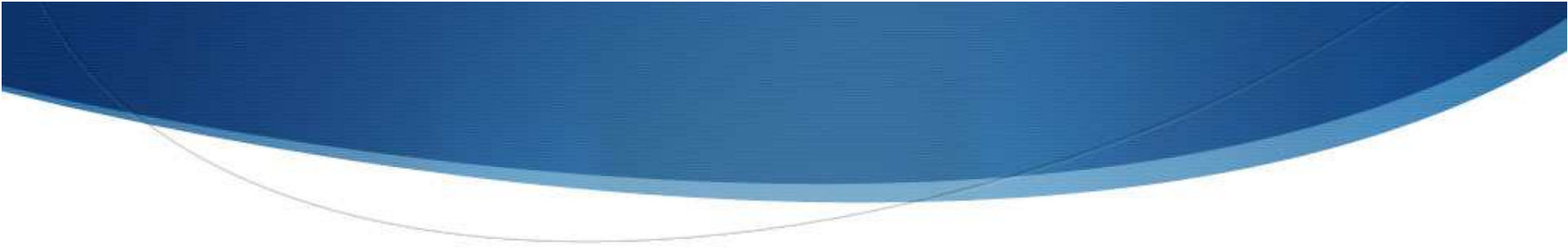


The Now & The Future of Population Health Management

Erik L. Carlton, DrPH
WVU School of Public Health







“A major deterrent to our efforts to fashion health care that is efficient, effective, comprehensive, and personalized is our lack of a design for the synergistic interrelationship of all who can contribute...”

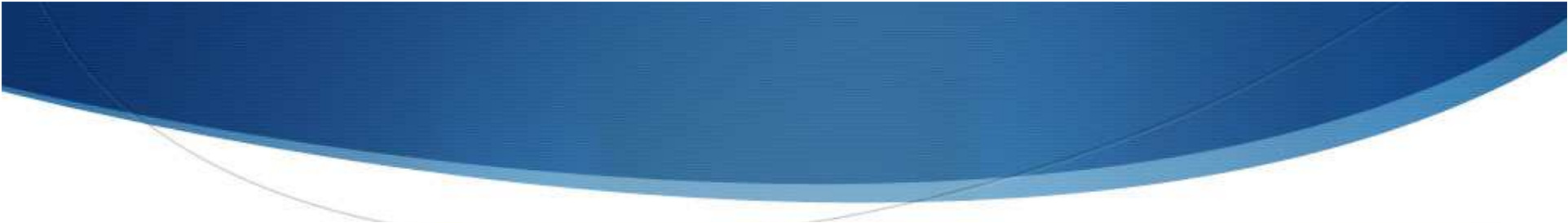
Source: Institute of Medicine (1972). Educating for the Health Team. Washington, DC: IOM.

Current Context

- ◆ Dynamics of the Evolving Healthcare System
- ◆ “Triple Aim”
- ◆ Population Health & Population Health Management
- ◆ Social Determinants of Health
- ◆ The Healthcare – Public Health Divide
- ◆ Public Health 3.0

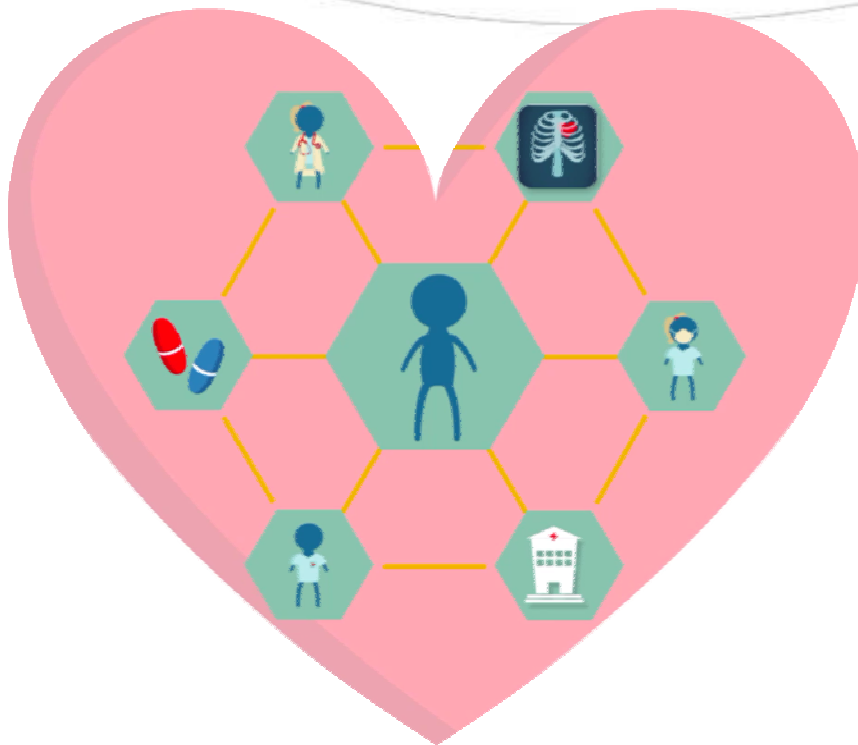
Dynamics of the Evolving Healthcare System

- ◆ Health Policy & Payment Reform, incl. Incentives & Penalties
- ◆ Shifts to Accountable & Value-Based Care Models
 - ◆ PCMHs, ACOs, Shared-Savings Models
- ◆ Critical/Central Role of Primary Care
- ◆ Mergers & Acquisitions; Physician Alignment
- ◆ Aging Populations, Co-Morbidities, & Chronic Disease Management
- ◆ Addiction Epidemics & Behavioral Health
- ◆ Resurgence of Vaccine-Preventable Diseases



CARE MODEL			
	TRADITIONAL	PCMH	ACO
Payment Model	Fee for Service (FFS)	FFS+P4P	Shared Savings Global Payment
Provider Model	Solo Physician	Practice/Team	IDN or IPA
Target	Single Patient	Panel	Population
Period	Single Encounter	Annual	Multi-Year (Predictive)
Workflow	Documentation & Payment	Shared Record Disease Registry	Business Process Management
Technology	Paper	EHR & Portal	Clinical Analytics Care Management

