Improve Population Health Outcomes

Leveraging EHR Data Reporting

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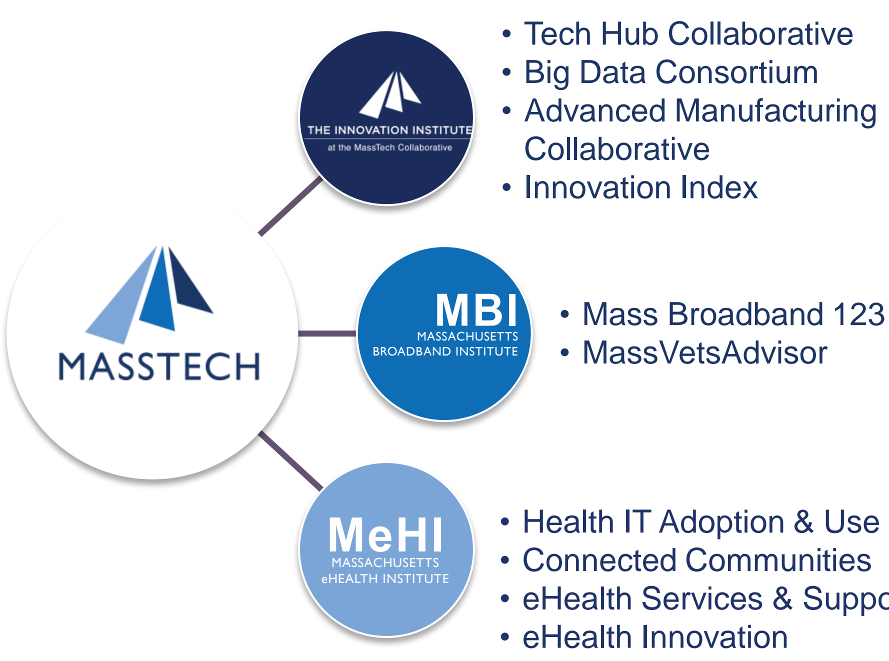


MeHI is a division of the Massachusetts Technology Collaborative, a public economic development agency

MeHI is the designated state agency for:

- Coordinating health care innovation, technology and competitiveness
- Accelerating the adoption of health information technologies
- Promoting health IT to improve the safety, quality and efficiency of health care in Massachusetts
- Advancing the dissemination of electronic health records systems in all health care provider settings

Objectives

- To define Population Health
- To understand how Electronic Medical Record implementation and reporting can help to manage outcomes
- To provide basic information regarding quality improvement
- To discuss how DPH can help

Chronic Disease Funding

- CDC Funding Opportunity
  - DP13-1305 State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health
- 3 Domains
  - Environmental Approaches to Public Health
  - Health Systems Interventions
  - Community and Clinical Linkages

Health Systems Interventions

- Focus Activity
  - Increase electronic health record adoption and the use of health information technology to improve performance
    - High rate of record adoption in MA
    - ***Focus on the use of technology to improve performance***
    - ***Things to consider in the selection of an EHR***

Population Health and Management

What is Population Health

Often stated as:

" The health outcomes of a group of individuals including the distribution of such outcomes within the group."[1]

[1] Kindig and Stoddart, What is Population Health?*; American Journal of Public Health*, 2003; 93: 380-383

Subpopulations

- Described as: [2]
  - Discrete/defined – such as populations receiving care within a health system or from a specific health plan. For example those patients enrolled in specific provider panel.
  - Regional/Community – geographical population segments that have a common need, such as older adults with complex needs that may receive their care in a variety of settings

[2] *Populations, Population Health, and the Evolution of Population Management: Making Sense of the Terminology in US Health Care Today*; Institute of Health Care Improvement, Leadership Blog; Accessed April 2, 2014

http://www.ihi.org/communities/blogs/_layouts/ihi/community/blog/itemview.aspx?List=81ca4a47-4ccd-4e9e-89d9-14d88ec59e8d&ID=50

Population Health Management

- Has evolved with new payment mechanisms and effort such as
  - Patient Centered Medical Home
  - Accountable care organizations
  - Health Policy Commission – certification of risk sharing organizations
- Shift has begun to focus on management of discrete/defined populations

What do you need your EHR to do?

