

Center for Medicine & Public Health  
FSU College of Medicine

# The Harmonies of Community Health & Health Care

*Five Levels of Integration to Achieve  
Optimal & Equitable Outcomes  
in Chronic Disease*

George Rust, MD, MPH, FAAFP, FACPM  
Father of Dan & Christina, Husband of Cindy,  
Grandfather of Gracie  
Professor of Behavioral Sciences & Social Medicine  
Director, FSU-COM Center for Medicine & Public Health



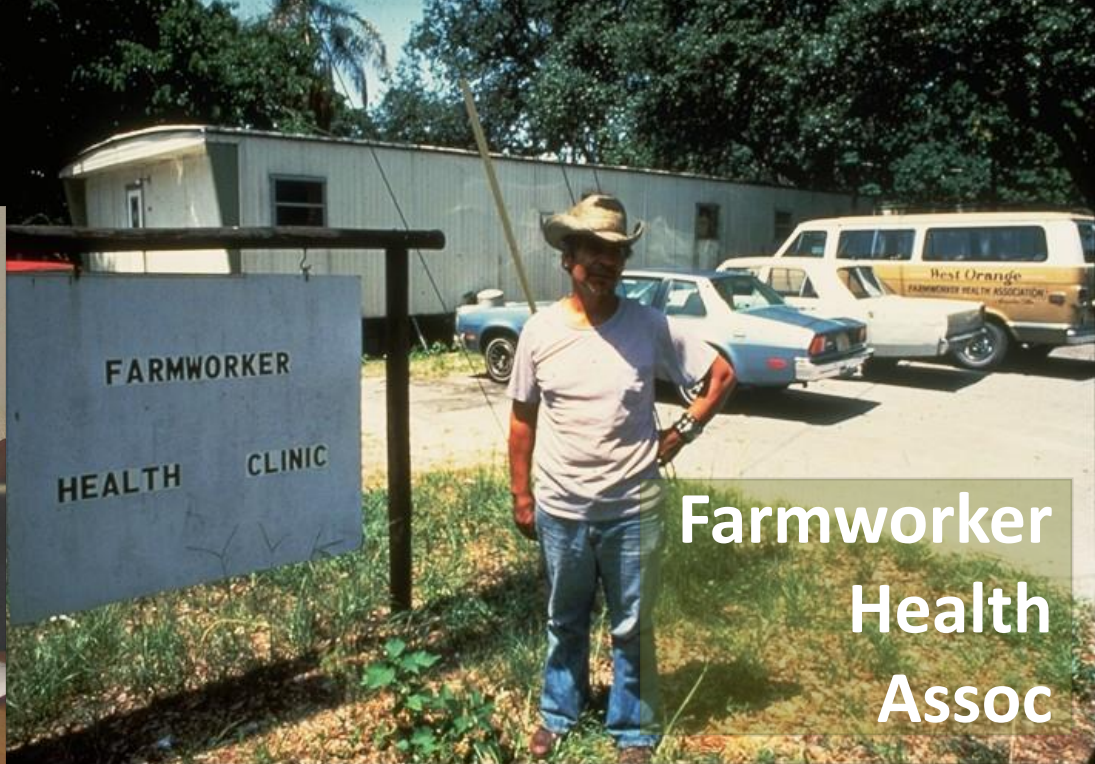
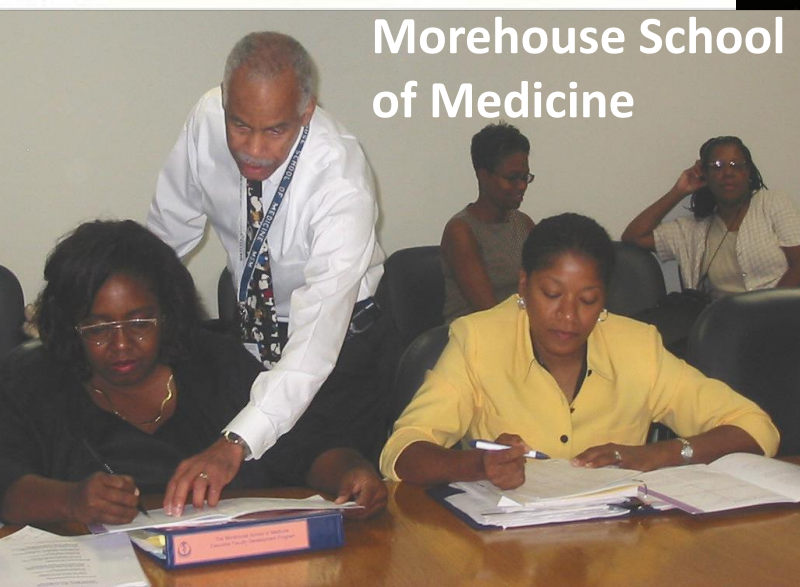
Cook County  
Hospital



Honduras



Morehouse School  
of Medicine



Farmworker  
Health  
Assoc

# Limitations of a Primary Care Clinician Serving High-Disparity Populations



- *Uninsured Patients*
- *Limited Resources*
- *Cultural & Linguistic Barriers*
- *Professional Isolation*



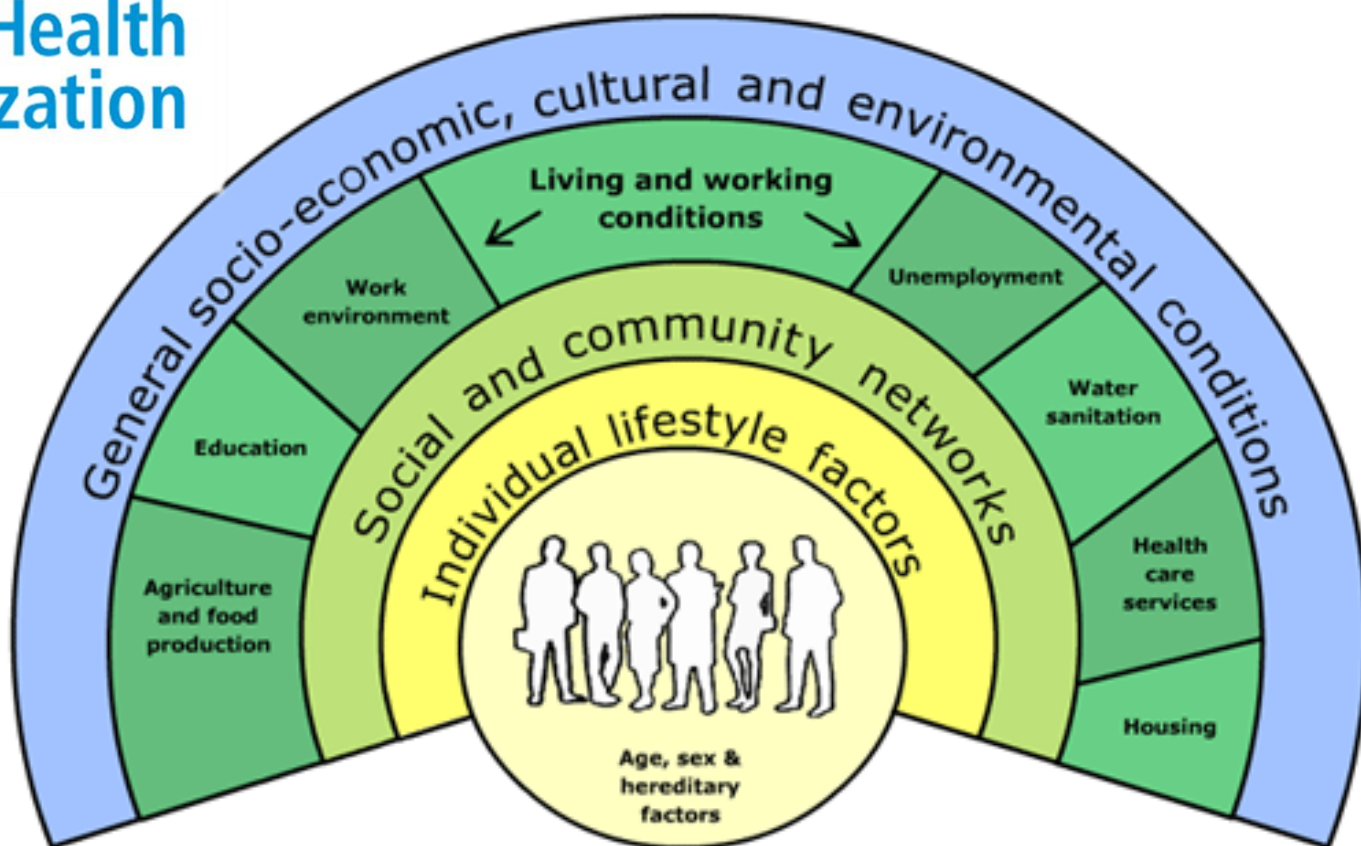
# Health Behaviors





World Health  
Organization

## The Main Determinants of Health



Closing  
the gap  
in a  
generation

Health equity through action on  
the social determinants of health



# Social “Determinants”

# *Poor Outcomes are Rooted in Clinical & Social Complexities*



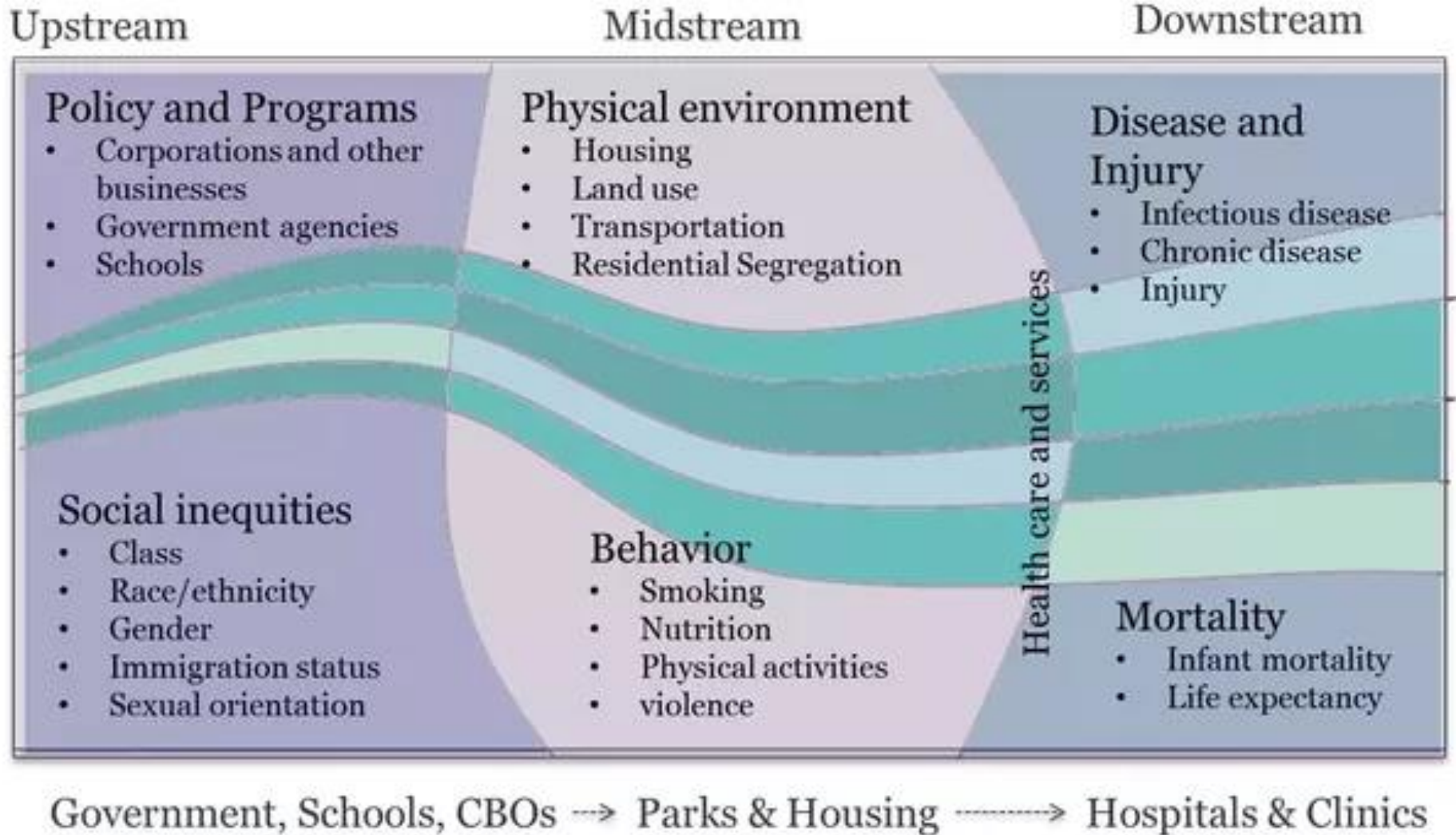
# Upstream Downstream “Determinants” of Health

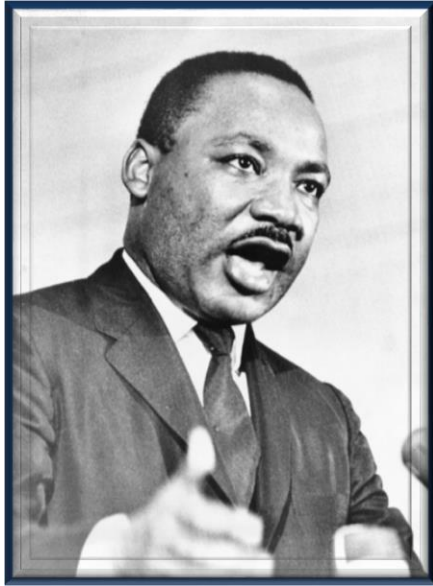
- *A Cascade of Causation, but **not** Unidirectional*

J Public Health Manag Pract. 2008 November ; 14(Suppl): S8–17. doi:10.1097/01.PHH.0000338382.36695.42.

Moving Upstream: How Interventions that Address the Social Determinants of Health can Improve Health and Reduce Disparities

David R. Williams, PhD, MPH<sup>1,2</sup>, Manuela V. Costa, MPH<sup>1</sup>, Adebola O. Odunlami, MPH<sup>1</sup>, and Selina A. Mohammed, PhD<sup>3</sup>





# Health Disparities

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

*“More than one-quarter of the American Indian and Alaska Native population is living in poverty, a rate that is more than double that of the general population and one that is even greater for certain tribal groups (e.g., approaching 40%).”*

[Am J Public Health](#). 2006 Aug;96(8):1478-84. Epub 2006 Mar 29.