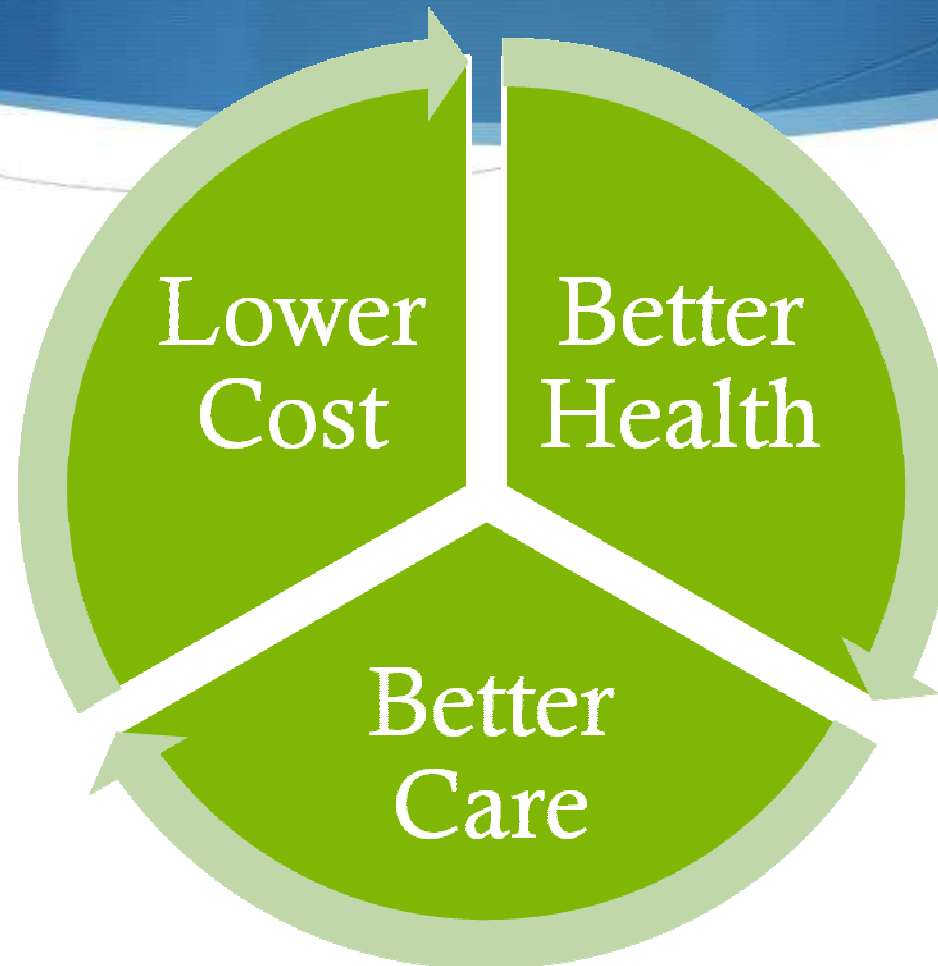
ACOs

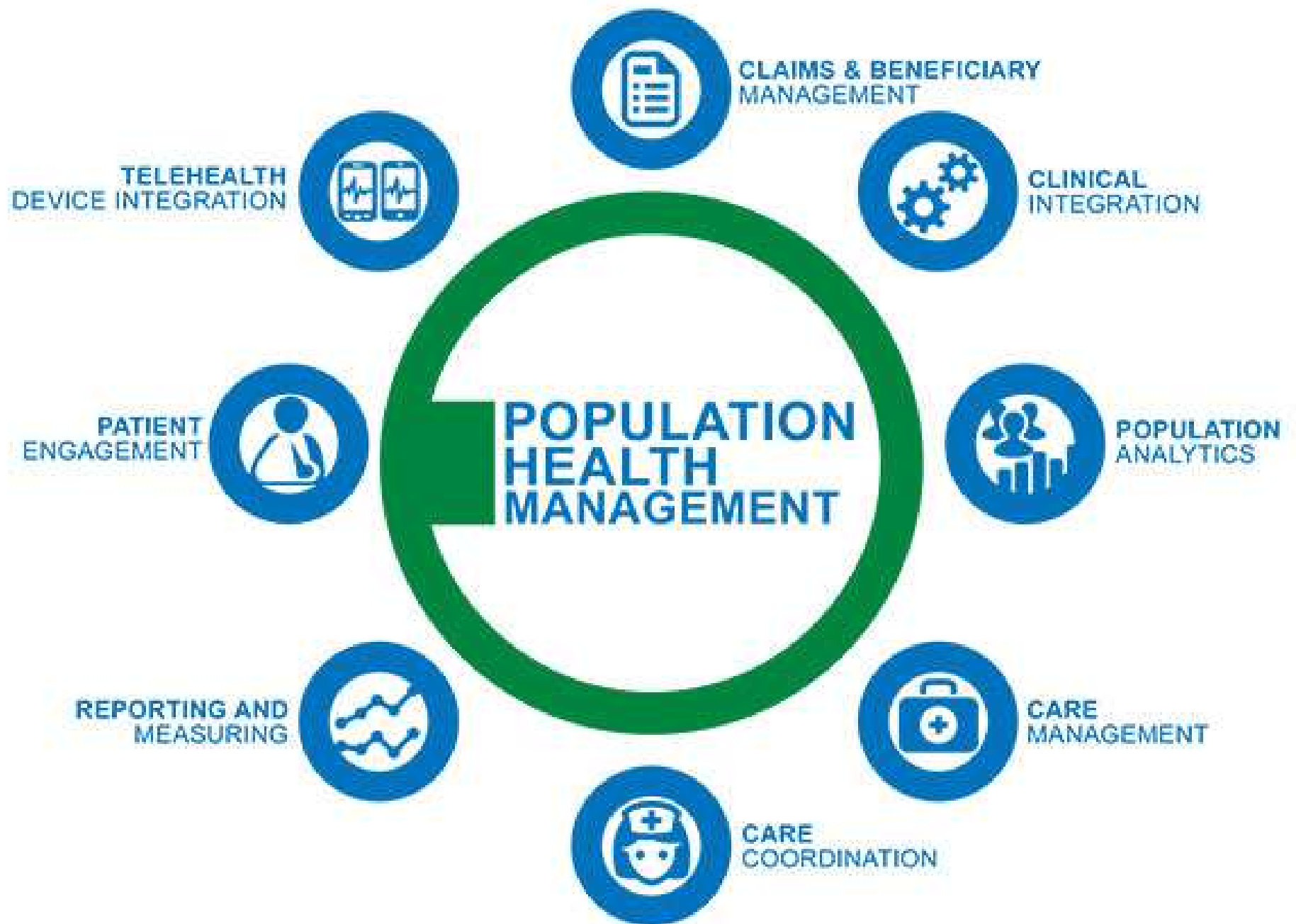


- Groups of facilities & providers
- Coordinated, high-quality care
- Right care, right time, right place, right cost
- Shared savings

