

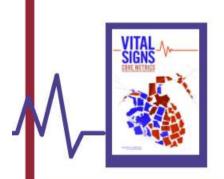
# **Vital Signs Core Metrics:**

Learning from the California Demonstration Project

## WEBINAR JUNE 16, 2017 | 12:00-1:30 PM ET



#NAMVitalSigns | @theNAMedicine



nam.edu/VitalSigns



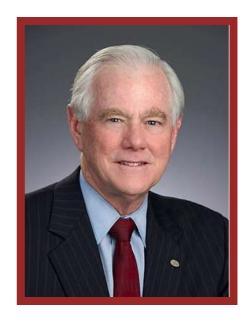


## **AGENDA**

12:00 PM	Welcome & Introductions: Population Health Vital Signs
	Michael McGinnis, National Academy of Medicine Claire Wang, National Academy of Medicine
12:15 PM	The California Vital Signs Demonstration Project
	Steven Teutsch & Sue Grinnell, Public Health Institute Krista Hanni, Monterey County Health Department Genoveva Islas, Cultiva La Salud, Fresno, CA
12:45 PM	Reactions and Next Steps
	Peter Long, Blue Shield California Foundation Elizabeth Mitchell, Network for Regional Healthcare Improvement Alina Baciu, NASEM, Roundtable on Population Health Improvement
1:05	Audience Q&A
1:30	Adjourn
AMVitalSigns	







## **NAM Leadership Consortium**

# Vital Directions for Health and Health Care

J. Michael McGinnis, MD, MPP
Leonard D. Schaeffer Executive Director
National Academy of Medicine





# Vital Directions for Health & Health Care





- 18 months of collective review, analysis, and deliberation
- Core goals:
  - Better health and well-being
  - High-value health care
  - Strong science and technology
- Commissioned 150+ experts to write 19 discussion papers

nam.edu/VitalDirections



#### JAMA | Special Communication

## Vital Directions for Health and Health Care Priorities From a National Academy of Medicine Initiative

Victor J. Dzau, MD; Mark B. McClellan, MD, PhD; J. Michael McGinnis, MD, MPP; Sheila P. Burke, MPA, RN; Molly J. Coye, MD, MPH; Angela Diaz, MD, MPH; Thomas A. Daschle, BA; William H. Frist, MD; Martha Gaines, JD, LLM; Margaret A. Hamburg, MD; Jane E. Henney, MD; Shiriki Kumanyika, PhD, MPH; Michael O. Leavitt, BA; Ruth M. Parker, MD; Lewis G. Sandy, MD; Leonard D. Schaeffer, BA; Glenn D. Steele Jr, MD, PhD; Pamela Thompson, MS, RN; Elias Zerhouni, MD

IMPORTANCE Recent discussion has focused on questions related to the repeal and replacement of portions of the Affordable Care Act (ACA). However, issues central to the future of health and health care in the United States transcend the ACA provisions receiving the greatest attention. Initiatives directed to certain strategic and infrastructure priorities are vital to achieve better health at lower cost.

**OBJECTIVES** To review the most salient health challenges and opportunities facing the United States, to identify practical and achievable priorities essential to health progress, and to present policy initiatives critical to the nation's health and fiscal integrity.

**EVIDENCE REVIEW** Qualitative synthesis of 19 National Academy of Medicine-commissioned white papers, with supplemental review and analysis of publicly available data and published research findings.

nam.edu/VitalDirections





**Editorial** 



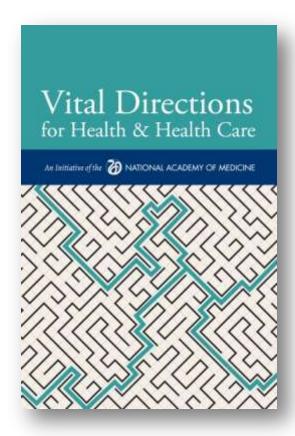
## **Eight Priorities**

#### **ACTION PRIORITIES**

- Pay for value
- > Empower people
- Activate communities
- Connect care

#### **ESSENTIAL INFRASTRUCTURE NEEDS**

- Measure what matters most
- Modernize skills
- Accelerate real-world evidence
- Advance science



nam.edu/VitalDirections







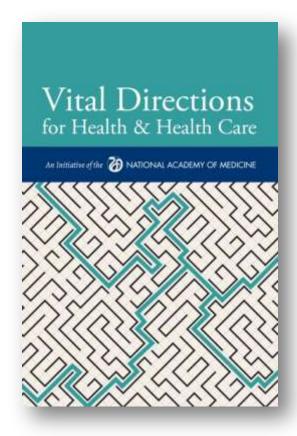
## **Eight Priorities**

#### **ACTION PRIORITIES**

- Pay for value
- > Empower people
- Activate communities
- Connect care

#### **ESSENTIAL INFRASTRUCTURE NEEDS**

- Measure what matters most
- Modernize skills
- Accelerate real-world evidence
- Advance science



