Producing Health by Connecting Community and Clinical Care

CJA 2015 Annual Conference

Unleashing the Power of Communities to Improve Health

September 30, 2015

Eduardo Sanchez, MD,MPH,FAAFP

Chief Medical Officer for Prevention

American Heart Association

Think Big
Optimal Health for ALL

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Communities Joined in Action (CJA)

- Private, non-profit membership organization of nearly 150 community health collaboratives committed to
  - improving health,
  - improving access, and
  - eliminating disparities in their communities.
- Mission to mobilize and assist these community health collaboratives to assure better health for all people at less cost.
- CJA supports the rapid dissemination of innovations across communities.
- CJA Provides access to technical resources, peer-mentors from model communities, and best practices.

The Triple Aim*

- **Improve the health of the population;**
- **Enhance the patient experience of care (including quality, access, and reliability); and**
- **Reduce, or at least control, the per capita cost of care.**

Institute for Healthcare Improvement (IHI)
*** Coined in 2008**

100 Million Healthier Lives: Six core strategies

1. Creating a health care system that is good at health AND good at care
2. Building bridges between health care, community, public health, and social service systems
3. Creating healthy communities
4. Promoting peer-to-peer support networks that leverage and empower individuals
5. Creating enabling conditions, such as new payment structures and policy changes, that promote success
6. Developing new mindsets - about partnerships, co-design with the people we are hoping to serve, collaboration, and servant leadership

Institute for Healthcare Improvement (IHI)

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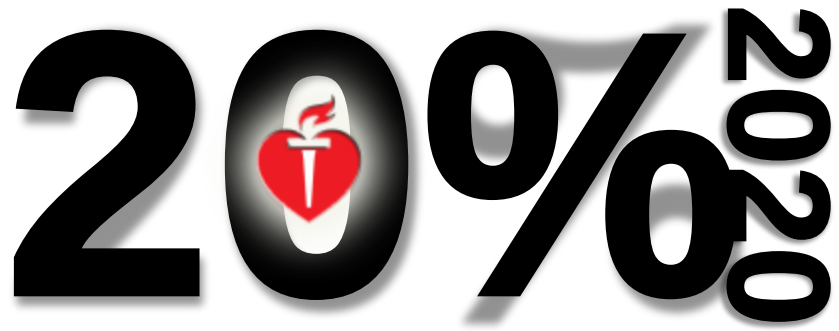
AHA 2020 Impact Goal



"By 2020, to improve the cardiovascular health of all Americans by 20% while reducing deaths from cardiovascular diseases and stroke by 20%."

2013 Leading Causes (and Numbers) of Death in the United States

1. Heart disease: 611,105
2. Cancer: 584,881
3. Chronic lower respiratory diseases: 149,205
4. Accidents (unintentional injuries): 130,557
5. Stroke (cerebrovascular diseases): 128,978
6. Alzheimer's disease: 84,767
7. Diabetes: 75,578
8. Influenza and Pneumonia: 56,979
9. Nephritis, nephrotic syndrome, and nephrosis: 47,112
10. Intentional self-harm (suicide): 41,149

CDC.gov

High cost medical care (2013)

- **Health care spending reached $2.9 trillion**
- **Per capita spending was $9255**

Health Affairs, January, 2015

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Shorter Lives, Poorer Health

- Americans reach age 50 with a less favorable cardiovascular risk profile than their peers in Europe, and adults over age 50 are more likely to develop and die from cardiovascular disease than are older adults in other high-income countries.
- **The US has the highest obesity rate among high-income countries.**
- **US adults have among the highest prevalence rates of diabetes (and high plasma glucose levels) among peer countries.**
- **The US death rate from ischemic heart disease is the second highest among peer countries.**

NRC and IOM, January, 2013

Multiple Chronic Conditions (MCC)

- One in four (25%) Americans has multiple chronic conditions(MCC), including one in 15 children
- Among Americans aged 65 years and older, as many as three out of four persons (75%) have MCC.
- People with MCC are at increased risk for mortality and poorer day-to-day functioning.
- Approximately 66 percent (66%) of total health care spending in the U.S. is associated with care for Americans with MCC.