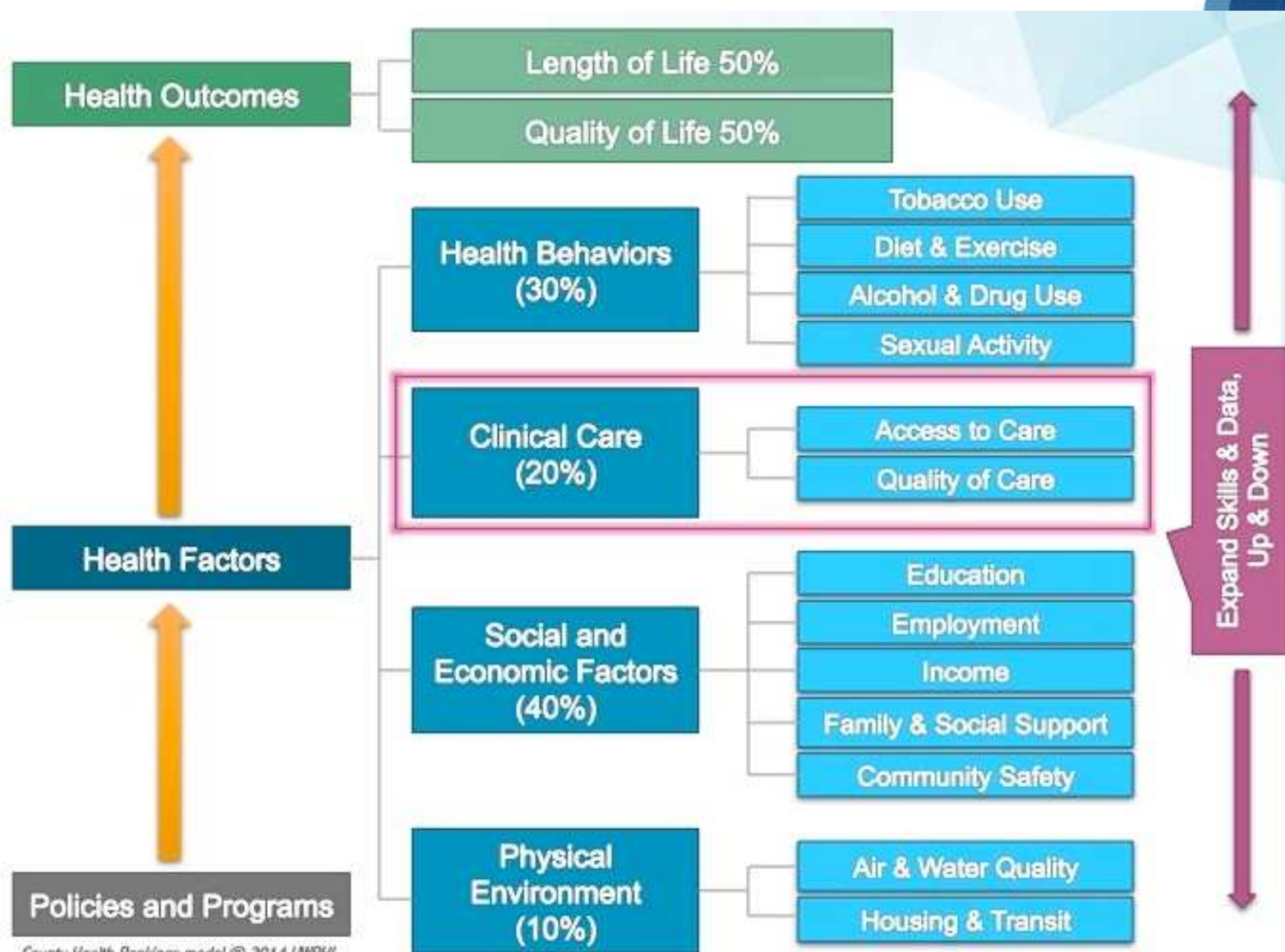
Is Public Health the Missing Piece?

Triple Aim





Population Health



County Health Rankings model © 2014 UWPHI

Robert Wood Johnson & University of
Wisconsin Public Health Institute

Social Determinants of Health

SOCIAL DETERMINANTS

Social determinants are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.

HEALTH BEHAVIORS



DRUGS



SAFE SEX



DIET & EXERCISE



SMOKING



DRINKING

CLINICAL CARE

PHYSICAL, MENTAL, & ORAL HEALTH



ACCESS TO HEALTHCARE



QUALITY CARE

SOCIAL & ECONOMIC FACTORS



INCOME



EDUCATION



FAMILY



EMPLOYMENT



COMMUNITY SUPPORT

PHYSICAL ENVIRONMENT



AIR QUALITY



WATER QUALITY

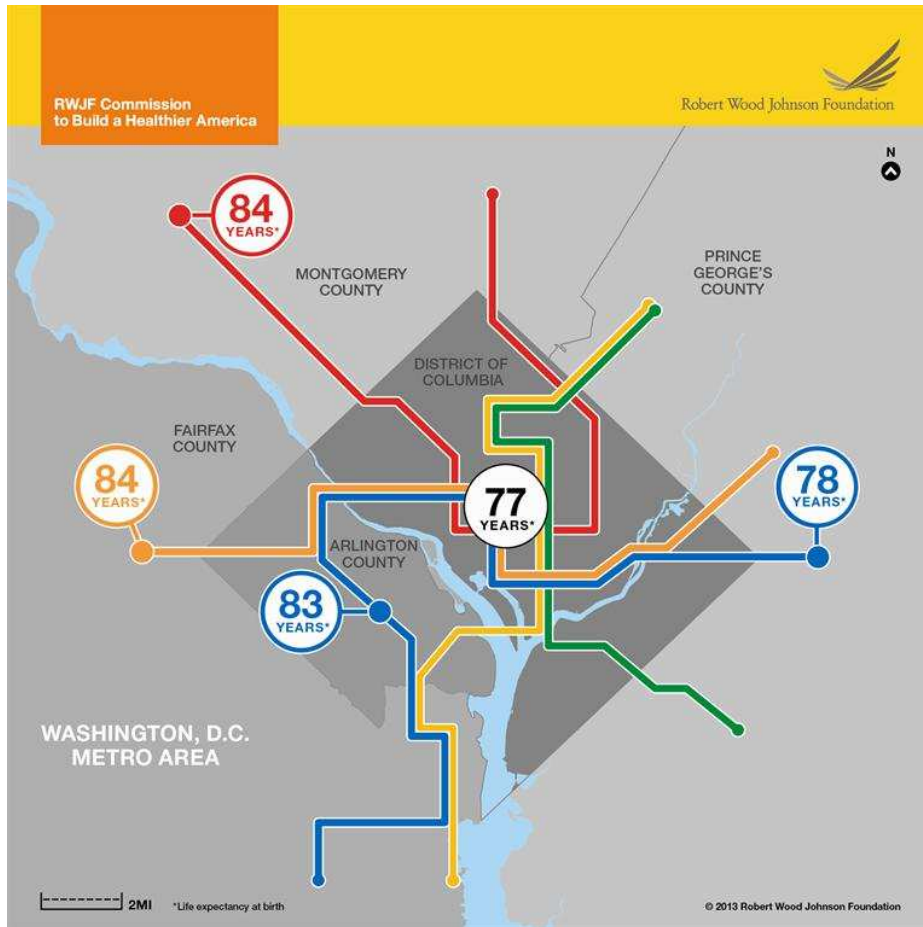


TRANSPORTATION



HOUSING

Where You Live Matters!



