years</b>	<b>10.36%</b>	Most citizenship rights: <i>USA struggles to transition from segregation &amp; discrimination to integration of AA</i>	So. med school desegregation 1948. Imhotep Hospital Integration Conf 1957-1964, hospital desegregation in federal courts 1964. Disparate health status, outcomes, and services with apartheid, discrimination, institutional racism and bias in effect.
1619-2006	<b>387 years</b>	<b>100.00%</b>	"Struggle"	<b>HEALTH DISPARITIES/ INEQUITIES</b>

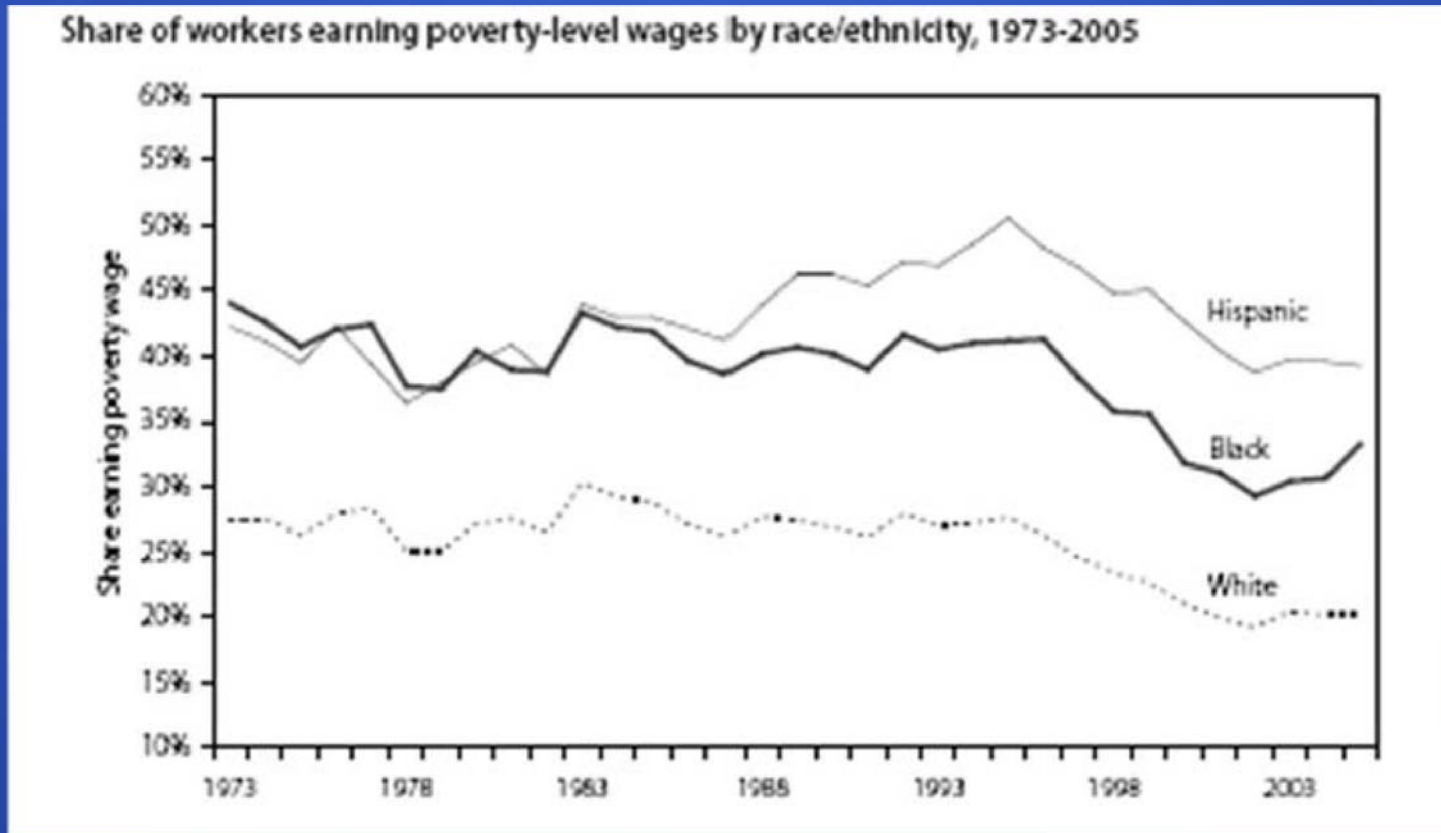
Source: Byrd, WM, Clayton, LA. An American Health Dilemma, Volume 1, A Medical History of African Americans and the Problem of Race: Beginnings to 1900, New York, NY: Routledge. 2000.

