HEALTH DISPARTITES IN OUR COMMUNITY:

WH0, WHERE, WHY, AND WHAT CAN BE DONE?

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UAB

YOU ARE F(rank)-ED!

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HAPPY TO RESPOND TO YOUR QUESTIONS AND COMMENTS

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OUTLINE OF PRESENTATION

1. OVERVIEW AND PATIENT PRESENTATION
2. OBESITY OUTCOMES AND GEOGRAPHIC DISTRIBUTION
3. PLACE MATTERS: WHERE YOU LIVE, WORK AND PLAY
4. EDUCATION, HEALTH AND WEALTH
5. HEALTH OUTCOMES: NATION, ALABAMA AND JEFFCO
6. DETERMINANTS OF HEALTH OUTCOMES
7. COMMUNICATION AND FACILITATION FOR BETTER HEALTH OUTCOMES
8. BUSINESS CASE FOR BETTER HEALTH OUTCOMES
9. STRATEGIES FOR IMPROVING HEALTH OUTCOMES
10. DISCUSSION: QUESTONS AND ANSWERS

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The Socioeconomic Health Gradient: Job of Public Health: Lower the angle

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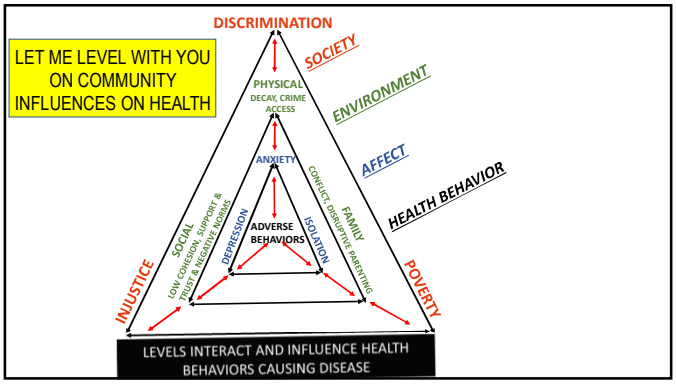

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Weight Management Clinic
Tameka Oates* 2006-2018 clinical course

- African American Female referred for obesity
- Age 11: 62 inches 234 lbs BMI 42.8 (95th %ile BMI 23.5) Tanner 2 Insulin resistance, high triglycerides and low HDL C. Mother and grandmother with Type II diabetes. Lifestyle and activity counseling, repeated at all follow-up visits.
- Age 14: 64 inches 266 lbs BMI 45.7 (95th %ile BMI 27)
- Age 18: 64 inches 296 lbs BMI 50.8 (95th %ile BMI 30)
- Age 19: Pre-pregnancy reported weight "over 300", gestational diabetes, adequate prenatal care, newborn male 8lbs 6oz (Dajuan), single

* Not her real name

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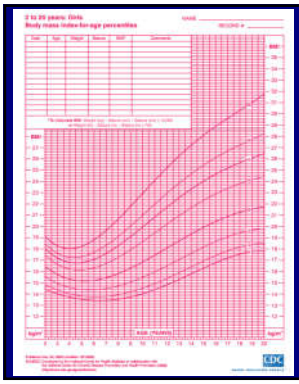

Pediatric Obesity: BMI > 95th percentile of a child of the same age and gender

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Tameka Oakes Medical History

- Born 6 weeks early; mother does not recall birthweight
- Her mother was 17 when Tameka was born
- Tameka's dad was in the area but visited rarely
- Family History: Transgenerational obesity and diabetes

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Tameka Oates: Social History

- Resides in Ensley with her mother and Dajuan
- Left Jackson Olin High school after 10th grade; (53% graduation rate BHAM City)
- Plans to complete GED "when he starts Head Start"
- Not currently working outside home but looking for job
- Taking care of Dajuan is "a lot of work"
- Tires easily and her feet hurt

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OBESITY OUTCOMES AND DISTRIBUTION

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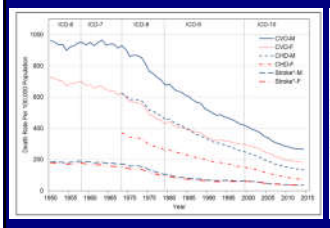
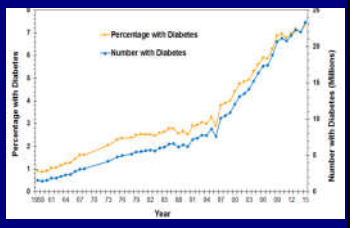
CVD and DM

"It's always something - if it ain't one thing it's another."*

Age-adjusted cardiovascular disease (CVD) mortality rates in US by sex 1950- 2014.



