



University of California  
San Francisco

---

Center for Aging in  
Diverse Communities

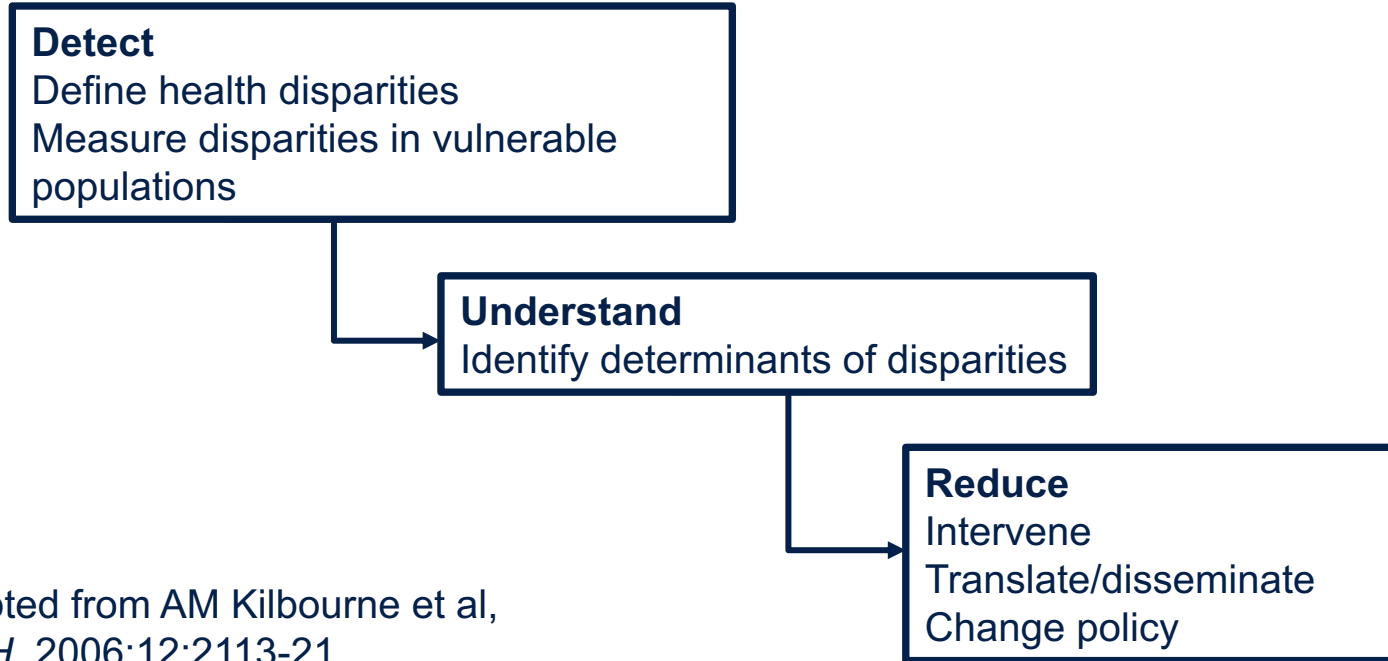


# Creating a Study-Specific Conceptual Framework

Anita L. Stewart, Ph.D.

September 8, 2021

# Phases of Disparities Research



Adapted from AM Kilbourne et al,  
*AJPH*, 2006;12:2113-21.

# Role of Conceptual Frameworks to Understand and Reduce Disparities

- Clarify, visualize research questions
- Identify/organize determinants and mediators
- Guide selection of measures
- Guide recruitment strategies
- Clarify mechanisms of action of intervention

# Study-Specific Conceptual Framework - Definition

- A diagram of proposed causal linkages among a set of concepts believed to be related to a particular health problem

Earp JA and Ennett ST, *Health Educ Res*, 1991;6:163-171.

# Example of How a Framework Clarifies Narrative

- The intervention will increase compliance with treatment by training doctors to communicate risk information in a manner that is culturally appropriate and easily understood by patients.
- We will assess patient understanding of risk and treatment details as an explanation for the intervention's effect on compliance.

From RCMAR Webinar Incorporating Conceptual Models Into Your Research Proposals (Feb 22, 2018)

# Study-Specific Conceptual Framework

***Intervention: Train MDs  
to communicate better***

***Outcome***



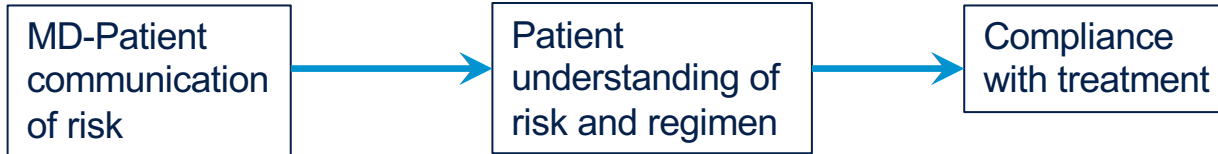
The intervention will increase compliance with treatment by training doctors to communicate risk information in a manner that is culturally appropriate and easily understood by patients

