

**DECISION HEALTH
PERFORMANCE
TRANSPARENCY
THE SETMA
PERFORMANCE
MEASUREMENT
EXPERIENCE**

DECEMBER 18, 2014



JAMES L. HOLLY, MD

CEO, SETMA, LLP

ADJUNCT PROFESSOR

DEPARTMENT OF FAMILY AND COMMUNITY HEALTH

SCHOOL OF MEDICINE

THE UNIVERSITY OF TEXAS HEALTH SCIENCE

CENTER AT SAN ANTONIO





Transparency: Performance & Adherence

- Patients must share their health history transparently, and
- Must transparently share their adherence to their treatment plan and plan of care.
- To gain the above, providers must transparently share their performance on national standards of care.
- In order to do this, providers must know their performance and must continually improve their performance, as patients are asked to improve their adherence.

On patients with diabetes, since 1997, SETMA has tracked the following



1. Are you on aspirin; if not, why not?
2. Did you have a hemoglobin A1c? (Below 6% is optimal; between 6-6.5% is acceptable; between 6.5-7.0 is marginal and above 7% is unacceptable.)
3. Have you had an annual dilated eye examination?
4. Have you had a flu shot in the past 12 months?
5. Was your BP checked and is it normal?
6. Did you have a foot exam with sensory evaluation?
7. Did you have urinalysis?
8. Have your lipids been checked?
9. Have you had at least two office visits each year?

Before Quality Metrics, SETMA Published a Report Card for each patient with Diabetes



1. SETMA's standards for the care you receive are high. The following is the report card for your care in the Diabetic Clinic:
2. A glycosylated hemoglobin (HgbA1c) is recommended during an initial assessment and during follow-up assessments.
3. Fasting Lipid Profile recommended initial and follow-up assessments.
4. A urinalysis, including micro albuminuria and creatinine clearance, is recommended as part of an initial assessment and annually thereafter.
5. A dilated eye examination is recommended during an initial assessment and at least annually thereafter.

Before Quality Metrics, SETMA Published a Report Card for each patient with Diabetes



6. A foot examination – visual inspection, sensory examination, and pulse examination recommended during initial and follow-up assessments.
7. Influenza vaccine for any person 6 months of age or older who, because of age or underlying medical condition, is at increased risk for influenza-related complications, includes patients with diabetes mellitus.
8. BP measurement recommended during initial and follow-up visit.

PC-MH Shared-Decision Making



Trust is built on Transparency

- When patients know how their provider is performing in quality assessments of their care, as measured by national standards of care, and when provider performance is a matter of public record, patients will trust the recommendations of the provider and will be more inclined to partner with the provider in their (the patient's) care.



The Future of Healthcare

Since SETMA adopted electronic medical records in 1998, we have come to believe the following about the future of healthcare:

- The Substance Evidenced-based medicine and comprehensive health promotion
- The Method Electronic Patient Management
- The Organization Patient-centered Medical Home
- The Funding Capitation with payment for quality



SETMA's Model of Care

In the past 19 years, SETMA has developed the SETMA Model of Care, which includes:

1. Personal Performance Tracking - by patient
2. Auditing of Performance – by panel or population
3. Analysis of Provider Performance – statistical analysis
4. Public Reporting by Provider Name –
www.jameslhollymd.com
5. Quality Assessment and Performance Improvement



Key to The SETMA Model of Care

The key to this Model is the real-time ability of providers to measure their own performance at the point-of-care. This is done with multiple displays of quality metric sets, with real-time aggregation of performance, *incidental* to excellent care. The following are several examples which are used by SETMA.

HEDIS Measures



2014 HEDIS Technical Specifications for Physician Measurement

Legend Measures in red are measures which apply to this patient that are not in compliance.
Measures in black are measures which apply to this patient that are in compliance.
Measures in gray are measures which do not apply to this patient.

Effectiveness of Preventive Care

- [View](#) **Adult BMI Assessment**
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents
Childhood Immunization Status
Immunizations for Adolescents
Lead Screening in Children
- [View](#) **Colorectal Cancer Screening**
Breast Cancer Screening
Cervical Cancer Screening
Chlamydia Screening in Women
Glaucoma Screening in Older Adults
Use of High-Risk Medications in the Elderly
Care for Older Adults

Effectiveness of Acute Care

- [View](#) **Appropriate Treatment for Children with Upper Respiratory Infection**
- [View](#) **Appropriate Testing for Children with Pharyngitis**
Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis

Effectiveness of Chronic Care

- [View](#) **Persistence of Beta-Blocker Therapy After a Heart Attack**
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Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder Medication
Osteoporosis Management in Women
Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis
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Medication Reconciliation Post-Discharge