HHS Initiative on Multiple Chronic Conditions, hhs.gov

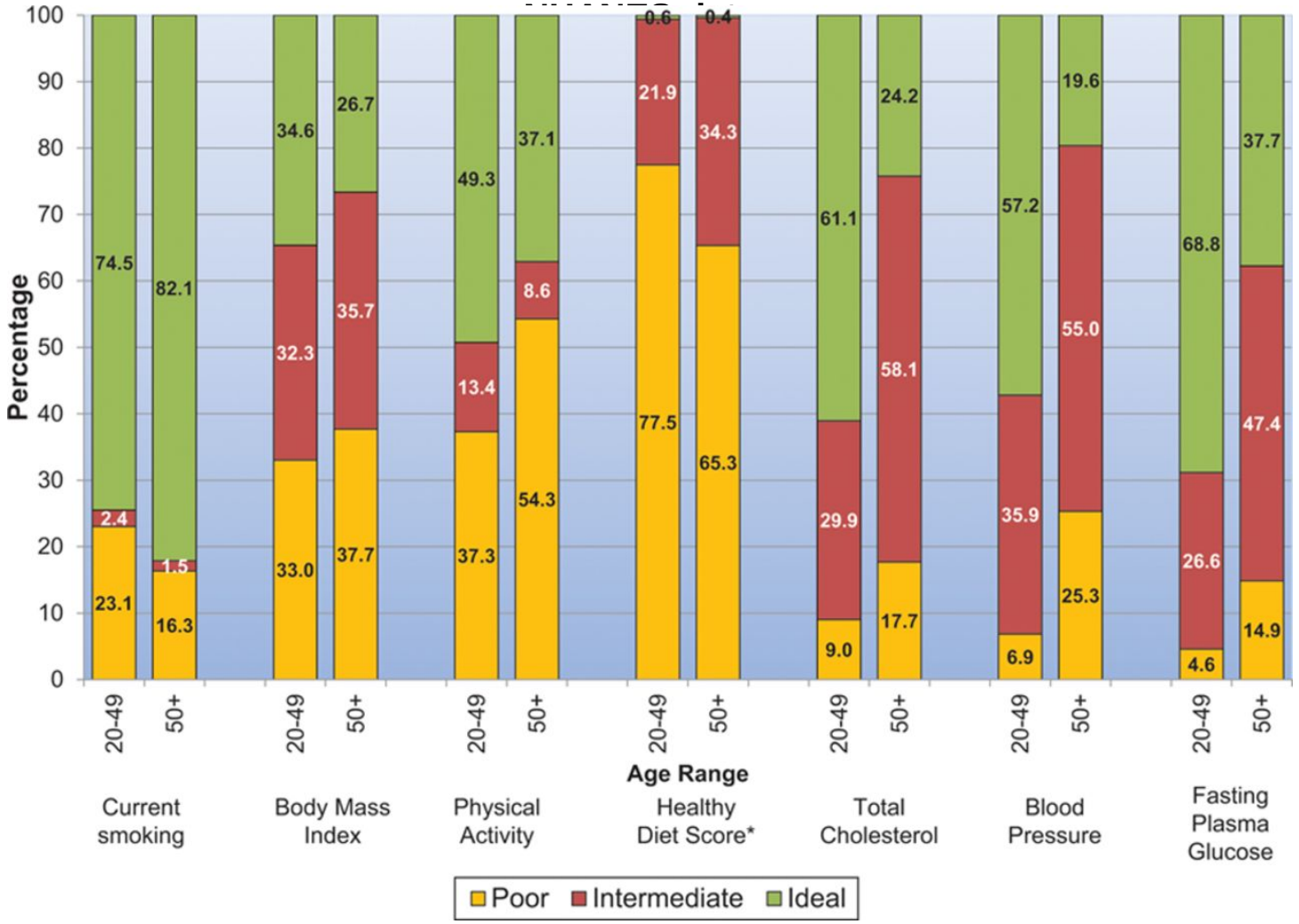
Producing cardiovascular health

- An expanded focus on promotion of positive cardiovascular health as well as CVD prevention and treatment of established CVD.
- The prioritization of health behaviors (no smoking, healthy diet pattern, adequate physical activity and health factors (BMI, optimal blood pressure, blood lipids, glucose levels) as primary goals unto themselves.
- Population-level health promotion strategies to shift the majority of the public toward better cardiovascular health, in addition to targeting those individuals at greatest CVD risk, because CVD risk is not proportionately distributed or addressed accordingly.

Cardiovascular Health Status Levels

LIFE'S SIMPLE 7	POOR	INTERMEDIATE	IDEAL
 **Smoking Status** Adults >20 years of age Children (12–19)	Current Smoker Tried prior 30 days	Former ≤ 12 mos	Never /quit ≥ 12 mos
 **Physical Activity** Adults > 20 years of age Children 12-19 years of age	None None	1-149 min/wk mod or 1-74 min/wk vig or 1-149 min/wk mod + vig >0 and <60 min of mod or vig every day	150+ min/wk mod or 75+ min/wk vig or 150+ min/wk mod + vig 60+ min of mod or vig every day
 **Healthy Diet** Adults >20 years of age Children 5-19 years of age	0-1 components 0-1 components	2-3 components 2-3 components	4-5 components 4-5 components
 **Healthy Weight** Adults > 20 years of age Children 2-19 years of age	≥30 kg/m^2 >95th percentile	25-29.9 kg/m2 85th-95th percentile	<25 kg/m^2 <85th percentile
 **Blood Glucose** Adults >20 years of age Children 12-19 years of age	126 mg/dL or more 126 mg/dL or more	100-125 mg/dL or treated to goal 100-125 mg/dL	Less than 100 mg/dL Less than 100 mg/dL
 **Cholesterol** Adults >20 years of age Children 6-19 years of age	≥240 mg/dL ≥200 mg/dL	200-239 mg/dL or treated to goal 170-199 mg/dL	<170 mg/dL
 **Blood Pressure** Adults >20 years of age Children 8-19 years of age	SBP ≥140 or DBP ≥90 mm Hg >95th percentile	SBP120-139 or DBP 80-89 mm Hg or treated to goal 90th-95th percentile or SBP ≥120 or DBP ≥80 mm Hg	<120/<80 mm Hg <90th percentile

Prevalence (unadjusted) estimates of poor, intermediate, and ideal cardiovascular health for each of the 7 metrics of cardiovascular health in the American Heart Association 2020 goals among US adults aged 20 to 49 years and ≥50 years, National Health and Nutrition Examination Survey (NHANES) 2011 to 2012. *Healthy diet score data reflects 2009 to 2010



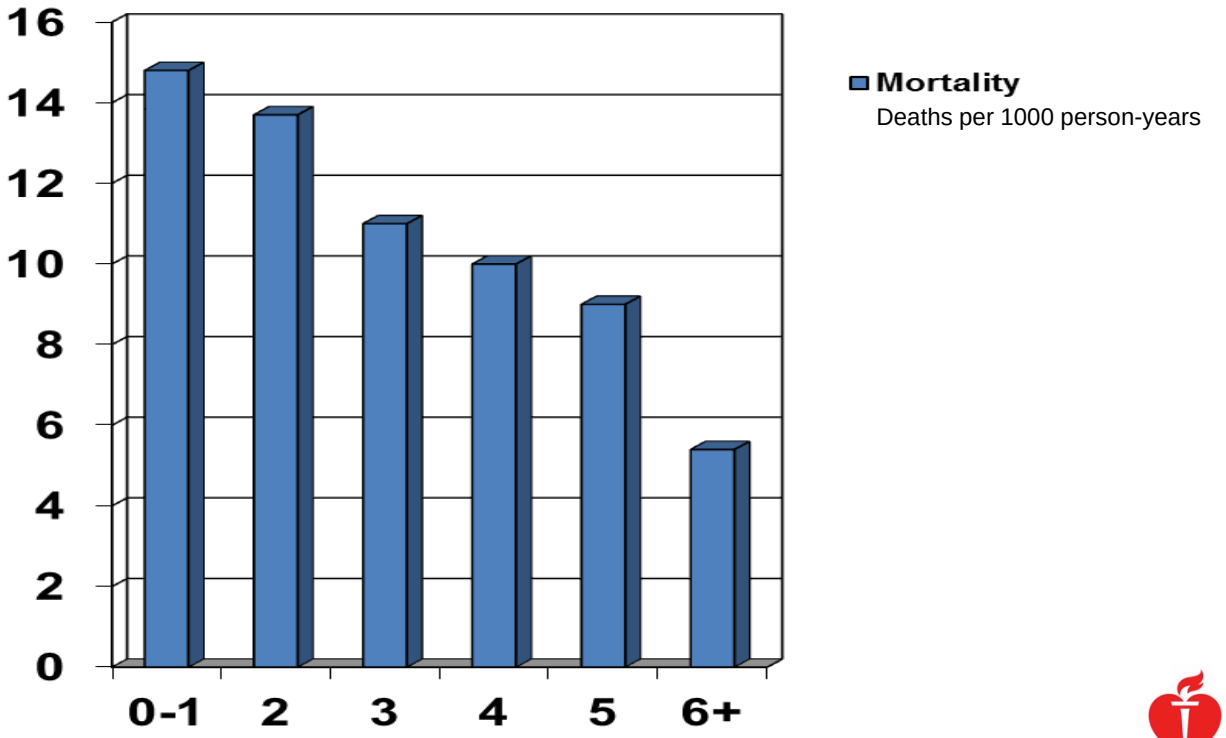
Dariush Mozaffarian et al. Circulation. 2015;131:e29-e322