# Study-Specific Conceptual Framework

***Intervention: Train MDs to communicate better***

***Mechanism = Mediator***

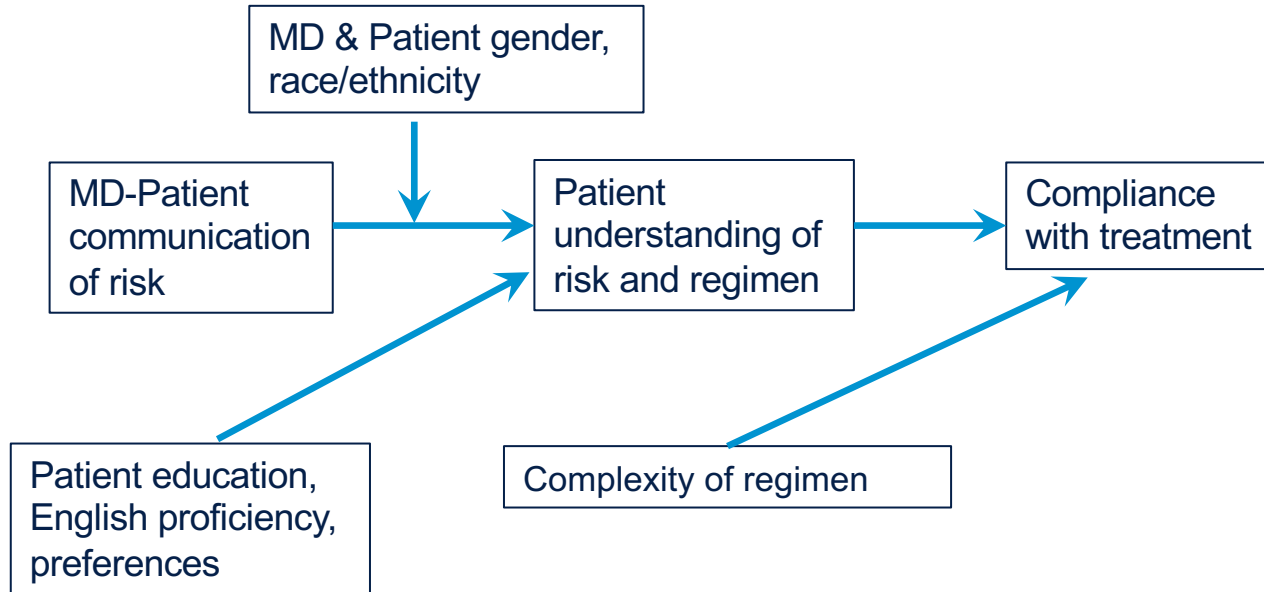
***Outcome***



The intervention will increase compliance with treatment by training doctors to communicate risk information in a manner that is culturally appropriate and easily understood by patients

We will assess patient understanding of risk and treatment details as an explanation for the intervention's effect on compliance.

# Adding Modifying and Confounding Variables





# General Types of Conceptual Frameworks

- Population science
  - Multi-level determinants of health and health disparities
- Health services research
  - How health care affects health and health disparities
- Recruitment processes
  - Sources of loss
- Interventions
  - How intervention components affect health outcomes

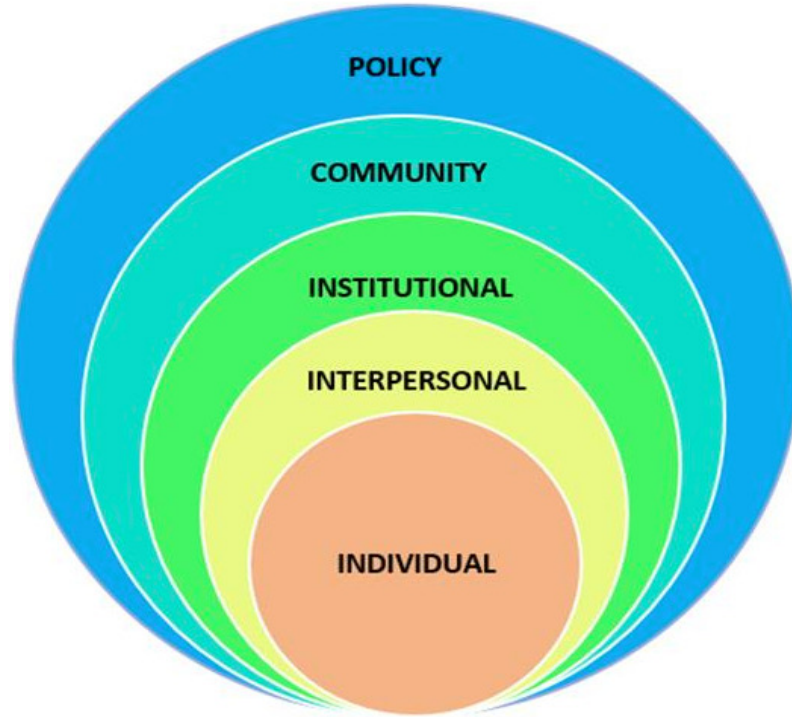
# General Types of Conceptual Frameworks

- **Population science**
  - **Multi-level determinants of health and health disparities**
- **Health services research**
  - How health care affects health and health disparities
- **Recruitment processes**
  - Sources of loss
- **Interventions**
  - How intervention components affect health outcomes

