Improving Diabetes Care
A Roadmap to Better Chronic Care

Robert A. Gabbay, MD, PhD, FACP
Chief Medical Officer
Joslin Diabetes Center
Harvard Medical School

TODAY

- Diabetes as a Target Disease
- Patient Centered Medical Home
  - Positive deviance approach
- Medical Neighborhood
- The Role of Center of Excellence

Incidence and Prevalence of Diabetes (US)

- 29 million Americans have diabetes
  - 8% of the US population
- ¼ Trillion dollars in health care costs
- 1 in 3 babies born in 2000 will develop DM
- Globally 415 million people live with diabetes
- Global Cost DM $825 BILLION

DM = diabetes mellitus.

ADA Fast Facts. Centers for Disease Control and Prevention. *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014*. Atlanta, GA: US Department of Health and Human Services; 2014.

Diabetes as the Vanguard Disease in Health Care Delivery Changes

- Diabetes (and Joslin) has long been the vanguard condition where key health system changes were developed and spread
  - Self-Management Education
  - Team Based Care
  - Chronic Care Model
  - Registries and Population Management
  - Patient Centered Medical Home and Neighborhood

Why Diabetes?

C

Costly

Common

Complex

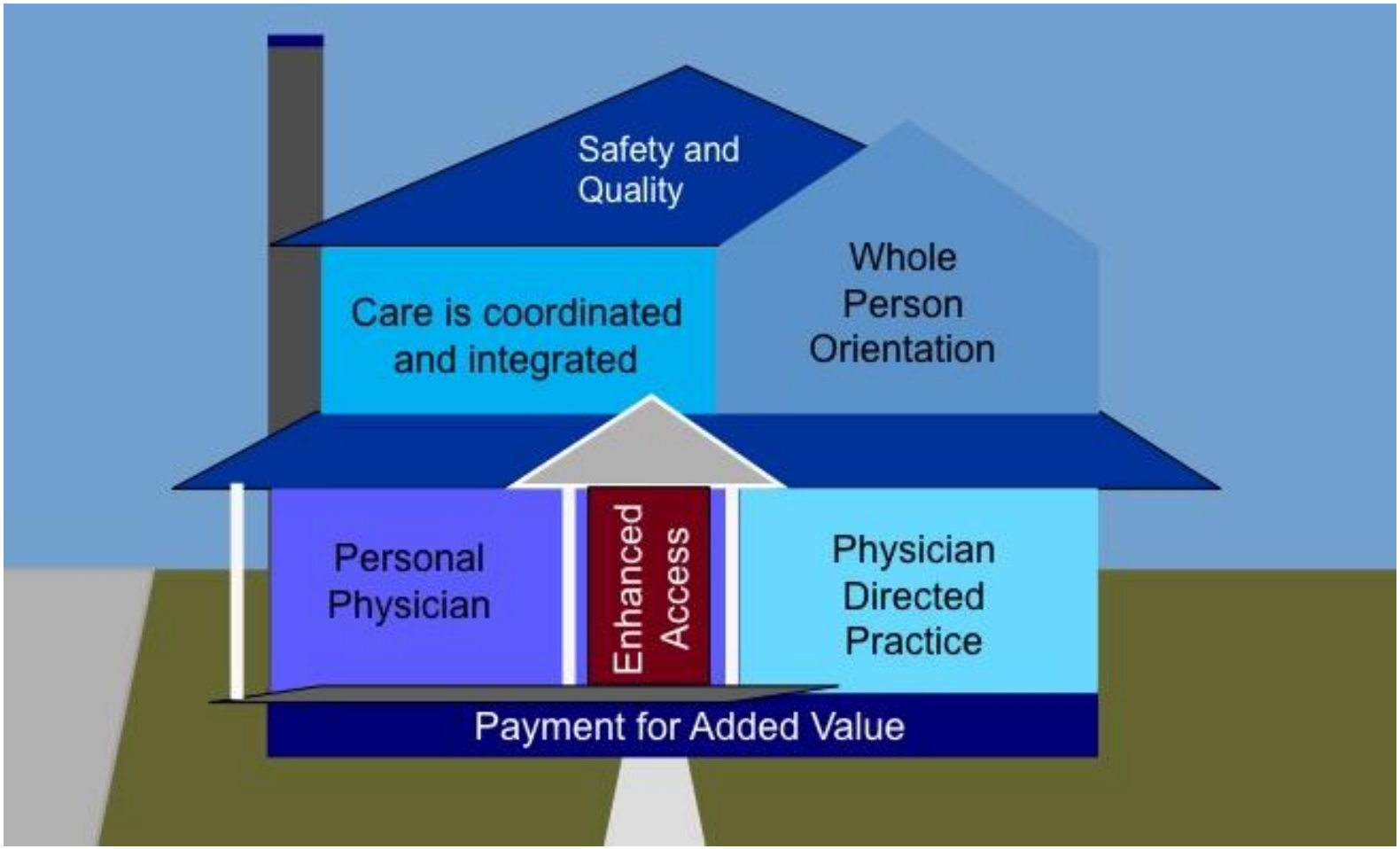
Calculable/ Measureable

Complications preventable

The Role of Primary Care in Diabetes

- Essential!
- In the US (where there is preponderance of specialists in general) – only 5000 endocrinologist for 29 million patients
- Improving diabetes care **requires** a focus on primary care

The Patient-Centered Medical Home



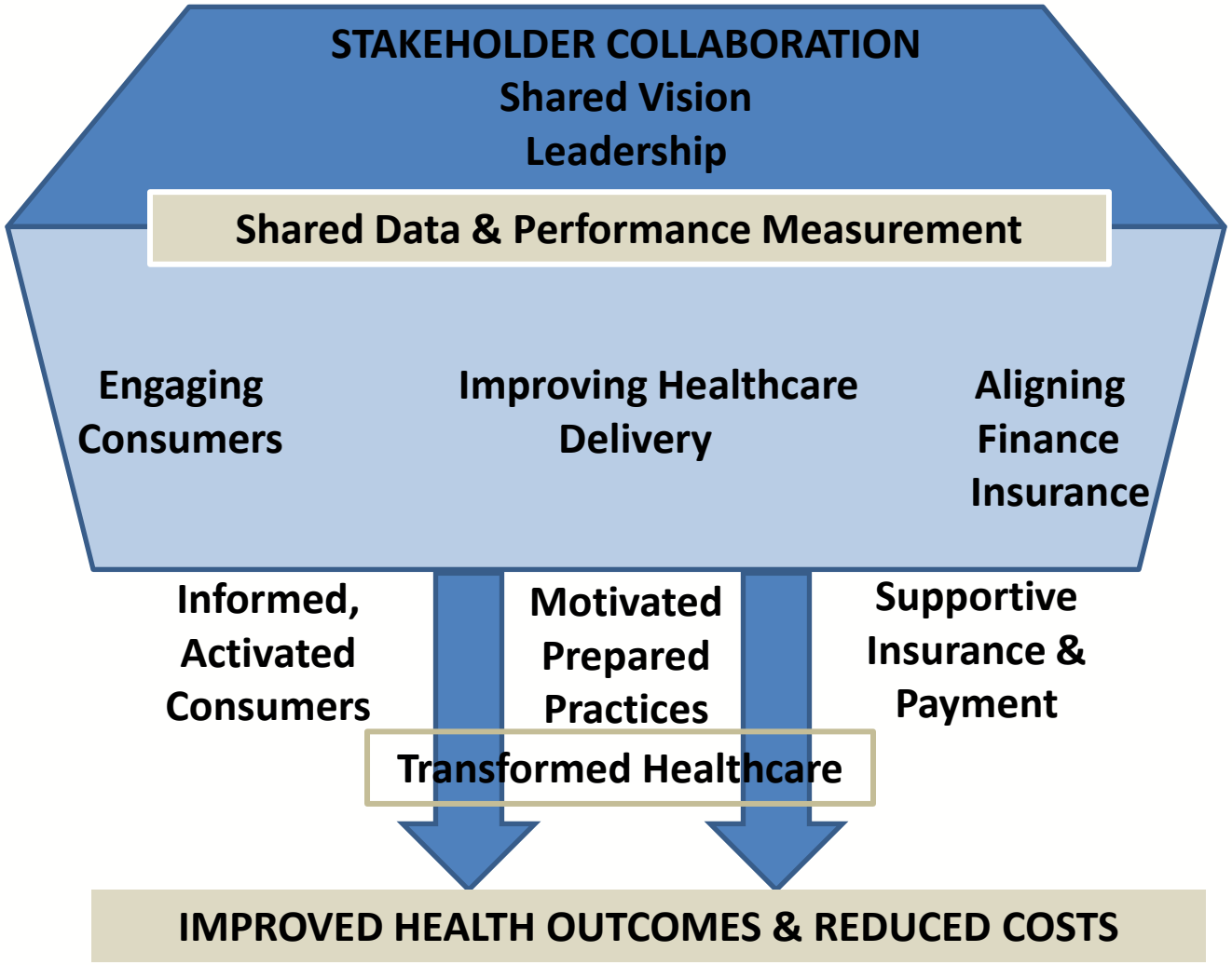
The Patient-Centered Medical Home and Diabetes