American Heart Association.

Why

focus on Simple 7?

Number of Ideal Heart Health Behaviors or Factors and Mortality



Yang, et al, JAMA, Vol 307, No.12, March 28, 2012

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The evidence supports a range of complementary strategies to improve cardiovascular health, including:

- Individual-focused approaches, which target lifestyle and treatments at the individual level
- Healthcare systems approaches, which encourage, facilitate, and reward efforts by providers to improve health behaviors and health factors
- Population approaches, which target lifestyle and treatments in schools or workplaces, local communities, and states, as well as throughout the nation

Context and conditions matter…

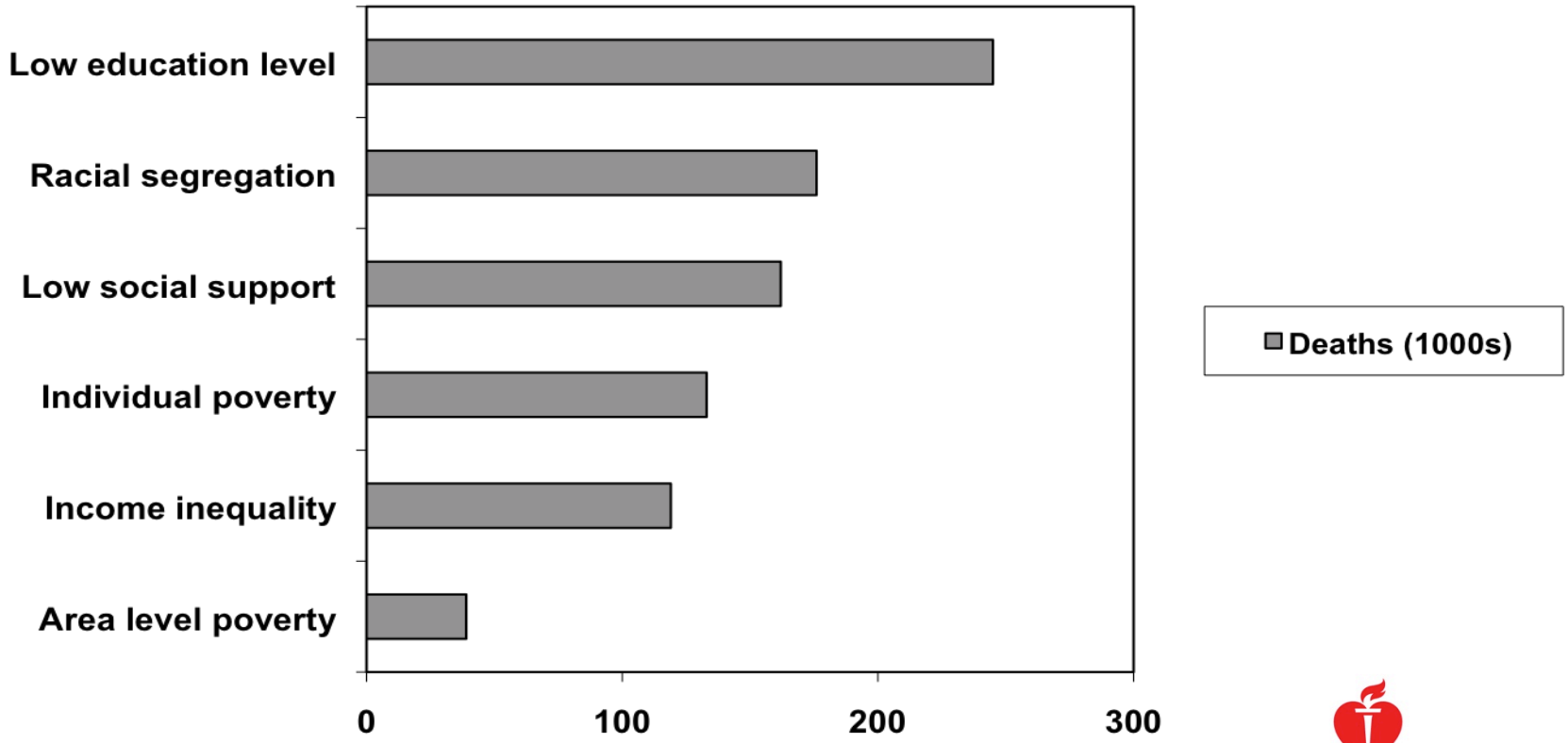
Demographic Shift:

Projected US Population

	2010	2020	2030	2040	2050
Total Population	**309M**	**336M**	**364M**	**392M**	**420M**
White	65.1%	61.3%	57.5%	53.7%	**50.1%**
Hispanic	15.5%	17.8%	20.1%	22.3%	**24.4%**
Black	13.1%	13.5%	13.9%	14.3%	**14.6%**
Asian	4.6%	5.4%	6.2%	7.1%	**8.0%**

Source: Census.gov

Relationship Between Social Determinants and Mortality (2000)



Galea et al, Estimated Deaths Attributable to Social Factors in the United States , AJPH, August 2011, Vol 101, No. 8.