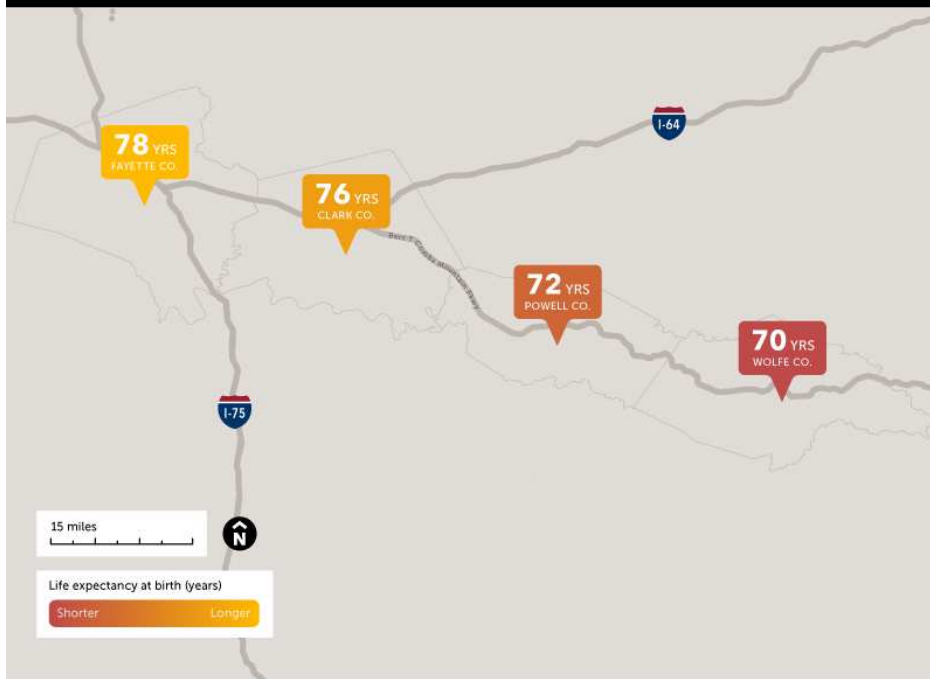
Where You Live Matters!

KENTUCKY

Short Distances to Large Gaps in Health

Follow the discussion

#CloseHealthGaps



Center on
Society
and Health

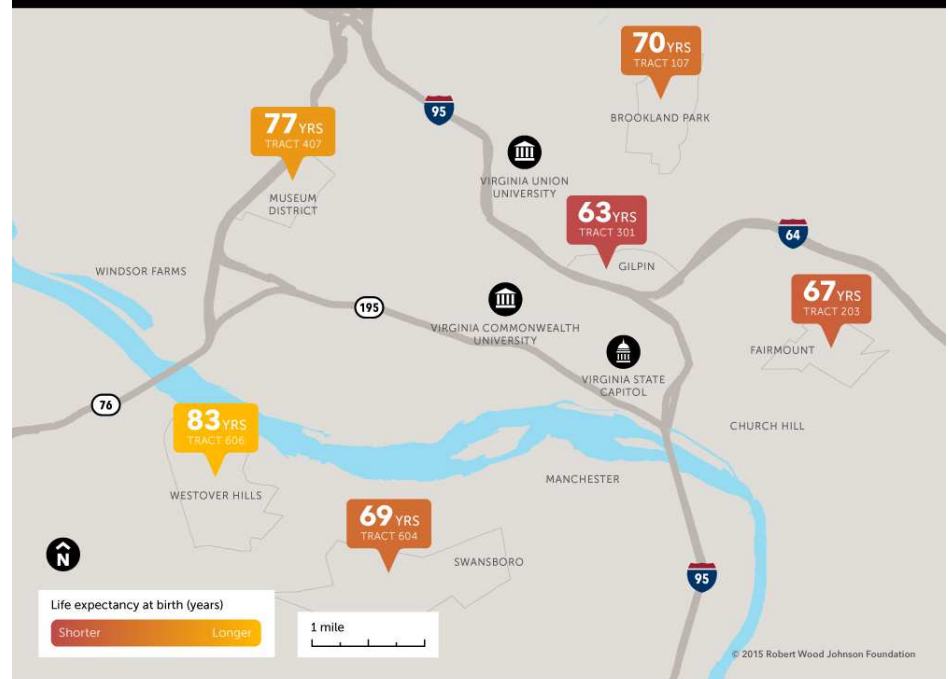
Robert Wood Johnson
Foundation

RICHMOND, VIRGINIA

Short Distances to Large Gaps in Health

Follow the discussion

#CloseHealthGaps



Center on
Society
and Health

Robert Wood Johnson
Foundation

What Makes the Difference?

- Education & Income
- Unsafe &/or Unhealthy Housing
- Built Environment
- Transportation
- Food “Deserts” (or “Hollows”)
- Access to Primary Care



Failing to Connect

Healthcare

- ◆ Fragmentation
- ◆ Duplication
- ◆ Practice variability
- ◆ Limited access
- ◆ Episodic & reactive care
- ◆ Insensitivity to consumer values & preferences
- ◆ Limited targeting of resources to community needs

Public Health

- ◆ Fragmentation
- ◆ Constrained resources
- ◆ Practice variability
- ◆ Limited reach
- ◆ Insufficient scale
- ◆ Limited public visibility & understanding
- ◆ Limited evidence base
- ◆ Slow to innovate & adapt