nam.edu/VitalDirections



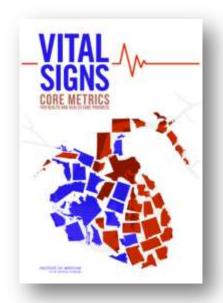






Y. Claire Wang, MD, ScD
Senior Program Advisor
National Academy of Medicine

# Overview of the NAM Vital Signs Initiative









#### **Study Committee**

DAVID BLUMENTHAL (Chair), The Commonwealth Fund

JULIE BYNUM, The Dartmouth Institute

LORI COYNER, Oregon Health Authority

DIANA DOOLEY, California Health and Human Services

TIMOTHY FERRIS, Partners HealthCare

SHERRY GLIED, New York University

LARRY GREEN, University of Colorado at Denver

GEORGE ISHAM, HealthPartners

CRAIG JONES, Vermont Blueprint for Health

ROBERT KOCHER, Venrock

KEVIN LARSEN, Office of the National Coordinator for HIT

ELIZABETH McGLYNN, Kaiser Permanente

ELIZABETH MITCHELL, Network for Regional Health Improvement

SALLY OKUN, PatientsLikeMe

LYN PAGET, Health Policy Partners

**KYU RHEE, IBM Corporation** 

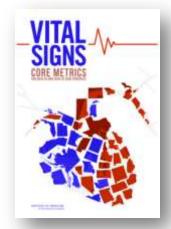
DANA GELB SAFRAN, Blue Cross Blue Shield of Massachusetts

LEWIS SANDY, UnitedHealth Group

DAVID STEVENS, National Association of Community Health Centers

PAUL TANG, Palo Alto Medical Foundation

STEVEN TEUTSCH, Los Angeles County Department of Public Health











### Vital Signs: Core Metrics aims to:

Provide a streamlined set of measures as consistent benchmarks for health progress across the nation and improve system performance in the highest priority areas.

### Rationale:

- Sharpening Focus
- Enhancing Consistency
- Reducing Burden







Domain Key Element		in Key Element Core Measure Focus		Best Current Measure
Healthy people	Length of life		Life expectancy	Life expectancy at birth
	Quality of life		Wellbeing	Self-reported health
	Healthy behaviors		Overweight and obesity	Body mass index
			Addictive behavior	Addiction deathrate
			Unintended pregnancy	Teen pregnancy rate
1	Healthy social circumstances		Healthy communities	High school graduation rate
Care quality	Prevention	PRESENTATE SERVICES	Preventive services	Childhood immunization rate
	Access to care	CHE NUMEZ	Care access	Unmet care need
	Safe care		Patient safety	Hospital acquired infection rate
	Appropriate treatment		Evidence- based care	Preventable hospitalization rate
	Person- centered care		Care match with patient goals	Patient-clinician communication satisfaction
Care cost	Affordability		Personal spending burden	High spending relative to income
	Sustainability		Population spending burden	Per capita expenditures on health care
Engaged people	Individual engagement		Individual engagement	Health literacy rate
	Community engagement		Community engagement	Social support



#### Core Measure Set with Related Priority Measures



#### 1. Life expectancy Infant mortality Maternal mortality Violence and injury mortality



# 2. Well-being Multiple chronic conditions Depression



3. Overweight and obesity Activity levels Healthy eating patterns



4. Addictive behavior Tobacco use

Drug dependence/illicit use Alcohol dependence/ misuse



#### Unintended pregnancy Contraceptive use



#### 6. Healthy communities

Childhood poverty rate Childhood asthma Air quality index Drinking water quality index



#### 7. Preventive services

Influenza immunization Colorectal cancer screening Breast cancer screening



#### 8. Care access

Usual source of care Delay of needed care



#### 9. Patient safety

Wrong-site surgery Pressure ulcers Medication reconciliation



#### 10. Evidence-based care

Cardiovascular risk reduction Hypertension control Diabetes control composite Heart attack therapy protocol Stroke therapy protocol Unnecessary care



## 11. Care match with patient goals

Patient experience Shared decision making End-of-life/advanced care planning



#### 12. Personal spending burden

Health care-related bankruptcies



#### Population spending burden

Total cost of care Health care spending growth



#### 14. Individual engagement

Involvement in health initiatives



## 15. Community engagement

Availability of healthy food Walkability Community health benefit agenda



Learn more at nam.edu/VitalSigns

composite





### Implementation: Putting the Vital Signs to Use

#### **Practical Applications**

Measure Progress

**Recognize Shortfalls** 

**Enhance Public Awareness** 

**Sharpen Focus** 

Improve Accountability

Foster Data Linkages

**Facilitate Informed Patient Choice** 

**Ongoing Activities** 

**Refine Core Metrics Towards V2.0** 

**Build Vital Signs User Resources** 

**Expand Network & Partnerships** 

**Cultivate Demonstration Projects** 





# Pilot Implementation of the Vital Signs Metrics in Two Communities



Steve Teutsch
Public Health Institute



**Sue Grinnell**Public Health Institute



Krista Hanni Monterey County Health Department



**Genoveva Islas**Cultiva La Salud
Fresno County

Sponsor: blue of california foundation



# **Project Goal**

Demonstrate the feasibility and the usefulness of implementing the *Vital Signs: Core Metrics* in communities