ACO Performance Measures

ACO Performance Measures

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	Medication Reconciliation Post-Discharge
	Fall Risk Screening
View	Adult Immunization Status
View	Adult BMI Assessment
View	Tobacco Use Assessment
View	Depression Screening
View	Colorectal Cancer Screening
	Breast Cancer Screening
View	Controlling High Blood Pressure
View	Comprehensive Adult Diabetes Care
View	Cholesterol Management for Patients with Cardiovascular Disease
View	Beta Blocker Therapy for LVSD
View	Antithrombotic Therapy for Ischemic Vascular Disease

Medicare Advantage Measures

Medicare Advantage 2012 STARS Program

Legend

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View	Adult BMI Assessment
View	Colorectal Cancer Screening
	Breast Cancer Screening
View	Glaucoma Screening in Older Adults
View	Use of High-Risk Medications in the Elderly
View	Care for Older Adults
View	Controlling High Blood Pressure
View	Cholesterol Management for Patients with Cardiovascular Disease
View	Comprehensive Adult Diabetes Care
	Osteoporosis Management in Women
	Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis
View	Flu & Pnuemonia Vaccines
View	Fall Risk Assessment & Prevention
View	Diabetes Medications
View	Hypertension Medications
View	Cholesterol Medications

Links to SETMA Tutorials For Electronic Tools



- <http://www.jameshollymd.com/Presentations/coding-to-ensure-accurate-health-risk-scoring>
- <http://www.jameshollymd.com/epm-tools/transition-of-care-management-code-tutorial>
- <http://www.jameshollymd.com/epm-tools/Accountable-Care-Organization-Quality-Measures-Performance-Tool-Tutorial>
- <http://www.jameshollymd.com/epm-tools/Tutorial-STARs>

In May, 1999, SETMA Defined “The SETMA Way”



1. Pursue Electronic Patient Management rather than Electronic Patient Records (CDS, Disease Management, population management).
2. Bring to bear upon every patient encounter what is known rather than what a particular provider knows.
3. Make it easier to do it right than not to do it at all.
4. Continually challenge providers to improve their performance.
5. Infuse new knowledge and decision-making tools throughout an organization instantly.

In May, 1999, SETMA Defined “The SETMA Way”



6. Establish and promote continuity of care with patient education, information and plans of care.
7. Enlist patients as partners and collaborators in their own health improvement.
8. Evaluate care of patients and populations longitudinally.
9. Audit provider performance based on the Consortium for Physician Performance Improvement Data Sets.
10. Create multiple disease-management tools which are integrated in an intuitive and interactive fashion, giving patients the benefit of expert knowledge about specific conditions while they get the benefit of a global approach to their total health.

Public-Reporting: Assumptions

1. Public Reporting by Provider name is transformative but quality metrics are not an end in themselves.
 - a) Optimal health at optimal cost is the goal of quality care. Quality metrics are simply “sign posts along the way.” They give directions to health and quality care.
 - b) Metrics are like a healthcare “Global Positioning System”: it tells you where you are, where you want to be, and how to get from here to there.
 - c) The design of data aggregation in the care process must be as non-intrusive as possible. Notwithstanding, the very act of aggregating and reporting data will tend to create a Hawthorne effect

Public-Reporting: Assumptions



- d) The fulfillment of quality metrics should be the result of excellent medical practice.
- e) The evidence of excellent medical practice is the health of the patient as well as the provider's performance on quality metrics.
- f) The major problem with healthcare today is that providers have no idea what the caliber of their performance is. They do not know where they are.

Public-Reporting: Assumptions



2. Business Intelligence (BI) statistical analytics are like coordinates to the destination of optimal health at manageable cost.
 - a) Ultimately, the goal will be measured by the well-being of patients, but the guide posts to that destination are given by the analysis of patient and population data.

Public-Reporting: Assumptions

3. There are different classes of quality metrics. No metric alone provides a granular portrait of the quality of care a patient receives, but together, multiple sets of metrics can give an indication of whether the patient's care is going in the right direction. Some of the categories of quality metrics are:
 - access,
 - outcome,
 - patient experience,
 - process,
 - structure and
 - costs of care.

Public-Reporting: Assumptions

4. The tracking of quality metrics should be incidental to the care patients are receiving and should not be the object or intention of care.
 - a) Consequently, the design of the data aggregation in the care process must be as non-intrusive as possible.
 - b) If the fulfillment of quality metrics becomes the intention of care, quality metrics will obstruct quality care.

SETMA's Lipid Audit



Lipids Treatment Audit

Most Recent Values	Cholesterol	165	09/21/2011	HDL	30	09/21/2011
	Triglycerides	111	09/21/2011	LDL	113	09/21/2011

Has the patient had a lipid profile within the last year?

