

# ADVANCES IN DIABETES



**OPTIMIZING THE USE OF EMR TO IMPROVE  
PERFORMANCE**

**DR. JAMES L. HOLLY, CEO  
SOUTHEAST TEXAS MEDICAL ASSOCIATES, LLP**

**HARVARD/JOSLIN DIABETES UPDATE  
NOVEMBER 10, 2011**

# Disclosures



- Dr. Holly owns stock in the parent company of the EHR SETMA uses. The identity of that EHR is not revealed in this presentation.
- Dr. Holly makes uncompensated presentations for that EHR Company.
- Dr. Holly has no other disclosures.

# SETMA Achievements



- July 2010 - NCQA PC-MH Tier Three
- July 2010 – Joslin Diabetes Center Affiliate
- August 2010 - NCQA Diabetes Recognition Program
- August 2010 - AAAHC Medical Home
- August 2010 - AAAHC Ambulatory Care

# SETMA Achievements



- 2011 - Health and Human Services Recognitions
  - **Office of National Coordinator** named SETMA as one of 30 exemplary practices for clinical decision support.
  - **Agency for Healthcare Research and Quality** published SETMA's LESS Initiative on its Innovation Exchange.
  - **Centers For Medicare and Medicaid** included SETMA in a quality, cost and coordination of care research project in which SETMA outperformed all others on quality and equaled the best in cost control for 2007-2010.

# Articles about SETMA



At [www.jameshollymd.com](http://www.jameshollymd.com), the following articles can be found

(number of articles is in parentheses). This material is free.

- Tutorials on all Electronic-Patient-Management tools including Diabetes, Diabetes Prevention, Hypertension Prevention and others (67)
- Diabetes (25)
- Smoking Cessation (15)
- Exercise (40)
- Weight Reduction (33)
- Cardiovascular Disease Risk Factors (22)
- LESS Initiative (66)
- Medical Home (46)
- Healthcare Reform and Public Policy (24)

# 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 Dynamic**

Patient-Centered Medical Home

**The Funding**

Capitation & Payment for Quality

# The SETMA Model of Care



Founded on the four domains identified above, SETMA's Model of Care includes the following:

- 1. Personal Performance Tracking** -- One patient at a time
- 2. Auditing of Performance** -- By panel or population
- 3. Analysis of Provider Performance** -- Statistical Analysis
- 4. Public Reporting by Provider Name** -- At [www.jameshollymd.com](http://www.jameshollymd.com)
- 5. Quality Assessment and Performance Improvement**

# Diabetes Care Improvements



## **From 2000 to 2011**

- HbA1C standard deviation improvement from **1.98 to 1.33**
- HbA1C mean (average) improvement from **7.48% to 6.65%**
- 95% of SETMA's patients with diabetes in 2000 had HbA1Cs below 11.44%, while in 2011 95% are below 9.31%.
- Elimination of Ethnic Disparities of Care in Diabetes



# Diabetes Care Initiatives and Results



- 2000 - Design and Deployment of EHR-based Diabetes Disease Management Tool
  - **HbA1C improvement 0.3%**
- 2004 - Design and Deployment of American Diabetes Association Recognized Diabetes Self Management Education (DSME) Program
  - **HbA1C improvement 0.3%**
- 2006 - Recruitment of Endocrinologist
  - **HbA1C improvement 0.25%**

# SETMA's NCQA Diabetes Metrics



## NCQA Diabetes Measures

Encounter Date(s): January 1, 2011 to September 30, 2011

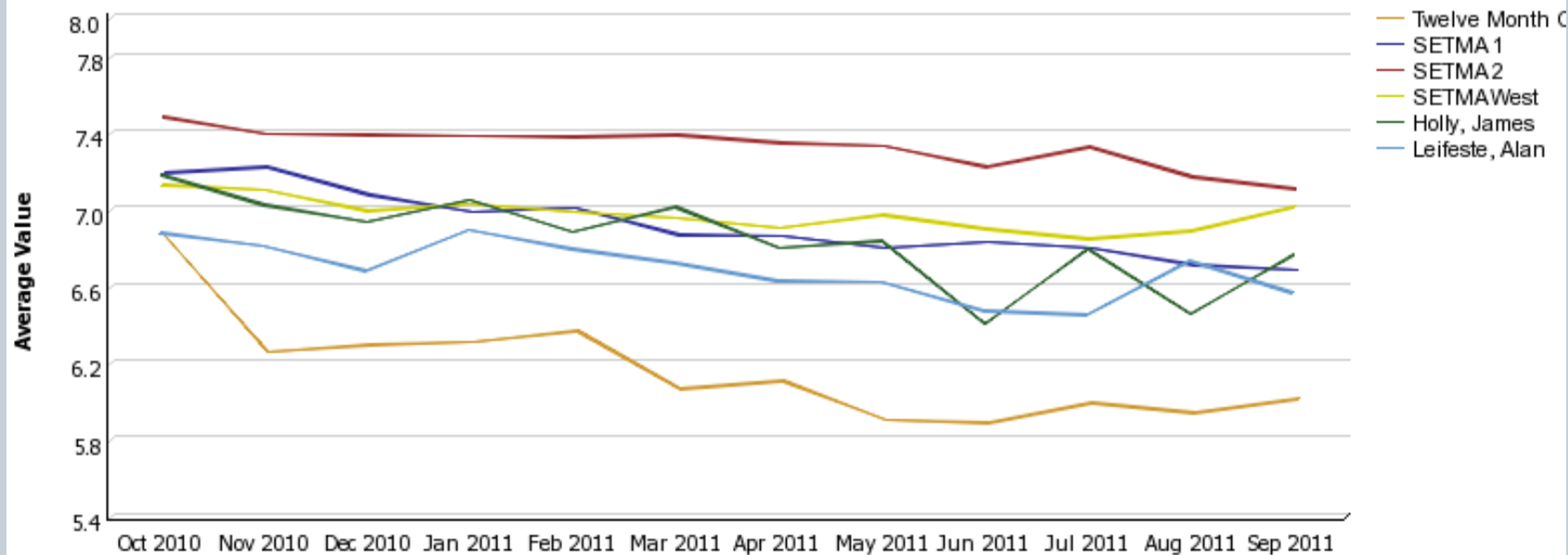
Location Name	Provider	Encounters	A1c >9.0 <= 15%	A1c < 8.0 >= 60%	A1c < 7.0 >= 40%	BP > 140/90 <= 35%	BP < 130/80 >= 25%	Eye Exam >= 60%	Smoking Cessation >= 80%	LDL >= 130 <= 37 %	LDL < 100 >= 36%	Nephropathy >= 80%	Foot Exam >= 80%	Total Points
SETMA 1	Aziz	769	9.9%	75.7%	59.2%	18.7%	54.2%	59.7%	96.9%	13.9%	68.8%	81.7%	74.9%	85
	Duncan	537	8.9%	81.2%	67.6%	11.9%	68.9%	59.0%	93.5%	14.2%	68.7%	83.4%	82.3%	90
	Henderson	621	10.5%	79.4%	66.2%	10.1%	69.1%	61.5%	95.1%	12.1%	67.5%	84.1%	95.3%	100
	Murphy	1,093	5.7%	86.3%	69.6%	14.0%	58.5%	46.5%	82.0%	12.3%	73.3%	87.3%	83.5%	90
	Palang	329	4.6%	47.7%	37.7%	19.5%	53.5%	23.1%	92.3%	6.7%	46.8%	31.0%	31.3%	67
	Thomas	156	9.6%	69.2%	45.5%	18.6%	55.8%	77.6%	100.0%	12.2%	60.9%	76.3%	82.7%	95
SETMA 2	Ahmed	2,078	16.3%	48.3%	32.0%	8.6%	62.6%	64.3%	72.2%	11.3%	63.5%	68.3%	99.5%	60
	Anthony	680	10.3%	78.2%	64.0%	13.4%	66.5%	65.6%	81.7%	10.4%	68.8%	92.6%	96.6%	100
	Anwar	1,013	8.5%	79.9%	65.2%	4.2%	81.2%	65.7%	96.5%	11.8%	63.6%	91.6%	75.5%	95
	Cricchio, A	829	12.1%	46.6%	30.5%	8.9%	71.7%	65.1%	79.8%	10.0%	69.5%	75.5%	99.3%	72
	Cricchio, M	632	7.8%	78.2%	64.4%	14.2%	61.2%	61.9%	66.4%	10.1%	66.6%	91.0%	85.8%	90
	Holly	219	6.4%	83.6%	71.2%	5.0%	82.6%	80.4%	71.9%	11.4%	71.2%	97.3%	95.0%	90
	Leifeste	756	7.3%	81.5%	70.8%	13.0%	65.2%	71.6%	59.6%	8.7%	69.2%	88.6%	82.7%	90
	Wheeler	486	7.6%	84.4%	73.9%	22.6%	56.6%	58.6%	81.4%	13.0%	61.9%	89.3%	88.7%	90
SETMA West	Curry	303	10.2%	77.9%	59.1%	15.8%	60.7%	70.3%	86.5%	13.2%	65.7%	87.1%	92.4%	100
	Deiparine	557	9.2%	72.2%	56.6%	25.3%	49.7%	51.3%	95.8%	13.8%	58.9%	70.7%	85.6%	85
	Halbert	911	10.9%	75.7%	62.5%	20.6%	55.5%	39.2%	98.0%	14.7%	60.9%	57.8%	84.5%	85
	Horn	563	5.2%	79.8%	65.9%	1.4%	70.5%	49.9%	90.6%	16.2%	55.1%	81.2%	95.2%	90
	Qureshi	309	19.4%	63.1%	52.1%	7.8%	71.2%	52.4%	98.7%	17.2%	59.2%	66.3%	95.8%	73
	Satterwhite	323	16.4%	60.1%	47.7%	22.6%	55.1%	53.6%	94.3%	19.2%	50.8%	76.8%	83.3%	73
	Vardiman	416	10.1%	74.0%	59.9%	19.5%	48.6%	61.1%	98.4%	13.5%	60.3%	66.1%	87.0%	95