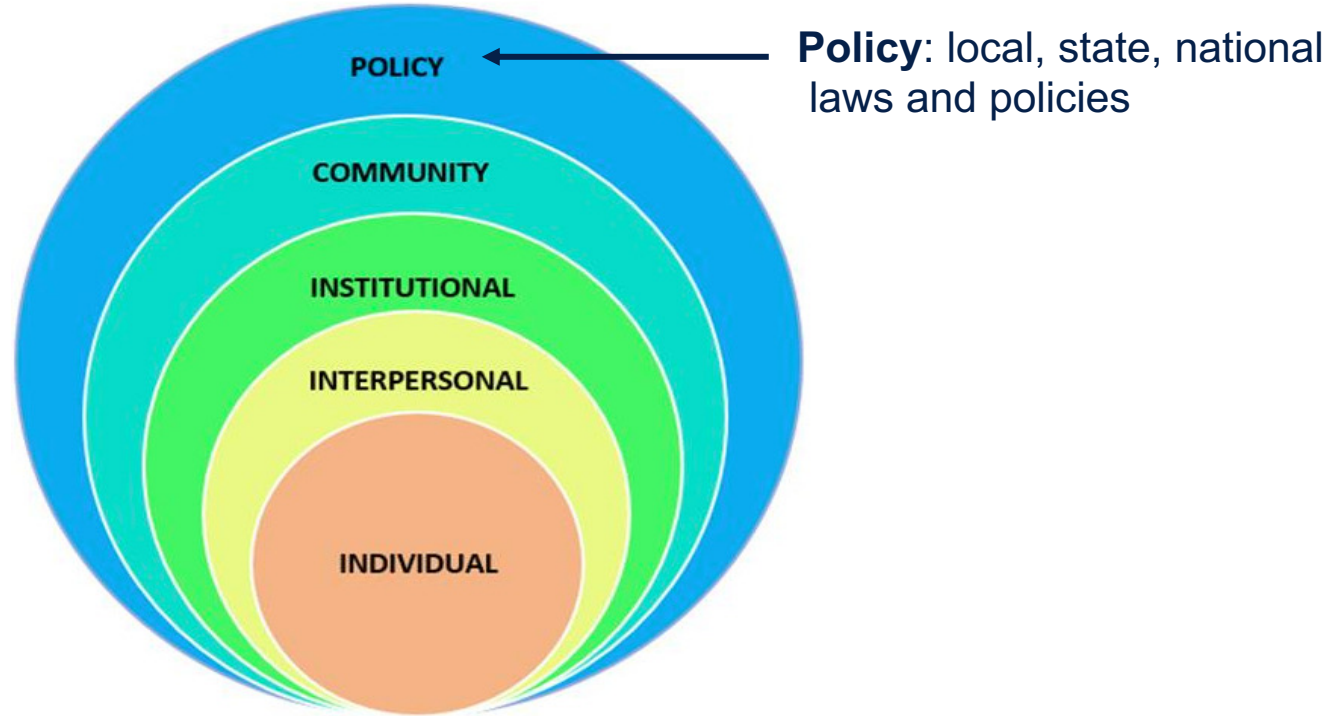
# Population Science: Determinants of Disparities

- What is it about being in a “disparities” or minority group that could lead to poorer health for that group?
  - Individual characteristics – behaviors, beliefs, socioeconomic status
  - Physical environment – air and water quality, housing density, sources of healthy food, neighborhood safety
  - Health care – access, quality of care
  - Social environment – social networks, perceived discrimination

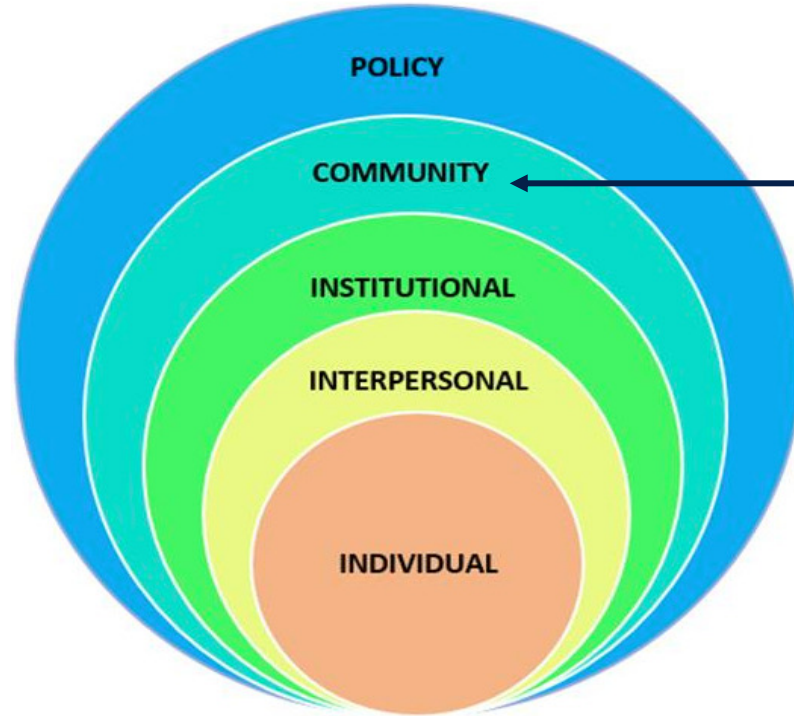
# Social Ecological Model: Multi-level Determinants of Health (or Health Disparities)