# **Project Aims**

- Provide greater specificity for each of the metrics
- Demonstrate that the Vital Signs can be implemented at the local level
- Build an attractive user interface
- Assess the usefulness of the Vital Signs at the local level, particularly in regard to improving population health
- Assess the feasibility of implementing the Vital Signs in other communities

## Two Sites Selected Based on:

- 1) Their current ability to collect and use metrics, including their engagement in related population health activities,
- 2) Representativeness of different types of community, e.g., urban or rural,
- 3) Geographic and ethnic diversity,
- 4) Pre-existing group or collaborative that has experience working together, and
- 5) Current engagement of PHI staff in the community



## **Identified Two California Communities**

- Cultiva de Salud in Fresno
- Monterey County Health Department





# Implementation Process

- Conducted stakeholder interviews
- Orientation to the metrics and process intent
- 2 convenings at each site with a facilitator and graphic facilitator
- Each site received a small stipend



## Data Collection and Presentation

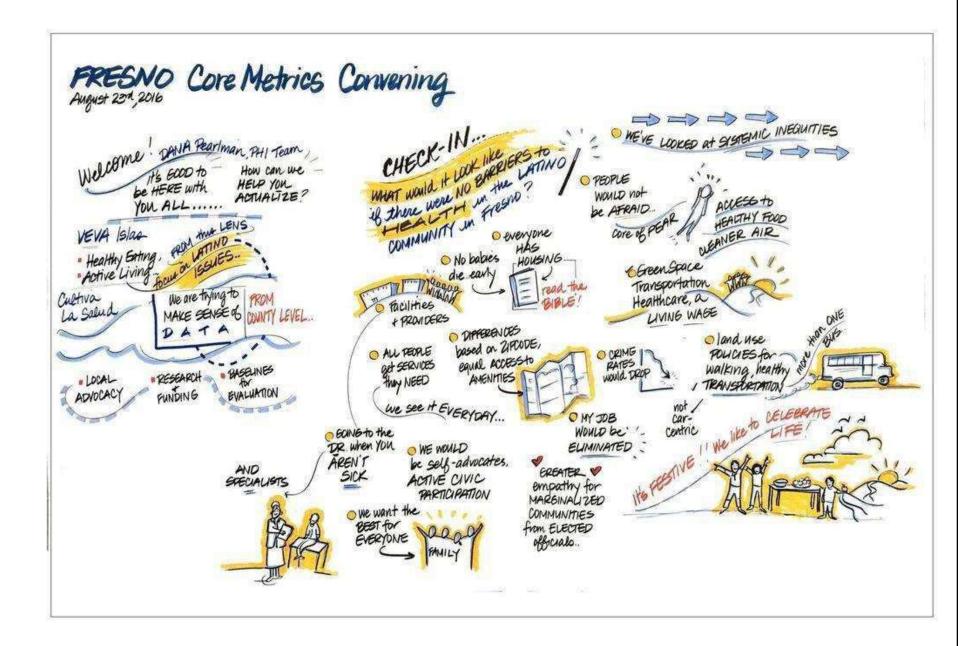
- Identified metrics that were available as similar to the Vital Signs as possible
- Supported the 2 sites in identifying and collecting data for one important measure outside of the core Vital Signs set
  - Safety Monterey
  - Transportation Fresno
- Working with each community, created LiveStories websites for the site to present the data, explain the findings, and discuss next steps



# **Data Compilation**

- 14 of the 15 Core Metrics indicators available at the county level
  - 12 of the 14 were identical to those included in the National Academy's report.
  - For the 2 that were not identical, we used proxies:
    - Social support –voter turnout
    - Health literacy –English language literacy
  - Missing: High spending relative to income
- Indicators were collected for all California counties





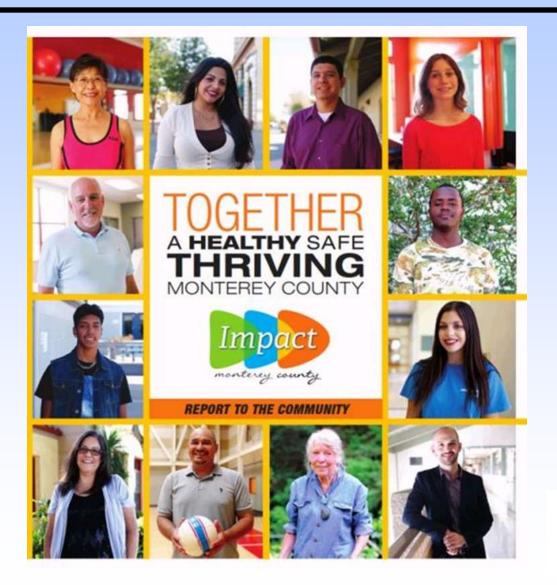


The indicators were chosen because they have "the greatest potential to have a positive effect on the health and well-being of the population and each individual within it, now and in the years to come."



