

Measuring What Matters Most

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NATIONAL ACADEMY OF MEDICINE

Leadership • Innovation • Impact | *for a healthier future*

What matters most...

- Healthy people
- High quality care
- Affordable care
- Engaged people



The basic starting points

Measures ought to be basic at the core, tailored at the margin, provide continuous learning milestones for improvement throughout all elements of the system.

Current profile:

- ✓ *Growing burden and expense of measurement requirements*
- ✓ *Trending in a direction opposite of the science (disintegrative rather than integrative)*
- ✓ *Measuring micro-performance rather than system performance*
- ✓ *Producing data points, not knowledge or evidence*



Imagine...

Universally available core measures that are.....

... *finite and focused*

... *aimed at the most important issues*

... *always standardized & harmonized*

... *providing evidence, not anecdote*

... *offer early warning, and long-term learning*

... *assessing systems, not silos*

... *collected routinely, where most convenient*

... *applied at national, state, city, HCO levels*

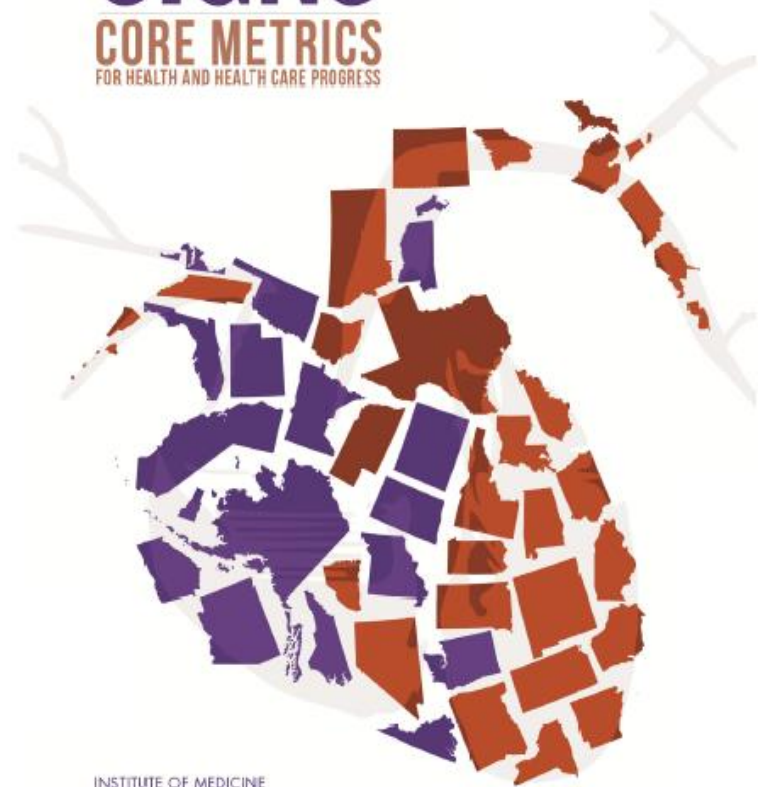
... *changing systematically, not serendipitously*



VITAL SIGNS



CORE METRICS
FOR HEALTH AND HEALTH CARE PROGRESS



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Conversation overview

Sketch of the problem

Vital Signs solution

Refining the measures

Taking to scale



Sketch of the problem

MEASURES IN USE

(thousands)

SAFETY MEASURES CURRENTLY IN USE

- Perioperative care: discontinuation of prophylactic parenteral antibiotics (non-cardiac procedures)
- Perioperative care: venous thromboembolism prophylaxis (when indicated in ALL patients)
- Discontinuation of prophylactic parenteral antibiotics (cardiac procedures)
- Medication reconciliation
- Prevention of catheter-related bloodstream infections: central venous catheter insertion protocol
- Documentation of current medications in the medical record
- Radiologic exposure time reported for procedures using fluoroscopy
- Falls risk assessment
- Oncology radiation dose limits to normal tissues
- Thoracic surgery: recording of clinical stage prior to lung cancer or esophageal cancer resection
- Cataracts: complications within 30 days following cataract surgery requiring additional surgical procedures
- Perioperative temperature management
- Thoracic surgery: pulmonary function test before major anatomic lung resection
- Use of high risk medications in the elderly
- Image confirmation of successful excision of image-localized breast lesion
- Falls screening for future fall risk
- Atrial fibrillation and atrial flutter: chronic anti-coagulation therapy
- Maternity care: elective delivery or early induction without medical indication at greater than or equal to 37 weeks and less than 39 weeks
- And many more...