# Economic and Social Hardships during pregnancy, by ethnicity- MIHA, 2002-2003

	African American	Anglo
< Poverty	44.7	14.9
Hard to make ends meet	22.4	10.7
Food insecurity	19.3	10.4
Food insecurity and hunger	7.3	3.3
No practical support	10.2	6.2
No emotional support	7.2	3.9
Separated or divorced	16.4	4.6
Homeless	7.2	2.3
Involuntary job loss	14.2	6.8
Partner job loss	16.9	11.0
Incarceration of partner	10.5	2.5
Domestic Violence	5.8	1.8
1-5 hardships	70.0	39.0



# Trends in Poverty by race/ethnicity





# Percentage of Related Children <= Age 18 Below 150% of Poverty Level

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1998

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White	18%
Black	52%
Hispanic	52%

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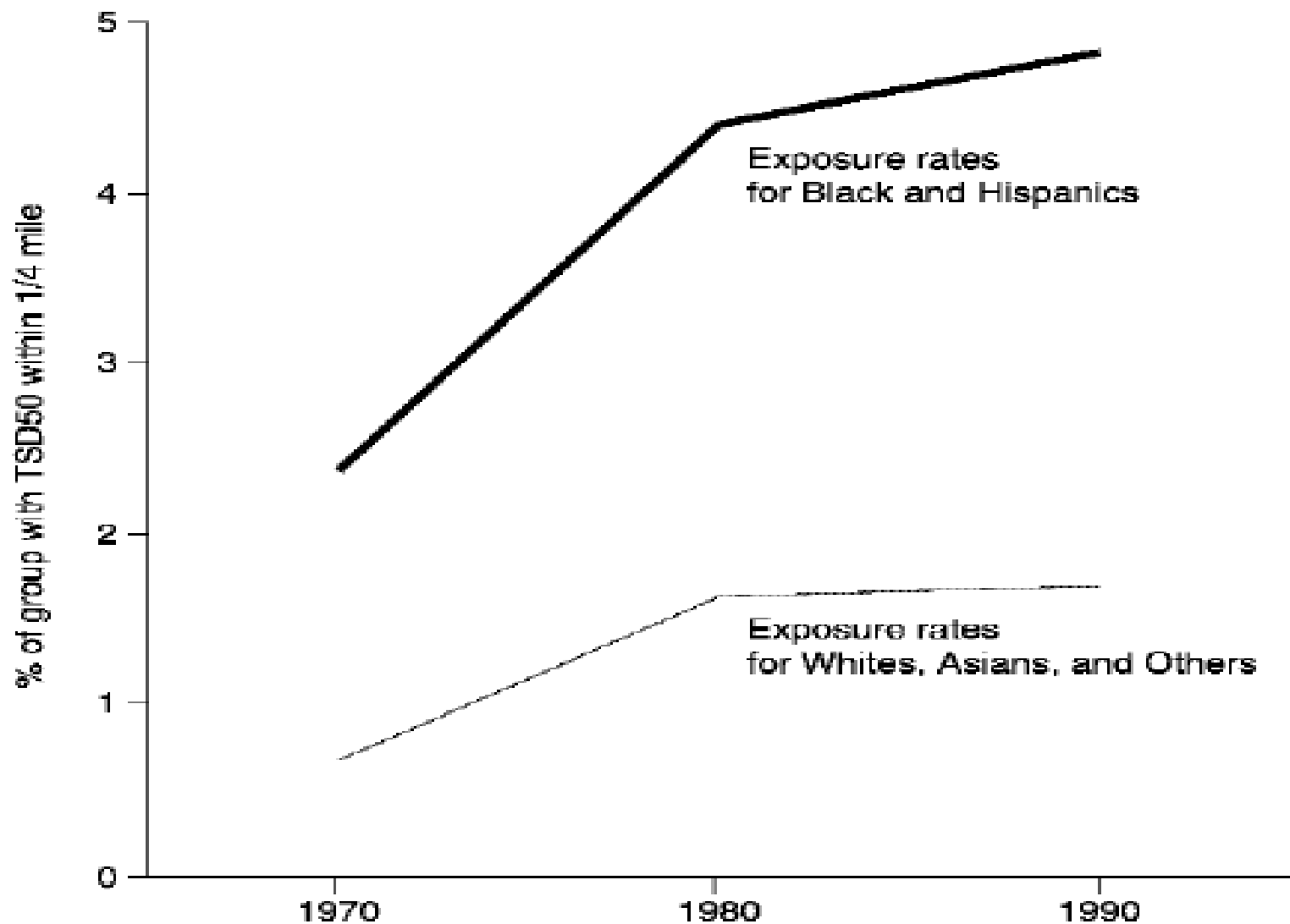


