

From Measurement to Management

Using ACGs in Diabetes Care at Johns Hopkins

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The Johns Hopkins University's



2010 ACG International Risk Adjustment Conference

MAY 10-12
Tucson, Arizona
Loews Ventana Canyon

TOPICS

- High-performing health care systems
- Johns Hopkins and Health Care Reform: Accountable Care Systems
- Describe a program for Diabetes Care at Johns Hopkins
- Demonstrate how ACGs are used to identify and stratify diabetic patients for intervention
- Discuss how the new ACG Version 9.0 features will be incorporated into the Johns Hopkins Medicine Diabetes Care Program



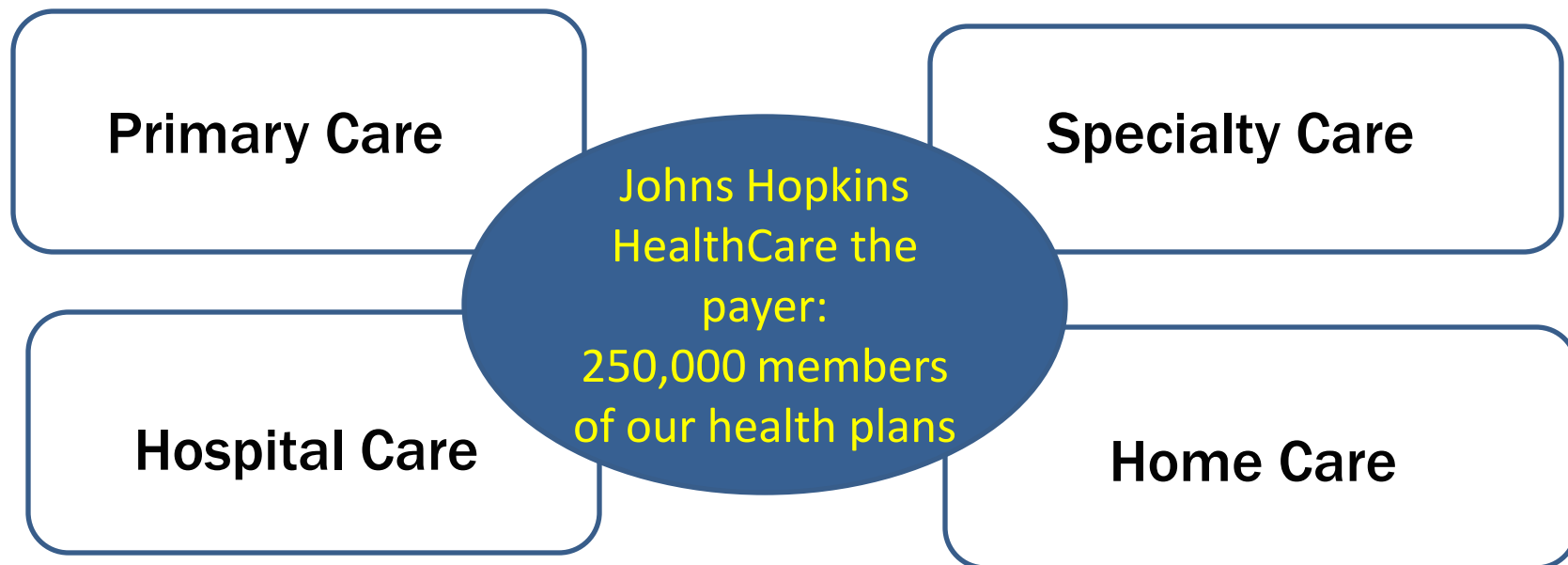
The High-Performance Health System: An Integrated Approach

- Affordable coverage for all: ensure access
- Payment reform to enhance value
 - Accountable care systems (ACS) with bundled payment approaches
- Patient centered and coordinated care: improve the patient experience
- Improvement quality and health outcomes
- Accountable leadership and collaboration: coordinated efforts to improve the health system

Source: The Commonwealth Fund (2009). The path to a high performance health system: a 2020 vision and the policies to pave the way.



Johns Hopkins Medicine: An Accountable Care System



Johns Hopkins Medicine has all the necessary components to achieve a high-performance integrated delivery system.

Diabetes Care at Johns Hopkins today: Can we de-silo, coordinate care?