Para ver este sitio web en

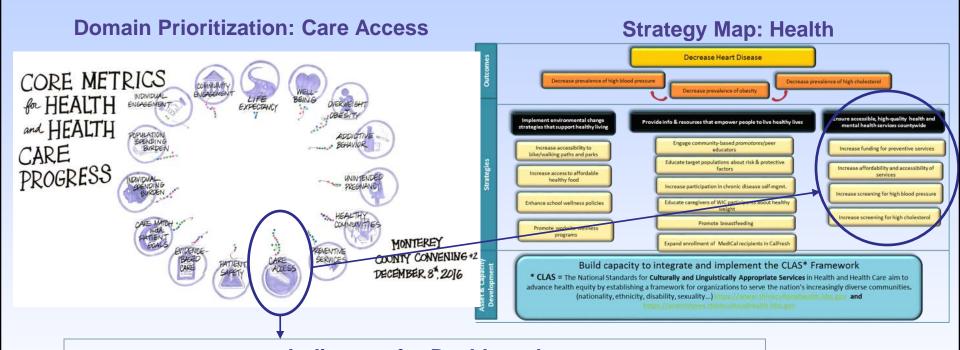
# **Monterey County Vision**





# **Core Metrics Supports**

## Community Input to Strategy Maps to Dashboards to Action



Indicators for Dashboard (Source: California Health Interview Survey)						
Had to forgo needed medical care? 2013 2015						
No	25%	49%				
Has/had high blood pressure?						
Yes	67%	72%				



# **Bonus: Adding New Partners**





DSS-Roadmap to Well-Being Monterey Salinas Healthcare Monterey County Gang Collaborative (diabetes Violence Prevention Initiative Centers & providers) Movitarey County HIV Community Alliance For Planning Group Safety + Peace Girls' Health In Girls' Hands 4 Cities For Pleace (ajiri leadership development) STRYVE School Climate Transformation Leadership Team (MCDE) GAP: No Collaborative around recent prison/jull releases + ABID9 PESOURCES, PAROLE, PROBATION 2000 CCP - ABI09 + 1170(h)

Blue Ribbo Panel





# **Cultivating Health Equity**

- Who are we?
- Who are we engaging?
- Why Core Metrics is important to us?
  - Baseline data for Evaluation
  - Data for advocacy, i.e. indicators for advancing active transportation.
  - Data for planning future work i.e. funding.