Number and percentage of US population with diagnosed diabetes 1958-2015



Circ Res. 2017;120:366-380. *Gilda Radner as Roseanne Roseannadanna www.cdc.gov/diabetes/data

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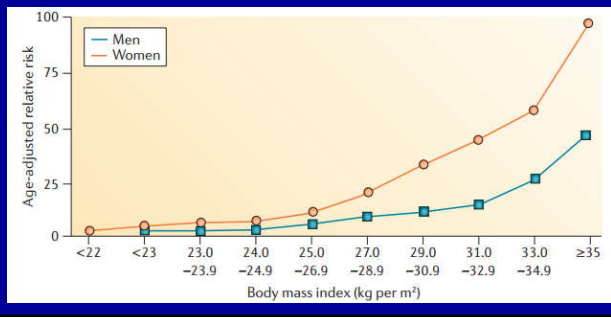
Association between BMI and T2DM



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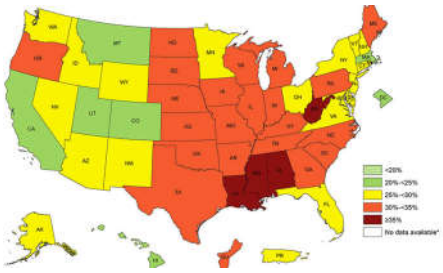
Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2015



SITE	OBESITY ADULTS (%)
JeffCo	34.4
BHAM City	41.9

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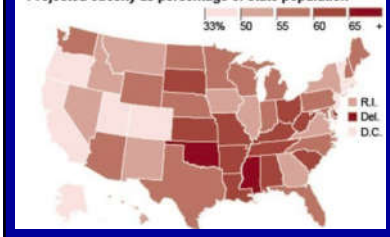
Projected obesity rates nationwide

By 2030, advocates predict that more than 50 percent of residents in 39 states could be obese. The U.S. government projects 42 percent obesity nationwide.

Projected obesity as percentage of state population



ALABAMA:
54% OF ADULTS
WILL BE OBESE
IN 2030

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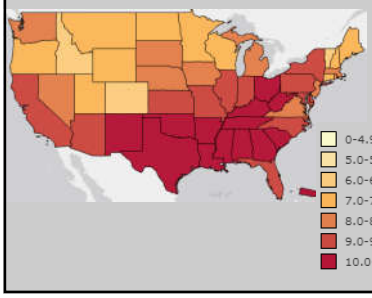
DIAGNOSED DIABETES AGE-ADJUSTED PERCENTAGE AMONG ADULTS - 2014



Adult Diabetes 2014	
US	9.1%
AL	11.8%
JEFF CO	12%

ALABAMA DM 30% HIGHER THAN US. BHAM CITY DM 10% AND OBESITY 22% HIGHER THAN JEFFCO

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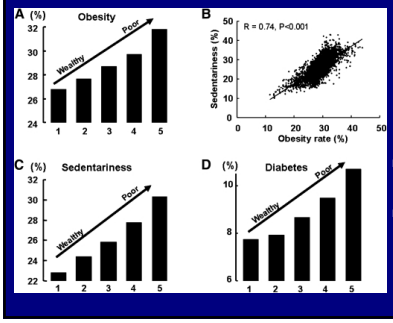
DIABESITY RELATIONSHIPS



Data from 3,139 counties in the U.S. ranked by % of people living with poverty. Quintile 1, the wealthiest quintile, with a mean county poverty rate of 8.2% (median household income, $56,259). Quintile 5, the poorest quintile, with a mean poverty rate of 25% (median household income, $32,679). A: County age-adjusted obesity rates by poverty quintile. B: County obesity rates vs. county leisure-time sedentary rates (sedentary adults are those who report no physical activity or exercise other than at their regular job). C: County sedentary rates. D: Age-adjusted diabetes rate by poverty quintile.