# Social Ecological Model: Multi-level Determinants of Health (or Health Disparities)

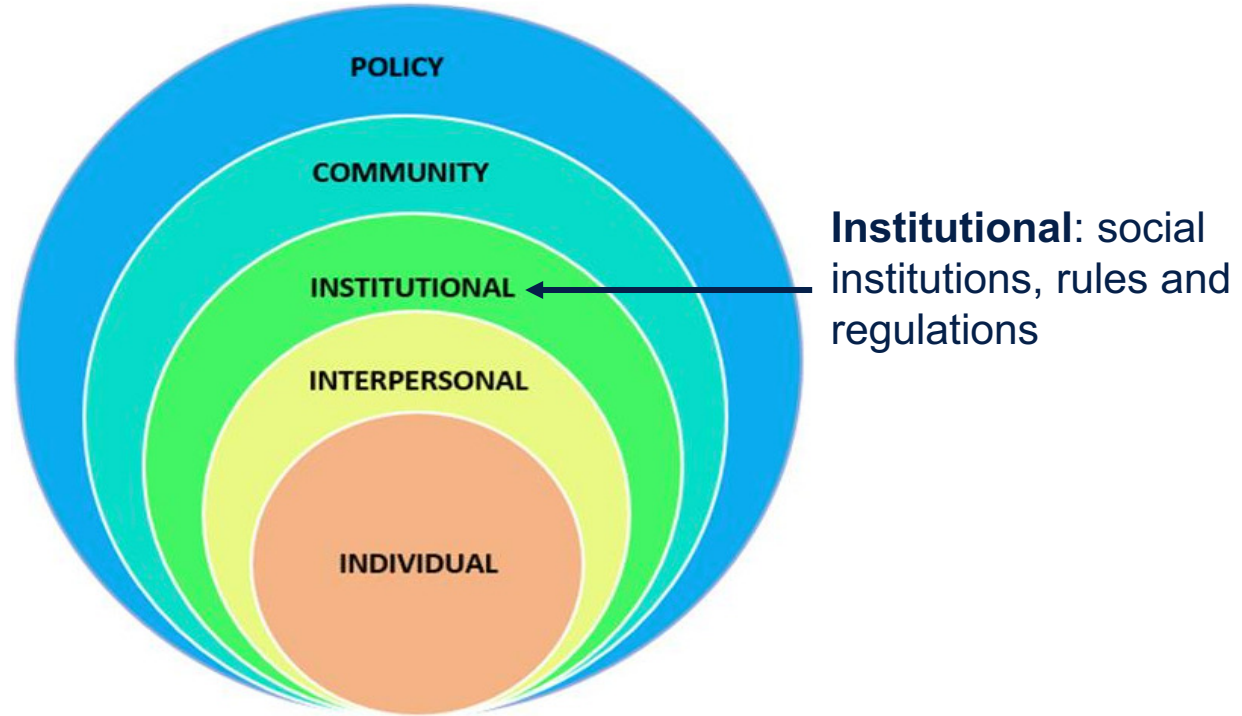


# Social Ecological Model: Multi-level Determinants of Health (or Health Disparities)

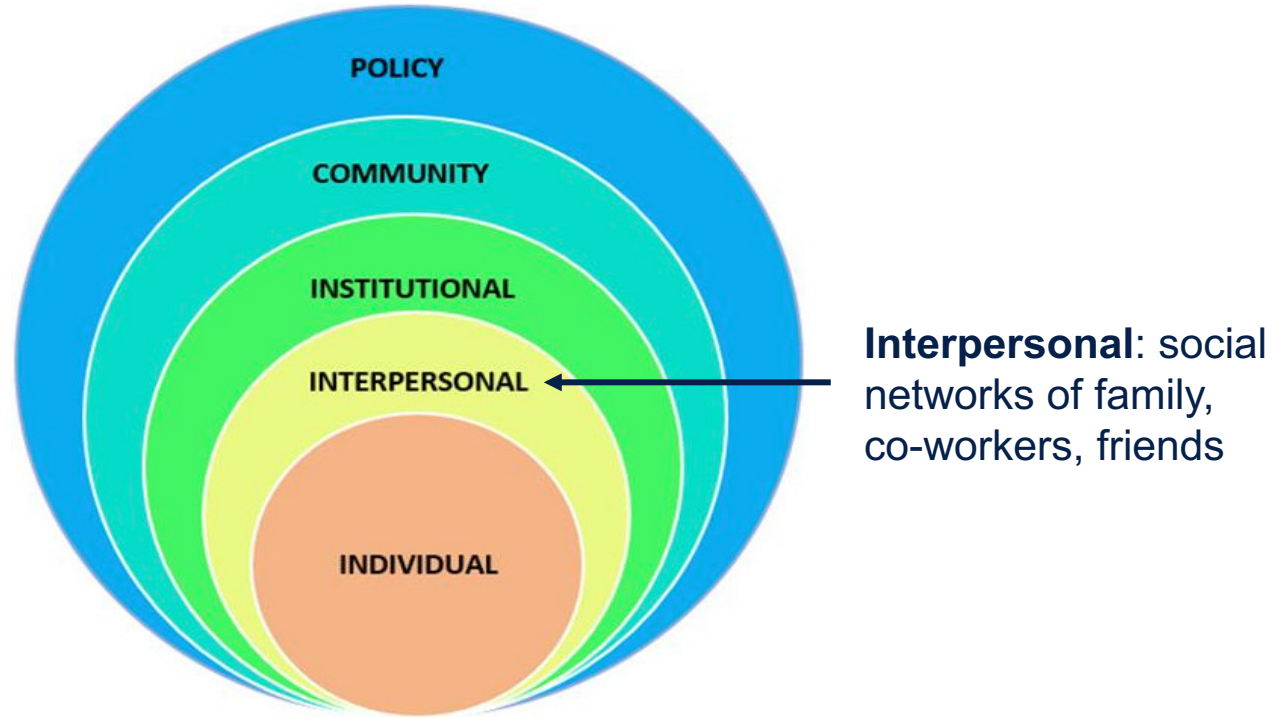


**Community:** social norms, cultural values, resources

# Social Ecological