FIGURE 14-9 Exposure to high-capacity toxic facilities over time in Los Angeles County. The exposure to high-capacity toxic storage and disposal facilities (TSD50s) has generally risen over time for both Whites and minorities. The increase has been greatest for Blacks and Hispanics, leading to an even greater exposure differential.

# Epigenetic impacts

- External environmental and social exposures can change genes and thus alter biologic function
  - e.g. Low intake of specific nutrients, toxic exposures, stress, binge alcohol consumption
- If these changes occur early in life or in-utero, they can affect biologic function throughout the lifecourse
- Examples;
  - low choline intake during pregnancy can affect infant development;
  - stress exposure in utero can cause blood vessels to become rigid, predisposing to hypertension
  - Infants born premature are likely to have learning disabilities

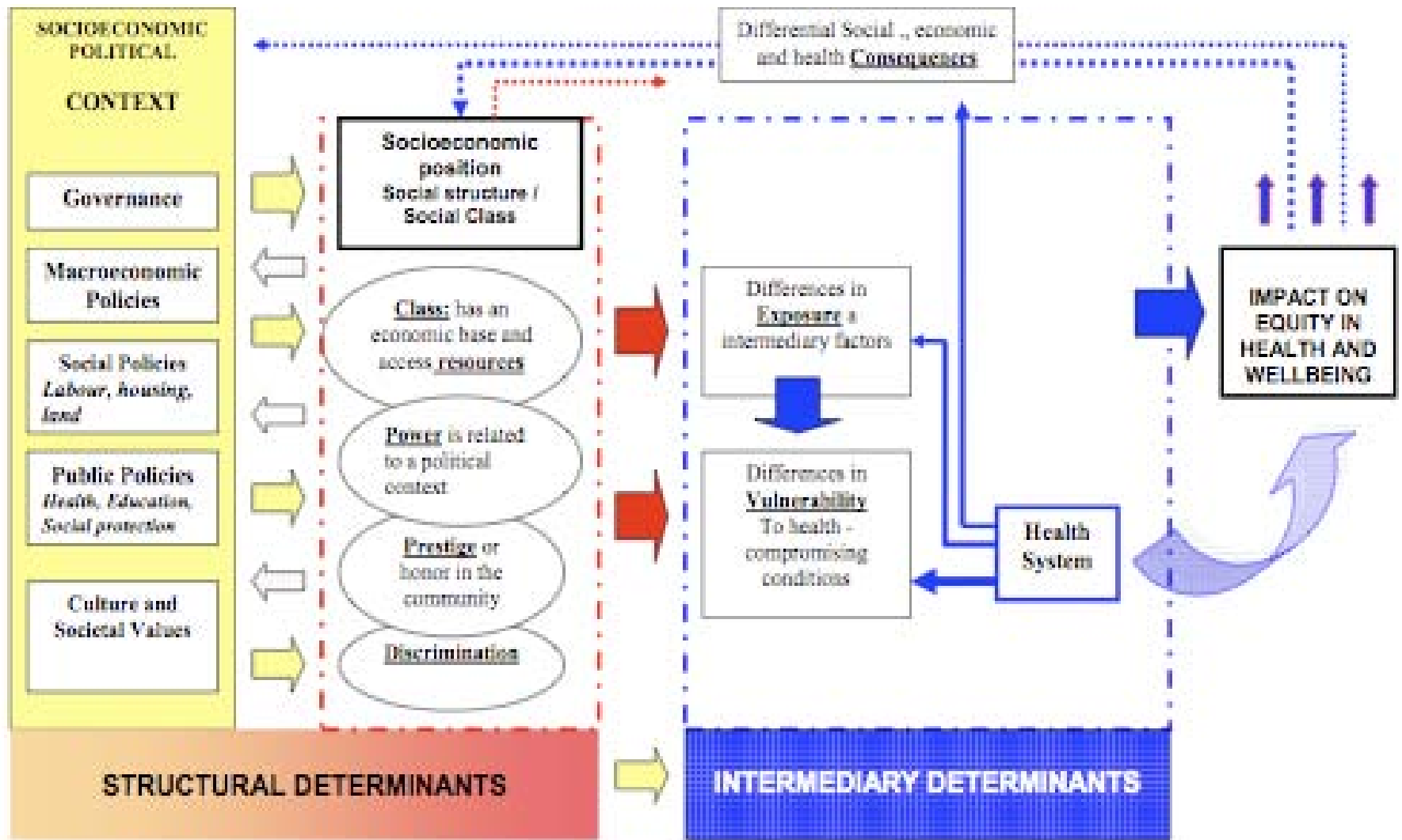


Figure summary pathway and mechanism of social determinants of health inequities elaborated EQH/EIP 2006 (10/04)

# Challenge

What can public health and medical providers possibly do in their daily jobs to address these **structural, historical and epigenetic risks?**

WELL...  
WE'RE LEAVING.

GOOD LUCK  
WITH THE  
DEMOCRACY  
THING.





- The size of the challenge is enough to make us depressed and more eager to focus on what seems to be the easy solution
- This applies to providers, planners, funders

**How can we surmount and address  
these huge structural challenges  
from where we sit?**

- Do we even recognize the embodiment of these structural challenges in the institutions we work in?
- How do these structural forces play out in every day life and what role do we play in perpetuating them?
- Example: **racism /discrimination**

# RACISM/Discrimination

- **Structural manifestation of inequality**
- **Unique exposure and higher prevalence for African Americans**
- **Interacts with and exacerbates other structural and intermediary manifestations (class, income, education, power, prestige)**
- **Linked empirically to health**