- PCMH is a journey, not a destination
- Pilot typically includes:
  - Payment reform and Data
  - Technical assistance = can't do on their own
- Key attribute- population health approach, team based care, high risk ID and care management

Bojadzievski T, Gabbay R. The Patient-Centered Medical Home and Diabetes. Diabetes Care 2011 (34):1047-1053

Can We Transform Primary Care Across an Entire State?

PROMOTING REGIONAL CHANGE



Framework for a Regional Healthcare System

Government-Payer-Provider Partnerships

Example:

The Chronic Care Initiative

Pennsylvania, United States

117,000 sq km

12.7 M people

16% of population
> 65 years old

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Implementing the Medical Home in Pennsylvania

- Largest multi-payer initiative in the nation
  - 17 payers
- Involved:
  - 152 primary care practices
  - Over 1,000 providers
  - Approximately 96,000 patients with diabetes
  - Over 1.1 million patients

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Intervention

1. Quarterly regional learning collaboratives where practices shared best practices
2. The Model for Improvement PDSA cycles
3. Practice coaches to help practices plan, test, and implement changes
4. Monthly quality outcome data reporting
5. Practice embedded care management
6. Supplemental payments by participating insurers that varied by region

Operationalizing the Plan

- Staggered Regional rollout strategy
- Multi-stakeholder-based regional steering committees negotiated:
- Learning laboratory- Lessons learned applied as regions rolled out

INITIAL FOCUS ON **DIABETES**

Was the Pennsylvania Chronic Care Initiative Effective?

Year One Outcomes

Improved Diabetes Care (n~80,000)	
Process Measures	**Absolute % Improvement**
Foot Exam	+41%
Eye Exam	+31%
Diabetic Nephropathy	+31%
Self-Management Goal Setting	+37%

Over 1 year
All p< 0.01

Improved Diabetes Care	
Clinical Measures	**Absolute % Improvement**
BP <130/80	+7.0%
BP <140/90	+16%
LDL <100	+12%
LDL <130	+19%
HbA1C >9%	-14%
HbA1C <7%	+13%

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Results from NE PACCI Last Region

- Lower all-cause hospitalization, ED visits, and ambulatory specialist visits
- Higher rate of ambulatory primary care visits
- Relative improvements in the majority of quality measures examined, at rates better than other regions

Friedberg, M *et al*. Association Between Participation in a Multipayer Medical Home Intervention and Changes in Quality, Utilization, and Costs of Care. *JAMA* (2014).

What's the "Secret Sauce"?