# Business Intelligence (BI)

## Diabetes Audit - Trending



### Chronic Diabetes - HgbA1c Trending

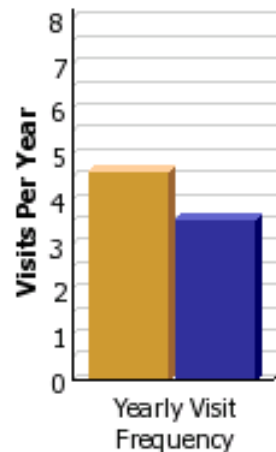


# Value of Trending Audit

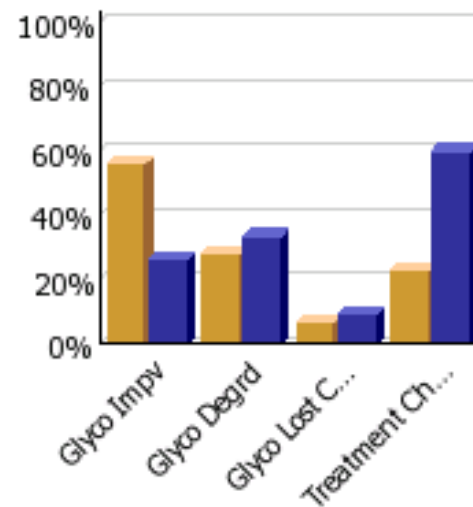


- In 2009, trending revealed that from October-December many patients were losing HbA1C control. Further analysis showed that these patients were being seen and tested less often in this period than those who maintained control.
- A 2010 Quality Improvement Initiative included writing all patients with diabetes encouraging them to make appointments and get tested in the last quarter of the year. A contract was made, which encouraged celebration of holidays while maintaining dietary discretion, exercise and testing. In 2011, analysis showed that the holiday-induced loss of control had been eliminated.

# Business Intelligence Diabetes Audit



	Visit Frequency
Controlled	4.6
Selected	3.5



	Glyco Impv	Glyco Degr	Glyco Lost Ctr	Treatment Changed
Controlled	56.0%	27.8%	6.6%	22.8%
Selected	26.6%	33.7%	9.5%	60.1%

# Leverage Points Sought



- Comparisons were made between patients whose diabetes was controlled (gold) and those whose diabetes was not controlled (purple). We discovered a statistically significant difference between the frequency of visits between patients who are controlled (4.6 visits/year) and those who are not controlled (3.5 visits/year).
- It appeared that seeing patients an additional time each year might improve their control. We are still examining that hypothesis.

# Business Intelligence Diabetes Audit

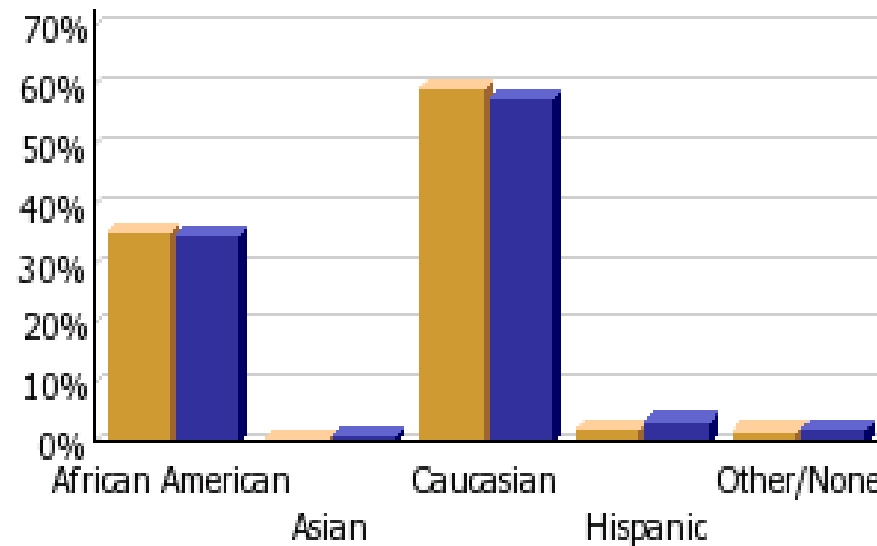


- SETMA's Model of Care was designed to help overcome "clinical inertia" through public reporting, by provider name, of quality metric results.
- To further examine "clinical inertia," the BI Audit includes a determination of patients who are improving, or losing control, and if, when a patient is seen, whose diabetes is not controlled, whether a change in treatment was made.
- Thus far, in 2011, when patients were seen whose HbA1C was not controlled, a change in treatment was made 60% of the time. In 2010, a change was made 68% of the time.

# BI Diabetes Audit – Ethnicity



## Ethnicity



	African American	Ethnicity Asian	Caucasian	Hispanic	Other/None
Controlled	35.4%	0.5%	59.5%	2.5%	2.1%
Selected	34.8%	1.1%	58.1%	3.8%	2.3%



# BI Diabetes Audit – Ethnicity

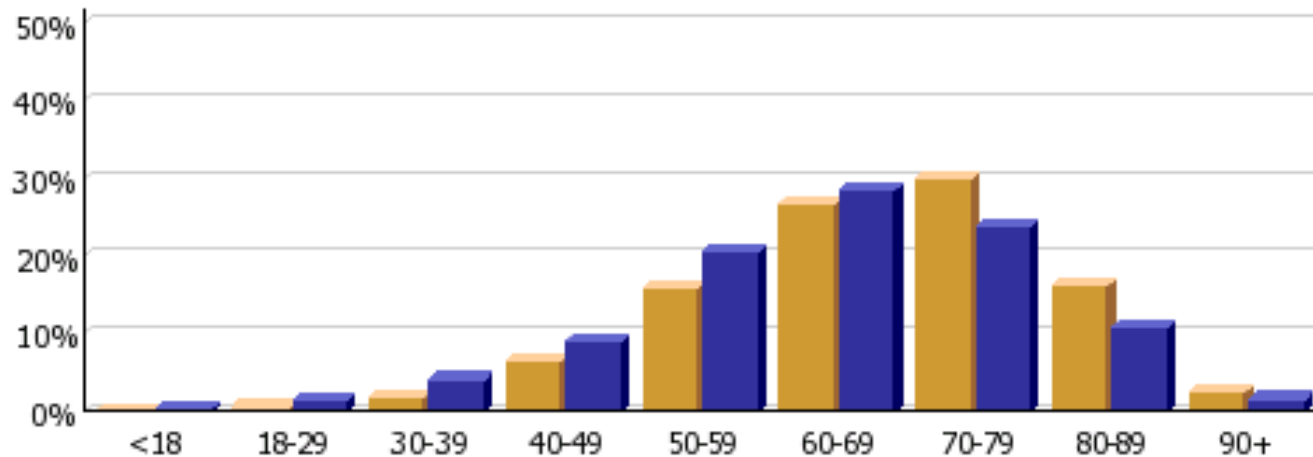


- It is important to SETMA that all people receive equal care in access, process and outcomes. As a result, we examine our treatment by ethnicity, as well as by many other categories.
- Approximately, one-third of the patients we treat with diabetes are African-American and two-thirds are Caucasian. As the control (gold) and uncontrolled (purple) groups demonstrate, there is no distinction between the treatment of patients by ethnicity.

