



THE CENTER FOR
PROFESSIONALISM & VALUE
IN HEALTH CARE

Primary Care:
*The essential, not basic, foundation
of Health Systems*

Andrew Bazemore MD MPH
May 24th, 2023

Formative experiences shaped my understanding of what primary care could & should be...

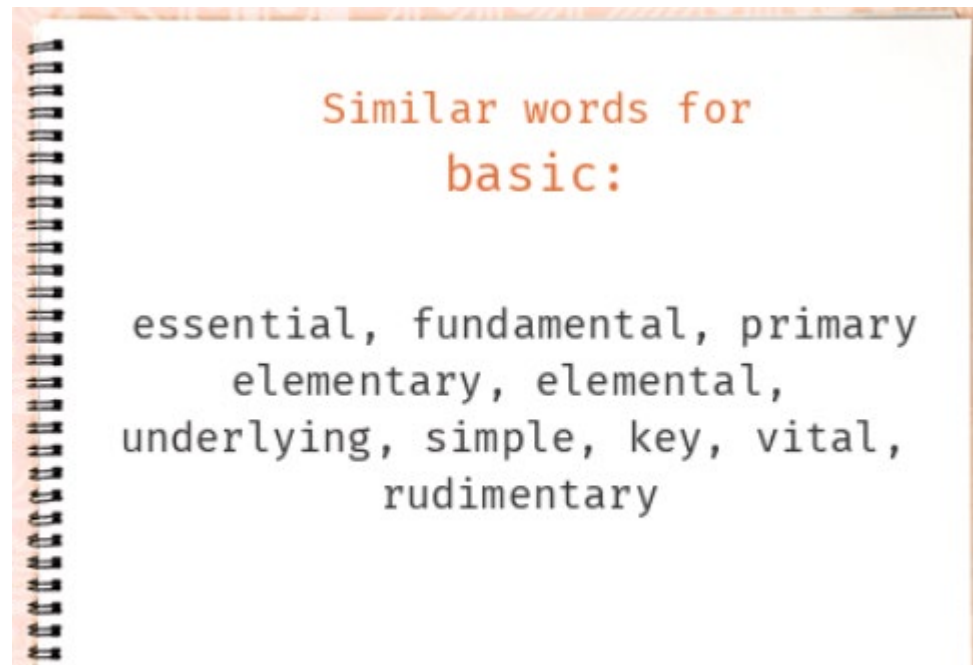
“Primary care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made *universally accessible* to individual and families in the community through their *full participation* and at a cost that the *community and country can afford*...

It forms an integral part of both the country's health system, of which it is ***the central function*** and main focus, and overall *social economic development* of the community

-Declaration of Alma Ata, WHA, 1978

Primary Care as *Essential*, not Basic

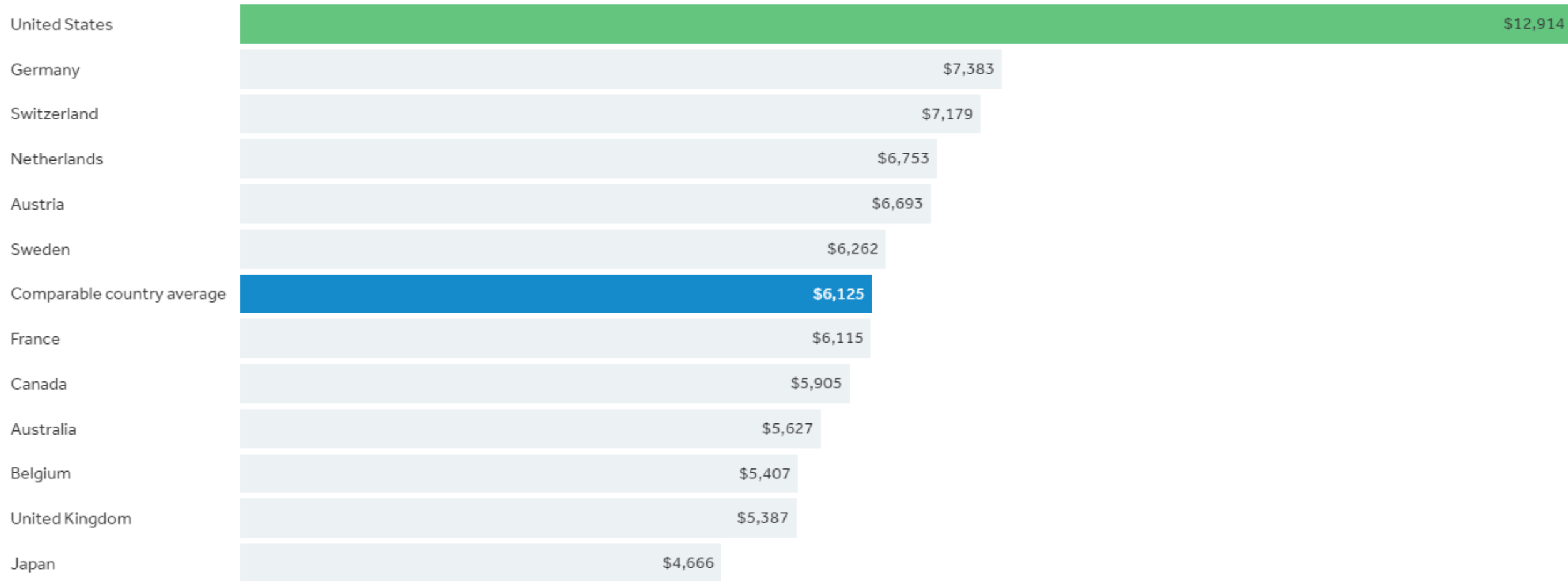
- **Basic** = simple, uncomplicated, or at a low level of skill.
- **Essential** = *something that is necessary, and without which a thing cannot exist or is impossible.*
 - Example: “Freedom of the press is essential to a healthy democracy.”



In the U.S., primary care is in no way central, and the outcomes show it

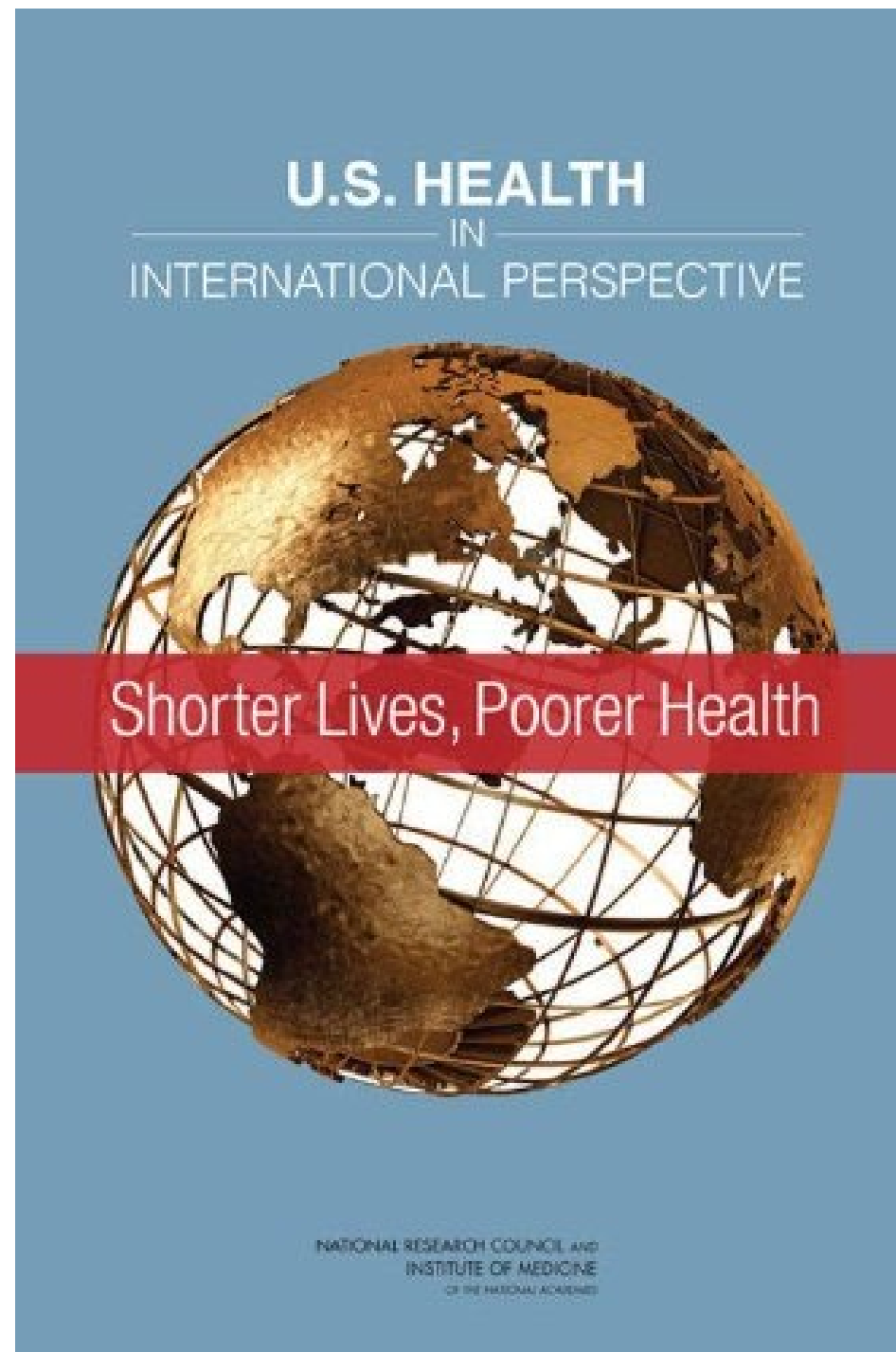
Despite double the per capita health spending of peer nations...

Health consumption expenditures per capita, U.S. dollars, PPP adjusted, 2021 or nearest year



Notes: U.S. value obtained from National Health Expenditure data. Data from Australia, Belgium, Japan and Switzerland are from 2020. Data for Austria, Canada, France, Germany, Netherlands, Sweden, and the

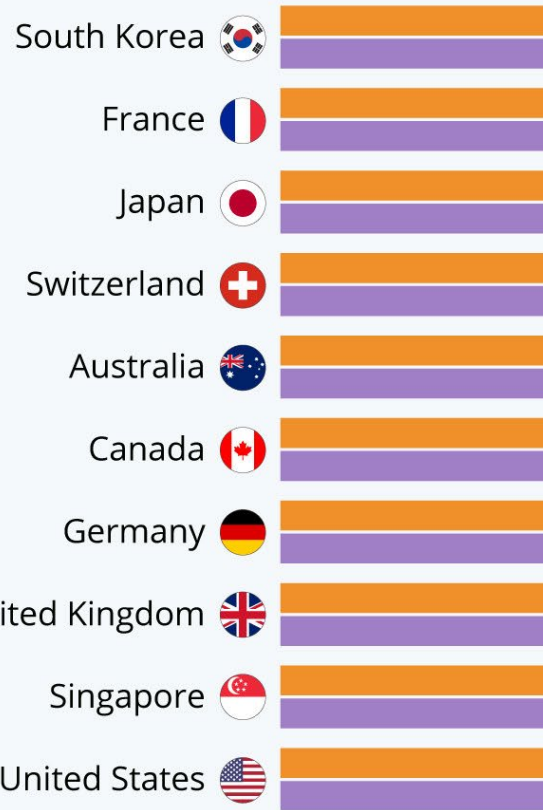
The U.S.
suffers worse
health
outcomes,
whether
measured in
quality... or
longevity