Diabetes. 2011 Nov; 60(11): 2667–26

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Tameka Oates: Why did she fail to lose weight?

- Did not adhere to diet and activity plan
- Did not keep follow up visits
- Family was not involved and was not supportive
- Family unwilling to change their diet
- Poor counseling skills by healthcare team

Who can we blame and shame?
What did we miss?

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PLACE MATTERS
WHERE YOU LIVE WORK AND PLAY

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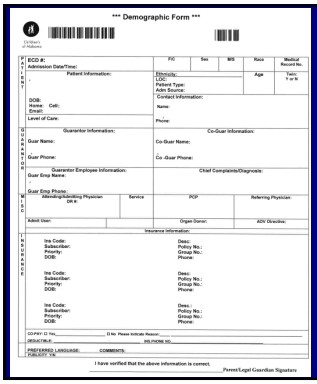

What data after patient name, age and chief complaint is the most important information on this form?

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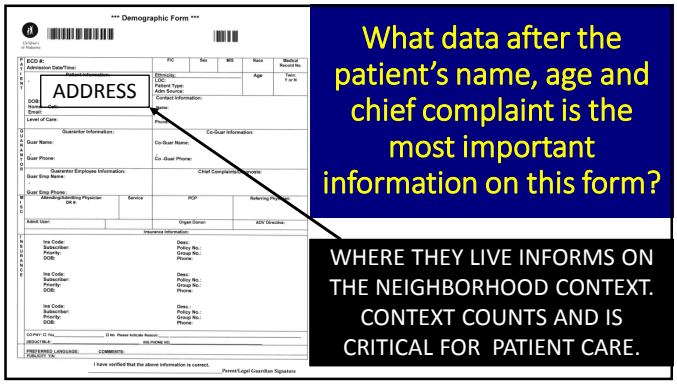

What data after the patient's name, age and chief complaint is the most important information on this form?

WHERE THEY LIVE INFORMS ON THE NEIGHBORHOOD CONTEXT. CONTEXT COUNTS AND IS CRITICAL FOR PATIENT CARE.

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"When it comes to health, your zip code matters more than your genetic code."
Dr. Tony Iton

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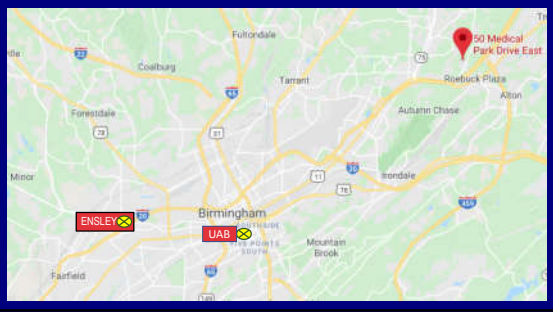
ENSLEY IS ON I-20 59 WEST OF DOWNTOWN



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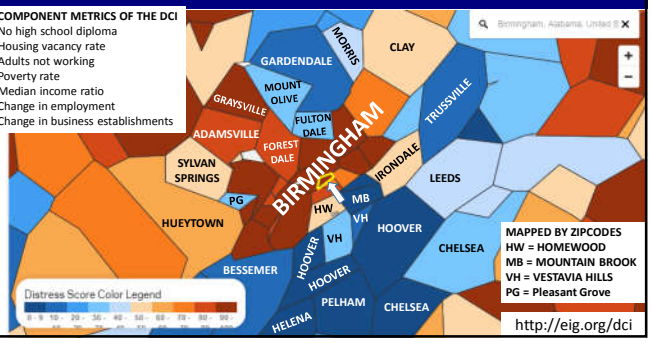
DISTRESSED COMMUNITIES INDEX (DCI): 2017

7 COMPONENT METRICS OF THE DCI
1.No high school diploma
2.Housing vacancy rate
3.Adults not working
4.Poverty rate
5.Median income ratio
6.Change in employment
7.Change in business establishments



MAPPED BY ZIPCODES
HW = HOMEWOOD
MB = MOUNTAIN BROOK
VH = VESTAVIA HILLS
PG = Pleasant Grove

http://eig.org/dci

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ENSLEY: CHARACTERIZING THE CONTEXT