Has the Lipids Treatment Plan been completed within the last year?

Has the patient been assessed for Cardiometabolic Risk Syndrome within the last year?

If Cardiometabolic Risk Syndrome present, is it listed as a chronic condition?

If most recent LDL > 100, is the patient on a statin?

Is the patient allergic to statins? ☒ Yes ☐ No

Have the following lifestyle changes been recommended if applicable?
Stop Smoking, Exercise, Lose Weight, Low Cholesterol Diet, Low Carbohydrate Diet

Has risk stratification for Lipids and Heart Disease been completed within the last year by using the Framingham Cardiovascular Risk Score AND one of the following?
Global Cardiovascular Risk Score, Frederickson Classification of Dyslipidemia, Lipid Disease Management Risk Assessment

Has the patient been referred to Medical Nutrition Therapy at least once?

Double-click to add MNT referral

Referral	Status
SETMA	Completed
Infectious	

Does the patient have Diabetes?

If most recent LDL > 70, is the patient on a statin?

Is the patient's HgbA1c below 7.0%?

Most Recent Result

Does the patient have Hypertension?

Is the patient's blood pressure below 140/90?

Today's Blood Pressures

120	/	80	mmHg
	/		mmHg
	/		mmHg

Public-Reporting: Assumptions



5. The power of quality metrics, like the benefit of the GPS, is enhanced if the healthcare provider and the patient are able to know the coordinates – their performance on the metrics – while care is being received.
 - a) SETMA's information system is designed so that the provider can know how she/he is performing at the point-of-service. This is critical.

2014 HEDIS Technical Specifications for Physician Measurement

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HEDIS in Detail



Cholesterol Management for Patients with Cardiovascular Conditions

Does the patient have a history of...

acute myocardial infarction?

Yes

coronary artery bypass graft (CABG)?

No

percutaneous transluminal coronary angioplasty (PTCA)?

No

ischemic vascular disease (IVD)?

No

Most Recent LDL (Calculated)

99

04/04/2012

Most Recent LDL (Direct)

155

09/13/2013

Was the patient's most recent LDL screening with the last year?

No

Was the patient's most recent LDL screening controlled?

No

OK

Cancel

HEDIS Complete Review



Medical Home Coordination Review (MHCR) Tutorial

- A tutorial for each of SETMA's disease management and clinical decision support tools is displayed under the heading EPM (electronic patient management) at www.jameslhollymd.com
- All HEDIS details are explained under SETMA's PC-MH Coordination Review Tutorial at:

<http://www.jameslhollymd.com/epm-tools/Tutorial-Medical-Home-Coordination-Review>

Public-Reporting: Assumptions



6. Public reporting of quality metrics by provider name must not be a novelty in healthcare but must be the standard. Even with the acknowledgment of the Hawthorne effect, the improvement in healthcare outcomes achieved with public reporting is real.

PCPI Diabetes



Diabetes Consortium - Blood Pressure Management

E & M Codes: Clinic Only
Encounter Date(s): Jan 1, 2014 through Sep 30, 2014

Report Criteria: Patients 18 to 75 With a Chronic Diagnosis of Diabetes
Specialists Excluded (Dr. Ahmed Included)