U.S. Will Trail Oth In Life Expectancy

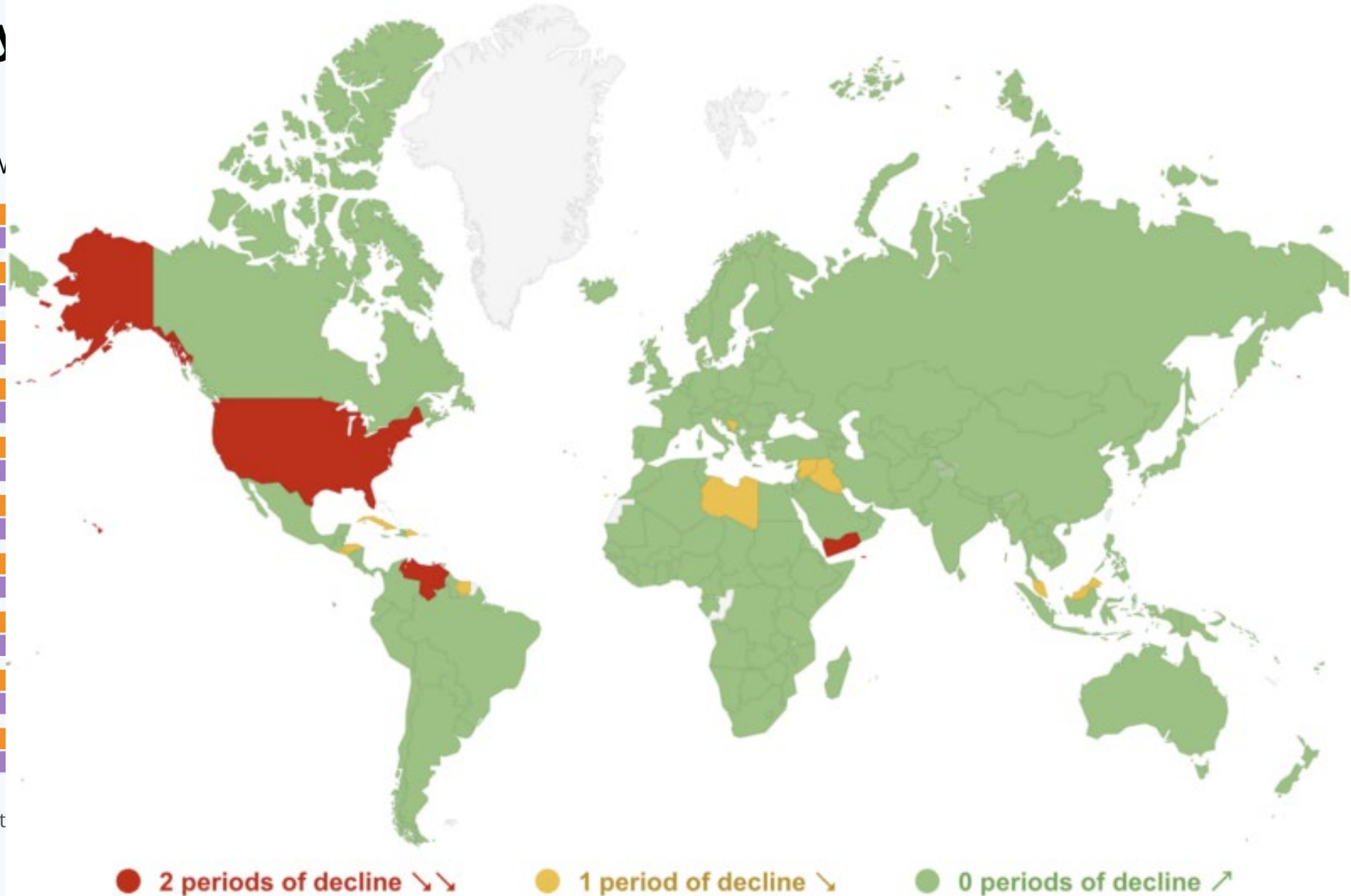
Average life expectancy at birth
by 2030 (in years)

Men W



Source: Imperial College London/World Health Organization

Periods of Healthy Life Expectancy Decline Since 2010





**BUT
WHY!**

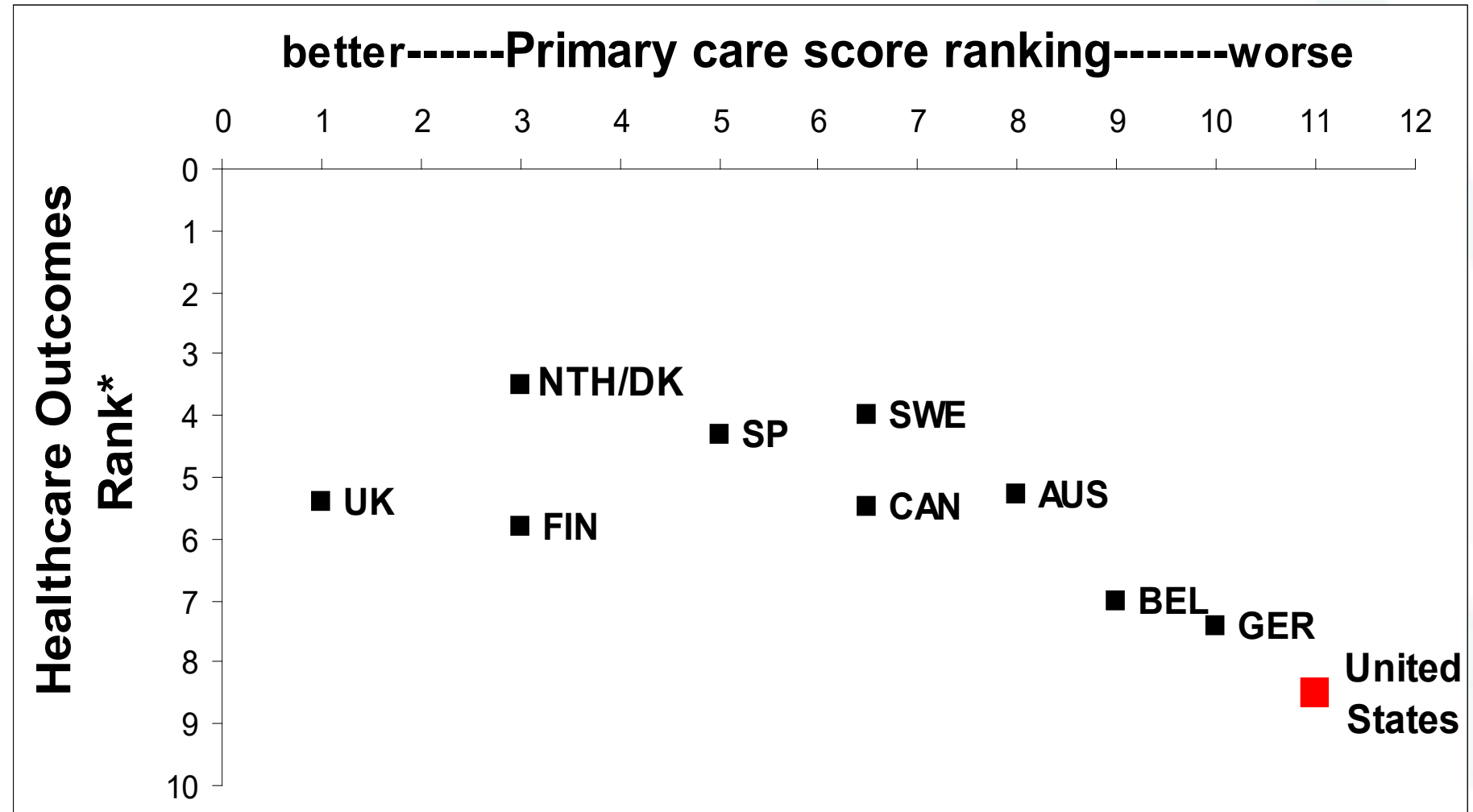
Instead of this

“Primary care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made *universally accessible* to individual and families in the community through their *full participation* and at a cost that the *community and country can afford...*

It forms an integral part of both the country's health system, of which it is ***the central function*** and main focus, and overall *social economic development* of the community

-Declaration of Alma Ata, WHA, 1978

The U.S.
does this:



Adapted with permission from Starfield B. Policy relevant determinants of health: an international perspective. Health Policy 2002;60:201-21.

Explaining Primary Care's salutary effects

Dr. Barbara Starfield's "4 Cs" of Optimal Primary Care:

- A patient can easily and regularly make first-**Contact** with a primary care physician when an issue arises
- A patient has a **Continual** relationship with a primary care physician over time
- Primary care physicians provide **Comprehensive** care
- Primary care physicians provide **Coordinated** care when treatment is required outside of primary care

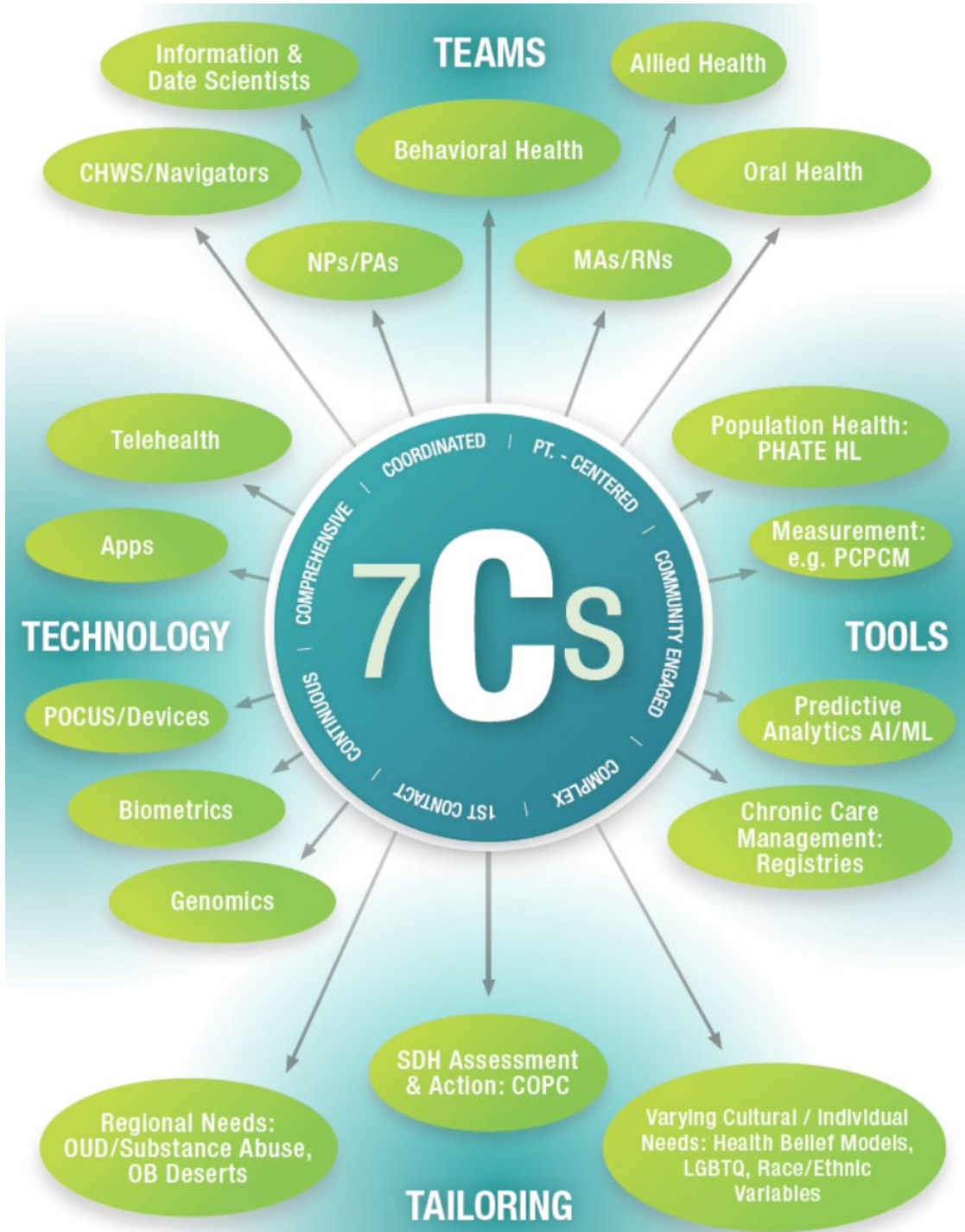
Contemporized?

