

**NATIONAL INSTITUTE FOR QUALITY
IMPROVEMENT AND EDUCATION**

**“MOVING FROM QUALITY
MEASUREMENT TO CONTINUOUS
PERFORMANCE IMPROVEMENT”**

SEPTEMBER 14-16, 2011

CPI AT THE POINT OF CARE: THE INTERSECTION OF CLINICAL PRACTICE, MEASUREMENT, LEARNING AND IMPROVEMENT



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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

During this time, we have developed the five points of the SETMA's Model of Care:

- **Provider Performance Tracking** – one patient at a time
- **Auditing of Performance** – by panel or by population
- **Analysis of Provider Performance** – statistical
- **Public Reporting by Provider Name** –
www.jameshollymd.com
- **Quality Assessment and Performance Improvement**



PERFORMANCE IMPROVEMENT

SETMA's "Continuous Performance Improvement" is illustrated by our improvement in diabetes care from 2000 to 2011:

- HgbA1C standard deviation improvement from 1.98 to 1.33
- HgbA1C mean (average) improvement from 7.48% to 6.54%
- Elimination of Ethnic Disparities in Care

PERFORMANCE IMPROVEMENT

SETMA's HgbA1c Values By Year

Year	Average	Standard Deviation
2001	7.48	1.98
2002	7.58	7.52
2003	7.40	1.78
2004	7.33	1.68
2005	7.01	1.53
2006	6.87	1.48
2007	6.63	1.53
2008	6.56	1.58
2009	6.65	1.48
2010	6.83	1.33
2011	6.54	1.20



PERFORMANCE IMPROVEMENT

- 2000 - Design and Deployment of EHR-based Diabetes Disease Management Tool

HgbA1C improvement 0.3%

- 2004 - American Diabetes Association certified Diabetes Self Management Education (DSME) Program

HgbA1C improvement 0.3%

- 2006 - Recruitment of Endocrinologist

HgbA1C improvement 0.25%



PERFORMANCE IMPROVEMENT

These steps are examples of:

- **Clinical decision support** which is often the missing link between CME and Performance Improvement
- **Patient engagement and education** which is critical to the medical home model of care
- **Colleague collaboration** which demonstrates the value of a team-approach to healthcare



PERFORMANCE IMPROVEMENT

SETMA's ability to track, audit and analyze data has improved as illustrated by the following **NCQA Diabetes Recognition Program audit** which takes 16 seconds to complete through SETMA's Business Intelligence (BI) software deployment.

While quality metrics are the foundation of Continuous Quality Improvement, auditing of performance is often overlooked as a critical component of the process.

PERFORMANCE IMPROVEMENT



NCQA Diabetes Measures

Encounter Date(s): January 1, 2011 to May 31, 2011

Location	Provider	Encounters	A1c >9.0 <= 15%	A1c < 8.0 >= 60%	A1c < 7.0 >= 40%	BP > 140/90 <= 35%	BP < 130/80 >= 25%	Eye Exam >= 60%	Smoking Cessation >= 80%	LDL >= 130 <= 37 %	LDL < 100 >= 36%	Nephropathy >= 80%	Foot Exam >= 80%	Total Points
SETMA 1	Aziz	444	9.7%	80.4%	60.4%	22.1%	50.0%	57.2%	95.1%	13.1%	67.8%	76.4%	73.6%	80
	Duncan	311	9.0%	85.2%	68.8%	10.0%	66.9%	58.5%	90.3%	14.8%	67.8%	85.2%	83.0%	90
	Henderson	349	11.7%	80.2%	66.8%	13.2%	61.6%	59.3%	95.1%	13.2%	62.5%	83.1%	95.4%	90
	Murphy	582	5.0%	88.7%	69.4%	14.9%	54.1%	48.3%	76.6%	13.9%	71.1%	86.1%	84.5%	80
	Palang	42	0.0%	42.9%	31.0%	19.0%	52.4%	21.4%	100.0%	4.8%	31.0%	19.0%	21.4%	57
	Thomas	145	9.7%	69.7%	46.2%	20.0%	55.9%	80.7%	100.0%	13.1%	60.0%	78.6%	84.1%	95
SETMA 2	Abbas	1	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%		0.0%	100.0%	100.0%	100.0%	90
	Ahmed	1,246	19.0%	58.3%	38.3%	8.1%	62.3%	65.3%	73.7%	12.0%	62.7%	64.7%	99.6%	60
	Anthony	468	11.3%	78.6%	62.4%	10.9%	72.6%	61.5%	83.1%	9.8%	70.1%	90.8%	96.2%	100
	Anwar	612	9.2%	81.9%	66.5%	4.1%	81.4%	64.7%	97.0%	13.2%	61.4%	92.3%	76.3%	95
	Cricchio, A	394	15.7%	58.1%	39.6%	8.1%	74.9%	62.4%	82.4%	9.4%	69.5%	72.8%	99.2%	70
	Cricchio, M	350	9.4%	78.3%	62.0%	11.1%	62.9%	59.7%	65.3%	12.0%	62.0%	88.3%	84.9%	80
	Holly	125	5.6%	86.4%	73.6%	3.2%	83.2%	78.4%	81.8%	13.6%	70.4%	96.8%	93.6%	100
	Leifeste	419	7.9%	79.7%	68.7%	12.4%	66.3%	68.5%	58.9%	9.5%	66.3%	88.5%	80.2%	90
	Wheeler	280	8.6%	85.7%	75.4%	22.5%	58.2%	60.4%	75.6%	14.3%	60.7%	88.2%	85.4%	90
SETMA West	Curry	182	10.4%	79.1%	57.7%	12.6%	62.6%	73.1%	78.1%	13.2%	67.0%	90.7%	94.5%	90
	Deiparine	329	8.2%	76.0%	57.8%	24.3%	48.9%	53.2%	95.8%	13.1%	58.7%	65.7%	87.8%	85
	Halbert	478	13.6%	75.1%	60.3%	21.8%	55.2%	43.3%	98.4%	16.7%	59.0%	56.3%	84.7%	85
	Horn	333	4.5%	80.2%	63.4%	1.5%	67.0%	46.8%	89.5%	15.0%	52.6%	79.3%	94.6%	85
	Qureshi	184	18.5%	67.4%	54.3%	7.6%	72.3%	51.6%	98.0%	18.5%	62.0%	67.9%	97.3%	73
	Satterwhite	193	17.6%	63.2%	47.2%	18.1%	62.2%	56.5%	92.5%	23.8%	47.7%	75.6%	87.6%	73
Vardiman	239	10.0%	74.9%	62.8%	23.4%	45.6%	64.9%	100.0%	11.7%	65.7%	65.3%	82.8%	95	

PERFORMANCE IMPROVEMENT



NCQA Diabetes Measures

Encounter Date(s): January 1, 2004 to December 31, 2004

Provider	Encounters	A1c >9.0 <= 15%	A1c < 8.0 >= 60%	A1c < 7.0 >= 40%	BP > 140/90 <= 35%	BP < 130/80 >= 25%	Eye Exam >= 60%	Smoking Cessation >= 80%	LDL >= 130 <= 37 %	LDL < 100 >= 36%	Nephropathy >= 80%	Foot Exam >= 80%	Total Points
Anthony	498	12.4%	55.6%	40.0%	24.7%	42.6%	16.9%	5.6%	22.7%	31.3%	45.8%	97.4%	52
Anwar	247	14.6%	48.2%	31.2%	38.9%	39.3%	1.2%	9.5%	28.3%	28.3%	42.9%	90.3%	37
Aziz	1,553	12.2%	57.3%	39.0%	33.1%	46.3%	7.3%	9.9%	23.4%	45.1%	50.6%	89.6%	62
Duncan	568	9.0%	57.7%	36.3%	25.5%	49.6%	6.9%	13.0%	22.0%	39.1%	37.0%	84.0%	62
Halbert	1,187	9.9%	48.5%	33.9%	41.4%	34.1%	3.1%	7.1%	24.0%	18.8%	10.5%	84.0%	37
Henderson	508	11.2%	56.5%	34.6%	39.2%	37.8%	14.8%	23.1%	26.2%	31.7%	29.7%	95.1%	37
Holly	480	6.5%	55.2%	37.7%	32.7%	37.3%	15.2%	7.3%	29.8%	28.1%	42.7%	95.0%	52
Murphy	385	9.4%	58.2%	37.9%	23.6%	43.4%	7.3%	6.3%	21.6%	36.6%	22.9%	92.5%	62
Vardiman	667	10.0%	49.2%	26.7%	45.7%	30.4%	3.7%	3.8%	23.7%	23.5%	4.9%	89.7%	37
Wheeler	403	9.9%	57.1%	39.2%	20.3%	49.4%	4.2%	20.2%	28.5%	33.5%	17.6%	92.1%	52