Model: Multi-level Determinants of Health (or Health Disparities)

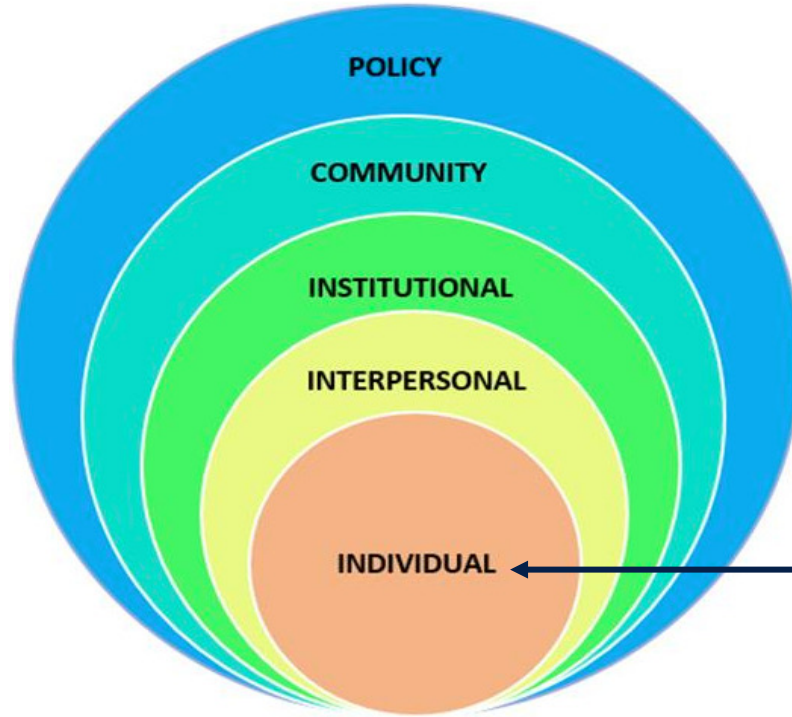


# Social Ecological Model: Multi-level Determinants of Health (or Health Disparities)





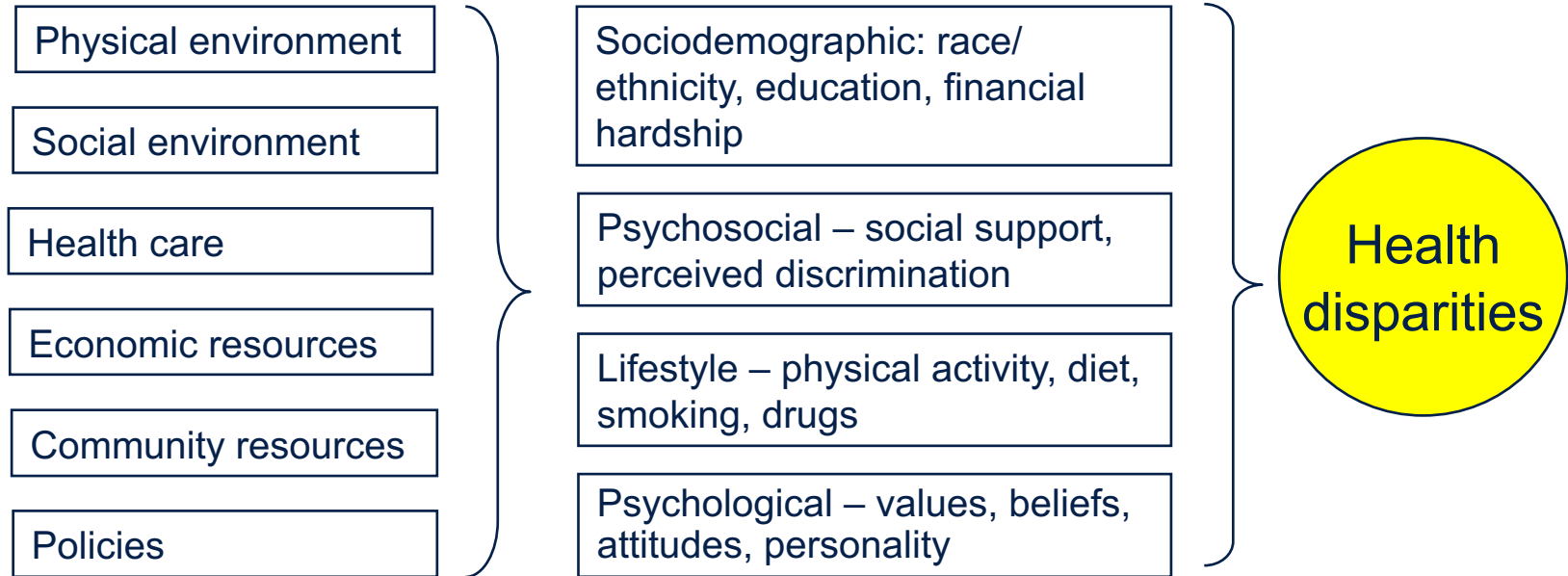
# Social Ecological Model: Multi-level Determinants of Health (or Health Disparities)