→
1st Contact
Continuous
Comprehensive
Coordinated

+

Pt. - Centered
Community
Engaged
Complex





And 4Ts that facilitate these 7Cs?

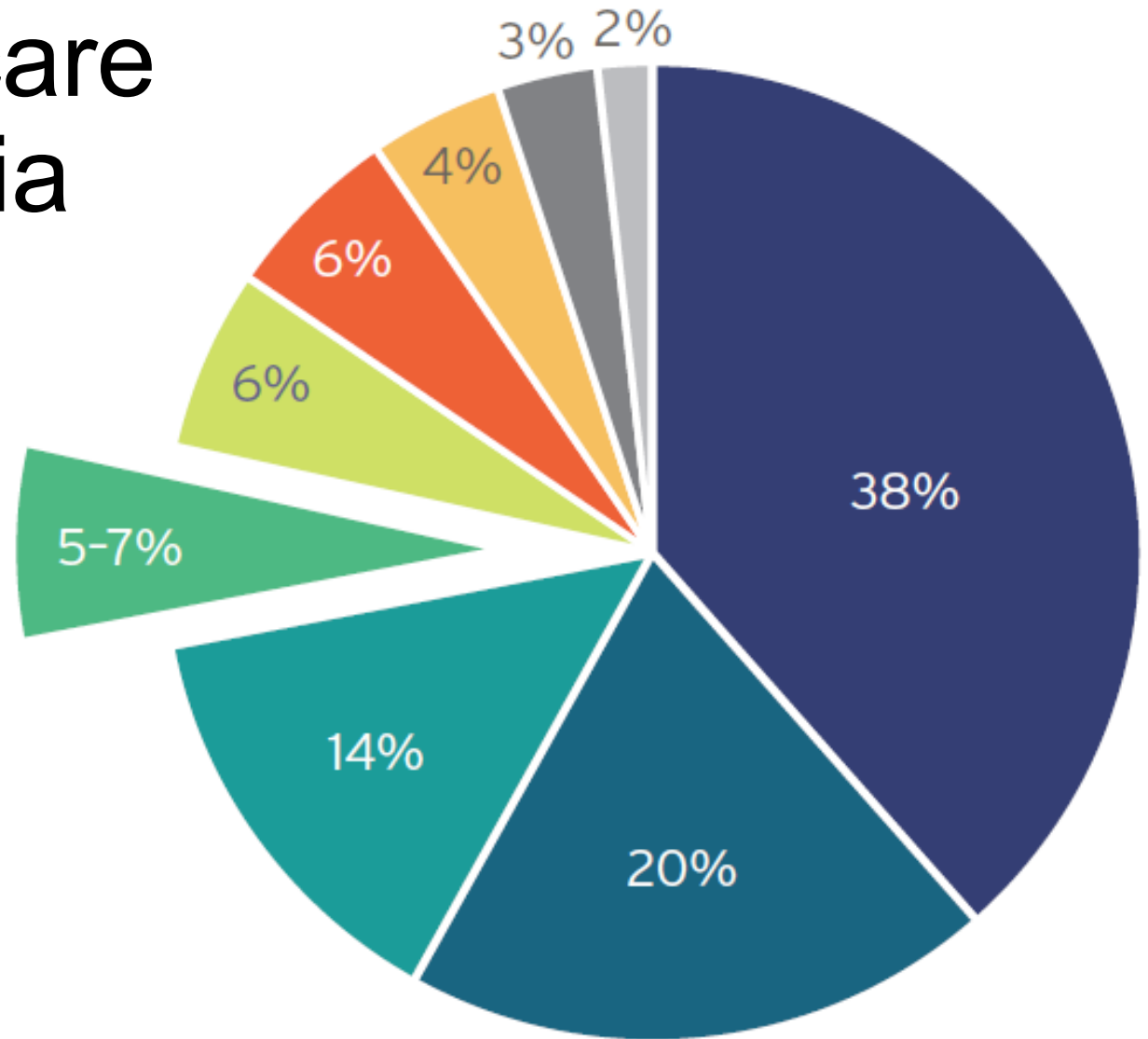
To achieve optimal, *essential* Primary Health Care delivering on these 4 or 7Cs, we need

- People-centered & primary care friendly *Payment*
- *Measures* that Matter to Primary Care
- Effective & integrated *Teams*

In the U.S., primary care suffers chronic anemia

Health Care Spending

- Hospital care
- All other physician and professional services
- Prescription drugs and other medical nondurables
- Primary care
- Nursing home care
- Other health, residential, and personal care
- Dental services
- Home health care
- Medical durables



Solutions? Measuring, Benchmarking, & targeting increases in “PC Spend”

BMJ Global Health

The Primary Care Spend Model: a systems approach to measuring investment in primary care

Robert Baillieu,¹ Michael Kidd,² Robert Phillips,³ Martin Roland,⁴ Michael Mueller,⁵ David Morgan,⁵ Bruce Landon,⁶ Jennifer DeVoe,⁷ Viviana Martinez-Bianchi,⁸ Hong Wang,⁹ Rebecca Etz,¹⁰ Chris Koller,¹¹ Neha Sachdev,¹ Hannah Jackson,¹ Yalda Jabbarpour,¹ Andrew Bazemore¹

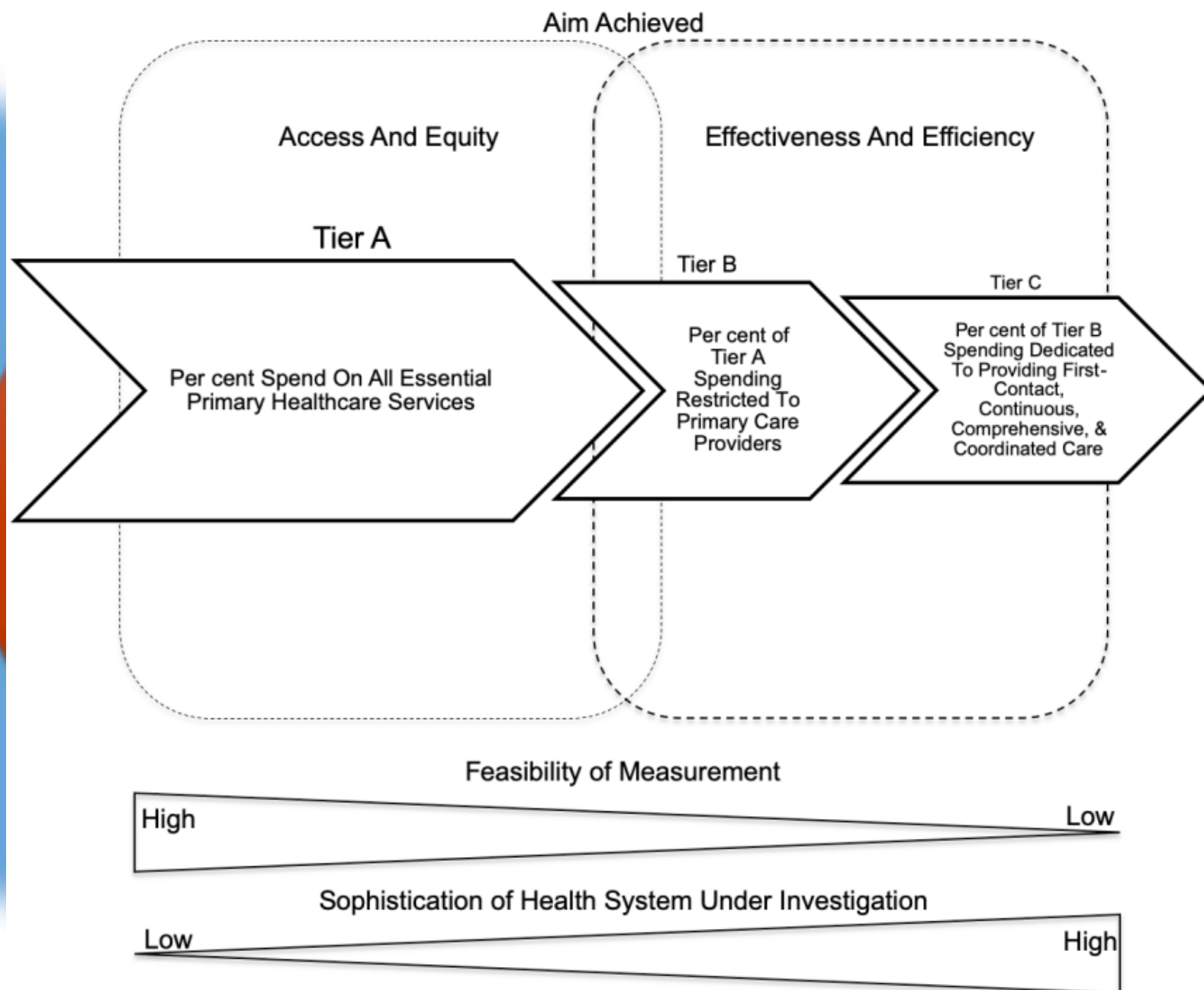
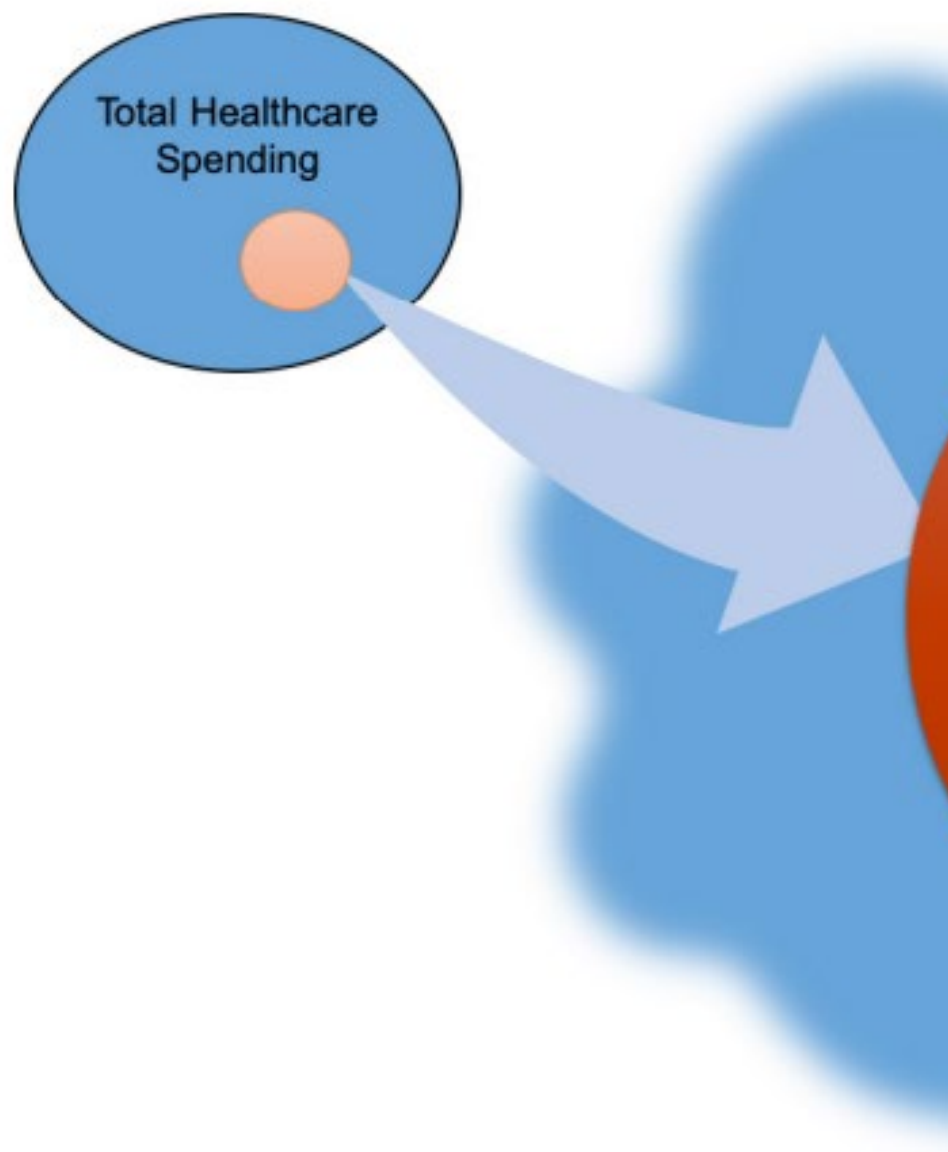
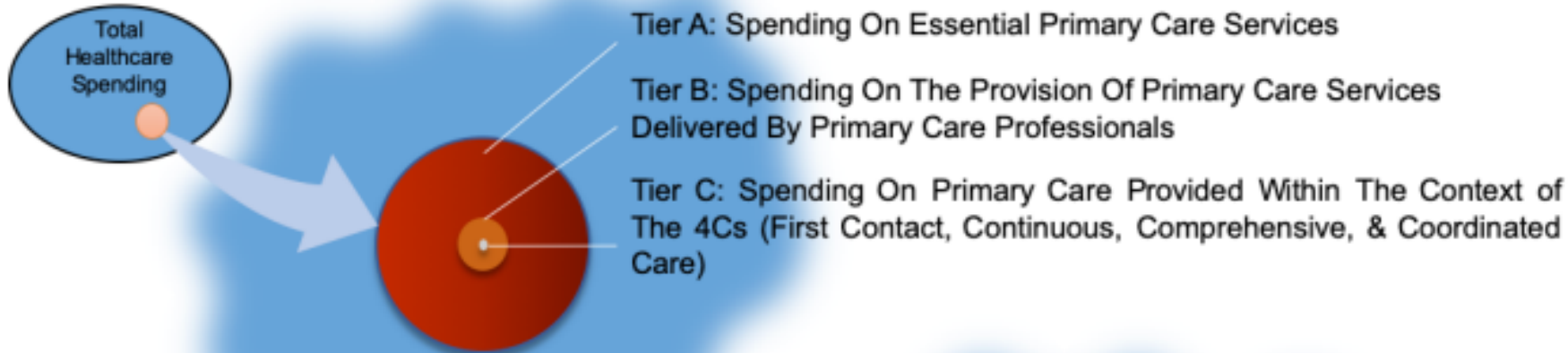