PERFORMANCE IMPROVEMENT



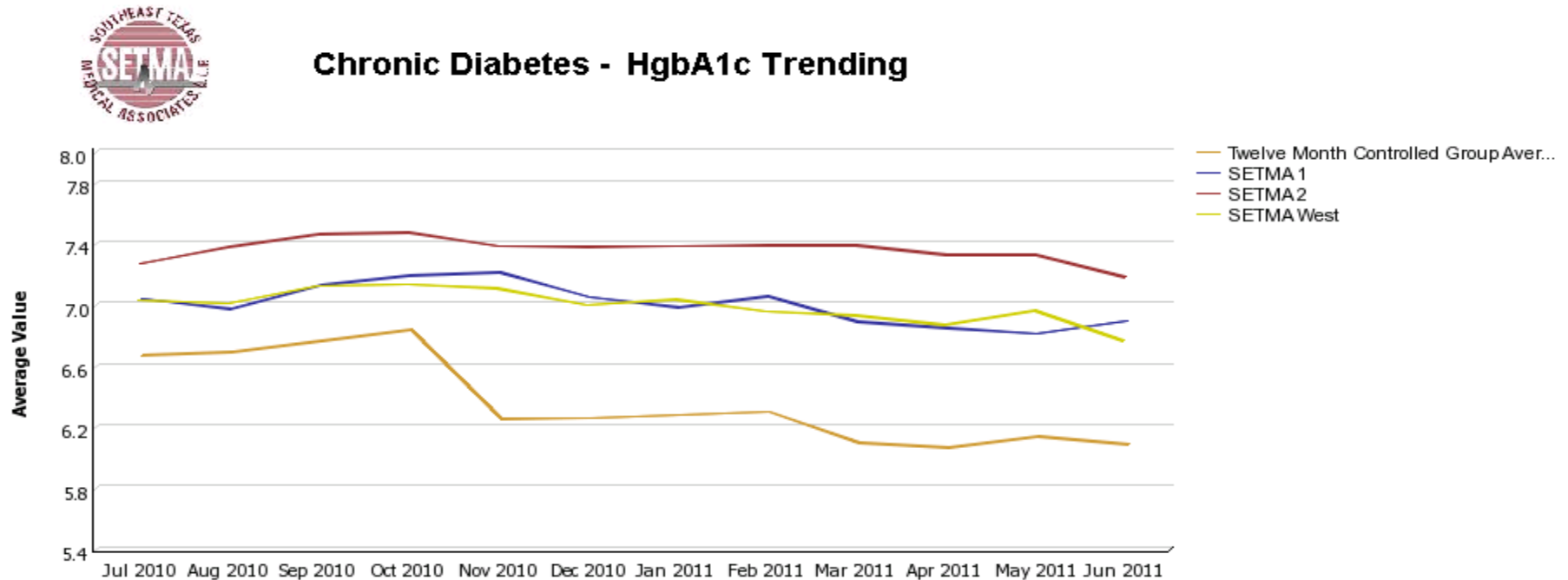
NCQA Diabetes Measures

Encounter Date(s): January 1, 2007 to December 31, 2007

Provider	Encounters	A1c >9.0 <= 15%	A1c < 8.0 >= 60%	A1c < 7.0 >= 40%	BP > 140/90 <= 35%	BP < 130/80 >= 25%	Eye Exam >= 60%	Smoking Cessation >= 80%	LDL >= 130 <= 37 %	LDL < 100 >= 36%	Nephropathy >= 80%	Foot Exam >= 80%	Total Points
Ahmed	2,051	21.0%	63.0%	42.2%	24.5%	51.2%	40.9%	15.5%	16.4%	59.0%	26.7%	99.1%	63
Anthony	1,044	7.4%	79.6%	64.3%	21.6%	51.9%	46.5%	11.8%	16.5%	56.9%	27.3%	91.7%	75
Anwar	33	6.1%	75.8%	63.6%	18.2%	63.6%	42.4%	42.9%	12.1%	60.6%	60.6%	100.0%	75
Aziz	1,005	10.7%	72.8%	57.4%	42.4%	35.1%	22.9%	9.4%	15.1%	56.6%	28.5%	73.7%	55
Curry	52	9.6%	69.2%	53.8%	26.9%	53.8%	11.5%	0.0%	15.4%	61.5%	9.6%	71.2%	70
Duncan	969	7.0%	80.7%	64.3%	13.3%	61.8%	25.2%	23.3%	15.9%	59.8%	15.3%	78.6%	70
Halbert	1,118	7.1%	74.8%	63.3%	42.1%	35.5%	16.7%	5.1%	17.4%	45.0%	10.7%	60.8%	55
Henderson	811	10.4%	76.4%	63.3%	31.8%	46.1%	32.4%	10.0%	17.9%	53.6%	18.2%	86.4%	75
Holly	598	7.9%	79.3%	69.6%	23.6%	51.3%	32.9%	17.9%	17.7%	55.0%	40.1%	94.3%	75
Leifeste	678	7.4%	66.4%	56.5%	20.5%	54.6%	23.3%	16.9%	11.1%	51.2%	55.9%	78.3%	70
Murphy	1,127	5.7%	77.7%	66.4%	34.9%	36.9%	21.3%	4.0%	9.8%	59.7%	54.2%	94.9%	75
Vardiman	533	6.9%	74.7%	63.4%	36.8%	42.0%	17.8%	14.6%	18.4%	45.8%	4.9%	73.9%	55
Wheeler	668	7.6%	76.9%	69.8%	19.3%	51.3%	31.9%	11.0%	24.7%	47.5%	17.7%	81.0%	75

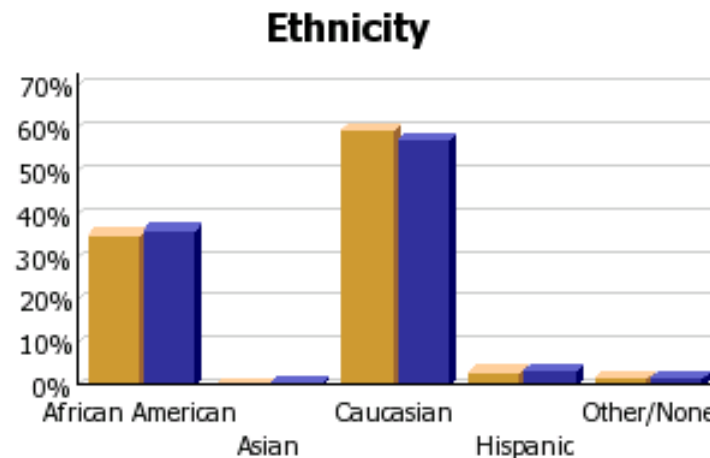
PERFORMANCE IMPROVEMENT

SETMA's use of BI also allows care-outcomes trending such as with HbA1c:



PERFORMANCE IMPROVEMENT

SETMA's goal of eliminating ethnic disparities in care can be substantiated with BI analytics:



	African American	Ethnicity Asian	Caucasian	Hispanic	Other/None
Controlled	35.3%	0.3%	59.6%	3.2%	1.6%
Selected	36.3%	0.8%	57.2%	3.7%	2.0%



PERFORMANCE IMPROVEMENT

SETMA's philosophy of health care delivery includes the concept that **every patient encounter** ought to be evaluation-al and educational both for the patient and for the provider. The patient and the provider need to be learning if the patient's health and the provider's healthcare delivery are to be continuously improving.



PERFORMANCE IMPROVEMENT

The concept that both the impact of continuous professional development and the process of that development should and must continue in the clinical setting, while implicit in CME, has become a more explicit and expressed object of CME.

Because of its dynamic, creative and sustainable nature, this may be the most significant improvement in CME resulting from PI-CME.



PERFORMANCE IMPROVEMENT

Addressing the foundation of Continuous Performance Improvement, the 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***



PERFORMANCE IMPROVEMENT

The IOM report stated:

“...it now takes **14-17 years for new evidence to be broadly implemented**...Shortening this period is key to advancing the provision of evidence-based care, and will require the existence of a well-trained health professional workforce that continually updates its knowledge.” (p. 16)



PERFORMANCE IMPROVEMENT

The tension between “**information**,” which is inherently static and “**learning**,” which is dynamic and generative, is the heart of *The Fifth Discipline*, in which Peter Senge, said:

“Learning is only distantly related to taking in more information...,” which classically has been the foundation of medical education. Traditional CME has perpetuated the idea that “learning” is simply accomplished by “the taking in of more information.”



PERFORMANCE IMPROVEMENT

Senge argues that “system thinking,” which is essentially a new way of learning, is needed because for the first time humankind has the capacity to:

- “Create far more information than anyone can absorb”
- “Foster greater interdependency than anyone can manage”
- “Accelerate change faster than anyone’s ability to keep pace”



PERFORMANCE IMPROVEMENT

Systems Thinking is:

- “A discipline of seeing wholes”
- “A framework for seeing interrelationships rather than isolated things”
- “For seeing patterns of change rather than static ‘snapshots’”
- “A set of general principles spanning (diverse) fields”

Intended for business, systems thinking precisely addresses major issues in continuous – healthcare -- professional development.



PERFORMANCE IMPROVEMENT

Transformation is defined by **sustainability** and in human endeavor both require “**Personal Mastery** , which is the discipline of continually clarifying and deepening your personal vision, of focusing your energies, of developing patience, and of seeing reality objectively” (Senge).

The difference between current reality and our personal vision is “creative tension.” And, “the essence of personal mastery is learning how to generate and sustain creative tension in our lives.” (Senge)



PERFORMANCE IMPROVEMENT

Those with “personal mastery”

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

This is “creative tension.” And this is the goal of PI-CME, i.e., the producing of healthcare professional “creative tension” by establishing and revealing the difference between where we are and where we want to be.



PERFORMANCE IMPROVEMENT

The change of mind which results in learning rather than simply “taking in more information,” results in “forward thinkers” who are able to create and sustain “creative tension.”

They can be described as “**relentless**” in the pursuit of the future they have envisioned. They will constantly be declaring:

**“I want it done right and
I want it done right now!”**



PERFORMANCE IMPROVEMENT

In 2005, AHRQ awarded the Johns Hopkins' Evidence-based Practice Center the task of performing a systematic review of the literature to answer **six key questions regarding the effectiveness of CME:**

- 1. Is there evidence that particular methods of delivering CME are more effective?**
- 2. Do changes in knowledge, attitudes, skills, practice behavior, or clinical practice outcomes produced by CME persist over time?**



PERFORMANCE IMPROVEMENT

3. What is the evidence from systematic reviews about the effectiveness of simulation methods in medical education outside of CME?
4. Which characteristics of the audience influence the effectiveness of certain educational techniques?
5. Which external factors reinforce the effects of CME in changing behavior?
6. **What is the reported validity and reliability of the methods that have been used for measuring the effects of CME?**



PERFORMANCE IMPROVEMENT

“The role of PI CME in achieving sustainable change,”

Susan Nedza, MD,

CPPD Report, AMA Continuing Medical Education

Winter 2009/No. 27

“...transformation...will only be successful if national efforts to improve quality:

- **enable QI where care is provided...**
- **in which) provider tools...make performance measurement a by-product of the care process**
- **(with) a commitment that supports continuous efforts to transform care at the practice level.”**



Diabetes Dm X

PCPI Diabetes Management

Has the patient had a Hemoglobin A1c within the last year? **Yes** Order HgbA1c
Date of Last

Has the patient had a Lipid Profile witin the last year? **Yes** Order Lipid Profile
Date of Last

Has the patient had a urinalysis within the last year? **No** Order Urinalysis
Date of Last

Has the patient had a dilated eye exam within the last year? **Yes** Add Referral Below
Date of Last

Has the patient had a flu shot within the last year? **Yes** Order Flu Shot
Date of Last

Has the patient had a 10-gram monofilament exam within the last year? **No** Click to Complete
Date of Last

Is the patient on Aspirin? **No** Add Medication Below
Is the patient allergic to aspirin? Yes No

Is the patient's blood pressure controlled (<130/80 mmHg)? **Yes**

Today's Blood Pressure /
 /
 /

Does the patient have at least one visit schedule for the next six months? Follow-Up Visit

Has the Diabetes Treatment Plan been completed with the last year? **Yes** Click to Complete
Date Last Completed

Referrals Double-Click to Add/Edit

Referral	Date

Active Medications Double-Click to Add/Edit

Brand Name	Dose
AZITHROMYCIN	100 %
CELEBREX	50 mg
EEMT H.S.	0.625 mg-1.2 mg

SETMA deployed the PCPI Diabetes set in 2004. This is a copy of the template.