A nationwide population-based study identifying health disparities between American Indians/Alaska Natives and the general populations living in select urban counties.

[Castor ML](#)<sup>1</sup>, [Smyser MS](#), [Taulii MM](#), [Park AN](#), [Lawson SA](#), [Forquera RA](#).

## MORTALITY DISPARITY RATES

# American Indian Disparities

American Indians and Alaska Natives (AI/AN) in the IHS Service Area

2009-2011 and U.S. All Races 2010

(Age-adjusted mortality rates per 100,000 population)

	AI/AN Rate 2009-2011	U.S. All Races Rate - 2010	Ratio: AI/AN to U.S. All Races
<b>ALL CAUSES</b>	999.1	747.0	1.3
<b>Diseases of the heart (Heart Disease)</b>	194.7	179.1	1.1
<b>Malignant neoplasm (cancer)</b>	178.4	172.8	1.0
<b>Accidents (unintentional injuries)*</b>	93.7	38.0	2.5
<b>Diabetes mellitus (diabetes)</b>	66.0	20.8	3.2
<b>Alcohol-induced</b>	50.0	7.6	6.6
<b>Chronic lower respiratory diseases</b>	46.6	42.2	1.1
<b>Cerebrovascular diseases (stroke)</b>	43.6	39.1	1.1
<b>Chronic liver disease and cirrhosis</b>	42.9	9.4	4.6

## TRENDS

## What If We Were Equal? A Comparison Of The Black-White Mortality Gap In 1960 And 2000

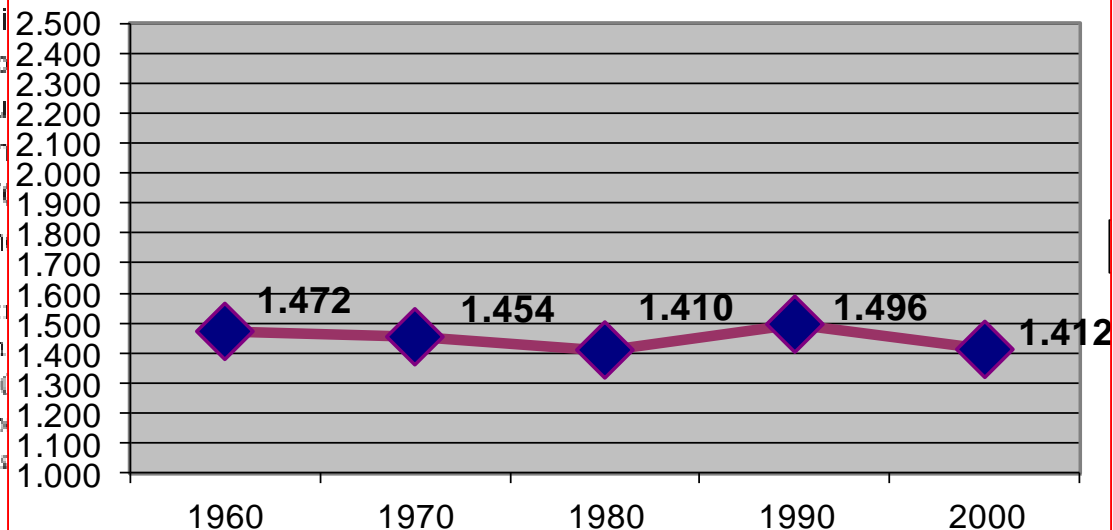
Closing this gap could eliminate more than 83,000 excess deaths per year among African Americans.

by David Satcher, George E. Fryer Jr., Jessica McCann, Adewale Troutman, Steven H. Woolf, and George Rust

**ABSTRACT:** The United States has made significant gains in civil rights, housing, education, and health care. This study examined trends in black-white inequality in health status from 1960 to 2000. The black-white gap in health status in 1960 and 2000 and actual trends in the gap among thirty-five and older. In conclusion, an estimated 83,570 black-white deaths in the United States if this black-white mortality gap were closed.

THE 1985 TASK FORCE on and minority health concern that 60,000 were occurring annually by disparities, primarily among

### Black-White Standardized Mortality Ratios, 1960-2000



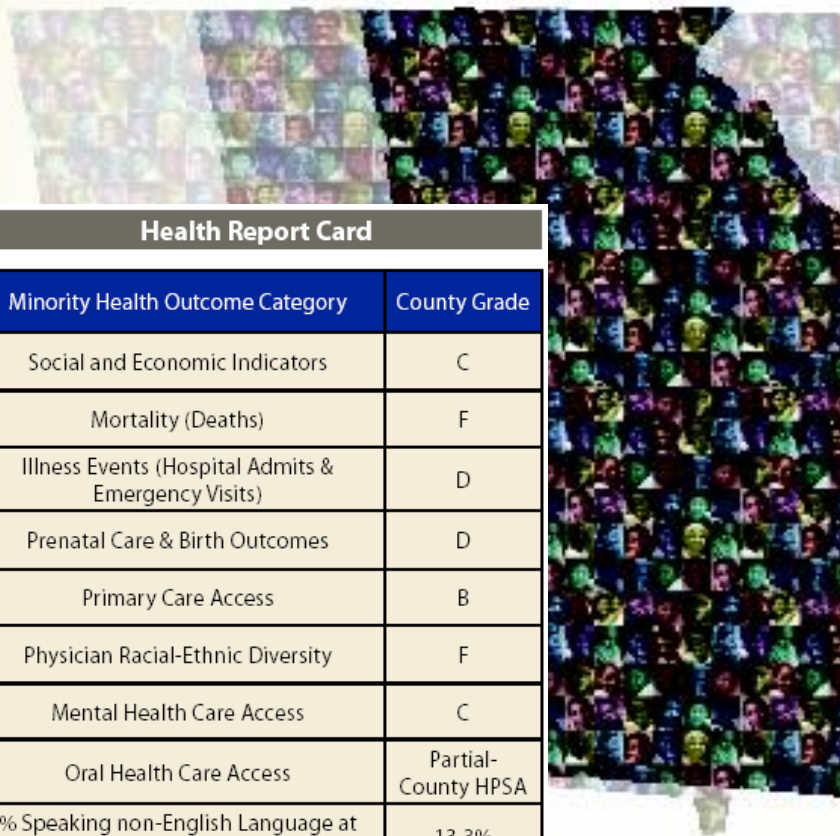
# Racial Disparities are Severe and Persistent

# Georgia Health Equity Initiative

Health Disparities Report 2008: A County-Level Look at Health Outcomes for Minorities in Georgia



First Edition



Health Report Card

Minority Health Outcome Category	County Grade
Social and Economic Indicators	C
Mortality (Deaths)	F
Illness Events (Hospital Admits & Emergency Visits)	D
Prenatal Care & Birth Outcomes	D
Primary Care Access	B
Physician Racial-Ethnic Diversity	F
Mental Health Care Access	C
Oral Health Care Access	Partial-County HPSA
% Speaking non-English Language at Home	13.3%
% Estimated to Have No Health Insurance	15.5%

- Black-White racial inequalities in health outcomes cost Fulton County 28,022 excess years of potential life lost due to premature deaths.



# Unequal Benefit: Breast Cancer Disparities Widen

## Insurance, quality of care blamed for racial disparity in breast cancer mortality

BY HALLIE D. MARTIN  
FEB 28, 2008

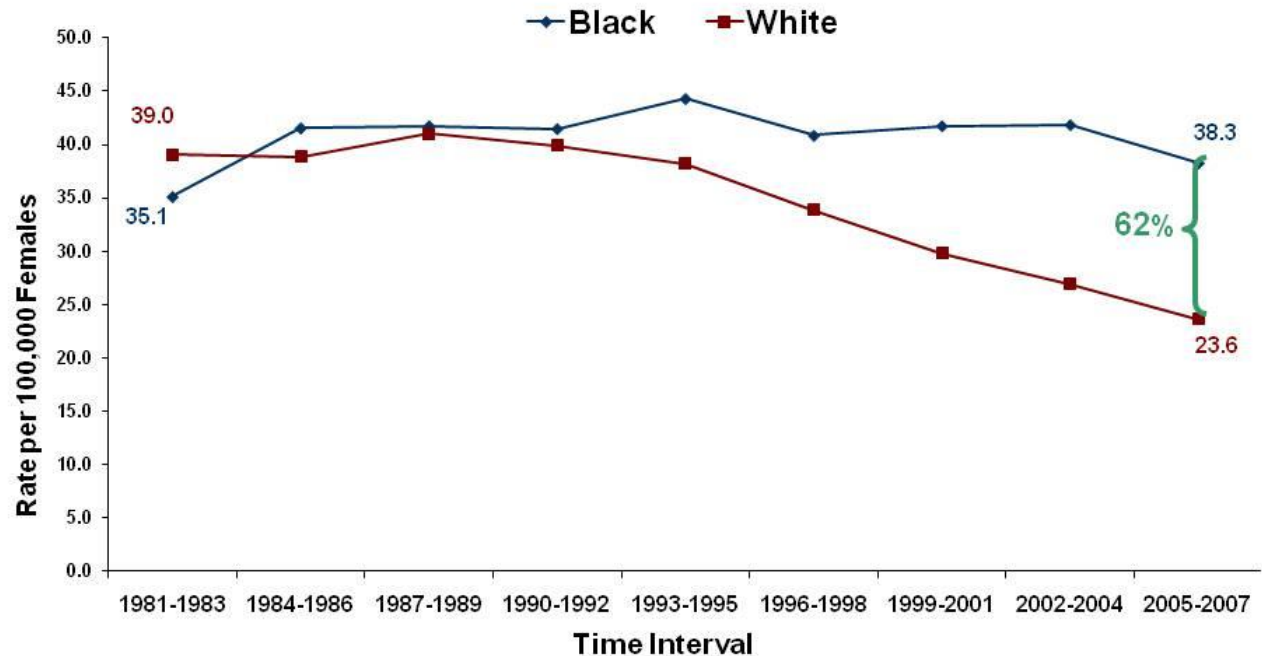
The breast cancer mortality rate for black women is 68 percent higher than for white women in Chicago, a study by Sinai Urban Health Institute found, and while the reasons for the disparity are complicated, experts said insurance is a major factor.

"Black women are two years behind," said Sharon Brown, supervisor at the Breast Imaging Center at Rush Medical College. "[Doctors] don't catch it early, and it tends to be more aggressive."

BY [HALLIE D. MARTIN](#), MEDILL REPORTS  
CHICAGO FEB 28, 2008

[HTTP://NEWS.MEDILL.NORTHWESTERN.EDU/  
CHICAGO/NEWS.ASPX?ID=79861](http://news.medill.northwestern.edu/chicago/news.aspx?id=79861)

## Black and White Breast Cancer Mortality Chicago, 1981-2007



Age-Adjusted Female Breast Cancer Mortality for Chicago, Per 100,000 Population

Prepared by The Sinai Urban Health Institute

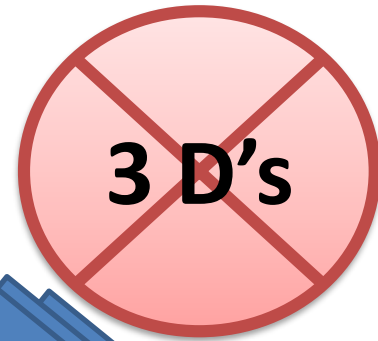
Determinants

Deficits

Disparities

Despair

Disparities



Systemic Racism

Medicaid Cut-Backs

Education Inequality

POVERTY

Rollback of Health & Safety

Re-ascendence of white Anglo men making all the decisions

Anti-Immigrant Hostility

"Determinants"

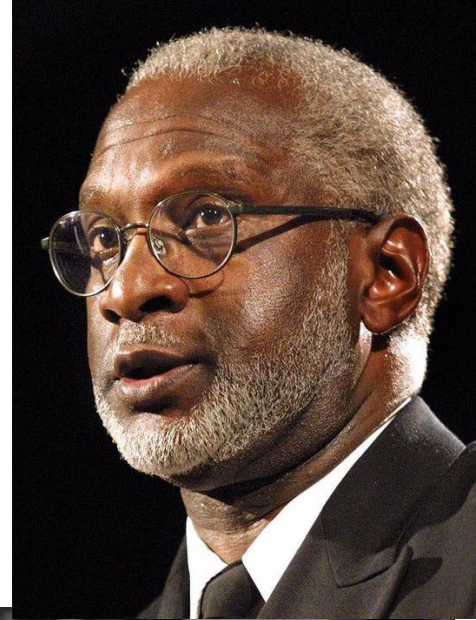
Disparities

Deficits

OVERWHELMED

SURE, I CAN HANDLE THE LOAD. NO PROBLEM.

# Believe in the Possible!



“Living through the Civil Rights movement showed me that I could be a part of change. I realized then that you don’t have to accept things the way they are.”