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SY2011-12 Adjusted Cohort Graduation Rates (by race/ethnicity)

Race/Ethnicity	Graduation rate (%)
American Indian/Alaska Native	**67%**
Black	**69%**
Hispanic	**73%**
White	**86%**
Asian	**88%**

Stetser, M., and Stillwell, R. (2014). *Public High School Four-Year On-Time Graduation Rates* and Event Dropout Rates: School Years 2010–11 and 2011–12. First Look (NCES 2014-391). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved [date] from http://nces.ed.gov/pubsearch.

Percent of Working Families Below 200% Poverty (by race/ethnicity)

Race/Ethnicity	Below 200% Poverty
American Indian/Alaska Native	**48%**
Black	**49%**
Hispanic	**55%**
White	**23%**
Asian	**24%**

The Working Poor Families Project Policy Brief. Winter 2014-2015.
www.workingpoorfamilies.org

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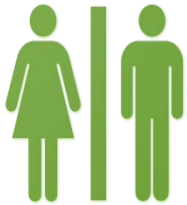

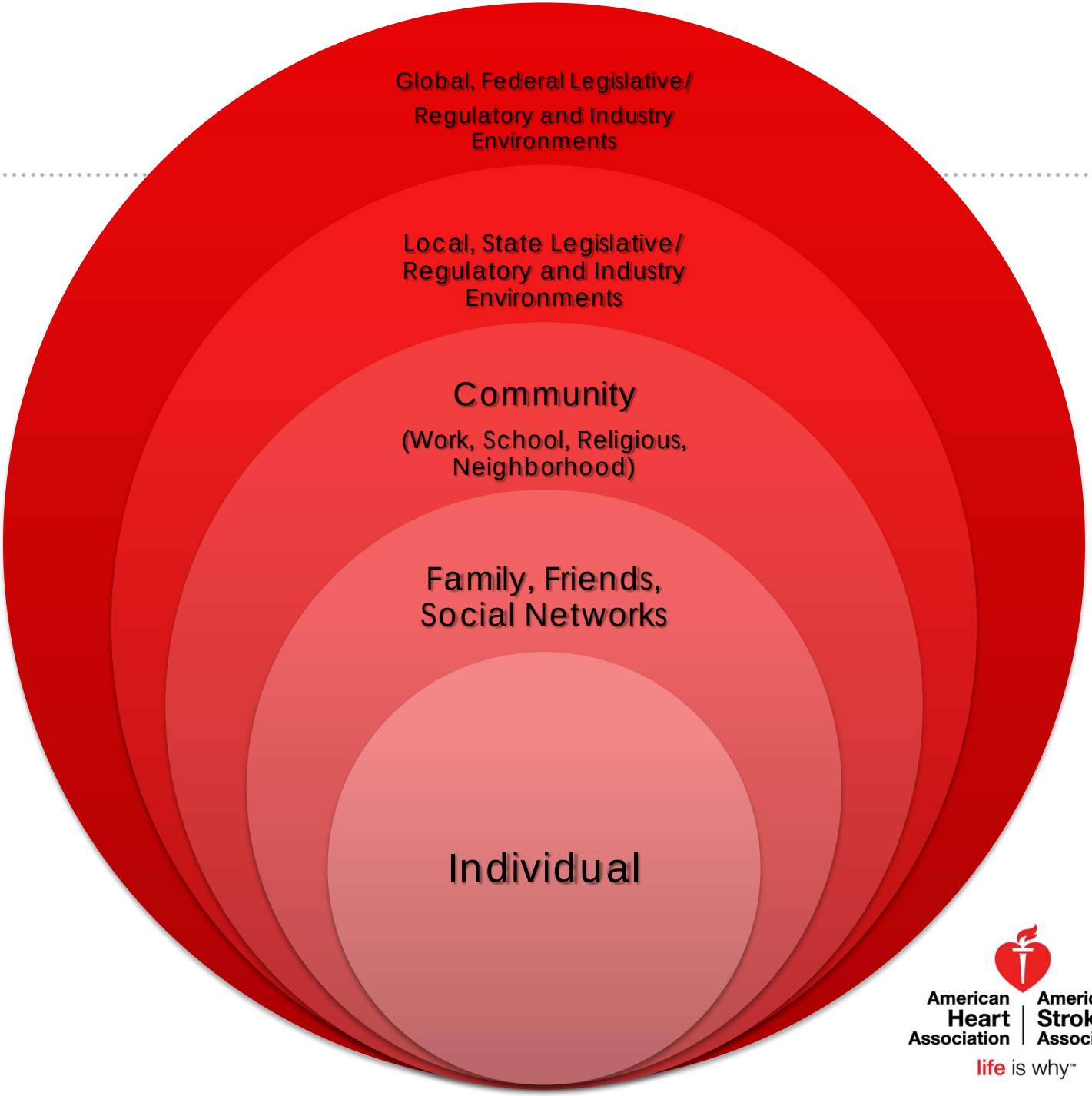

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Community Health per AHA

Tobacco
Increase percentage of Americans who live in environments that support smoke-free air and smoking cessation

Nutrition
Improve environments that support healthy eating and improve quality of foods available

Physical Activity
Increase percentage of Americans who live in environments that support active lifestyles

Health Factors
Improve environments that support healthy weight, blood pressure, glucose and cholesterol

