

# **Healthcare Disparities**

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***Of all the forms of inequality, injustice in  
health care is the most shocking and  
inhumane.***

**Martin L. King, Jr., 1966**

# **Definition of Health/Healthcare disparities**

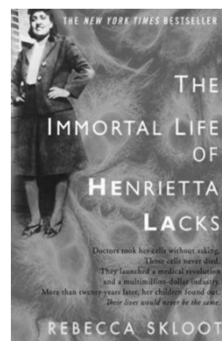
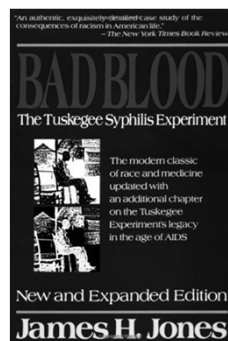
## **Health/Healthcare Disparities**

- **Differences between population groups in health outcomes.**
  - **Incidence, mortality, morbidity, survival, & quality of life**
  - **Accessibility and quality of health care**
- **Can be characterized in a multitude of ways**
  - **Race/ethnicity, income, geographic location, sexual orientation/identity, physical disability, etc.**

# A brief history of health disparities and the study of disparities in healthcare

## Background

- Exploitation of Blacks, poor, and disadvantaged
- Examples include . . .



## Landmark studies & reports

- **1985, The Heckler Report**

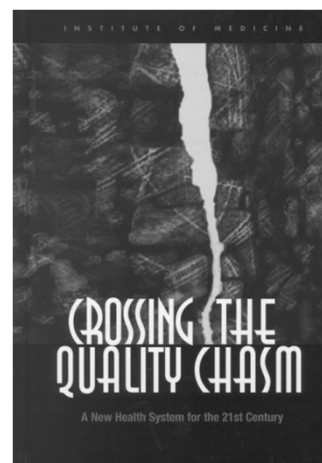
- Disparities are “an affront both to our ideals and to the ongoing genius of American medicine.”



## Landmark studies & reports

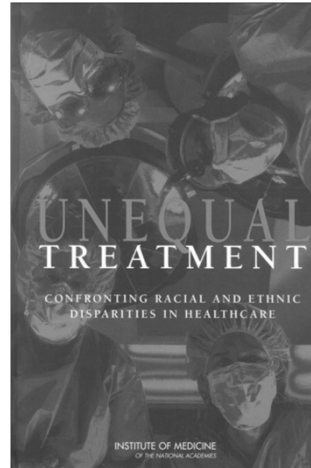
- **2001, IOM Report**

- Lack of equity is one of the greatest deficiencies of the US healthcare system.



## Landmark studies & reports

- **2003, IOM Report**
  - **Racial and ethnic minorities were less likely to receive routine medical procedures and far more likely to receive low-quality health services.**



**The etiologies and burden of health care disparities**

## Disparities are inextricably linked to the social determinants of health



Image from [www.healthypeople.gov](http://www.healthypeople.gov)

## Disparities are inextricably linked to the social determinants of health

- **Economic determinants**
  - Lack of finances for decent housing → limited access to health foods, safe playgrounds, and schools
- **Education**
  - Adults without a high school diploma are 3X more likely to die before 65 than those with a college degree

Christine Bahls, *Health Affairs*, October 6, 2011

## **Disparities are inextricably linked to the social determinants of health**

- **Lower quality care**
  - Racial and ethnic minorities often receive health care in hospitals and other facilities that offer lower-quality care.
  
- **Provider bias**
  - Providers don't give adequate care to certain groups because of stigmas and bias.

Christine Bahls, *Health Affairs*, October 6, 2011

## **Yes, it's true! Physicians' implicit biases contribute to health care disparities**

- **Example: Thrombolysis for ACS**
  - Study of 287 residents at 4 academic medical centers
    - Vignette of patient presenting with ACS, questionnaire assessing explicit biases, and 3 Implicit Association Tests
  - **Main outcomes**
    - IAT scores: implicit race preference & perceptions of cooperativeness
    - Assessment of explicit racial bias
    - Physician attribution of symptoms to ACS and clinical decision

Green AR et al. *J Gen Intern Med* 2007; 22(9): 1231-1238.