The provider, at the point of care, can measure his/her performance by clicking on the template.

Measures in black have been met; those in red have not.

PERFORMANCE IMPROVEMENT



Diabetes Consortium - HgbA1c Measures

E & M Codes: Clinic Only

Encounter Date(s): Jan 1, 2004 through Dec 31, 2004

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

Provider	HgbA1c Level				HgbA1c Frequency		
	<= 6.5	<= 7.0	> 7.0	Not Present	Within 3 Months	Within 6 Months	Not Within 6 Months
Anthony	28.5%	43.5%	32.4%	23.3%	60.2%	67.8%	32.2%
Anwar	17.9%	32.1%	32.1%	35.9%	38.6%	48.9%	51.1%
Aziz	23.1%	40.7%	37.9%	21.3%	54.4%	69.2%	30.8%
Duncan	20.5%	34.7%	39.0%	25.7%	50.0%	59.9%	40.1%
Halbert	24.8%	34.4%	30.4%	34.7%	40.1%	47.9%	52.1%
Henderson	17.1%	31.2%	40.2%	28.7%	54.2%	62.9%	37.1%
Holly	27.4%	42.2%	32.8%	24.8%	59.2%	66.7%	33.3%
Murphy	29.7%	44.5%	35.5%	20.0%	66.9%	73.8%	26.2%
Vardiman	15.9%	29.9%	34.0%	36.1%	35.9%	48.9%	51.1%
Wheeler	26.0%	45.2%	29.4%	25.4%	49.4%	59.6%	40.4%
SETMA Totals:	23.3%	37.8%	34.5%	27.5%	50.1%	60.3%	39.7%

PERFORMANCE IMPROVEMENT



Diabetes Consortium - HgbA1c Measures

E & M Codes: Clinic Only
 Encounter Date(s): Jan 1, 2007 through Dec 31, 2007

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

Provider	HgbA1c Level			Not Present	HgbA1c Frequency		
	<= 6.5	<= 7.0	> 7.0		Within 3 Months	Within 6 Months	Not Within 6 Months
Ahmed	29.1%	42.9%	53.0%	3.9%	83.7%	92.9%	7.1%
Anthony	49.8%	63.3%	29.9%	6.8%	72.9%	82.6%	17.4%
Anwar	45.0%	65.0%	35.0%	0.0%	95.0%	100.0%	0.0%
Aziz	43.2%	55.6%	34.6%	9.8%	62.1%	77.2%	22.8%
Curry	48.5%	51.5%	24.2%	24.2%	30.3%	42.4%	57.6%
Duncan	47.0%	61.4%	29.2%	9.4%	54.8%	70.1%	29.9%
Halbert	47.1%	60.9%	23.7%	15.2%	51.9%	62.1%	37.9%
Henderson	47.5%	59.1%	33.3%	7.6%	61.7%	73.4%	26.6%
Holly	55.8%	64.5%	26.0%	9.5%	69.6%	81.8%	18.2%
Leifeste	46.7%	57.1%	21.8%	21.1%	59.3%	68.3%	31.7%
Murphy	57.0%	65.9%	21.5%	12.6%	64.4%	77.0%	23.0%
Vardiman	49.6%	61.0%	24.0%	14.4%	51.9%	63.6%	36.4%
Wheeler	57.7%	68.5%	20.8%	10.5%	60.0%	74.7%	25.3%
SETMA Totals:	45.6%	57.8%	32.1%	10.0%	65.7%	77.3%	22.7%



Diabetes Consortium - HgbA1c Measures

E & M Codes: Clinic Only

Encounter Date(s): Jan 1, 2011 through May 31, 2011

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

Location	Provider	HgbA1c Level				HgbA1c Frequency		
		<= 6.5	<= 7.0	> 7.0	Not Present	Within 3 Months	Within 6 Months	Not Within 6 Months
SETMA 1	Aziz	47.4%	62.8%	34.2%	1.3%	67.4%	81.9%	18.1%
	Duncan	47.6%	67.3%	31.2%	1.0%	67.8%	82.7%	17.3%
	Henderson	51.3%	65.8%	31.6%	0.8%	65.4%	83.3%	16.7%
	Murphy	50.9%	69.1%	29.1%	1.0%	71.7%	88.8%	11.2%
	Palang	28.6%	28.6%	14.3%	57.1%	38.1%	38.1%	61.9%
	Thomas	35.1%	52.6%	45.4%	2.1%	51.5%	79.4%	20.6%
SETMA 1 Totals:		48.0%	64.7%	32.2%	2.0%	66.7%	83.5%	16.5%
SETMA 2	Ahmed	26.7%	40.2%	46.6%	5.1%	76.5%	83.2%	16.8%
	Anthony	40.4%	59.9%	39.2%	0.3%	81.2%	93.0%	7.0%
	Anwar	42.9%	66.1%	31.4%	1.9%	84.2%	93.7%	6.3%
	Cricchio, A	27.0%	43.6%	42.0%	2.6%	77.9%	83.1%	16.9%
	Cricchio, M	43.1%	62.7%	33.7%	2.2%	68.8%	80.8%	19.2%
	Holly	56.9%	75.0%	25.0%	0.0%	86.1%	95.8%	4.2%
	Leifeste	58.3%	65.7%	25.5%	6.2%	77.3%	87.2%	12.8%
	Wheeler	56.6%	75.6%	22.0%	0.5%	76.6%	90.7%	9.3%
SETMA 2 Totals:		38.5%	54.6%	37.4%	3.3%	77.8%	86.7%	13.3%
SETMA West	Curry	46.5%	61.1%	35.4%	2.8%	68.8%	87.5%	12.5%
	Deiparine	44.0%	56.8%	29.0%	12.4%	56.4%	72.6%	27.4%
	Halbert	43.6%	60.1%	36.2%	3.4%	61.7%	74.8%	25.2%
	Horn	52.8%	65.8%	29.4%	4.1%	60.2%	78.1%	21.9%
	Qureshi	43.0%	56.3%	35.2%	7.7%	59.9%	69.7%	30.3%
	Satterwhite	31.6%	50.3%	40.6%	8.4%	46.5%	68.4%	31.6%
	Vardiman	46.3%	62.6%	32.7%	2.7%	50.3%	69.4%	30.6%
SETMA West Totals:		44.6%	59.5%	33.6%	6.0%	58.2%	74.5%	25.5%
SETMA Totals:		42.2%	58.2%	35.2%	3.7%	70.2%	82.8%	17.2%



PERFORMANCE IMPROVEMENT

SETMA's Model of Care, actually models PI-CME:

1. We continually measure our current performance.
2. The aggregation of quality data is incidental to the delivery of care, requiring no additional effort on the providers' part.
3. Monthly, we have nursing and provider meetings to conduct peer review, review treatment strategies and to discuss quality improvement .
4. We share training material to improve our knowledge.
5. We have a goal of improving and continue to monitor our performance at the point of care, not only encouraging but demanding improvement of ourselves.



PERFORMANCE IMPROVEMENT CME

As the classic lecture-CME setting has increasingly been shown not to change provider behavior, new iterations of CME have been developed.

- In 2002, the AAFP introduced evidence-based CME
- In 2004, AMA, AAFP and OA changed the measurement of CME from hours to credits.
- In 2005, AMA implemented two new formats: Internet point of care (PoC) and performance improvement (PI) CME



PERFORMANCE IMPROVEMENT CME

The Steps of Performance Improvement CME (PI-CME)

1. First stage, assessment of each physician's current practice using identified evidence-based performance measures. Feedback to physicians compares their performance to national benchmarks and to the performance of peers.
2. Second stage, implementation of an intervention based on the performance measures assessed in the practice.
3. Third stage, reevaluation of performance in practice including reflection and summarization of outcome changes resulting from the PI CME activity.



JOSLIN PI-CME GLYCOCARDIO

SETMA is involved with two PI-CME Programs with the Joslin Diabetes Center. The first project focuses upon hemoglobin A1C and the assessment of and the elements of the cardiometabolic risk syndrome.