Location	Provider	Systolic									Diastolic						
		< 120	120-129	130-139	140-149	150-159	160-169	170-179	>= 180	Not Present	< 75	75-79	80-89	90-99	100-109	>= 110	Not Present
SETMA 1	Aziz	14.1%	17.7%	23.3%	20.3%	10.3%	7.1%	4.7%	2.1%	0.4%	44.4%	14.1%	30.1%	9.6%	1.3%	0.0%	0.4%
	Duncan	31.8%	34.1%	23.5%	6.8%	0.9%	1.2%	0.2%	0.7%	0.7%	51.1%	8.2%	34.8%	4.2%	0.7%	0.2%	0.7%
	Foster	29.3%	39.8%	19.1%	8.4%	1.2%	1.6%	0.2%	0.4%	0.0%	35.9%	10.2%	43.8%	8.6%	1.0%	0.4%	0.0%
	Henderson	29.6%	34.5%	23.2%	7.7%	2.9%	0.9%	0.7%	0.4%	0.0%	45.8%	8.6%	41.2%	4.4%	0.0%	0.0%	0.0%
	Holly	22.4%	46.7%	21.5%	4.7%	1.9%	0.9%	0.9%	0.9%	0.0%	58.9%	17.8%	22.4%	0.9%	0.0%	0.0%	0.0%
	Le	25.2%	22.5%	20.9%	17.9%	7.9%	3.0%	2.3%	0.0%	0.3%	42.4%	6.3%	33.1%	13.2%	4.3%	0.3%	0.3%
	Murphy	20.3%	23.9%	31.2%	12.3%	5.8%	3.5%	1.2%	1.2%	0.6%	37.4%	15.8%	34.2%	9.6%	1.6%	0.9%	0.5%
	Palang	10.2%	37.9%	36.3%	11.3%	2.2%	1.0%	0.3%	0.5%	0.3%	47.0%	21.0%	30.3%	1.0%	0.5%	0.0%	0.3%
	Thomas	7.0%	48.8%	16.3%	14.0%	2.3%	9.3%	2.3%	0.0%	0.0%	18.6%	20.9%	41.9%	18.6%	0.0%	0.0%	0.0%
SETMA 1 Totals:		21.8%	31.0%	26.3%	11.7%	4.3%	2.6%	1.3%	0.8%	0.4%	43.1%	13.3%	34.9%	6.9%	1.1%	0.3%	0.3%
SETMA 2	Anthony	20.2%	27.2%	36.9%	8.4%	2.5%	3.0%	1.0%	0.8%	0.2%	33.7%	6.1%	47.9%	9.7%	2.3%	0.2%	0.2%
	Anwar	10.2%	51.6%	27.1%	7.9%	1.8%	1.2%	0.0%	0.0%	0.2%	69.2%	19.9%	9.2%	1.1%	0.5%	0.0%	0.2%
	Cash	34.8%	25.2%	37.2%	2.3%	0.1%	0.1%	0.0%	0.1%	0.1%	59.6%	19.3%	19.9%	1.1%	0.1%	0.0%	0.1%
	Cricchio, M	16.7%	40.0%	16.7%	16.7%	6.7%	3.3%	0.0%	0.0%	0.0%	60.0%	10.0%	26.7%	3.3%	0.0%	0.0%	0.0%
	Foster	33.3%	16.7%	26.7%	16.7%	3.3%	0.0%	3.3%	0.0%	0.0%	70.0%	6.7%	20.0%	0.0%	3.3%	0.0%	0.0%
	Smith	17.5%	25.4%	27.0%	19.0%	1.6%	7.9%	1.6%	0.0%	0.0%	44.4%	7.9%	36.5%	7.9%	1.6%	1.6%	0.0%
	Wheeler	13.9%	29.7%	32.9%	11.1%	6.7%	4.0%	0.5%	0.7%	0.5%	57.7%	16.8%	21.5%	3.0%	0.5%	0.2%	0.2%
SETMA 2 Totals:		23.7%	31.8%	33.9%	6.3%	1.9%	1.6%	0.3%	0.3%	0.2%	56.7%	16.4%	23.1%	3.0%	0.7%	0.1%	0.1%
SETMA Lumberton	Holly	12.5%	62.5%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	12.5%	37.5%	0.0%	0.0%	0.0%	0.0%
	Le	35.6%	23.7%	18.6%	13.6%	6.8%	0.0%	1.7%	0.0%	0.0%	54.2%	8.5%	25.4%	8.5%	3.4%	0.0%	0.0%
	Leifeste	24.2%	30.0%	26.7%	13.2%	4.3%	1.4%	0.2%	0.0%	0.0%	66.3%	11.4%	19.0%	3.3%	0.0%	0.0%	0.0%
	Read	19.6%	23.0%	35.3%	17.2%	2.5%	1.5%	0.7%	0.2%	0.0%	47.5%	15.4%	32.4%	3.7%	0.5%	0.2%	0.2%

Public-Reporting: Assumptions

7. Quality metrics are not static. New research and improved models of care will require updating and modifying metrics.

Illustrations:

- With diabetes, it may be that HbA1C goals, after twenty years of having the disease, should be different.
- With diabetes, if after twenty years, a patient does not have renal disease, they may not develop it.

Performance Improvement



The public reporting by provider of performance on hundreds of quality measures places pressure on all providers to improve, and it allows patients to know what is expected of providers.

SETMA publicly reports quality metrics two ways:

1. In the patient's plan of care and treatment plan which is given to the patient at the point of care. This reporting is specific to the individual patient.
2. On SETMA's website. Here the reporting is by panels or populations of patients without patient identification but with the provider name given.

Performance Improvement



- One of the most insidious problems in healthcare delivery is reported in the medical literature as “treatment inertia.” This is caused by the natural inclination of human beings to resist change.
- Often, when care is not to goal, no change in treatment is made. As a result, one of the auditing elements in SETMA’s COGNOS Project is the assessment of whether a treatment change was made when a patient was not treated to goal.

Performance Improvement



- Overcoming “treatment inertia” requires the creating of an increased level of discomfort in the healthcare provider and in the patient so that both are more inclined to change their performance.
- SETMA believes that one of the ways to do this is the public reporting of provider performance. That is why we are publishing provider performance by provider name at www.jameslhollymd.com under Public Reporting.

