Social and Behavioral Sciences CPH Exam Review Session

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Background:
Certified in Public Health (CPH) Exam

- The intent of this 75 minute review session is to assist PHS Officers from a wide range of agencies and disciplines with an opportunity to take the Certified Public Health (CPH) exam through the National Board of Public Health Examiners (NBPHE). As a "pilot" program, this test can be taken by PHS Officers at a reduced cost during the month of October 2015.
- In an effort to assist those PHS Officers interested in obtaining this certification, a total of 8 weekly, 75-minute review sessions will be led. In addition, these sessions will have additional review materials, resources, and "homework"" in which the goal is to assist the officer in being prepared to test for this for the CPH exam.
- Please visit the following website if you are interested in the Certified in Public Health (CPH) Exam through the National Board of Public Health Examiners (NBPHE) under this pilot program for the month of October 2015. At this website you will also have access to information on the pilot project (ie: target population) and resources to begin to prepare you for examination:

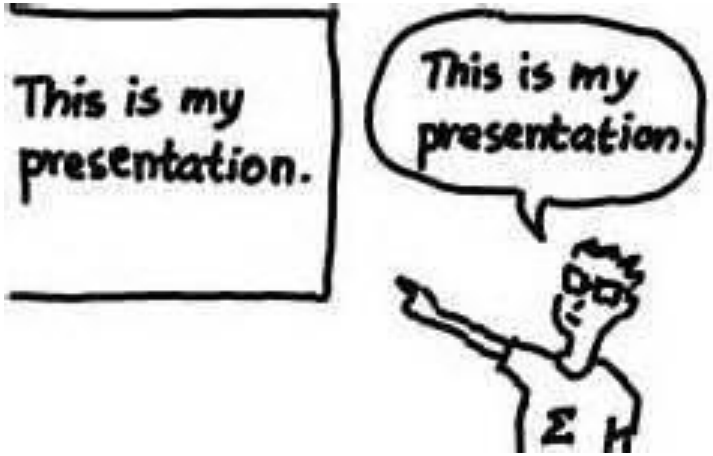
www.nbphe.org

For questions please email LCDR Evelyn Seel at Evelyn.Seel@hhs.gov

or CDR Harvey Ball at Harvey.Ball@hhs.gov

CPH Exam Content Outline

1. **Theories, Concepts, and Models**
    - A. Levels of Intervention
        - i. Intrapersonal Level
        - ii. Interpersonal Level
        - iii. Community Level
        - iv. Societal Level
    - B. Health Belief Model
    - C. Theory of Planned Behavior
    - D. Trans-theoretical Model of Change
    - E. Social Cognitive Theory
    - F. Diffusion of Innovation Theory
2. **Intervention Strategies**
    - A. Evidence-Based Practice
    - B. Adapting Programs to Specific Populations
    - C. Social marketing
    - D. Social Ecological Model
    - E. Social Support
3. **Social and Behavioral Determinants of Health**
4. **Mental Health and Addiction**



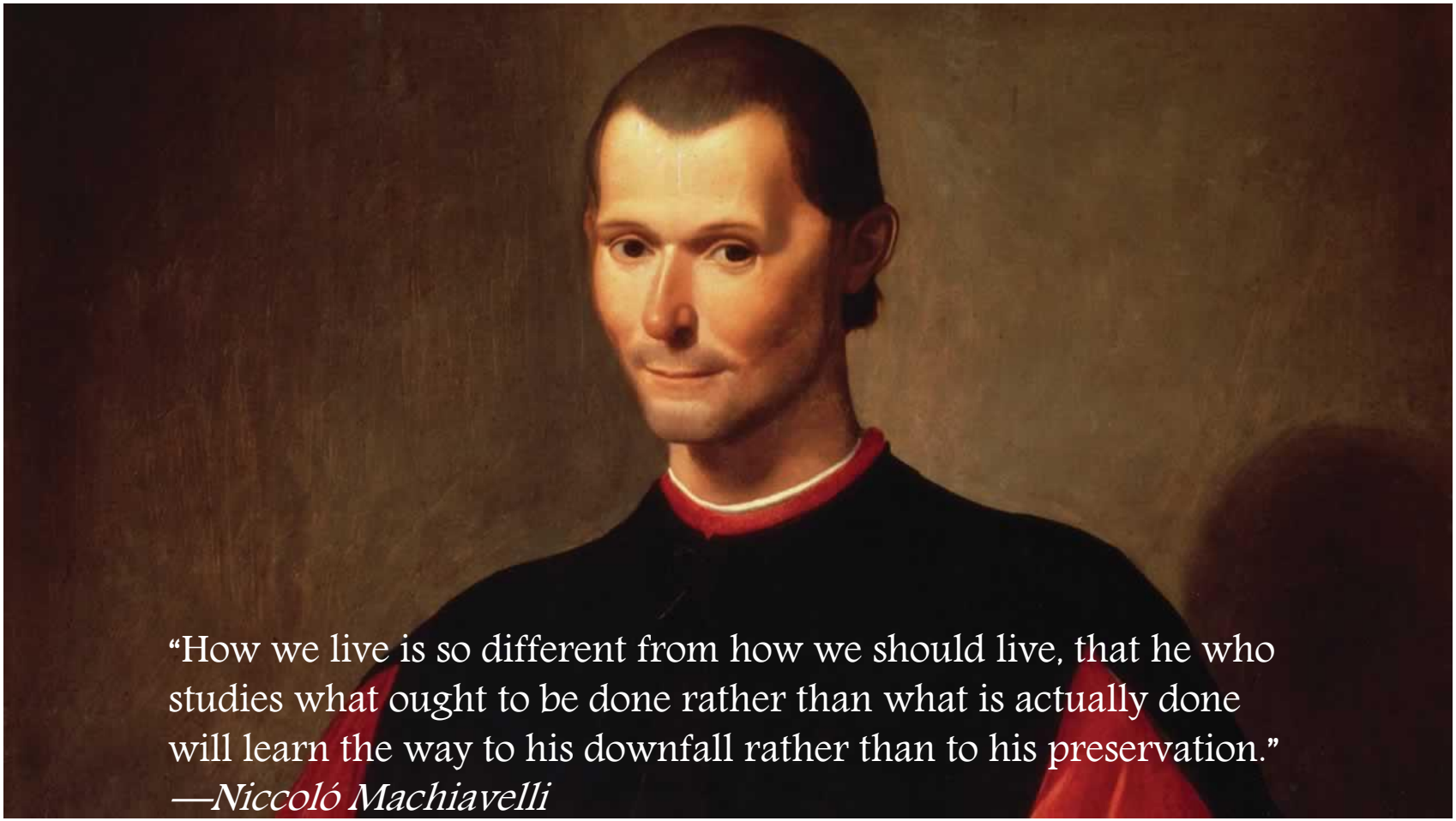
What are the Social & Behavioral Sciences in Public Health?

- *Social and behavioral sciences in public health* constitute applications of the disciplines of social and behavioral science to the specific problems of public health.
- The uses of social and behavioral science for public health practitioners include predictive analysis of phenomena in population health and intervention in population health.

What is social and behavioral science?

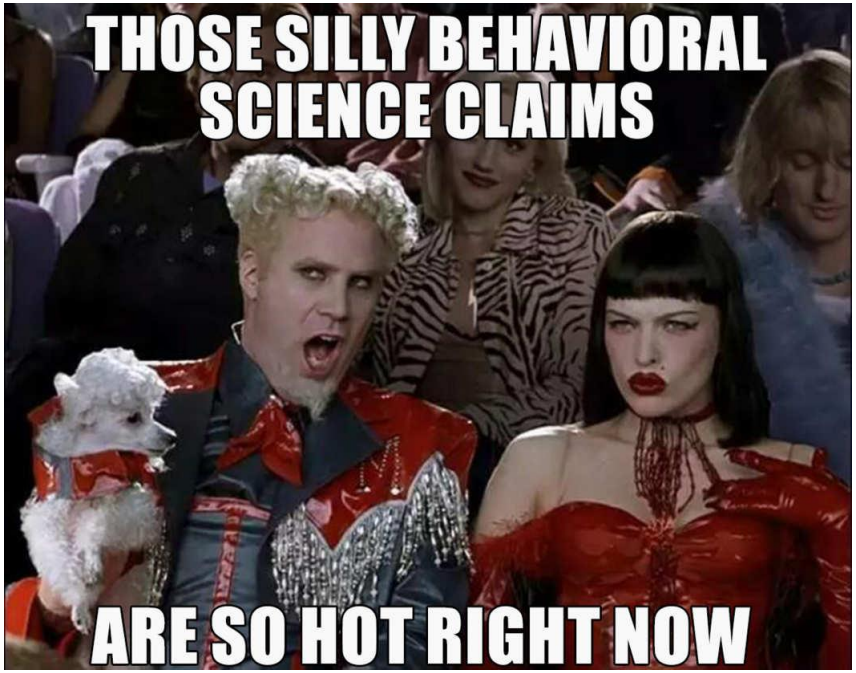
- The social and behavioral sciences constitute a multidisciplinary system of knowledge based on three underlying premises:
  - Human behavior at individual, community, and national/global levels obeys scientifically discoverable laws.
  - The forces influencing human behavior at the individual level are not identical to but are related to those influencing large group behavior.
  - Application of behavioral and social scientific principles can inform techniques to predict and also influence human behavior.