# BI Diabetes Audit – Patient Age



**Patient Age**



	<18	18-29	30-39	40-49	50-59	60-69	70-79	80-89	90+
Controlled	0.0%	0.4%	1.8%	6.5%	15.9%	26.6%	30.0%	16.2%	2.5%
Selected	0.2%	1.4%	4.1%	8.9%	20.6%	28.5%	23.9%	10.8%	1.6%

# BI Diabetes Audit – Patient Age



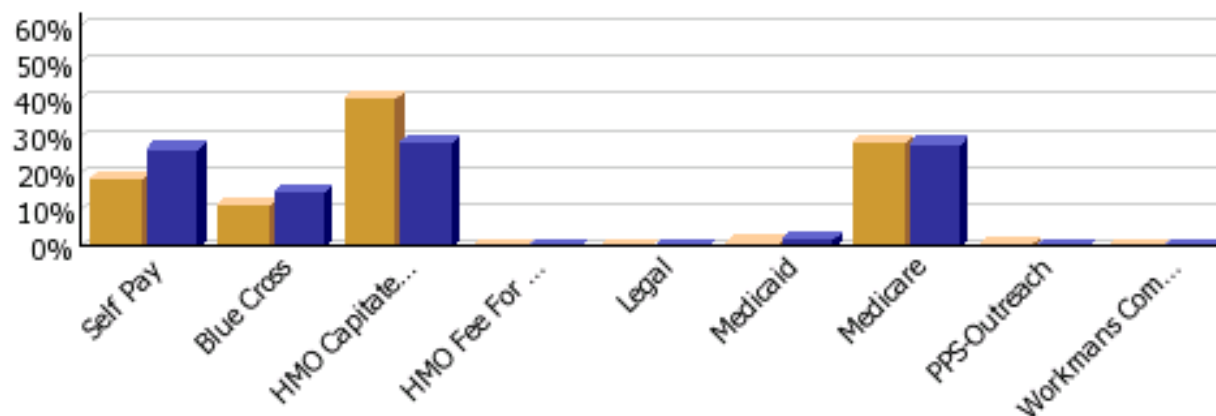
As can be seen from these bar graphs, SETMA's patients between 70-90 are receiving excellent care of their diabetes.

This raised the question, in that this is a vulnerable population, could the HbA1C results be caused by nutritional deficiencies? By history, longitudinal weight measurements and by laboratory tests (pre-albumin), we found that this population was not malnourished and that the results represented excellent care of diabetes in the elderly.

# BI Diabetes Audit – Financial Class



**Financial Class**



	Self Pay	Blue Cross	HMO Capitated	HMO Fee For Service	Legal	Medicaid	Medicare	PPS-Outreach	Workmans Comp
Controlled	18.4%	11.5%	40.3%	0.0%	0.0%	1.0%	28.3%	0.5%	0.0%
Selected	26.7%	14.9%	28.4%	0.0%	0.0%	1.9%	28.0%	0.1%	0.0%

# BI Diabetes Audit – Financial Class



- Financial barriers to care are a significant problem in the United States. Six years ago, SETMA initiated a zero co-pay for capitated HMO patients in order to totally eliminate economic barriers to care.
- Comparing FFS Medicare patients, capitated HMO and uninsured patients, it can be inferred from this data that the elimination of economic barriers results in improved care.
- Through SETMA's Foundation, we are making further attempts to compensate for economic barriers to care.

# Diabetes Disease Management Begins with a Diabetes Prevention Program



## **SETMA's Diabetes Prevention Program Includes**

- The **LESS Initiative** in which the risk of diabetes is assessed for ALL patients seen at SETMA, along with a weight management assessment, a personalized exercise prescription and smoking cessation.
- Diabetes Screening Program for those at high risk
- Patient Education on “Progression to Diabetes”
- Explanation of Five Stages of the Progression of Diabetes

# SETMA's LESS Initiative - Male



Last Updated **01/20/2011**

## SETMA's LESS Initiative

10-15 pounds of excess weight places a person at a higher risk for developing diabetes, but 10-15% decrease in weight, even if a person is obese, decreases that risk significantly. The bad news is that more people are at greater risk of developing diabetes than think they are, but the good news is that a person can help decrease their risk without attaining their ideal body weight.

You are **112** pounds overweight which places you at a higher risk for developing Diabetes.

If you lose **27** to **41** pounds, you will significantly reduce your risk of developing Diabetes.

[Limitations](#)

[Weight Management](#)

[Exercise](#)

[CHF Exercise](#)

[Diabetic Exercise](#)

[Smoking Cessation](#)

[Which Exercise Prescription?](#)

### Elements of Preventing Diabetes

#### 1. Family History

- Family History of Type II Diabetes? ☐ Yes ☒ No  
Family History of Hypertension? ☐ Yes ☒ No  
Family History of Hyperlipidemia? ☐ Yes ☒ No

#### 2. Is the patient overweight or obese? ☒ Yes ☐ No

**37.43** BMI **32.2** Body Fat %

Is the adiposity in the abdominal area, as indicated by the waist circumference? ☐ Yes ☒ No  
(Males > 38" or Females > 35")

**30.00** inches

#### 3. Did the patient have a low birth weight? ☐ Yes ☒ No

(< 5 lbs 5 oz)

**7** lbs **2** oz

#### 4. Is the patient's BP elevated? ☒ Yes ☐ No

(> 130/80 mmHg)

**135** / **85** mmHg

#### 5. Are the patient's lipids abnormal? ☒ Yes ☐ No

HDL **30**

Triglycerides **111**

Cholesterol **165**

#### 6. Non-Caucasian Ethnicity? ☒ Yes ☐ No

**African-American**

Calculate Conclusion

Based on your age, body composition indicators (BMI or body fat), and the risk factors listed above you have a risk of developing diabetes. You must lose weight, exercise, stop smoking and/or avoid inhaling other people's smoke, and you need to maintain your weight loss through continuing to exercise. We will continue to monitor your blood pressure, blood sugar and lipids on a regular basis.

- ☒ We will provide you with follow-up counseling to help you stay on track towards health lifestyles.
- ☒ We will monitor you annually for the development of diabetes.

Home

Document

### Information

[Preventing Diabetes](#)

[Pre-diabetes](#)

[SETMA's LESS Program](#)

[Diabetic Risk Factors](#)

# SETMA's LESS Initiative - Female



Last Updated 04/14/2010

## SETMA's LESS Initiative

10-15 pounds of excess weight places a person at a higher risk for developing diabetes, but 10-15% decrease in weight, even if a person is obese, decreases that risk significantly. The bad news is that more people are at greater risk of developing diabetes than think they are, but the good news is that a person can help decrease their risk without attaining their ideal body weight.

You are 75 pounds overweight which places you at a higher risk for developing Diabetes.

If you lose 22 to 33 pounds, you will significantly reduce your risk of developing Diabetes.

[Limitations](#)

[Weight Management](#)

[Exercise](#)

[CHF Exercise](#)

[Diabetic Exercise](#)

[Smoking Cessation](#)

[Which Exercise Prescription?](#)

### Elements of Preventing Diabetes

#### 1. Family History

Family History of Type II Diabetes? ☐ Yes ☒ No  
Family History of Hypertension? ☐ Yes ☒ No  
Family History of Hyperlipidemia? ☐ Yes ☒ No

#### 2. Is the patient overweight or obese?

☒ Yes ☐ No  
38.62 BMI 45 Body Fat %  
Is the adiposity in the abdominal area, as indicated by the waist circumference? ☒ Yes ☐ No  
(Males > 38" or Females > 35")  
42.00 inches

#### 3. Did the patient have a low birth weight?

☐ Yes ☒ No  
(< 5 lbs 5 oz)  
8 lbs 1 oz

#### 4. Is the patient's BP elevated? ( > 130/80 mmHg)

☒ Yes ☐ No

140 / 95 mmHg

#### 5. Are the patient's lipids abnormal? ☒ Yes ☐ No

HDL 36

Triglycerides 312

Cholesterol 212

#### 6. Non-Caucasian Ethnicity? ☒ Yes ☐ No

African-American

#### 7. Personal History of Gestational Diabetes?

☐ Yes ☒ No

Calculate Conclusion

Based on your age, body composition indicators (BMI or body fat), and the risk factors listed above you have a risk of developing diabetes. You must lose weight, exercise, stop smoking and/or avoid inhaling other people's smoke, and you need to maintain your weight loss through continuing to exercise. We will continue to monitor your blood pressure, blood sugar and lipids on a regular basis.

- ☒ We will provide you with follow-up counseling to help you stay on track towards health lifestyles.
- ☒ We will monitor you annually for the development of diabetes.

Home

Document

### Information

[Preventing Diabetes](#)

[Pre-diabetes](#)

[SETMA's LESS Program](#)

[Diabetic Risk Factors](#)

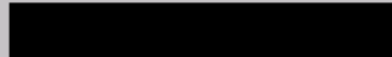


# Preventing Diabetes



## Preventing Diabetes

Patient



[Screening Recommendations](#) [Predicting Diabetes](#) [Screening Insulin Resistance](#) [IFG and IGT](#) [Current Strategies](#)  
[Could You Have Diabetes and Not Even Know It?](#) [Reducing Your Risk](#) [LOW Risk of Developing Diabetes](#)

Prediabetics have an atherogenic pattern of CV risk factors which are predominantly observed in prediabetics with increased HOMA IR and fasting insulin, i.e., insulin resistance.