Figure 1 The constituent components of the Primary Care Spend Model. **Figure 2** Conceptual diagram of the Primary Care Spend Model.

Turkey & targeted Increases in PC Spend

Primary Care Resource Allocation Prior To The Health Transformation Plan



Primary Care Resource Allocation After Implementation Of The Health Transformation Plan

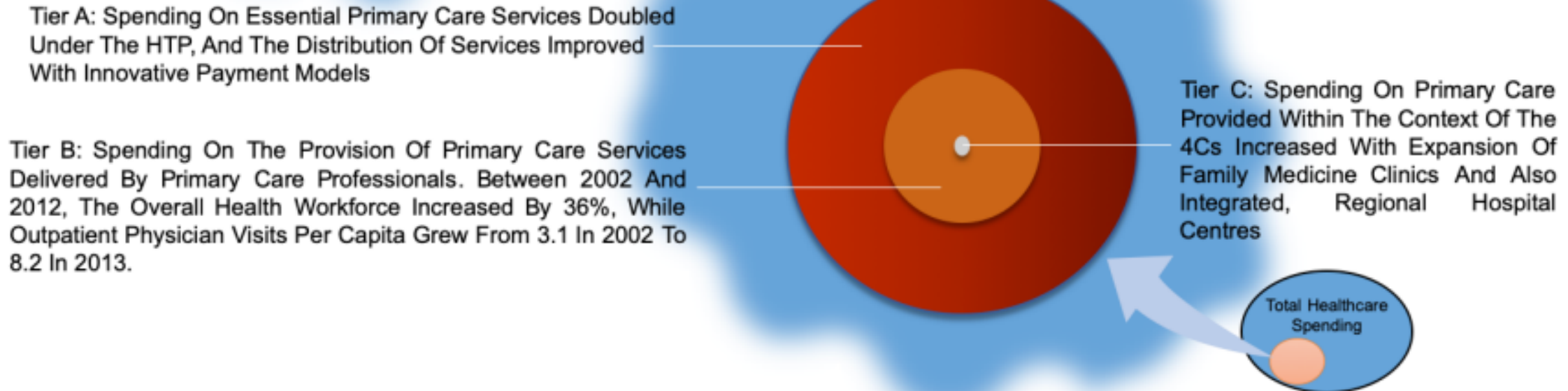
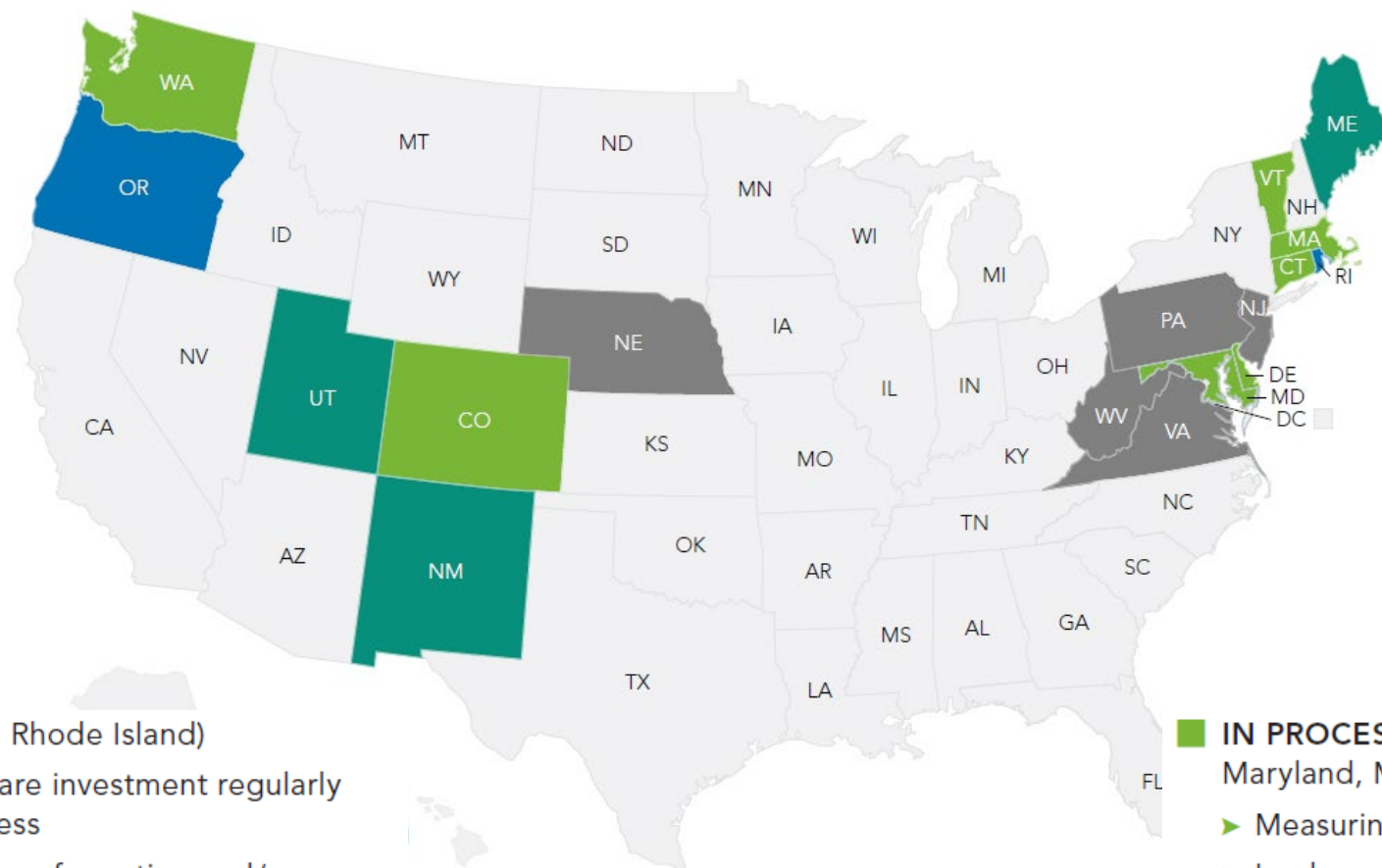


Figure 4 Turkey's Health Transformation Plan (HTP) reforms, categorised by the Primary Care (PC) Spend Model.

Figure 1. States with Interest in Increasing Primary Care Investment



Rhode Island, Oregon & targeted Increases in PC Spend

■ PRACTICING (Oregon, Rhode Island)

- ▶ Measuring primary care investment regularly to understand progress
- ▶ Implementing care transformation and/or payment innovation vision
- ▶ Engaging multiple stakeholders
- ▶ Benefiting from meaningful, tested investment requirements/expectations for at least one payer (e.g., contract requirements, regulation, or via care delivery requirements and goals of Medicare demonstration)

■ IN PROCESS (Colorado, Connecticut, Delaware, Maryland, Massachusetts, Vermont, Washington)

- ▶ Measuring primary care investment
- ▶ Implementing or beginning to implement care transformation and/or payment innovation vision
- ▶ Engaging multiple stakeholders
- ▶ Implementing targets/requirements for at least one payer (e.g., legislation/regulation, executive order, payer memorandum of understanding, or MOU/commitment to commit); however, targets/requirements have not yet been tested

The National Academies of
SCIENCES • ENGINEERING • MEDICINE



Action 1.1: Payers should evaluate and disseminate payment models based on their ability to **promote the delivery of high-quality primary care**, not short-term cost savings.