**Individual:** genetics, knowledge, beliefs, behaviors, skills, language, SES, health, disability

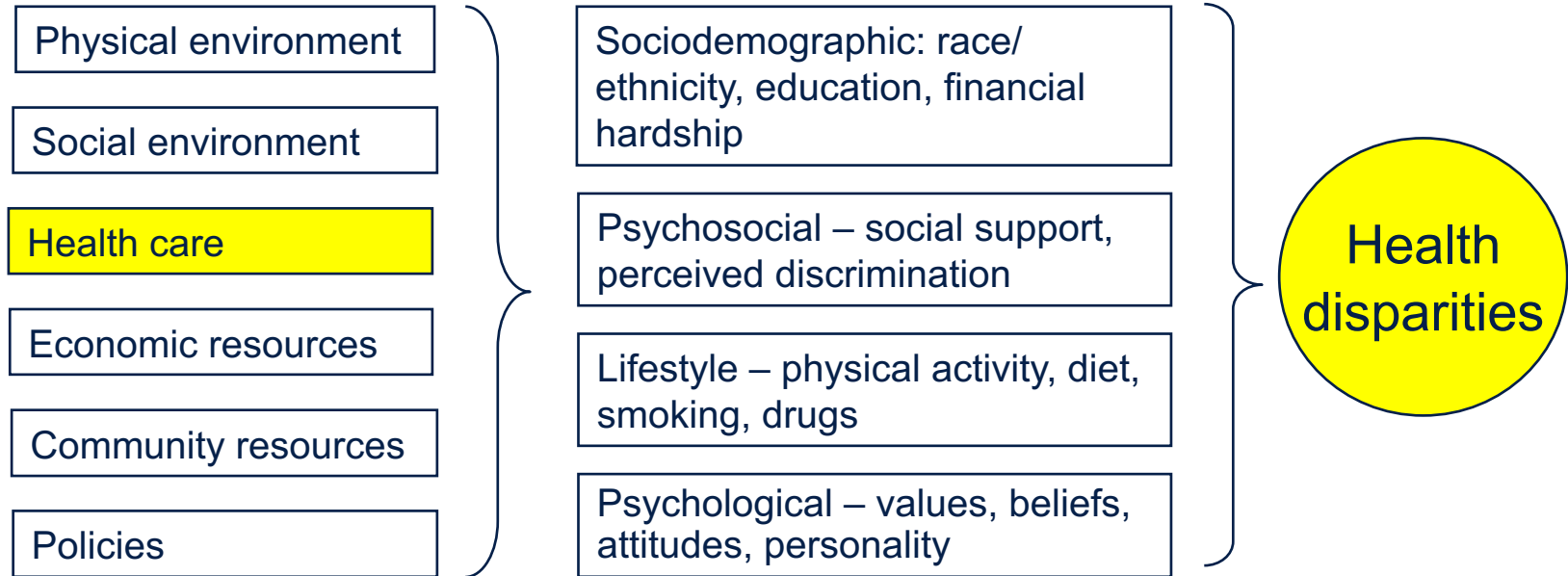
# Multi-level Determinants of Health Disparities

Contextual factors → Individual-level factors



# Multi-level Determinants of Health Disparities

Contextual factors → Individual-level factors



# General Types of Conceptual Frameworks

- Population science
  - Multi-level determinants of health and health disparities
- Health services research
  - How health care affects health and health disparities
- Recruitment processes
  - Sources of loss
- Interventions
  - How intervention components affect health outcomes