World expert in
Diabetic
retinopathy

Award-winning
nursing

World expert in
diabetic retinopathy

Leading
Cardiologist

Pioneering
cardiac surgeon

Top notch
endocrinologist

Pioneer in
stem cell
therapy

Palliative
care experts

Top notch
endocrinologist

Primary
Care

Leading
cardiologist

Care
coordinator

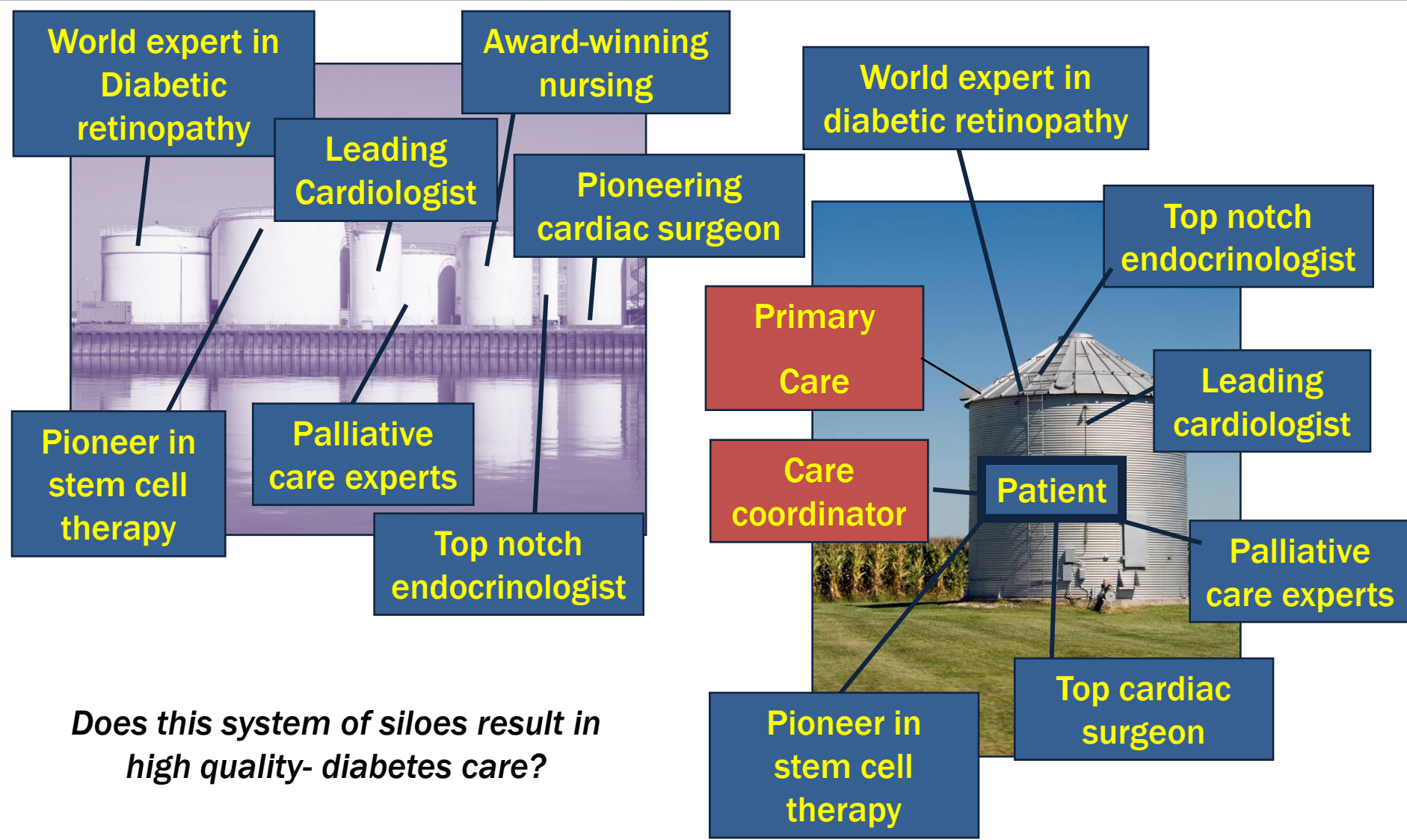
Patient

Palliative
care experts

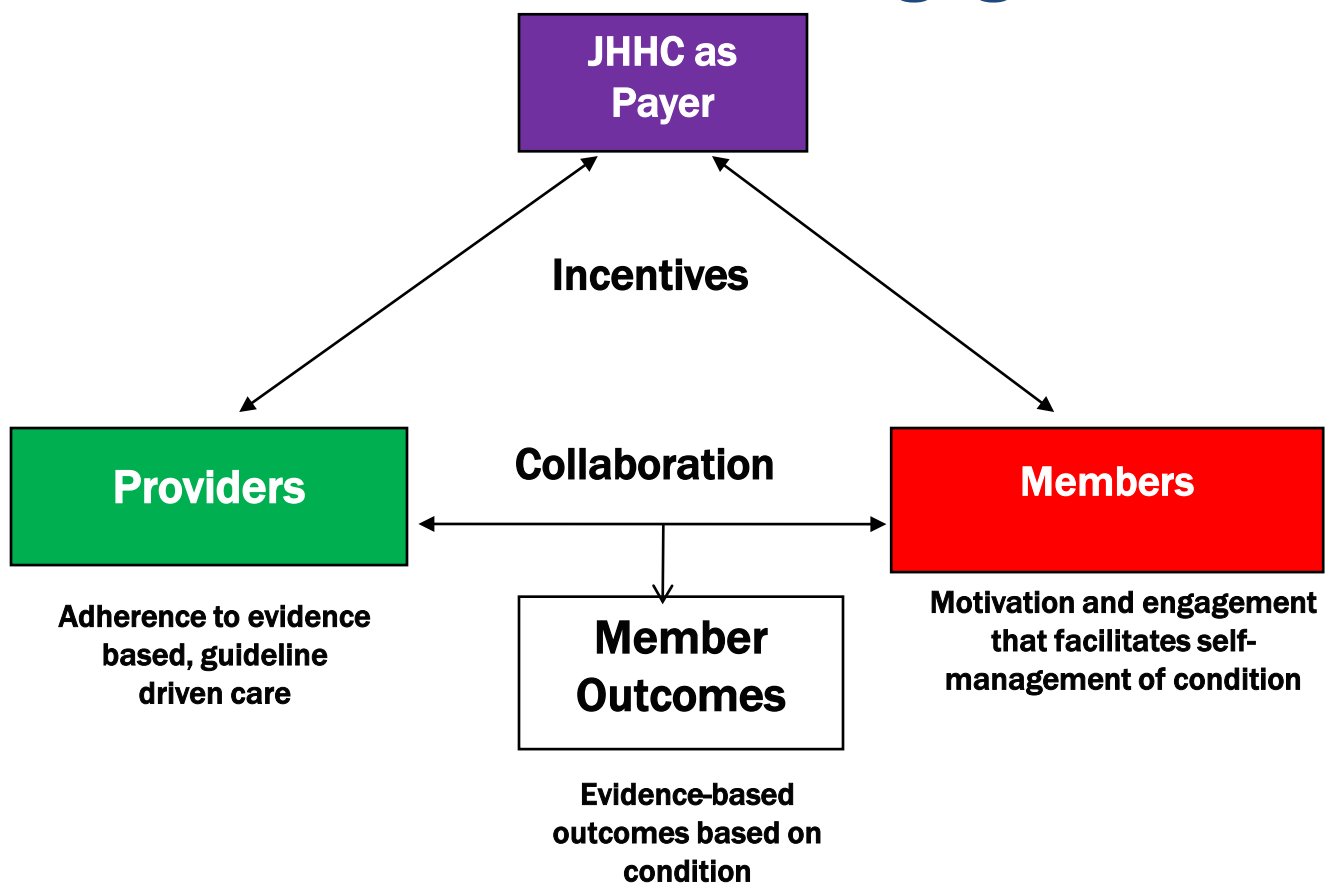
*Does this system of siloes result in
high quality- diabetes care?*