### Diagnosis

Diabetes

[Pre-Diabetes](#)

None

### Fasting Test

> 126 mg/dL

100 - 125 mg/dL

< 100 mg/dL

### Casual Test

> 200 mg/dL

140 - 199 mg/dL

< 140 mg/dL

### Vital Signs

Height	64.00	Waist	42.00
Weight	225.0	Hips	35.00
BMI	38.62	Ratio	0.00
Body Fat	45	Blood Pressure	
BMR	1700		140 / 95
Protein Req	122		

### Fasting Lab Results

Check for New Labs

FPG	129	12/02/2009	Cholesterol	212	12/02/2009
			HDL	36	12/02/2009
2-Hr OGTT			LDL	145	12/02/2009
	144	01/07/2010	Triglycerides	312	12/02/2009
			Magnesium	1.8	12/02/2009

[DM Prediction Rule](#)

4 > 4 doubles  
the risk of DM

### Treatment

Insulin Resistance	Homocysteine
Impaired Fasting Glucose	hsCRP
Hypertriglyceridemia	Endothelial Dysfunction

### Diabetic Education Referral (Double-Click)

Priority	Referring First	Referring Last	Referral
Routine	Dia	Abochamah	asdf

### Links

[Insulin Resistance](#) [Hypertension Mgmt](#) [Weight Mgmt](#) [Exercise](#) [Lipids Mgmt](#) [Metabolic Syndrome](#) [Smoking Cessation](#)

Return

Document

### Patient Information

[What is Pre-Diabetes?](#)  
[Carb Confusion](#)  
[What To Do About It](#)  
[Taking Steps To Prevent](#)  
[You Have The Power](#)  
[More Than 50 Ways To Prevent](#)  
[Importance of Glycemic Index](#)  
[Applying the Glycemic Index](#)  
[Glycemic Load](#)  
[Insulin - Friend or Foe](#)  
[Hyperinsulinemia](#)  
[Hunger, Insulin, and Meals](#)  
[Hunger, Fat, and Fav Foods](#)

[Print All](#)

### Provider Information

[Glycemic Index and Prevention](#)  
[Weight Loss](#)  
[Physical Activity](#)  
[Behavior Modifications](#)  
[Summary of Studies](#)  
[Lifestyle and Diabetes](#)  
[Visceral Fat](#)  
[Insulin Resistance Summary](#)  
[Questions and Answers](#)

# Preventing Diabetes Testing



**Diabetes Screen** X

## Recommendations to Delay or Prevent Diabetes

Individuals at high risk for developing diabetes need to become aware of the benefits of modest weight loss and participating in regular physical activity.

### Screening Recommendations for Pre-Diabetes (IFG, IGT)

☐ Patients > 45 years of age (recommended)

☐ Patients > 45 years of age with a BMI > 25 (required)

☒ Patients < 45 years of age, BMI > 25 plus any one of the following risk factors (required)

☐ Yes ☒ No Family history of diabetes?

☒ Yes ☐ No Non-Caucasian ethnicity?

☒ Yes ☐ No Dyslipidemia?

☒ Yes ☐ No Hypertension?

☐ Yes ☒ No Personal history of gestational diabetes or a baby weighing > 9 pounds?

☐ In individuals with normoglycemia, rescreening at 3-year intervals is sufficient.

### How To Screen

☒ Fasting Plasma Glucose Test *Sent Successfully*

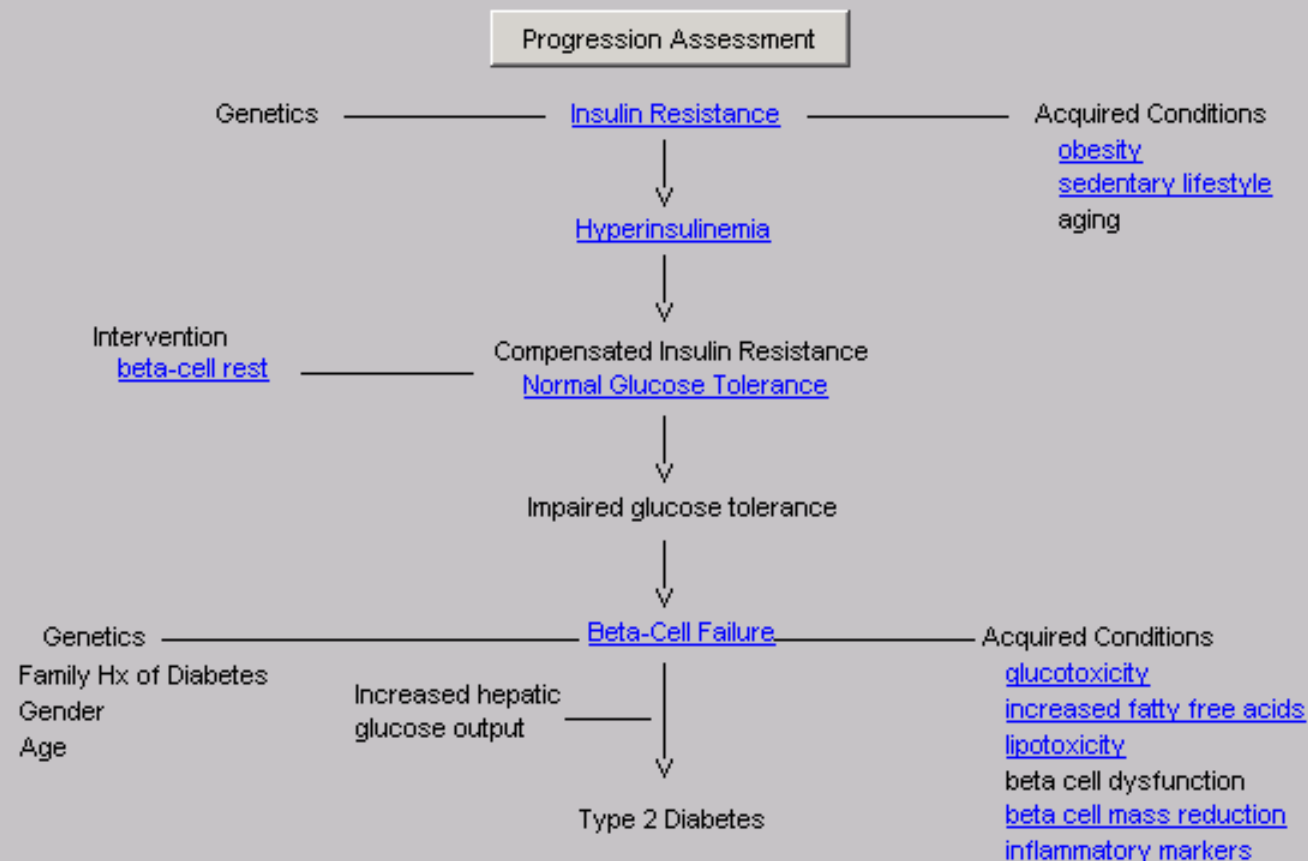
☒ 2-hour OGTT (75 gram glucose load):  
(if FPG > 110)

☐ Positive test results should be confirmed at another office visit on another day.

# Progression to Diabetes



## Progression to Type 2 Diabetes



# Progression to Diabetes Assessment



**Dm SynX Progeval** [X]

## Progression to DM Evaluation

HbA1C  %

FPG  mg/dL

**Stage**

**Insulin Resistance**

**Insulin Levels**

**Treatment**

# Algorithm for Progression to Diabetes Assessment



Dm Synx Progalgo



## Progression of Type II Diabetes

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Factors	Normal Glucose Tolerance	Impaired Glucose Tolerance/ Impaired Fasting Glucose	Type 2 Diabetes Mellitus	Type 2 Diabetes Mellitus	Type 2 Diabetes Mellitus
HgbA1C	< 5.5 %	5.5 - 6.1 %	6.2 - 7.5 %	7.6 - 10.0 %	> 10.0 %
Fasting Glucose	< 110 mg/dL	110 - 125 mg/dL	126 - 160 mg/dL	161 - 240 mg/dL	> 240 mg/dL
Insulin Resistance	Moderate	Moderate	Moderate	Moderate to Severe	Severe
Insulin Levels	Highly Increased	Moderately Increased	Slightly Increased to Normal	Mildly to Moderately Decreased	Highly Decreased
Treatment	Diet + Exercise	Diet + Exercise	Insulin Sensitizer	Insulin Sensitizers + Insulin Secretagogue	Insulin Sensitizers + Insulin

OK

Cancel

# Cardiovascular Risk in Diabetes



Diabetes is an independent risk factor for cardiovascular disease. Two additional ways, in which cardiovascular risk should be evaluated are:

- **Framingham Cardiovascular Risk Scores**

The only Framingham Score which includes HbA1C as opposed to simply the presence or absence of diabetes is the Global Cardiovascular Risk Score. At the suggestion of Joslin, SETMA developed the “What IF” Scenarios.