- Heterogeneity of responses to any intervention
- What are the secrets to success
- Positive Deviance untangles those key factors

Positive Deviance Approach

- 25 practices in SE PA
- 5 improvement quintiles based on key diabetes quality measures (A1C<7, BP<130/80, LDL<100)
- Looked at what distinguished the 5 most-improved practices from the 5 least-improved
- Surveys
  - Structural characteristics in all practices pre- and post- (use of EMR, communication systems, staffing)- RAND
  - Survey of all providers, staff on adaptive reserve and burnout
- Qualitative Interviews

Data Collection

- Three standardized interview guides were developed by a multidisciplinary team consisting of representatives from primary care, diabetes care, and health communication.
- The semi-structured guides asked participants to comment on:
  - Personal history and role
  - Key features and sustainability of the model
  - PCMH-related practice change (leadership,

“Secret Sauce?”

- Structural capabilities
- Shifting Mental Models
- Care Management
- Buy-In

Survey Findings
Structural Capabilities

- Most-improved practices appeared to have more:
  - Advanced systems to communicate with patients
  - Advanced EHRs
  - Non-physician staff to support chronic care patients

Gabbay, Friedberg, Miller-Day, Cronholm, Adelman, Schneider. Ann Fam Med 2013

Most-improved practices:

- Did a better job managing competing demands
  - EHR implementation
  - Financial management
- Had facilitative leadership and shared vision of the PCMH
  - Important for achieving buy-in for changes
  - Deliberate planning and testing of changes

Gabbay, Friedberg, Miller-Day, Cronholm, Adelman, Schneider. Ann Fam Med 2013

Mental Model Shift

- When participants were asked to reflect on practice changes that were *most closely linked with improved clinical care*, four key constructs emerged:

  1) Shifting practice perspectives towards proactive, population-oriented care.

  2) Creating a culture of self-examination.

  3) Developing new roles within the practice through distribution of responsibilities and team-based care.

  4) A renewed focus on practice-patient partnerships in the development and implementation of care plans

Cronholm, Shea, Werner, Miller-Day, Tufano, Crabtree, Gabbay JGIM 2013

Best Practices in Care Management

- Care Manager Duties
- EMR Use
- Integration & Information Sharing

Taliani, Bricker, Adelman, Cronholm, Gabbay. Implementing Effective Care Management in the Patient-Centered Medical Home. AJMC. 2013