Pioneer in
stem cell
therapy

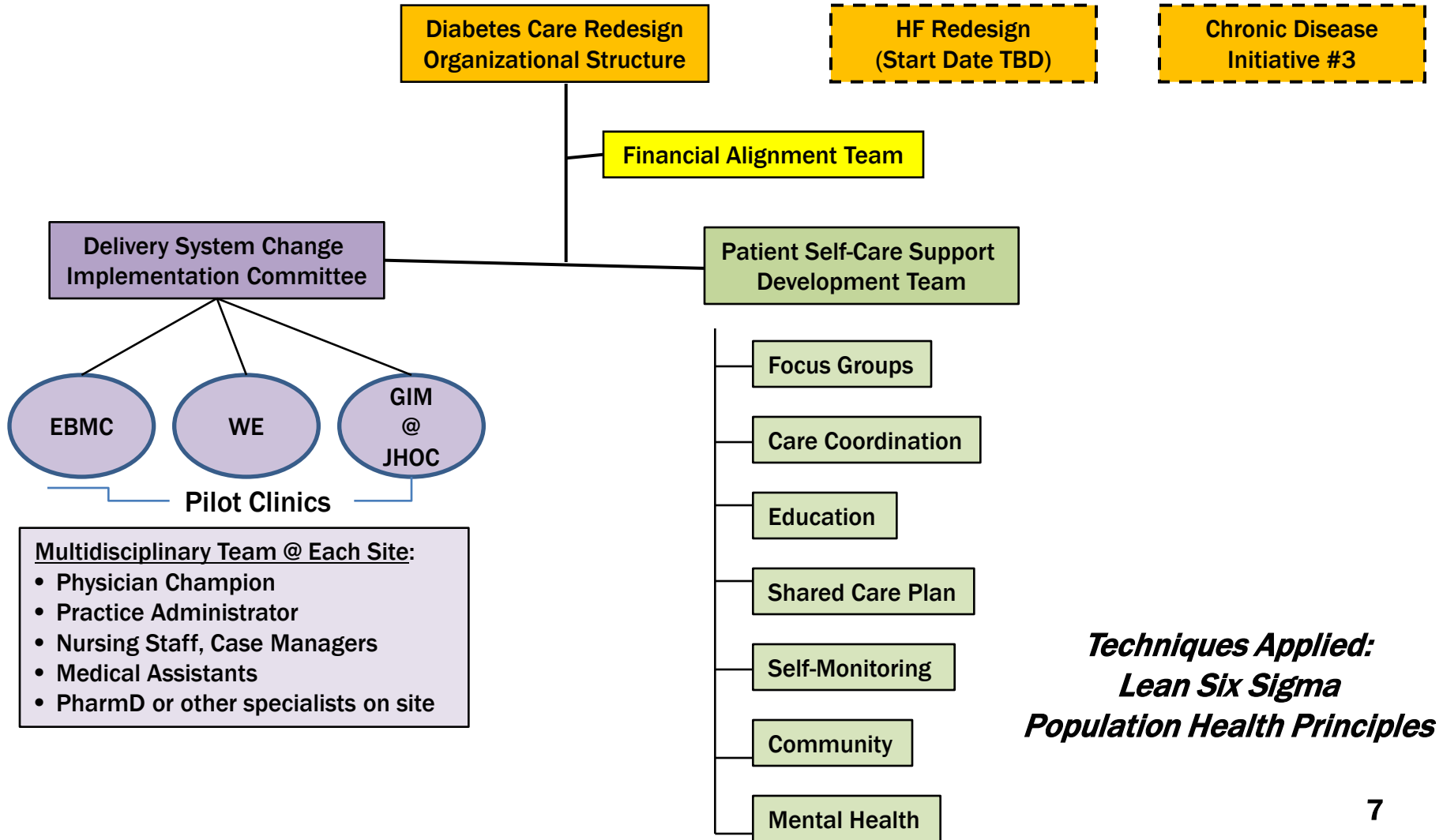
Top cardiac
surgeon



A Conceptual Model for an Accountable Care System: Provider and Member Engagement