- **Cardiometabolic Risk Score**

# Framingham Risk Scores



## Framingham Heart Study Risk Calculators

Last Updated/Reviewed 09/21/2011

### General Cardiovascular Disease, 10-Year Risk

Real Heart Age 46 years

Total Points 19

Total Risk >30 %

Relative Heart Age  
>80 years

#### **WHAT IF?**

All Elements To Goal	10	9.4	54
Overall 20% Improvement	12	13.2	60
Blood Pressure To Goal	18	>30	>80
Lipids To Goal	15	21.6	72
Smoking Cessation (if applicable)	0	N/A	N/A

### Global Cardiovascular Risk Score

Total Points 10.0

A score above 4 indicates increased risk of a cardiovascular event.

#### **WHAT IF?**

All Elements To Goal	0.5
Overall 20% Improvement	3.8
Blood Pressure To Goal	8.5
Lipids To Goal	6.5
HgbA1c To Goal	7.3
Smoking Cessation (if applicable)	0.0

# Cardiometabolic Risk Syndrome Assessment



## Cardiometabolic Risk Syndrome Assessment

[Return](#)

Last Updated/Reviewed

03/23/2011

Triglyceride  mg/dL**Central Obesity**Waist  inchesHip  inchesRatio BMI  mg/m<sup>2</sup>**Blood Pressure** /  mmHg**Glucose Abnormalities**Fasting  mg/dL2 Hr GTT  mg/dLDiabetes ☒ + ☐ -Insulin Resistance ☒ + ☐ -HDL  mg/dL**Microalbuminuria**Alb/Creat  mg/gSpot A/C  mg/dL**WHO Diagnostic Criteria**☒ + ☐ -

&gt;= 150 mg/dL

Ratio

Men &gt; 0.90

Women &gt; 0.85

BMI &gt; 30

&gt; 140/90 mmHg

Fasting &gt; 110 mg/dL

2 Hr GTT &gt; 140 mg/dL

Diabetes

Insulin Resistance

Men &lt; 35 mg/dL

Women &lt; 39 mg/dL

&gt; 30 mg/g

&gt; 2.9 mg/dL

**ATP III Diagnostic Criteria**☒ + ☐ -

&gt;= 150 mg/dL

Waist

Men &gt; 40"

Women &gt; 35"

&gt; 130/85 mmHg

Fasting &gt; 110 mg/dL

Men &lt; 40 mg/dL

Women &lt; 50 mg/dL

N/A

**International Diabetes Federation  
Diagnostic Criteria**☒ + ☐ -

&gt;= 150 mg/dL

Waist

Asian

Males &gt;= 35.5"

Females &gt;= 31.5"

All Others

Males &gt;= 37"

Females &gt;= 31.5"

&gt;= 130/85 mmHg

Fasting &gt; 100 mg/dL

Diabetes

Men &lt; 40 mg/dL

Women &lt; 50 mg/dL

N/A



# Diabetes Disease Management Tools



The first major improvement in SETMA's care of patients with diabetes resulted from the deployment of our disease management tool in 2000. This includes:

- Display of essential data including labs
- Clinical Decision Supports
- Assessment of fulfillment of quality metrics
- Adherence Assessment
- Life Style Changes including dietary, weight, exercise and smoking cessation
- Dilated Eye examination
- Foot care
- Dental Care
- Treatment Plan and Plan of Care
- Diabetes Self Management Assessment Education
- Medical Nutrition Therapy
- Diabetes Care Team
- The Passing of the Baton

# SETMA's Diabetes Disease Management



## Diabetes Management

☐ Type I ☒ Type II ☐ GDM ☐ Pre-Diabetes

Diabetes Since Month  Year

Patient  Age  Sex

Current Frequency of SMBG

[Joslin Treatment Goals](#) [Imp Diabetes Concepts](#)

[Diagnostic Criteria](#) [Screening Criteria](#) [Evidenced-Based Recs](#)

**Compliance**

[Dental Care](#)  [Smoker](#)  ☐ + ☒ -

Dilated Eye Exam  [Metabolic Syndrome](#) ☒ + ☐ -

Flu Shot  [Framingham Risk Scores](#)

Foot Exam  10-Year General Risk  %

HgbA1C  10-Year Stroke Risk  %

Pneumovax  Global Cardio Score  pts

Urinalysis  [Weight Management](#) [Lipids Management](#)

Aspirin ☒ Yes ☐ No [HPT Management](#) [Immunizations](#)

Statin ☐ Yes ☐ No

**Vital Signs**

Height	<input type="text" value="72.00"/>	Waist	<input type="text" value="34.50"/>	Finger Stick	<input type="text" value="104"/>
Weight	<input type="text" value="275.00"/>	Hips	<input type="text" value="37.50"/>	Glucose	<input type="text" value="104"/>
BMI	<input type="text" value="37.43"/>	Chest	<input type="text" value="36.00"/>	Pulse	<input type="text" value="75.00"/>
Body Fat %	<input type="text" value="32.2"/>	Abdomen	<input type="text" value="38"/>	Blood Pressure	<input type="text" value="135"/> / <input type="text" value="85"/>
Protein Req	<input type="text" value="150"/>	Ratio	<input type="text" value="0.92"/>	BP In Diabetics	<input type="button" value=""/>
BMR	<input type="text" value="2705"/>	BER	<input type="text" value="3025"/>	Vitals Over Time	<input type="button" value=""/>

**Current SQ Insulin Dose as of**  **Blood Sugars**

Time of day	Units	Type	Units	Type	mg/dl
<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value=""/>
<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value=""/>
<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value=""/>
<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value="0.00"/>	<input type="text" value=""/>	<input type="text" value=""/>

**Most Recent Labs**

HgA1C	<input type="text" value="9.2"/>	<input type="text" value="09/21/2011"/>
Previous	<input type="text" value="1.2"/>	<input type="text" value="01/21/2008"/>
	<input type="text" value="9.6"/>	<input type="text" value="01/16/2008"/>
eAG	<input type="text" value="217"/>	
Mean Plasma Glucose	<input type="text" value="250.2"/>	<input type="text" value="Insulin"/>
C-Peptide	<input type="text" value="3.2"/>	<input type="text" value="01/07/2011"/>
Fructosamine	<input type="text" value="212"/>	<input type="text" value="01/07/2011"/>
Cholesterol	<input type="text" value="165"/>	<input type="text" value="09/21/2011"/>
LDL	<input type="text" value="113"/>	<input type="text" value="09/21/2011"/>
HDL	<input type="text" value="30"/>	<input type="text" value="09/21/2011"/>
Triglycerides	<input type="text" value="111"/>	<input type="text" value="09/21/2011"/>
Trig/HDL Ratio	<input type="text" value="1.00"/>	
Glucose	<input type="text" value="1"/>	<input type="text" value="07/07/2011"/>
Fasting	<input type="text" value="123"/>	<input type="text" value="01/01/2011"/>
Insulin	<input type="text" value="14"/>	<input type="text" value="01/01/2011"/>
HOMA-IR	<input type="text" value="0.0"/>	
Na	<input type="text" value="114"/>	<input type="text" value="07/07/2011"/>
K	<input type="text" value="3.2"/>	<input type="text" value="07/07/2011"/>
Magnesium	<input type="text" value="2.8"/>	<input type="text" value="07/07/2011"/>
BUN	<input type="text" value="1"/>	<input type="text" value="07/07/2011"/>
Creatinine	<input type="text" value="2.2"/>	<input type="text" value="07/07/2011"/>
U Microalbumin	<input type="text" value="2.6"/>	<input type="text" value="01/07/2011"/>
Albumin/Creat	<input type="text" value="28.00"/>	<input type="text" value="06/30/2011"/>

**Navigation**

☒ Diabetes ☐ General

**Home**

[Diab Sys Review](#)

[Diabetic History](#)

[Eye Exam](#)

[Nasopharynx](#)

[Cardio Exam](#)

[Foot Exam](#)

[Neurological Exam](#)

[Complications/Education](#)

[Initiating Insulin](#)

**Lifestyle Changes**

**Diabetes Plan**

Education Booklet Given On

[Diabetes Education](#)

Last DE

# Lifestyle Changes



## Diabetes Lifestyle Changes

Diet Type

### Principles of Dietary Management for Diabetes

- ☒ Caloric restriction to achieve weight loss
- ☒ Carbohydrate-limited diet
- ☒ Uniform distribution of calories throughout the day
- ☒ No caloric intake after 6-7 PM  
(will result in lower first morning blood sugar levels)
- ☒ Very high fat meals may result in delayed hyperglycemia
- ☒ Limit alcohol consumption (no more than 2 drinks per day)

Poor dental hygiene is associated with complications in diabetic patients

- ☒ Encourage patient to clean teeth with flossing daily
- ☒ Encourage annual dental examination and teeth cleaning

[Exercise](#)

[Weight Management](#)

[Smoking Cessation](#)

### Information

### Glycemic Information

# Patient Adherence



Diabetes Comply

X

Clear All

## Diabetes Patient Adherence

<b>Adherent with Medications?</b>	<input checked="" type="radio"/> Yes	<input type="radio"/> No
<b>Adherent with Follow-Up?</b>	<input checked="" type="radio"/> Yes	<input type="radio"/> No
<b>Adherent with Diet?</b>	<input checked="" type="radio"/> Yes	<input type="radio"/> No
<b>Adherent with Education?</b>	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<b>Adherent with Exercise?</b>	<input checked="" type="radio"/> Yes	<input type="radio"/> No

**Patient sees an endocrinologist / outside physician for diabetic care?**

☒ Yes ☐ No

If so, list the physician below.