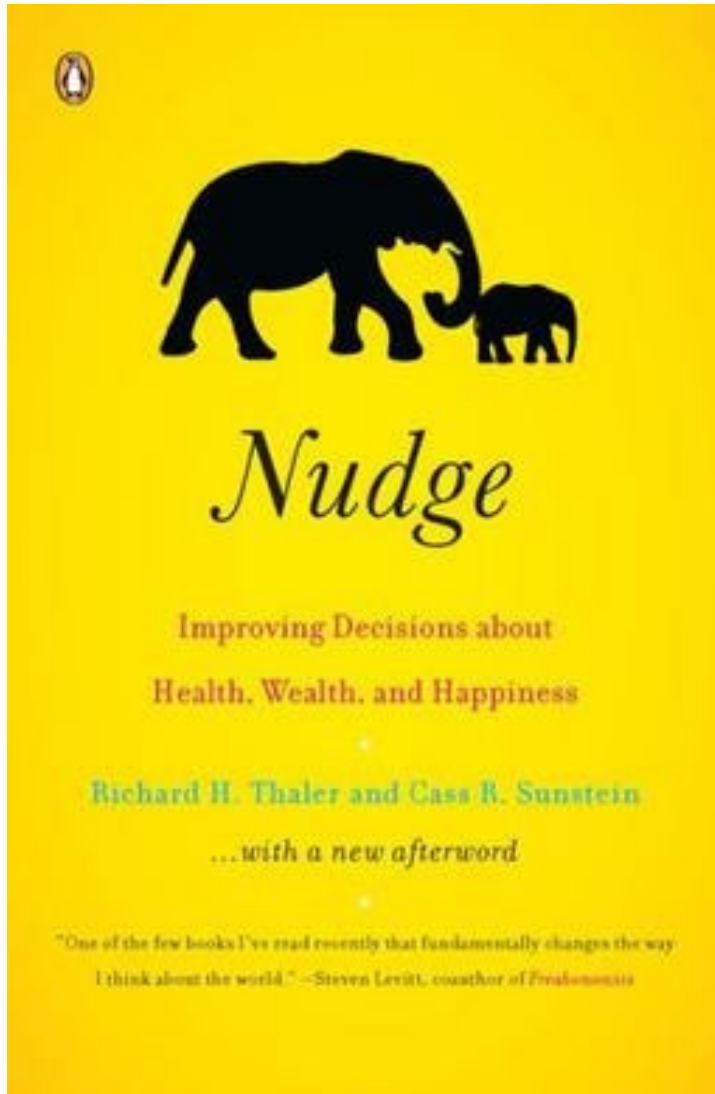
Action 1.2: Payers using fee-for-service models for primary care should **shift toward hybrid reimbursement models**, making them the default over time. For risk-bearing contracts, payers should ensure that sufficient resources and incentives flow to primary care.

1. Pay for primary care teams to care for people, not doctors to deliver services

- Payers: Hybrid payment models, don't focus on short-term savings
- CMS: Increase overall spend on primary care
- States: Facilitate multi-payer collaboration on increased overall spend on primary care

Measurement matters in payment design for optimized, essential PHC

Behavioral Economics: Harnessing *Nudge*



There is considerable evidence from outside medicine to suggest that we can design incentives and settings to extrinsically nudge behavior that is aligned with intrinsic, professional behavior—*to make professional behavior the default and easy choice*

Problem with current measures in Primary Care

| Core Quality Measures for Primary Care | |
|---|---|
| NQF # | Measure |
| Cardiovascular Care | |
| 18 | Controlling High Blood Pressure |
| N/A | Controlling High Blood Pressure (HEDIS 2016) |
| 71 | Persistent Beta Blocker Treatment After a Heart Attack |
| 68 | Ischemic Vascular Disease: Use of Aspirin or Another Antithrombotic |
| Diabetes | |
| 59 | Comprehensive Diabetes Care: HbA1c Poor Control (>9.0%) |
| 55 | Comprehensive Diabetes Care: Eye Exam |
| 57 | Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) testing |
| 56 | Comprehensive Diabetes Care: Foot Exam |
| 62 | Comprehensive Diabetes Care: Medical Attention for Nephropathy |
| Care Coordination / Patient Safety | |
| 97 | Medication Reconciliation |
| Prevention and Wellness | |
| 32 | Cervical Cancer Screening |
| NA | Non-recommended Cervical Cancer Screening in Adolescent Females |
| 2372 | Breast Cancer Screening |
| 34 | Colorectal Cancer Screening |
| 28 | Preventive Care Screening: Tobacco Use: Screening and Cessation |
| 421 | Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up |
| Utilization & Cost / Overuse | |
| 52 | Use of Imaging Studies for Low Back Pain |
| Patient Experience | |
| 5 | CG CAHPS (Getting Timely Appointments, Care, and Information; How Well Providers (or Doctors) Communicate with Patients; and Access to Specialists) |
| Behavioral Health | |
| 710 | Depression Remission at 12 Months |
| 1885 | Depression Response at Twelve Months- Progress Towards Remission |
| Pulmonary | |
| 1799 | Medication Management for People with Asthma |
| 58 | Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis |

- Too many measures, too burdensome
- Focused on disease care and don't recognize the higher level integrating, personalizing prioritizing functions
- Not aligned with the foundations of primary care or the needs of patients, communities, systems

New Measures of Primary Care

- Starting over
 - Begin by “crowd sourcing” - asking what is important about good care--Patients, Clinicians, Employers/Payers
 - “Measurizing” the 4 C’s
 - Translate Total Cost of Care into Low Value measures

ABFM Quality Measure Development

Measuring What Matters In Primary Care

Person Centered Primary Care Performance Measure

Rebecca S. Etz, PhD, Stephen J. Zyzanski, PhD, Martha M. Gonzalez, Sarah R. Reves, MSN, FNP-C, Jonathan P. O'Neal, Kurt C. Stange, MD, PhD, A New Comprehensive Measure of High-Value Aspects of Primary Care, Ann Fam Med 2019;17:221-230. <https://doi.org/10.1370/afm.2393>.

Continuity of Care Performance Measure

Andrew Bazemore, MD, MPH, Stephen Petterson, PhD, Lars E. Peterson, MD, PhD, Richard Bruno, MD, MPH, Yoonkyung Chung, PhD, Robert L. Phillips Jr, MD, MSPH, Higher Primary Care Physician Continuity is Associated With Lower Costs and Hospitalizations, Ann Fam Med 2018;16:492-497. <https://doi.org/10.1370/afm.2308>.

Low-Value Care Performance Measure

Tyler W. Barreto, Yoonkyung Chung, Peter Wingrove, Richard A. Young, Stephen Petterson, Andrew Bazemore and Winston Liaw, Primary Care Physician Characteristics Associated with Low Value Care Spending, JABFM March 2019, 32 (2) 218-225; DOI: <https://doi.org/10.3122/jabfm.2019.02.180111>

Comprehensiveness Performance Measure

Bazemore A, Petterson S, Peterson LE, Phillips RL. More comprehensive care among family physicians is associated with lower costs and fewer hospitalizations. The Ann Fam Med. 2015; 13(3):206-213. <http://www.annfammed.org/content/13/3/206.full>

Person-Centered Primary Care Performance Measure



| THE PRIMARY CARE MEASURE | | | | |
|---|------------|--------|----------|------------|
| The practice makes it easy for me to get care. | Definitely | Mostly | Somewhat | Not at all |
| This practice is able to provide most of my care. | Definitely | Mostly | Somewhat | Not at all |
| In caring for me, my doctor considers all of the factors that affect my health. | Definitely | Mostly | Somewhat | Not at all |
| My practice coordinates the care I get from multiple places. | Definitely | Mostly | Somewhat | Not at all |
| My doctor or practice know me as a person. | Definitely | Mostly | Somewhat | Not at all |
| My doctor and I have been through a lot together. | Definitely | Mostly | Somewhat | Not at all |
| My doctor or practice stands up for me. | Definitely | Mostly | Somewhat | Not at all |
| The care I get takes into account knowledge of my family. | Definitely | Mostly | Somewhat | Not at all |
| The care I get in this practice is informed by knowledge of my community. | Definitely | Mostly | Somewhat | Not at all |
| Over time, this practice helps me to meet my goals. | Definitely | Mostly | Somewhat | Not at all |
| Over time, my practice helps me to stay healthy. | Definitely | Mostly | Somewhat | Not at all |

Rasch models showed a broad spread of person and item scores, acceptable statistics, and little item redundancy. Preliminary concurrent validity analyses support hypothesized associations.

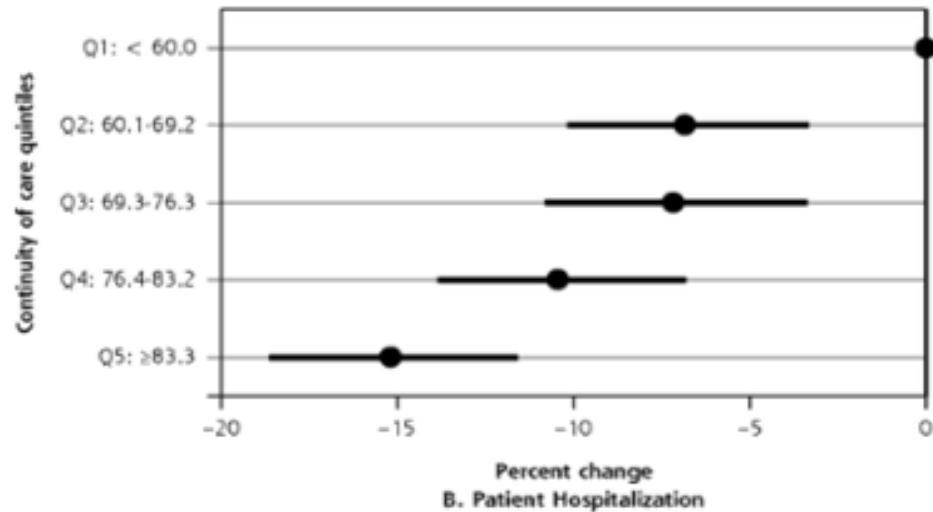
CONCLUSIONS The person-centered primary care measure reliably, comprehensively and parsimoniously assesses the aspects of care thought to represent high primary care by patients, clinicians, and payers. The measure is ready for validation and outcome analyses, and for use in focusing attention on what is about primary care, while reducing measurement burden.

| | | | | | | |
|---|--------------|------|------|--------------|------|------|
| The care I get takes into account knowledge of my family. | (1.1) | 0.70 | 0.69 | (0.8) | 0.61 | 0.55 |
| The care I get in this practice is informed by knowledge of my community. | 2.4 (1.1) | 0.70 | 0.69 | 3.2 (0.9) | 0.61 | 0.55 |
| Over time, this practice helps me to meet my goals. | 3.0 (1.0) | 0.87 | 0.84 | 3.7 (0.6) | 0.78 | 0.70 |
| Over time, my practice helps me stay healthy. | 2.8 (1.0) | 0.85 | 0.82 | 3.6 (0.6) | 0.74 | 0.65 |

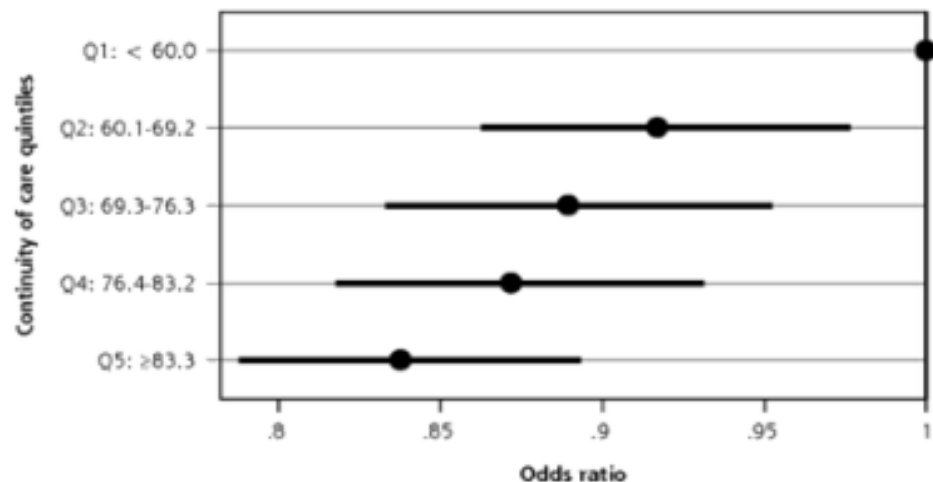
Higher Primary Care Physician Continuity is Associated With Lower Costs and Hospitalizations

doi: 10.1370/afm.2308
Ann Fam Med
November/December 2018 vol.
16 no. 6 452-457

A. Patient Total Allowed Charges



B. Patient Hospitalization



association with lower costs and utilization.