Performance Improvement



Once you “open your books on performance” to public scrutiny, the only safe place you have in which to hide is excellence.

NQF Diabetes Measures



NQF - Diabetes Measures - Glyco and LDL

E & M Codes: Clinic Only
Encounter Date(s): Jan 1, 2014 through Sep 30, 2014

Location	Provider	HgbA1c Frequency Within 12 Months	HgbA1c Level			LDL Screening Within 12 Months	LDL Control	
			> 9.0	Between 6.5 - 9.0	< 6.5		< 130	< 100
SETMA 1	Aziz	96.4%	21.6%	47.4%	30.6%	92.5%	83.5%	66.5%
	Duncan	92.5%	13.9%	46.6%	38.1%	88.9%	85.2%	62.1%
	Foster	93.6%	21.7%	46.2%	30.3%	89.0%	74.7%	58.4%
	Henderson	96.0%	10.8%	46.5%	41.8%	94.5%	85.8%	71.9%
	Holly	96.3%	6.5%	45.8%	44.9%	91.6%	86.0%	72.0%
	Le	85.8%	12.3%	49.0%	28.8%	87.1%	72.2%	57.3%
	Murphy	97.7%	14.3%	44.8%	40.4%	95.7%	87.7%	73.1%
	Palang	86.3%	13.9%	48.2%	31.2%	87.4%	81.8%	59.6%
	Thomas	100.0%	11.6%	30.2%	58.1%	88.4%	76.7%	55.8%
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	Anwar	97.2%	11.2%	53.2%	33.1%	97.5%	85.4%	65.6%
	Cash	97.6%	26.9%	54.2%	17.1%	78.0%	82.3%	64.3%
	Cricchio, M	70.0%	6.7%	36.7%	33.3%	73.3%	70.0%	43.3%
	Foster	100.0%	20.0%	60.0%	20.0%	90.0%	70.0%	56.7%
	Smith	71.4%	15.9%	42.9%	25.4%	74.6%	66.7%	41.3%
	Wheeler	98.3%	15.3%	47.0%	37.1%	95.8%	80.4%	61.6%
	SETMA 2 Totals:	97.0%	19.5%	51.8%	26.8%	87.8%	82.6%	64.0%
SETMA Lumberton	Holly	87.5%	12.5%	50.0%	25.0%	87.5%	75.0%	75.0%
	Le	98.3%	18.6%	33.9%	45.8%	93.2%	83.1%	67.8%
	Leifeste	93.6%	11.8%	44.0%	41.3%	93.2%	90.1%	79.8%
	Read	92.2%	14.5%	51.2%	31.4%	86.5%	82.4%	66.4%