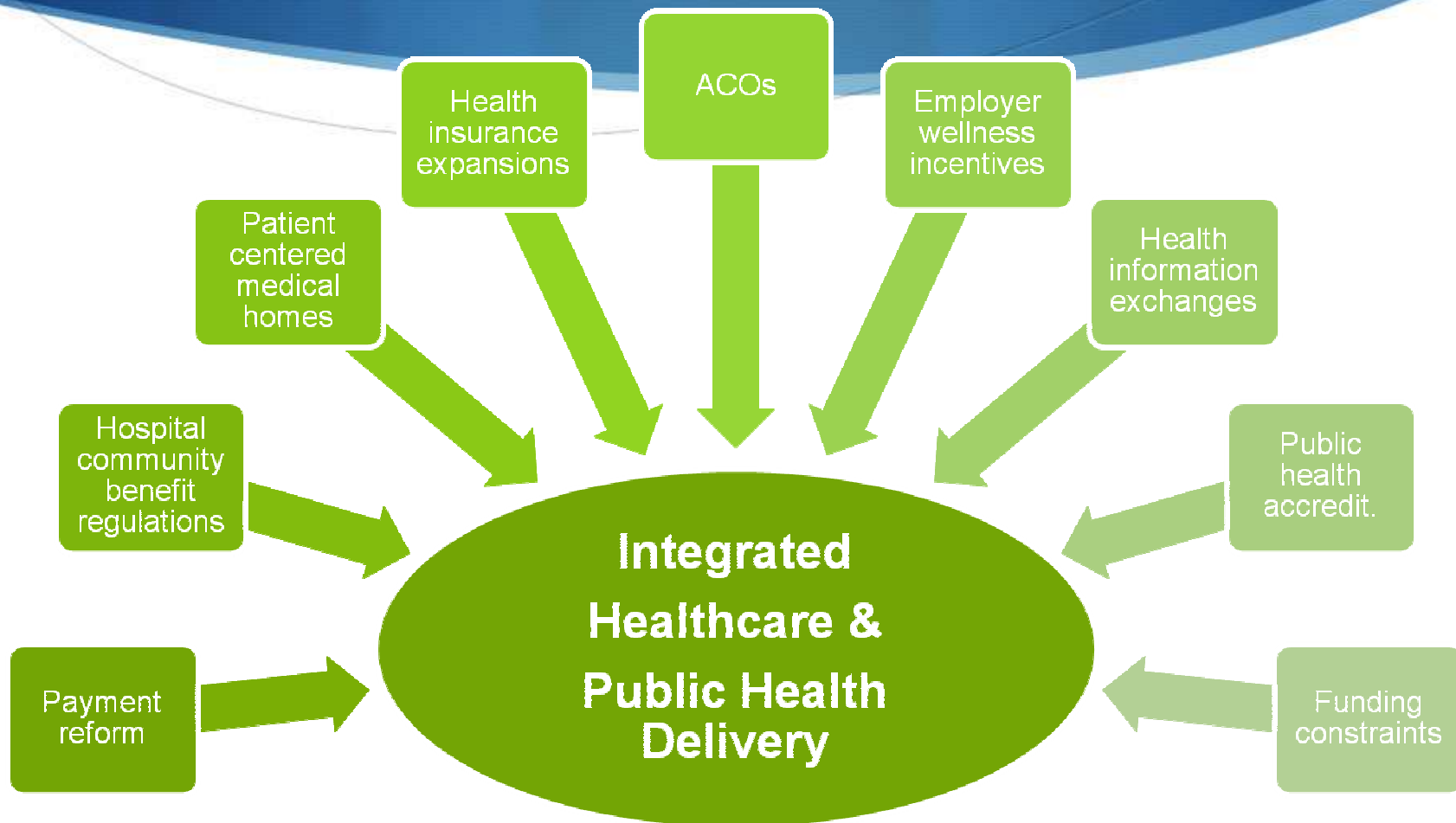


Inefficient Delivery
Inequitable Outcomes
Limited Population Health Impact



Note: This slide adapted from Glen Mays, University of Kentucky

Bridging the Gap: Why Now?



Note: This slide adapted from Glen Mays, University of Kentucky

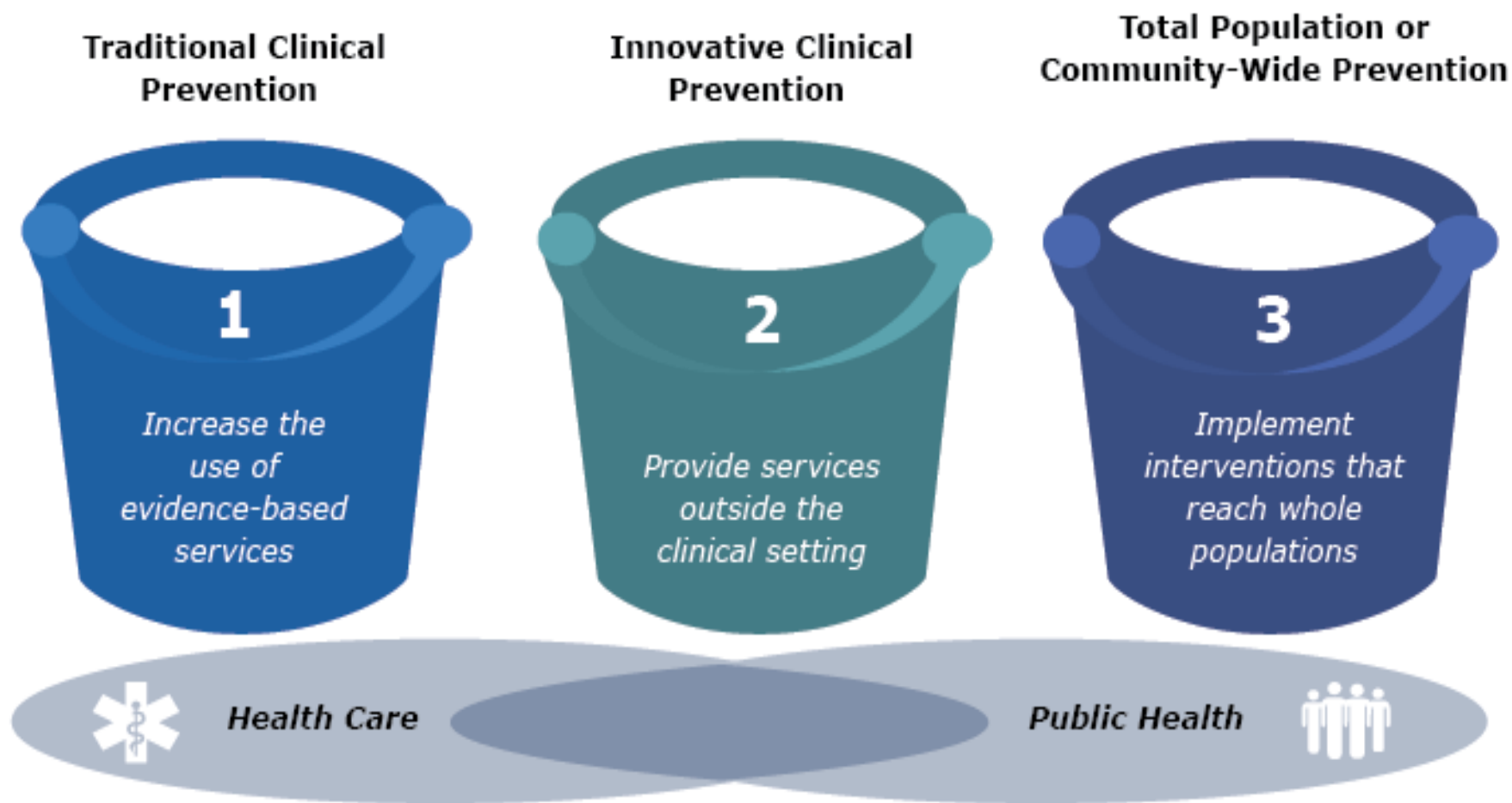
Facilitating Integration

💧 Emergent Themes

- 💧 Finding safe, shared, & targeted issues to tackle together
- 💧 Building on current/past successes
- 💧 Role of payers/business
- 💧 Workforce training
- 💧 Market forces, including ACA, as key drivers
- 💧 Strong convening agency

Source: Carlton, E.L. (2014). Answering the call for integrating population health: Insights from health system executives. Advances in Health Care Management, 16, 115-138.

Linking Healthcare & Public Health



To read more: <http://journal.lww.com/jphmp/toc/publishahead>

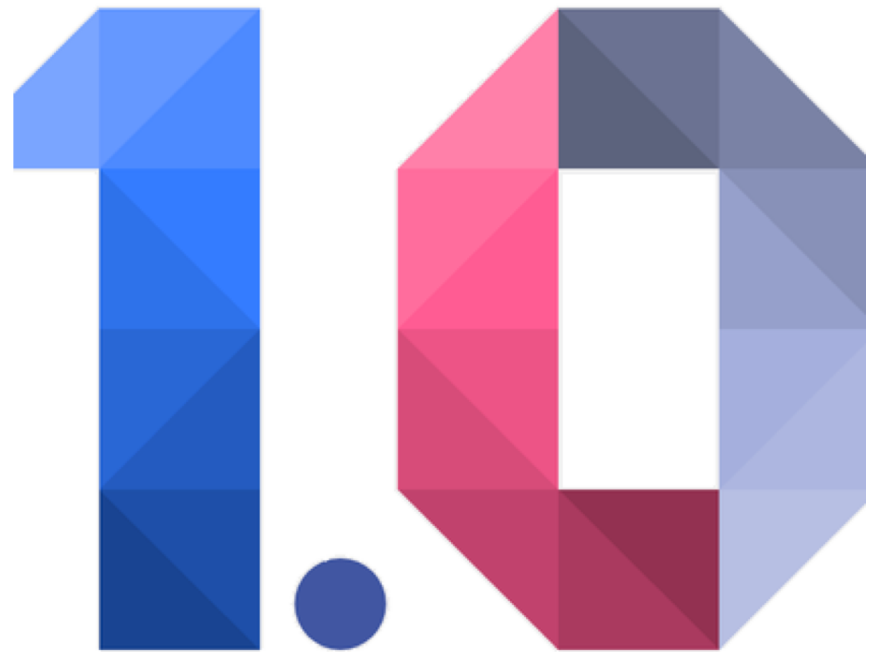


What is Public Health?