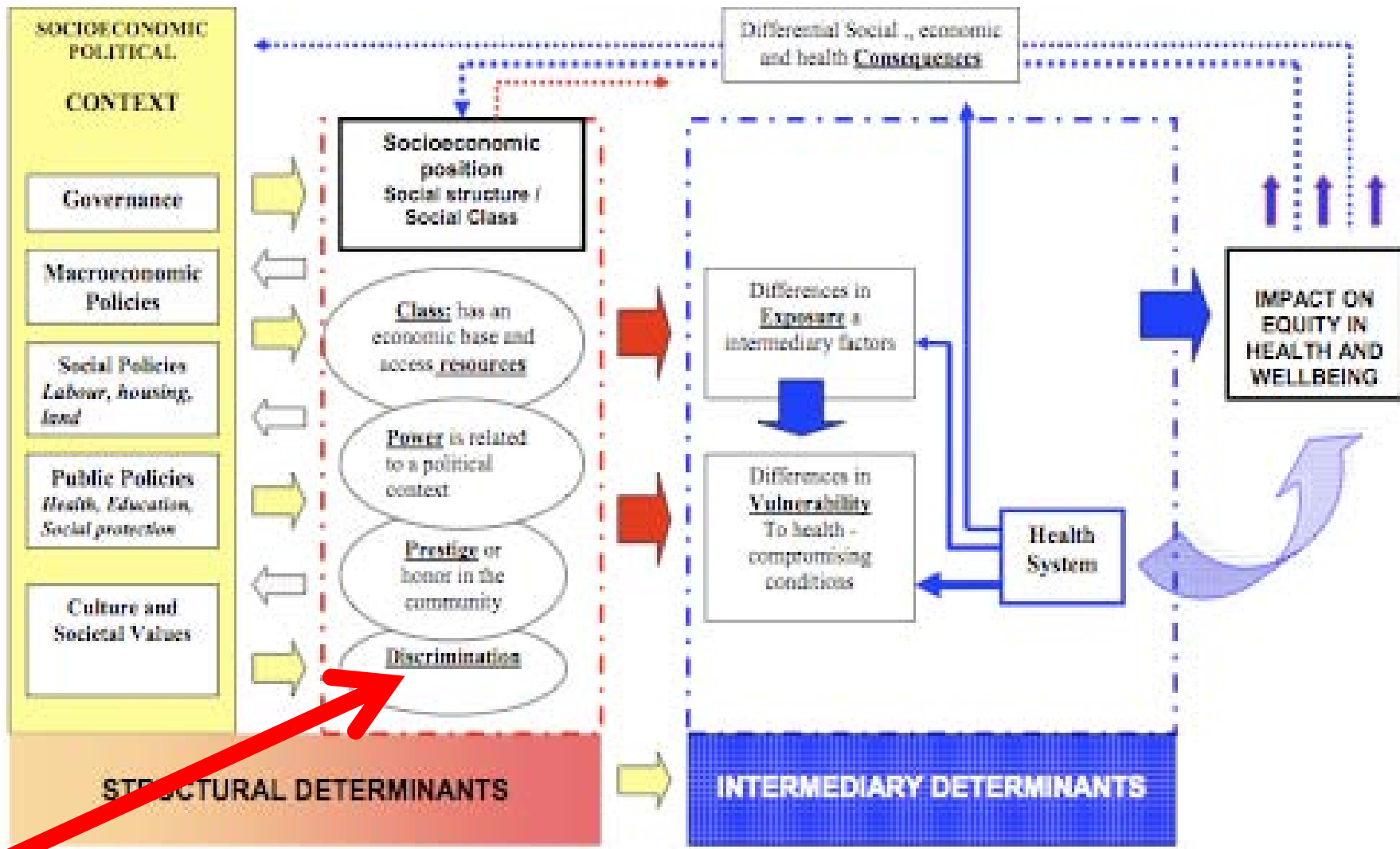


Figure summary pathway and mechanism of social determinants of health inequities elaborated EQH/EIP 2006 (2008)

# Racism

## Definition

**a man-made system of hierarchical rankings of people based on skin color or ethnicity, designed to justify the subjugation of one group of people by another for the economic and social advantage of the dominating group**

## Definition

**A system of structuring opportunity and assigning value based** on the social interpretation of how we look (“race”)

- Unfairly disadvantages some individuals and communities
- Unfairly advantages other individuals and communities
- Saps the strength of the whole society through the waste of human resources