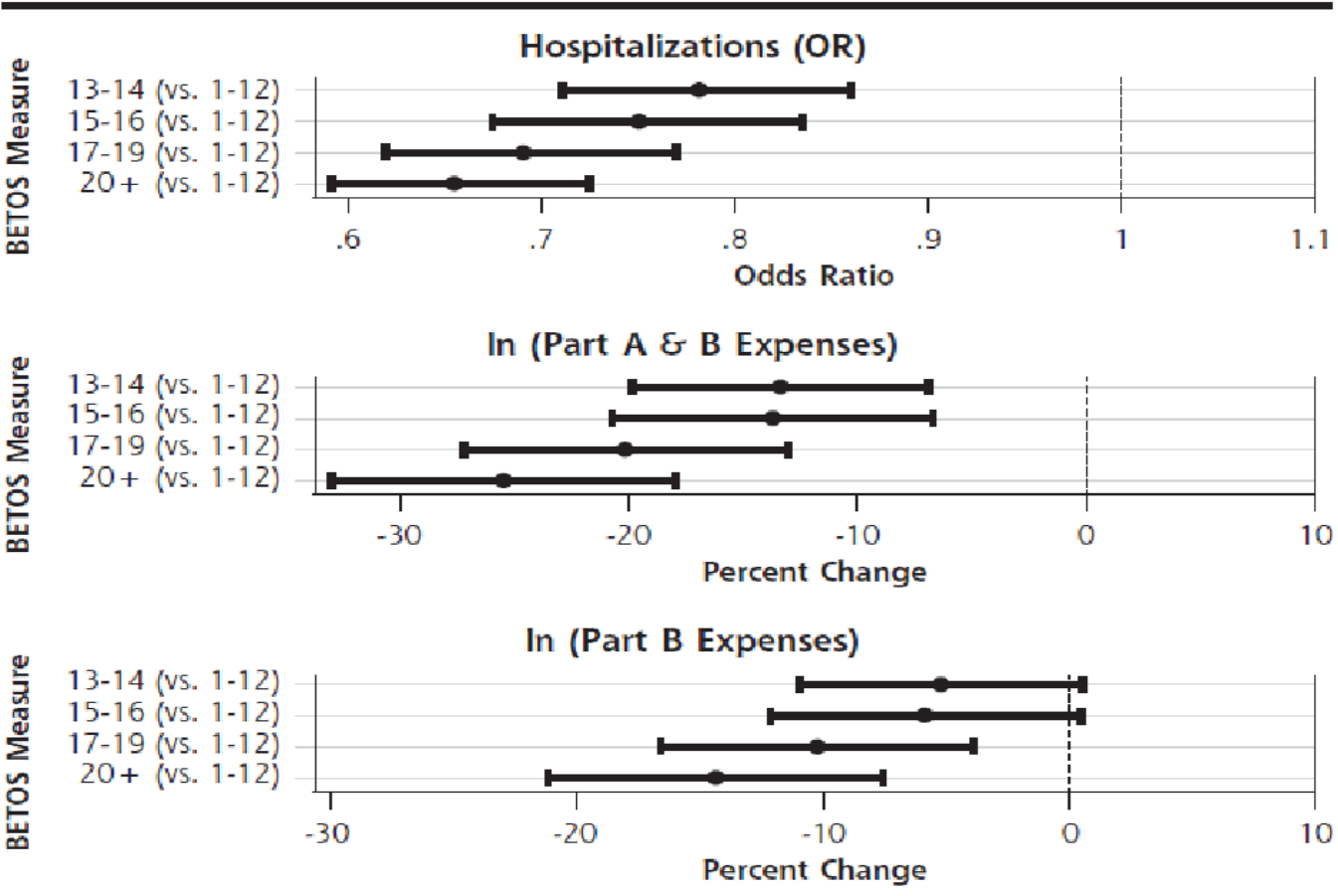
Measuring the Value- Functions of Primary Care: Provider Level Continuity Measure

15% Cost
25% Odds
↓
hospitalization

See also: BMJ 2017;356:j84
<http://dx.doi.org/10.1136/bmj.j84>

More Comprehensive Care Among Family Physicians is Associated with Lower Costs and Fewer Hospitalizations

Figure 2. Association between BETOS score and measures of hospitalization and expenses.



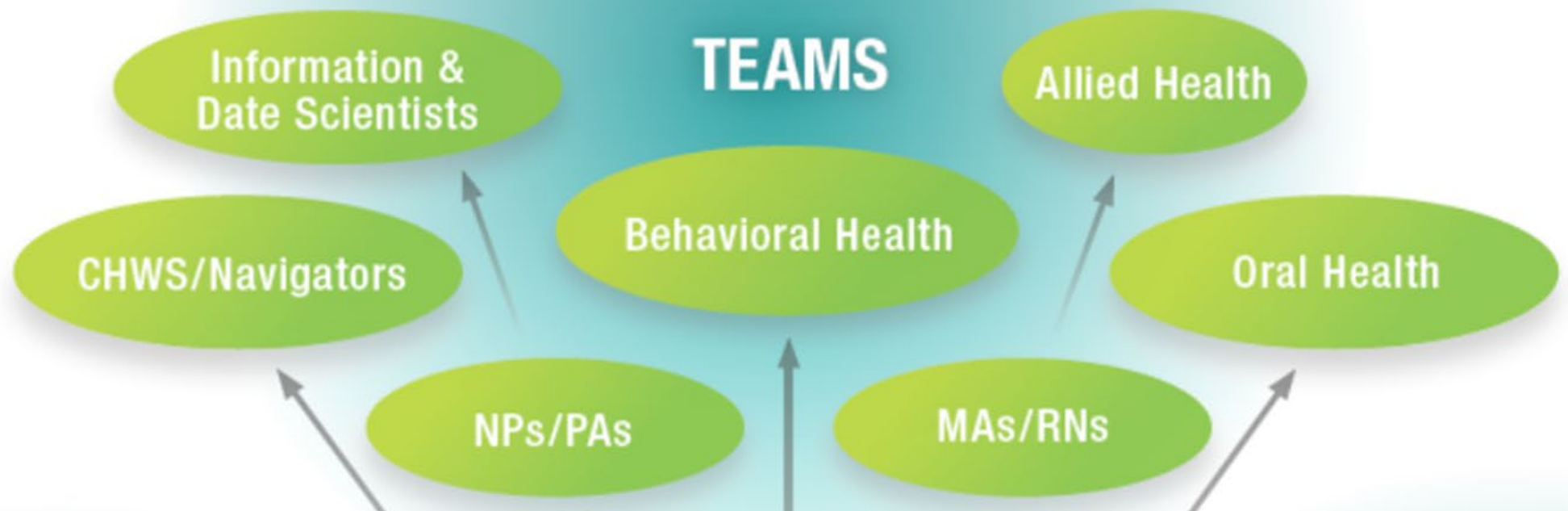
BETOS = Berenson-Eggers Type of Service; In = natural logarithm; OR = odds ratio.
2011 Medicare Claims Data; Sample consists of the full sample of family physicians (n = 3,660).
Estimates of percent change and odds ratio are adjusted for patient and physician characteristics; full model in Supplemental Appendix 1, <http://www.annfammed.org/content/13/3/206/suppl/DC1>.

Measuring the Value-Functions of Primary Care: Provider Level Comprehensive Measure

15% Cost
35% Odds
hospitalization

↓

7Cs Primary Care requires robust & effective teams



Bodenheimer: Teams & “Teamlets” the cornerstone among 10 building blocks of High Performing PC

The 10 Building Blocks of High-Performing Primary Care

Thomas Bodenheimer, MD

Amireh Ghorob, MPH

Rachel Willard-Grace, MPH

Kevin Grumbach, MD

Center for Excellence in Primary Care,
Department of Family and Community
Medicine, University of California, San
Francisco, San Francisco, California

ABSTRACT

Our experiences studying exemplar primary care practices, and our work assisting other practices to become more patient centered, led to a formulation of the essential elements of primary care, which we call the 10 building blocks of high-performing primary care. The building blocks include 4 foundational elements—engaged leadership, data-driven improvement, empanelment, and team-based care—that assist the implementation of the other 6 building blocks—patient-team partnership, population management, continuity of care, prompt access to care, comprehensiveness and care coordination, and a template of the future. The building blocks, which represent a synthesis of the innovative thinking that is transforming primary care in the United States, are both a description of existing high-performing practices and a model for improvement.

Ann Fam Med 2014;166-171. doi: 10.1370/afm.1616.

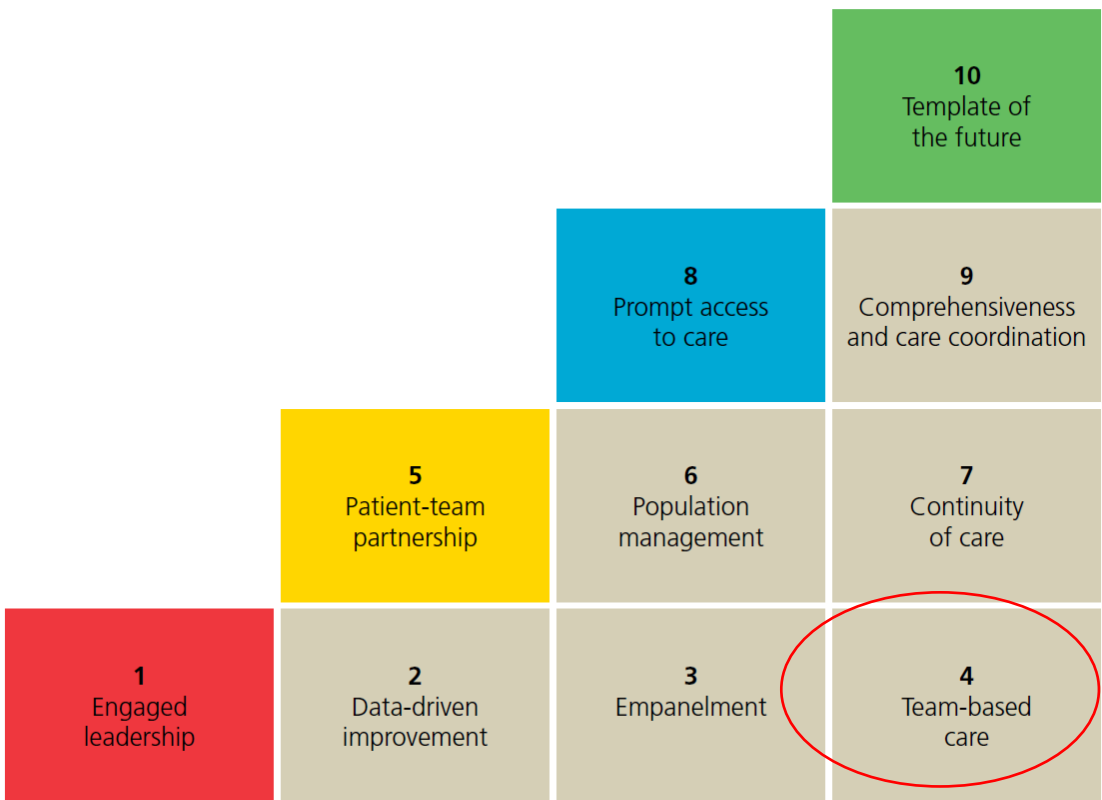
INTRODUCTION

Achieving the triple aim of health reform—better health, improved

Conceptual Model: The Building Blocks of High-Performing Primary Care

From 2009 to 2012, members of the Center for Excellence in Primary Care, University of California, San Francisco Department of Family and Community Medicine (CEPC) and colleagues performed site visits to more than 20 nonteaching primary care practices that were named by primary care experts as highly regarded practices.^{19,20} From the observations made at these practices, the CEPC team proposed the 10 Building Blocks model to describe key features of high-functioning primary care (Figure 1).