## **Yes, it's true! Physicians' implicit biases contribute to health care disparities**

- **Physicians reported no explicit preference for White vs. Black patients**
  - **Implicit measures revealed**
    - **Preference: White > Black patients**
    - **Perception: Blacks less cooperative with procedures and less cooperative generally**
  - **As pro-White bias ↑ so did the likelihood of treating white patients and not treating Blacks.**

Green AR et al. J Gen Intern Med 2007; 22(9): 1231-1238.

Take the implicit-association test: <https://implicit.harvard.edu/implicit/takeatest.html>

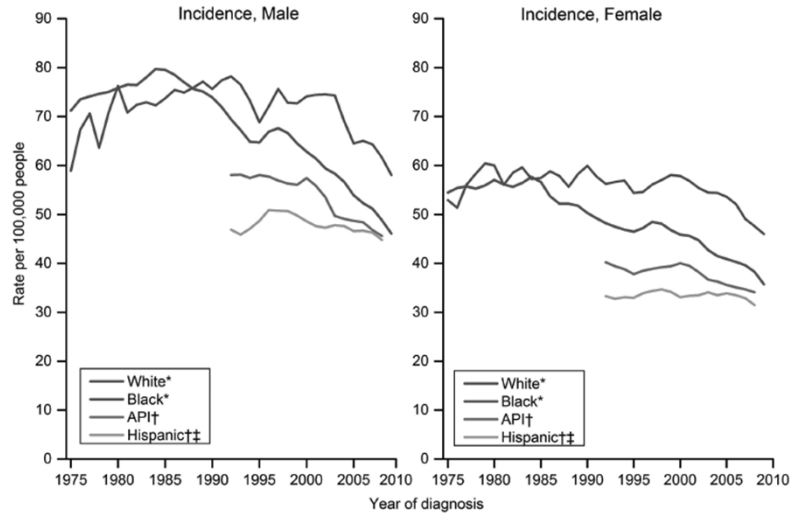
## **Examples of disparities permeate the practice of medicine**

- **Non-Hispanic blacks are > 50% more likely to die of heart disease or stroke prematurely than non-Hispanic Whites.**
- **Infant mortality for non-Hispanic blacks is > 2X that of non-Hispanic whites.**
- **Men are ~4X more likely to commit suicide than women.**