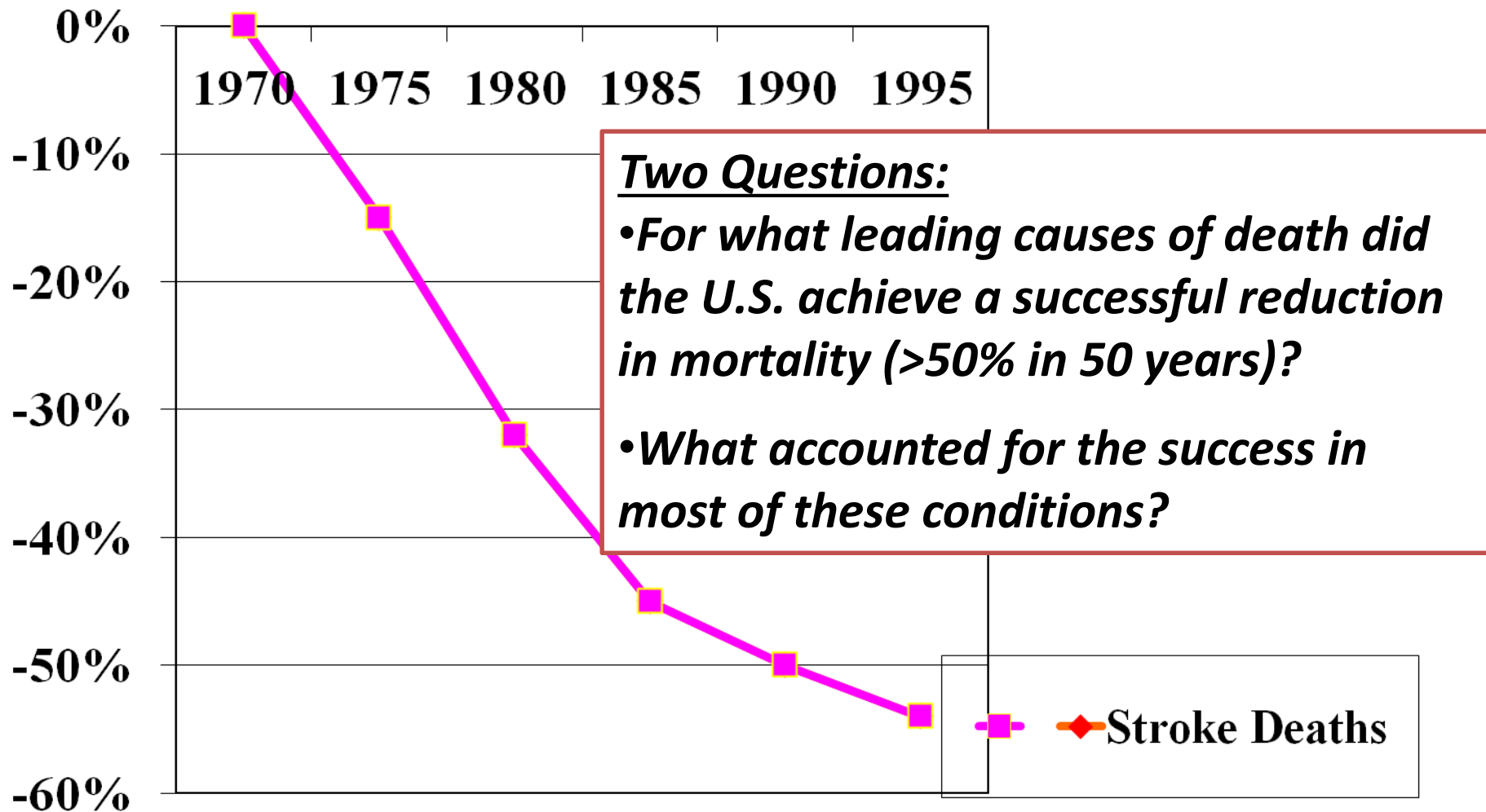
-- David Satcher, MD, PhD



# *Triangulating on Success to Improve America's Health*

*Rust G, Satcher D, et al. AJPH, 2010*

% Decline in Age-Adjusted Mortality Rates



# *Triangulating on Success to Improve America's Health*

*Rust G, Satcher D, et al. AJP, 2010*

- Cardiovascular:
  - Heart Disease
  - Stroke
- Cancer:
  - Uterine/Cervical Cancer
  - Gastric (Stomach) Cancer
- Traumatic Injuries
  - Unintentional Injuries
- Infectious Disease:
  - HIV-AIDS
  - Tuberculosis
  - Syphilis
  - Influenza / Pneumonia

*What accounted for the  
successful reduction in  
mortality (>50% in 50 years)  
for most of these conditions?*

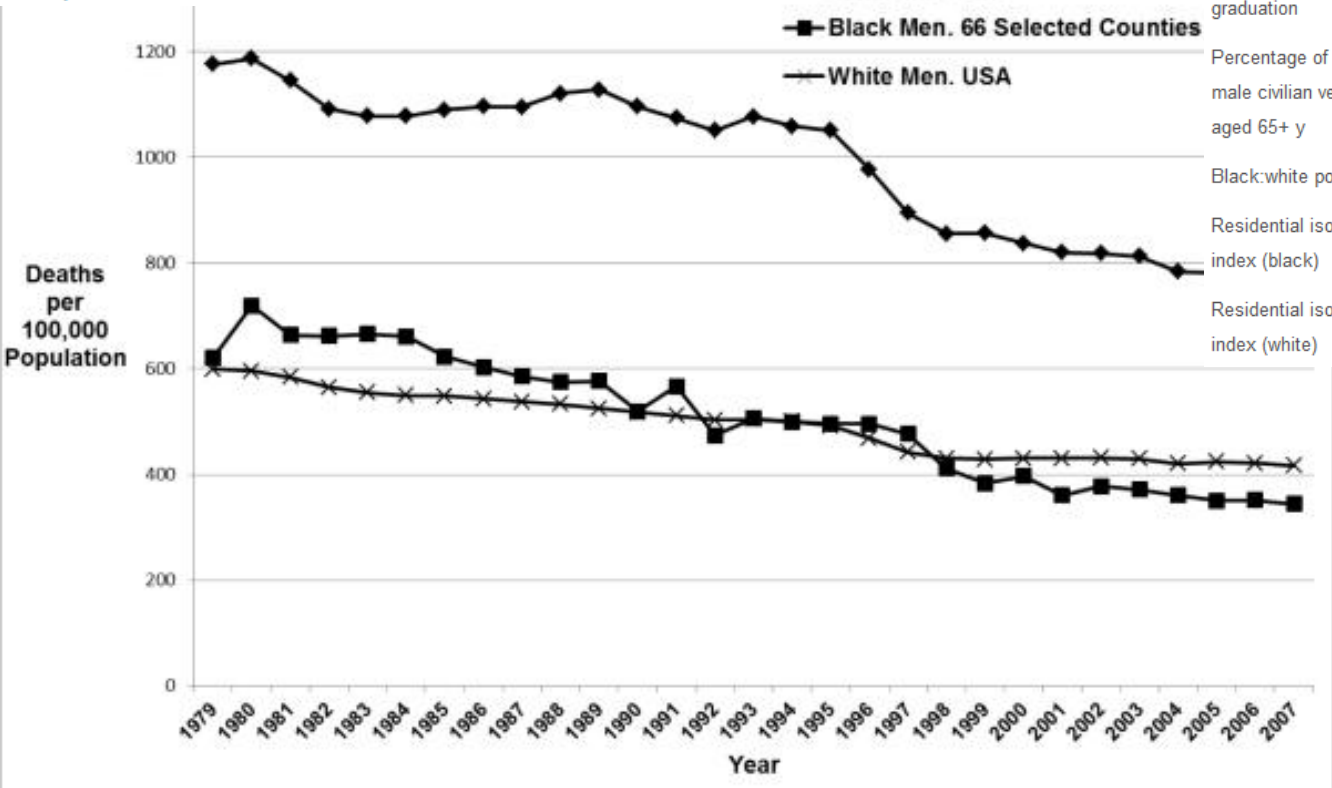


# Local Area Variation: Evidence that Equality Is Achievable

Brief observation

## United States Counties with Low Black Male Mortality Rates

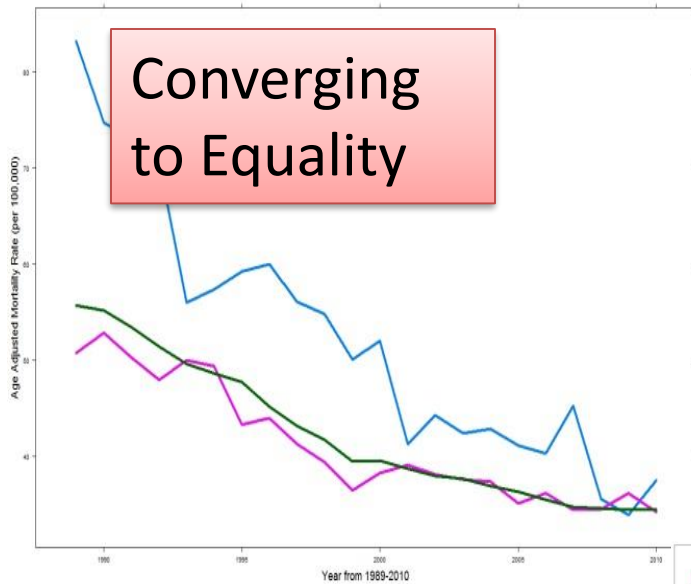
Robert S. Levine MD <sup>a</sup>, George Rust MD <sup>b</sup>, Muktar Aliyu MD, PhD <sup>a, c</sup>, Maria Pisu PhD <sup>d</sup>, Roger Zoorob MD, MPH <sup>a</sup>, Irwin Goldzweig MS <sup>a</sup>, Paul Juarez PhD <sup>a</sup>, Baqar Husaini PhD <sup>e</sup>, Charles H. Hennekens MD, DrPH <sup>a, f, g, h, i, j</sup>



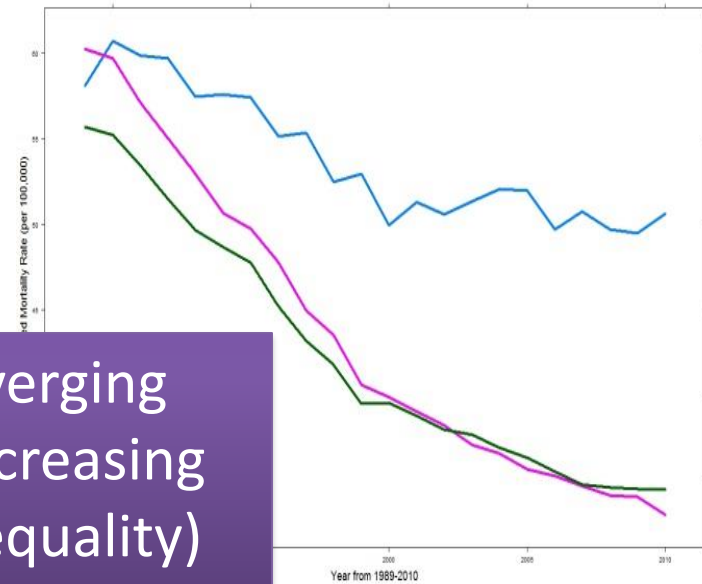
poverty			
Percentage of black men aged 25+ y with less than high school graduation	20%	31%	<.001
Percentage of black male civilian veterans aged 65+ y	59%	49%	<.001
Black:white poverty ratio	2.6	2.5	.550
Residential isolation index (black)	0.1	0.1	.416
Residential isolation index (white)	0.8	1.1	.526

- Racial Disparities are not Inevitable!

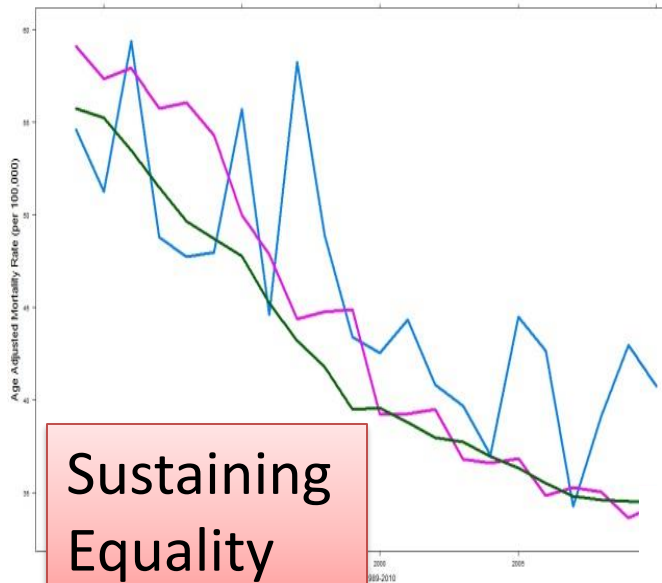
Breast Cancer Age Adjusted Mortality black/white racial disparities in convergent pattern counties



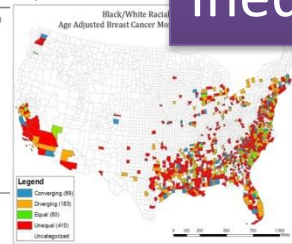
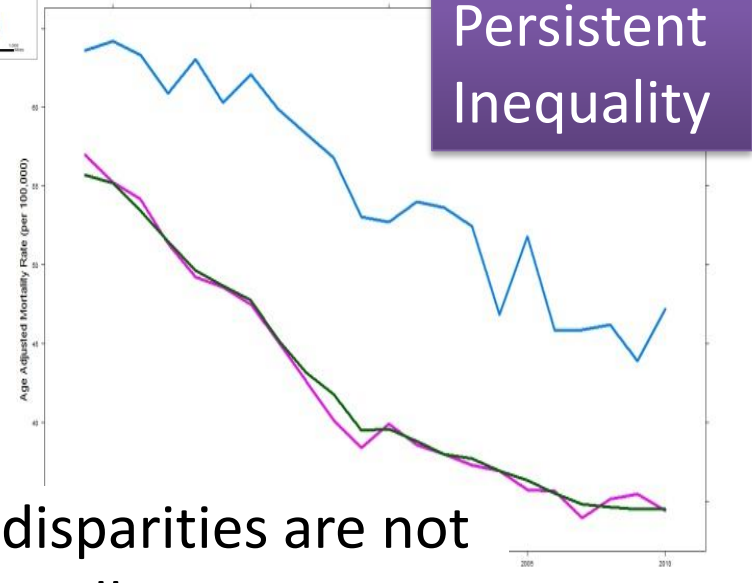
Breast Cancer Age Adjusted Mortality black/white racial disparities in divergent pattern counties



Breast Cancer Age Adjusted Mortality black/white racial disparities in persist equal pattern counties