Dr. Jehanara Ahmed

OK

Cancel

# Diabetes Plan of Care



## Meal Requirements

Calc

Total Daily Dose   
Basal Requirement

Total Meal Dose   
Pre-breakfast

Pre-lunch   
Pre-dinner

General Measures  
Help

## Diabetes Plan

## Laboratory & Procedures

### Ordering Provider

Holly James

- ☐ BMP
- ☐ C-Peptide
- ☐ Creatinine
- ☐ EKG
- ☐ Flu Shot
- ☐ Fructosamine
- ☐ Hepatic Profile
- ☒ HgbA1C
- ☒ Lipid Profile w/LDL
- ☐ Magnesium
- ☐ Micral Strip
- ☐ Pneumovax
- ☐ Spot AC Ratio
- ☐ TSH
- ☒ Venipuncture

## Assessment

Dx1 DM II Neuro Manifestations  
Dx2  
Dx3

Chronic Conditions

Submit Labs

EM Coding

## Management

Change Self-Monitoring of Blood Glucose (SMBG) to

☒ Phone glucose data into our office in 7 days

☒ Refer to eye specialist

HgbA1C Treat Goals

## Follow Up Visit


## Education and Eye Referrals

Priority	Referring First	Referring Last	Referral
Immediate	Jehanara	Ahmed	

## Medications

☒ Continue present insulin and metformin/sulfonylurea/acarbose/pio/rosi/troglitazone regimen

☒ Continue Aspirin

☐ Start Aspirin 325 mg

☐ Begin ☐ Increase ☐ Decrease ☐ Stop

☐ Begin ☐ Increase ☐ Decrease ☐ Stop

☐ Begin ☐ Increase ☐ Decrease ☐ Stop

to  mg

Double-Click to View/Add

Brand Name

## New SQ Insulin Dose

Save

Import Current

Insulin Pump

	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>

You MUST click "Save" above after entering new insulin information.

Sliding Scale

Insulin Over Time

## Return

Consortium Data Set

Patient Compliance

Comments

Follow Up Document

Document

Comparison of Human Insulin

Conditions - Glycemic Control

Drugs - Glucose Levels

Basal/Bolus Insulin

Incretins

Byetta

Actions: Byetta

# HbA1c and eAG



## Diabetes Management

☐ Type I ☒ Type II ☐ GDM ☐ Pre-Diabetes

Diabetes Since Month  Year

Patient  Age  Sex

Current Frequency of SMBG

☒ Diabetes ☐ General

[Joslin Treatment Goals](#) [Imp Diabetes Concepts](#)

[Diagnostic Criteria](#) [Screening Criteria](#) [Evidenced-Based Recs](#)

**Compliance**

[Dental Care](#)  [Smoker](#)  ☐ + ☐ -

Dilated Eye Exam  [Metabolic Syndrome](#) ☐ + ☐ -

Flu Shot  [Framingham Risk Scores](#)

Foot Exam  10-Year General Risk  %

HgbA1C  10-Year Stroke Risk  %

Pneumovax  Global Cardio Score  pts

Urinalysis

Aspirin ☒ Yes ☐ No [Weight Management](#) [Lipids Management](#)

Statin ☐ Yes ☐ No [HPT Management](#) [Immunizations](#)

**Vital Signs**

Height	<input type="text" value="72.00"/>	Waist	<input type="text" value="34.50"/>	Finger Stick	
Weight	<input type="text" value="275.00"/>	Hips	<input type="text" value="37.50"/>	Glucose	<input type="text" value="104"/>
BMI	<input type="text" value="37.43"/>	Chest	<input type="text" value="36.00"/>	Pulse	<input type="text" value="75.00"/>
Body Fat %	<input type="text" value="32.2"/>	Abdomen	<input type="text" value="38"/>	<a href="#">Blood Pressure</a>	
Protein Req	<input type="text" value="150"/>	Ratio	<input type="text" value="0.92"/>	<input type="text" value="135"/> / <input type="text" value="85"/>	
BMR	<input type="text" value="2705"/>	BER	<input type="text" value="3025"/>	<input type="button" value="BP In Diabetics"/>	

**Most Recent Labs**

<a href="#">HqA1C</a>	<input type="text" value="9.2"/>	<input type="text" value="09/21/2011"/>
Previous	<input type="text" value="8.8"/>	<input type="text" value="01/21/2009"/>
	<input type="text" value="9.6"/>	<input type="text" value="01/16/2008"/>
<a href="#">eAG</a>	<input type="text" value="217"/>	
<a href="#">Mean Plasma Glucose</a>	<input type="text" value="250.2"/>	<input type="text" value="Insulin"/>
<a href="#">C-Peptide</a>	<input type="text" value="3.2"/>	<input type="text" value="01/07/2011"/>
Fructosamine	<input type="text" value="212"/>	<input type="text" value="01/07/2011"/>
Cholesterol	<input type="text" value="165"/>	<input type="text" value="09/21/2011"/>
LDL	<input type="text" value="113"/>	<input type="text" value="09/21/2011"/>
HDL	<input type="text" value="30"/>	<input type="text" value="09/21/2011"/>
Triglycerides	<input type="text" value="111"/>	<input type="text" value="09/21/2011"/>
<a href="#">Trig/HDL Ratio</a>	<input type="text" value="1.00"/>	
Glucose	<input type="text" value="1"/>	<input type="text" value="07/07/2011"/>
Fasting	<input type="text" value="123"/>	<input type="text" value="01/01/2011"/>
Insulin	<input type="text" value="14"/>	<input type="text" value="01/01/2011"/>
<a href="#">HOMA-IR</a>	<input type="text" value="0.0"/>	
Na	<input type="text" value="114"/>	<input type="text" value="07/07/2011"/>
K	<input type="text" value="3.2"/>	<input type="text" value="07/07/2011"/>
<a href="#">Magnesium</a>	<input type="text" value="2.8"/>	<input type="text" value="07/07/2011"/>
BUN	<input type="text" value="1"/>	<input type="text" value="07/07/2011"/>
Creatinine	<input type="text" value="2.2"/>	<input type="text" value="07/07/2011"/>
<a href="#">U Microalbumin</a>	<input type="text" value="2.6"/>	<input type="text" value="01/07/2011"/>
Albumin/Creat	<input type="text" value="28.00"/>	<input type="text" value="06/30/2011"/>

**Navigation**

☒ Diabetes ☐ General

**Home**

[Diab Sys Review](#)

[Diabetic History](#)

[Eye Exam](#)

[Nasopharynx](#)

[Cardio Exam](#)

[Foot Exam](#)

[Neurological Exam](#)

[Complications/Education](#)

[Initiating Insulin](#)

**Lifestyle Changes**

**Diabetes Plan**

Education Booklet Given On

[Diabetes Education](#)

Last DE

**Current SQ Insulin Dose as of**

Blood Sugars

Time of day	Units	Type	Units	Type	mg/dl
<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text" value="0.00"/>	<input type="text"/>	<input type="text"/>

# PCPI Audit



## PCPI Diabetes Management

Has the patient had a Hemoglobin A1c within the last year?

**Yes**

Order HgbA1c

Date of Last

*Ordered Today*

Has the patient had a Lipid Profile within the last year?

**Yes**

Order Lipid Profile

Date of Last

*Ordered Today*

Has the patient had a urinalysis within the last year?

**Yes**

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?

**Yes**

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)?

**No**

Today's Blood Pressure

<input type="text" value="135"/>	/	<input type="text" value="85"/>
<input type="text"/>		<input type="text"/>
<input type="text"/>		<input type="text"/>

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

# Plan of Care and Treatment Plan



SETMA I - 2929 Calder, Suite 100  
SETMA II - 3570 College, Suite 200  
SETMA West - 2010 Dowlen  
(409) 833-5797  
www.setma.com

## Diabetes Follow-Up Note Treatment Plan and Plan of Care

### Treatment Goals

HgbA1c	Less than 7.0 %
Blood Pressure	Less than 130/80 mmHg
Cholesterol (LDL)	Less than 100 mg/dL
	Less than 70 mg/dL (if you have cardiovascular disease)
Microalbumin	Less than 30 mcg/mg of creatinine

Patient [REDACTED]  
Date of Birth [REDACTED]  
Age 74 years  
Ethnicity [REDACTED]  
Sex M  
Encounter Date 09/20/11

### The Secret to Diabetes: Learning

Remember, Dr. Joslin, one of the founders of modern care of diabetes said, "He who knows the most about diabetes will live the longest." If you have not been to diabetes self-management education classes in the past two years, ask your provider to give you a referral.