HOUSING	INDICATOR VALUE (%)	RANK AMONG 20 BHM CITY NEIGHORHOODS
Abandoned Structures	16.2	14
Vacancy Rates	21.3	9
Violent Crime #/1000 residents	20.5	14
Public Assisted Households	62.5	15
Concentrated Poverty*	43.3	16

*> 40% residents below federal poverty limits = Additional burdens on poor families beyond their individual circumstances would dictate.

www.shapebham.com

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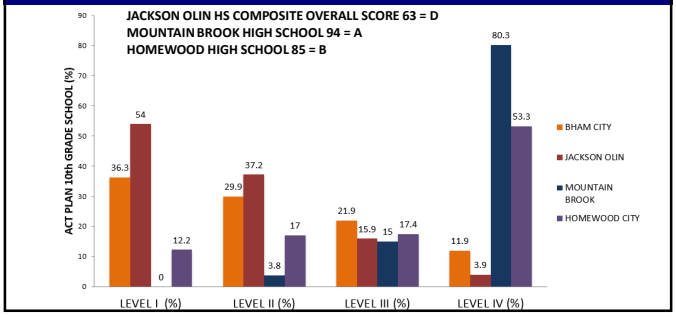
EDUCATIONAL DISPARITIES: ENGLISH 2015



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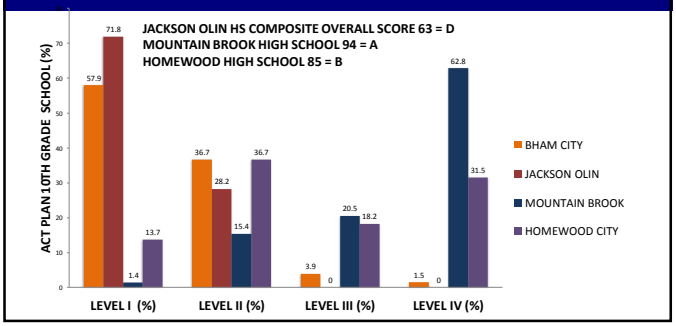
EDUCATIONAL DISPARITIES: MATH 2015



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Composite Index of Opportunity

RACE FOR RESULTS INDEX:

	US	AL
WHITE	704	602
BLACK	345	279
B/W (%)	49	46

THE I2 MEASURES IN THE RACE FOR RESULTS INDEX

Babies born at normal birthweight	Young adults ages 19 to 26 who are in school or working
Children ages 3 to 5 enrolled in nursery school, preschool or kindergarten	Young adults ages 25 to 29 who have completed an associate's degree or higher
Fourth graders who scored at or above proficient in reading	Children who live with a householder who has at least a high school diploma
Eighth graders who scored at or above proficient in math	Children who live in two-parent families
Females ages 15 to 19 who delay childbearing until adulthood	Children who live in families with incomes at or above 200% of poverty
High school students graduating on time	Children who live in low-poverty areas (poverty <20%)

The Annie E. Casey Foundation | www.aecf.org

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High school education outcomes (2018):

Birmingham City Vs. Over the Mountain Communities

SCHOOL SYSTEM	GRADUATION RATE (%)	COLLEGE AND CAREER READINESS (CCR) %	PROFICIENCY % (ENGLISH, MATH , SCIENCE)	GAP (GRADUATION RATE – CCR RATE) * %
BIRMINGHAM CITY	79	45	14**	34
RAMSEY	100	97	66	3
MOUNTAIN BROOK	97	98	91	-1
VESTAVIA	94	93	81	1
HOMEWOOD	93	87	74	6
HOOVER	93	86	70	7
ALABAMA (total, white, black)	90, 91,87	75, 81,56	43,56,21	15,11, 31

- ALABAMA OVERALL GAP IS 11% IN WHITES AND 31% IN BLACKS
** WITHOUT RAMSEY

WHAT IS THE VALUE OF A HIGH SCHOOL DIPLOMA IN BRIMINGHAM CITY??!!!

http://parcalabama.org/college-and-career-readiness-in-alabama/

https://www.al.com/news/2019/01/here-are-alabamas-2018-test-results-for-k-12-schools.html

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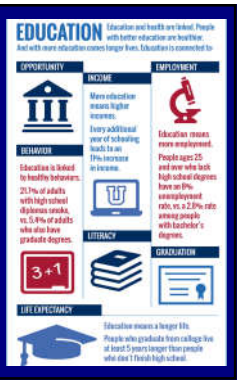
FATE OF STUDENTS IN BIRMINGHAM CITY HIGH SCHOOLS