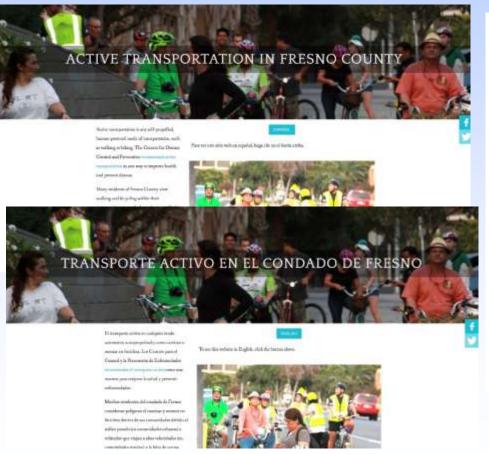






# **Transportation Equity**

#### **Live Stories**



### **Fresno Active Transportation Plan**

		10 0	Active Transportation Project Prioritization 1	fool	V. V.			
L	Variables	Score	Description	Present Project Name)	(Preset Project Name)	(Decart Project Harrel)		
coe	es and Squity			Project Score	Propert Store	Project Scott		
			Project addresses an acceptability sometiant from a person with a disability					
					Bed with the office of the ADA Coordinator. Project addressed multiple extering bettern to excess libertified by the City of Presency ADA Transition From the the Public Right of Way or conformed by the			
an.	Accountability		ADM Coordinator.  Project analysis a single existing terms to excess identified by the City of Precioin ADM. Transition Plan for the Public Rigid of May or sertlened by the IADA Coordinator.					
			SADA COORDINATOR		U J	l		
The second secon		17.7	Project is contact within severally disconnictages common tracts as quieterment by the Californic over two papers that this 50 to 100 percentile stepps. Project is sourced within Statementaged contact that is addressed by the Californic over that shows that the 51 to 45 percentile range.					
		1	Proper is received will be 10' with radius of standard agest cereaus tracts on determined by the Colforoni Scheen tool.					
_			Project does not previde direct expense to disselventaged community.					
200	Constantly (decided		comflect as a high priority in the Active Transportation Plan. Seeming projects on behalf of the community Strongly events such as Francis and CT CTIL, community patients, expends to CTIL SEET and Creates.  Alternation and community specificons, expends to CTIL SEET and Creates.					
**	Printly	3	Plaqueded as part of a community prairing process or adopted plan in the last it years.  Turn dentified from prior community of arring process or the last it years or it.					
		1	stantified as a line priority to the Autora Transportation Plan.		3			
44	West's Ownership		The percent of households with zero externables in the project uses in a SPA.					
		1	The percent of Facusariolotic with year automobiles in the project ease is < 50%.					
	Total		Total					
ates	activity:			Project Store	Project Store	Project Scient		
g,i	Commutaty to	1	File a nebook gap believen any het existing blyde or pedestion facilitat. Conserts with new acading beginn or pedestion facility.					
	Kataling Network		Provides no operactions to existing bicycle or pretentian facilities of its introductory against to existing and equivalent alternative path of travel.					
		11	Provided direct access to two or more K-12 schools within 14 relax satisfies of the project.  Provided direct access to one K-12 acheol within 14 relax satisfies of the		i i			
	Commentedly to Schools		propert  Provides direct across in two or more \$12 billioning within 10 other makes of the project.					
			Phonistic direct access to one 6-12 school within 1/2 mile failbus of the graphs.  Date mili provide access to a 6-12 school.					
	Contractively by Public		Located within 100 rate of public transportation traveling PAX. Assets					
0-0	Transf	+	Dephoses or high Speed Reli station. These not private descriptions to paste name.					



# Data Compilation: Healthy People

	National ?	State?	County?	Sub- County?
Self-reported health	Yes	Yes	Yes	Yes
Body mass index	Yes	Yes	Yes	Yes
Life expectancy	Yes	Yes	Yes	No
High school graduation rate	Yes	Yes	Yes	Yes
Addiction death rate	Yes	Yes	Yes	No
Teen pregnancy	Yes	Yes	Yes	No



# Data Compilation: Care Quality

	National ?	State?	County?	Sub- County?
Childhood immunization rates	Yes	Yes	Yes	Yes
Unmet care need	Yes	Yes	Yes	No
Hospital-acquired infection rate	Yes	Yes	Yes	Yes
Preventable hospitalization rate	Yes	Yes	Yes	No
Patient-clinician communication	Yes	Yes	Yes	No



# Data Compilation: Care Cost

	National ?	State?	County?	Sub- County?
High spending relative to income	Yes	No	No	No
Per capita expenditures on healthcare	Yes	Yes	Yes	No



# Data Compilation: Engaged People

	National ?	State?	County?	Sub- County?
Health literacy	Yes	No	No	No
Social support	Yes	No	No	No



# Live Stories Sites (English)

- Fresno : <a href="http://bit.ly/2rCmhsB">http://bit.ly/2rCmhsB</a>
- Fresno Active Transportation: <a href="http://bit.ly/2rWuYi8">http://bit.ly/2rWuYi8</a>
- Monterey: <a href="http://bit.ly/2rWtW5E">http://bit.ly/2rWtW5E</a>



# Summary

- The Vital Signs data can be obtained
- Providing the data centrally allows communities to focus on using data, not collecting it
- Communities have existing data processes in place
  - Letting go of all that data is hard
- Telling stories with the community adds meaning and value





## **Reaction Panel**











Peter Long, PhD

President and CEO
Blue Shield of California Foundation









#### **Elizabeth Mitchell**

President and CEO
Network for Regional Healthcare Improvement



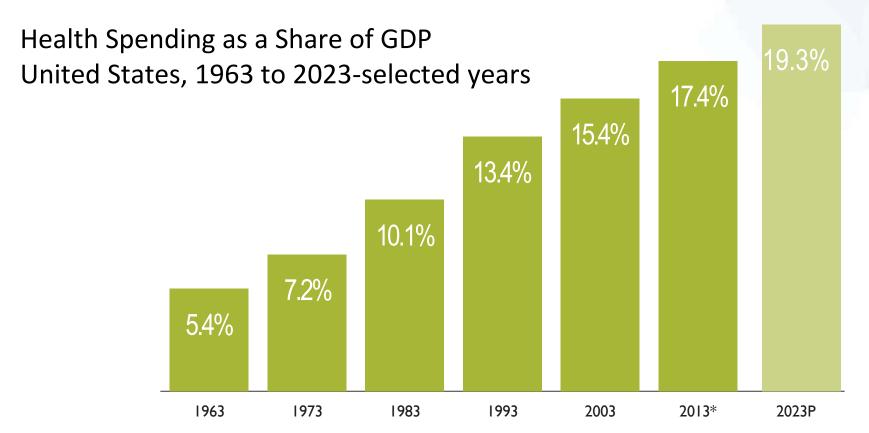




#### Power of Regional Data for Common Measurement

Elizabeth Mitchell, President & CEO
Network for Regional Healthcare Improvement

#### We have a problem



\*2013 figure reflects a 3.1% increase in gross domestic product (GDP) and a 3.6% increase in national health spending over the prior year. See page 27 for a comparison of economic growth and health spending growth.