SETMA has disease management tools for both diabetes and the cardiometabolic risk syndrome. The content of both can be reviewed at www.jameslhollymd.com under “Electronic Patient Management Tools” by clicking on “Disease Management Tools”

JOSLIN PI-CME GLYCOCARDIO

<u>Provider</u>	<u>Age</u>	<u>Males</u>	<u>Females</u>	<u>BMI</u>	<u>HgbA1c</u>		<u>Referred DSME</u>	<u>Exercise</u>	<u>Attend DSME</u>	<u>Med Changed</u>
					<u>AVG</u>	<u>STD DEV</u>				
Ahmed, Jehanara	64	43.7	56.3	38.5	7.5	1.64	40.3	95.1	55.7	95.0
Anthony, Jeffrey	67	56.0	44.0	38.2	7.0	1.60	41.8	91.5	36.1	48.3
Anwar, Syed	71	43.1	56.9	43.3	6.8	1.31	40.3	79.7	37.3	48.0
Aziz, Muhammad	69	43.3	56.7	36.9	7.0	1.57	53.2	95.2	36.1	61.1
Cricchio, Angela	65	45.3	54.7	34.4	7.7	1.78	47.6	98.7	59.0	90.4
Cricchio, Michael	66	47.1	52.9	42.3	6.9	1.57	48.5	87.6	46.9	37.1
Curry, Marissa	66	29.7	70.3	32.5	6.9	1.54	52.3	98.2	42.1	39.9
Deiparine, Caesar	66	43.5	56.5	36.7	7.0	1.66	25.0	91.6	24.2	75.3
Duncan, Norma	65	22.7	77.3	49.5	6.8	1.34	33.2	97.8	35.0	30.7
Halbert, Dean	67	53.4	46.6	33.6	6.9	1.55	27.1	97.2	28.3	57.1
Henderson, Dana	71	40.3	59.7	34.9	6.9	1.42	38.5	95.4	36.3	55.6
Holly, James	65	65.6	34.4	31.1	6.4	1.73	53.4	93.6	50.1	65.2
Horn, Alicia	64	30.1	69.9	35.9	6.7	1.32	40.6	99.8	37.2	42.9
Leifeste, Alan	67	46.3	53.7	32.7	6.8	1.50	43.8	90.8	36.5	73.8
Murphy, Vincent	68	45.4	54.6	31.9	6.7	1.31	27.8	91.6	28.4	45.7
Palang, Ronald	69	62.4	37.6	31.6	6.9	1.38	17.6	90.0	15.2	43.3
Qureshi, Absar	69	43.4	56.6	32.7	7.0	1.59	28.0	83.9	28.1	41.4
Satterwhite, Kelli	69	29.7	70.3	1249.4	6.9	1.41	21.9	67.4	19.8	43.3
Thomas, Michael	67	47.7	52.3	50.7	7.1	1.54	32.8	88.5	31.5	34.1
Vardiman, John	70	56.5	43.5	53.0	7.0	1.50	31.0	97.4	33.3	38.2
Wheeler, Marcella	65	15.4	84.6	34.2	6.8	1.61	36.5	83.6	34.9	41.3

JOSLIN PI-CME CARDIO

	Avg Age	Males	Females	Avg Weight	Cessation Provided	Diabetes	Dyslipidemia	Hypertension	BMI
Provider	years	%	%	lbs	% of patients	% of patients	% of patients	% of patients	average
Ahmed, Jehanara	56	39.9	60.0	211.7	90.3	73.6	67.1	68.7	62.9
Anthony, Jeffrey	54	62.3	37.7	204.6	92.3	22.8	65.1	51.2	49.1
Anwar, Syed	59	53.4	46.6	203.2	90.2	27.8	70.4	65.0	47.5
Aziz, Muhammad	55	55.3	44.7	193.9	95.5	19.7	63.8	61.8	41.4
Cricchio, Angela	60	45.2	54.8	216.7	95.2	91.1	77.1	79.6	70.7
Cricchio, Michael	52	51.9	48.1	195.3	93.1	22.8	58.7	51.3	48.7
Curry, Marissa	51	24.0	76.0	187.8	99.1	11.4	42.5	44.2	48.1
Deiparine, Caesar	51	47.1	52.9	194.7	96.5	14.5	57.4	50.0	45.7
Duncan, Norma	51	28.7	71.2	269.3	94.2	12.3	51.5	44.5	46.8
Halbert, Dean	55	57.7	42.3	198.1	95.1	17.8	58.5	53.9	46.7
Henderson, Dana	53	30.7	69.3	202.5	94.6	18.6	60.2	57.2	52.3
Holly, James	59	60.8	39.2	198.9	90.9	33.3	64.7	58.8	43.1
Horn, Alicia	52	25.6	74.4	280.8	98.2	13.9	50.7	47.1	45.6
Leifeste, Alan	56	50.1	49.9	195.0	96.9	24.6	63.7	57.5	44.9
Murphy, Vincent	56	54.4	45.6	199.1	79.9	22.6	66.3	61.5	47.4
Palang, Ronald	60	55.1	44.9	185.0	100.0	19.2	53.8	78.2	35.9
Qureshi, Absar	51	44.0	56.0	201.4	98.6	14.0	42.0	42.6	49.7
Satterwhite, Kelli	54	27.2	72.8	195.7	100.0	17.7	43.4	52.7	49.0
Thomas, Michael	50	58.2	41.8	196.6	92.5	13.8	35.3	40.5	45.4
Vardiman, John	54	61.3	38.7	196.2	98.9	13.2	45.7	46.1	40.3
Wheeler, Marcella	52	16.1	83.9	190.1	93.9	17.1	49.6	47.7	48.8

JOSLIN PI-CME CARDIO

	Patients with Diabetes (%)					Patients w/o Diabetes (%)				Risk Stratification % of patients
	HgbA1c < 7.0	LDL < 100	HDL M>40, F>50	BP < 130/80		LDL < 160	HDL > 50	BP < 140/90		
Ahmed, Jehanara	42.9	55.8	48.8	49.4		57.9	41.6	89.1		84.7
Anthony, Jeffrey	71.0	54.3	59.4	49.3		74.5	42.6	86.7		86.1
Anwar, Syed	62.1	53.7	58.1	63.1		76.2	44.9	89.4		87.1
Aziz, Muhammad	62.7	56.8	58.5	38.1		86.3	49.7	72.8		93.2
Cricchio, Angela	49.0	61.5	55.2	53.8		71.4	35.7	78.6		93.0
Cricchio, Michael	64.7	56.6	58.1	53.7		76.5	45.9	84.3		85.7
Curry, Marissa	64.2	56.7	47.8	47.8		68.5	46.8	83.9		78.7
Deiparine, Caesar	56.1	52.0	50.7	23.6		70.3	41.0	72.0		77.4
Duncan, Norma	71.4	52.7	52.7	44.6		73.7	54.2	89.9		83.9
Halbert, Dean	61.7	46.1	54.3	44.0		74.8	42.1	76.7		86.0
Henderson, Dana	62.9	57.6	50.8	39.4		77.4	49.9	77.5		87.3
Holly, James	70.6	56.9	49.0	51.0		85.3	52.9	78.4		93.5
Horn, Alicia	69.7	52.4	47.6	54.5		73.3	49.4	91.3		81.3
Leifeste, Alan	69.7	64.8	52.1	51.5		82.2	46.7	83.0		90.1
Murphy, Vincent	70.0	63.7	62.6	34.2		82.2	53.4	74.6		91.9
Palang, Ronald	46.7	40.0	26.7	40.0		36.5	20.6	81.0		39.7
Qureshi, Absar	49.0	39.2	39.2	51.0		65.5	35.1	90.1		72.5
Satterwhite, Kelli	57.3	50.0	47.6	36.6		75.6	52.5	71.7		84.4
Thomas, Michael	49.0	41.3	55.8	34.6		51.2	30.0	83.2		60.7
Vardiman, John	66.7	39.4	53.0	37.9		61.0	35.6	72.5		70.7
Wheeler, Marcella	71.3	49.1	49.1	38.0		79.8	58.1	83.0		88.3



PERFORMANCE IMPROVEMENT

The *2009 IOM* report referenced above further stated:

“....**continuing professional development (CPD)**...is learner-driven, allowing learning to be tailored to individual needs....

“CPD methods include self-directed learning and organizational and systems factors; and it focuses on both clinical content and other practice-related content, such as communications and business.” (p. 17)



PERFORMANCE IMPROVEMENT

“...an effective continual professional development system should ensure that health professionals are prepared to:

1. “Provide patient-centered care.
2. Work in inter-professional teams.
3. Employ evidence-based practice.
4. Apply quality improvement.
5. Use health informatics.” (*IOM*, p. 94)



CLINICAL DECISION SUPPORT

CDS is the “**missing link**” in the incorporation of new information into a clinician’s workflow learned in PI-CME.

SETMA had one provider who routinely completed 500 hours of CME a year. He knew more than almost anybody but his outcomes never changed. He never incorporated what he knew into his workflow.



CLINICAL DECISION SUPPORT

For complex clinical processes, the **final step in PI CME** must be the incorporation of the process of Performance Improvement into the provider's work flow through **clinical decision support**.

The Office of National Coordinator (ONC) of Health Information Technology (HIT) of Health and Human Services (HHS) through a Rand Corporation grant **named SETMA** as one of thirty exemplary practices in the United States for CDS.



CLINICAL DECISION SUPPORT

Texas Department of State Health Services
HIV/ASTD Prevention and Care Branch
Promoting Routine HIV
Screening for ages 13-64

SETMA began this process July 1, 2011. But how do you get this done with five clinics and busy providers who already have a great deal to do?

CLINICAL DECISION SUPPORT

Pre-Visit/Preventive Screening

General Measures (Patients >18)

Has the patient had a tetanus vaccine within the last 10 years?

Yes

Date of Last

06/02/2010

Order Tetanus

Has the patient had a flu vaccine within the last year?

No

Date of Last

03/05/2010

Order Flu Shot

Has the patient ever had a pneumonia shot? (Age>50)

N/A

Date of Last

01/26/2010

Order Pneumovax

Does the patient have an elevated (>190 mg/dL) LDL?

Yes

Last

149

12/02/2010

Order Lipid Profile

Has the patient been screened for HIV within the last year? (Age 13-65)

No

Date of Last

01/30/2008

Order HIV Screen

Elderly Patients (Patients >65)

Has the patient had an occult blood test within the last year? (Patients >50)

N/A

Date of Last

//

Diabetic

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Female

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CLINICAL DECISION SUPPORT

Place HIV testing with the discriminators into Preventive Health & Screening protocol.

- If the HIV test is **black** it applies to the patient and has been done.
- If the HIV test is **grey**, it does not apply to the patient.
- If the HIV is **red**, it applies and has not been done.

If the button is red, click it!



CLINICAL DECISION SUPPORT

When the button is clicked, the following happens:

1. Test is ordered
2. Sends order to the chart, billing and lab
3. Automatically populates release form with patient information
4. Prints the consent form for the patient to sign



CLINICAL DECISION SUPPORT

Reporting infectious disease to the Texas Department of Health is complicated.