CDC Health Disparities and Inequalities Report, 2013

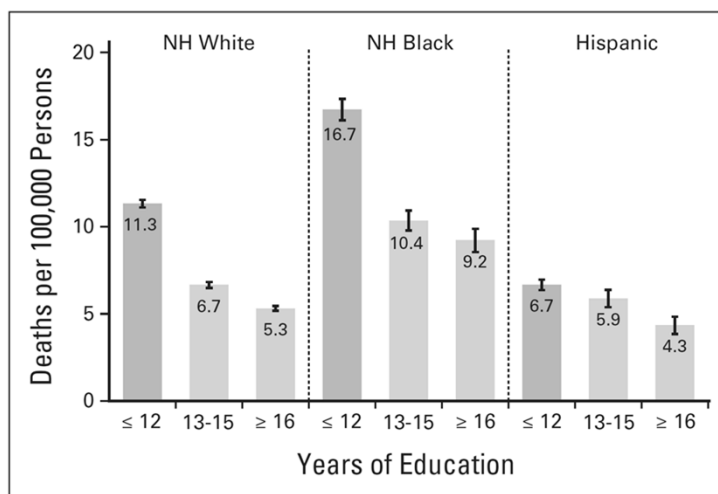


## The example of colorectal cancer: race matters



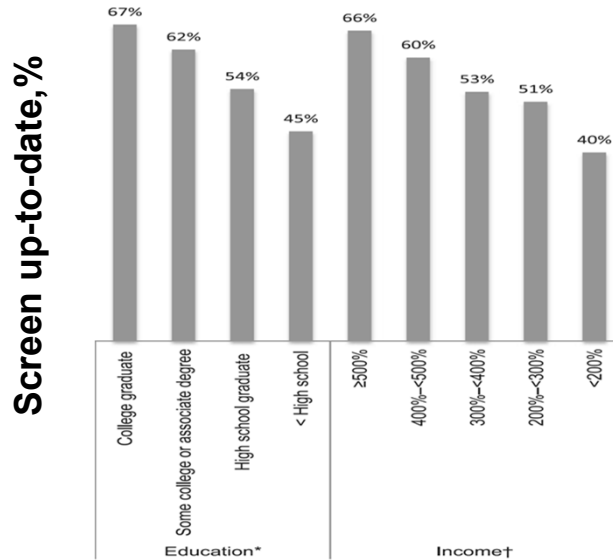
Siegel, R., DeSantis, C. and Jemal, A. (2014), Colorectal cancer statistics, 2014. CA: A Cancer Journal for Clinicians, 64: 104–117. doi: 10.3322/caac.21220

## The example of colorectal cancer: education matters



Jemal A et al. J Clin Oncol doi: 10.1200/JCO.2014.58.7519

## The example of colorectal cancer: income matters



Gupta S *et al.* JNCI 2014;106(4):dju032

## The example of colorectal cancer: place matters

- Study to identify colorectal cancer “hotspots” based on US county-level mortality data.
- Spatial mapping identified 3 hotspots.
  - Lower Mississippi Delta
    - 94 counties: AR, IL, KY, LA, MI, MO, and TN
  - West Central Appalachia
    - 107 counties: IN, KY, OH, and WV
  - Eastern Virginia/North Carolina
    - 37 counties: NC and VA

Siegel RL *et al.* Cancer Epidemiol Biomarkers Prev 2015;24(8): 1151-6.

***“Currently, your zip code is more predictive of your life expectancy than your genetic code.”***

***Sir Michael Marmot***

### **The example of colorectal cancer: culture, access & social justice matters**

- **Disparities in treatment secondary to**
  - **Cultural differences in acceptance of therapy**
  - **Comorbid diseases (including obesity) making aggressive therapy inappropriate**
  - **Lack of convenient access to therapy**
  - **Racism and SES discrimination**

Adapted from Otis Brawley, Cancer Disparities Conference 2016

## Summary of etiologies of health disparities



## Financial burden of health care disparities

- In 2009, disparities among African Americans, Hispanics and non-Hispanic whites cost the health care system \$23.9 billion.<sup>1</sup>
- Combined costs of health disparities and premature death in US were \$1.24 trillion between 2003-2006.<sup>2</sup>

1. Waidmann T, The Urban Institute, September 2009

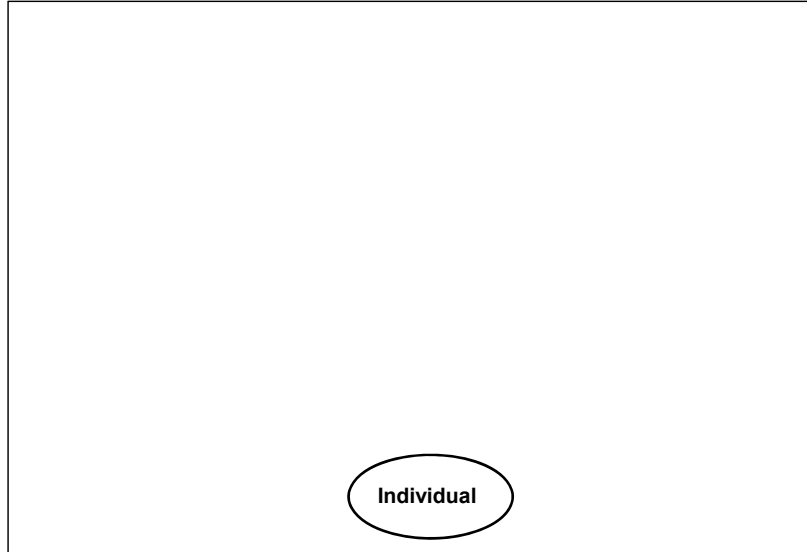
2. Joint Center for Political and Economic Studies, 2010