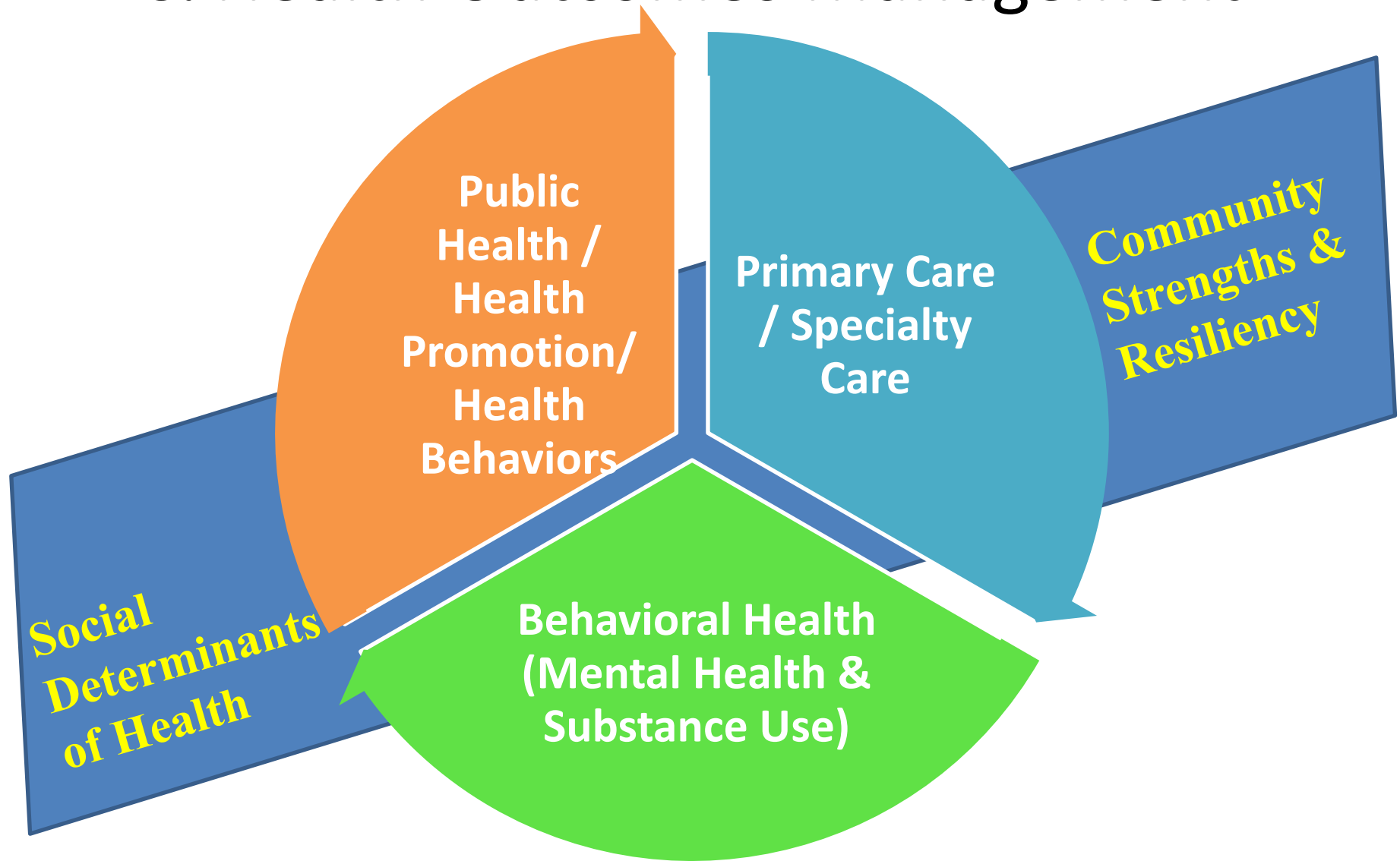


Breast Cancer Age Adjusted Mortality in black/white racial disparities consistent unequal pattern counties



Trends in disparities are not the same in all communities

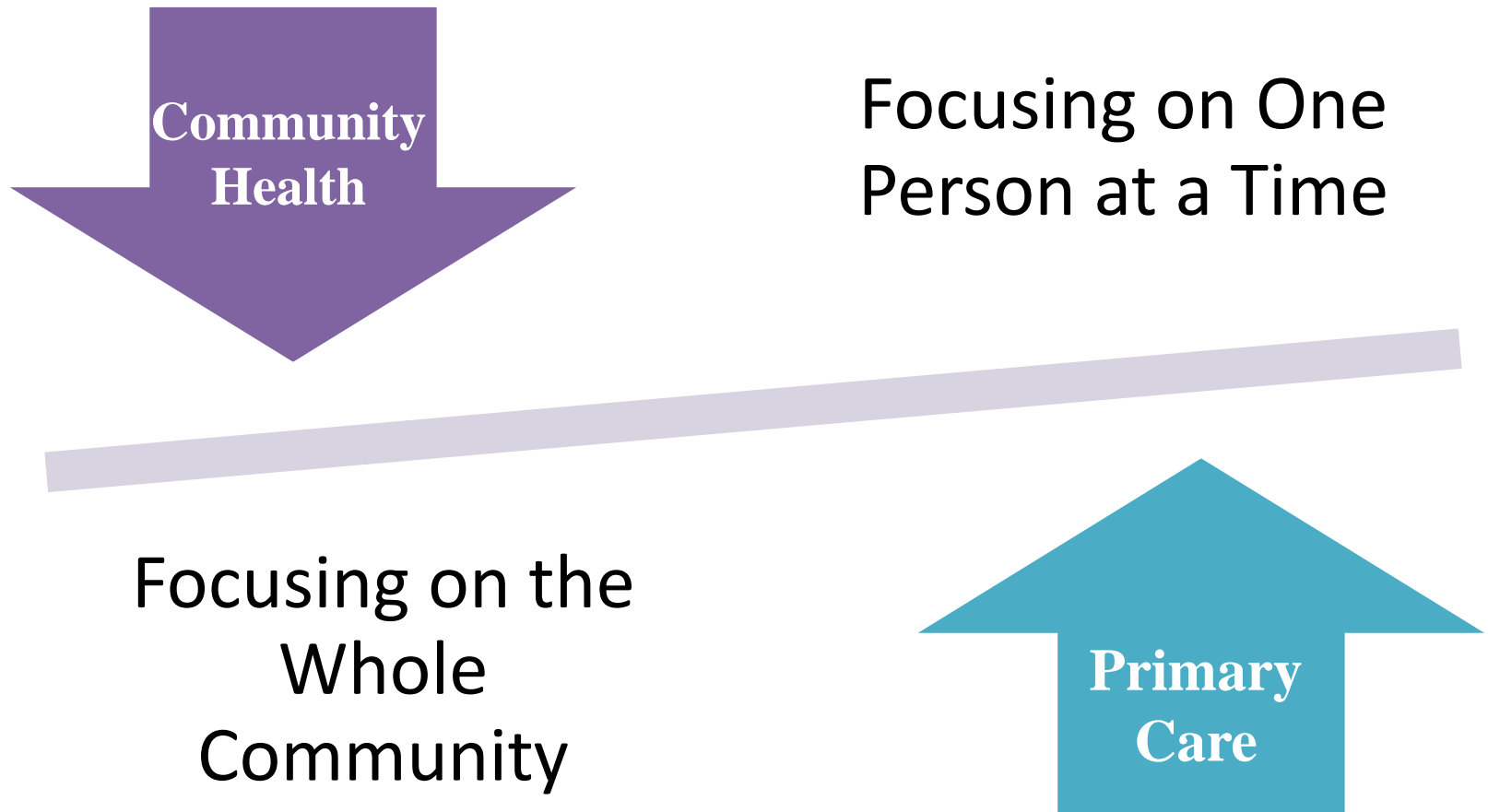
# Stretching the Boundaries of Health Care & Health Outcomes Management



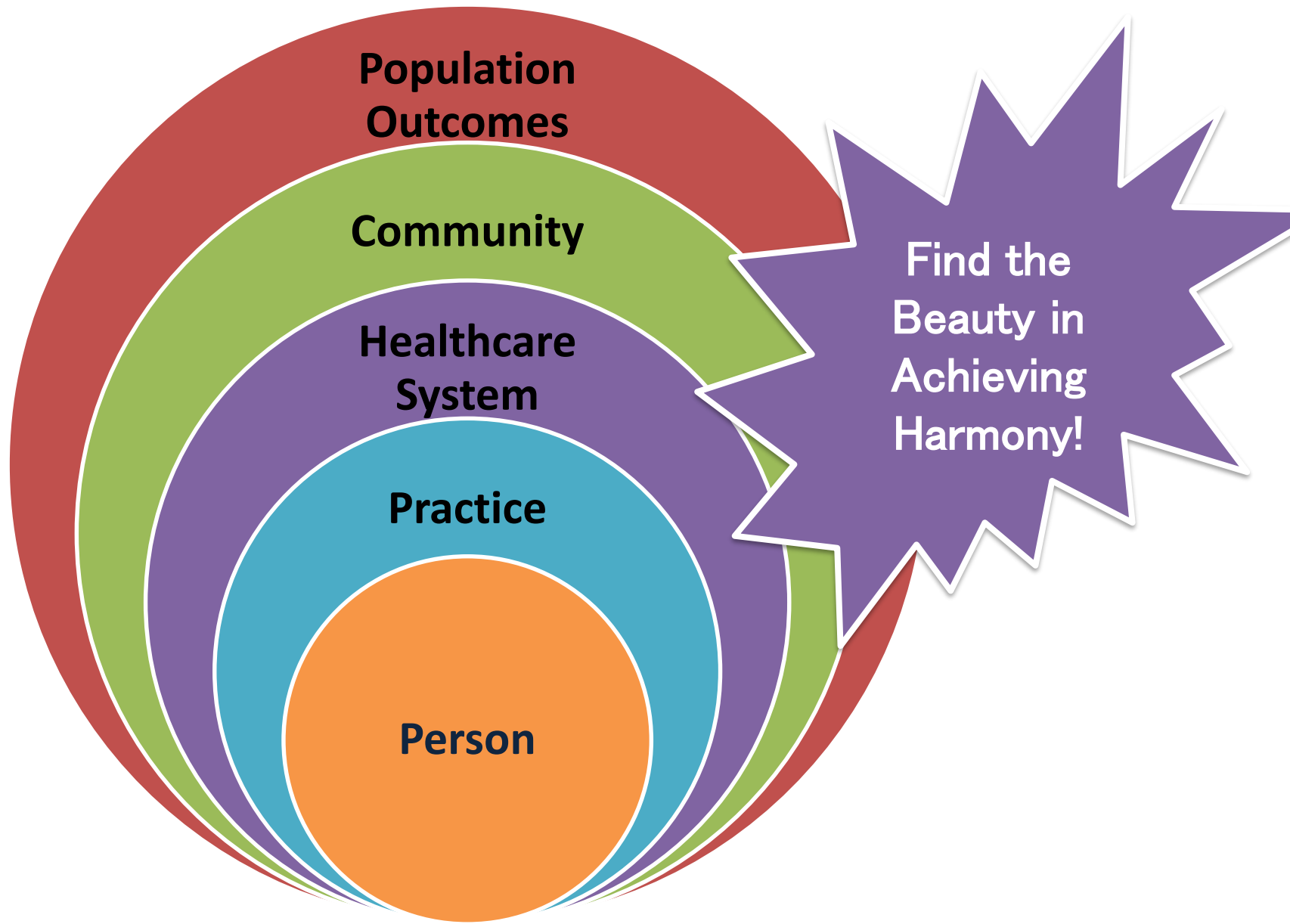
# Why Blend Primary Care & Community Health?

Example: To prevent complications of obesity and diabetes, ***all you have to do*** is modify a person's health beliefs and attitudes, daily habits, eating preferences, daily activities, exercise habits, grocery stores, neighborhood walk-ability, food advertising, self-care, employability, economic empowerment, access to medical care, clinical inertia, provider quality, and medication adherence, all in the context of his or her family and social relationships.

# Two Seemingly Contradictory Ideas



# Five Levels of Integration

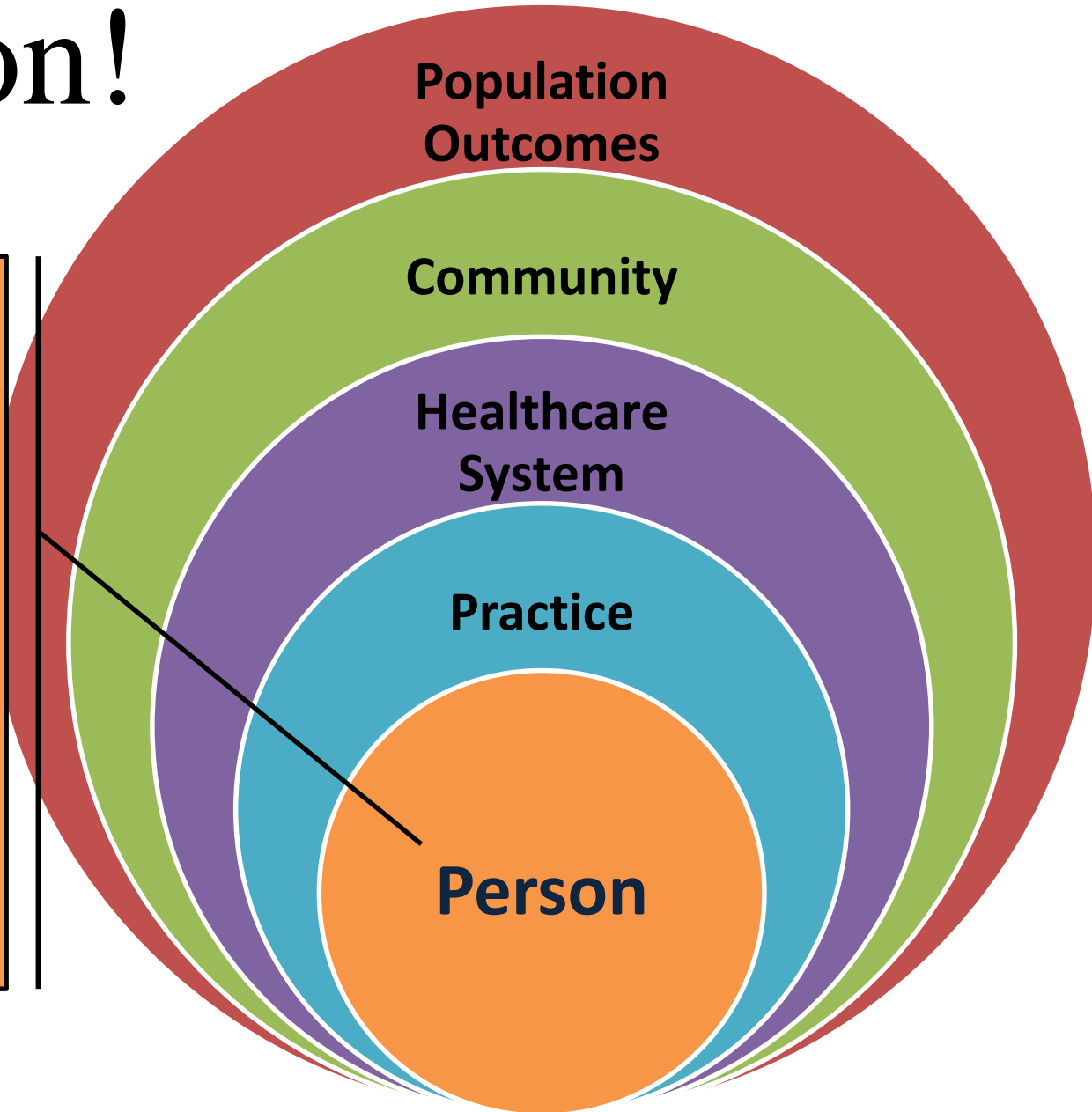


# Integration!

**Person-Level**

**Integrating  
Behavioral Health  
& Primary Care**

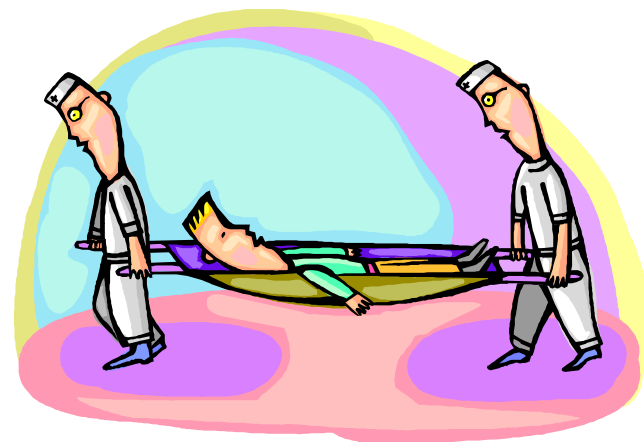
- Behavior Change
- Mental Health
- Substance Use