- 75% of high school students in Birmingham city are in failing schools (lowest 6% of schools)
- 6500 students in high schools in Birmingham city –
- 341 students in each year (21%) do not graduate
- 894 students in each year (55%) are not college or career ready
- Every year, 1235 students in Birmingham are destined for poverty and poor health

EDUCATON ⟷ WEALTH ⟷ HEALTH



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HEALTH OUTCOMES: US AND ALABAMA

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County	Male 1990	Nation-Local 1990	Male 2010	Nation-Local 2010	Female 1990	Nation - Local 1990	Female 2010	Nation-Local 2010
Jefferson	68.9	2.6	72.0	4.1	76.5	1.8	77.5	3.3
Shelby	71.9	- 0.4	77.3	- 1.2	77.9	0.4	81.0	- 0.2
St Clair	69.6	1.9	72.3	3.8	77.8	0.5	78.5	2.3
Blount	70.7	0.8	73.1	3.0	79.2	- 0.9	78.6	2.2
Walker	67.9	3.6	68.2	7.9	76.9	1.4	75.0	5.8
Chilton	69.4	2.1	70.8	5.3	77.3	1.0	76.9	3.9
Bibb	68.4	3.1	71.5	4.6	76.2	2.1	76.8	4.0
National	71.5		76.1		78.3		80.8	

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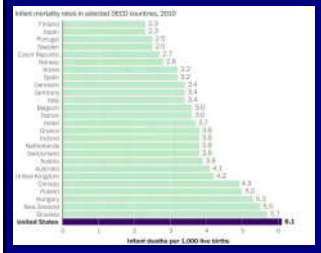
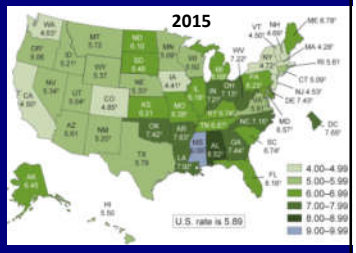
INFANT MORTALITY RATE: US LAGS BEHIND 27 OTHER HIGH-INCOME COUNTRIES. ALAMABAMA HAS 2ND HIGHEST RATE IN US





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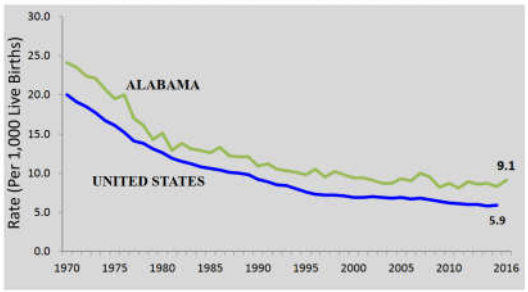
INFANT MORTALITY RATES
ALABAMA AND UNITED STATES[1] 1970-2016



ALABAMA DEPARTMENT OF PUBLIC HEALTH

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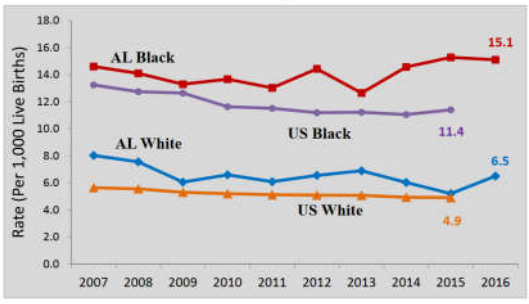
INFANT MORTALITY RATES
ALABAMA *vs.* US, 2007-2016



ALABAMA DEPARTMENT OF PUBLIC HEALTH

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WHY ARE SOME PEOPLE HEALTHIER THAN OTHER PEOPLE ?