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	Duncan	31.8%	34.1%	23.5%	6.8%	0.9%	1.2%	0.2%	0.7%	0.7%	51.1%	8.2%	34.8%	4.2%	0.7%	0.2%	0.7%
	Foster	29.3%	39.8%	19.1%	8.4%	1.2%	1.6%	0.2%	0.4%	0.0%	35.9%	10.2%	43.8%	8.6%	1.0%	0.4%	0.0%
	Henderson	29.6%	34.5%	23.2%	7.7%	2.9%	0.9%	0.7%	0.4%	0.0%	45.8%	8.6%	41.2%	4.4%	0.0%	0.0%	0.0%
	Holly	22.4%	46.7%	21.5%	4.7%	1.9%	0.9%	0.9%	0.9%	0.0%	58.9%	17.8%	22.4%	0.9%	0.0%	0.0%	0.0%
	Le	25.2%	22.5%	20.9%	17.9%	7.9%	3.0%	2.3%	0.0%	0.3%	42.4%	6.3%	33.1%	13.2%	4.3%	0.3%	0.3%
	Murphy	20.3%	23.9%	31.2%	12.3%	5.8%	3.5%	1.2%	1.2%	0.6%	37.4%	15.8%	34.2%	9.6%	1.6%	0.9%	0.5%
	Palang	10.2%	37.9%	36.3%	11.3%	2.2%	1.0%	0.3%	0.5%	0.3%	47.0%	21.0%	30.3%	1.0%	0.5%	0.0%	0.3%
	Thomas	7.0%	48.8%	16.3%	14.0%	2.3%	9.3%	2.3%	0.0%	0.0%	18.6%	20.9%	41.9%	18.6%	0.0%	0.0%	0.0%
SETMA 1 Totals:		21.8%	31.0%	26.3%	11.7%	4.3%	2.6%	1.3%	0.8%	0.4%	43.1%	13.3%	34.9%	6.9%	1.1%	0.3%	0.3%
SETMA 2	Anthony	20.2%	27.2%	36.9%	8.4%	2.5%	3.0%	1.0%	0.8%	0.2%	33.7%	6.1%	47.9%	9.7%	2.3%	0.2%	0.2%
	Anwar	10.2%	51.6%	27.1%	7.9%	1.8%	1.2%	0.0%	0.0%	0.2%	69.2%	19.9%	9.2%	1.1%	0.5%	0.0%	0.2%
	Cash	34.8%	25.2%	37.2%	2.3%	0.1%	0.1%	0.0%	0.1%	0.1%	59.6%	19.3%	19.9%	1.1%	0.1%	0.0%	0.1%
	Cricchio, M	16.7%	40.0%	16.7%	16.7%	6.7%	3.3%	0.0%	0.0%	0.0%	60.0%	10.0%	26.7%	3.3%	0.0%	0.0%	0.0%
	Foster	33.3%	16.7%	26.7%	16.7%	3.3%	0.0%	3.3%	0.0%	0.0%	70.0%	6.7%	20.0%	0.0%	3.3%	0.0%	0.0%
	Smith	17.5%	25.4%	27.0%	19.0%	1.6%	7.9%	1.6%	0.0%	0.0%	44.4%	7.9%	36.5%	7.9%	1.6%	1.6%	0.0%
	Wheeler	13.9%	29.7%	32.9%	11.1%	6.7%	4.0%	0.5%	0.7%	0.5%	57.7%	16.8%	21.5%	3.0%	0.5%	0.2%	0.2%
SETMA 2 Totals:		23.7%	31.8%	33.9%	6.3%	1.9%	1.6%	0.3%	0.3%	0.2%	56.7%	16.4%	23.1%	3.0%	0.7%	0.1%	0.1%
SETMA Lumberton	Holly	12.5%	62.5%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	12.5%	37.5%	0.0%	0.0%	0.0%	0.0%
	Le	35.6%	23.7%	18.6%	13.6%	6.8%	0.0%	1.7%	0.0%	0.0%	54.2%	8.5%	25.4%	8.5%	3.4%	0.0%	0.0%
	Leifeste	24.2%	30.0%	26.7%	13.2%	4.3%	1.4%	0.2%	0.0%	0.0%	66.3%	11.4%	19.0%	3.3%	0.0%	0.0%	0.0%
	Read	19.6%	23.0%	35.3%	17.2%	2.5%	1.5%	0.7%	0.2%	0.0%	47.5%	15.4%	32.4%	3.7%	0.5%	0.2%	0.2%

The Nature of Knowledge

- “Information” is inherently static while “learning” is dynamic and generative (creative). In *The Fifth Discipline*, Peter Senge, said: “Learning is only distantly related to taking in more information...”
- Classically, taking in more information has been the foundation of medical education. Traditional CME has perpetuated the idea that “learning” is simply accomplished by “learning more facts.”

Knowledge Can Transform



- Knowledge only has power to transform when it is held in the mind of persons who have “Personal Mastery,” which is the discipline of:
 1. continually clarifying and deepening your personal vision (where you want to go),
 2. focusing your energies (attention & resources),
 3. developing patience (relentlessness), and
 4. seeing reality objectively (telling yourself the truth)

Transformation Distinguishes Two Groups

- Forward thinkers transform; day dreamers wish for change but seldom see it. Peter Senge said:

“The juxtaposition of vision (what we want) and a clear picture of current reality (where we are) generates...‘creative tension,’ (which is) a force to bring vision and reality together, through the natural tendency of tension to seek resolution.”

Analytics Transform Knowledge

- **Analytics transform knowledge into an agent for change. In reality, without analytics, we will neither know where we are, where we are going or how to sustain the effort to get there.**
- **For transformation to take place through knowledge, we must be prepared to ask the right questions, courageously accept the answers and to require ourselves to change.**

Transformation Requires Truthfulness

Those with “personal mastery”

1. Live in a continual learning mode.
2. They never ARRIVE!
3. They are acutely aware of their ignorance, their incompetence, their growth areas.
4. And they are deeply self-confident!

Healthcare Transformation



- Healthcare transformation, which will produce continuous performance improvement, results from internalized ideals, which create vision and passion, both of which produce and sustain “creative tension” and “generative thinking.”
- Transformation is not the result of pressure and it is not frustrated by obstacles. In fact, the more difficult a problem is, the more power is created by the process of transformation in order to overcome the problem.

Analytics and Transformation

- The greatest frustration to transformation is the unwillingness or the inability to face current reality. Often, the first time healthcare providers see audits of their performance, they say, “That can’t be right!”
- Through analytics – tracking data, auditing performance, statistical analysis of results – we learn the truth. For that truth to impact our performance, we must believe it.