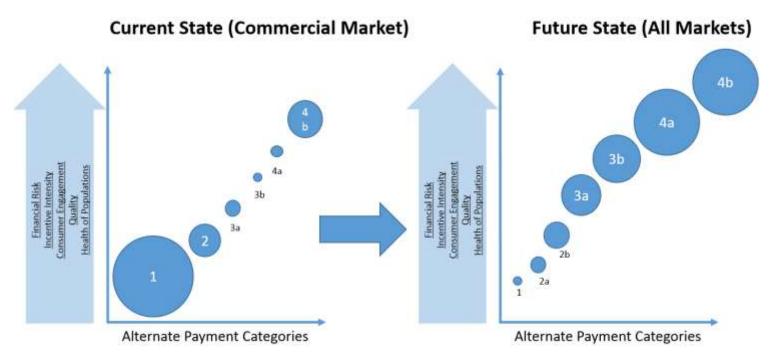
Notes: Health spending refers to national health expenditures. Projections shown as P.

Source: "National Health Expenditure Data," Centers for Medicare & Medicaid Services (CMS), 2014 (historical) and 2015 (projections), <a href="https://www.cms.gov">www.cms.gov</a>.

© 2015 CALIFORNIA HEALTHCARE FOUNDATION

# Over time, the desire is to influence a shift in payment models to Categories 3 and 4

<u>Conceptual</u> diagram of the desired shift in payment model application given the current state of the commercial market\*



Note:

- Size of "bubble" indicates overall investment in each category of APM
- Over time, APMs will move up the Y-axis and there will be more investment in the higher categories



# From FFS to PBP: Some Changes Required

- New measures quality and cost
- New shared data infrastructure
- New incentives
- Transparency
- Alignment across payers
- New care models
- New community partners
- New relationships



# What GAO Found

- 5% of measures used by commercial plans were common
- Physician practices spend 785+ hours per physician per year on quality measurement
- Average annual cost of quality measurement per physician is \$40,000+

Factors Driving Misalignment of Health Care Quality Measures			
Factor	Description		
Dispersed decision-making	Among public and private payers and other stakeholders, each entity independently decides which quality measures it will use and which specifications should apply to those measures.		
Variation in data collection and reporting systems	Payers may choose different measures, modify existing measures, or leave details about measure specifications up to providers in order to accommodate differences in data that providers collect and the systems they use to collect these data.		
Few meaningful measures	Although hundreds of quality measures have been developed, relatively few are measures that payers, providers, and other stakeholders agree to adopt, because few are viewed as leading to meaningful improvements in quality.		

Source: GAO interviews with Department of Health and Human Services officials and experts. | GAO-17-5

## Background: Total Cost of Care





**Getting to Affordability** 

#### REGIONAL COMMITMENT. NATIONAL IMPACT.



The initiative was piloted by NRHI and RHICs in five regions. Their success led to the expansion to nine additional regions over the course of the project.

#### Pilot RHICs

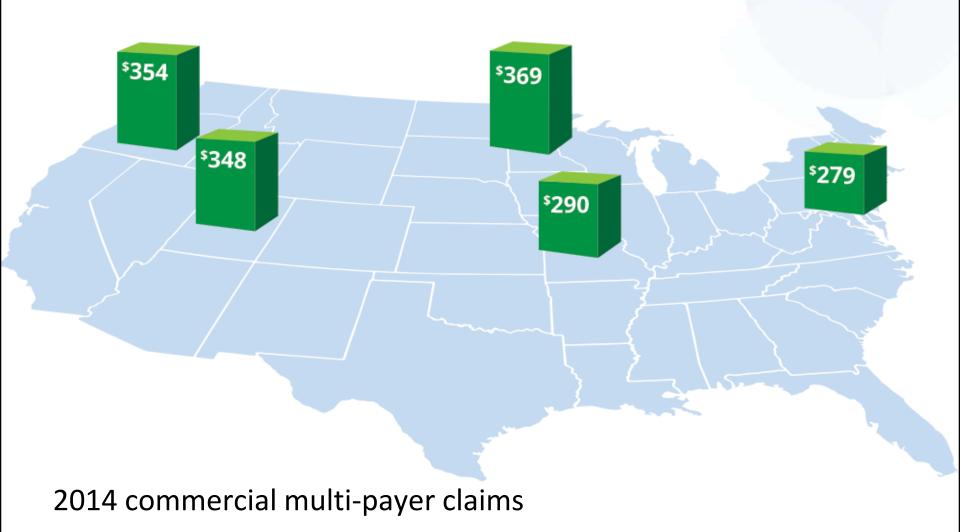
**Expansion Regions** 

Center for Improving Value in Health Care | Colorado Maine Health Management Coalition | Maine\* Midwest Health Initiative | St. Louis, Missouri Minnesota Community Measurement | Minnesota Oregon Health Care Quality Corporation | Oregon