Stage 1: Meaningful use criteria focus on:	Stage 2: Meaningful use criteria focus on:	Stage 3: Meaningful use criteria focus on:
Electronically capturing health information in a standardized format	More rigorous health information exchange (HIE)	Improving quality, safety, and efficiency, leading to improved health outcomes
Using that information to track key clinical conditions	Increased requirements for e-prescribing and incorporating lab results	Decision support for national high-priority conditions
Communicating that information for care coordination processes	Electronic transmission of patient care summaries across multiple settings	Patient access to self-management tools
Initiating the reporting of clinical quality measures and public health information	More patient-controlled data	Access to comprehensive patient data through patient-centered HIE
Using information to engage patients and their families in their care		Improving population health

http://mehi.masstech.org/meaningful-use-and-incentives/stages-1-2-3/meaningful-use

How do we measure it?

- Not only for insurance providers – You can have this available ongoing
- EMR can be useful in providing real time data for analysis and improvement

- CMS Quality Measures include:
  - HTN measurement and control
  - Asthma measurement and control
  - Diabetes measurement and control

CMS Public Reporting Measures

Physician Compare Website

http://www.medicare.gov/physiciancompare/search.html?AspxAutoDetectCookieSupport=1

Reported in April 2014 – Practices with 25 or more eligible providers

- CAD7: Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Patients with CAD and Diabetes and/or Left Ventricular Systolic Dysfunction (LVSD)
- DM3: Blood Pressure Control in Patients with Diabetes
- DM10: Hemoglobin A1c Control (<8%)
- DM11: Daily Aspirin Use for Patients with Diabetes and Ischemic Vascular Disease (IVD)
- DM12: Tobacco Non-Use

QUALITY IMPROVEMENT

Institute of Healthcare Improvement (IHI)

- Triple Aim Framework
  - Improving the patient experience of care (including quality and satisfaction);
  - Improving the health of populations; and
  - Reducing the per capita cost of health care.
- Assessment Tool

- http://www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx

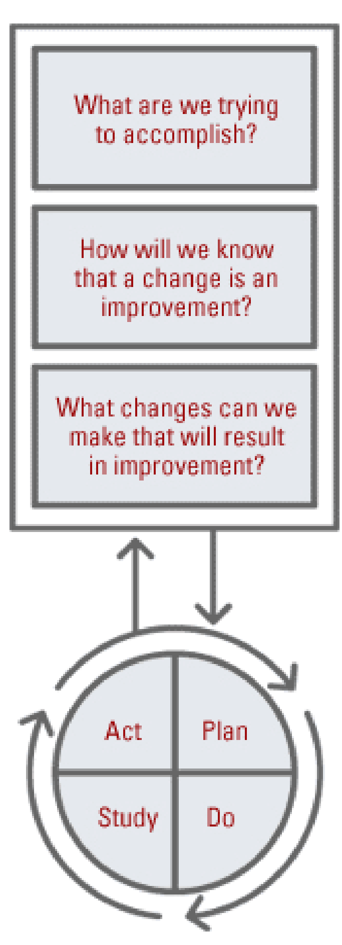
QI – What does it mean?

- The Institute of Medicine defines quality as:
  - *The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.*

- http://www.iom.edu/Global/News%20Announcements/Crossing-the-Quality-Chasm-The-IOM-Health-Care-Quality-Initiative.aspx; Accessed 4/4/2014

Tools

- EMR data reports that:
  - Identify patient populations
  - Identify missed opportunities
  - Trend information over time
- QI techniques to improve care:
  - Aim statements
  - Flow charting
  - Process redesign
  - Cause and effect diagrams
  - Pie, scatter, run, bar charts that transform the data into information
  - PDSA cycles



http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx

How often?

- Reporting can be designed and run as needed to identify high risk population and monitor impact of improvement
- Populations should be stratified to identify
  - Age
  - Race/ethnicity
  - Co-morbidities
  - Diagnosis
- Will require updates to Family/Personal History and Problem lists
- Ability to identify discrete elements such as actual values of lab results

Vendor Example

Reliant Medical Group
Atrius Health

Based in Worcester and serving Central Massachusetts

Objective

- To improve Diabetes screening and management
  - Prior to Comprehensive Physicals
  - During visits
  - Post visit follow-up
- EMR used is EPIC
  - Developed embedded guidelines
  - Clinical Decision Support
  - QI process and workflow redesign

Ordering just prior to routine CPEs

- EHR guidelines automatically suggest testing based on age, gender, diagnoses, meds, smoking history, and existing orders/results
- Staff draft orders & physician signs if they agree