Origins of Social & Behavioral Science



Applied social and behavioral sciences

- Behavioral health treatment
- Marketing
- PsyOps in wartime
- Political campaigning
- Juror consulting
- Social work
- Community organizing
- Public health interventions

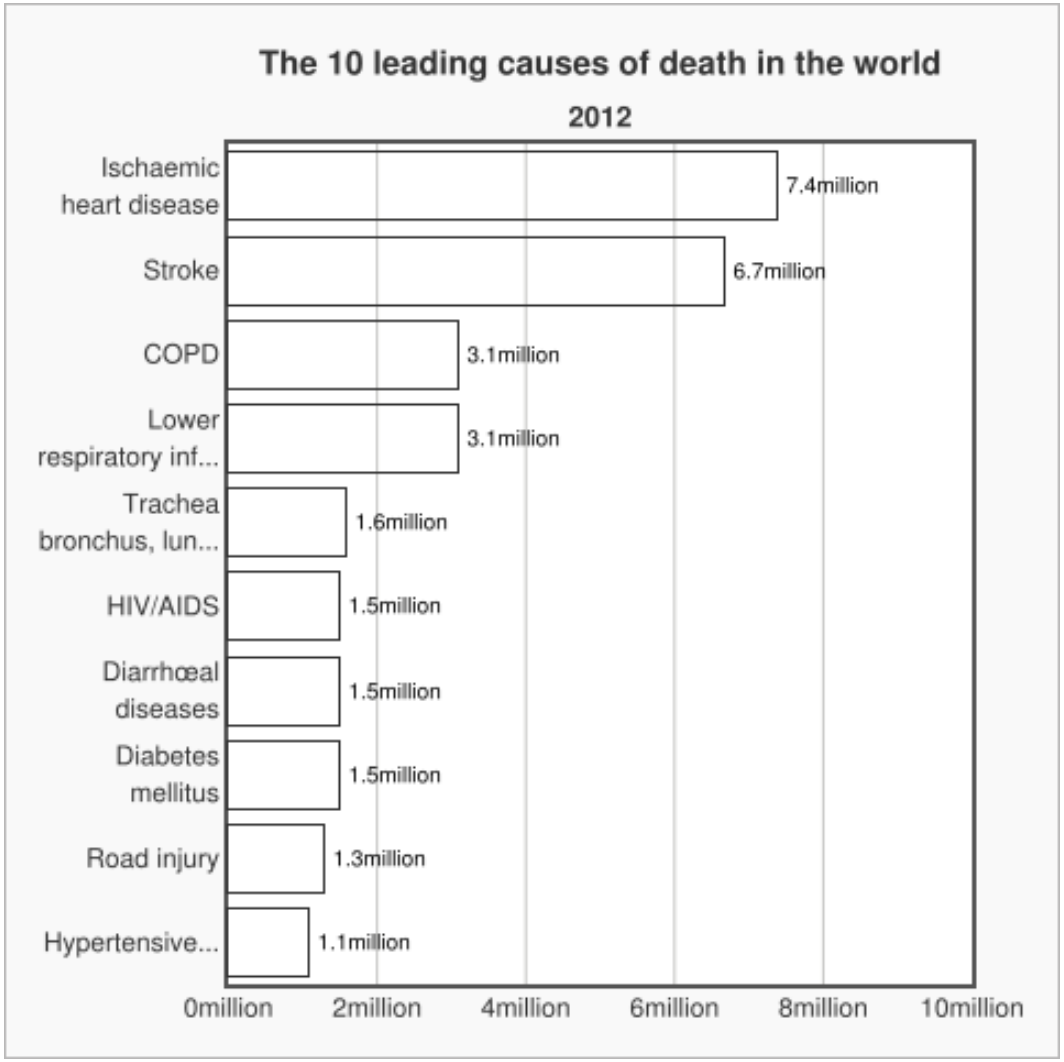


“The social and behavioral sciences in public health address the behavioral, social, and cultural factors related to individual and population health and to health disparities over the life course. Research and practice in this area contributes to the development, administration, and evaluation of programs and policies in public health and health services to promote and sustain healthy environments and healthy lives for individuals and populations.”

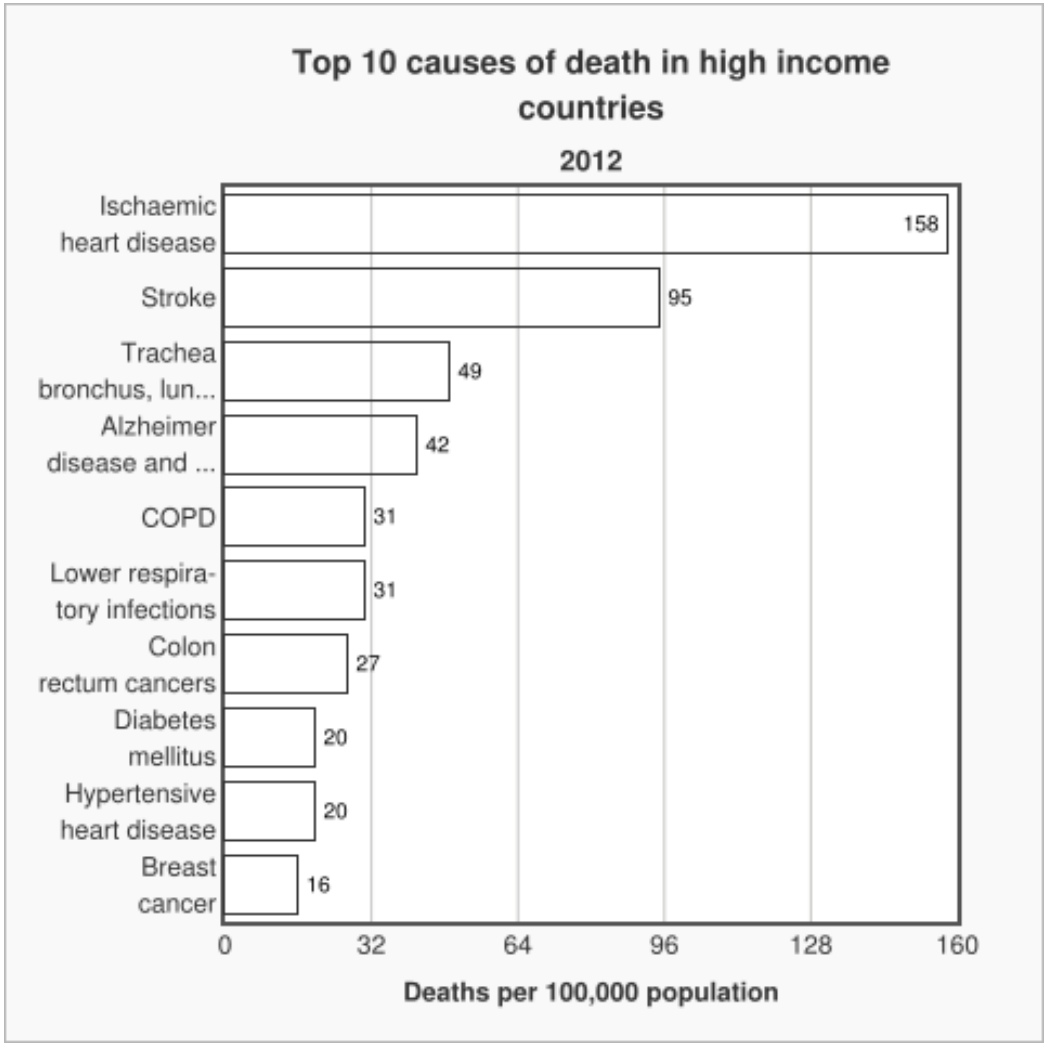
—NBPHE

Why Social and Behavioral Sciences?

WHO Mortality Data: Worldwide



WHO Mortality Data: High Income Countries



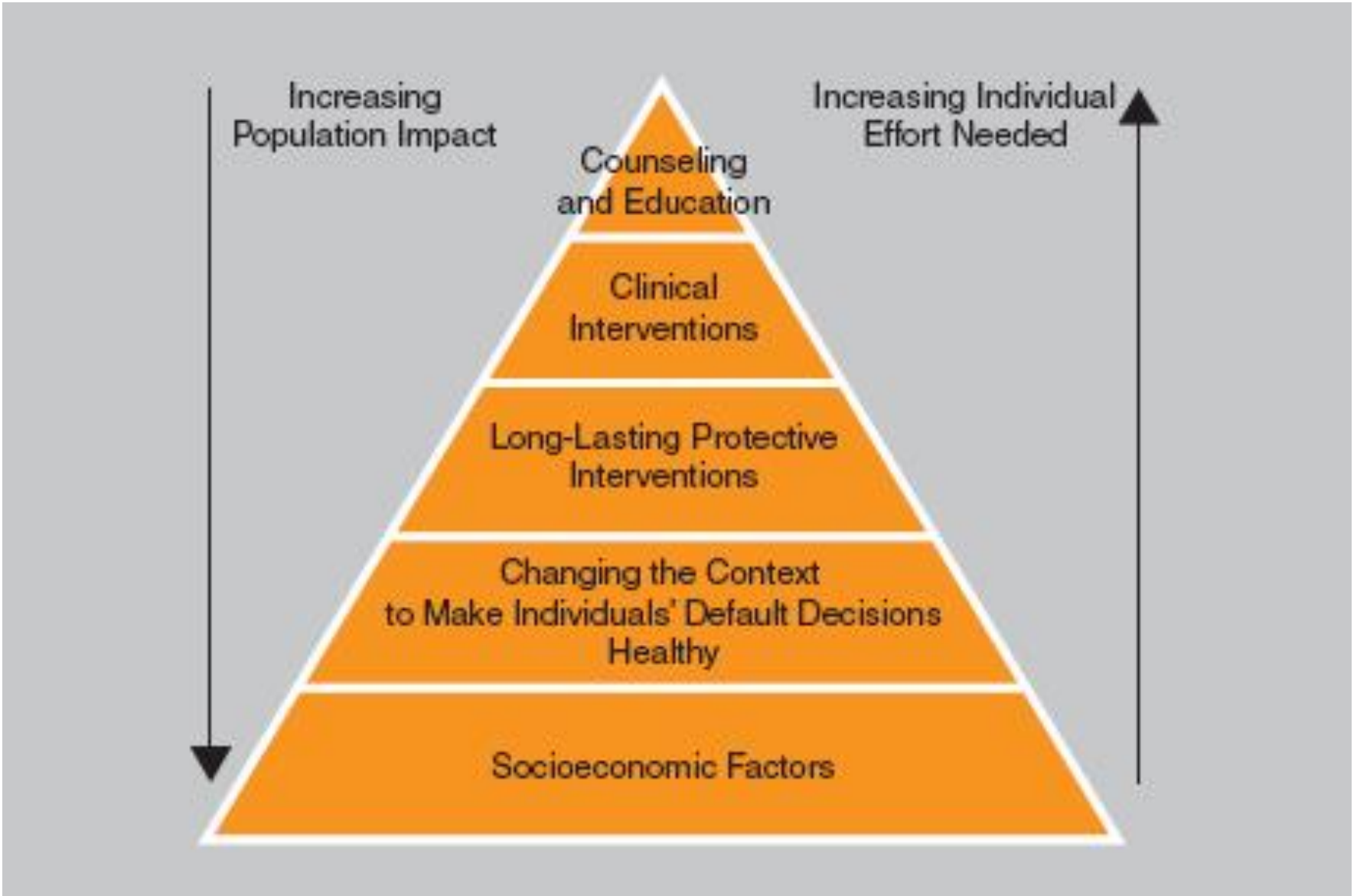
10 Leading Causes of Death by Age Group, United States – 2013