# **Approaches to reduce health care disparities**

## **There are numerous strategies used to reduce health disparities**

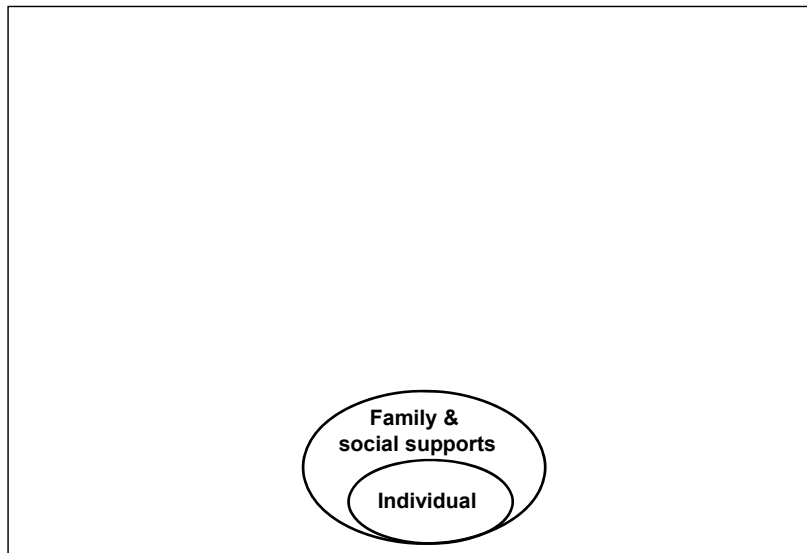
- **Healthcare transformation**
- **Enhancing diversity of the healthcare workforce**
- **Population health strategies**
  - **Cultural competency training**
  - **Patient navigators**
- **Advance scientific knowledge and innovation**
  - **Improving minority accrual to clinical trials**