- 78 different diseases to be reported.
- 5 different categories of reporting based on timing
- Matching of presumptive diagnoses with confirmatory test
- Contacting the State and documenting report to the state.
- Auditing the incidence of a diseases and of reporting.

DISEASE REPORTING

[PDM](#)
[NURSE](#)
[HISTORIES](#)
[HEALTH](#)
[QUIZES](#)
[HPI](#)
[ROS](#)
[P.E.](#)
[X-RAY](#)
[ASSESS](#)
[PLAN](#)
[PROCS](#)

Acute Assessments Re-Order	Status	HCC Risk Ca
Meningitis Streptococcal	Acute	

[Detailed Comments](#)

Chief Complaints

Master GP

[Additional Acute Assessments](#)

Chronic Conditions Re-Order	Status	HCC Risk Cat
Renal Stage I Chron Disease	Chronic	HCC HPI - 1,2
CHF Unspecified	Chronic	HCC
Hypothyroidism Unspecified	Chronic	RxHCC HPI - 3,4
RA, Rheumatoid Arthritis	Chronic	HCC
Fibromyalgia Fibrositis	Chronic improved	RxHCC HPI - 5,6
DM II Renal Manifestat Uncontr	Chronic	HCC
Hyperten Benign Essential	Chronic	RxHCC HPI - 7,8
Abd Pain Rebound Tender Perium	Control, poor	

Assessments into Problem List

General Comments

Texas Department of State Health Services Reporting Guidelines

The following conditions must be report to the Texas Department of State Health Services within the timeframe specified. Reports should be made by fax to 512-458-7616. [Click here to download the form.](#)

ANY outbreak, exotic disease or unusual group expression of disease that may be of public health concern should be reported by the most expeditious means possible.

The following must be reported IMMEDIATELY.

- | | |
|---|---|
| <input type="checkbox"/> Anthrax | <input type="checkbox"/> Polio |
| <input type="checkbox"/> Botulism, Foodborne | <input type="checkbox"/> Rabies |
| <input type="checkbox"/> Controlled Substance Overdose | <input type="checkbox"/> SARS |
| <input type="checkbox"/> Diphtheria | <input type="checkbox"/> Smallpox |
| <input type="checkbox"/> Influenza, Type B | <input type="checkbox"/> VISA and VRSA |
| <input type="checkbox"/> Lead, Any Level, Child or Adult | <input type="checkbox"/> Tularemia |
| <input checked="" type="checkbox"/> Meningococcal, Invasive | <input type="checkbox"/> Viral Hemorrhagic Fever
(Including Ebola) |
| <input type="checkbox"/> Mumps | <input type="checkbox"/> Yellow Fever |

These items should be reported immediately by phone to 1-800-252-8239!

The following must be reporting within ONE WORKING DAY.

- | |
|---|
| <input type="checkbox"/> Brucellosis |
| <input type="checkbox"/> Hepatitis A, Acute |
| <input type="checkbox"/> Hepatitis B, Perinatal |
| <input type="checkbox"/> Influenza-Associated Pediatric Mortality |
| <input type="checkbox"/> Pertussis |
| <input type="checkbox"/> Q Fever |
| <input type="checkbox"/> Rubella, Including Congenital |
| <input type="checkbox"/> Syphilis, Primary and Secondary |
| <input type="checkbox"/> Tuberculosis |
| <input type="checkbox"/> Vibrio Infection, Including Cholera |

The following must be reported within ONE WEEK.

- | | | |
|--|---|--|
| <input type="checkbox"/> AIDS | <input type="checkbox"/> Escherichia Coli | <input type="checkbox"/> Pesticide Poisoning |
| <input type="checkbox"/> Amebiasis | <input type="checkbox"/> Gonorrhea | <input type="checkbox"/> Relapsing Fever |
| <input type="checkbox"/> Arbovirus | <input type="checkbox"/> Hansen's Disease (Leprosy) | <input type="checkbox"/> Salmonellosis, Including Typhoid Fever |
| <input type="checkbox"/> Asbestosis | <input type="checkbox"/> Hantavirus | <input type="checkbox"/> Shigellosis |
| <input type="checkbox"/> Botulism - Infant, Wound, Other | <input type="checkbox"/> Hemolytic Uremic Syndrome (HUS) | <input type="checkbox"/> Silicosis |
| <input type="checkbox"/> Campylobacteriosis | <input type="checkbox"/> Hepatitis B, C, D, E and unspecified | <input type="checkbox"/> Spotted Fever Group Rickettsioses |
| <input type="checkbox"/> Chancroid | <input type="checkbox"/> Hepatitis B
(Prenatally or at delivery) | <input type="checkbox"/> Streptococcal Disease, Invasive
(Group A, B, S Pneumo) |
| <input type="checkbox"/> Chickenpox | <input type="checkbox"/> HIV | <input type="checkbox"/> Syphilis |
| <input type="checkbox"/> Chlamydia | <input type="checkbox"/> Legionellosis | <input type="checkbox"/> Taenia Solium |
| <input type="checkbox"/> Creutzfeldt-Jacob Disease | <input type="checkbox"/> Leishmaniasis | <input type="checkbox"/> Tetanus |
| <input type="checkbox"/> Cryptosporidiosis | <input type="checkbox"/> Listeriosis | <input type="checkbox"/> Trichinosis |
| <input type="checkbox"/> Cyclosporiasis | <input type="checkbox"/> Lyme Disease | <input type="checkbox"/> Typhus |
| <input type="checkbox"/> Cystercercosis | <input type="checkbox"/> Malaria | <input type="checkbox"/> West Nile Fever |
| <input type="checkbox"/> Dengue | <input checked="" type="checkbox"/> Meningitis | <input type="checkbox"/> Yersiniosis |
| <input type="checkbox"/> Ehrlichiosis | <input type="checkbox"/> Mumps | |
| <input type="checkbox"/> Encephalitis | | |

The follwing must be reported within TEN WORKING DAYS.

- | |
|--|
| <input type="checkbox"/> Drowning, Near Drowning |
| <input type="checkbox"/> Spinal Cord Injury |
| <input type="checkbox"/> Traumatic Brain Injury |

The following must be reported within ONE MONTH.

- | |
|---|
| <input type="checkbox"/> Contaminated Sharps Injury |
|---|

OK

Cancel

[Click Here To Document Reporting Details](#)

DISEASE REPORTING

Reporting Infectious Det

Infectious Disease Reporting Details

Clinical Decision Support

Select Reporting Method Mail Phone

Reporting Done By

At

On

Comments

Spoke with Melinda and the state reporting office. She re-directed me to the local office and the report was successfully filed. NW

OK Cancel



PERFORMANCE IMPROVEMENT

- Annually, the American Diabetes Association (ADA) publishes a 100-page update on Diabetes standards of care.
- Reading it is good, but incorporating it into patient care is the goal.
- New information or new standards of care are annually built into clinical CDS (SETMA's Diabetes Disease Management Tool).
- This provides the missing link between CME and sustain provider performance.



PERFORMANCE IMPROVEMENT

The **key to linking** new treatment standards to the providers' routine workflow is clinical decision support which intuitively integrates the new knowledge into the electronic patient record.

One **"link"** of new knowledge to CPI is the identifying of standards of care with quality metric sets with the ability for providers to track and audit quality metrics without adding to their work burden. The ability to do that at the point of and the time of care is critical.



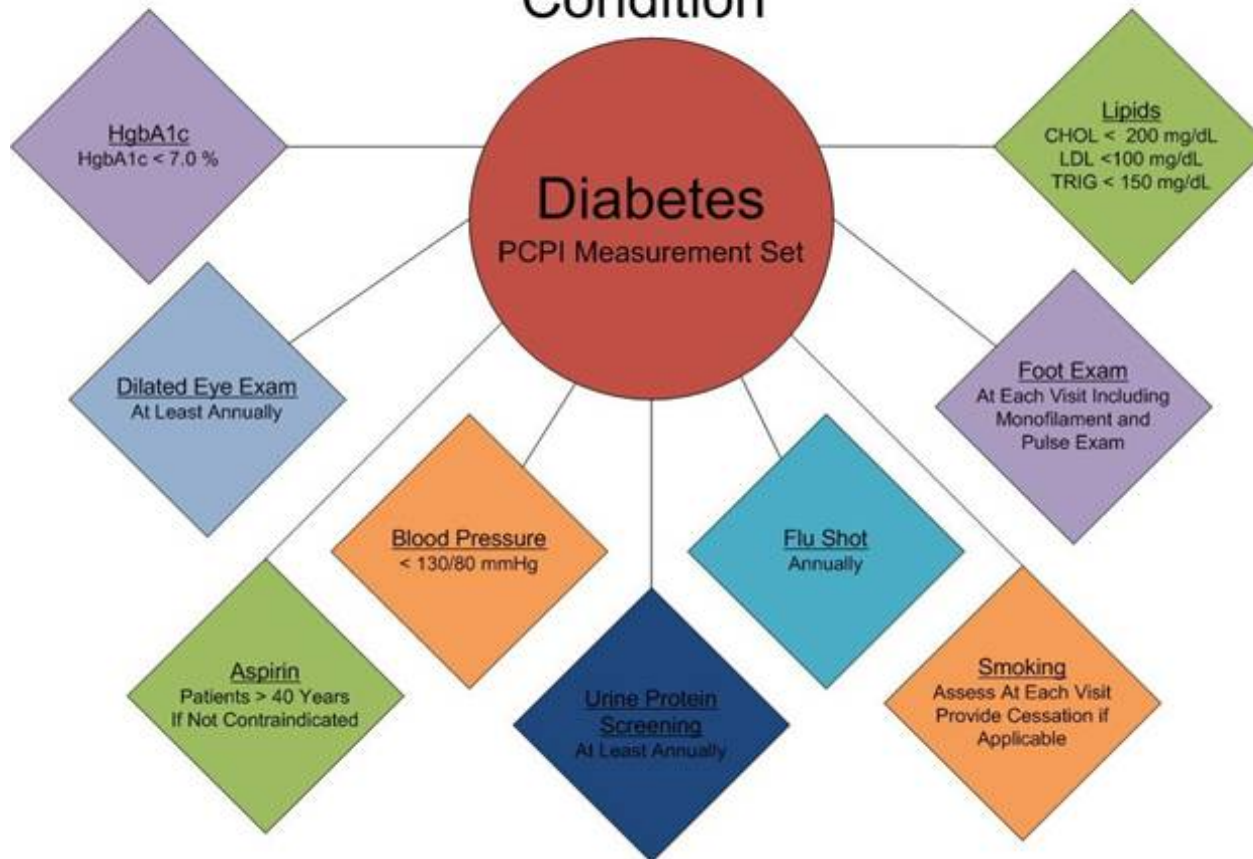
PERFORMANCE IMPROVEMENT

SETMA believes that fulfilling a single or several quality metrics does not change outcomes, but that fulfilling “clusters” and “galaxies” of metrics at the point-of-care will change outcomes.