# Plan of Care and Treatment Plan



## **Compliance/Adherence**

As a patient with diabetes, it is crucial that you have the following care according to the following schedule:

	<u>Compliance Standard</u>	<u>Your Adherence</u>
Annual Dilated Eye Examination by an Ophthalmologist	annual	Yes, you are adherent.
Hemoglobin A1C	three months or each visit	Yes, you are adherent.
Monofilament Examination of Your Feet	annual	Yes, you are adherent.
Controlled Blood Pressure	each visit	Yes, you are adherent.
Urine for Protein for Kidney Damage	annual	Yes, you are adherent.
Flu Immunization	annual	Yes, you are adherent.
Taking an 81 mg Aspirin	each visit	Yes, you are adherent.
Dental Care with Cleaning of Teeth	every six monthss	Yes, you are adherent.
Cholesterol Check (LDL)	annual	Yes, you are adherent.
Pneumovax	every ten years	Yes, you are adherent.
DSME (Diabetes Self Management Education)	every two years	Yes, you are adherent.
Medical Nutrition Therapy	once in first year diagnosis	You are not adherent.
Screening for PVD with Pedal Pulses, ABI or Arterial Doppler	routinely after age 50	

## **Plan of Care Adherence**

Our plan of care for the treatment of your diabetes is based on the evaluation of your compliance with your care.

Are you adherent with your medications? *Yes, you are adherent.*

Are you adherent with your follow-up? *Yes, you are adherent.*

Are you adherent with your diet? *Yes, you are adherent.*

Are you adherent with your education? *You are not adherent.*

Are you adherent with your exercise? *Yes, you are adherent.*

You must take your medications, keep your appointments, and learn all you can about diabetes.

Our records show that you have not attended a Diabetes Self Management Education class. Please arrange with your provider to attend a class.

# HbA1c



We will monitor your blood values regularly. Remember the Hemoglobin A1C (HgbA1C) estimates the average blood sugar which you have had for the past three months. If your HgbA1C is above 6.0, your eyes, your kidneys, your heart, your nerves and your blood vessels are subject to being damaged. It is important for you personally to know your HgbA1C and that you keep track of it.

In order to prevent duplications in laboratory testing, please have all of your labs done at SETMA. In that way, the results will be in our computer and we will send the results to your endocrinologist if he/she is not a part of SETMA.

Your current HgbA1c is 10.4 %. Your diabetes is totally out of control and without immediate improvement your health is at serious risk of permanent, long-term damage.

In that your HgbA1c is above 6.5 %, you need to have your eyes examined every six months. Your last eye examination was 10/12/2010. Ask for a referral to your ophthalmologist to schedule your next eye exam.

Your Urine Microalbumin is Negative.

You have had diabetes since 5 1993.

# HbA1c and eAG



## **The following are Joslin Diabetes Center's goals for monitoring your blood sugar:**

Fasting	70 - 130 mg/dL
2 Hours After Meals	Less than 180 mg/dL

The relationship between the HgbA1C and the values you get from your glucometer (referred to as "eAG") is explained below.

## **Relationship between HgbA1c and eAG**

<u>HgbA1c (%)</u>	<u>eAG (mg/dL) (95% CI)</u>
12	298 (240-347)
11	269 (217-214)
10	240 (193-282)
9	212 (170-249)
8	183 (147-217)
7	154 (123-185)
6	126 (100-152)
5	97 (76-120)
4	68 (51-86)

Remember, the most important value for the prediction of complications of diabetes is HgbA1C. Our goal - yours and mine - will be to work together to achieve consistent, excellent blood sugar and blood pressure control with a HgbA1C below 7% and a blood pressure below 130/80 mmHg. If you are concerned about a particular result, look at the "average blood glucose" value on your glucometer. That value is the most important other than your HgbA1C.

# Plan of Care and Treatment Plan



## **Lifestyle Changes for Improving Your Health**

There are three lifestyle changes which will improve your health, help control your diabetes, decrease your cardiovascular disease risk and help minimize the complications of diabetes. They are:

- \* Lose weight
- \* Exercise
- \* Stop Smoking (if you do)

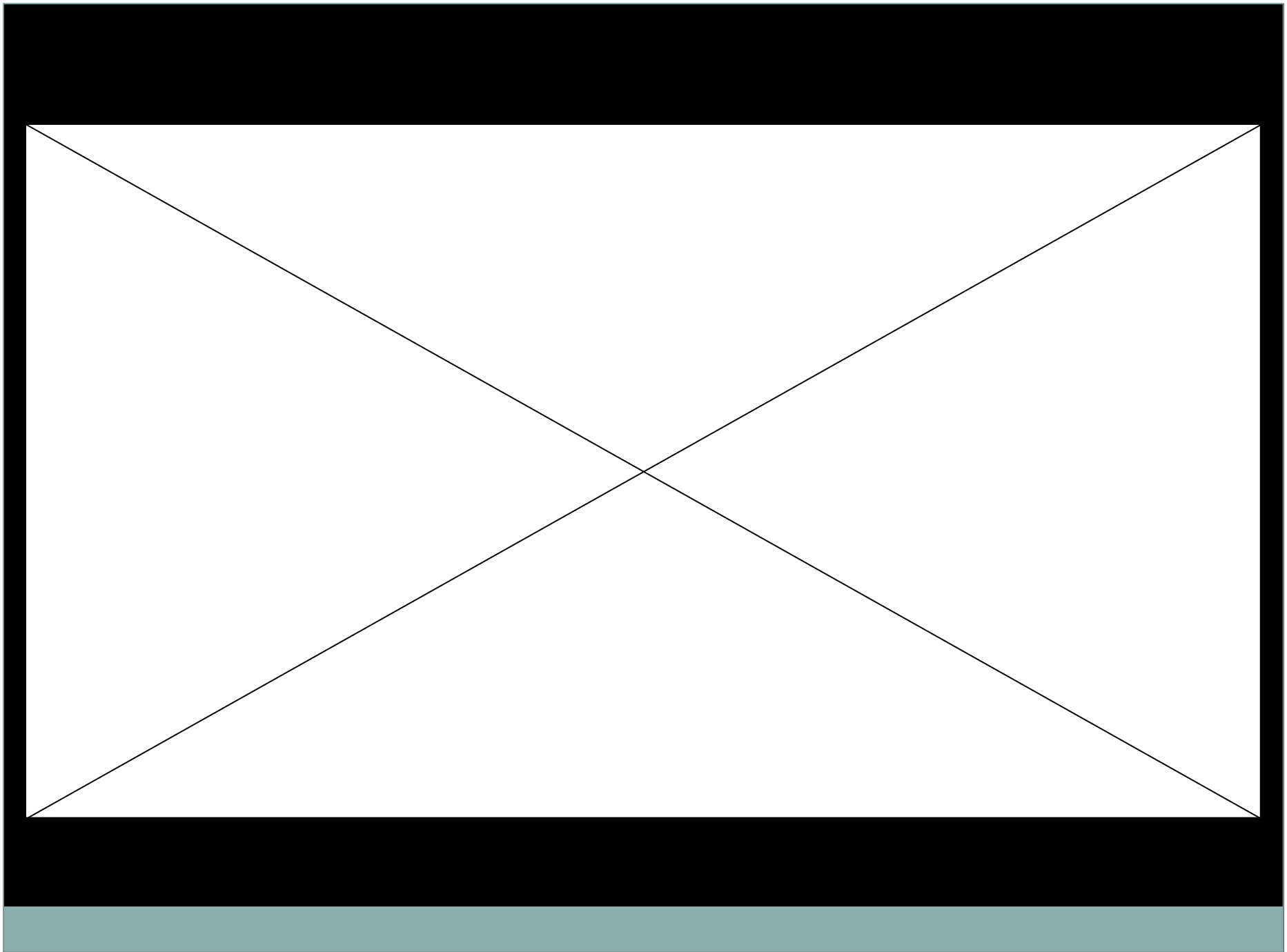
With your diabetes plan of care and treatment plan, you have received a copy of your SETMA LESS Initiative. Follow it. Get active, lose weight and treat tobacco smoke as a plague.

## **How You Can Take Charge of Your Own Treatment**

1. Bring your self-monitoring results with you to every clinic visit. I very much appreciate you doing that and thank you for it.
2. Know and understand your HgbA1C.  
Your most recent HgbA1C was 10.4 % on 08/03/2011.  
Your previous values were:  
10.1 % on 02/16/2010  
8.5 % on 08/11/2009
3. Make sure that you note any time your blood sugar drops to 70 mg/dL or below. Note on your log what you were doing at the time.
4. Make sure that you are satisfied with your numbers. Remember, if your HgbA1C is below 7%, you greatly reduce the complications to your health from diabetes.