PROPONENT GROUPS

- Standards organizations
- Professional societies
- Payers and employers
- Care institutions
- Federal, state, and local government

MEASURE CATEGORIES

(hundreds)

QUALITY OF CARE

- CVD: aspirin
- CVD: Beta-blocker
- CVD: heart failure composite
- CVD: blood pressure
- Cat: cytogenetic testing/leukemia
- Cat: stage-specific therapy ER, PR+ breast cancer
- Resp: asthma management composite
- Resp: COPD evaluation protocol
- DH: HbA1c
- DH: LDL
- DH: diabetes composite
- MH: depression identification
- MH: antipsychotic meds
- MH: care plan at discharge
- ID: Hepatitis C genotype testing
- ID: HIV viral load suppression
- ID: antibiotic course
- Surg: volume (by procedure)
- Surg: antibiotic prophylaxis
- Surg: checklist use
- Surg: post-op complication rates
- OGQ: EHR functionality
- OGQ: ED throughput time
- OGQ: advance care planning
- OGQ: pain management protocol
- MCH: prenatal care
- MCH: Cesarean sections
- MCH: post-partum care
- Prev: USPS/DI recommended services
- Prev: physical activity/fitness coaching
- Prev: tobacco cessation
- Prev: clinician communication
- Prev: patient rating of doctor
- Prev: collaborative decision-making
- Safe: wrong site surgery
- Safe: hospital-acquired conditions/injury
- Safe: central line-associated bloodstream infections
- Safe: hand hygiene
- Safe: HISA bacteremia
- Safe: pressure ulcers
- Safe: medication reconciliation
- Safe: adverse event reporting
- others -
- COST**
- PC: insurance coverage
- PC: out of pocket med payments
- ER: Total cost of care index
- ER: prescription of generic drugs
- UR: condition-specific imaging use
- others -
- ENGAGEMENT**
- Int: health literacy
- Int: children reading at grade level
- Int: collaborative decision-making
- Int: patient activation
- Com: community-wide benefit strategy
- others -
- POPULATION HEALTH**
- HS: life expectancy
- HS: perceived health
- HS: days with physical or mental illness
- Beh: fruit/vegetable consumption
- Beh: activity levels
- Soc: income, child poverty
- Soc: neighborhood crime
- Env: air particulate matter
- others -

Vital Signs solution



MEASURES IN USE (thousands)



- PROPONENT GROUPS**
- Standards organizations
 - Professional societies
 - Payers and employers
 - Care institutions
 - Federal, state, and local government

MEASURE CATEGORIES (hundreds)
