	Age Groups										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Congenital Anomalies 4,758	Unintentional Injury 1,316	Unintentional Injury 746	Unintentional Injury 775	Unintentional Injury 11,619	Unintentional Injury 16,209	Unintentional Injury 15,354	Malignant Neoplasms 46, 185	Malignant Neoplasms 113,324	Heart Disease 488,156	Heart Disease 611,105
2	Short Gestation 4,202	Congenital Anomalies 476	Malignant Neoplasms 447	Malignant Neoplasms 448	Suicide 4,878	Suicide 6,348	Malignant Neoplasms 11,349	Heart Disease 35,167	Heart Disease 72,568	Malignant Neoplasms 407,558	Malignant Neoplasms 584,881
3	Maternal Pregnancy Comp. 1,595	Homicide 337	Congenital Anomalies 179	Suicide 386	Homicide 4,329	Homicide 4,236	Heart Disease 10,341	Unintentional Injury 20,357	Unintentional Injury 17,057	Chronic Low. Respiratory Disease 127,194	Chronic Low. Respiratory Disease 149,205
4	SIDS 1,563	Malignant Neoplasms 328	Homicide 125	Congenital Anomalies 161	Malignant Neoplasms 1,496	Malignant Neoplasms 3,673	Suicide 6,551	Liver Disease 8,785	Chronic Low. Respiratory Disease 15,942	Cerebro-vascular 109,602	Unintentional Injury 130,557
5	Unintentional Injury 1,156	Heart Disease 169	Chronic Low. Respiratory Disease 75	Homicide 152	Heart Disease 941	Heart Disease 3,258	Homicide 2,581	Suicide 8,621	Diabetes Mellitus 13,061	Alzheimer's Disease 83,786	Cerebro-vascular 128,978
6	Placenta Cord. Membranes 953	Influenza & Pneumonia 102	Heart Disease 73	Heart Disease 100	Congenital Anomalies 362	Diabetes Mellitus 684	Liver Disease 2,491	Diabetes Mellitus 5,899	Liver Disease 11,951	Diabetes Mellitus 53,751	Alzheimer's Disease 84,767
7	Bacterial Sepsis 578	Chronic Low. Respiratory Disease 64	Influenza & Pneumonia 67	Chronic Low Respiratory Disease 80	Influenza & Pneumonia 197	Liver Disease 676	Diabetes Mellitus 1,952	Cerebro-vascular 5,425	Cerebro-vascular 11,364	Influenza & Pneumonia 48,031	Diabetes Mellitus 75,578
8	Respiratory Distress 522	Septicemia 53	Cerebro-vascular 41	Influenza & Pneumonia 61	Diabetes Mellitus 193	HIV 631	Cerebro-vascular 1,687	Chronic Low. Respiratory Disease 4,619	Suicide 7,135	Unintentional Injury 45,942	Influenza & Pneumonia 56,979
9	Circulatory System Disease 458	Benign Neoplasms 47	Septicemia 35	Cerebro-Vascular 48	Complicated Pregnancy 178	Cerebro-vascular 508	HIV 1,246	Septicemia 2,445	Septicemia 5,345	Nephritis 39,080	Nephritis 47,112
10	Neonatal Hemorrhage 389	Perinatal Period 45	Benign Neoplasms 34	Benign Neoplasms 31	Chronic Low. Respiratory Disease 155	Influenza & Pneumonia 449	Influenza & Pneumonia 881	HIV 2,378	Nephritis 4,947	Septicemia 28,815	Suicide 41,149

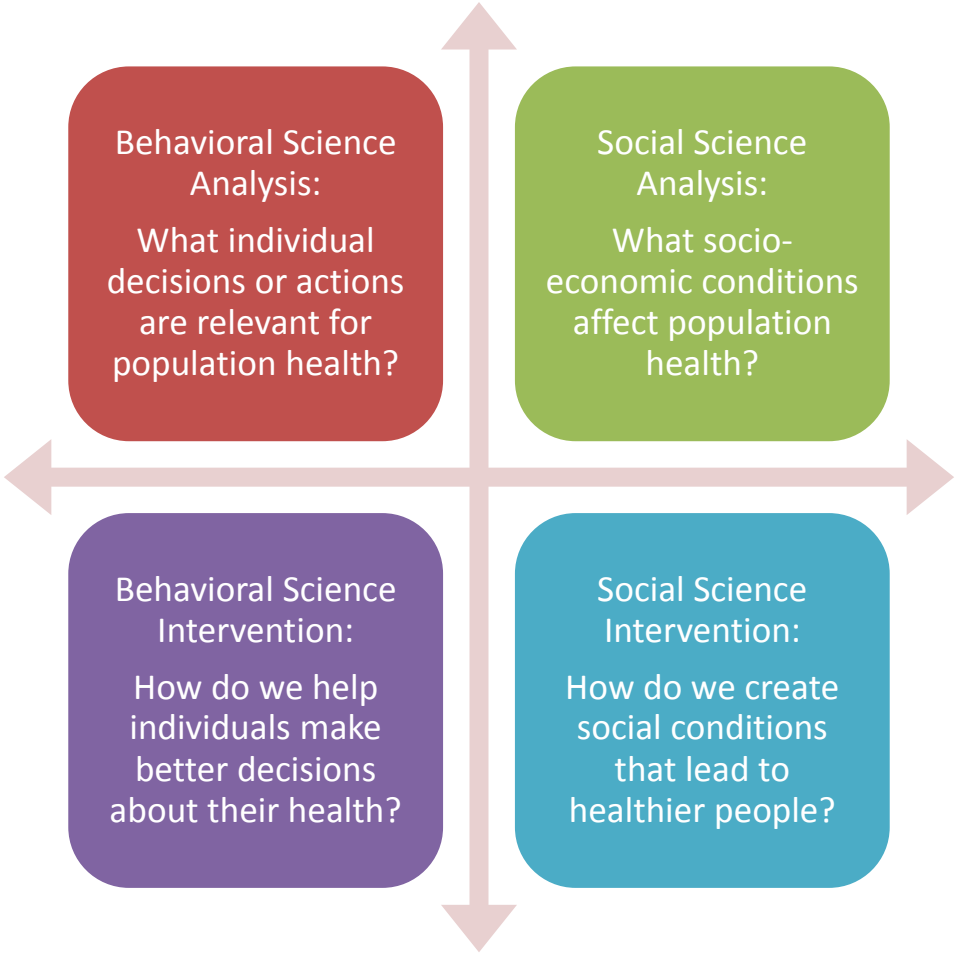
Data Source: National Vital Statistics System, National Center for Health Statistics, CDC.
Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.

Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

CDC Public Health Action Pyramid



Social & Behavioral Sciences



Behavioral Science in Health: Individual Decisions and Behavior

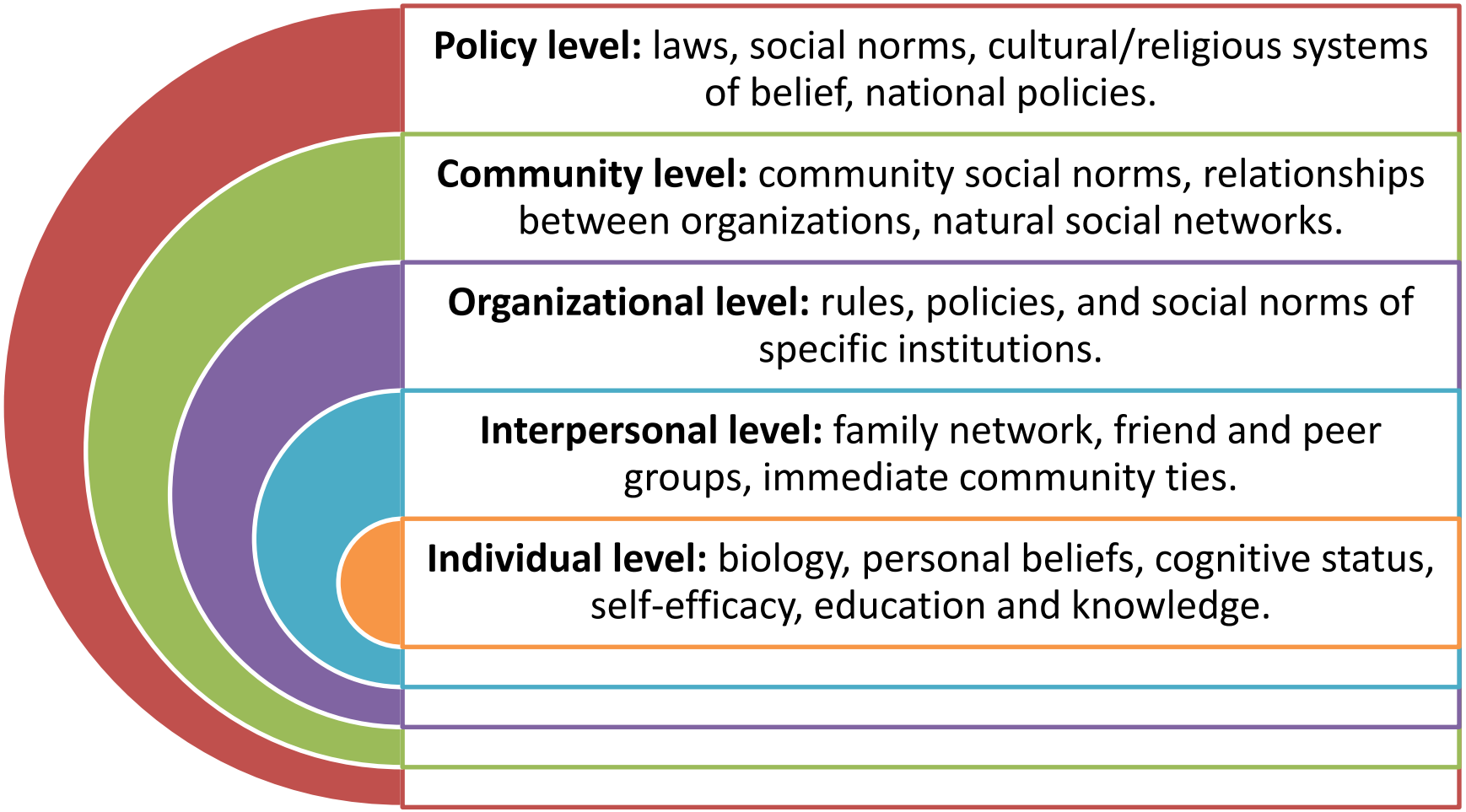
THE ROANOKE TIMES
Monday, September 20, 2004

STEPHANIE KLEIN-DAVIS | The Roanoke Times

Mellisa Williamson, 35, a Bullitt Avenue resident, worries about the effect on her unborn child from the sound of jackhammers.