UPSTREAM INFLUENCES ON HEALTH

CONSIDER THE CAUSES OF THE CAUSES IN OUR CASE AND IN YOUR CASES

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Social Examination:
Place of patient in population and place

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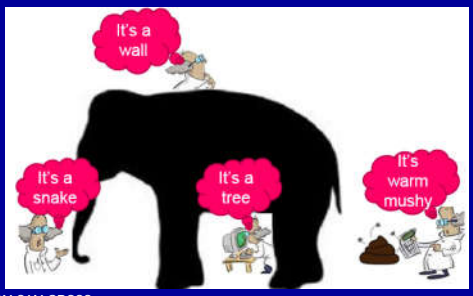
Fixation on a part of system misses the whole



ADAPTED FROM SAM GROSS

"THE BLIND MEN AND AN ELEPHANT" JOHN GODFREY SAXE

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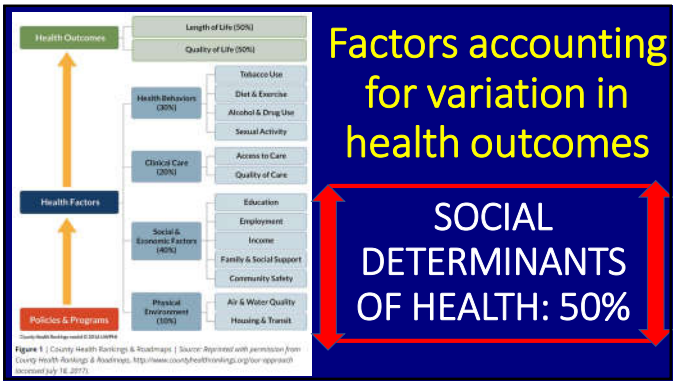

Factors accounting for variation in health outcomes

SOCIAL DETERMINANTS OF HEALTH: 50%

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SDOH-Obesity Associations

- Residential segregation
- Depression
- Social ostracism
- Stress-induced snacking
- Neighborhood safety and security
- Social capital

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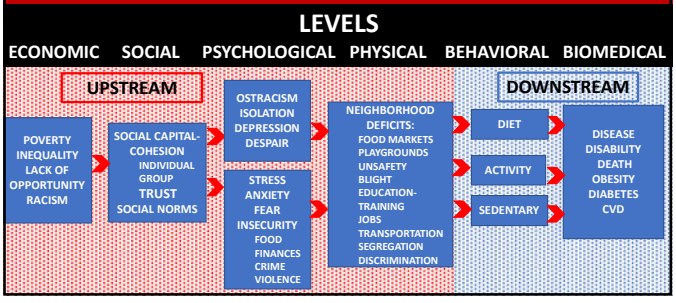
DIABESITY: A COMMUNITY DISORDER



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WHY DON'T WE FIX THE PROBLEM?
Does awareness change our attitudes? Can we even discuss the problem without fighting?

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What happens with awareness?
Is there common understanding?

NO!

WE SEPARATE!

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What separates US?

We are separated by our cultural values!

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More Information Hypothesis = BS

Belief our most bitter political battles are misunderstandings. If only we were more informed, then we would not fight. This seductive model suggests other people aren't wrong so much as they're misguided, ignorant, or misled. It holds that our debates are tractable and that the answers to our toughest problems aren't very controversial at all.

Problem: Hypothesis fails to explain polarization over many issues

NEED MORE INFO. PLEASE

VS.

NEED NO MORE INFO. PLEASE

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Our attributions come from our deep cultural values

Although associations between attributions of responsibility and support for social remedies are partly due to political views, they persist when controlling for partisanship, political ideology, and SES

THE CULTURAL WORLDVIEWS THESIS: Cultural cognition of risk is the tendency of individuals to form risk perceptions congenial to their values.

Cultural cognition: Individuals form risk perceptions that reflect and reinforce their cultural worldviews.

The Milbank Quarterly, Vol. 86, No. 3, 2008 (pp. 481–513)

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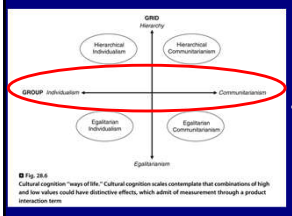
Group: Individualism - Communitarian



- An individualistic views of life inclines us toward a highly competitive worldview. People are expected to fend for themselves without collective assistance or interference.
- In a strong group, communitarian way of life, people interact frequently in a wide range of activities. They depend on one another to achieve their ends. This communitarian mode of social order promotes values of solidarity rather than the competitiveness of individualism

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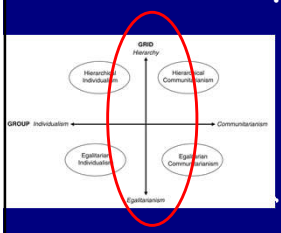
Grid: Hierarchy - Egalitarian



- A high grid way of life (HIERARCHY) organizes itself through pervasive and stratified role differentiation. Goods, offices, duties and entitlements are all distributed based on explicit public social classes (e.g. sex, color). Thus, a hierarchical view predisposes people to attend to maintaining rank-based constraints supporting their own position and interests. GROUP PROTECTION
- A low grid way of life (EGALIATARIAN): No one is prevented from participation in any social role because they are wrong class.