- QUALITY OF CARE**
- CVD: aspirin
 - CVD: Beta-blocker
 - CVD: heart failure composite
 - CVD: blood pressure
 - Cancer cytogenetic testing/leukemia
 - Cancer stage-specific therapy (ER, ER+ breast cancer)
 - Respiratory asthma management composite
 - Respiratory COPD evaluation protocol
 - DME: HBA1c
 - DME: LDL
 - DME: diabetes composite
 - MHI: depression identification
 - MHI: antipsychotic meds
 - MHI: care plan at discharge
 - ID: Hepatitis C genotype testing
 - ID: HIV viral load suppression
 - ID: antibiotic overuse
 - Surg: volume (by procedure)
 - Surg: antibiotic prophylaxis
 - Surg: checklist use
 - Surg: post-op complication rates
 - OGG: EDI functionality
 - OGG: ED throughput time
 - OGG: advance care planning
 - OGG: pain management protocol
 - MCH: prenatal care
 - MCH: Cesarean sections
 - MCH: post-partum care
 - Prev: USPSTF recommended services
 - Prev: physical activity/fitness coaching
 - Prev: tobacco cessation
 - Prev: clinician communication
 - Prev: patient rating of doctor
 - Prev: collaborative decision-making
 - Safe: wrong site surgery
 - Safe: hospital-acquired conditions/injury
 - Safe: central line-associated blood stream infections
 - Safe: hand hygiene
 - Safe: HSA lactemias
 - Safe: pressure ulcers
 - Safe: medication reconciliation
 - Safe: adverse event reporting
 - ... others ...
- COST**
- PC: insurance coverage
 - PC: out of pocket med payments
 - ER: Total cost of care index
 - ER: prescription of generic drugs
 - UNI: condition-specific imaging use
 - ... others ...
- ENGAGEMENT**
- Int: health literacy
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 - Soc: income/child poverty
 - Soc: neighborhood crime
 - Env: air particulate matter
 - ... others ...



- IMPACT ASSESSMENT**
- Quality-sensitive outcomes
 - System-impact protocols

CORE MEASURES (fifteen)

- Life expectancy
 - Wellbeing
 - Overweight and obesity
 - Addictive behavior
 - Unintended pregnancy
 - Healthy communities
 - Preventive services
 - Care access
 - Patient safety**
 - Evidence-based care
 - Care match with patient goals
 - Personal spending burden
 - Population spending burden
 - Individual engagement
 - Community engagement
- STANDARDIZATION**
- Composite components
 - Standardization
















Domain	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 death rate
		 Unintended pregnancy	Teen pregnancy rate
	Healthy social circumstances	 Healthy communities	High school graduation rate
Care quality	Prevention	 Preventive services	Childhood immunization rate
	Access to care	 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

Refining the measures

Next steps

1. HHS Secretary designate leadership focus
2. Learn from trial implementation (various)
3. For simple measures, standardize nationally
4. Tailor to age, as necessary
5. For composites, stratified stakeholder development
 - ✓ For EBC composite, tailored to care focus
 - ✓ For CM composite, tailor to circumstance
6. Implement standing capacity/process for:
 - ✓ Assessing lessons learned and impact
 - ✓ Overseeing adaptation and revision process



DOMAIN	KEY ELEMENT	CORE MEASURE		BEST CURRENT MEASURE	SOURCE		AWARENESS		ACTION	
		FOCUS			P*	HCO**	P*	HCO*	P*	HCO**
Healthy people	Length of life		Life expectancy	Life expectancy at birth	X		X	X	X	X
	Quality of life		Wellbeing	Self-reported health		X	X	X	X	X
	Healthy behaviors		Overweight and obesity	Body mass index		X	X	X	X	X
			Addictive behavior	Addiction death rate	X	X	X	X	X	X
			Unintended pregnancy	Teen pregnancy rate	X	X	X	X	X	X
	Healthy social circumstances		Healthy communities	High school graduation rate	X		X	X	X	
Care quality	Prevention		Preventive services	Childhood immunization rate		X	X	X	X	X
	Access to care		Care access	Unmet care need	X	X	X	X	X	X
	Safe care		Patient safety	Hospital-acquired infection rate	X	X	X	X		X
	Appropriate treatment		Evidence-based care	Preventable hospitalization rate		X	X	X		X
	Person-centered care		Care match with patient goals	Patient-clinician communication satisfaction		X	X	X		X
Care cost	Affordability		Personal spending burden	High spending relative to income	X		X	X	X	X
	Sustainability		Population spending burden	Per capita expenditures on health care	X		X	X	X	X
Engaged people	Individual engagement		Individual engagement	Health literacy rate	X		X	X	X	X
	Community engagement		Community engagement	Social support	X		X	X	X	X