Figure 1. The 10 Building Blocks model for nonteaching clinics.



Person-Centered, Team-Based, Integrated Primary Care delivery: *Canterbury Health Pathways*

Multisectoral strategy provides resources and permission for general practice to do 'whatever it takes' supported by a rapid-response community nursing team to provide services in the community for patients who would otherwise require an emergency department (ED) attendance or acute admission

-30% less hospitalizations versus NZ baseline over 7 years

([Gullery and Hamilton, 2015](#))



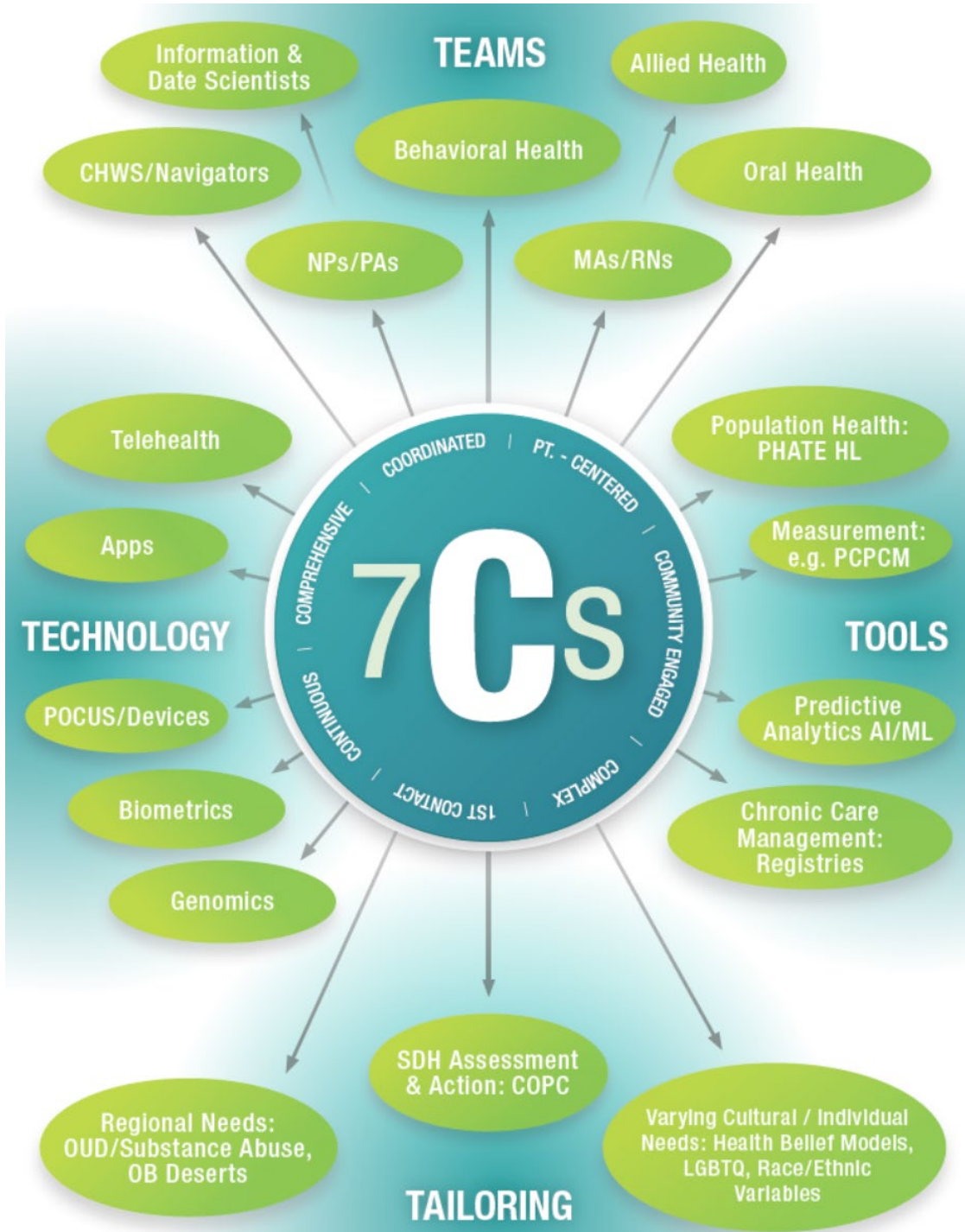
Integrated Primary Health Care in Spain

Research article | [Open Access](#) | [Published: 03 July 2020](#)

Impact of the CareWell integrated care model for older patients with multimorbidity: a quasi-experimental controlled study in the Basque *Country*

Conclusion

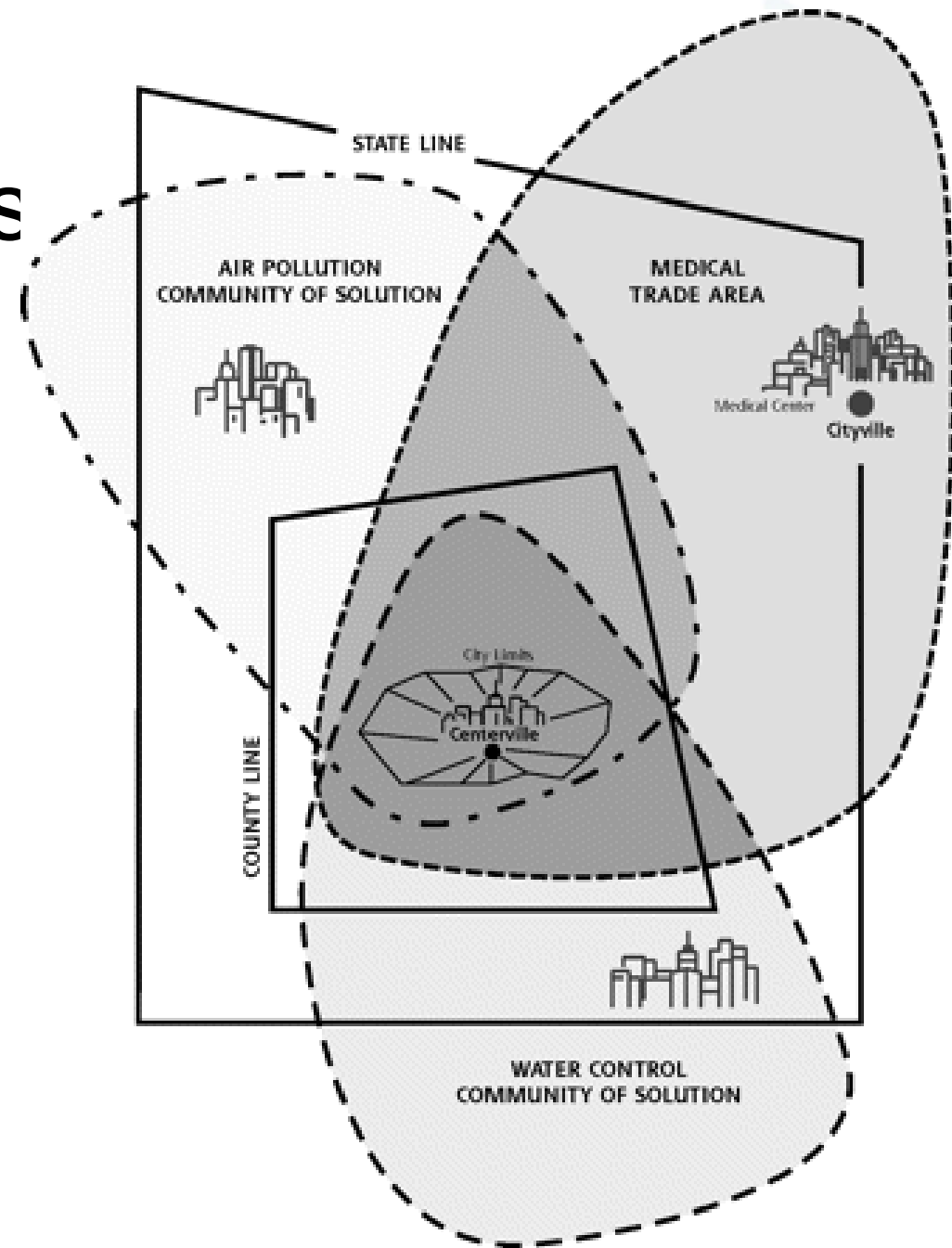
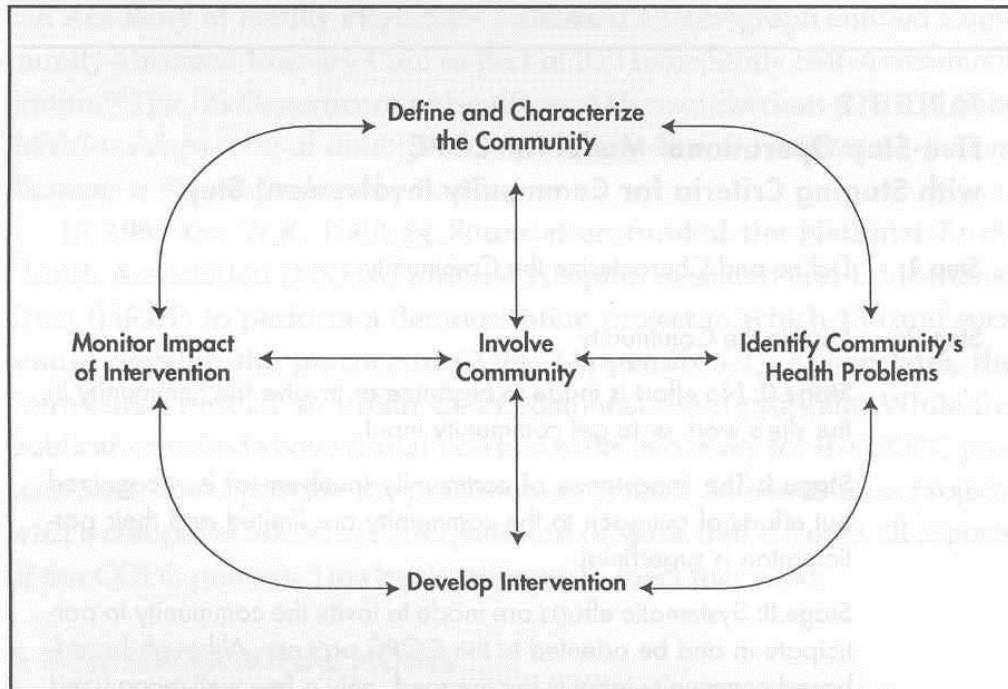
The implementation of CareWell integrated care model changed the profile of health resource utilization, strengthening the key role of primary care and reducing the number of emergency visits and hospitalizations. The satisfaction with this model of care was high.