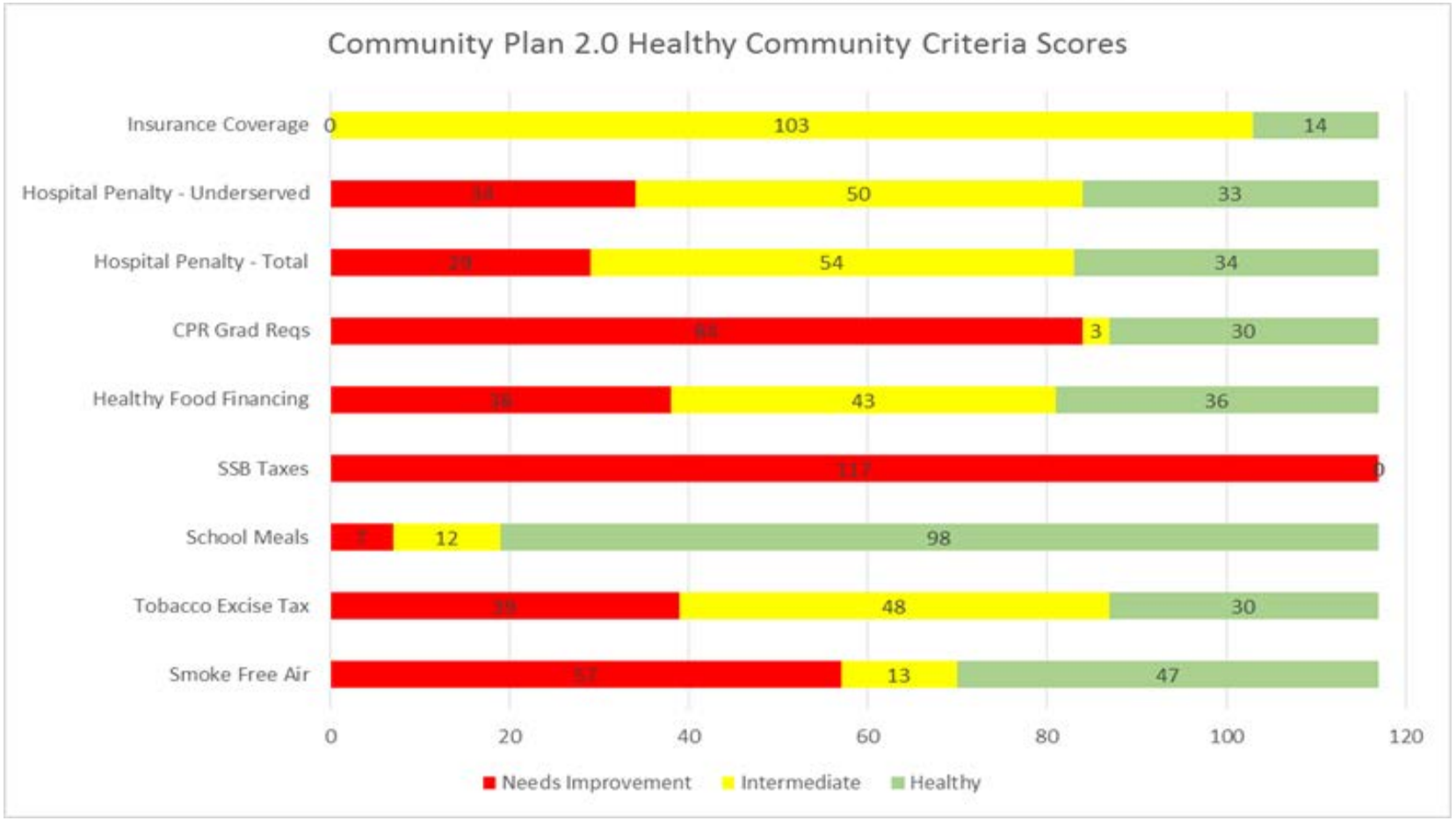
CPR/Chain of Survival
Increase percentage of Americans who live in environments that support emergency response for cardiac arrest

Acute Care & Emergency Response
Increase percentage of Americans who live in environments that support decreased cardiovascular disease mortality and improved quality of life

Post-Event Care
Increase percentage of Americans who receive the support and education needed after acute events

Social Determinants
Ensure safe places to work, play, and get care are available for all Americans

AHA Community "Report Card"



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The American Health Care Paradox: Why Spending More is Getting Us Less

A paradigm shift is necessary in how Americans view health

"An ever-growing body of literature suggests that broadening Americans' historically narrow focus on medicine in pursuit of improved national health may ultimately hole the key to unraveling the spend more, get less paradox."

Paradigm Shift – ”The Right to Health”

- The right of every person to enjoy the highest attainable standard of physical and mental health is **an established international legal precept whose origins date back to 1946 in the constitution of the World Health Organization (WHO)**, which identified the “enjoyment of the highest attainable standard of health” as “one of the fundamental rights of every human being.”
- In 1948, **the United Nations** (UN) General Assembly adopted the Universal Declaration of Human Rights (UDHR), article 25 of which guarantees **the right to “a standard of living adequate for the health and well-being . . . including food, clothing, housing and medical care.”**

JAMA, Dec. 2012

The Right to Health?: Underinvestment in Public Health

3%

Of real national health care expenditures since 1980s

"*Prevention* requires tools that are often unfamiliar because educational, behavioral, and social interventions, not usually considered to be part of medicine, may be most effective for many diseases." – Moses et. al. (JAMA, 2013)

Moses et al. The anatomy of health care in the United States. JAMA. 2013

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Public Health Spending Linked to Declines in Preventable Deaths: Right to Life