HealthInsight Utah | Utah Health Care Improvement Foundation | Philadelphia The Health Collaborative | Ohio Maryland Health Care Commission | Maryland Massachusetts Health Quality Partners | Massachusetts The University of Texas Health Science Center at Houston | Texas Virginia Health Information | Virginia Washington Health Alliance | Washington Wisconsin Health Information Organization | Wisconsin

<sup>\*</sup>Phase I and II only participant

#### We now have some information!



# Variation **Exists**

#### Total Cost Index and Resource Use Index:

Commercial Population 2014
Combined Attributed and Unattributed

Measure	<b>H</b> Utah	<b>MHCC</b> Maryland	<b>MHI</b> St. Louis, MO	<b>MNCM</b> Minnesota	<b>Q CORP</b> Oregon
<b>Risk Adjusted Total PMPM</b> Per Member Per Month	\$348	<sup>\$</sup> 279	<sup>\$</sup> 290	\$369	<sup>\$</sup> 354
<b>TCI</b> Price x Utilization	1.07	0.86	0.89	1.13	1.09
<b>RUI</b> Utilization	1.08	0.88	1.08	1.05	0.93
<b>PI</b> Price Index	0.99	0.97	0.82	1.08	1.17

This work is based on the patented algorithm of HealthPartners, Inc. (Bloomington, MN) and is used with their permission

# What's driving the variation?

#### **Components of Medical Cost**

Commercial Population 2014
Combined Attributed and Unattributed

Measure	<b>H</b> Utah	<b>MHCC</b> Maryland	MHI St.Louis, MO	MNCM Minnesota	<b>Q CORP</b> Oregon
TCI					
Overall	1.07	0.86	0.89	1.13	1.09
Inpatient	1.45	0.62	0.82	1.12	1.08
Outpatient	1.15	0.67	0.97	1.09	1.17
Professional	0.94	0.90	0.76	1.26	1.16
Pharmacy	0.91	1.16	1.09	0.95	0.86
RUI					
Overall	1.08	0.88	1.08	1.05	0.93
Inpatient	1.57	0.63	1.03	1.01	0.85
Outpatient	1.21	0.52	1.25	1.07	0.99
Professional	0.93	1.05	0.96	1.07	0.97
Pharmacy	0.93	1.14	0.96	1.06	0.88
Price Index					
Overall	0.99	0.97	0.82	1.08	1.17
Inpatient	0.93	0.98	0.79	1.11	1.27
Outpatient	0.95	1.28	0.77	1.02	1.18
Professional	1.01	0.86	0.79	1.18	1.19
Pharmacy	0.98	1.02	1.13	0.89	0.98

This work is based on the patented algorithm of HealthPartners, Inc. (Bloomington, MN) and is used with their permission

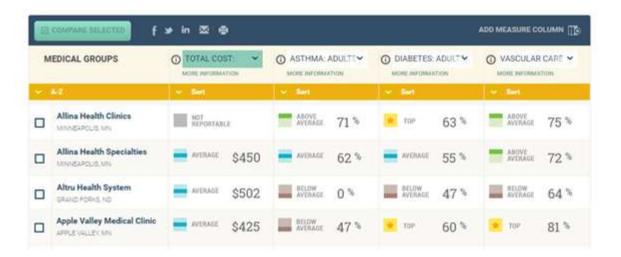
# Key Take-Aways

- Standardization enables data transparency across regions
- Standardized data cleaning can be replicated and spread
- Barriers open up stakeholder dialog leading to solutions
- This information enables stakeholders to change the way they participate in the marketplace
  - Employer/Purchasers
  - Healthcare Providers
  - Policymakers
  - Health Plans

47 NRH

# Local Benchmarking & Public Reporting







## Primary Care Practice Report



Raw PMPM	Adj PMPM*	PMPM	TCI
\$82	\$77	\$98	0.78
\$175	\$164	\$196	0.84
\$152	\$142	\$146	0.97
\$94	\$88	\$93	0.94
\$503	\$470	\$53 <i>3</i>	0.88

Practice

BM<sup>2</sup>



<sup>2</sup> BM = Peer Benchmark

Note: Retrospective Risk Score for Practice = 1.07

Displayed as an index to protect information while being transparent with relative performance.

Inpatient Fac.