PCMH Without a Neighborhood

The Patient-Centered Medical Neighborhood

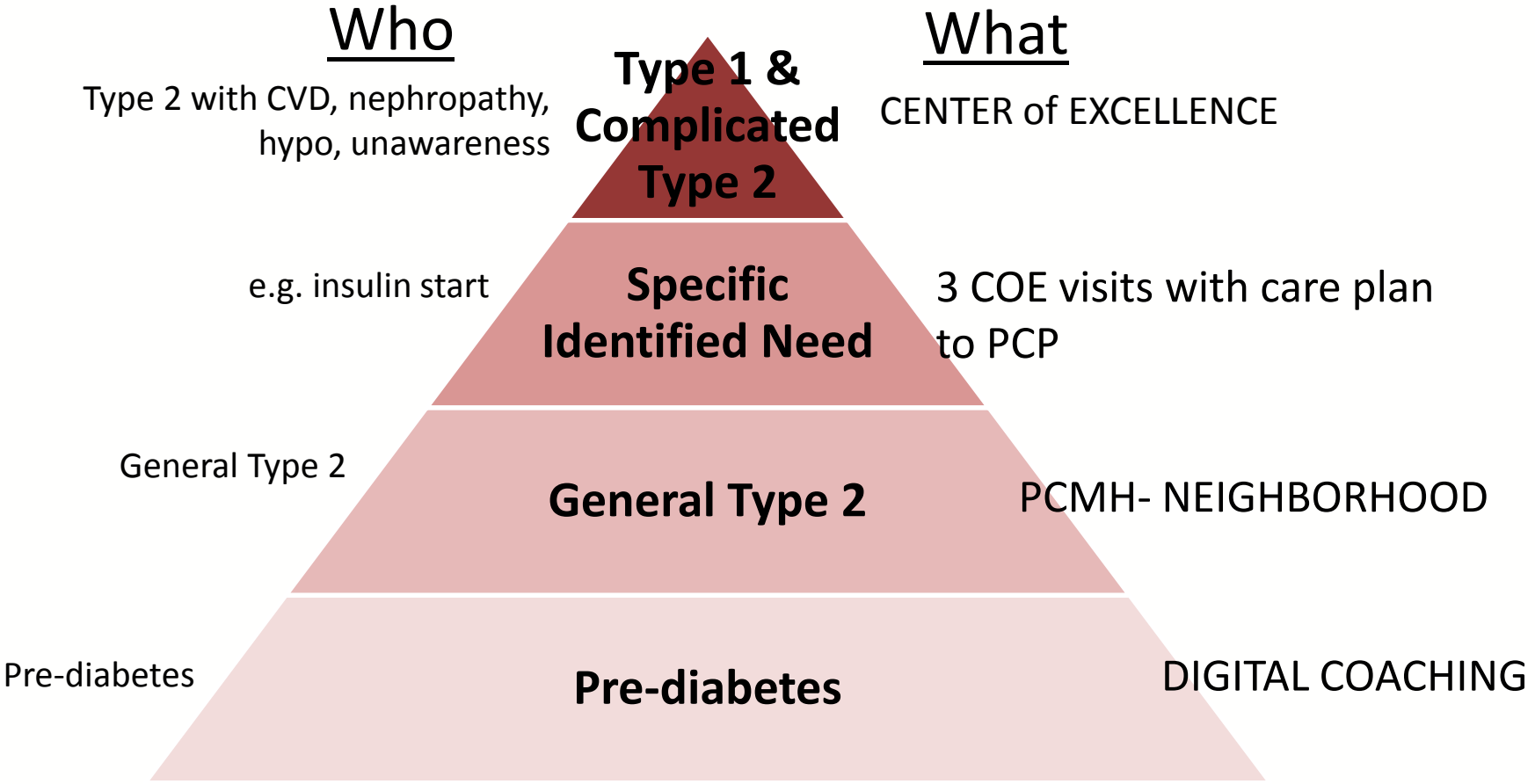
- Need for coordinated care around medically complex disease
- Appropriate and timely consultations and referrals
- Efficient, appropriate and effective flow of necessary care information

Spatz C, Bricker P, Gabbay R. Diabetes and the Patient-Centered Medical Neighborhood: Diabetes Spectrum 2014.

THE NEW ROLE OF THE SPECIALIST

- Leveraging our expertise across the population
- Guiding primary care
- Can frame this as using Diabetes as an Initial Model Disease
- Increasingly using technology and working as a partner to manage a population

Stratifying High Risk Patients



WHAT IS THE FUTURE ROLE FOR THE DIABETES EXPERTS?

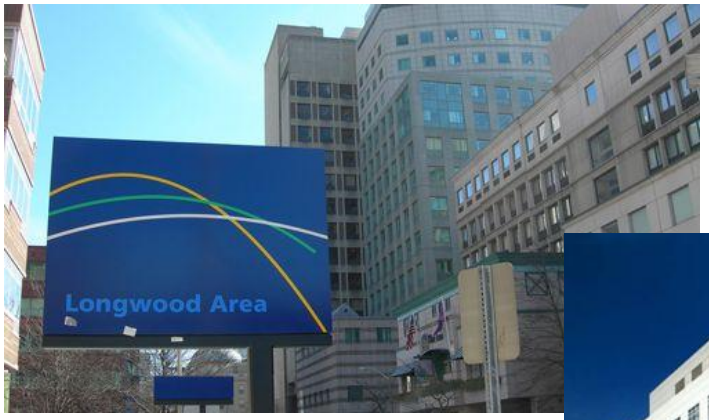
- Itinerant Embedded Specialists
- eConsults
- Project Echo- knowledge multiplier
- Virtual Visits
- Tele-screen (i.e. Retinal Camera)
- Leading Learning Collaborative
- Population management
- Teleconsult and Virtual Visits

Centers of Excellence Concept

- Organize into integrated practice units (IPUs) or Centers Excellence
- Measure outcomes and costs for every patient
- Move to bundled payments for care cycles
- Integrate care delivery across separate facilitates
- Expand excellent services across geography

The Strategy That Will Fix Healthcare, Michael Porter, Thomas Lee – Harvard Business Review 2013

Joslin: A Leader in Innovation



Founded in 1898. Affiliated with Harvard Medical School.