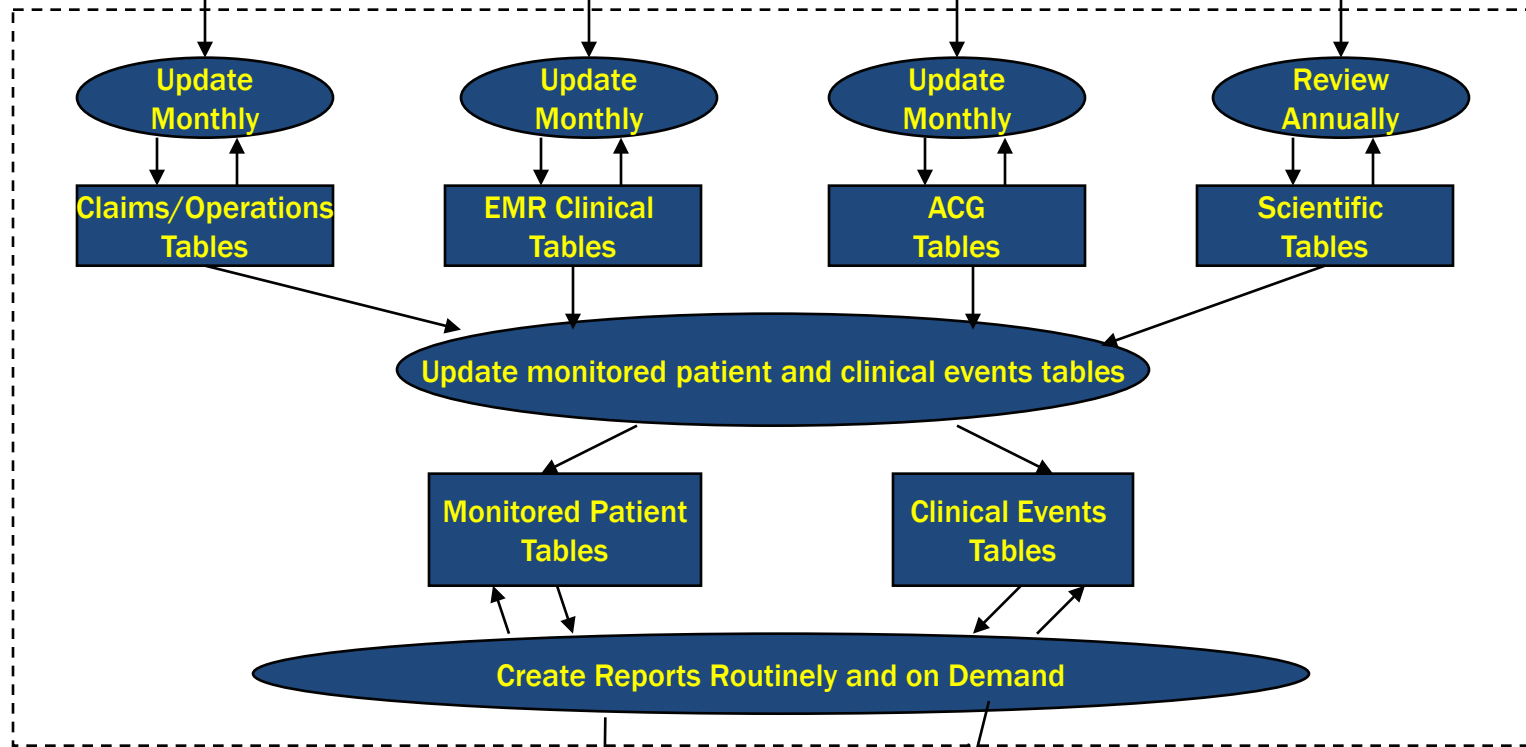


Johns Hopkins Medicine Population Health Steering Committee



JHM Population Health Data Warehouse

Inputs

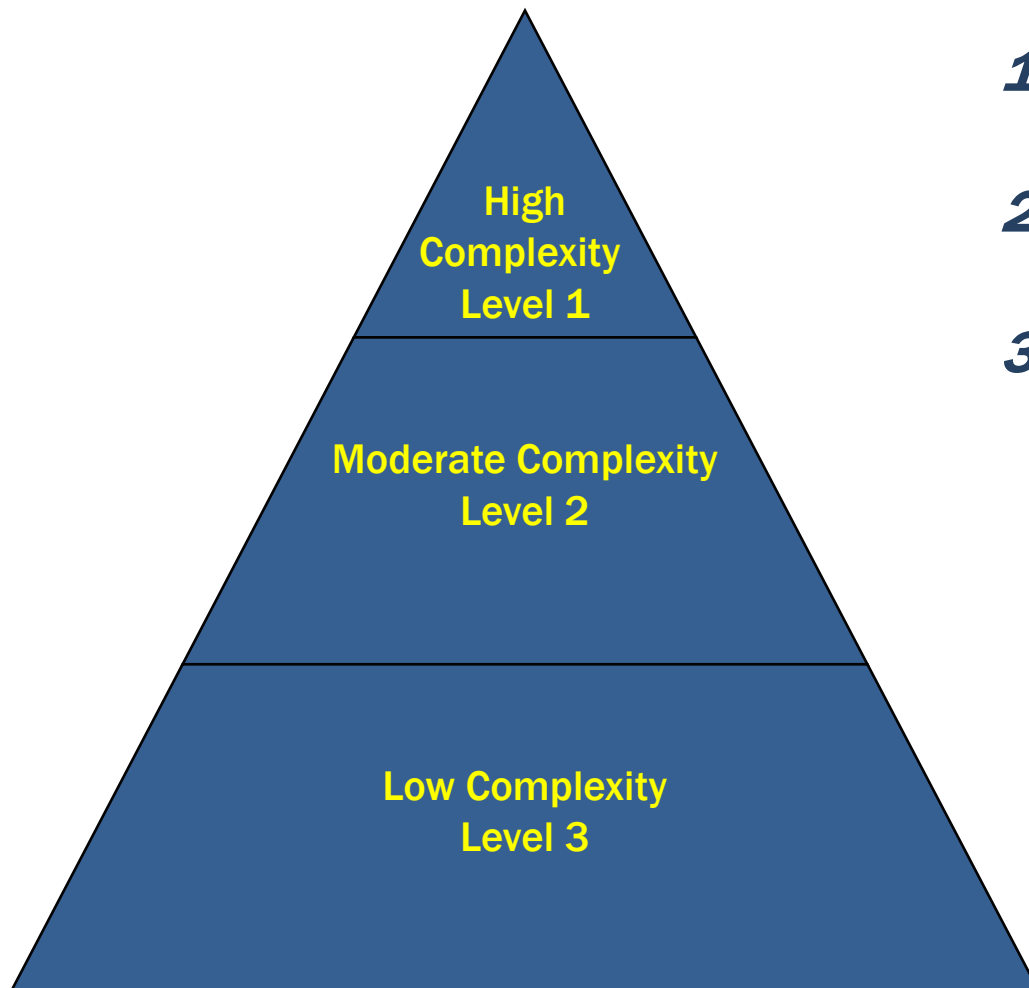


Database

Outputs

Johns Hopkins Diabetes Care

Our Goal: Identify, Stratify, Intervene with Diabetics



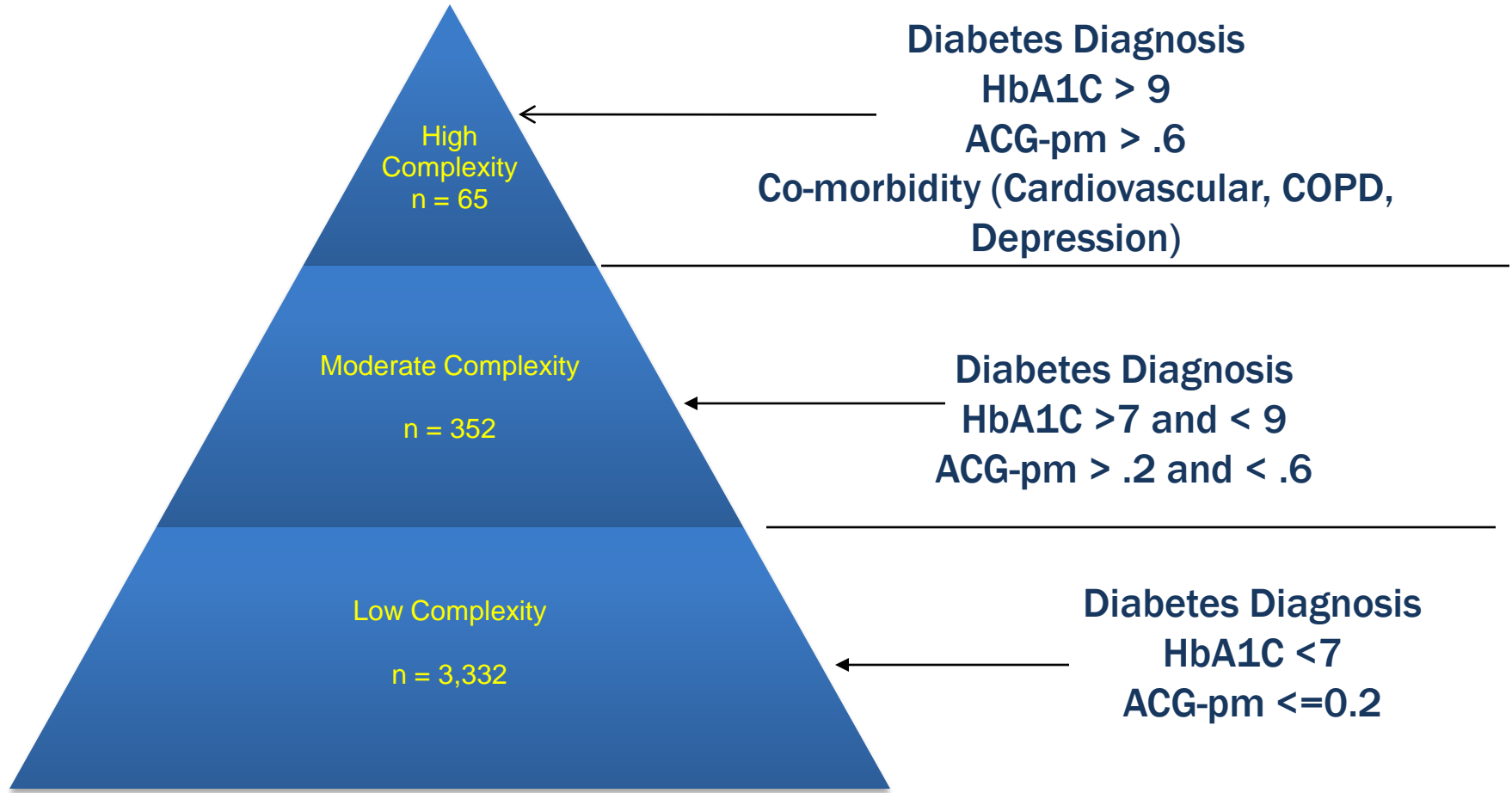
- 1. Identify** all persons with diabetes, and
- 2. Stratify** them into three levels of complexity, and
- 3. Intervene** appropriately. Each level of complexity has an appropriate level of care management intervention applied by our staff: (outreach, nursing/case management assistants, nurses, physicians and social workers)