TRAFFIC: Official says wait for end result

Social Ecological Model



Social Ecological Model

- Health behavior is influenced by multiple factors
- Multi-level interventions have the greatest efficacy
- Phenomena at each level influence other levels
- Interventions that are behaviorally specific are the most powerful

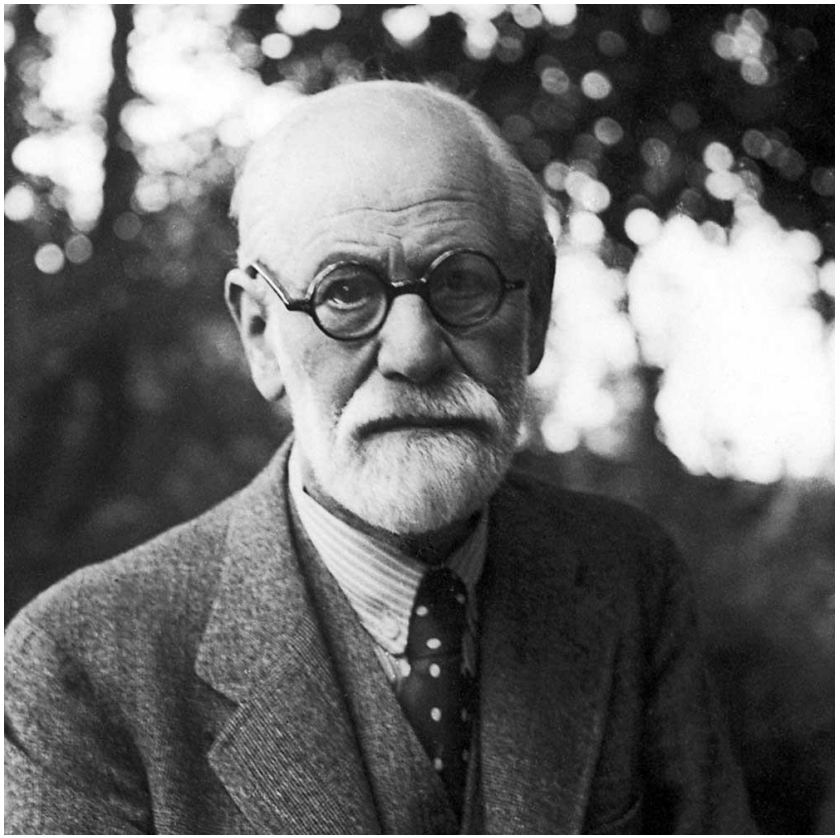
Theories of Change

- **Micro-Level Theories**: focus on the individual and his/her immediate social environment
  - May focus on the individual as the locus of change: Health Belief Model, Theory of Reasoned Action, Trans-Theoretical Model
  - May focus on individual relationships/immediate social ecology as the locus of change: Social Cognitive Theory, Social Support/Social Network Theory, Stress and Coping Theory, Social Influence Theory
- **Macro-Level Theories**: focus on the organizational and cultural context for public health
  - Organizational Change Theory, Community Organization Theory, Communication Theory, Diffusion of Innovation Theory

The Health Belief Model

"He does not believe that does not live according to his belief."

—Sigmund Freud



"A thing is not necessarily true because a man dies for it."

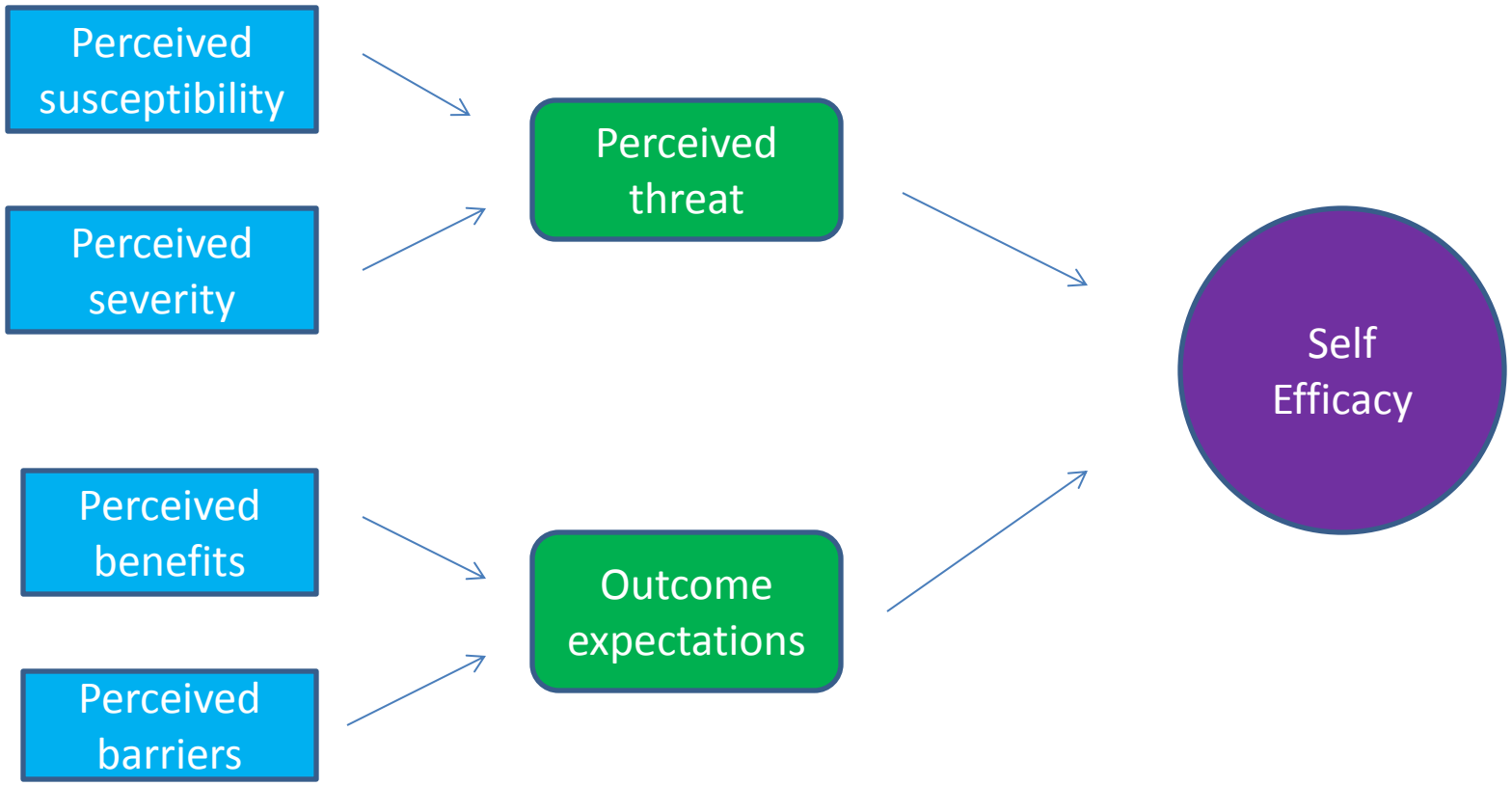
—Oscar Wilde

What is Belief?

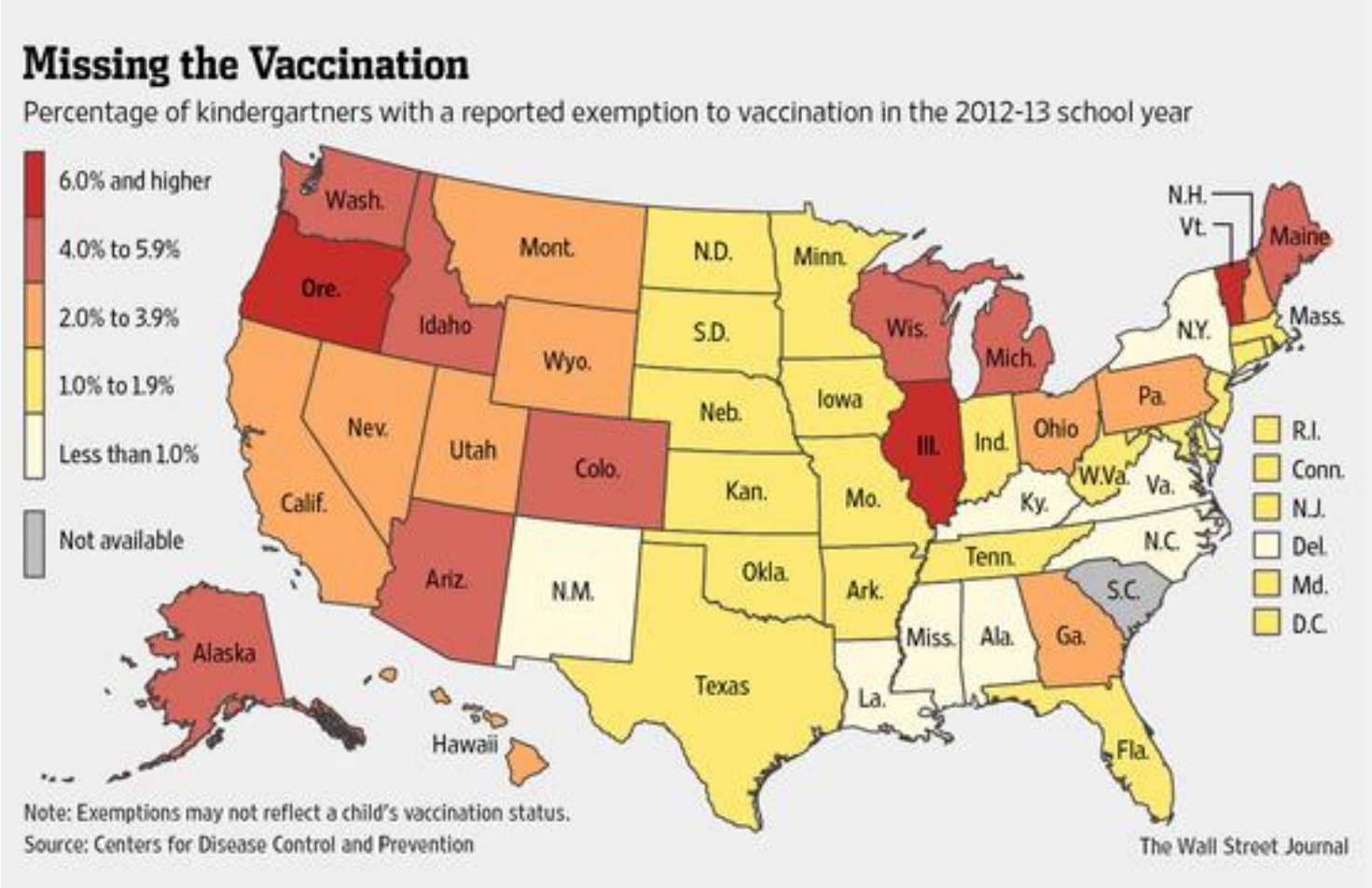
- Recurrent cognition that *schematizes (*structures) other cognitions
- A basis for action, decision making—cognition that conditions behavior
- **Belief ≠ knowledge:** I *know* how an elevator works; but I step into the elevator on the 6th Floor because I *believe* that it works