# Managing Clinical and Social Complexities for Whole Persons

## One Diabetic Patient:

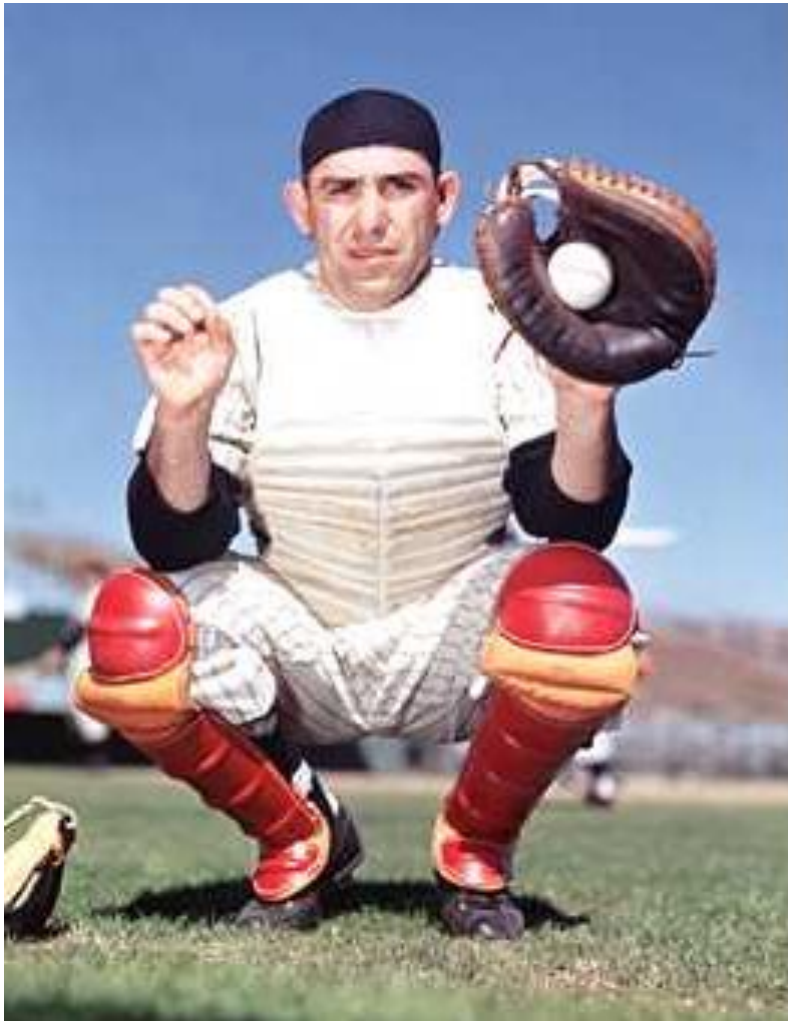
- Diabetes
- Arthritis
- COPD
- CHF
- Stroke
- Pneumonia
- Cancer
- Depression
- Alcohol / substance abuse



\* 21 ER Visits    \* 143 hospital bed-days

ip	op	md	ot	m2	dg	total
\$217,657	\$7,105	\$29,756	\$10,498	\$3,155	\$12,182	\$280,353

# Mental Health ↔ Physical Health



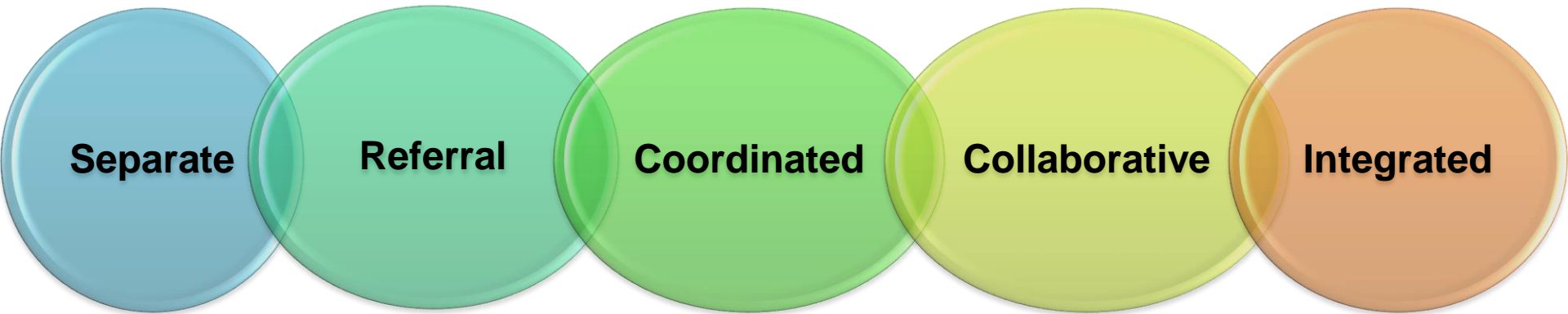
- “Baseball is 90% mental -- the other half is physical.”

*-- Yogi Berra*

- Stress
- Depression
- Anxiety
- Substance Abuse
- Domestic Violence
- Schizophrenia
- Bipolar Illness

- Nervios
- Susto
- Mal de Pelea
- Social Isolation
- Migration Stress
- Acculturation Stress

# Behavioral Health + Primary Care Continuum of Integration



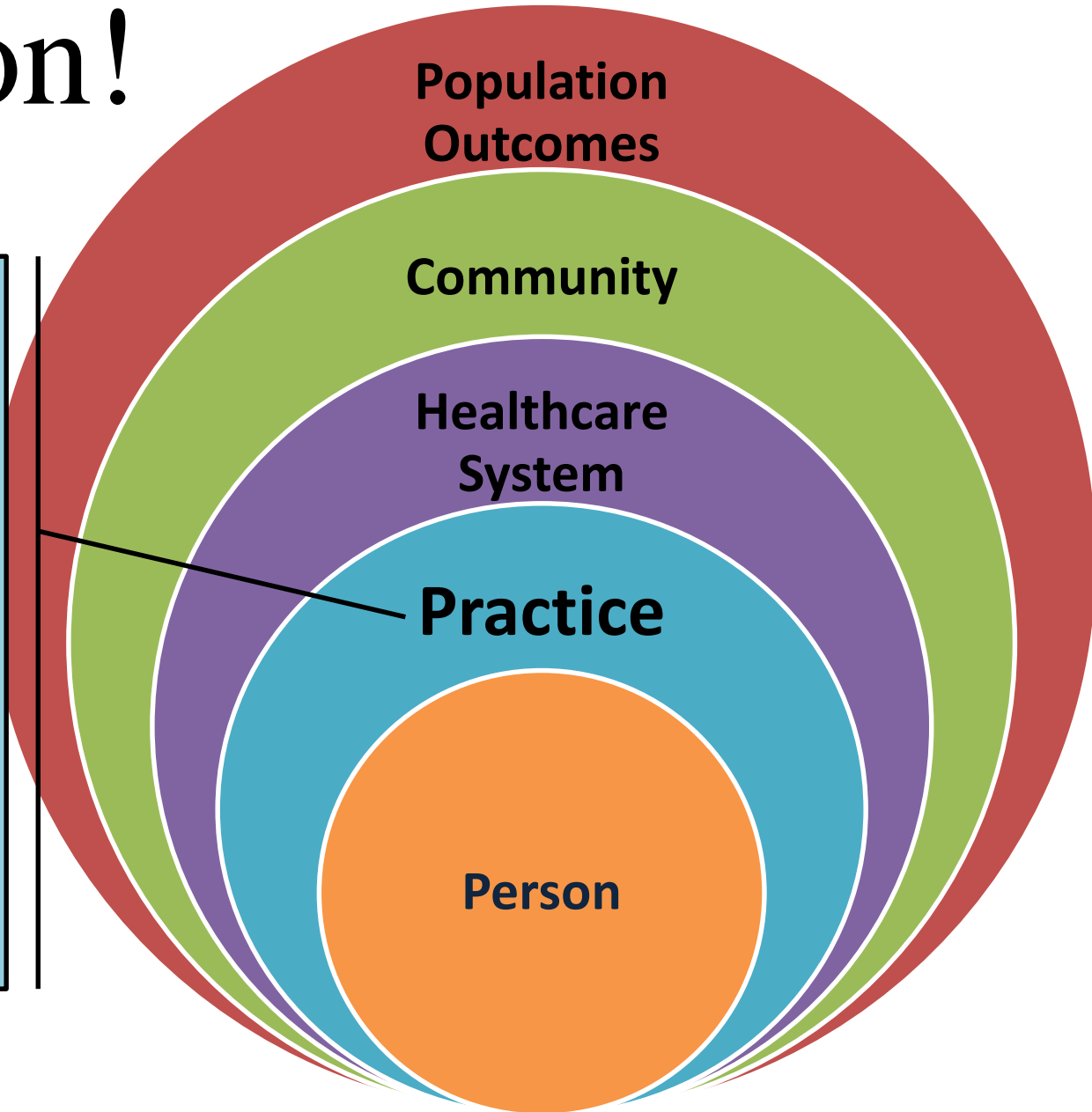
# Relational Integration = Collaborative Team

## Cherokee Health Systems “Integrated Care” Model:

- Biopsychosocial approach
- Addresses the whole person by integrating behavioral services into primary care.
- Combines the best traditions of primary care and mental health services in an integrated health care team to treat the whole person
- Services include education, behavioral management, assessments, brief interventions, as well as treatment for mental health disorders.

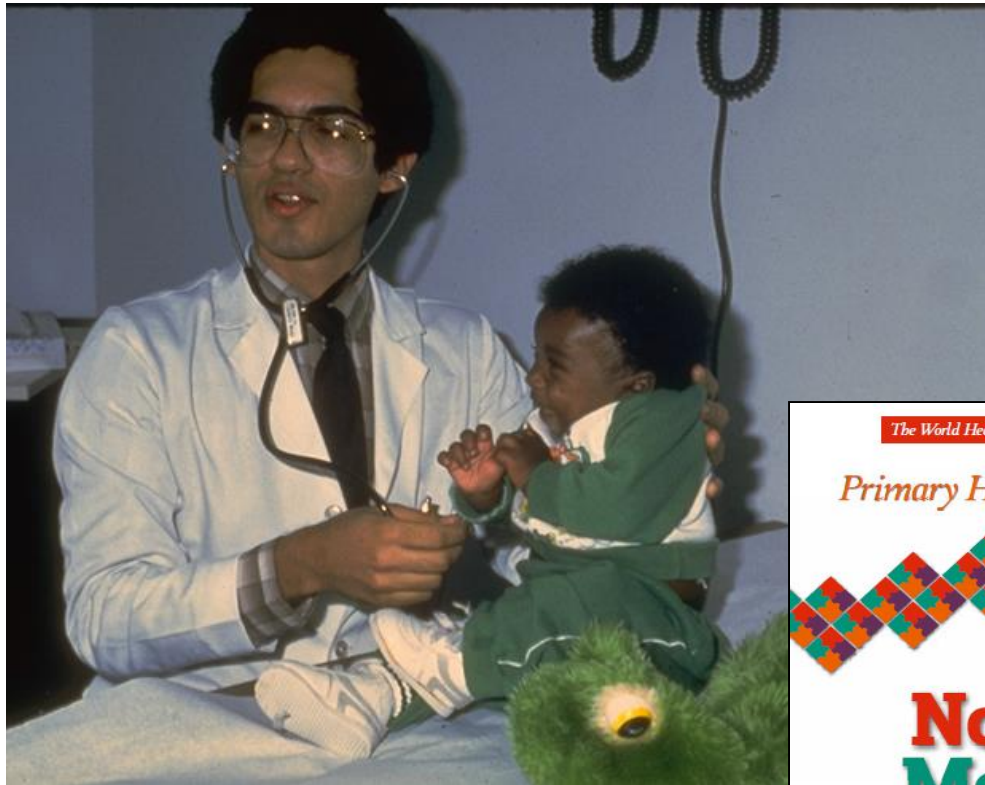


# Integration!



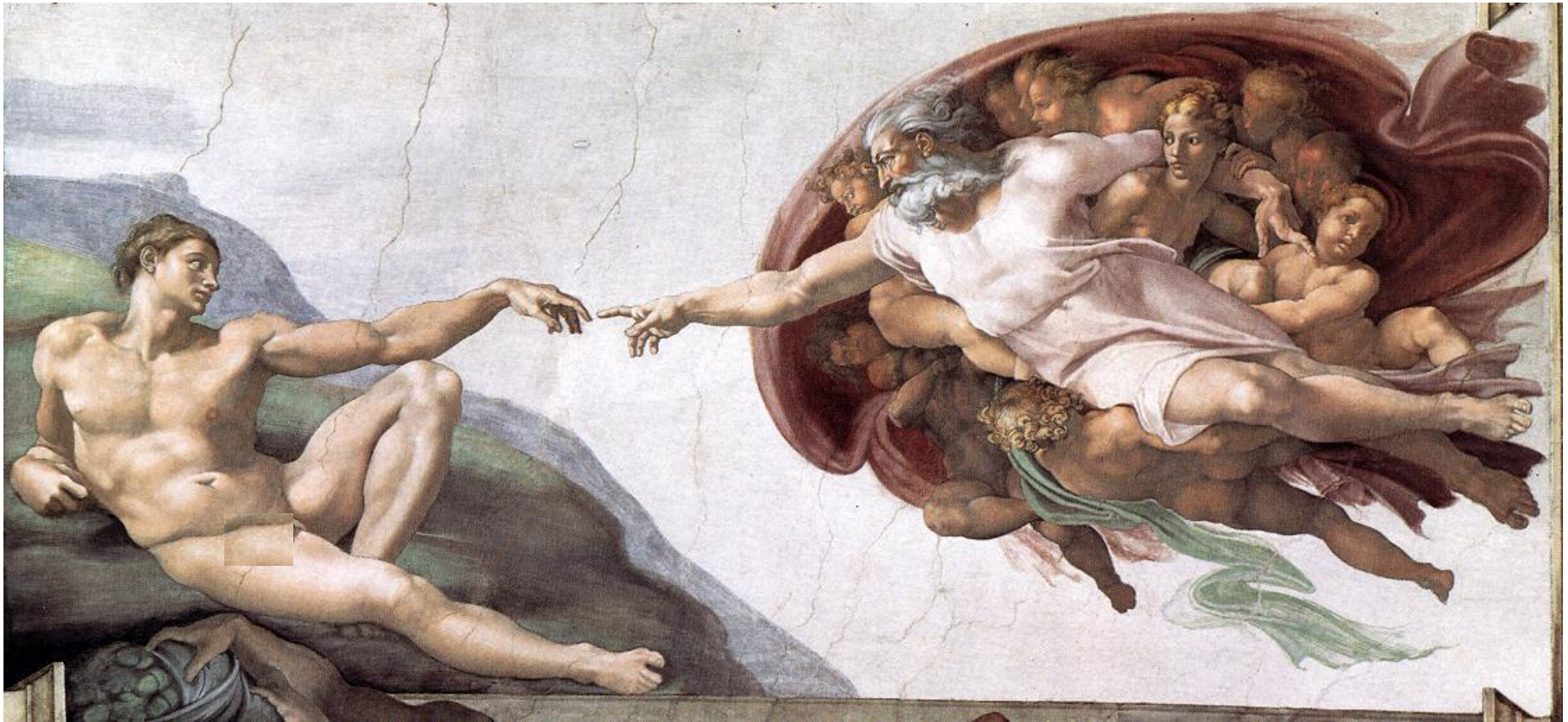
# Primary Care -- Healing Whole Persons with our “Radical Human Presence”