■  
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.  
■



# The Baton



**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.**

# Addendum - The Seven Stations of Success



SETMA Designed the Seven Stations of Success as visual reminders of the leverage points for improving the care of patients with diabetes by providers and by the patients themselves.

1. A set of the stations are displayed in the hallway leading to the Joslin Affiliate Clinic.
2. A framed copy of each station is displayed at the point of care for each activity within the clinic.
3. Station Seven -- “SETMA is Your Health Home” is on the door through which the patient exits the Joslin Clinic.



STATION ONE FOR SUCCESS

## Self-Monitoring of Blood Glucose (SMBG)

*Bring your log book and blood glucose monitor to every visit.*

We will help you download your meter.


Patterns provide a picture of how food, daily activity,  
and medications affect your blood sugar.

*Ask your diabetes educator to help you find patterns in your SMBG.*

Remember you are in charge of your own health for  
8,760 hours a year.

*"Teaching is cheaper than nursing."*

—ELLIOTT P. JOSLIN, MD

 **Joslin Diabetes Center**  
affiliated with  
Massachusetts General Hospital

# Station 1

## Self-Monitoring of Blood Glucose



- **Bring your log book and blood glucose monitor to every visit.**
- **We will help you download your meter.**
- **Patterns provide a picture of how food, daily activity and medications affect your blood sugar.**
- **Ask your diabetes educator to help you find patterns in your SMBG.**
- **Remember you are in charge of your own health for 8,760 hours a year.**

*“Teaching is cheaper than nursing.”*

**-Elliot P. Joslin, MD**

STATION TWO FOR SUCCESS

## Hemoglobin A<sub>1c</sub> (HbA<sub>1c</sub>) Point of Care (POC)

HbA<sub>1c</sub> reveals your risk for heart attacks and strokes.

*HbA<sub>1c</sub> Below 7% Decreases Risk Dramatically.*


POC HbA<sub>1c</sub> results allows YOUR Healthcare Team – you, your provider, and educator – to know where you are.

*You will get your HbA<sub>1c</sub> value at this station.*

Always know your last HbA<sub>1c</sub> and whether it is improving or not.

*"The person who knows the most about diabetes lives the longest."*

—ELLIOTT P. JOSLIN, MD

 Joslin Diabetes Center  
Affiliate of  
Boston University Medical Center

# Station 2

## HbA1c Point of Care



- **HbA1c reveals your risk for heart attacks and stroke.**
- **HbA1c below 7% decreases risk dramatically.**
- **POC HbA1c results allows your healthcare team – you, your provider and educator – to know where you are.**
- **You will get your HbA1c value at this station.**
- **Always know your last HbA1c and whether it is improving or not.**

*“The person who knows the most about diabetes lives the longest.”*

**-Elliot P. Joslin, MD**



STATION THREE FOR SUCCESS

## The LESS Initiative

**L - LOSE WEIGHT** | Excess fat leads to diabetes, high blood pressure and other health problems. Know your body fat percent, BMI and BMR.

**E - EXERCISE** | Exercise helps lower body fat, blood sugar and blood pressure. How to exercise? START!

**S - STOP SMOKING** | Smoking causes heart disease.


**S - STOP SMOKING** | Trying to stop, doesn't help; only stopping helps.

*Make the decision*

*Ask for help*

*Only you can stop*

*"It is better to discuss how far you have walked than how little you have eaten."*  
—ELLIOTT P. JOSLIN, MD

 **Joslin Diabetes Center**  
Part of the Joslin Diabetes Center

# Station 3

## The LESS Initiative



- **L** – Lose Weight – Excess fat leads to diabetes, high blood pressure and other health problems. Know your body fat, BMI and BMR.
- **E** – Exercise – Exercise helps lower body fat, blood sugar and blood pressure. How to exercise? **START!**
- **S** – Stop Smoking – Smoking causes heart disease.
- **S** – Stop Smoking – Trying to stop doesn't help; only stopping helps.

*“It is better to discuss how far you have walked than how little you have eaten.”*

**-Elliot P. Joslin, MD**

**STATION FOUR FOR SUCCESS**

# Medical Nutrition <sup>(MNT)</sup> & Diabetes Self Management Education <sup>(DSME)</sup>

**ASSESS**

What do YOU know about diabetes?  
How do YOU care for yourself?

**PLAN**

Create a plan that meets YOUR needs.

**TEACH**

Knowledge and skills YOU need to manage diabetes well.

**SET GOALS**

You can improve YOUR health, RIGHT NOW!

*"We can only scratch one back at a time, but we can teach many patients  
together and each is likely to teach another."*

—ELLIOTT F. JOSLIN, MD

# Station 4

## Medical Nutrition & Diabetes Self Management Education



- **Assess** – What do YOU know about diabetes? How do YOU care for yourself?
- **Plan** – Create a plan that meets YOUR needs.
- **Teach** – Knowledge and skills YOU need to manage diabetes well.
- **Set Goals** – You can improve YOUR health, RIGHT NOW!

*“We can only scratch one back at a time, but we can teach many patients together and each is likely to teach another.”*

**-Elliot P. Joslin, MD**



STATION FIVE FOR SUCCESS

## Physician Partnership With YOU

**TOGETHER**, set goals of blood glucose, blood pressure and cholesterol.


**TOGETHER**, determine your risk of complications.

**TOGETHER**, plan for preventing complications.

**TOGETHER**, review and agree on treatment plan.

*"You and your healthcare provider are 'in this together.'  
Be an active part of YOUR team."*

—SEITMA

 **Joslin Diabetes Center**  
OFFICE OF  
Southwest Texas Medical Association LLP

# Station 5

## Physician Partnership with YOU



- **TOGETHER, set goals of blood glucose, blood pressure and cholesterol.**
- **TOGETHER, determine your risk of complications.**
- **TOGETHER, plan for preventing complications.**
- **TOGETHER, review and agree on treatment plan.**

*“You and your healthcare provider are ‘in this together.’ Be an active part of YOUR team.”*

**-SETMA**

STATION SIX FOR SUCCESS

# Care Coordination

Establishing and Executing Your Diabetes Plan of  
Care and Treatment Plan.

## COORDINATE REFERRALS

- DSME and MNT – *Self Care*
- Ophthalmologist – *Eye Care*
- Nephrology – *Kidney Care*
- Physical Therapy – *Heart Care*
- Communication – *Continuous Care*

## COORDINATE RESOURCES

- Barriers to Care – *Financial, Social, Physical, Literacy, etc.*
- Support – *Family, Community, Religious, etc.*
- Counsel – *Psychological, etc.*

## COORDINATE CARE

- Follow Through

*"Your healthcare team – you, your provider, your educator, all members of  
your team – working together to facilitate excellence."*

—SETEMA

# Station 6

## Care Coordination



### Establishing and Executing Your Diabetes Plan of Care and Treatment Plan

#### ■ Coordinate Referrals

- DSME and MNT – Self Care
- Ophthalmology – Eye Care
- Nephrology – Kidney Care
- Physical Therapy – Heart Care
- Communication – Continuous Care

# Station 6

## Care Coordination



### ■ **Coordinate Resources**

- **Barriers to Care – Financial, Social, Physical, Literacy, etc.**
- **Support – Family, Community, Religious, etc.**
- **Counsel – Psychological, etc.**

### ■ **Coordinate Care**

- **Follow Through**

*“Your healthcare team – you, your provider, your educator, all members of your team – working together to facilitate excellence.”*

**-SETMA**



STATION SEVEN FOR SUCCESS

## SETMA is Your Health Home

**You Are Always Welcome at Your Health Home.**

- Formal Visit
- Dropping By
- Phone Call
- Email – *Ask about NextMD*
- Letter

**You Are In Charge.**

- There are 8,760 hours in a year.
- 8,700 + hours are spent outside of the doctor's office.
- Before you leave make sure you know what your next steps are to improve your health!

*"In an Olympic Relay race, if the baton is dropped, the team fails; if any member of your healthcare team drops your "healthcare baton", which is your plan of care and treatment plan, we will all fail."*

—SETMA

# Station 7

## SETMA is Your Health Home



### ■ You Are Always Welcome at Your Health Home

- Formal Visit
- Dropping By
- Phone Call
- Email – *Ask about NextMD*
- Letter

# Station 7

## SETMA is Your Health Home



### ■ You Are Always Welcome at Your Health Home

- There are 8,760 hours in a year.
- 8,700 + hours are spent outside of the doctor's office.
- Before you leave make sure you know what your next steps are to improve your health.

*“In an Olympic relay race, if the baton is dropped, the team fails; if any member of your healthcare team drops your ‘healthcare baton,’ which is your plan of care and treatment plan, we will all fail.”*

**-SETMA**