Health Belief Model

- Focuses on individual beliefs as determinants of behaviors related to health.
- Decision-making related to health is conditioned by the individual's beliefs about health threats and "advised actions" to address those threats.
- Six key belief-related constructs:
  - perceived susceptibility
  - perceived severity
  - perceived benefits
  - perceived barriers
  - cues to action
  - self-efficacy.

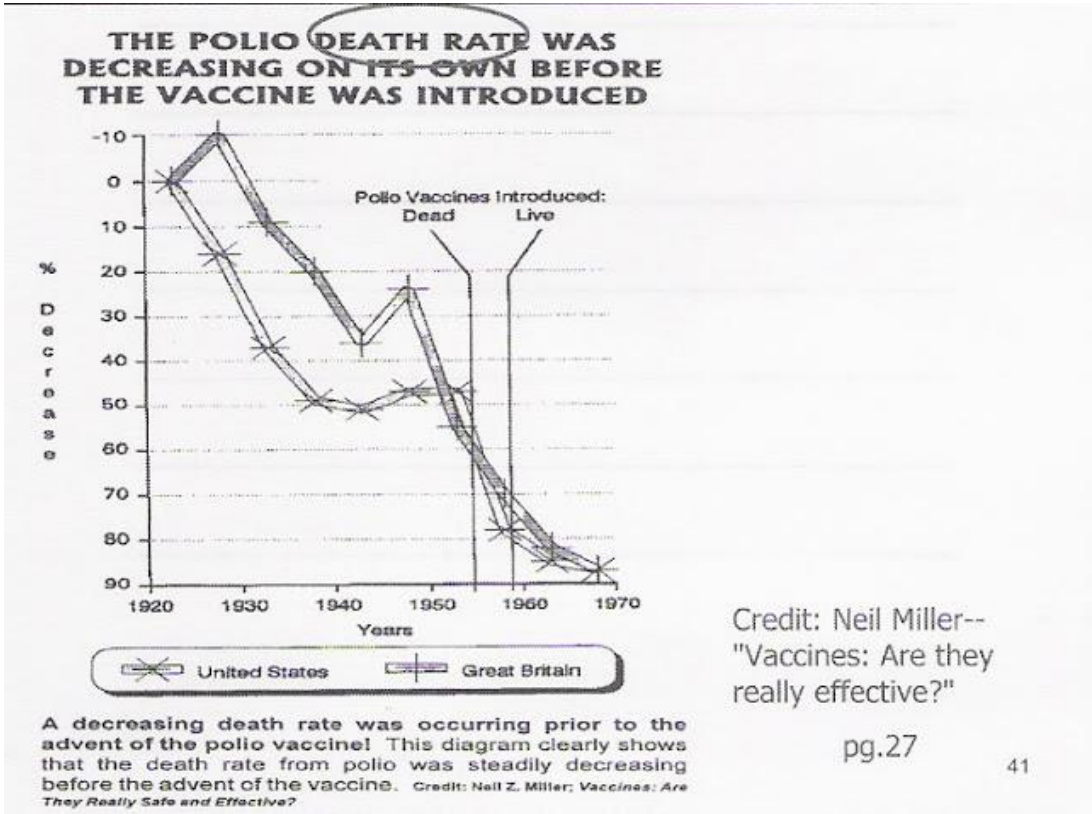

Perceived susceptibility
Perceived severity
Perceived benefits
Perceived barriers
Perceived threat
Outcome expectations
Self Efficacy

Social & Behavioral Science in Public Health: Not For Chronic Disease Only



Perceived Susceptibility

- Belief about the chances of experiencing a risk of getting a condition or disease.



Credit: Neil Miller-- "Vaccines: Are they really effective?"

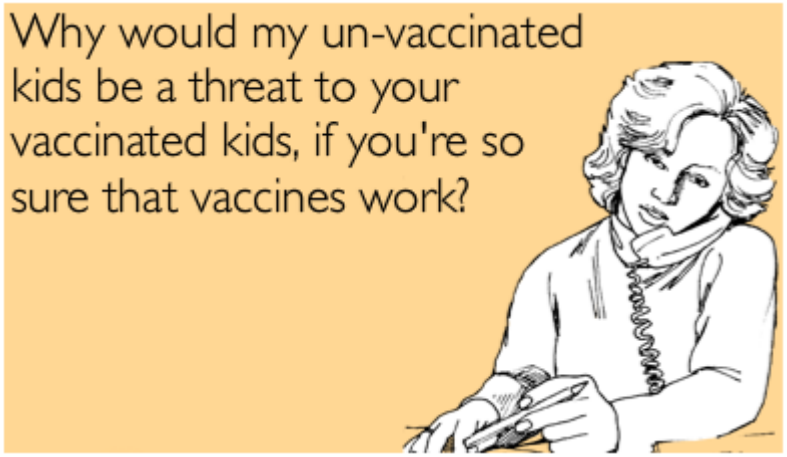
pg.27

Perceived Severity

- Belief about how dangerous a condition and its sequelae are.

Perceived Benefits

- Belief in the efficacy of the action one is advised to take to reduce risk or mitigate impacts.



Perceived Barriers

- Belief about the financial, time, and psychological costs of the action one is advised to take.

Cues to Action

- Strategies to trigger an individual to take the action advised.

Self-Efficacy

- The individual's belief in his or her own ability to successfully perform the action that is advised.

Graphic: CDC.

Theory of Reasoned Action

BI = (AB)W1 + (SN)W2

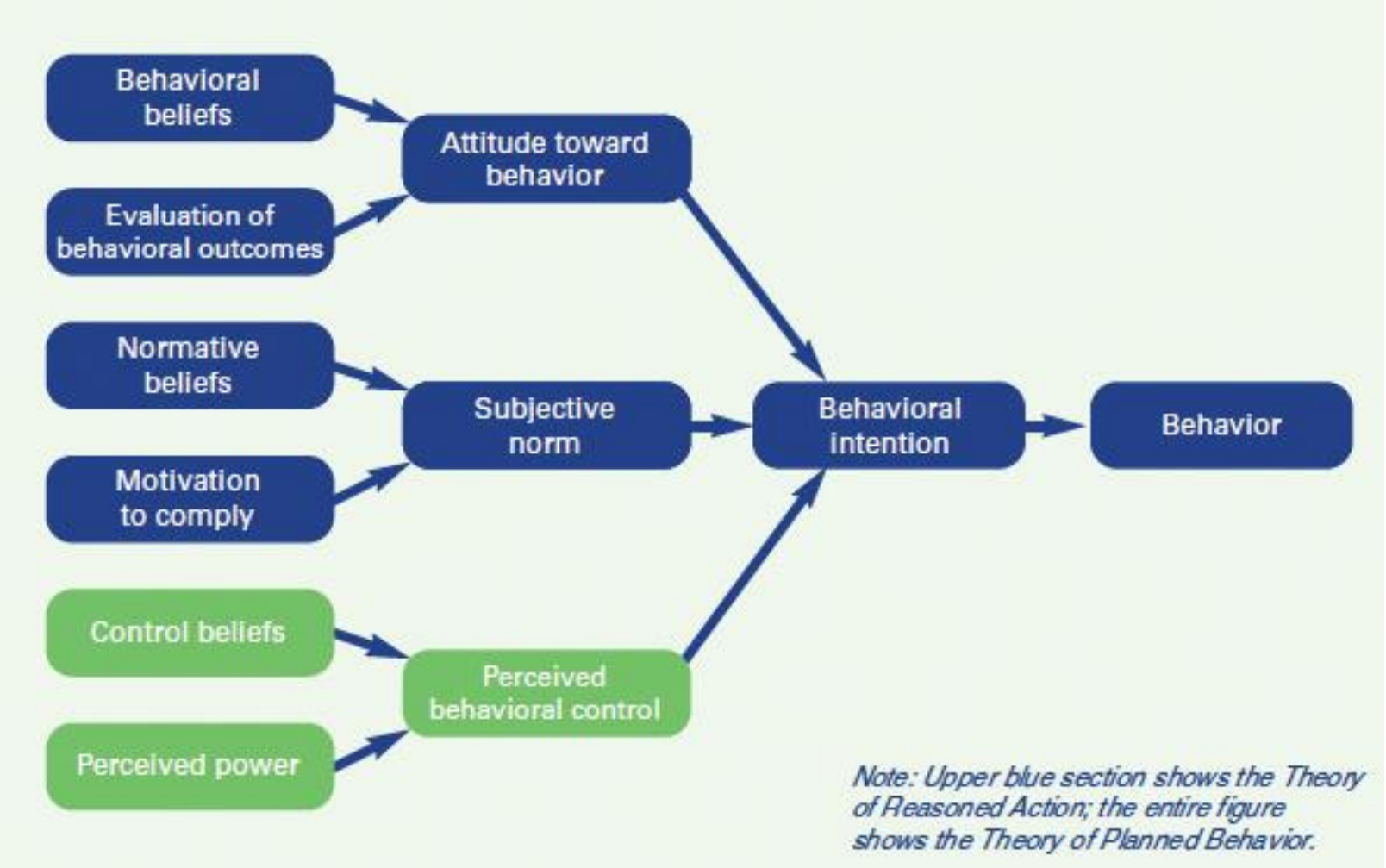
- *BI = behavioral intention*
- *AB = one's attitude toward performing the behavior*
- *W = empirically derived weights*
- *SN = one's subjective norm related to performing the behavior*