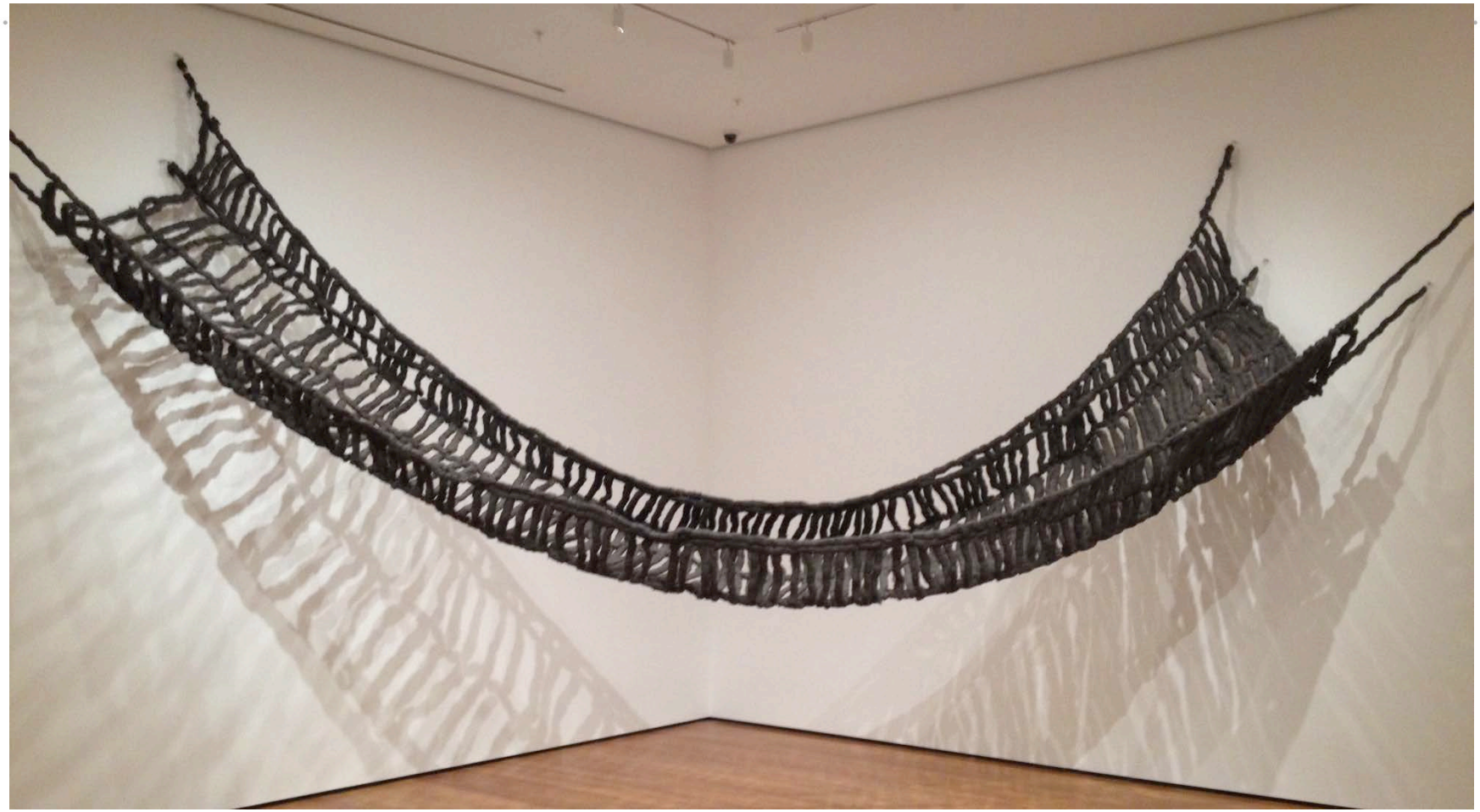
Mortality rate	Percent decrease per 10% spending increase
Infant deaths per 1000 live births	6.85
Heart disease deaths per 100,000	3.22
Diabetes deaths per 100,000	1.44
Cancer deaths per 100,000	1.13
Influenza deaths per 100,000	0.25

Mays and Smith, Health Affairs. Aug 2011;30(8).

The Right to Health?
Mental Health and Mental Disorders: Physical Health and Physical Disorders

- **Half of the 18% of adults who used mental health services received treatment in a primary care setting**
- **19% of all children seen in primary car are determined to have emotional and/or behavioral conditions**
- **Approximately 50% of care for common mental health conditions is provided in primary care settings**
- **Is it time for behavioral health and primary care integration?**

Bridging Community and Clinical Care



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Public Health and Medical Care

Primary Care and Public Health: Exploring Integration to Improve Population Health

- A broad definition of integration: the linkage of programs and activities to promote efficiency and effectiveness and achieve gains in population health.
- Integration of primary care and public health could enhance the capacity of each to carry out their missions and link with other stakeholders to produce health

IOM (Institute of Medicine). 2012. *Primary Care and Public Health: Exploring Integration to Improve Population Health.* Washington, DC: The National Academies Press.

Examples of “integrated” Public Health and Medical Care

:

- Reduction of tobacco use in the US
- Diabetes Prevention Project

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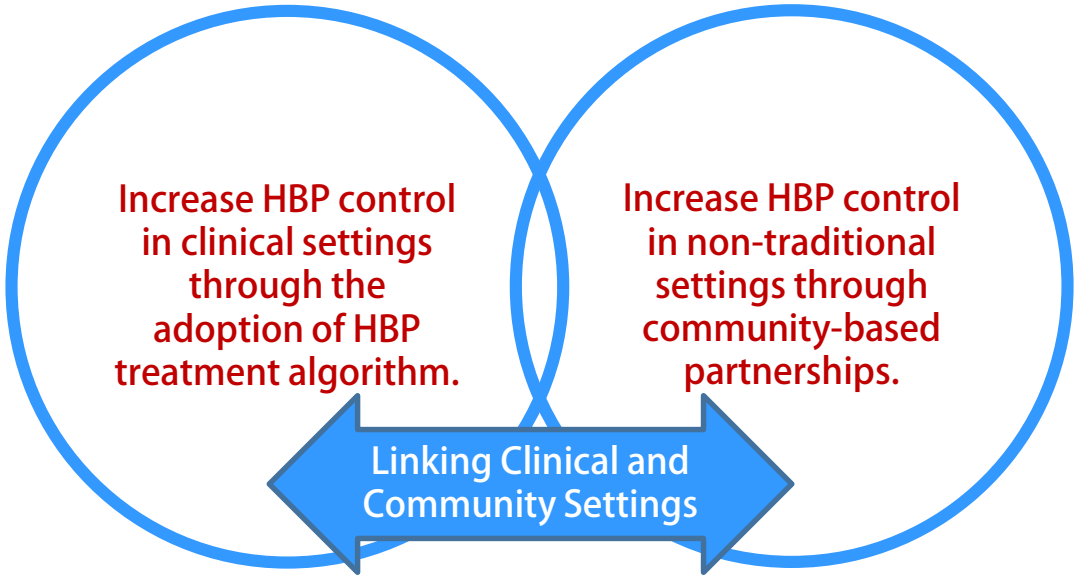
An "Integrated" Approach to Tackle High Blood Pressure

Improve blood pressure control in traditional and non-traditional settings.



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Check. Change. Control.™

Tackling High Blood Pressure

A Public Health Imperative/A Clinical Conundrum

- One out of every three adults in the United States has high blood pressure.
- Half of them do not have their blood pressure adequately controlled.

Improving Hypertension Control Particularly in Blacks and African Americans

Community to Clinic, Clinic to Community (C2C2)

COMBINING UNIQUE ASSETS

Bringing together strategic AHA assets directed toward a key national and local issue.