Identification of Diabetes

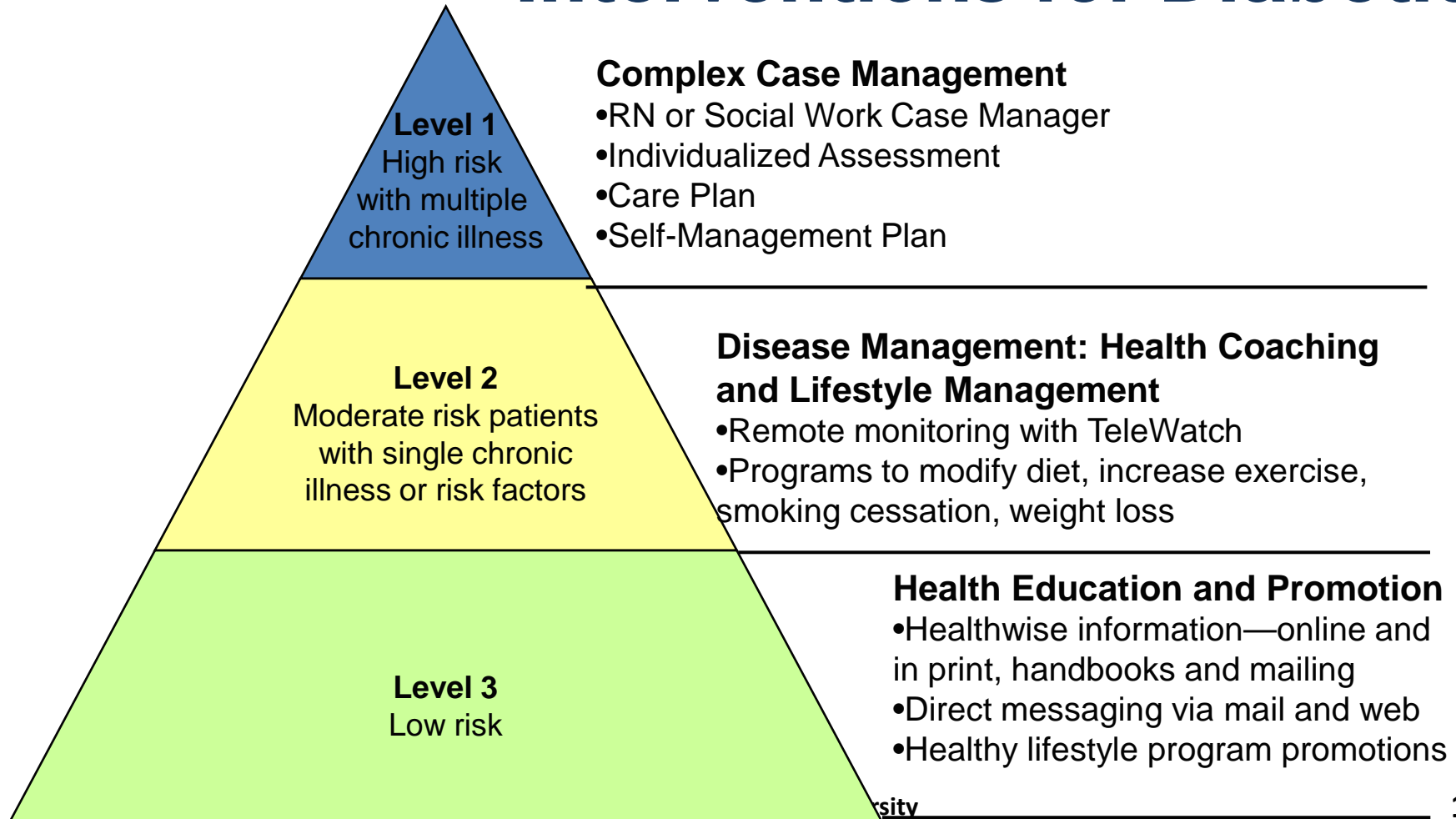
Select patients who meet any of the following criteria:

- **From ACG Diagnosis Tables, (EDC) for diabetes**
- From ICD-9 codes on medical claims (including encounter data), search all available fields for diabetes: 250, 250.0, 250.01, 250.02, 250.03, 250.1, 250.10, 250.11, 250.12, 250.13, 250.2, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.4, 250.40, 250.41, 250.42, 250.43, 250.5, 250.50, 250.51, 250.52, 250.53, 250.6, 250.60, 250.61, 250.62, 250.63, 250.7, 250.70, 250.71, 250.72, 250.73, 250.8, 250.80, 250.81, 250.82, 250.83, 250.9, 250.90, 250.91, 250.92, 250.93, v53.91, v65.46, v45.85, v58.67
- **From ACG Rx-MG tables: ENDx030 or ENDx040**
- From lab services tables: Select patients where CPT is ('83036','83037')
- **From Health Risk Assessment (HRA) table: Select patients who self report Personal History of Diabetes Type I or II**