# Health Care Disparities Framework

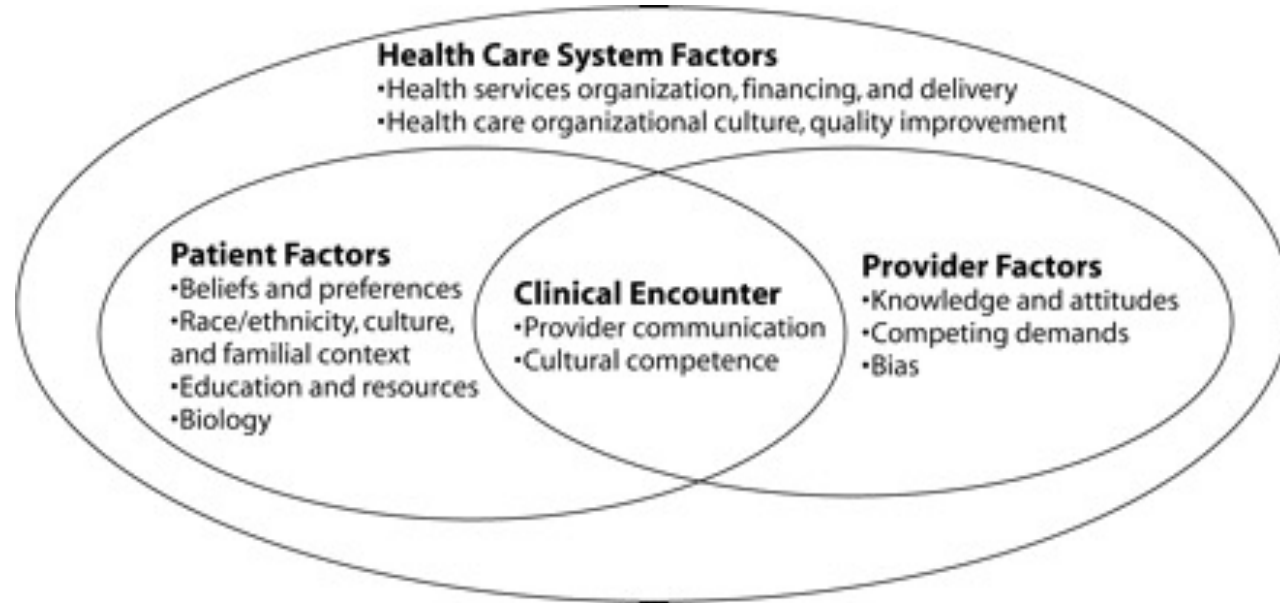


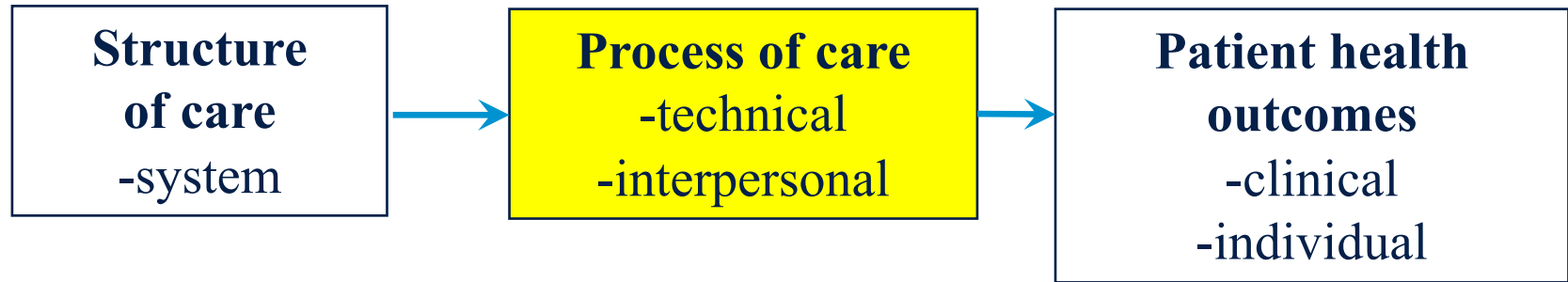
Fig 2, AM Kilbourne et al, *AJPH*, 2006;12:2113-21.

# The Structure-Process-Outcome Paradigm



A. Donabedian, *Milbank Quarterly*, 2005;83(4):691-729.

# The Structure-Process-Outcome Paradigm



Technical processes – tests, treatments, technical competence, knowledge, and judgment skills  
Interpersonal processes – the way care is provided

# Technical Processes of Care and Health Disparities

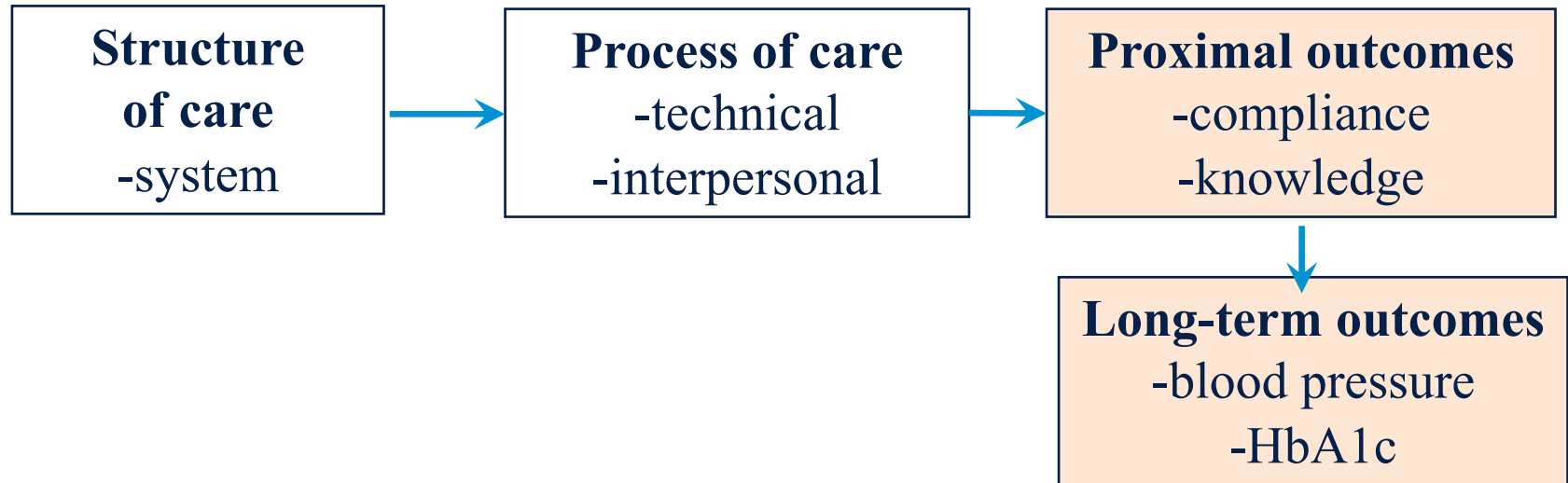
- Are optimal treatments provided less often for minorities?
- Are treatments less effective for racial/ethnic minorities than whites?
- Are appropriate diagnostic procedures used less often for minorities than whites?
  - o these affect health outcomes