Fishbein & Ajzen (1975), Hale (2002)

Theory of Reasoned Action

- Focus on individual-level intentions & attitudes for behavior
- Intention is the primary determinant of behavior
- Intention can be influenced by subjective norms (what the individual thinks is expected/required/rewarded/punished) and by attitudes toward the behavior

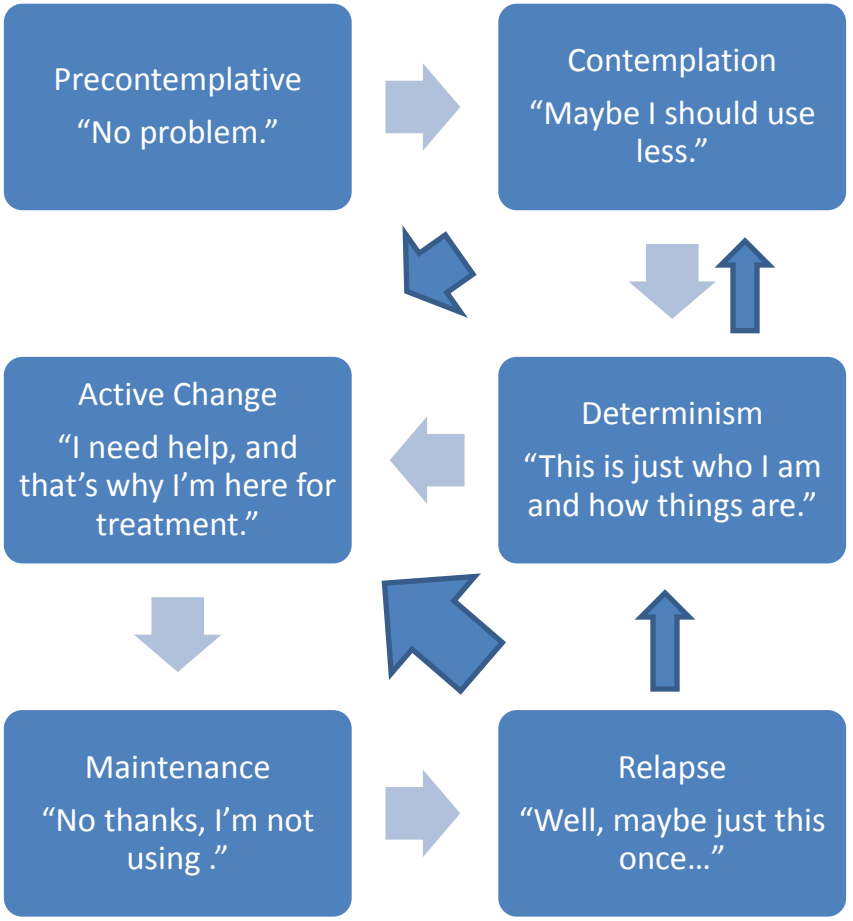
Theory of Reasoned Action & Theory of Planned Behavior



Trans-Theoretical Model

- Focus on individual readiness to change
- Change process proceeds through stages:
  - Precontemplative
  - Contemplation
  - Determinism
  - Active change
  - Maintenance
  - Relapse

Trans-Theoretical Model: Substance Abuse



Social Cognitive Theory

- Focus on learning and cuing processes for behavior
- People learn by ***observing others***
- *Reciprocal determinism*: Individual (cognitive), socio-cultural, and environmental determinants influence each other
- Emphasis on relationship between individual and context

Social Support/Social Network Theory

- Focus on relationships between individuals, in their primary social networks, as the primary driver of decision making/behavior

Stress & Coping Theory

- The primary behavioral determinants of health are coping behaviors
- Stressors are the primary social and behavioral preconditions for health or illness

Stress & Coping Theory

Copes individuals use to manage stress can promote health…

…or increase risk of mortality and morbidity

Social Influence Theory

- Focus on the influence of professional and family trusted messengers on individual behavior
- Three types of key influencers: those who are trusted, those who are expert, and those who are similar

Organizational Change Theory

- Organizational policies and practices are key determinants of health
- Health interventions require organizational change
- Organizational change proceeds through awareness, action, implementation, and institutionalization.

Community Organization Theory

- Focus on the capacity of communities and community organizational entities to promote healthy outcomes for community members

Community meeting, Joplin, Missouri, 2012. Photo: FEMA.

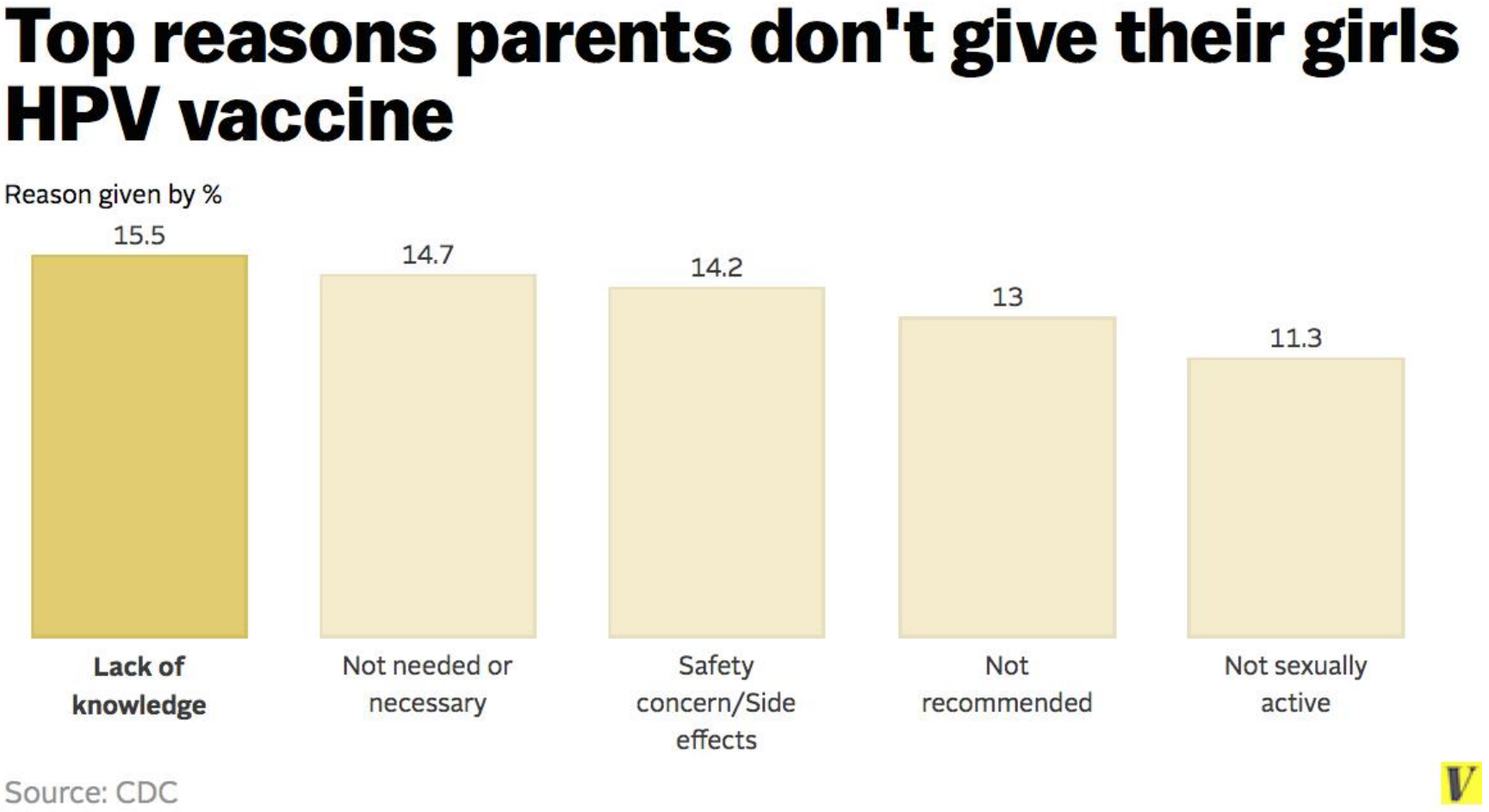
Communication Theory

Instruments of mass communication are decisive in creating health conditions and influencing behavior on the mass scale. Effective access to and utilization of mass communication is the focus of public health intervention.