VISION: A world free of diabetes and its complications.

MISSION: To prevent, treat, and cure diabetes.

Joslin's Reach Across the U.S. and Around the World

Western U.S.

Desert Regional Medical Center – *Palm Springs, CA*

Central U.S.

Doctors Hospital at Renaissance – *Edinburg, TX*

Floyd Memorial Hospital & Health Services – *New Albany, IN*

St. Joseph Medical Center – *Houston, TX*

St. Mary's Medical Center – *Evansville, IN*

Southeast Texas Medical Associates – *Beaumont, TX*

Eastern U.S.

Allegheny Valley Hospital – *Natrona Heights, PA*

AtlantiCare Medical Center – *Atlantic City, NJ*

AtlantiCare Medical Center – *Hammonton, NJ*

Deborah Heart & Lung Center – *Browns Mills, NJ*

Doctor's Community Hospital – *Lanham, MD*

Forbes Hospital – *Monroeville, PA*

Hallmark Healthcare – *Medford, MA*

Hallmark Healthcare – *Melrose, MA*

Joslin Clinic – *Boston, MA*

Joslin Clinic – *Needham, MA*

Lawrence and Memorial Hospital – *Mystic, CT*

Lawrence and Memorial Hospital – *New London, CT*

Providence Hospital – *Washington, DC*

Raritan Bay Medical Center – *Perth Amboy, NJ*

St. John Providence Health System – *Novi, MI*

St. John Providence Health System – *Southfield, MI*

St. Mary's Medical Center – *Huntington, WV*

Southview Hospital – *Dayton, OH*

Temple University Health System – *Philadelphia, PA*

Upstate Medical University Hospital – *Syracuse, NY*

Wake Forest Baptist Health – *Winston-Salem, NC*

Western Pennsylvania Hospital – *Pittsburgh, PA*

Skilled Nursing Facilities

Concord Health Care Center – *Concord, MA*

Royal Braintree – *Braintree, MA*

Royal Taber Street – *New Bedford, MA*

Wakefield Care and Rehabilitation Center – *Wakefield, MA*

Behavioral Health Center

Walden Behavioral Health Care – *Waltham, MA*

Affiliates in **14** *states*

28 *Total locations*

21 *National sites*

4 *Skilled nursing facilities*

3 *International programs*

1 *Behavioral Health Center*

Around the World

Al Nahdi – *Saudi Arabia*

Chaleur Regional Medical Center – *Bathurst, NB, Canada*

Dasman Institute – *Kuwait*

04-01-14

Joslin Diabetes Center

Leveraging Diabetes Center of Excellence
Joslin Diabetes Center

Diabetes Care Alliance

Branded, joint care of diabetes

- Establish leadership position in diabetes care with partners in local region
- Design, analysis of all operations
- Create standardization of workflows & care practices
- Integrate PCP, out/inpatient care
- Drive patient volume and revenue growth
- Extension to research
- Create a lasting impact on quality and outcomes
- 5-year, renewable engagement
- **Essentially co-manage the DM population**

Diabetes Advisory Program

Tailored deployment of care

- Assessment of care operations
- Clinics, hospitals, other healthcare
- Focus on specific areas (PCP/IP/OP)
- Expert tele-support, visit(s), access to on-line tools and resources
- 3-year, renewable as needed

Conclusion

- Diabetes as a Target Disease because of the Cs
- Patient Centered Medical Home
  - Structural capabilities, Mental Model, Buy-In Care Management
- Medical Neighborhood
  - Communication, leveraging specialist expertise
- The Role of Center of Excellence
  - Complex patients, Guiding PCP care

QUESTIONS?

Bob Gabbay

Robert.gabbay@joslin.harvard.edu