*“Radical Human Presence”, phrase used in a presentation called “How the Heart Learns” by Landon Saunders; AAMFT, 2004 annual mtg.*



- Listening
- Touching
- Affirming
- Comforting
- Diagnosing
- Treating
- Grieving
- Supporting
- Healing

# Doctor-Centered Medical Home: the Exam Room and the Doctor-Patient Visit

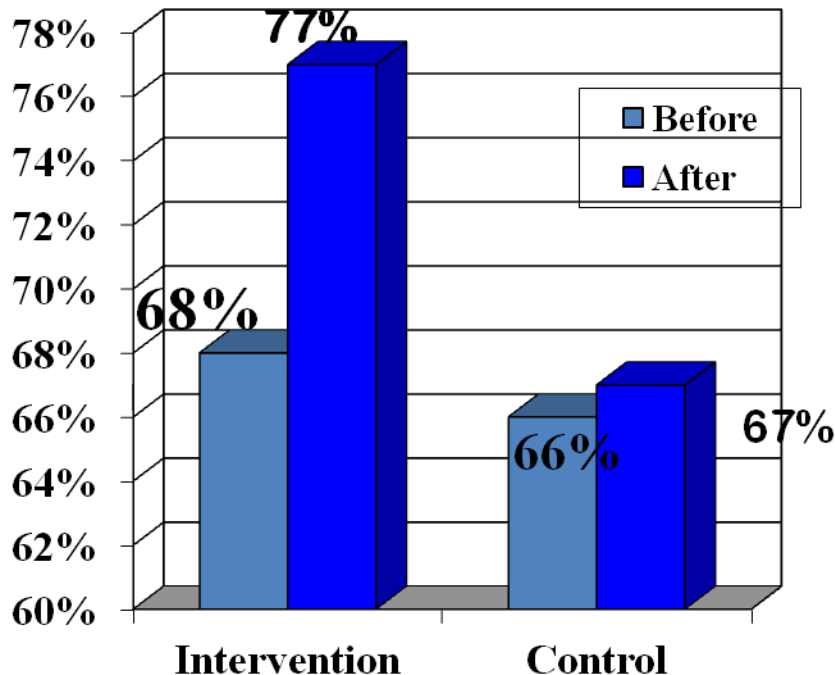


# Personalismo, Familismo, & Confianza



Trusted Relationships Trump  
Evidence-Based Arguments

# Teamwork: Everyone works up to the Level of their License



- Example: Empower More Clinical Staff to Initiate Preventive Services
- Medical assistants and Licensed Practical Nurses offer mammography as a routine part of the clinic encounter

# Staffing Models: *(8,000 patient panel)*

- 5 MD's
- 2 PA's
- 1 RPH



- 2 MD's
- 3 PA's
- 1 NP/Care Mgr
- 1 LCSW or Psychol/Behav
- 1 RPH /Pharm D (+ pharm tech)
- 3 *Promotoras*

# Group Visits and Panel-Based Care Mgt

Together we can achieve equity!

Login/Register

Sitemap



PARTNERSHIP FOR  
**DIABETES HEALTH EQUITY**  
NATIONAL CENTER FOR PRIMARY CARE  
AT MOREHOUSE SCHOOL OF MEDICINE



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ALIVIO MEDICAL CENTERS – MY HEALTH COMES FIRST



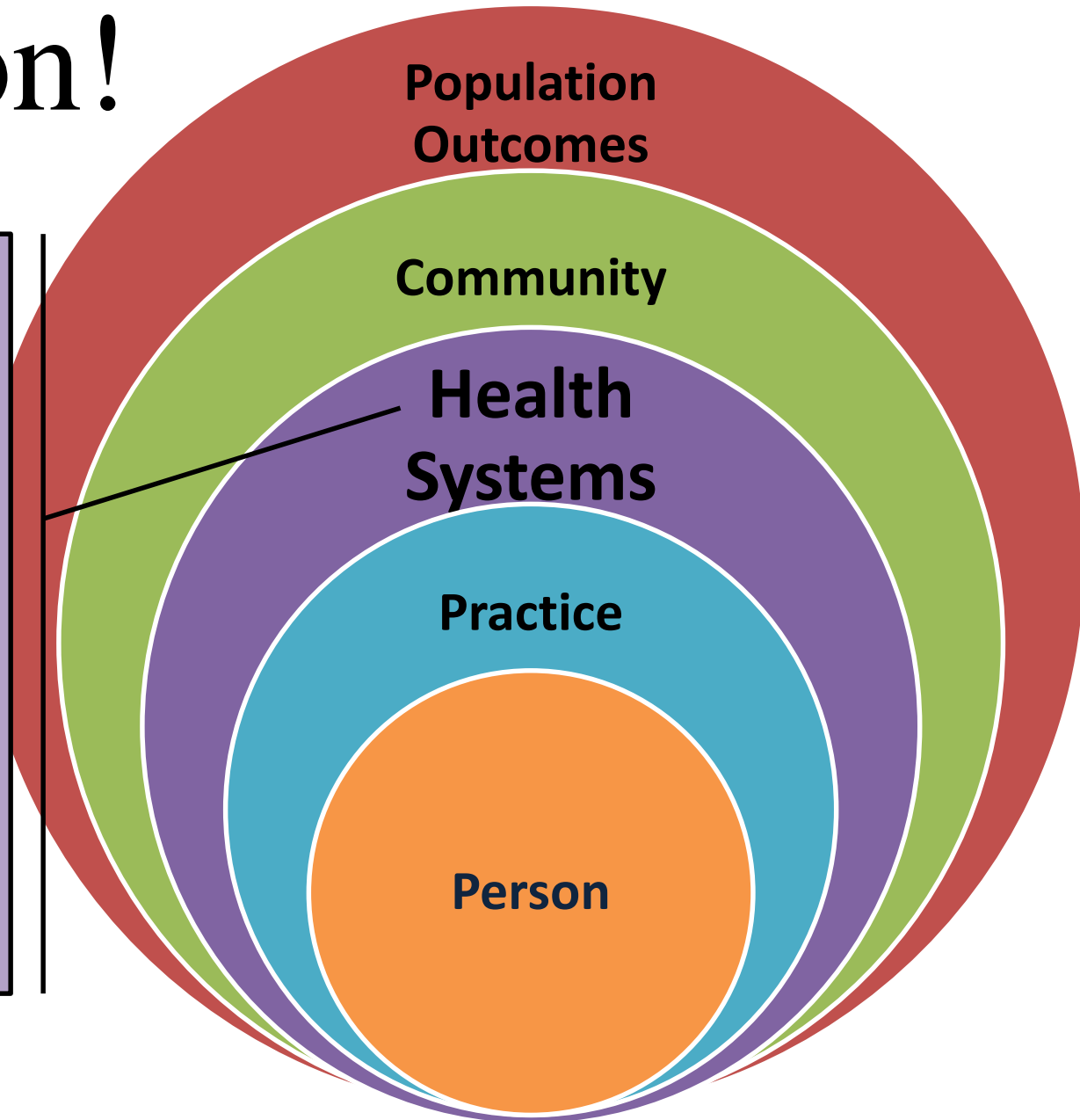
- Who says group visits have to happen in the clinic?



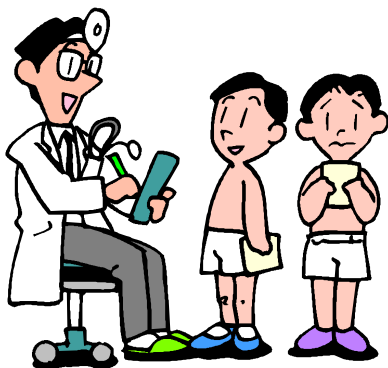
# Integration!

**Healthcare  
Systems Level:**

- Information Systems
- Delivery Systems  
*(Pharmacy, Specialty  
Care, Emergency Dept,  
Hospital, etc.)*



# Health Information Systems



## Individual Level:

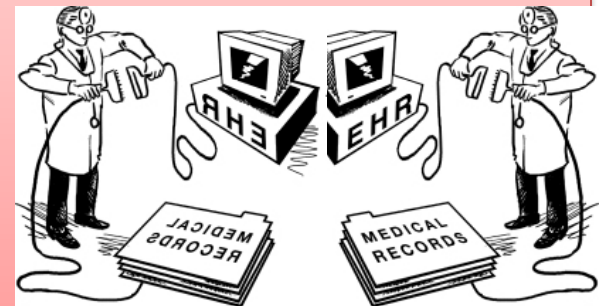
- Flags or triggers to promote compliance at each visit and to decrease missed opportunities
- Evidence-based guideline alerts

## Practice Level:

- Average A1c level in all diabetics
- % of Patients with A1c > 8
- Lists of patients with A1c > 8 for outreach / action

# From Uncoordinated Care to Full Information Exchange

- Jane Doe -- 37 y/o F w/ Bipolar Disorder
  - Lithium (Lithobid<sup>®</sup>)
  - Aripiprazole (Abilify<sup>®</sup>)
  - Divalproex Sodium (Depakote<sup>®</sup>)
- Jane Doe – 37 y/o fertile female smoker with HTN & two-weeks of productive cough
  - Azithromycin (Zithromax Z-Pack<sup>®</sup>)
  - ACE + HCTZ (Zestoretic<sup>®</sup>)
  - OCP's (Yaz<sup>®</sup>)
  - Bupropion (Zyban<sup>®</sup>)

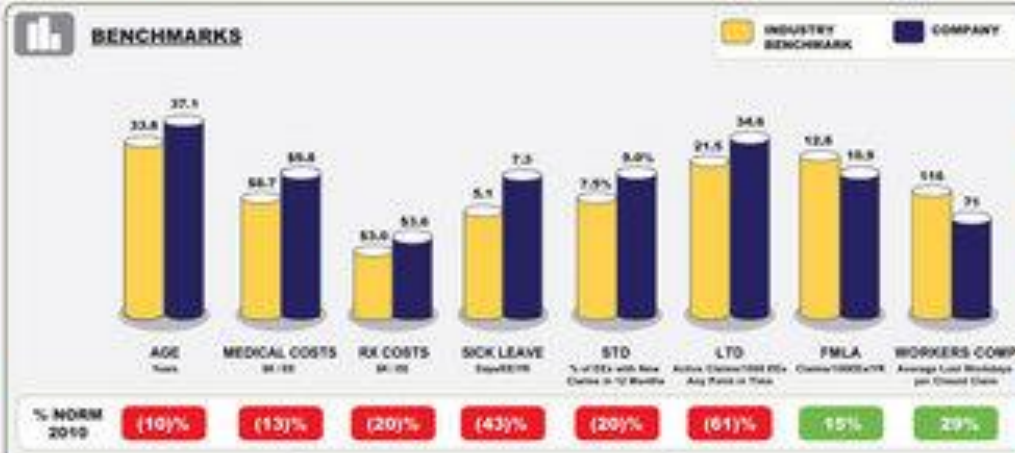


Client Profile Screen

12-Month Activity Snapshot Screen

Guideline-concordant prescribing

Patient Rx-Adherence



### Action Alerts

J Smith	Elevated A1c
Mary Lin	Rx not refilled

### PREVENTIVE CARE

TYPE	ELIGIBLE	COMPLETED	%	TREND
1. WASHOGRAM	800	30	4%	↓
2. COLONOSCOPY	700	50	14%	↓
3. PAP SMEAR	600	100	17%	↓
4. CHOLESTEROL	400	80	19%	↓
5. TUBERCULOSIS	500	100	20%	↑
TOTAL	2400	410	13%	

### DISEASE MANAGEMENT

TYPE	AT RISK	PROGRAM PARTICIPANTS	%	TREND
1. ASTHMA	800	50	6%	↓
2. DIABETES	600	30	5%	↓
3. CORONARY HEART	300	20	10%	↓
4. CANCER	200	10	11%	↓
5. OBESITY	100	5	5%	↓
TOTAL	1900	110	7%	