- **Science** (evidence-based guidelines)
- **Life's Simple 7** (evidence-based health measures)
- **Check.Change.Control.** (community HBP program)
- **Heart360** (online personal health tracking tool)
- **Empowered To Serve** (faith-based mega community)
- **The Guideline Advantage** (HCP quality improvement)
- **Communications** (infrastructure & media partnerships)

Check. Change. Control.™

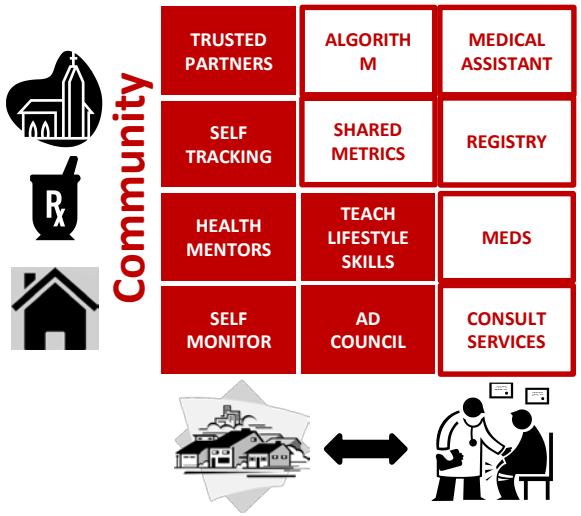
THE GUIDELINE ADVANTAGE™

EmPOWERED To Serve

Ad Council

INTEGRATED APPROACH

Leadership, shared tools, protocols, resources and training to deliver improved care, resulting in new, reciprocal connectivity and targeted support between the patient, the clinic, and the community.



INNOVATION

- Transformative care delivery mechanism
- Lean management principles to iterate the model
- Surround-sound communication campaign
- Registry to connect the community and clinical settings
- Learning Collaborative

2 CITIES 1 **ATLANTA**

3 YEARS 2 **SAN DIEGO**

The AHA and Kaiser Permanente have a unique opportunity to co-create a scalable, groundbreaking model which establishes and maximizes clinical care and community stakeholder assets, competencies, and partnerships.

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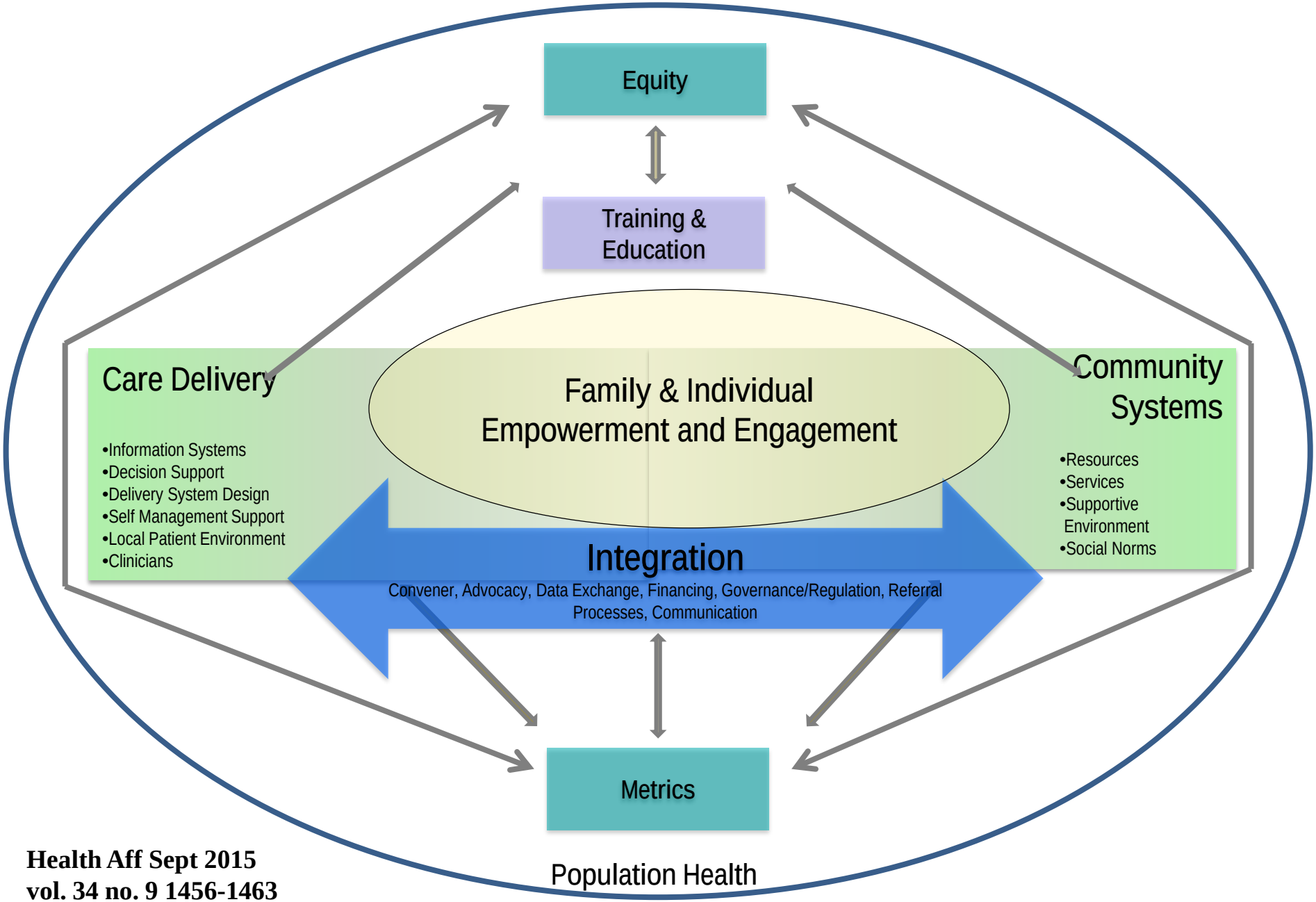
Framework for Integrated Clinical and Community Systems of Care



Health Aff Sept 2015
vol. 34 no. 9 1456-1463

The Role of Health Care in Population Health

Barriers that must be overcome for health system-based efforts to contribute to optimized population health