## A multilevel approach can reduce disparities



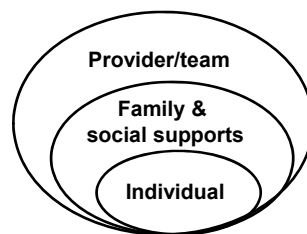
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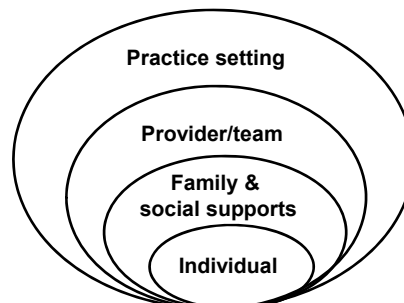
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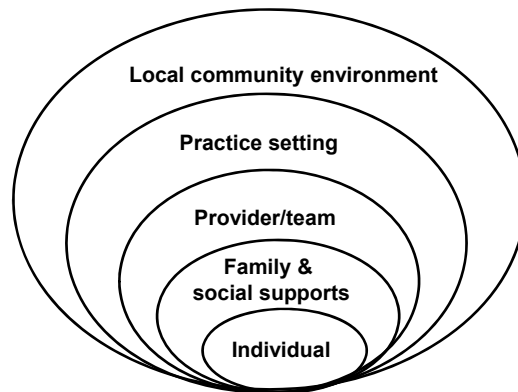
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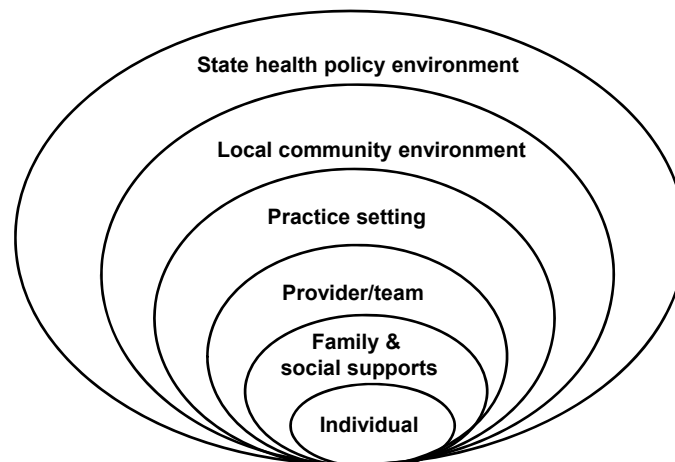
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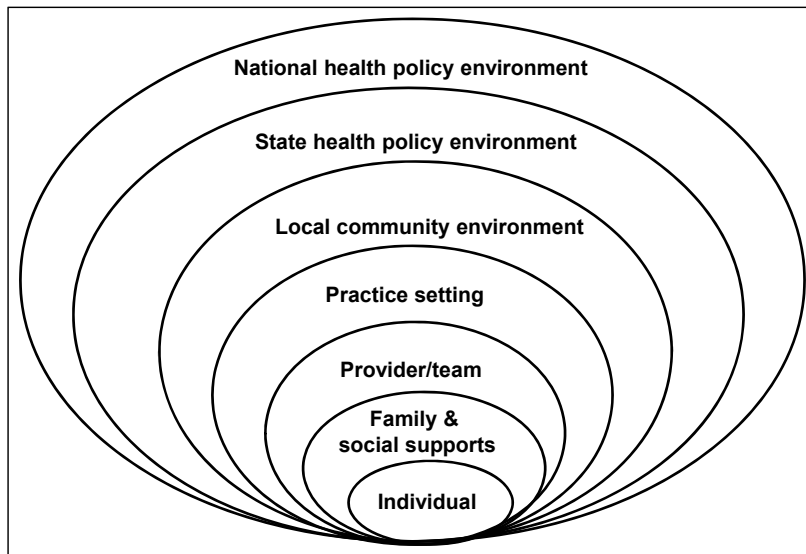
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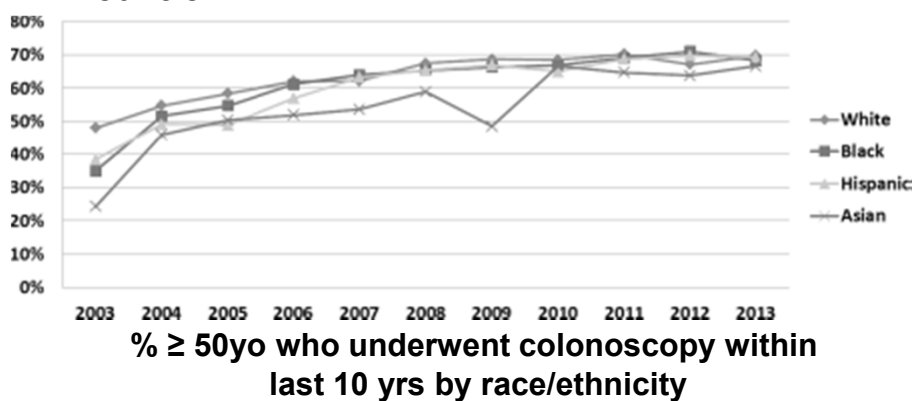
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## A multilevel approach can reduce disparities: the example of colorectal cancer