*Dr. Camara Jones, Centers for Disease Control and Prevention, US*

# Terminology

- Racism
- Racial discrimination
- Discrimination
- Racialism
- Stereotyping
- Stigma
- Micro-aggressions
- Racial differences
- Unfair treatment received differentially by race/ethnicity
- Differential and inappropriate (medical) treatment given by race/ethnicity

# How Racism is Implemented

- I. Forms of racism
  - Personally mediated
  - Internalized
  - Institutional

(C. Jones)

# Institutional Racism

Differential access to the goods, services, and opportunities of society, by “race”

- Examples

- Housing, education, employment, income
- Medical facilities
- Clean environment
- Information, resources

# Analyzed from the **source/agent's** perspective:

- Intentional
- Subconscious
- Institutional

# Sources/Agent Perspective

## Intentional Racism

..“across a variety of surveys and polls, 10%–15% of the white population still expresses the old-fashioned, overt form of bigotry. These respondents consistently describe blacks as innately less intelligent than whites, say that they will not vote for a well-qualified presidential candidate simply because of that person's race, and oppose programs designed to ensure full integration and equal opportunity”

Dovidio, John F.; Gaertner, Samuel L. Eberhardt, Jennifer Lynn (Ed); Fiske, Susan T. (Ed), (1998). *Confronting racism: The problem and the response*, (pp. 3-32). Thousand Oaks, CA, US: Sage Publications, Inc, xiii, 352 pp.

# Sources/Agent Perspective

## Subconscious Racism

...“there is also evidence that many of the people who are part of the 85%–90% of the white population who say and probably believe that they are not prejudiced may nonetheless be practicing modern, subtle form of bias”

Dovidio, John F.; Gaertner, Samuel L. Eberhardt, Jennifer Lynn (Ed); Fiske, Susan T. (Ed), (1998). *Confronting racism: The problem and the response*, (pp. 3-32). Thousand Oaks, CA, US: Sage Publications, Inc, xiii, 352 pp.

# Sources/Agent Perspective

## Subconscious Racism

Susan Fiske, Cornell University:

- People rank others based on perceived characteristics.
- These perceived characteristics evoke an emotional response
- Prefrontal cortex activity (caring and compassion) does not fire toward those people perceived as being of low worth

# Competence X Warmth Ratings of Other Humans

(Fiske, Xu, Cuddy, Glick)

*Rating populations on others' perceptions of their competence and level of warm feelings towards the group*

- **High Competence/High Warmth( Pride)**
  - Southerners
  - Northerners
  - Jews
  - Asians
  - Gay Men
- **High Competence/Low Warmth (envy)**
  - Middle class Blacks
  - Business women
  - Feminists
  - Rich people

# Competence X Warmth Ratings of Other Humans

- **Low Competence/High Warmth (pity)**
  - Housewives
  - Blind people
  - Retarded people
  - Disabled people
  - House cleaners
- **Low Competence/Low Warmth (Disgust)\* *no prefrontal activation stimulated in subjects directed toward this group***
  - Migrant workers
  - Latinos
  - Welfare recipients
  - Blacks
  - Homeless
  - Immigrants

# Source/Agent Perspective, cont.

## Institutional racism example:

People act as an agent on behalf of an institution, whose standard practice creates, exacerbates or perpetuates race differences

- People are often consciously aware of the practice, but not of the effect
- Very likely to ascribe primary causes to action only
  - E.g. .." its not racism or classism, it is just the law that people caught with marijuana go to prison"
    - Secondary causes: poor people, people of color may be less likely to find jobs with a living wage, thus more likely to participate in underground economies; people with resources get good lawyers who can get reduced charges, no prison time; judges are more likely to sentence blacks to harsher sentences
- While applying the "rules", perpetrators tend to be unaware that they give preferential treatment to some, usually of the dominant race/ethnicity



# Example

Institutional racism example:  
From Philadelphia study (EDIC, Hogan PI)