Analytics and Transformation

Through acknowledging truth, privately and publicly, we empower sustainable change, making analytics a critical aspect of healthcare transformation.

Technology Alone Is Not The Answer

- While an Electronic Health Record (EHR) has tremendous capacity to capture data, that is only part of the solution. The ultimate goal must be to improve patient care and patient health, and to decrease cost, not just to capture and store information!
- Electronic Patient Management employs the power of electronics to track, audit, analyze and display performance and outcomes, thus powering transformation.

Continuous Performance Improvement



- SETMA's philosophy of health care delivery is that every patient encounter ought to be evaluation-al and educational for the patient and provider.
- CPI is not an academic exercise; it is the dynamic of healthcare transformation. The patient and the provider must be learning, if the patient's delivered healthcare and the provider's healthcare delivery are to be continuously improving.

Continuous Performance Improvement



- Addressing the foundation of Continuous Performance Improvement, IOM produced a report entitled: “Redesigning Continuing Education in the Health Professions” (Institute of Medicine of National Academies, December 2009). The title page of that report declares:

“Knowing is not enough; we must apply. Willing is not enough; we must do.”

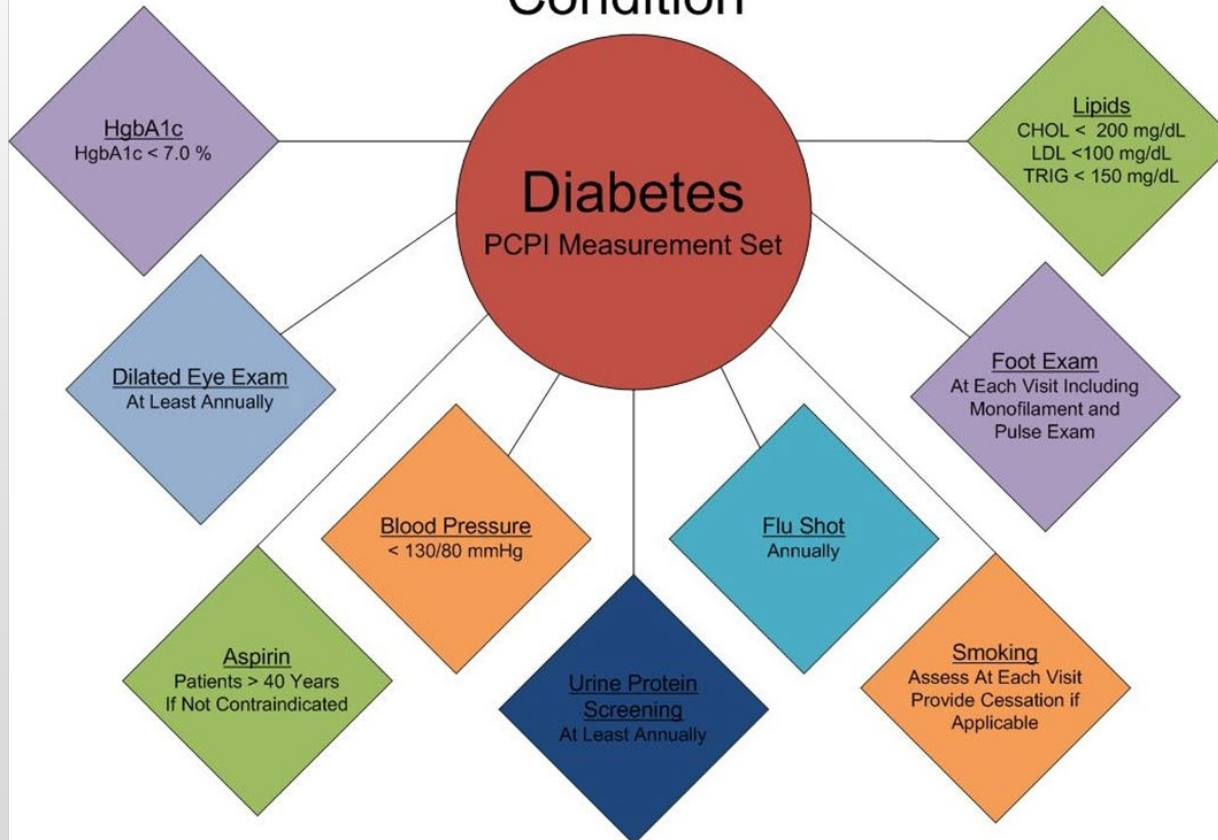
- Goethe

Clusters and Galaxies

- A “cluster” is seven or more quality metrics for a single condition, i.e., diabetes, hypertension, etc.
- A “galaxy” is multiple clusters for the same patient, i.e., diabetes, hypertension, lipids, CHF, etc.
- Fulfilling a single or a few quality metrics does not change outcomes, but fulfilling “clusters” and “galaxies” of metrics at the point-of-care can and will change outcomes.