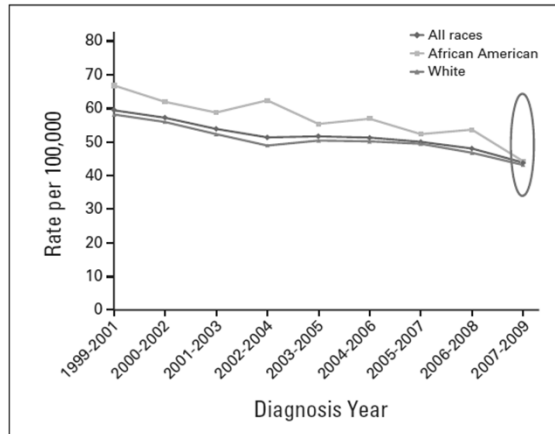
- **New York Citywide Colon Cancer Control Coalition**



Itzkowitz, S. H., et al. (2016), New York Citywide Colon Cancer Control Coalition: A public health effort to increase colon cancer screening and address health disparities. *Cancer*, 122: 269–277. doi: 10.1002/cncr.29595

## A multilevel approach can reduce disparities: the example of colorectal cancer

- The Delaware Project

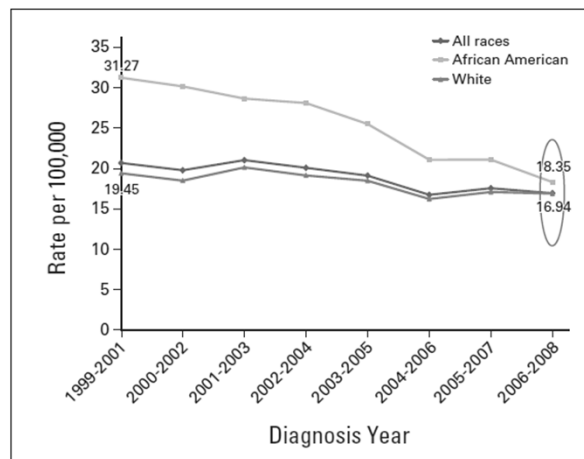


Age-adjusted colorectal cancer incidence rates by race

Grubbs SS et al. J Clin Oncol 2013; 31(16): 1928-1930

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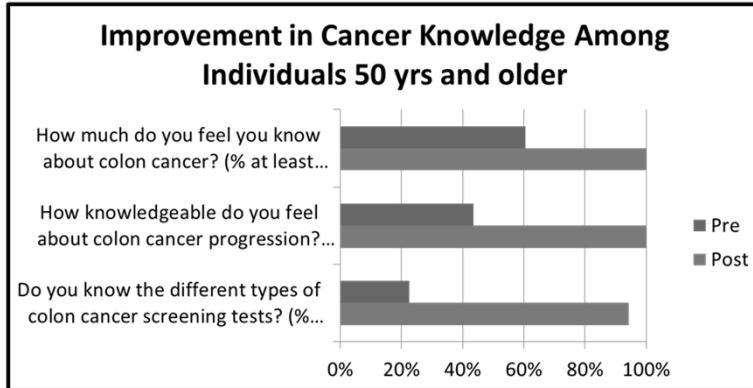


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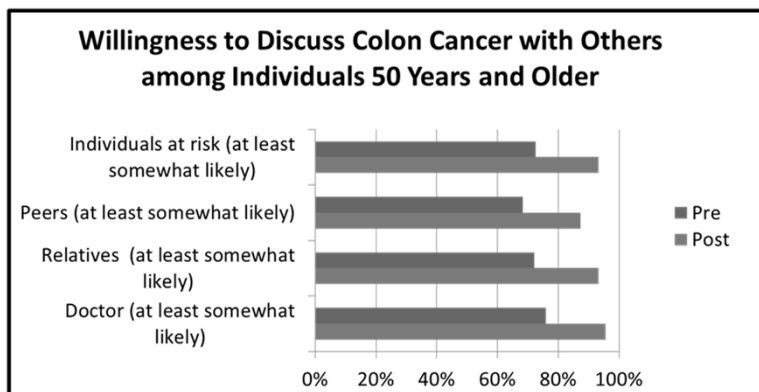
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- OSU Provider and Community Engagement (PACE) Program: Inflatable colon tours