- **“Three strikes and you’re out” health clinic rule**
  - *Miss 3 appointments and you must seek care elsewhere*
- **Merely a business/economic decision from practice standpoint**
  - *“People act as an agent on behalf of an institution, whose standard practice creates, exacerbates or perpetuates vulnerability and race differences”*
  - *Lack of compassion*
- ***If they only knew what women had to go through to get to care!***

# Racism: from the victim's perspective:

- Perceived
- Unperceived, invisible, hidden
- Attributionally ambiguous



	Places Limitations on:	Functional Effect	Pathway:
<b>Discrimination</b>	Access	<i>“Kept out, kept down, kept back” from resources and information related to protecting/obtaining health</i>	People require access to jobs, information, good education, etc. to survive and thrive in society. Through discrimination, (whether intentional or not) African Americans are denied equal access to these resources.
<b>Segregation</b>	Place	<i>“Kept away”. Most life activities are separated from places where resources and information related to protecting/obtaining health reside; required to make extra effort to get to resources and overcome outsider status.</i>	Location of where people live, work and play defines their access to resources and information, segregation limits African Americans to areas that are devoid of adequate resources. People thus have to work harder for the same resources as other groups of people, endure lesser quality, pay a higher price, or do without.
<b>Historical Starting Points</b>	Positionality	<i>“Left behind”. Starting from and left behind. Historical realities create setbacks that put one group chronically behind the status quo</i>	Always working from a position that is physically or structurally “in the back of the bus”. No matter how equal care or services are across race/ethnic lines, the playing field is seldom level. African Americans will always require (but seldom receive) extra effort and resources for catch up
<b>Unearned Privilege</b>	Advantage	<i>“Left out” of perks, favors, and advantages; exacerbates unfavorable positionality; may be exacerbated by “outsider” status.</i>	“Perks” fuel forward progress or provide flexibility to manage multiple burdens, or overcome a deficit. Women perceive that Whites give to each other and receive overt and subtle perks, but African Americans rarely receive them
<b>Social Apartheid</b>	Time	<i>“Kept bound”. Kept from making change; prime resources needed to affect life change (time, energy) are usurped</i>	People require leisure time for non-economic, non-survival related activities. This includes time to plan, time to de-stress, time to exercise, time to care for self, etc.. Time appears to be usurped by programmatic rules and requirements; no leisure time left to pursue advancement or progress
<b>Inaction in face of need</b>	Quality of Life		

Experience of racism can provoke:

- Anger
- Frustration
- Stress
- Limitations in access to needed resources

(David Williams, 2010)

These can occur whether or not you know you experienced racism and whether or not the racism was intentional.

# Physiologic and psychological effects of Racism exposure

## Anger and frustration

- cause adverse cardiac changes
  - Contractility
  - Heart rate (Blascovitch 2010)

## Stereotype threat leads to

- raised BP, affects memory, saps will power

## Stigma

- Reduces intention to change behavior (e.g. overeating if stigmatized)
- Reduced memory may impair ability to remember doctor advice, inc mistrust of advice
- Avoidance behavior is a reaction to stigma and reinforces it

(Joshua Anderson , NYU)

- There is often a time lag in effects of racism exposure (G Gee)

# Research: Does Racism Impact Health?

Paradies, Y. 2006 *Int J Epidemiology*. 35:888-901

- Majority of studies (54%) found some association with health
- 133 studies reviewed (multiple outcomes within studies)
- 148/206 found positive associations w mental health (distress, depression)
- 61 /171 found positive association with physical health outcomes (108 found no association) (HBP, Hyp, birthwt)
- 21/34 found pos assoc with health behaviors (smk, alc, substance use)

- Approximately 27 studies looking at LBW or PTB
- Collins et al., 2000
  - Mothers of VLBW infants were more likely to report exposure to racial discrimination during pregnancy than were mothers of normal birth weight infants. The unadjusted OR of VLBW for maternal exposure to racism during pregnancy was 1.9 (confidence interval [CI] 0.5– 6.6).