Stratification: The Simplified Version

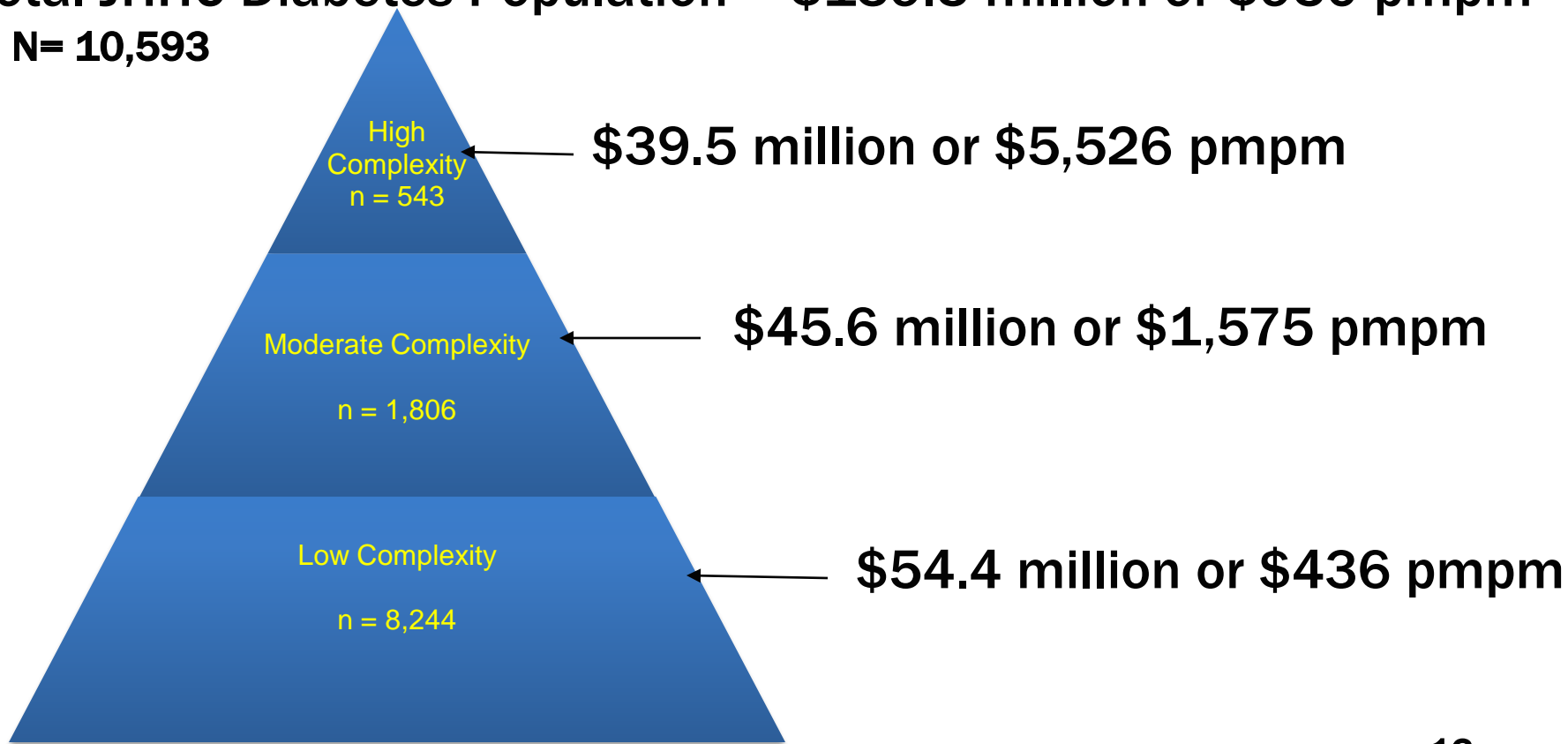


Interventions for Diabetics



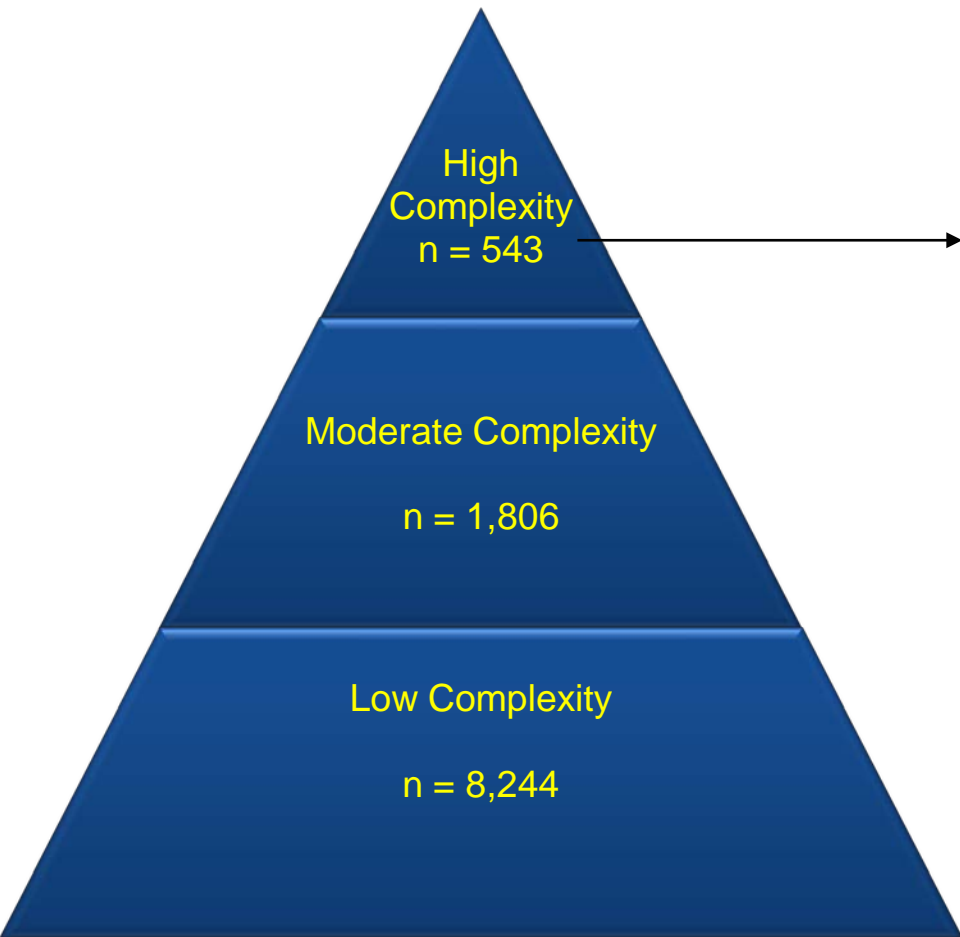
Diabetes Care: What we know about current costs