1. **Misaligned stakeholder interests and population health investments**
2. **Inadequate information transfer**
3. **Inadequate service integration between health care and other sectors**
4. **Designing and functioning within a sustainable budget**
5. **Difficulties addressing health disparities**

Eggleston & Finkelstein. JAMA 2014;311(8); 2/26/14

Challenges Associated with Establishing and Maintaining Population Health Initiatives

- **Public health benefits are dispersed and delayed, and success is when "nothing happens"**
- **Public health practitioners are not celebrities – not since C Everett Koop**
- **Public health programs are taken for granted (think indoor plumbing, water quality, food safety)**
- **Approaches that may involve regulation or fees or taxes can generate fierce opposition**
- **Public health sometimes clashes with moral values (think HPV, needle exchange, family planning)**
- **Population health improvement requires actions and resources outside of public health [and medical care]**

Mayes and Oliver, *Journal of Health Politics, Policy and Law*, Vol. 37, No. 2, April 2012

Accountable Care Organization (ACO)

- A set of health care providers—primary care physicians, specialists, hospitals, and others—that accept collective accountability for the cost and quality of care delivered to a population of patients.
- Could be formed around a variety of existing types of provider organizations such as PHOs and IPAs.
- The Affordable Care Act allows Medicare to share savings with ACOs that might result from improving quality and reducing cost for their eligible Medicare populations.

http://www.accountablecarefacts.org/

Accountable Care as a Strategy for Achieving Population Health Goals

To meet the responsibility to improve health outcomes for those under their care and society at large, health systems will need to:

1. **Take responsibility for the health of their patient populations [and their communities]**
2. **Create and expand partnerships with other entities with the potential to influence health**
3. **Respond to social demands for equity and value**

Eggleston & Finkelstein. JAMA 2014;311(8); 2/26/14

Accountable Health Organizations (AHOs)

- Manages the health investment portfolio for a community
- “Health in All Policies” to produce health
- All services - retail, government, other private (the business sector), social, health (including public health, medical, dental, mental health care) services associated with a defined population – that should be held **accountable** for the health status and outcomes for that population.
- Attribution methodologies for **accountability** (credit for contribution to health for allocation of resources and charges to fund and sustain the system).
- A system whose performance is measured by progress towards achieving highest health status (= economic competitiveness)

The American Health Care Paradox: Why Spending More is Getting Us Less

In translating the triple aim into the regulatory sphere, population health was largely lost [initially]

- ACO payment system should be based on performance indicators that measures health and progress on social determinants of health such as per cent (%) of population at healthy weight, not depressed, housed, employed, and on track to graduate high school or college.

Accountable Community for Health (ACH)

… a collaborative of the major health care systems, providers, and health plans, along with public health, key community and social services organizations, schools and other partners serving a particular geographic that is responsible for improving the health of the entire community, with particular attention to reducing health disparities. The goals of an ACH are to:

1) improve community-wide health outcomes and reduce disparities with regard to particular chronic diseases;
2) reduce costs; and,
3) through a Wellness Fund, develop **financing mechanisms** to sustain the ACH and provide ongoing investments in prevention and other system-wide efforts to improve population health.

http://www.chhs.ca.gov/PRI/CalSIM%20Accountable%20Communities%20for%20Health%20Webinar%20slides.pdf

Accountable Community for Health (ACH)

Portfolio of interventions

- Policy and systems
- Environments
- Community resource and social services
- Community-Clinical Linkages
- Clinical Services

http://www.chhs.ca.gov/PRI/CalSIM%20Accountable%20Communities%20for%20Health%20Webinar%20slides.pdf

Source of funds: Hospital Community Benefit Programs to Increase Benefits to Communities

Principles to guide the development of a strategy for leveraging community benefit

1. Defining mutually agreed-on regional geographic boundaries to align both community benefit and AHC initiatives,
2. Ensuring evidence-based “community benefit” funded interventions
3. Increasing the scale and effectiveness of community benefit investments by pooling resources
4. Establishing shared measurement and accountability for regional population health improvement

Corrigan, Fisher, and Heiser. JAMA 2015;313(12); March 24/31, 2015

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Source of Funds

Annual US health care waste costs $765 billion

- **$210 billion Unnecessary services (services used too frequently)**
- **$190 billion Insurance/bureaucratic costs (unproductive documentation)**
- **$130 billion Inefficient services (uncoordinated care, errors)**
- **$105 billion Prices that are too high**
- **$75 billion Fraud**
- **$55 billion Missed prevention opportunities**

Models for governance and finance

- The Wellness Trust
  - A quasi-independent agency with its own Trustees.
  - Funded by consolidation of existing federal insurance and public health spending on prevention and as well as new sources of funding (e.g., alcohol or soda taxes or as part of a broader reform plan).
- HIV Planning Councils

Lambrew and Podesta, Center for American Progress, October 5, 2006
Ryan White Planning Council Primer 2008, accessed at hrsa.gov on 4/8/2015.

Real "Health Reform" to Achieve Health Equity

- Healthy, safe, and affordable housing
- Quality education (preschool to high school) – 100% graduation rates
- Employment/Income
- Comprehensive indoor smoking laws/policies including housing units
- Affordable food and physical activity
- Access to health - equitably funded public health and population health
- Access to medical care – health insurance and quality primary care

What's needed: a systems approach (rocket science?), governance, and adequately and appropriately appropriated resources!

Systems Engineering -An interdisciplinary approach and means to enable the realization of successful systems, that

- focuses on defining person(s) needs and required functionality,
- documents the requirements,
- proceeds with design synthesis and system validation while considering the complete problem
- integrates all the disciplines and specialty groups into a team effort forming a structured development process that proceeds from concept to production to operation.

From http://www.incose-cc.org/http:/www.incose-cc.org/images/2011_11_16-Fadeley-Brief.pdf

An Integrated Health System

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Producing Health: The New Triple Aim

- **“**New designs can and must be developed” whose prime directive is to **produce health** by:
  - Addressing and improving social and environmental conditions and services and health system performance
  - Basing funding and expenditures on evidence (what works most effectively) and tracking clinical and social metrics (impact and cost effectiveness)
  - Optimizing the health of the population

NRC and IOM, January, 2013

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