*Collins, J. W., David, R. J., Symons, R., Handler, A., Wall, S. N., & Dwyer, L. (2000). Low-income African American mothers' perception of exposure to racial discrimination and infant birthweight. Epidemiology, 11, 337–339.*

# SUMMARY of racism impact

Racism and social context are intertwined, contribute to health inequities:

- By setting historical starting points for social disadvantage
- By increasing stress
- By differential access to health protecting resources and environments
- By creating a separate set of life requirements and activities that undermine the ability of women to participate on equal footing in standard ways of “getting ahead”
- By perpetuating lifecourse exposure and thus cumulative exposure to adverse social conditions relating to health

**SO back to the QUESTION:**

**How can we change the structural conditions that have historic roots and deeply engrained social, cultural and institutional mechanisms that maintain and exacerbate social and economic and by extension, health inequities?**

**When we have seemingly limited power against these forces as public health, social work and medical professionals**

**If we can improve these, we can improve preconception and lifecourse health and achieve health equity**



# Addressing Structural and Historic Exposures

**BIG "S" Society: the structures and institutions in society  
that perpetuate inequality**

**Little "s" society: the places where we live, work, play, study,  
worship**

**Big S Society is an aggregate of all of our little "s" societies.**

**“Be the change you want to  
see in the world”**

*Mahatma Gandhi*

change where you live, work, play, study  
and worship ( in your little "s" society)  
and you have a hand in changing the Big  
" S" Society that we all live in.

How does that work?

# Example of “little s” impact on Big S

- Bank of America announced that they were going to levy a \$5 charge to use your debit card.
- Between September 29 2011 and November 1 2011, 650,000 people moved their money from a major bank to a credit union or community bank.
  - This does not include the numbers who moved money during the organized “Move your Money day” which was November 6.
  - Approximately 500,000 people moved to credit unions in all of 2010 combined; more people did so in this week than in all of 2010
- On or about November 7, BoA rescinded plans to charge for debt cards

Collective action: When people work together toward a common interest, they can move mountains



## **Always do a Health Impact Assessment**

How is this proposed policy( or existing policy) going to impact my health or the health of the people I serve?

Ex. How you vote determines social policy and thus affects the issues you face on the job. When you vote for politicians, policies or procedures which limit the rights of any group, which increase inequality, which remove protections for vulnerable groups, or remove resources for undoing past ills—it will affect you negatively because it increases the production of the problems



- **Always partner with and listen to the “populations you serve”**

Knowing how a policy or procedure will affect them requires their direct perspective, not your assumptions about what is best for them

- **Do a “racism impact assessment” where you live, work, play, worship, study.**
- **Undo the structural manifestations of racism identified**

How is racism /discrimination/inequity operating here?

In what way has history created adverse positionality for some groups?

How has this been codified, institutionalized and perpetuated in the policies, practices, rules of the agency/institution?

:

# Conduct a vulnerability impact assessment

- DO some people have to use more resources, time and effort to reach the services we provide than others (because of segregation, disability, multiple burdens or other reasons?)
- Are we more likely to share information about opportunities and resources with already privileged groups that we are familiar and comfortable with? Because you have better access to them?
  - What can we do to expand and diversify our lines and modes of communication?
- Do I or anyone I work with have hidden negative feelings toward some groups?

Use Universal design to design services

- Do the policies, procedures and rules of this organization **ALWAYS SUPPORT** and **NEVER INHIBIT** peoples' ability to be healthy and practice healthy behaviors?

# Conclusion/Future directions

- If we change the institutions where we live, work, play, we will change the lifecourse of future exposures for the children
- Still need more research to figure out how to Repair/remediate the effects of adverse historical and lifecourse exposures that have already happened for current generations of adults.
  - (ex. Nutrition supplementation for mothers who are heavy alcohol users can reverse some adverse effects of FAS in infants) (May, P, 2010)

# END

Thank you!

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