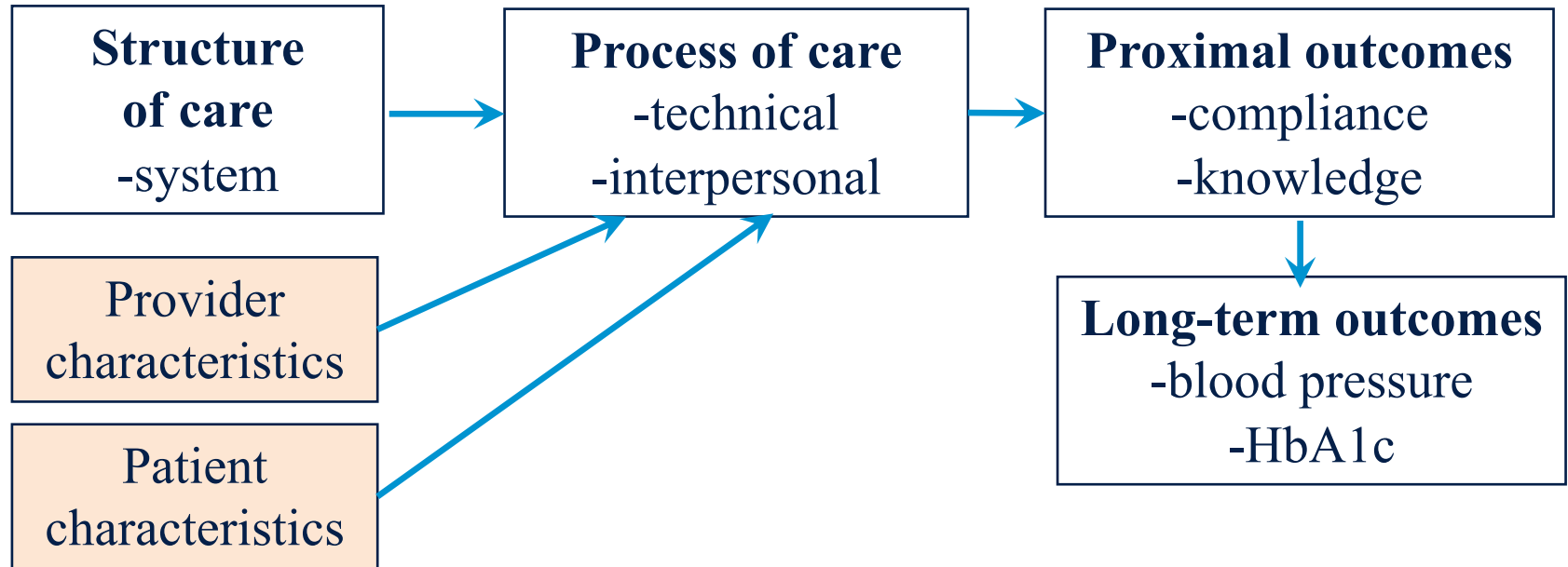
# Interpersonal Processes of Care and Health Disparities

- Social-psychological aspects of patient-physician interaction
- Do differences in these processes explain health disparities?
  - Communication (listening, explaining)
  - Eliciting patient preferences for treatments
  - Respectfulness
  - Patient-centered decision making

# The Structure-Process-Outcome Paradigm: Variations



# The Structure-Process-Outcome Paradigm: Variations



# General Types of Conceptual Frameworks

- Population science
  - Multi-level determinants of health and health disparities
- Health services research
  - How health care affects health and health disparities
- Recruitment processes
  - Sources of loss
- Interventions
  - How intervention components affect health outcomes

# Recruitment Processes for Disparity Populations

- Sources of diverse participants
- Sampling frame
- Outreach/awareness
- Initial contact
- Explain study to generate interest
- Screen for eligibility
- If eligible – consent and enroll

# General Types of Conceptual Frameworks

- Population science
  - Multi-level determinants of health and health disparities
- Health services research
  - How health care affects health and health disparities
- Recruitment processes
  - Sources of loss
- Interventions
  - How intervention components affect health outcomes

# Intervention Conceptual Frameworks: Two Purposes

- How an intervention works to improve outcomes
  - Proposed mechanisms
  - Overall visual depiction
- Map intervention components to outcomes
  - To choose measures

Thank you!



# References

Donabedian A: Evaluating the quality of medical care. *Milbank Q* 2005; 83(4):691-729.

*See also: McGlynn EA, Brook RH: Ensuring quality of care. In: Changing the US Health Care System. Ed: Anderson RM. San Francisco: Jossey-Bass; 1996.*

Earp JA, Ennett ST: Conceptual models for health education research and practice. *Health Educ Res* 1991, 6(2):163-171.

Kilbourne AM, Switzer G, Hyman K, et al. Advancing health disparities research within the health care system: a conceptual framework. *Am J Public Health* 2006, 96(12):2113-2121.