- 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.)

PERFORMANCE IMPROVEMENT

A “Cluster” -- Multiple Metrics on a Single Condition



PERFORMANCE IMPROVEMENT

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





PERFORMANCE IMPROVEMENT

The SETMA Model of Care meets all of the needs for Continuous Improvement adding the tool which addresses provider, clinical inertia which is Public Reporting of Provider Performance by Provider Name.

- Tracking
- Auditing
- Analyzing
- Reporting
- Quality Improvement



PERFORMANCE IMPROVEMENT

The **tracking** on each patient by each provider of their performance on preventive and screening care, and on quality standards for acute and chronic care. Tracking occurs simultaneously with the performing of these services by the entire healthcare team, including the personal provider, nurse, clerk, management, etc. It occurs regardless of the place of care and it occurs at all points of care.

PERFORMANCE IMPROVEMENT

Pre-Visit/Preventive Screening

General Measures (Patients >18)

Has the patient had a tetanus vaccine within the last 10 years? **Yes**
 Date of Last

Has the patient had a flu vaccine within the last year? **No**
 Date of Last

Has the patient ever had a pneumonia shot? (Age>50) **N/A**
 Date of Last

Does the patient have an elevated (>100 mg/dL) LDL? **Yes**
 Last

Elderly Patients (Patients >65)

Has the patient had an occult blood test within the last year? (Patients >50) **N/A**
 Date of Last

Has the patient had a fall risk assessment completed within the last year? **N/A**
 Date of Last

Has the patient had a functional assessment within the last year? **N/A**
 Date of Last

Has the patient had a pain screening within the last year? **N/A**
 Date of Last

Has the patient had a glaucoma screen (dilated exam) within the last year? **N/A**
 Date of Last *Add Referral At Right*

Does the patient have advanced directives on file or have they been discussed with the patient? **N/A**
 Discussed? Completed?

Is the patient on one or more medications which are considered high risk in the elderly? **N/A**

Diabetic Patients

Has the patient had a HgbA1c within the last year? **Yes**
 Date of Last *Ordered Today*

Has the patient had a dilated eye exam within the last year? **Yes**
 Date of Last *Add Referral Below*

Has the patient had a 10-gram monofilament exam within the last year? **No**
 Date of Last

Has the patient had screening for nephropathy within the last year? **Yes**
 Date of Last

Has the patient had a urinalysis within the last year? **No**
 Date of Last

Female Patients

Has the patient had a pap smear within the last two years? (Ages 21 to 64) **N/A**
 Date of Last *Add Referral Below*

Has the patient had a mammogram within the last two years? (Ages 40 to 69) **N/A**
 Date of Last *Add Referral Below*

Has the patient had a bone density within the last two years? (Age >50) **N/A**
 Date of Last *Add Referral Below*

Male Patients

Has the patient had a PSA within the last year? (Age >40) **No**
 Date of Last

Has the patient had a bone density within the last two years? (Age >65) **N/A**
 Date of Last *Add Referral Below*

Referrals (Double-Click To Add/Edit)

Referral	Status	Referring

PERFORMANCE IMPROVEMENT

National Quality Forum (NQF) National Voluntary Consensus Standards

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.

General Health Measures

- [View](#) **Body Mass Index Measurement**
- [View](#) Smoking Cessation
- Proper Assessment for Chronic COPD
- Adult Immunization Status

Blood Pressure Measures

- [View](#) Blood Pressure Measurement
- [View](#) **Blood Pressure Classification/Control**

Medication Measures

- [View](#) **Current Medication List**
- [View](#) **Documentation of Allergies/Reactions**
- [View](#) Therapeutic Monitoring of Long Term Medications
- Drugs to Avoid in the Elderly
- [View](#) Appropriate Medications for Asthma
- [View](#) Inappropriate Antibiotic Treatment for Adults with Acute Bronchitis
- [View](#) **LDL Drug Therapy for Patients with CAD**

Chronic Conditions Measures

- Comprehensive CHF Care
- [View](#) **Osteoarthritis Care**

Care for Older Adults

- Counseling on Physical Activity
- [View](#) Urinary Incontinence in Older Adults
- Colorectal Cancer Screening
- Fall Risk Management

Diabetes Measures

- [View](#) Dilated Eye Exam
- [View](#) Foot Exam
- [View](#) **Hemoglobin A1c Testing/Control**
- [View](#) **Blood Pressure**
- [View](#) Urine Protein Screening
- [View](#) **Lipid Screening**

Female Specific Measures

- Breast Cancer Screening
- Cervical Cancer Screening
- Chlamydia Screening
- Osteoporosis Management

Pediatric Measures

- Appropriate Screening for Children with Pharyngitis
- Childhood Immunization Status



PERFORMANCE IMPROVEMENT

The **auditing** of provider performance on:

- An entire practice
- Each individual clinic
- Each provider on a population
- Each provider on a panel of patients

is critical for quality improvement. **SETMA believes this is the piece missing from most healthcare improvement programs and it is a critical part of PI-CME.**



PERFORMANCE IMPROVEMENT

- The aggregation of provider performance results over his/her entire panel of patients carries the process of designing the future of healthcare delivery a further and a critical step.
- Most auditing results, such as HEDIS, are presented to the provider 12 to 18 months after the fact.
SETMA believes that “real time, auditing and giving of the audit results to providers can change provider behavior and can overcome “treatment inertia.”



PERFORMANCE IMPROVEMENT

SETMA is able to analyze if there are patterns to explain why one population or one patient is not to goal and others are. SETMA looks at:



- Frequency of visits
- Frequency of testing
- Number of medications
- Change in treatment if not to goal
- Attended Education or not
- Ethnic disparities of care
- Age and Gender variations
- Etc.

PERFORMANCE IMPROVEMENT

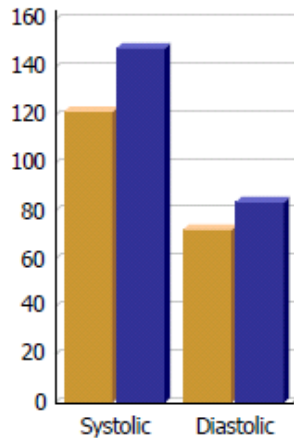


Chronic Hypertension - Measures Comparison (Most Recent 12 Months)

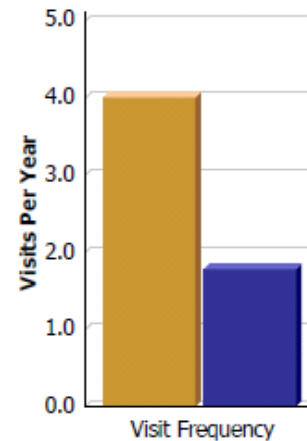
Controlled Group Time Basis: **Prior 12 Months**
 Controlled Group Constrained to: **All SETMA**
 Practice: **SETMA 1, SETMA 2, SETMA West**
 Provider: **None**