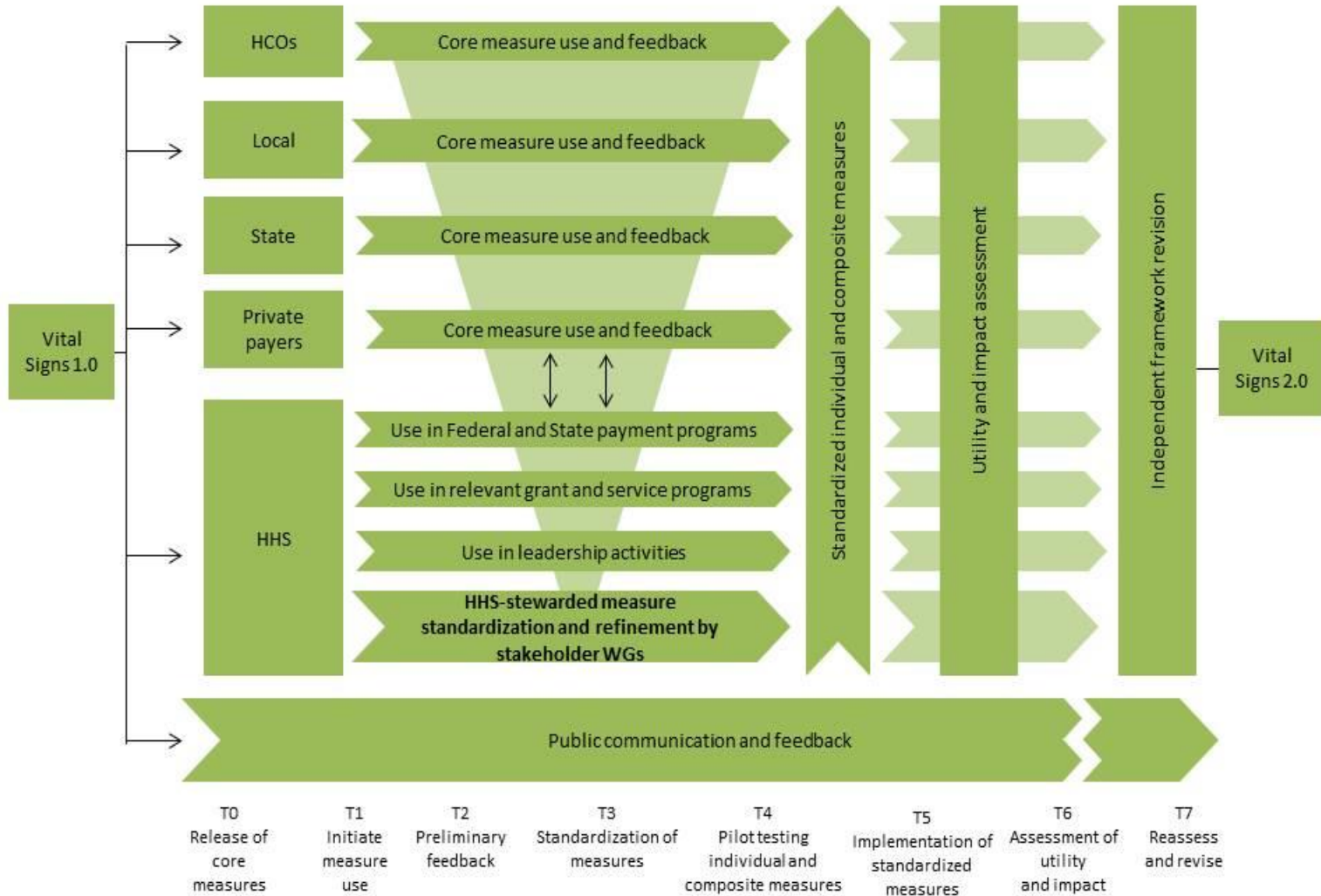
*P = Public

**HCO = Health Care Organization

Taking to scale



Core Measures Implementation



Examples: related activities

- National Governors Association
- IHI Whole System Measures 2.0
- CMS WG on Pediatric Accountable Care
- Health system pilots (e.g., Partners HealthCare)

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- Affinity group reality test
- AHC composite competition
- Network opinion group queries
- Network collaborative pilots
- Best practices clearinghouse
- Periodic reporting