Total JHHC Diabetes Population = \$139.5 million or \$950 pmpm
N= 10,593



Diabetes Care:

What we know about current utilization and quality



Inpatient Utilization—high complexity group

Inpatient Admissions: 1,692 (2,743/1000)

Inpatient days: 9896 (15,043/1000)

High-complexity group accounts for half of all days for diabetic population

ALOS: 5.85

Primary care visits—all levels:

JH PCP visits 2,500 (40%)

Non-JH PCP Visits 3,893 (60%)

Specialty care visits—all levels :

JH specialty visits 6,893 (50%)

Non-JH specialty visits 6,942 (50%)

Poor Quality of Care for all levels

HbA1C measured annually 86.6%

HbA1C in “good” control 45.50%

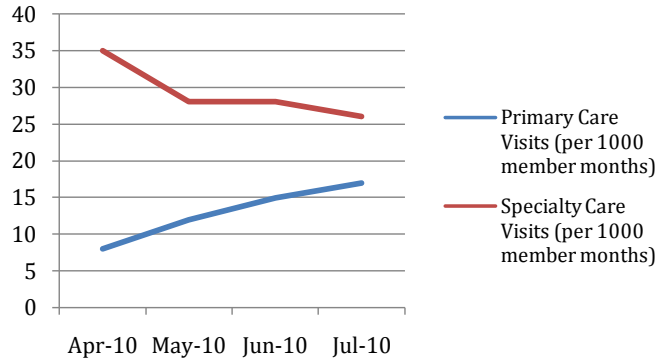
Annual eye exam 73.72%

LDL-C level <100 50.61%

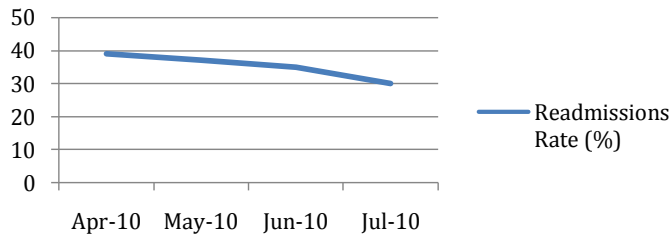
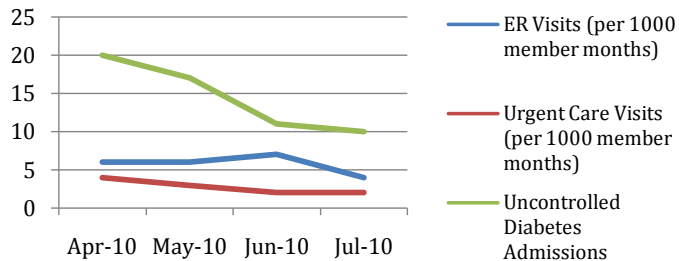
BP < 130/80 38.20%

[MOCK] DIABETES CARE REDESIGN DASHBOARD

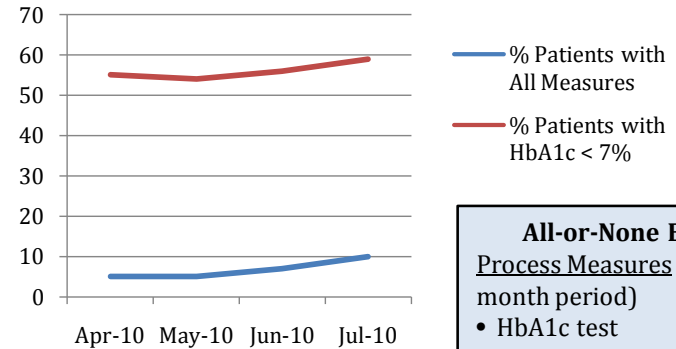
Planned Care



Unplanned Care



Outcomes of Care



- All-or-None Bundle**

Process Measures (w/in 12-month period)

 - HbA1c test
 - Documented foot exam
 - Documented dilated eye exam

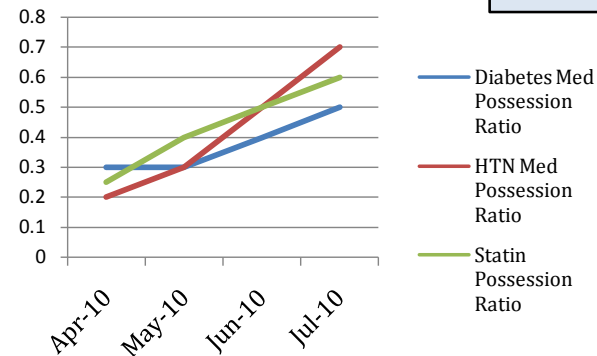
Outcome Measures (most recent results)

 - HbA1c < 7.0%
 - BP < 140/90
 - LDL < 100

Test Measure

 - 2 documented self-mgmt goals

Medication Compliance





New v9.0 Features

- **Coordination Measures**
 - ❖ In the absence of a generalist, outreach and enrollment in primary care. Incentives to providers and patients for primary care and participation with care manager.
 - ❖ Comprehensive patient profile
- **Pharmacy adherence**
 - ❖ Most excited about pharmacy measures!!
 - ❖ Outreach and intervention tailored to risk level of the patient
- **Probability of hospitalization**
 - ❖ May be used in algorithm
 - Probability ≥ 0.4 gets clinical screening
- **High-pharmacy use**
 - ❖ Clinical Screening for identification



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Next steps for Hopkins

- **Population Warehouse**
 - ❖ Registries and reports at the individual, clinic/provider, population and community level
- **Measurement and publication of successes in new models of care**
- **Community level interventions**
 - ❖ Care of pregnant women and prevention of premature birth
 - ❖ Substance abuse and complex co-morbid populations in Medicaid