### WELLNESS

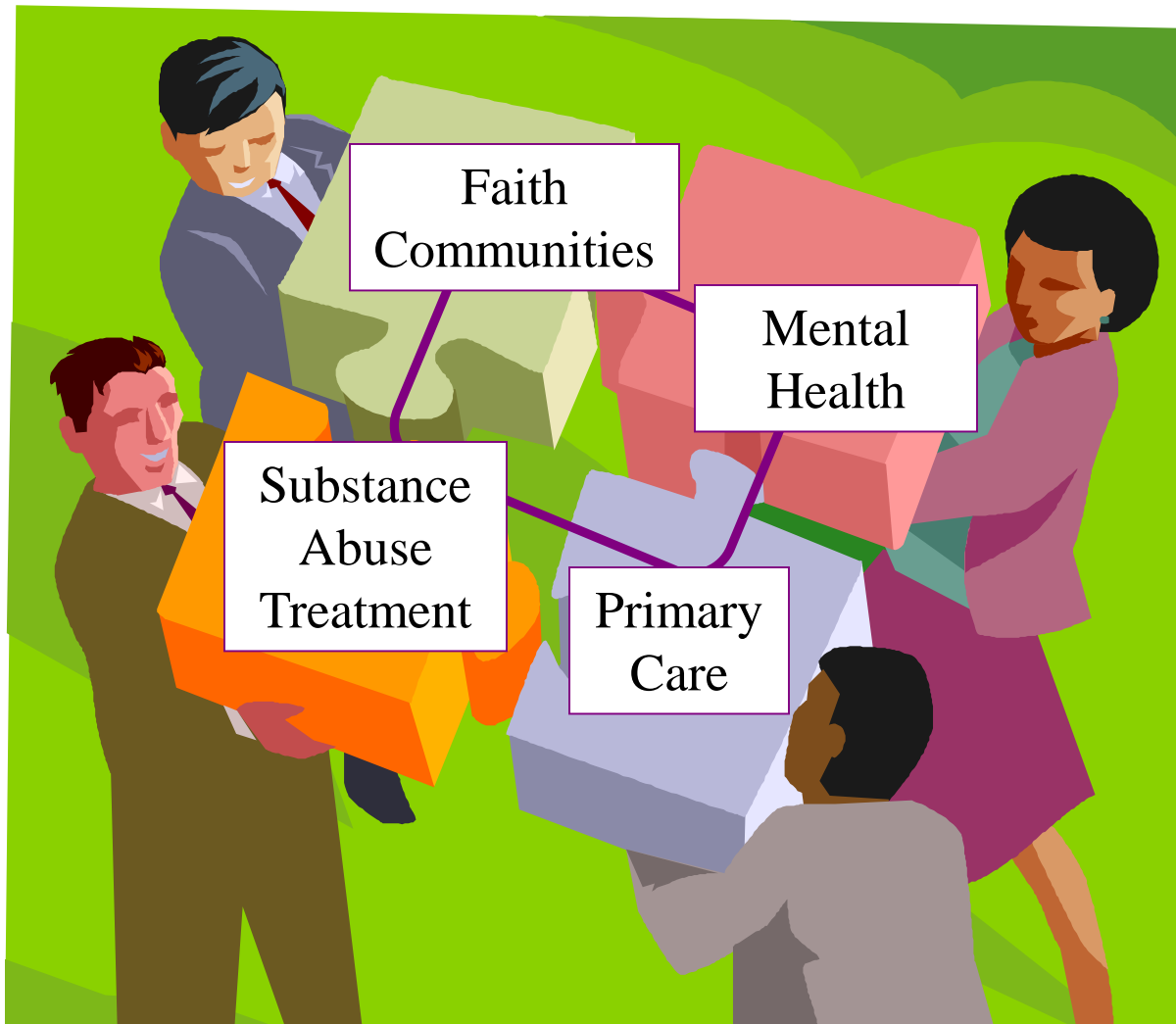
TYPE	AT RISK	CHRONIC DISEASES (12)	AVERAGE RISK SCORE (0-10)
1. DIABETES	200	20	
2. CORONARY	100	10	
3. STROKE	50	5	
4. CANCER	20	2	
5. STROKE	10	1	
TOTAL	500	40	3.1



# Cohesive, Comprehensive, Integrated Local Health Systems



# The Power of Integration

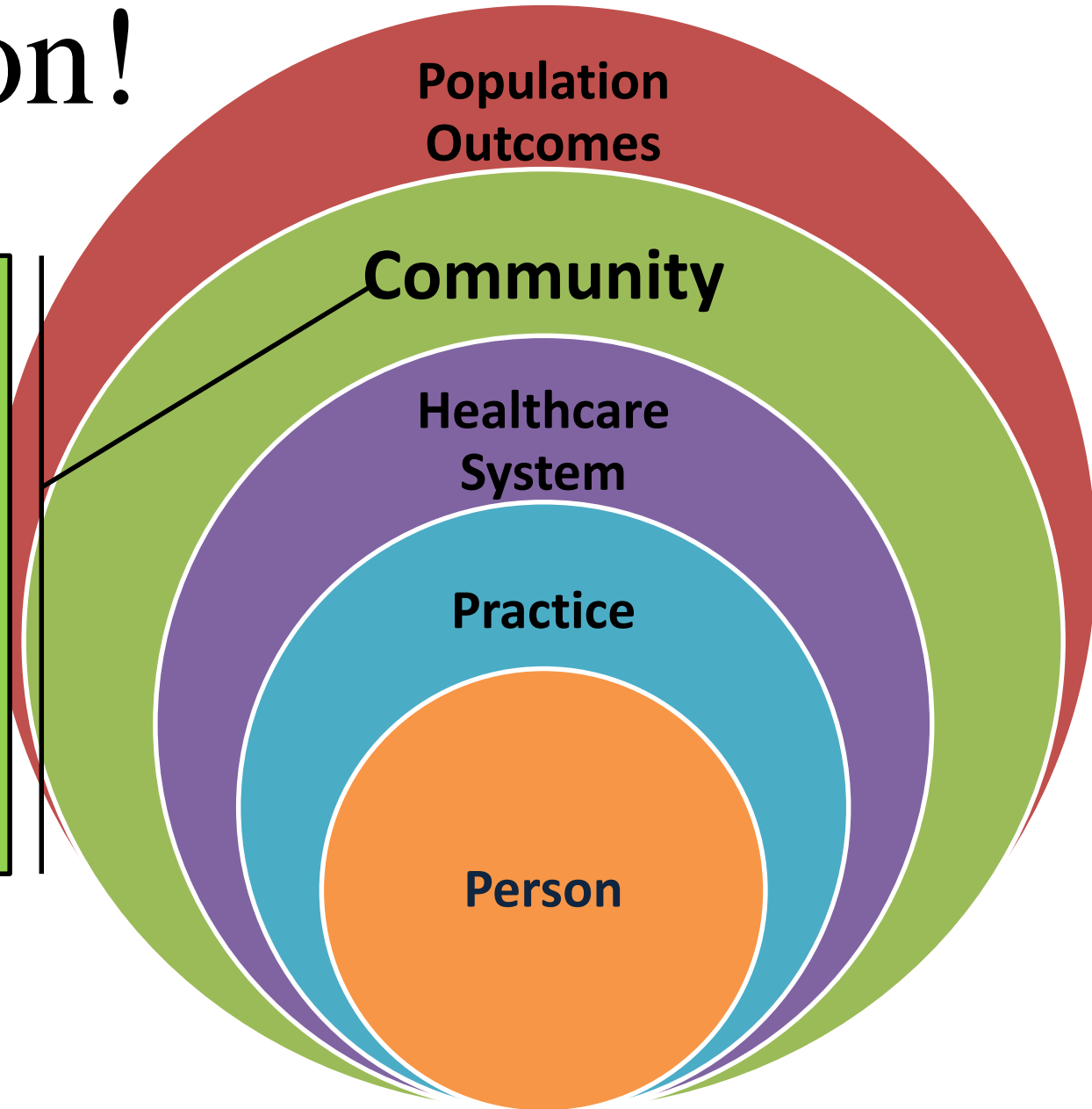


What would happen if all the health folks came together and created a therapeutic community of healers for whole people?

# Integration!

**Community-Level:**

- Patient at home
- Family and culture
- Social Determinants



# Free-Range Humans

*(when patients  
escape from the  
exam room!)*



# Cultural Relevance / Community Ownership / Team-Based Care

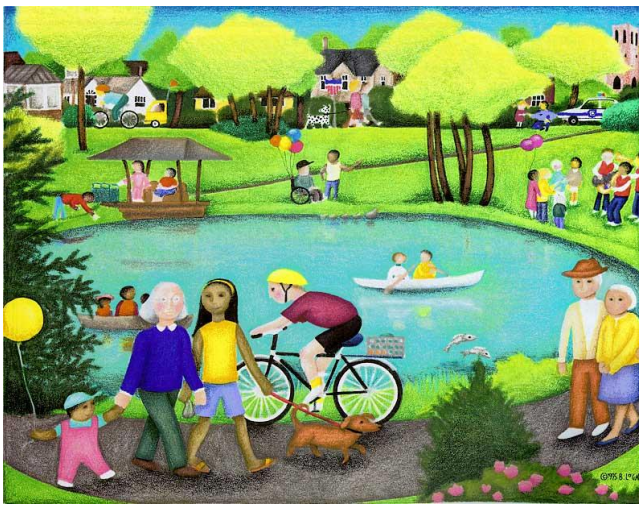


South Central Foundation – Anchorage, Alaska

# Promotores / Promotoras & Community Health Workers

- ↑ Enhanced Use of Complex Health Systems (Navigators)
- ↑ Immunization Rates
- ↑ Healthy Eating & Exercise
- ↑ Control of Household Asthma Triggers
- ↑ Farmworkers Eye Safety
- ↑ Compliance with TB Treatment
- ↑ Breast & Cervical Cancer Screening
- ↑ Blood Pressure Control





# Healthy People Need Healthy Communities

## Healthy Community

- People Out & About
- Safety
- Sense of “Community”
- Culture of Healthy Behaviors
- Resiliency
- Hope

## Positive Health Factors

- Produce Markets
- Parks
- Sidewalks
- Worship Centers
- Primary Care Health Homes

## Negative Health Factors

- Unhealthy Fast-Food
- No Safe Place to Walk or Play
- Liquor Stores
- Mini-Marts
- Crime
- Joblessness

## Unhealthy Community

- Unsafe, Insecure
- Fragmented
- Economically-Depressed
- Drug-Infested
- Despairing

The Continuum of Community Health



# Addressing Social “Determinants” of Health, Community Cohesiveness, Health Behaviors, Behavioral Health, and Medical Care all at the same time!

## Community Health as Community Development

- Leadership Development
- Economic Development
- Health Development
- Educational Empowerment
- Political Empowerment

H. Jack Geiger (L), John W. Hatch (b1928)<sup>(R)</sup>  
construction of Delta Health Center, Bayou Mound,  
Mississippi 1968



John Hatch: Head of community organizing Delta CHC; first African-American endowed chair UNC School of Public Health.

Jack Geiger: used “health care as an instrument of social justice and empowerment for those oppressed by racism and poverty.”

“The Flint Disaster: Why Doesn’t Black Health Matter?” (Geiger. Feb 3 2016 [physiciansforhumanrights.org/blog](https://physiciansforhumanrights.org/blog))

Photo: Dan Bernstein

Collaborative For Health Equity Cook County WHERE PEOPLE PLACE AND POWER MATTER

11

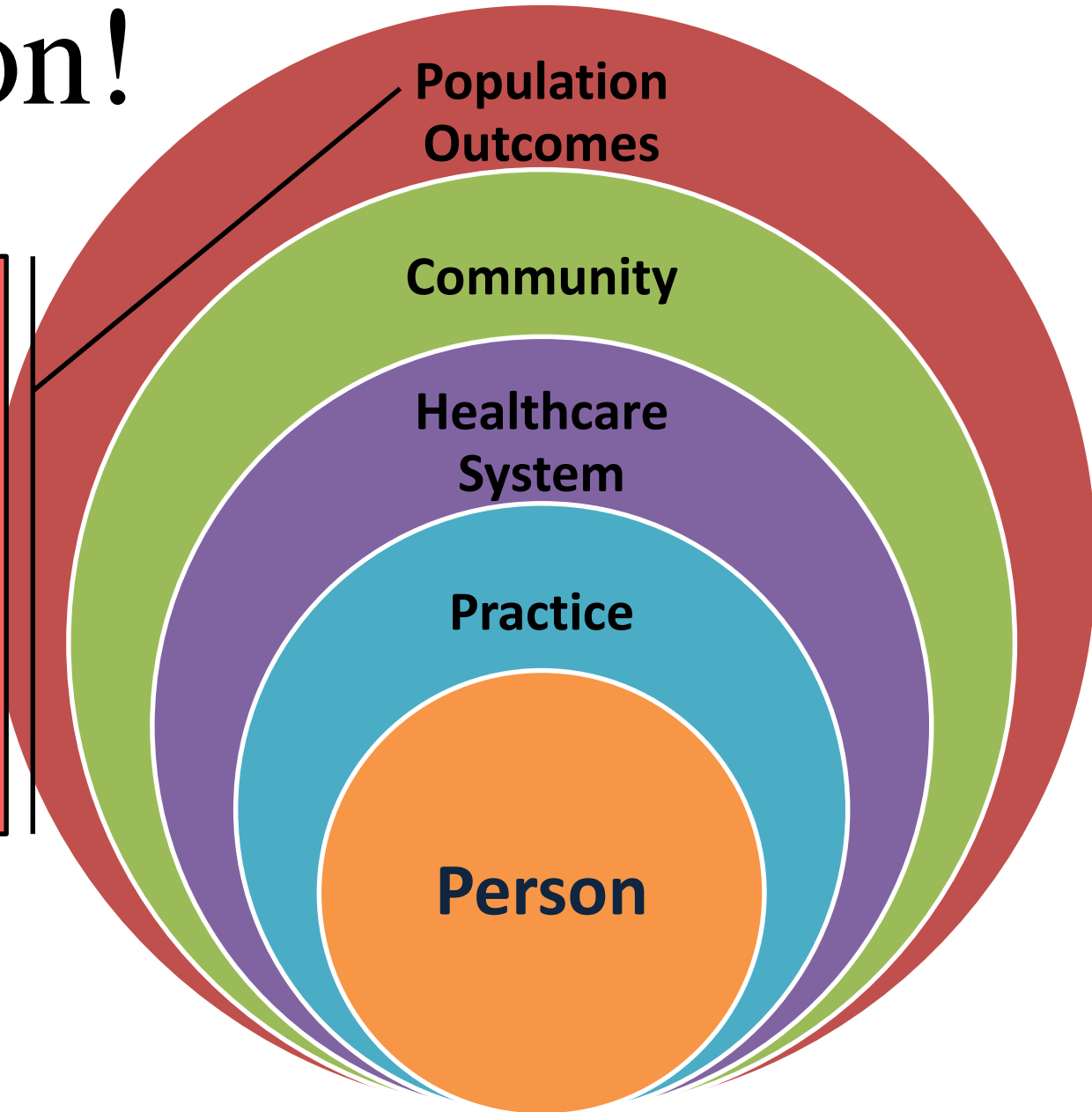
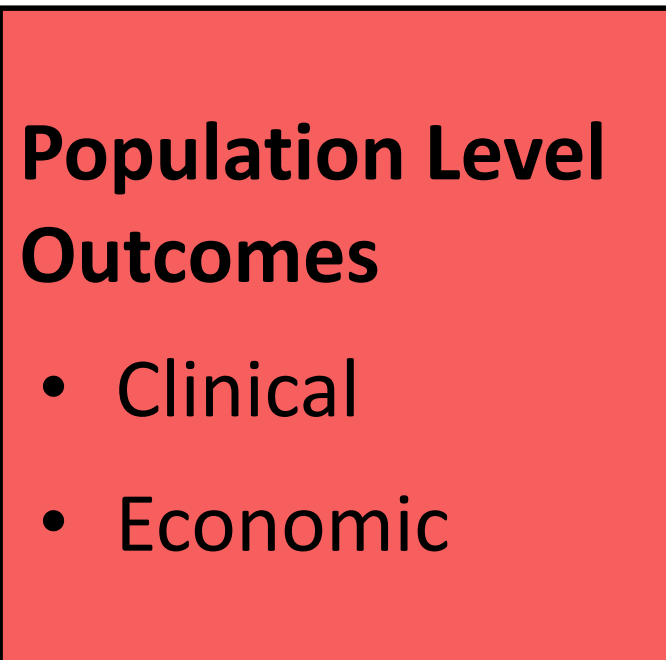
<https://www.slideshare.net/JimBloyd/physicians-health-reform-and-health-equity-when-we-fight-we-win>