Public Health

- Governmental public health
- Sanitation, food & water safety
- Vaccines & antibiotics
- Epidemiology
- Primary & tertiary medical prevention



Public Health



- Professionalization & standardization of PH
- Safety-net clinical care
- Chronic diseases & new epidemics

Public Health

- ◆ Cross-sector collaboration
- ◆ Collective impact
- ◆ Social determinants of health
- ◆ Policy & systems-level action

**PUBLIC
HEALTH
3.0** **THE
VISION**

Collaboration for Collective Impact

Collective Impact



Levels of Joint Action

◆ Networking

- ◆ Information Exchange

◆ Cooperation

- ◆ Share Resources
- ◆ Create Something New

◆ Coordination

- ◆ Information Exchange +
- ◆ Link Existing Activities

◆ Collaboration

- ◆ Work Jointly w/ Joint Resources to Accomplish Shared Mission/Vision

Barriers to Collaboration

- 💧 Individual
- 💧 Organizational
- 💧 Systemic



Common Agenda

- ✔ Shared Vision for Change
- ✔ Common Understanding of the Problem
- ✔ Joint Approach to Solve the Problem
- ✔ Agreed Upon Actions



Shared Measurement



- ◆ Agreement on how success will be measured and reported
- ◆ Short list of common indicators
- ◆ Continuous quality improvement (PDSA)

Mutually-Reinforcing Activities

- ◆ Diverse set of multi-sector stakeholders
- ◆ Differentiated but coordinated activities
- ◆ An action plan



Open & Continuous Communication

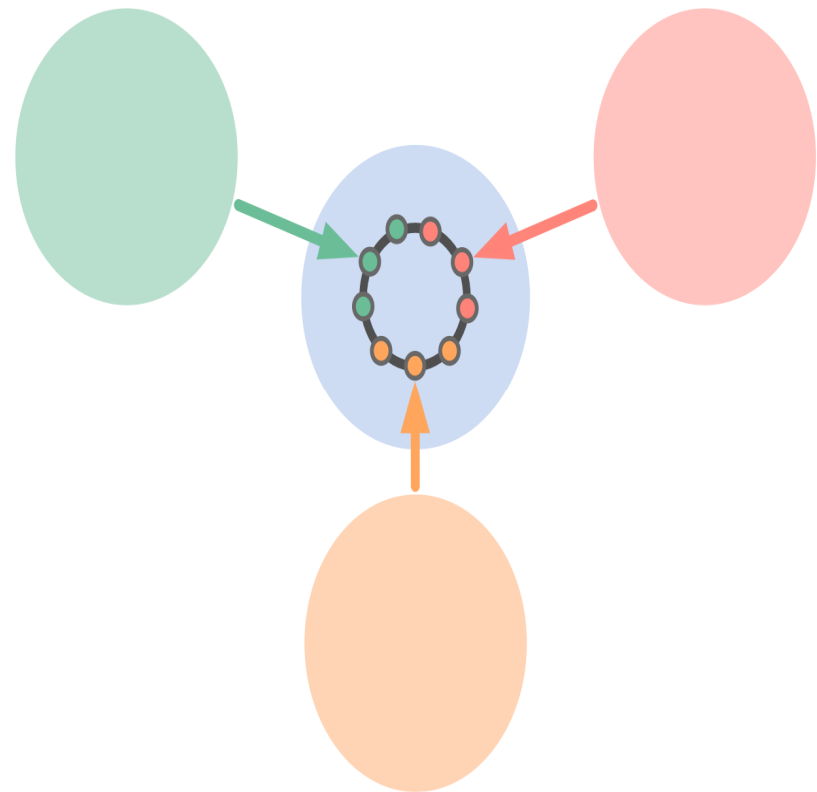


- ◆ Frequent
- ◆ Structured
- ◆ Open
- ◆ Trusted

Backbone Organization(s)

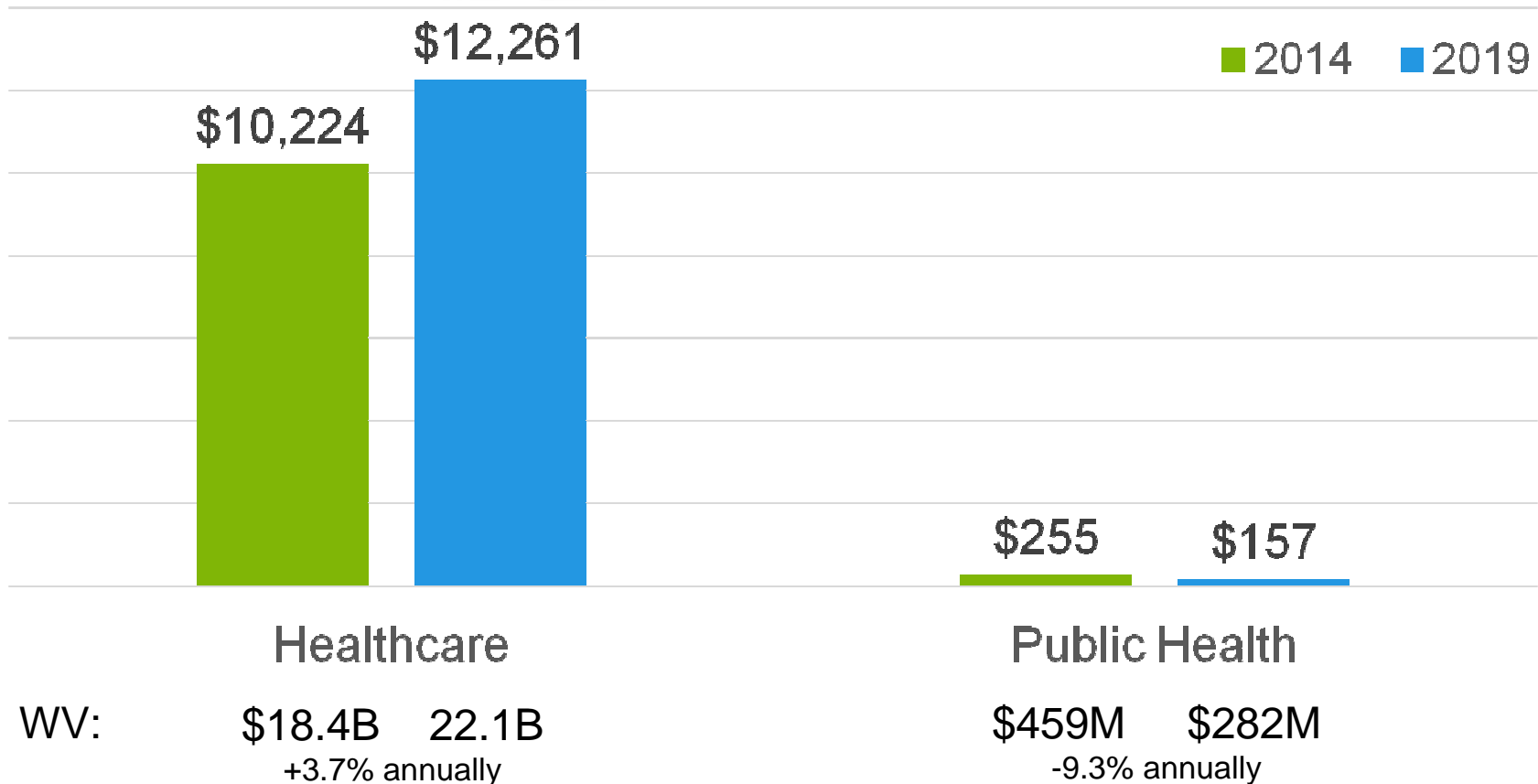
- ◆ Independent, funded staff to:

- ◆ Guide vision/strategy
- ◆ Support aligned activities
- ◆ Establish shared measurement practices
- ◆ Engage public & build will
- ◆ Advance policy
- ◆ Mobilize resources



Investing in Community Health Improvement

U.S. Healthcare v. Public Health Expenditures – Per Capita



Prevention & Public Health Fund

- ◆ Established by Affordable Care Act; \$15B over 10 years
- ◆ Diminished to backfill cuts to or pay for other programs:
 - ◆ 2012: \$6 Billion over 9 years to pay for cuts to Medicaid physician payments
 - ◆ 2013: \$450 Million to set up health insurance marketplace
 - ◆ 2017: Tax reform cut \$750 Million to pay for CHIP
 - ◆ 2018: Budget bill cut \$1.35 Billion over 10 years

What Can \$10 of Public Health Spending Buy?

- Decrease of 7.4 percent in infectious disease morbidity and a 1.5 percent decrease in premature mortality at the county level²
- Increase of 0.6 percent in the proportion of the population in very good or excellent health⁴
- Decrease of 0.4 cases of salmonella per 10,000 person years⁷
- Decrease of 3-6 percent of county-level STD rates¹⁰

McCullough JM . "The Return on Investment of Public Health System Spending," AcademyHealth. June 2018.

67-88:1

Brown TT. Returns on Investment in California County Departments of Public Health. *American Journal of Public Health*. 2016;106(8):1477-1482.

ROI: 14.3:1

Masters R, Anwar E, Collins B, Cookson R, & Capewell S. (2017). Return on investment of public health interventions: A systematic review. *Journal of Epidemiology & Community Health*, 71(8), 827-834.



Non-Profit Hospital Community Benefit

Community Benefit

- ◆ Required by IRS to maintain non-profit status
- ◆ Programs or activities that provide treatment or promote health and healing in response to identified community need AND (and least 1):
 1. Improve access to healthcare services
 2. Enhance public health
 3. Advance increased general knowledge
 4. Relieve or reduce the burden of government to improve health

Community Benefit

Financial Assistance & Government Programs

- ◆ Financial Assistance
- ◆ Medicaid
- ◆ Costs of other govt. programs (SCHIP, etc.)

Other Benefits

- ◆ Community health improvement
- ◆ Health professions education
- ◆ Subsidized health services
- ◆ Research
- ◆ Cash & in-kind contributions
- ◆ Community benefit operations

Current Research Findings

Carlton & Singh (2018)

- ◆ Greater LHD involvement in hospital's CHNAs & CHIPs = increased hospital investment in community health
 - ◆ Each additional activity increases investment by 9%
- ◆ CHNA collaboration improves quality of assessments, as well as coordination of and investment in improvement activities
 - ◆ Reduces duplication & aligns with communities' needs

Isehunwa et al. (forthcoming)

- ◆ High levels of CHNA collaboration = improved community health outcomes
- ◆ Two principle factors seem to be linked to these improvements:
 - ◆ Coordination (CHNAs, CHIPs, data collection & analysis, community engagement)
 - ◆ Resource sharing
- ◆ Key collaboration facilitators:
 - ◆ Top-level leadership, relationships, open communication, partnership building, common ground

Connecting Healthcare & Public Health

- ◆ A shared goal of **population health improvement**
- ◆ **Community engagement** in defining and addressing population health needs
- ◆ **Aligned leadership** to bridge gaps, clarifies roles, develop incentives, ensure accountability, & manage change
- ◆ **Sustainability** through infrastructure, resources, etc.
- ◆ Sharing and collaborative use of **data and analysis**

ACO Case Study:

Rocky Mountain ACO's Approach to
Care Coordination in Rural Areas



Case STUDY

 **Learning Systems**
for Accountable Care Organizations

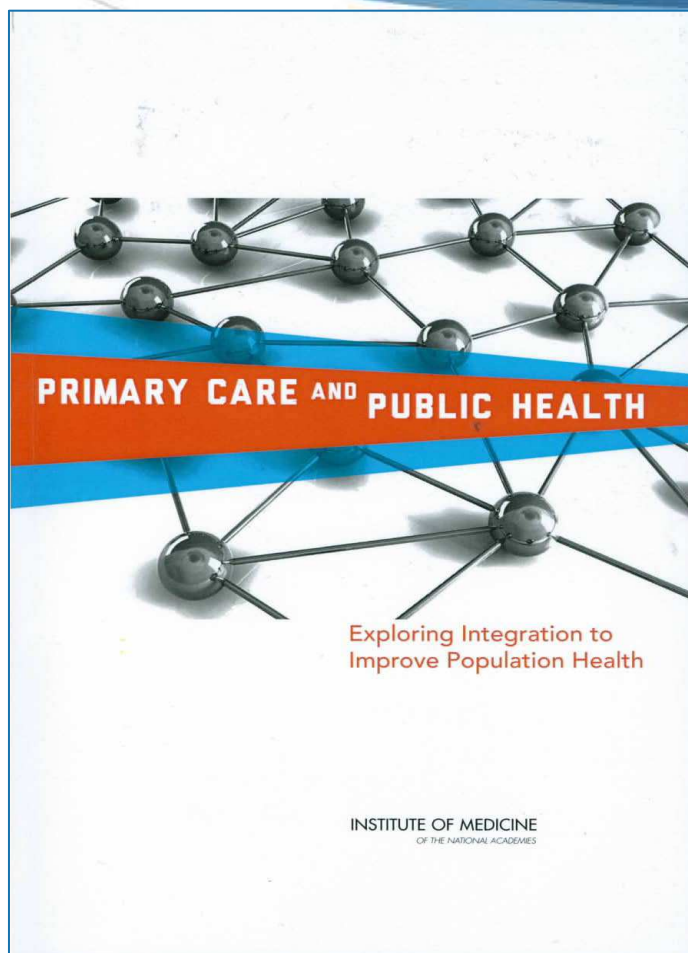
Rocky Mountain ACO's Approach to Care Coordination in Rural Areas