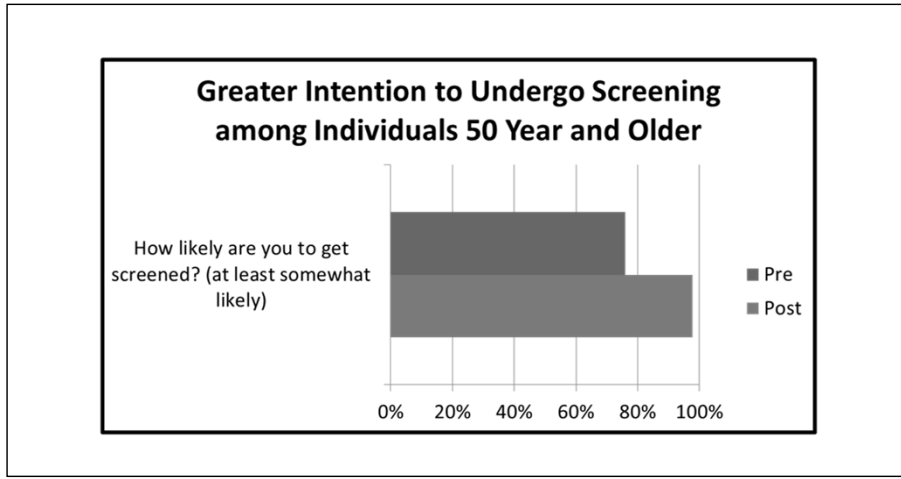
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**A multilevel approach can reduce disparities:  
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**A multilevel approach can reduce disparities:  
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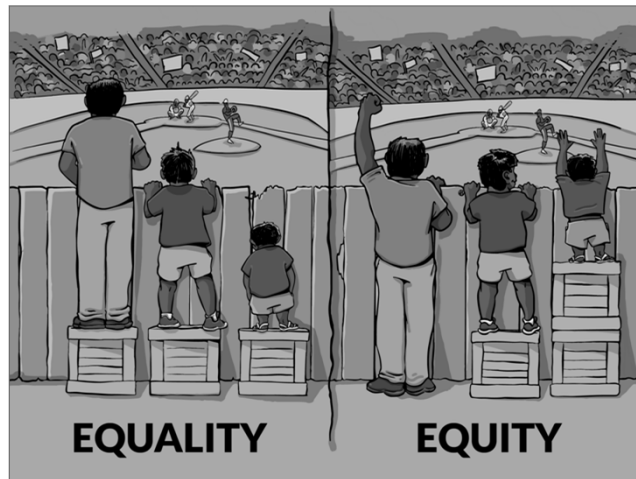
- **OSU Provider and Community Engagement (PACE) Program: Free colonoscopies**

**Adenoma detection among average-risk patients, N=44**

Characteristics	ADR%	AADR%	Proximal adenoma%
All	61.4%	11.4%	34.1%
Gender			
Female	53.3%	13.3%	26.7%
Male	65.5%	10.3%	37.9%
Race/ethnicity			
Black	60.1%	36.0%	12.0%
White	61.5%	30.8%	7.8%

ADR= adenoma detection rate  
AADR= advanced adenoma detection rate

# The goal is to achieve health equity



Author: Angus Maguire

<http://interactioninstitute.org/illustrating-equality-vs-equity/>

## Conclusions

- Health care disparities are well documented across the spectrum of medicine.
- Differences in access, quality, behaviors, and social determinants of health are key contributors.

# Conclusions

- **Healthcare disparities are costly.**
- **Multilevel approaches are necessary to significantly impact these inequities.**