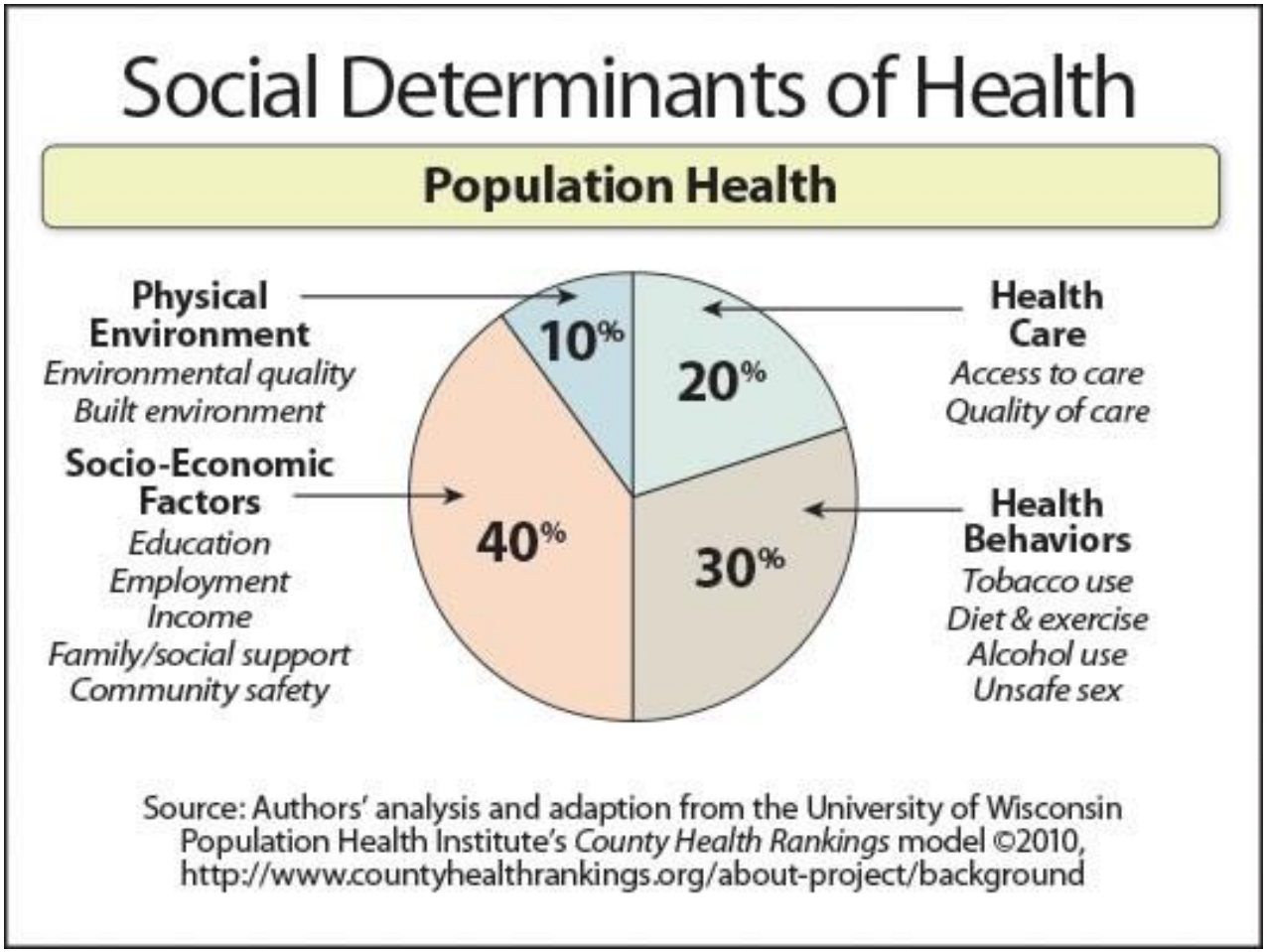
Diffusion of Innovation Theory

- Focuses on widespread diffusion of scientific and technological innovations for public health.
- Dissemination in phases:
  - Innovation
  - Communication to the public
  - Uptake by the public
  - Regular use
  - Institutionalization and sustainability

Behavioral Science in the 21st Century



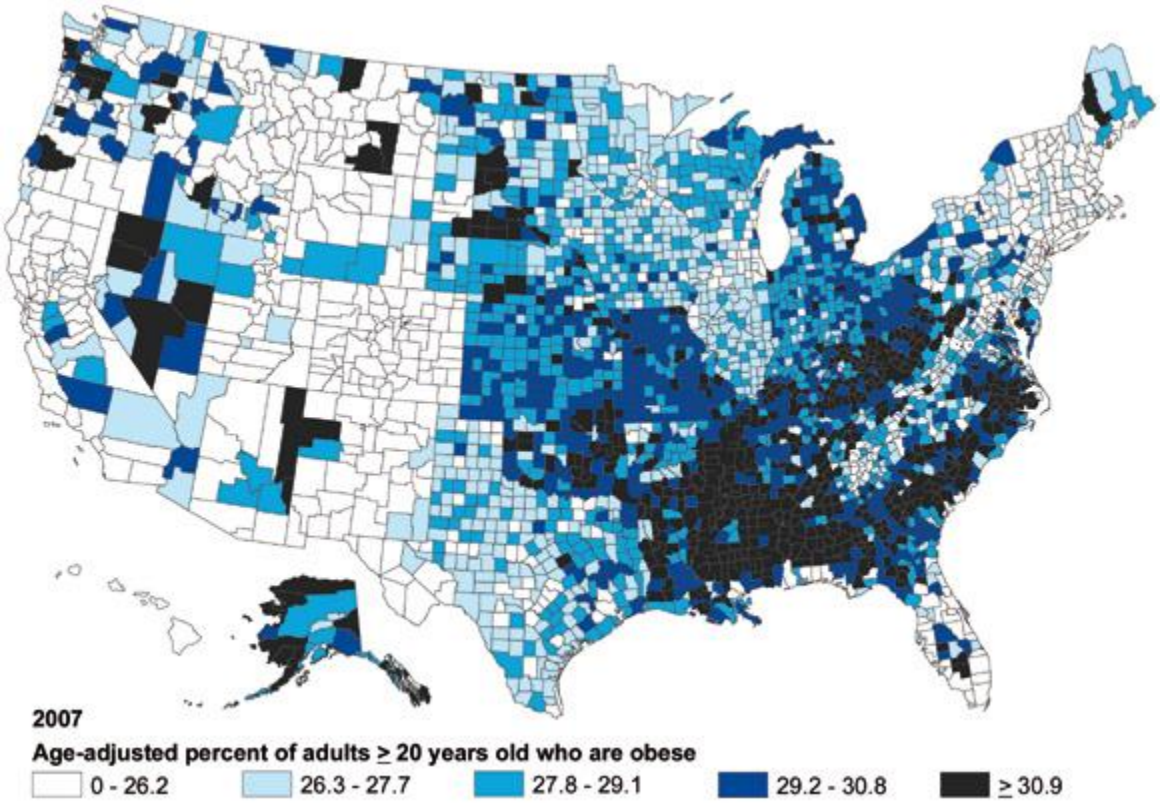
Social Determinants of Health



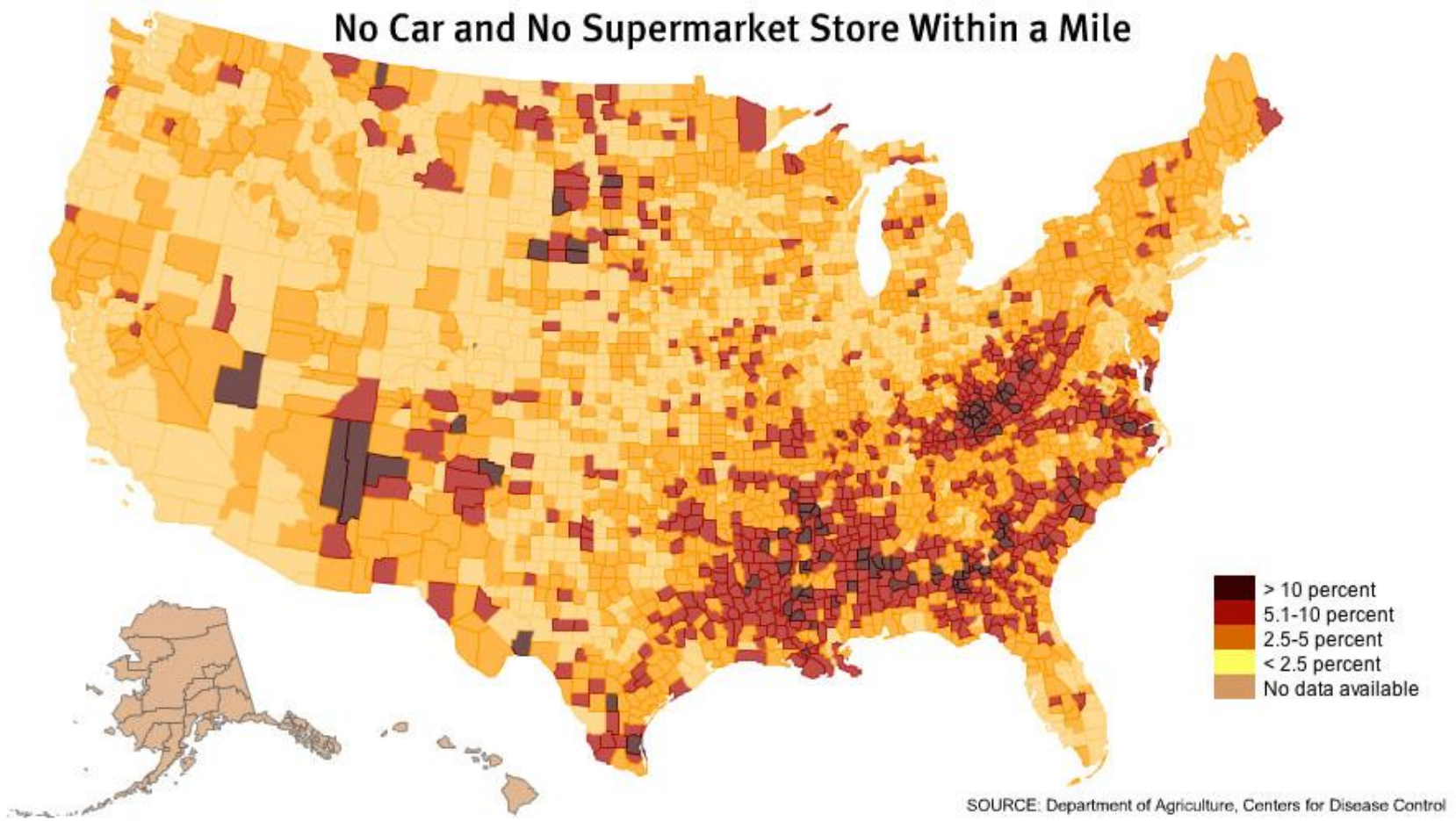
Social-Behavioral Interface

- The horizon between behavioral science and social science is the limit of what individuals can decide—the social and environmental constraints upon individual decision making