Rocky Mountain ACO

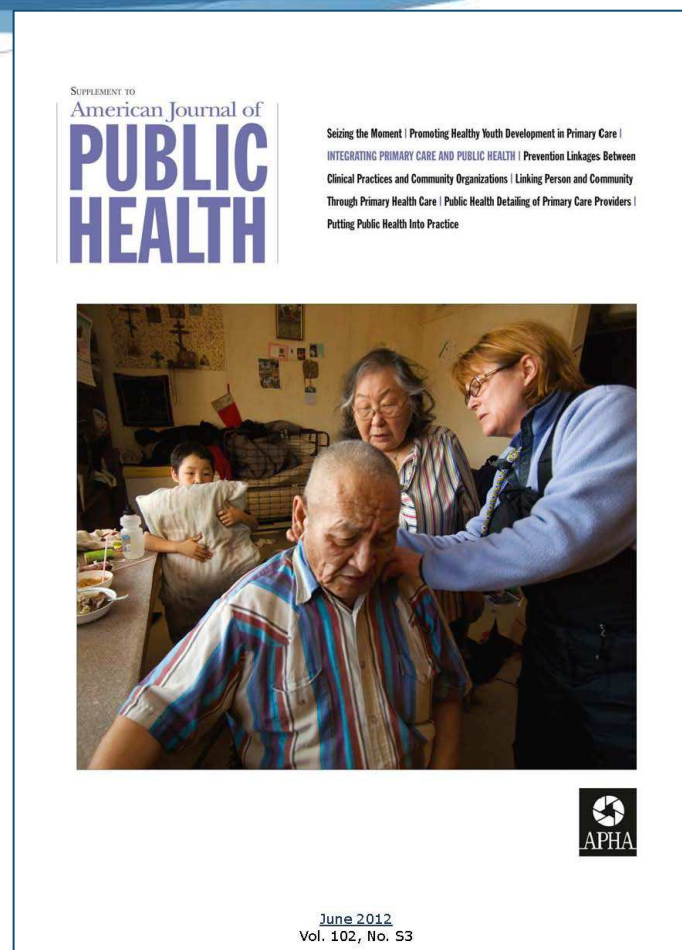
- ◆ Focus on care coordination for beneficiaries with complex care needs (high priority to both improve quality and reduce costs)
- ◆ Leveraged strong relationships with patients at the practice level
- ◆ Subsidized staff training and reimbursement to practices for care coordination
- ◆ Initial findings showed improved experience for patients and providers, as well as more coordinated and timely care, as well as reduction in hospital admission rates and ED visits

Integrating Primary Care & Public Health

Focus on Integration



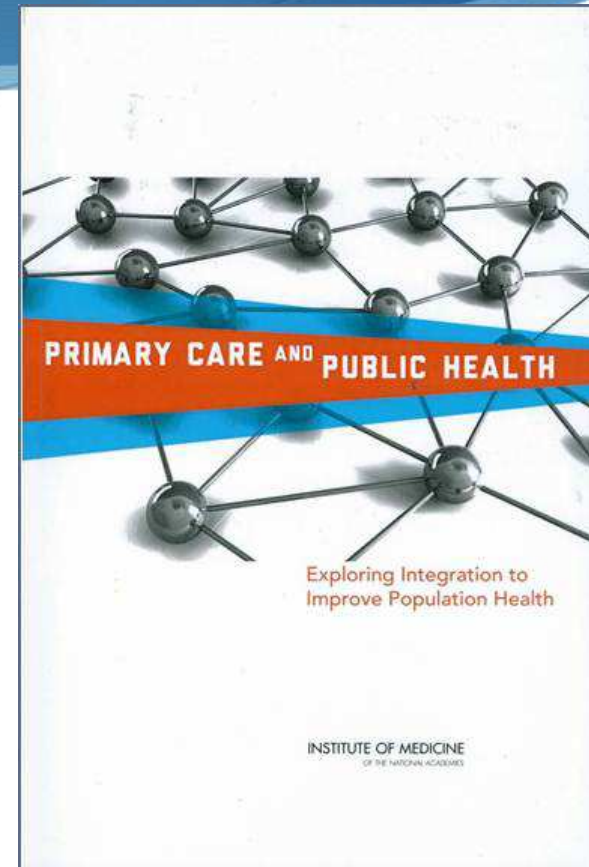
*National Academy of Sciences (2012).
Primary Care and Public Health:
Exploring Integration to Improve Population Health.
Washington, DC: NAP.*



*American Journal of Public Health
vol. 102 (s3), June 2012
Integrating Primary Care & Public Health*

IoM Report: Primary Care & Public Health

- ◆ Integration Principles
 - ◆ Shared Goal of Pop. Hx
 - ◆ Community Engagement
 - ◆ Aligned Leadership
 - ◆ Sustainability
 - ◆ Data Sharing/Analysis



Source: National Academy of Sciences (2012). Primary Care and Public Health: Exploring Integration to Improve Population Health. Washington, DC: NAP.

The Practical Playbook

The screenshot shows the homepage of the Practical Playbook website. The browser window at the top displays the URL <https://www.practicalplaybook.org>. The website header includes the Practical Playbook logo, navigation links for purchasing playbooks, email updates, and a search bar. A secondary navigation bar lists categories like 'Find a Partnership' and 'Fundamentals'. The main content area features a large teal banner with the title 'THE PRACTICAL PLAYBOOK' and a subtitle 'Helping Public Health and Primary Care Work Together to Improve Population Health.' Below this are logos for de Beaumont and Duke University. Two featured stories are highlighted in circular frames: 'Moving Upstream & Uphill: KS Academy of Family Physicians partners with Sedgwick County Health Dept to save Tobacco Free Wichita' and 'Diverse Partners Align to Cut Asthma Triggers by Curing Sick Buildings in the Bronx'. Each story has a 'READ STORY' button. The footer includes a 'What's New' section and a navigation bar with links for 'Latest Posts', 'Find a Partnership', and 'Join Our Community'.

Practical Playbook

[PURCHASE PLAYBOOK II](#) [PURCHASE PLAYBOOK I](#) [GET EMAIL UPDATES](#) [ABOUT](#) [BLOG](#)

SEARCH

[FIND A PARTNERSHIP](#) [FUNDAMENTALS](#) [BUILDING A PARTNERSHIP](#) [EXPERT INSIGHTS](#) [RESOURCES](#) [SUCCESS STORIES](#)

THE PRACTICAL PLAYBOOK

Helping Public Health and Primary Care Work Together to Improve Population Health.

de Beaumont Duke Family Medicine & Community Health

[GET STARTED](#)

Moving Upstream & Uphill: KS Academy of Family Physicians partners with Sedgwick County Health Dept to save Tobacco Free Wichita

[READ STORY](#)

Diverse Partners Align to Cut Asthma Triggers by Curing Sick Buildings in the Bronx

[READ STORY](#)

What's New

[Latest Posts](#) • [Find a Partnership](#) • [Join Our Community](#)

The image features a solid blue background with a subtle gradient and a curved edge on the right side. The text "The Future..." is centered in a white, sans-serif font.

The Future...

The Future...

- ◆ Continued shift towards value rather than volume
- ◆ Increased community coordination and collaboration
- ◆ Population health management (healthcare), prevention (public health), and community health improvement/health in all policies (all)

What will be OUR pump handle?





Contact Information

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WVU School of Public Health

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