 Controlled Group
 Selected Group

Average Blood Pressure

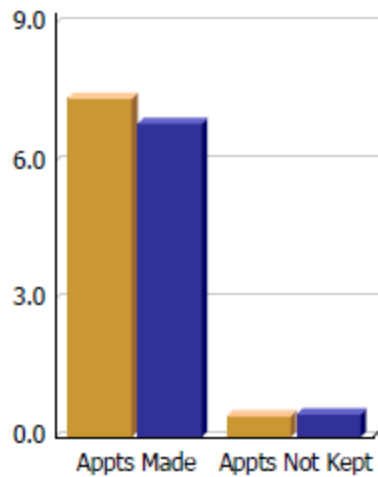


	Systolic	Standard Deviation
Controlled	121.7	10.5
Selected	148.2	37.8

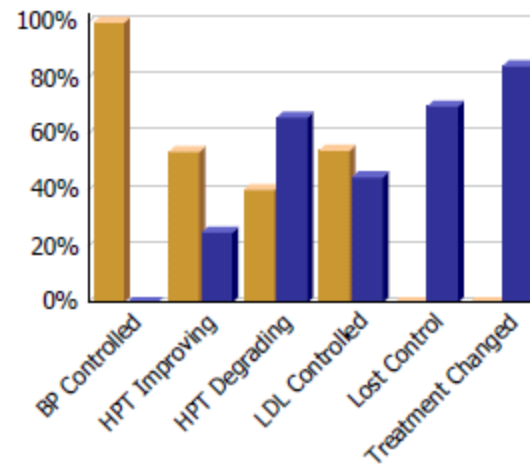


	Visit Frequency
Controlled	4.0
Selected	1.8

PERFORMANCE IMPROVEMENT



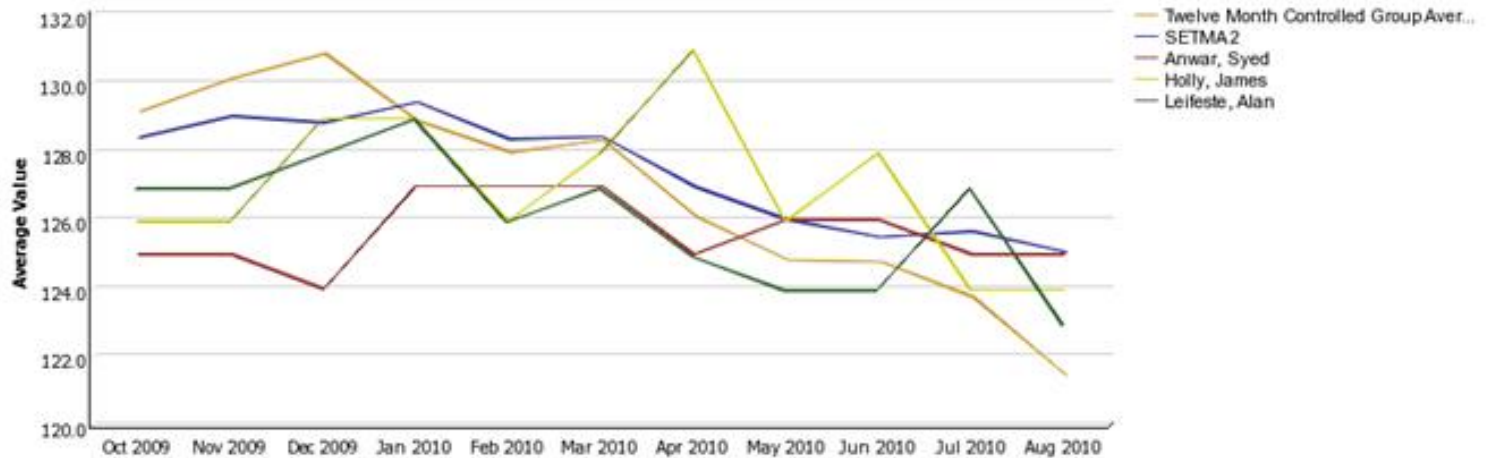
	Appts Made	Appts Not Kept
Controlled	7.4	0.5
Selected	6.8	0.5



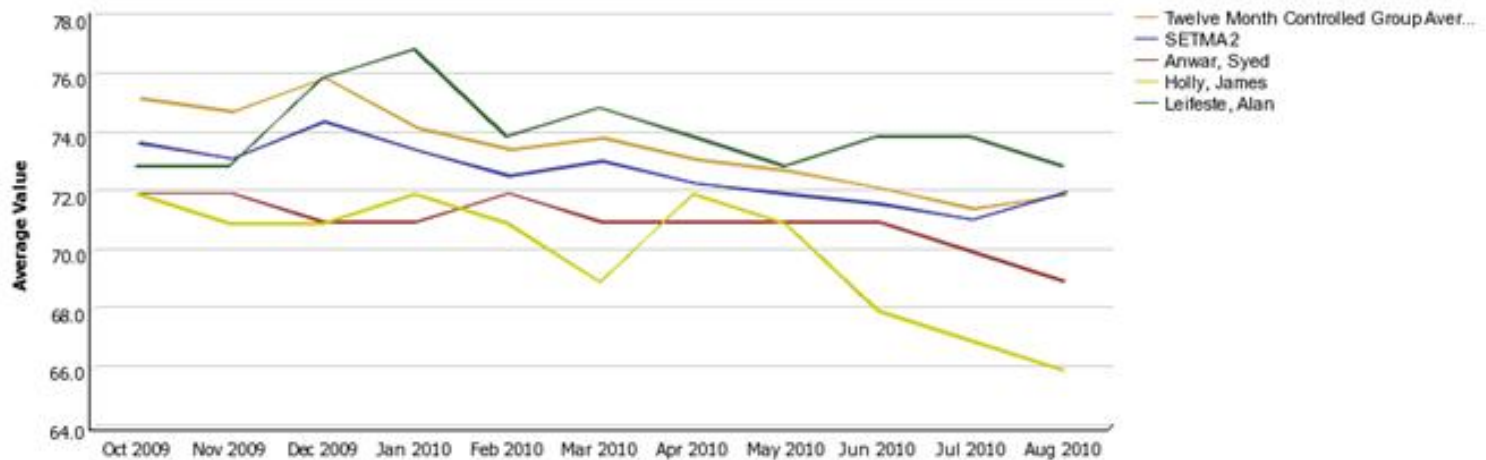
	BP Controlled	HPT Improving	HPT Degrading	LDL Controlled	Lost Control	Treatment Changed
Controlled	100.0%	53.9%	40.3%	54.3%	0.0%	0.0%
Selected	0.0%	25.2%	66.2%	44.9%	70.2%	84.5%

PERFORMANCE IMPROVEMENT

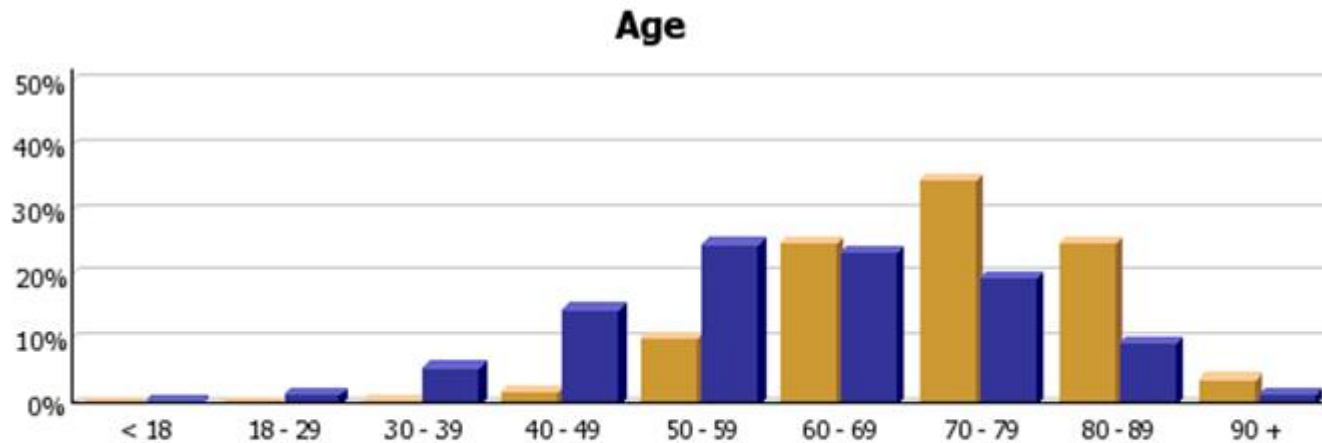
Systolic Trending



Diastolic Trending



PERFORMANCE IMPROVEMENT



	< 18	18 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 +
Controlled	0.0%	0.0%	0.2%	1.8%	10.0%	24.8%	34.7%	24.9%	3.7%
Selected	0.2%	1.4%	5.5%	14.5%	24.7%	23.4%	19.5%	9.3%	1.4%



PERFORMANCE IMPROVEMENT

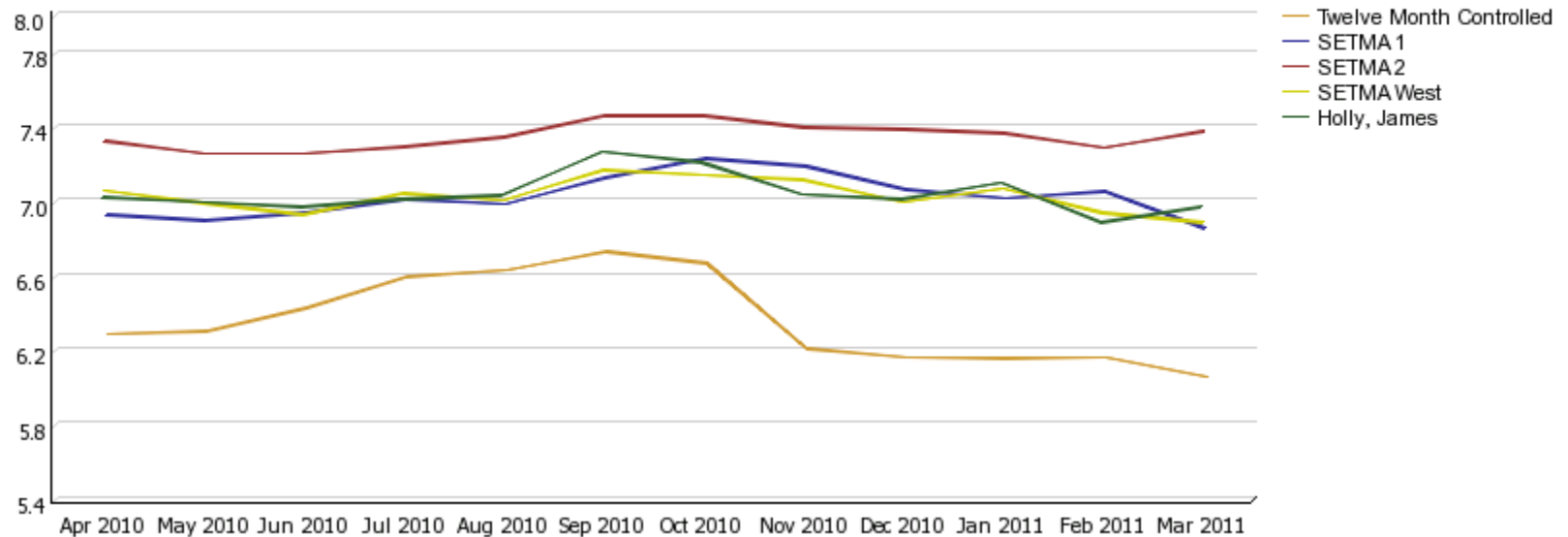
We are able to present over-time patient results comparing:

- Provider to practice
- Provider to provider
- Provider current to provider over time
- Trending of results to see seasonal changes, etc.

PERFORMANCE IMPROVEMENT



Chronic Diabetes - HgbA1c Trending





PERFORMANCE IMPROVEMENT

- The **statistical analyzing** of the above audit performance in order to measure improvement by practice, by clinic or by provider. This includes analysis for ethnic disparities, and other discriminators such as age, gender, payer class, socio economic groupings, education, frequency of visit, frequency of testing, etc.
- This allows SETMA to look for leverage points through which to improve care of all patients.



PERFORMANCE IMPROVEMENT

Raw data can be misleading. It can cause you to think you are doing a good job when in fact many of your patients are not receiving optimal care.

For instance the tracking of your mean performance in the treatment of diabetes may obscure the fact that a large percentage of your patients are not at goal. The latter will be revealed by the standard deviation.