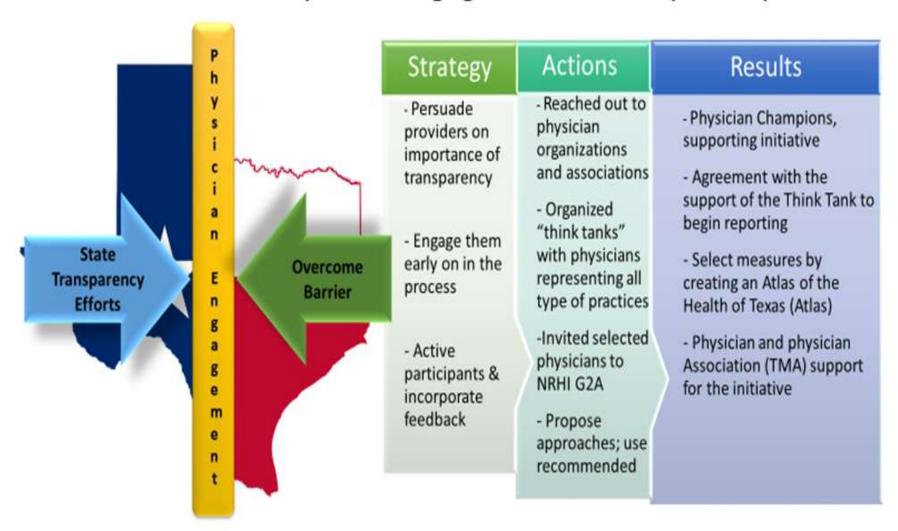
Professional

Pharmacy

Overall

Outpatient Fac.

#### The Barrier: Physician Engagement in Transparency



## **Leveraging Stakeholder Shared Interests**

How Physicians
Think Employers
are Going to
Respond to Cost
Data





How Employers
Actually Respond
to Cost Data



## Challenges

- Too many, unaligned cost measures adds to the measure noise and inaction
- Obtaining permission to utilize actual health plan and member allowed amounts
- Harmonizing data from multiple sources
- Common risk adjustment for comparative purposes
- Resources and leadership

52

# How We Did It

- Facilitate community dialog at a common, neutral table
- Data flows at the speed of trust
- Standardize where necessary; customize for local utilization
- Leverage local market intelligence and expertise
- Collaboration across regions to spread best practices
- Central leadership and support
- Clean data at the level necessary to be fit for purpose
- Philanthropic support

#### **NRHI** Membership

Integrated Healthcare Association - California



State/Regional Affiliated Partner

6/16/2017





#### Alina Baciu, MPH, PhD

Senior Program Officer & Director of Roundtable on Population Health Improvement National Academies of Sciences, Engineering & Medicine



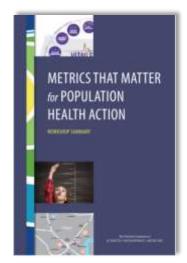


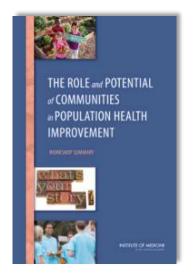
# **Metrics Beyond Health Care**

Themes in Roundtable's workshops & dialogue resonate with *Vital Signs* metrics implementation in California:

- Authentically community-driven (only way to address legacy of systemic inequities, exclusion, etc.)
- Fit for purpose (e.g. what's the problem we're trying to fix)
- Relevant to action (extant data, actions that can be undertaken)
- Cross-sector collaboration



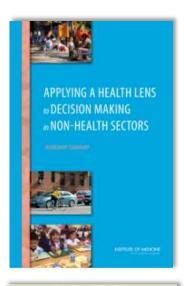


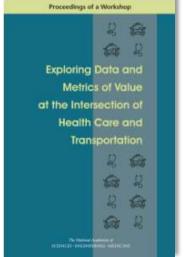


# **Metrics Beyond Health Care**

Roundtable-associated publications & perspectives highlight: How public health, health care, and other sectors use measures collaboratively to improve community health & well-being, and how non-health measures can be used by health systems to address patients' health-related social needs.

Roundtable focus: Non-clinical metrics (e.g., social determinants of health) related to *Vital Signs* priority measures in #6 Health Community & #15 Community Engagement.









# Q & A

Please type your questions in the Q & A box at the lower right-hand corner.

Provide your name and organization.

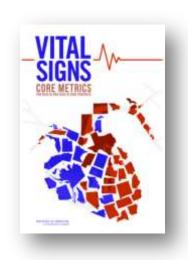
If applicable, please specify who you are directing your question to.







#### **NAM Vital Signs Wants to Hear From You:**



**Activities:** Which organizations are applying the Vital Signs framework?

**Linkages**: How can we align driver measures or process levers with Vital Signs?

**Measures**: What datasets and composite measures have been most useful?

**Partnership:** How should we build a learning network and user toolkit?

Contact: Claire Wang, <a href="mailto:cwang@nas.edu">cwang@nas.edu</a>
Join the Vital Signs Mailing List at nam.edu/VitalSigns







#### **Related Resources**

## **Publications**

Observations from the Field: Reporting Quality Metrics in Health Care. (2016) NAM Discussion Paper, by Dunlap et al.

Metrics That Matter for Population Health Action: Workshop Summary (2016) nam.edu/Perspectives

#### **Events**

Publication Release: Effective Care for High-Need Patients: Opportunities for Improving Outcomes, Value, and Health. nam.edu/HighNeeds. July 6, 2017