Behavioral Science Lens for Obesity Epidemic



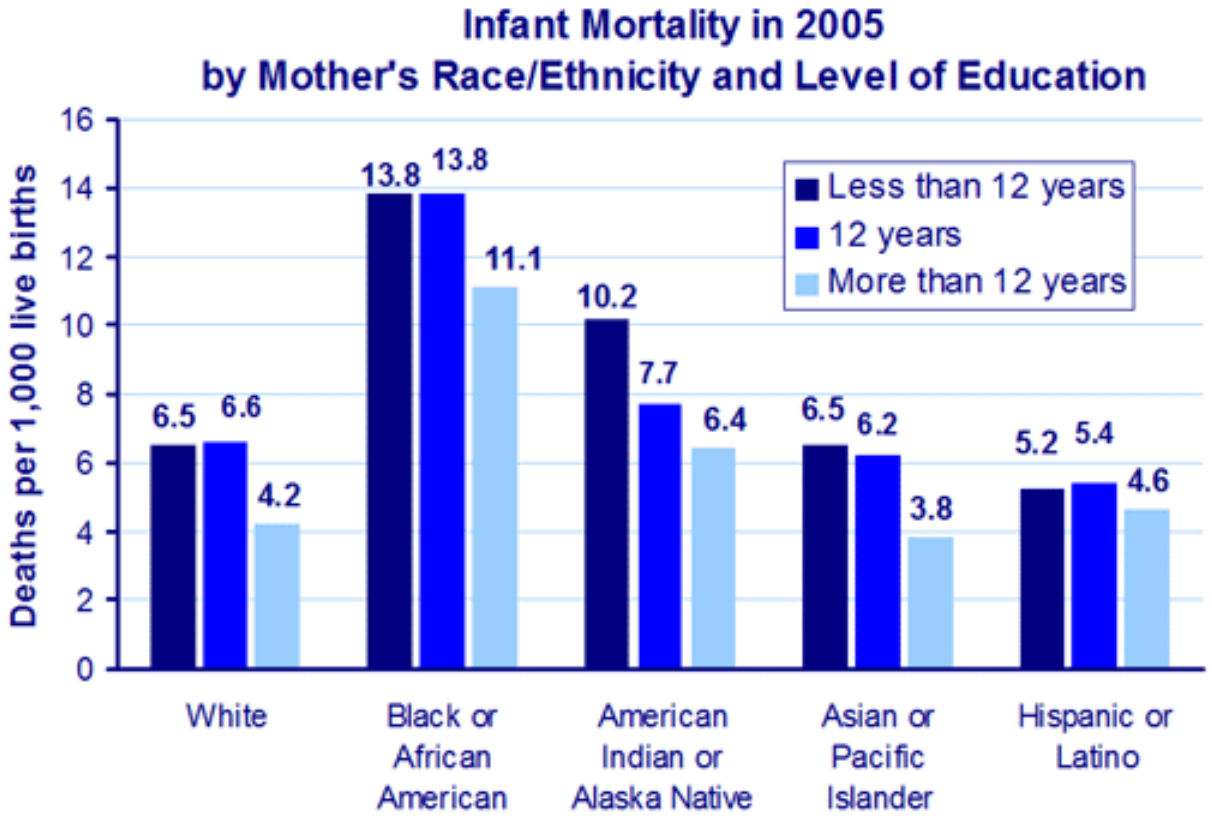
Social Science Lens for Obesity Epidemic



Health Disparities/Inequities

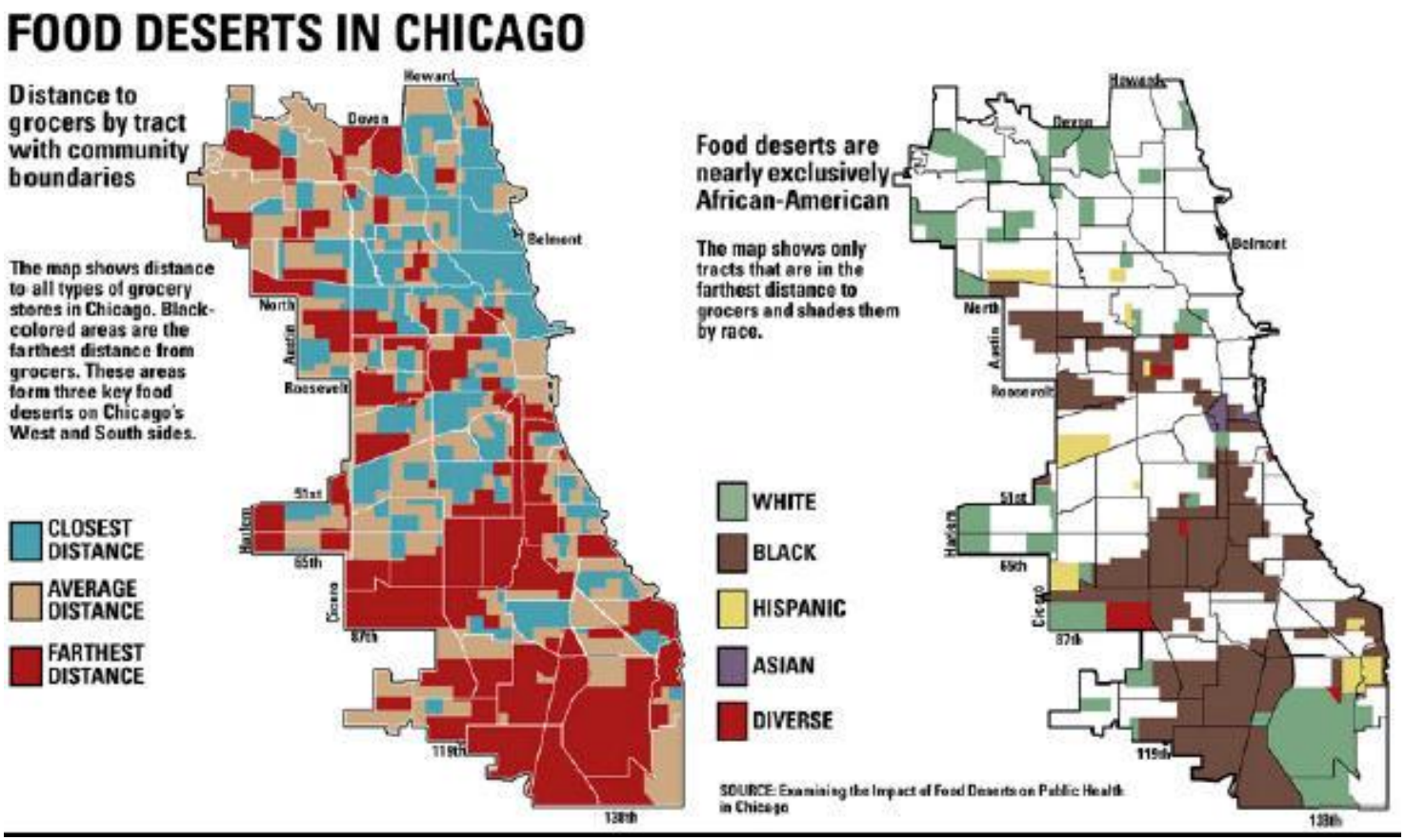
Disparities or inequities are due to two factors:

- ***Inequitable risk*** due to the social environment created by unequal conditions—such as legal or de facto segregation, economic inequality, or physical oppression, and
- ***Inequitable access*** to the health care system itself, with differential levels of access to care or quality of care.



Source: Health, United States, 2008. Nat. Center for Health Statistics, U.S. DHHS

Health Disparities: The Importance of Place



Health Disparities in Context

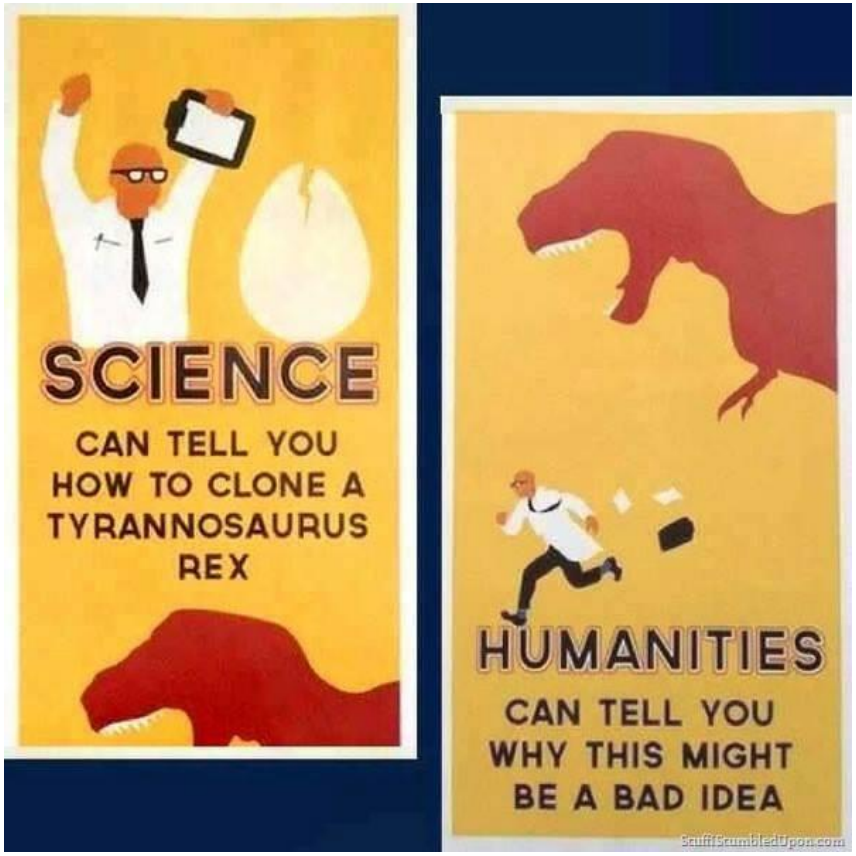
- Health disparities are the biomedical manifestation of social injustice
- Racism, sexism, heterosexism, and other systems of oppression and social marginalization cause *physical harm*
- Public health practice requires a *social justice* focus

Planning Models

- Healthy People National Health Objectives
- PRECEDE-PROCEED
- Social Marketing
- Other: Mobilizing for Action through Planning and Partnerships (MAPP), Assessment Protocol for Excellence in Public Health (APEXPH), Multi-Level Approach to Community Health (MATCH), and Planned Approach to Community Health (PATCH).

Ethical Issues in Planning & Evaluation

- The Tuskegee Study
- National Research Act & Belmont Report
- Human subject protections
- IRB processes
- Canons of professional ethics



Common Planning Elements

Planning models have the following features in common:

1. Community involvement and mobilization
2. Needs assessment at community and organizational levels
3. Selection of specific target audiences
4. Development of specific, measurable, attainable, and time-bound objectives and their indicators
5. Action plan development and implementation
6. Evaluation of program processes and outcomes
7. Institutionalization.

Evaluation Methods

- Qualitative and quantitative methods
- Needs assessment
- Logic model
- Process evaluation
- Outcome evaluation
- Efficiency evaluation
- RE-AIM Model
- CDC Evaluation Framework
- Methodological Issues
- Designs
- Descriptive/Exploratory Research
- Hypothesis Testing Research
- Sampling Methods
- Internal Validity
- External Validity
- Scaling up


imageGenerator.net
THREE DEAD - POWERPOINT TRAGEDY
Bad presentation slays three executives with too many bullets. They died peacefully in their sleep.

Good luck on the CPH Exam!

USPHS CPH Exam Prep Series