PERFORMANCE IMPROVEMENT

Each of the statistical measurements which SETMA Tracks - 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.

A Quality Improvement Initiative which targets the standard deviation will look different than one which focuses upon the mean.



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 public 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

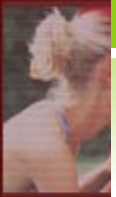
Overcoming “treatment inertia” requires the creating of an increased level of discomfort in the healthcare provider and in the patient so that both are more inclined to change their performance.

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



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- NCQA Diabetes Recognition Program Audit
- LESS Initiative
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- SETMA Lipid Audit >
- AQA
- COGNOS Project
- SETMA Audit for CKD Stages I III
- Patient Satisfaction Survey

- Public Reporting by James L. Holly, MD, M...
- ...ative to decrease preventable readmission
- ... Semi-Finalist for 2011
- ... IS, April, 2011
- ... 2011
- ... March 31, 2011
- ... lers' Workshop, March 30, 2010
- ... Office, HealthLeader's Media, March 2011



PERFORMANCE IMPROVEMENT

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

PERFORMANCE IMPROVEMENT



NQF - Diabetes Measures - Glyco and LDL

E & M Codes: Clinic Only
 Encounter Date(s): Jan 1, 2010 through Dec 31, 2010

Location	Provider	HgbA1c Frequency	HgbA1c Level			LDL Screening	LDL Control	
		Within 12 Months	> 9.0	Between 6.5 - 9.0	< 6.5	Within 12 Months	< 130	< 100
SETMA 1	Aziz	96.9%	12.2%	50.1%	36.3%	95.9%	85.0%	64.3%
	Duncan	89.2%	10.6%	54.7%	33.1%	87.6%	81.6%	65.3%
	Groff	88.9%	11.8%	43.1%	38.9%	82.6%	77.8%	56.9%
	Henderson	94.5%	11.4%	58.3%	29.1%	91.4%	82.2%	64.3%
	Murphy	93.7%	8.8%	46.9%	41.2%	91.1%	84.3%	68.7%
	Sims	89.1%	13.1%	47.1%	36.9%	85.0%	77.7%	59.5%
	Thomas	89.0%	13.9%	50.5%	29.7%	83.9%	72.7%	53.6%
SETMA 1 Totals:		92.6%	11.3%	50.7%	35.2%	89.7%	81.3%	63.4%
SETMA 2	Ahmed	94.6%	19.1%	56.3%	20.6%	91.5%	82.4%	65.8%
	Anthony	97.4%	12.5%	53.4%	33.1%	94.1%	81.7%	62.0%
	Anwar	98.3%	8.9%	58.4%	30.8%	95.3%	83.5%	59.9%
	Cricchio	94.2%	11.5%	50.9%	34.5%	91.8%	80.1%	60.3%
	Holly	96.1%	11.9%	50.9%	33.7%	94.0%	87.0%	62.8%
	Leifeste	90.9%	9.2%	47.9%	36.9%	90.8%	83.7%	66.1%
	Wheeler	96.3%	9.8%	53.6%	35.0%	93.3%	80.6%	57.5%
SETMA 2 Totals:		94.9%	14.0%	54.4%	28.3%	92.5%	82.5%	63.3%
SETMA West	Curry	83.8%	12.4%	47.3%	31.6%	82.4%	76.9%	60.4%
	Deiparine	71.3%	8.2%	43.2%	26.3%	68.2%	65.3%	51.2%
	Halbert	81.7%	12.0%	44.5%	35.9%	79.7%	71.6%	53.4%
	Horn	88.8%	7.2%	51.7%	34.0%	87.5%	77.6%	54.4%
	Qureshi	78.3%	11.7%	35.0%	33.3%	78.3%	75.0%	61.7%
	Satterwhite	88.9%	12.0%	54.6%	26.9%	86.7%	74.2%	52.7%
	Vardiman	81.3%	15.4%	44.7%	29.3%	81.3%	74.8%	52.0%
Young	84.1%	8.6%	53.9%	33.2%	74.1%	66.4%	44.8%	
SETMA West Totals:		82.5%	10.3%	47.7%	31.9%	80.1%	72.5%	53.4%
SETMA Totals:		91.3%	12.4%	51.8%	31.0%	88.8%	79.7%	60.9%

PERFORMANCE IMPROVEMENT



Diabetes Consortium - Blood Pressure Management

E & M Codes: Clinic Only
 Encounter Date(s): Jan 1, 2010 through Dec 31, 2010

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	24.7%	21.4%	22.2%	11.9%	9.0%	7.3%	2.3%	1.2%	0.0%	45.4%	15.4%	27.2%	10.6%	1.2%	0.3%	0.0%
	Duncan	38.7%	35.1%	17.8%	7.3%	1.2%	0.8%	0.0%	0.2%	0.8%	53.1%	10.0%	32.0%	3.7%	0.4%	0.0%	0.8%
	Groff	17.4%	24.3%	21.5%	23.6%	7.6%	0.7%	0.7%	3.5%	0.7%	40.3%	7.6%	45.8%	4.9%	0.7%	0.0%	0.7%
	Henderson	37.1%	29.9%	20.5%	7.7%	2.9%	0.5%	0.9%	0.5%	0.0%	54.4%	16.2%	26.4%	2.5%	0.4%	0.2%	0.0%
	Murphy	29.5%	26.0%	18.3%	16.6%	3.6%	3.4%	1.2%	0.5%	0.7%	47.7%	6.7%	32.0%	10.3%	2.1%	0.2%	0.7%
	Sims	25.9%	28.5%	16.1%	16.1%	5.5%	4.7%	1.5%	1.5%	0.4%	48.5%	2.6%	34.7%	12.0%	1.8%	0.0%	0.4%
	Thomas	11.2%	36.9%	26.7%	18.3%	4.1%	1.8%	0.6%	0.2%	0.2%	24.4%	23.0%	46.6%	5.1%	0.4%	0.4%	0.2%
	SETMA 1 Totals:	27.4%	28.6%	20.5%	13.5%	4.6%	3.1%	1.1%	0.8%	0.4%	45.5%	12.3%	33.0%	7.4%	1.1%	0.2%	0.4%
SETMA 2	Ahmed	36.2%	24.6%	27.3%	8.8%	1.9%	0.5%	0.1%	0.1%	0.2%	67.6%	11.6%	18.5%	1.7%	0.3%	0.1%	0.3%
	Anthony	24.5%	39.6%	22.0%	6.9%	3.3%	1.8%	0.7%	1.1%	0.3%	54.7%	17.7%	22.7%	3.7%	0.7%	0.3%	0.3%
	Anwar	16.9%	44.2%	29.1%	6.5%	1.5%	0.8%	0.1%	0.2%	0.6%	70.5%	18.1%	8.8%	1.9%	0.0%	0.0%	0.6%
	Cricchio	33.1%	31.1%	21.0%	9.1%	2.2%	2.5%	0.3%	0.2%	0.5%	60.8%	14.9%	19.9%	3.3%	0.5%	0.2%	0.5%
	Holly	22.1%	42.1%	28.8%	2.5%	1.8%	1.8%	0.0%	0.0%	1.1%	74.7%	17.2%	6.3%	0.7%	0.0%	0.0%	1.1%
	Leifeste	32.3%	29.8%	22.7%	8.9%	3.9%	1.7%	0.1%	0.3%	0.4%	53.5%	14.0%	27.2%	4.8%	0.1%	0.0%	0.4%
	Wheeler	25.4%	32.5%	23.1%	11.7%	2.9%	2.5%	0.6%	1.0%	0.4%	53.6%	6.5%	35.0%	3.9%	0.8%	0.0%	0.2%
	SETMA 2 Totals:	30.0%	31.7%	25.6%	8.2%	2.3%	1.2%	0.2%	0.3%	0.4%	63.6%	13.7%	19.4%	2.6%	0.3%	0.1%	0.4%
SETMA West	Curry	31.0%	28.6%	22.5%	10.2%	3.3%	1.6%	1.6%	0.8%	0.3%	57.1%	14.8%	20.1%	7.1%	0.5%	0.0%	0.3%
	Deiparine	25.0%	26.0%	24.5%	12.5%	5.8%	3.6%	0.9%	1.6%	0.0%	51.2%	7.3%	27.8%	10.9%	2.7%	0.2%	0.0%
	Halbert	26.9%	22.9%	22.0%	13.7%	5.8%	4.1%	1.7%	1.3%	1.7%	44.6%	16.2%	27.8%	7.9%	1.3%	0.6%	1.7%
	Hom	30.4%	37.6%	27.3%	3.6%	0.6%	0.4%	0.0%	0.0%	0.1%	56.2%	18.3%	24.1%	1.0%	0.1%	0.0%	0.1%
	Qureshi	40.0%	21.7%	16.7%	15.0%	3.3%	1.7%	1.7%	0.0%	0.0%	45.0%	25.0%	21.7%	6.7%	0.0%	1.7%	0.0%
	Satterwhite	21.5%	25.3%	21.2%	12.0%	6.0%	4.1%	0.5%	0.8%	8.7%	37.2%	17.1%	30.4%	5.4%	0.8%	0.3%	8.7%
	Vardiman	16.3%	26.0%	16.3%	20.3%	11.4%	5.7%	1.6%	2.4%	0.0%	43.9%	19.5%	28.5%	7.3%	0.0%	0.8%	0.0%
	Young	15.1%	21.6%	34.9%	15.1%	8.6%	1.7%	1.7%	1.3%	0.0%	43.1%	18.1%	28.4%	9.5%	0.9%	0.0%	0.0%
SETMA West Totals:	26.2%	27.3%	24.1%	11.2%	4.9%	2.8%	1.1%	1.0%	1.5%	48.5%	15.5%	26.4%	6.7%	1.1%	0.3%	1.5%	



PERFORMANCE IMPROVEMENT

The **Quality Assessment and Performance Improvement (QAPI)** Initiatives -- this year SETMA's initiatives involve the elimination of all ethnic disparities of care in diabetes, hypertension and dyslipidemia. Also, we have designed a program for reducing preventable readmissions to the hospital.