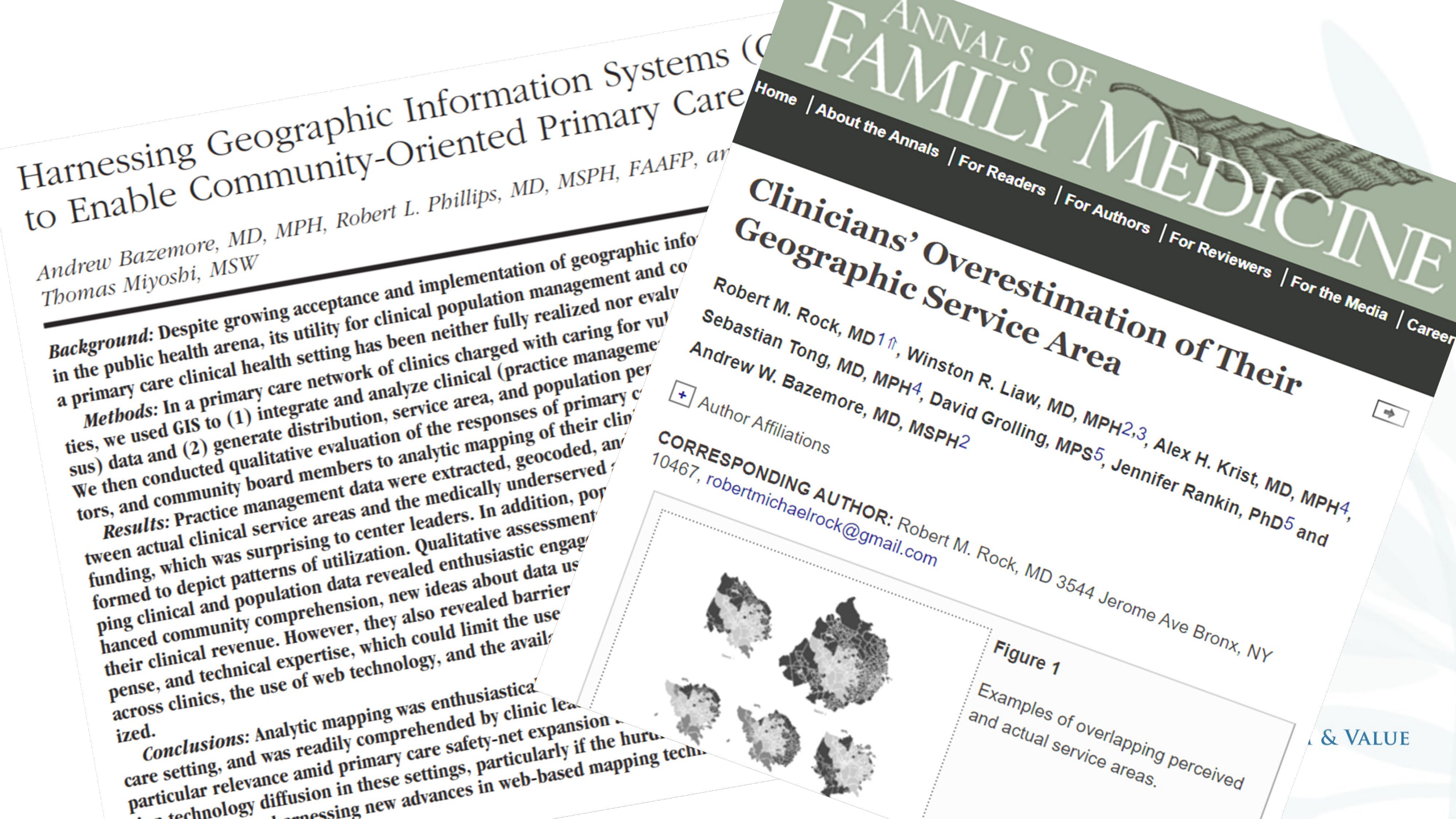


*7Cs requires
Teams enabled
by Tools &
Technology to
Tailor care to
individual &
population needs*

Revisiting old concepts in a new age of Tailoring: PC teams using COPC to identify ‘problemsheds & create “Communities of Solution”

FIGURE 1.2: The COPC Process





Clinicians' Overestimation of Their Geographic Service Area

Robert M. Rock, MD¹†, Winston R. Liaw, MD, MPH^{2,3}, Alex H. Krist, MD, MPH⁴,
Sebastian Tong, MD, MPH⁴, David Grolling, MPS⁵, Jennifer Rankin, PhD⁵ and
Andrew W. Bazemore, MD, MSPH²

✚ Author Affiliations

CORRESPONDING AUTHOR: Robert M. Rock, MD 3544 Jerome Ave Bronx, NY 10467, robertmichaelrock@gmail.com

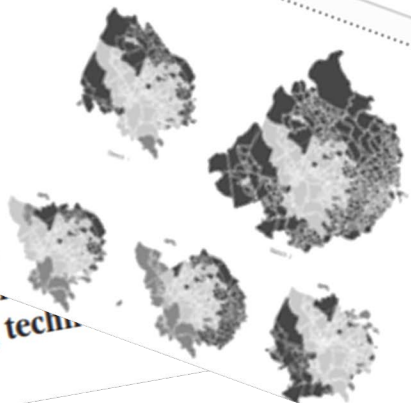


Figure 1
Examples of overlapping perceived and actual service areas.

Harnessing Geographic Information Systems to Enable Community-Oriented Primary Care

Andrew Bazemore, MD, MPH, Robert L. Phillips, MD, MSPH, FAAFP, and
Thomas Miyoshi, MSW

Background: Despite growing acceptance and implementation of geographic information in the public health arena, its utility for clinical population management and coordination of a primary care clinical health setting has been neither fully realized nor evaluated.

Methods: In a primary care network of clinics charged with caring for vulnerable populations, we used GIS to (1) integrate and analyze clinical (practice management and patient) data and (2) generate distribution of the responses of their clinicians. We then conducted qualitative evaluation of the responses of their clinicians, and community board members to analytic mapping of their clinics, service areas, and population perceived.

Results: Practice management data were extracted, geocoded, and mapped. Qualitative assessment of the responses of primary care providers and community board members revealed enthusiastic engagement with the mapping process, which was surprising to center leaders. In addition, perceived service areas and the medically underserved population were mapped. Qualitative assessment of the responses of primary care providers and community board members revealed enthusiastic engagement with the mapping process, which was surprising to center leaders. In addition, perceived service areas and the medically underserved population were mapped. Qualitative assessment of the responses of primary care providers and community board members revealed enthusiastic engagement with the mapping process, which was surprising to center leaders. In addition, perceived service areas and the medically underserved population were mapped.

Conclusions: Analytic mapping was enthusiastically received by primary care providers and community board members. The use of GIS in the primary care setting, and was readily comprehended by clinic leaders. The use of GIS in the primary care setting, and was readily comprehended by clinic leaders. The use of GIS in the primary care setting, and was readily comprehended by clinic leaders.

Integrating clinical & population data into Primary Care patient, population & panel management

“Community Vital Signs”: Incorporating geocoded social determinants into electronic records to promote patient and population health

Andrew W Bazemore¹, Erika K Cottrell^{2,3}, Rachel Gold^{2,4}, Lauren S Hughes⁵, Robert L Phillips⁶, Heather Angier³, Timothy E Burdick^{3,7}, Mark A Carrozza⁸, Jennifer E DeVoe^{2,3}

ABSTRACT

Social determinants of health significantly impact morbidity and mortality; however, physicians lack ready access to this information in patient care and population management. Just as traditional vital signs give providers a biometric assessment of any patient, “community vital signs” (Community VS) can provide an aggregated overview of the social and environmental factors impacting patient health. Knowing Community VS could inform clinical recommendations for individual patients, facilitate referrals to community services, and expand understanding of factors impacting treatment adherence and health outcomes. This information could also help care teams target disease prevention initiatives and other health improvement efforts for clinic panels and populations. Given the proliferation of big data, geospatial technologies, and democratization of data, the time has come to integrate Community VS into the electronic health record (EHR). Here, the authors describe (i) historical precedent for this concept, (ii) opportunities upon these historical foundations, and (iii) a novel approach to EHR integration.

RECEIVED 6 January 2015
REVISED 6 May 2015
ACCEPTED 26 May 2015



OXFORD
UNIVERSITY PRESS

SM & VALUE
E

PRIME & PHATE

PRIME REGISTRY™

Improving America's Health



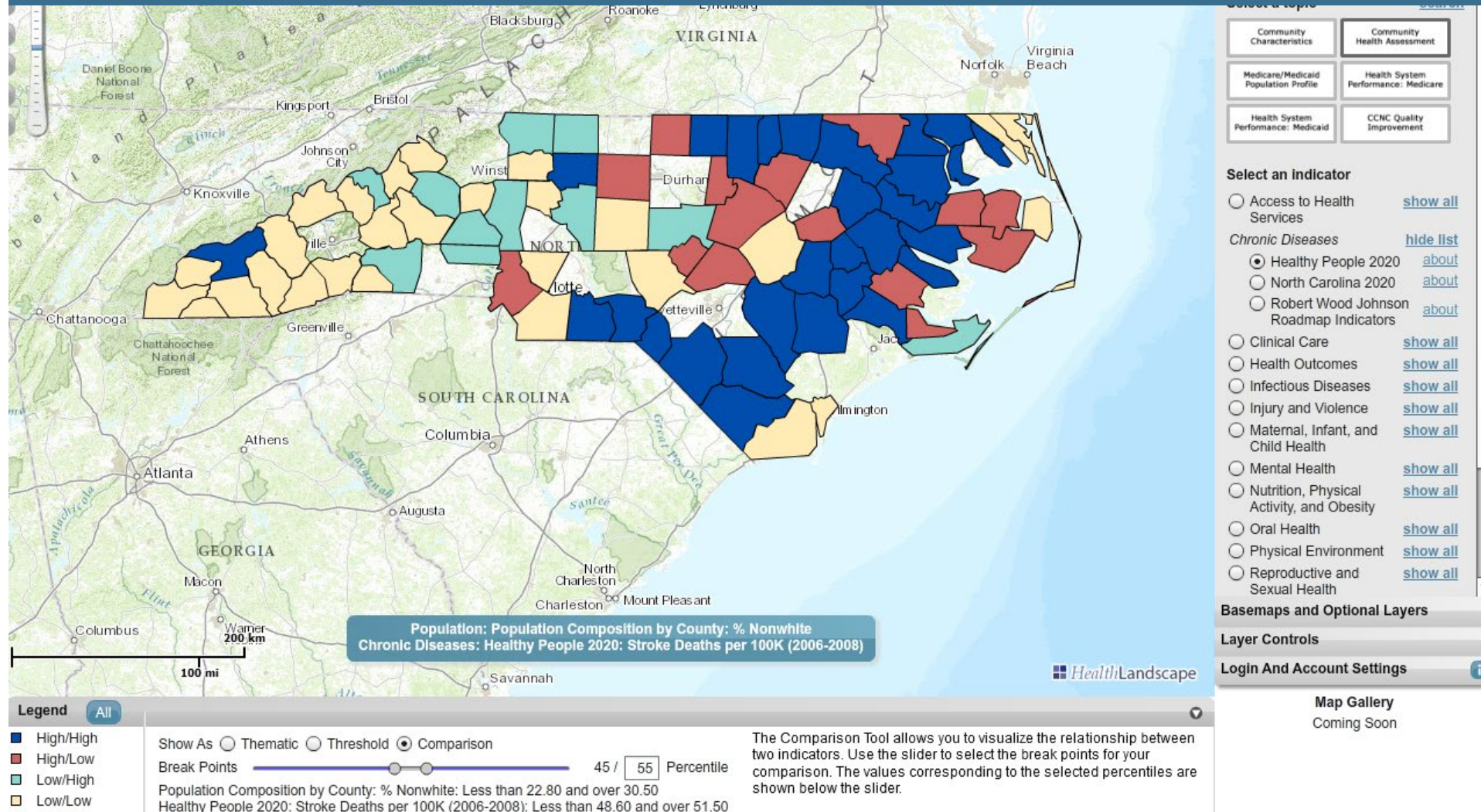
KEY ENABLERS

Healthcare IT and data infrastructure, manpower and financing policy are key enablers to allow the healthcare clusters, family doctors and community partners to serve residents better.

P H A T E

PHATE™ The Population Health Assessment Engine

Data Support, 'Detailing', & tools to recognize and address Hotspots, and 'Coldspots'



Post pandemic :

*Unique
opportunity to
implement
7Cs PHC*





Thoughts, Comments & Questions welcomed