Clusters

A "Cluster" -- Multiple Metrics on a Single Condition



Galaxies

A "Galaxy" -- Multiple "Clusters" Tracked on a Single Patient at a Single Visit



Statistical Analysis



- Beyond these clusters and galaxies of metrics, SETMA uses statistical analysis to give meaning to the data we collect.
- While the clusters and galaxies of metrics are important, we can learn much more about how we are treating a population as a whole through statistical analysis.

Statistical Analysis

- Each of the statistical measurements which SETMA calculates – the mean, the median, the mode and the standard deviation – tells us something about our performance, and helps us design quality improvement initiatives for the future.
- Of particular, and often, of little known importance, is the standard deviation.

Mean Versus Standard Deviation

- The mean (average) is a useful tool in analytics but can be misleading when used alone. The mean by itself does not address the degree of variability from the mean.
- The mean of 40, 50 and 60 is 50.
- The mean of 0, 50 and 100 is also 50.
- Standard deviation gives added value to the mean by describing how far the range of values vary from the mean.
- The standard deviation of 0, 50 and 100 is 50.
- The standard deviation of 40, 50 and 60 is 10.

Predictive Modeling

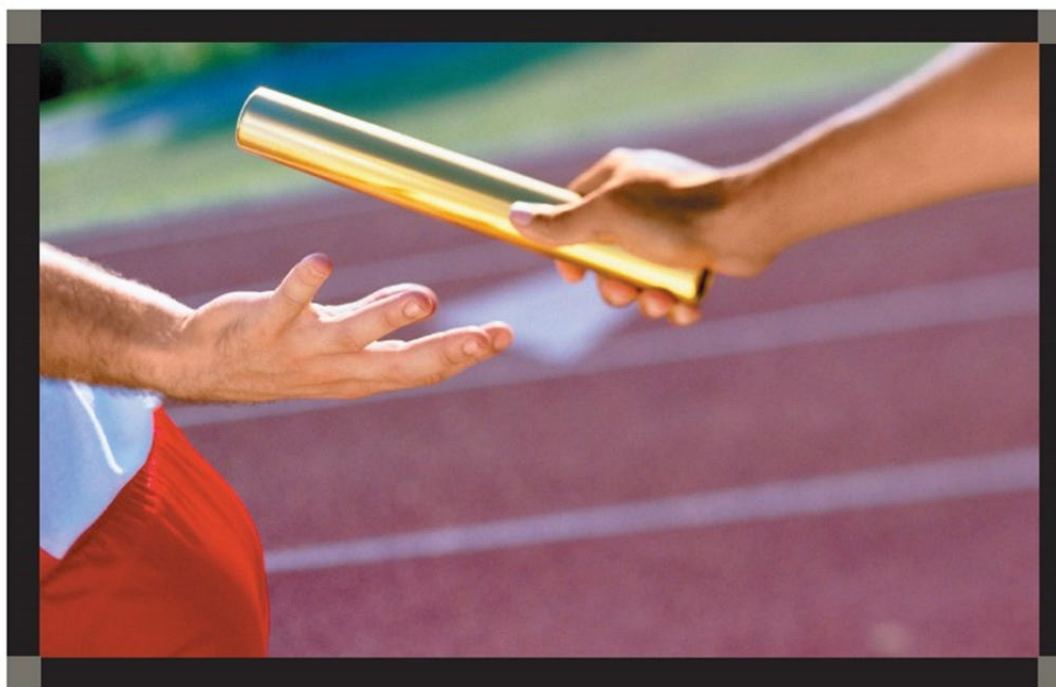


- Our data is not only useful to see how we did or how we are doing, we can also use it to predict the future.
- By looking more closely at our trending results, we can extrapolate those trends into the future and begin to predict what we think will happen.
- By analyzing past trends of patients who have been readmitted to the hospital, we have been able to predict the factors that we believe are likely to reduce a patient's risk of unnecessary readmission to the hospital.

Engaging The Patient In Their Care

- While we use public reporting to induce change in the care given by our providers, we also take steps to engage the patient and avoid “patient inertia.”
- We challenge the patient by giving them information needed to change and the knowledge that making a change will make a difference. (What If Scenario with Framingham Risk Scores)

Engaging The Patient In Their Care



■
Firmly in the provider's hand,
the baton – *the care and treatment plan* –
must be confidently and securely grasped by the patient,
if change is to make a difference,
8,760 hours a year.
■