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WE FAVOR PEOPLE IN OUR GROUP

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SDH: Need two-sided messages – YES, BUT

- BELIEFS OF GENERAL PUBLIC:
  1. Individuals are primarily responsible for their own health behaviors
  2. Medical care is a primary determinant of health.
  3. Yet they recognize social-economic determinants of health and government's role to improve access to health care, education and other social-economic conditions.

- MESSAGE STRATEGY: The Big But

1. Acknowledge role for individual decisions **but**
2. Refute idea that individual behavior and medical care **alone** cause poor health
3. Emphasize unemployment, racial discrimination and poverty shape individual behaviors and medical care by constraining choices due to a lack of resources and poor neighborhood environments and contribute to disparities in population health.

The Milbank Quarterly, Vol. 86, No. 3, 2008 (pp. 481–513)

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Communicating across the cultural divide FAIRNESS AND FACILITATION

Use these about opportunities

- Fair chance for good health
- Opportunities for better health choices
- Give people fair shot in all communities
- Enable people to choose right path
- Give tools to make better decisions

Avoid These

- Equality
- Equal levels of health
- Leveling the playing field
- Creating balance
- Ending disparities
- Unjust, outrage, immoral

http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf63023

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THE BUSINESS CASE FOR RACIAL EQUITY

DOLLARS AND CENTS MAKE SENSE

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CLOSING THE EDUCATIONAL ACHIEVEMENT GAP WILL BE VERY BENEFICIAL TO PRODUCE ECONOMIC, HUMAN, AND SOCIAL GAINS.

$2.3 TRILLION — Estimated increase in the U.S. economy by 2050 if the educational achievement of Black and Hispanic/Latino children was raised to that of White children, according to one study

$13 — Long-term return for every $1 spent on quality early childhood education

500 — Estimated number of jurisdictions across the U.S. implementing inclusionary residential zoning practices

www.nationalcivicleague.org/wp-content/uploads/2018/04/RacialEquityNationalReport-kellogg.pdf

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ALL GROUPS WITH THE SAME OPPORTUNITY FOR GOOD HEALTH WILL BE IMPORTANT FOR BUILDING A HEALTHIER COUNTRY.

$135 BILLION — total economic gain per year if health disparities removed

$42 BILLION — untapped productivity due to health disparities

$93 BILLION — excess health care costs due to health disparities

$175 BILLION — economic impact of shortened life spans

3.5 MILLION — lost life years associated with premature deaths

$230 BILLION — projected economic gain per year if health disparities eliminated by 2050

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POTENTIAL STRATEGIES FOR BETTER HEALTH OUTCOMES

- Education: pre-k for all, tutoring and after school sessions for children falling behind
- Improved school engagement: children and family
- Community programs to improve the physical, social and family environments

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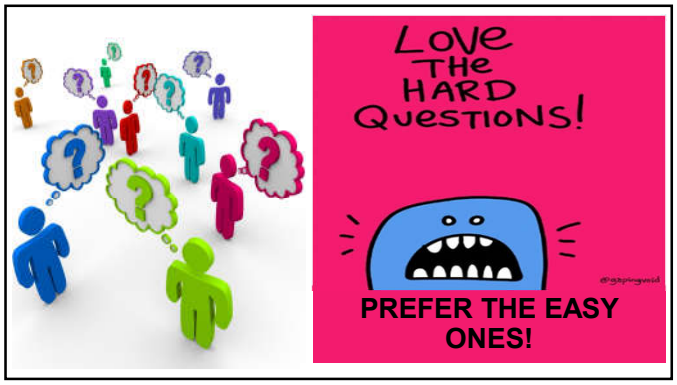

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