# Beyond Deficits: Asset-Based Community Development

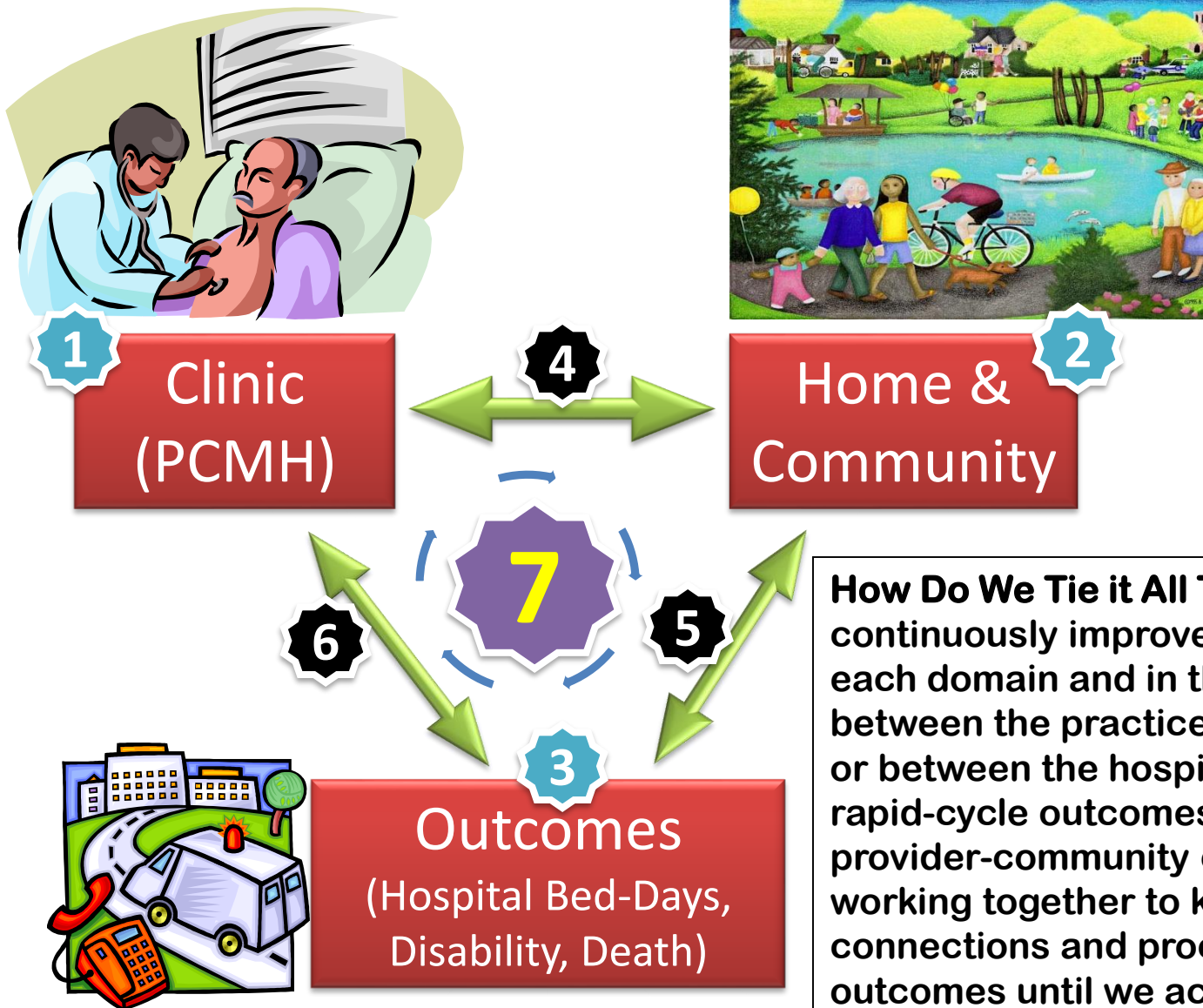
True partnership builds on community strengths to work seamlessly together on a shared agenda!



# Integration!



# Tying it All Together in a Rapid-Cycle Improvement Process



**How Do We Tie it All Together?** Can we continuously improve interventions in each domain and in the spaces in-between the practice and the community or between the hospital and home, with a rapid-cycle outcomes feedback loop and provider-community coalitions all working together to keep improving connections and processes and outcomes until we achieve more optimal and equitable outcomes for all?

# Holding Ourselves Accountable to *Achieve Equality in Outcomes*

- Community Level Metrics
  - Mortality
  - Hospital Bed-Days
  - Preventable Adverse Events (e.g., amputations)
- Practice-Level Data
  - ED Visits
  - Hospital Bed-Days
- Person-Level Feedback
  - Missed refills
  - Inadequate Care
  - ED Visit yesterday!



# Tying it All Together to Achieve Health Equity



# Collective Action = Collective Impact

John Kania & Mark Kramer first wrote about collective impact in the [Stanford Social Innovation Review](http://www.collaborationforimpact.com/collective-impact/) in 2011 and identified five key elements:

<http://www.collaborationforimpact.com/collective-impact/>

**Operationalizing real-world hope requires an affirmative vision, an expectation of success, broad coalitions taking action cohesively, and frequent measures of collective impact to drive rapid-cycle improvement.**

*Rust G. Hope for Health Equity.  
Ethnicity & Disease, 2018.*

## Common Agenda

- Keeps all parties moving towards the same goal

## Common Progress Measures

- Measures that get to the TRUE outcome

## Mutually Reinforcing Activities

- Each expertise is leveraged as part of the overall

## Communications

- This allows a culture of collaboration

## Backbone Organization

- Takes on the role of managing collaboration

# Moving Toward Optimal Health for All in the Agalto Valley, Honduras



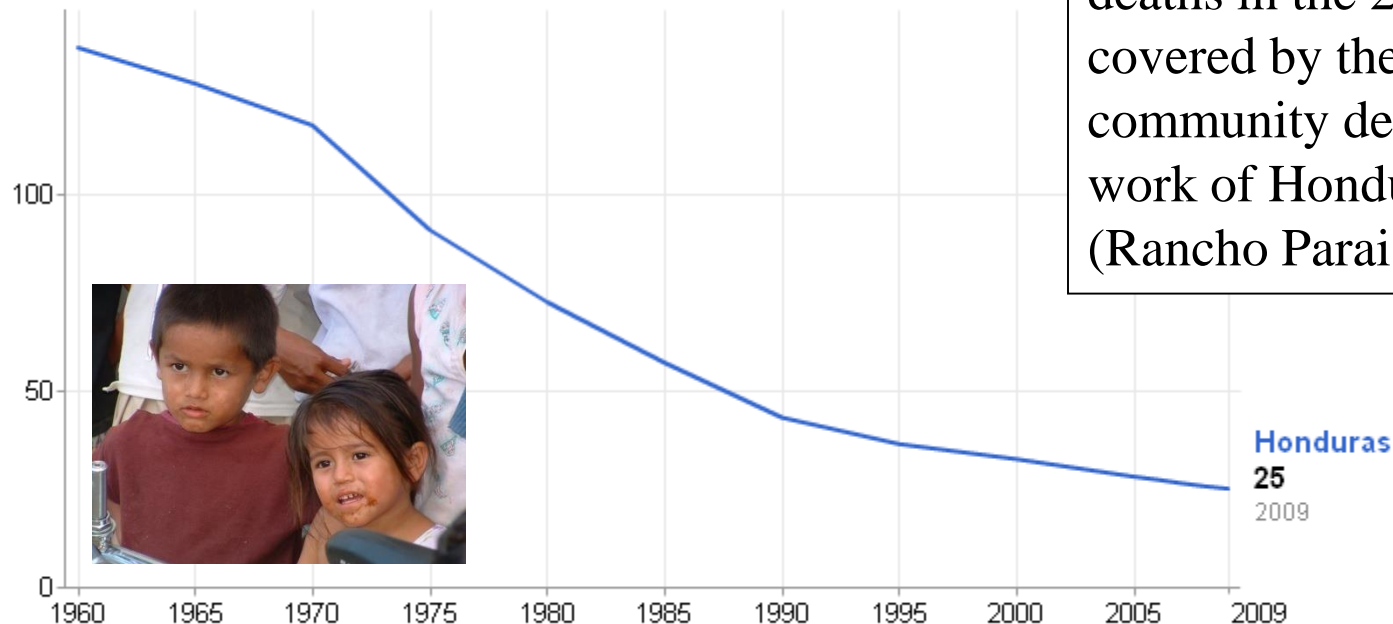
## Infant mortality rate

Infant mortality rate is the number of infants dying before reaching one year of age,

»



In the 1980's, Infant Mortality in the Olancho state of Central Honduras was over 70 per 1,000 (7%); Since 2006, there have been no infant deaths in the 27 villages covered by the comprehensive community development work of Honduras Outreach (Rancho Paraiso)



Data source: [World Bank, World Development Indicators](http://data.worldbank.org/indicators) - Last updated Apr 26, 2011

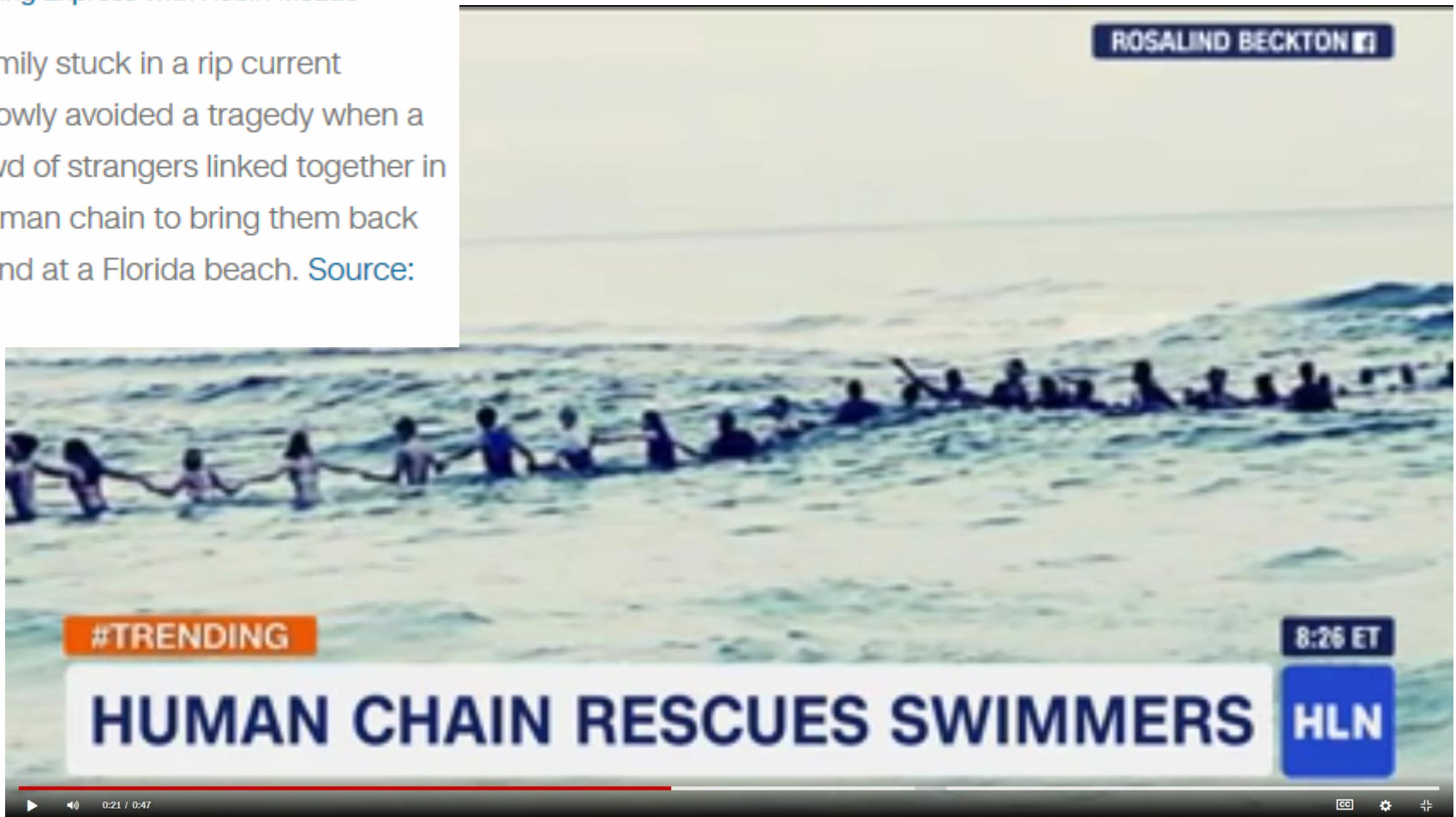
# What Accounts for Success in the Agalto Valley, Honduras?



# Human chain rescues trapped swimmers

Morning Express with Robin Meade

A family stuck in a rip current narrowly avoided a tragedy when a crowd of strangers linked together in a human chain to bring them back to land at a Florida beach. Source: HLN



# Humility in Working Together



“We are all as angels,  
with only one wing;

We can only fly  
when we embrace each other.

-- *Luciano de Crescenzo*