Lab 0 Today/Same Day

- F ☐ Screening Colon Cancer - FECAL GLOBIN IMMUNOCHEMICAL (INSURE)
- F ☐ Screening Prostate Ca - PSA TOTAL, ANNUAL SCREEN
- F ☐ Hyperlipidemia - ALT
- F ☐ Hyperlipidemia - AST
- F ☐ Hyperlipidemia - CPK
- F ☐ Hyperlipidemia - LIPID PANEL + CARDIAC RISK W/REFLEX LDL DIRECT

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Nurses Call High-Risk Diabetics Just Prior to Visit

- Nurses automatically receive Epic InBasket message 1 week prior to next visit
- Records interval hx, educates and checks labs

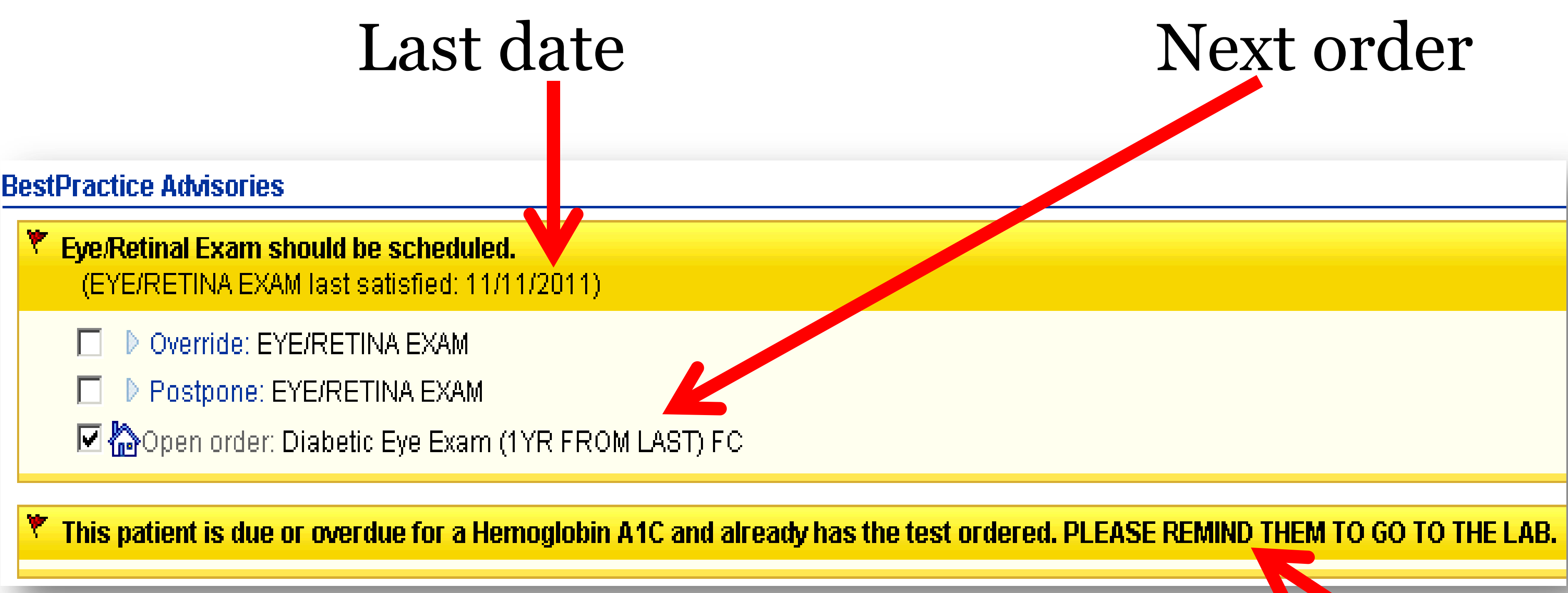
Diabetic Follow-up

P	R	Status	P...	Subject	PCP
		New	W...	Next appt is 2/20/2012	BURDAY, MICHAEL D
		New	T...	Next appt is 2/20/2012	CAVANAUGH, ROBERT J
		New	L...	Next appt is 2/20/2012	DILLEY, S PATRICIA
		New	L...	Next appt is 2/20/2012	IQBAL, NOREEN
		New	H...	Next appt is 2/20/2012	PARULKAR, SMITA B
		New	W...	Next appt is 2/20/2012	FARB, PERRY G
		New	C...	Next appt is 2/20/2012	HOLLA, PRASHANTHA
		New	B...	Next appt is 2/20/2012	GEORGIAN, FREDERICK
		New	O...	Next appt is 2/20/2012	GARBER, LAWRENCE

MDs order during patient visits

Last date

Next order



But doesn't ask for an order if it's not due or already ordered

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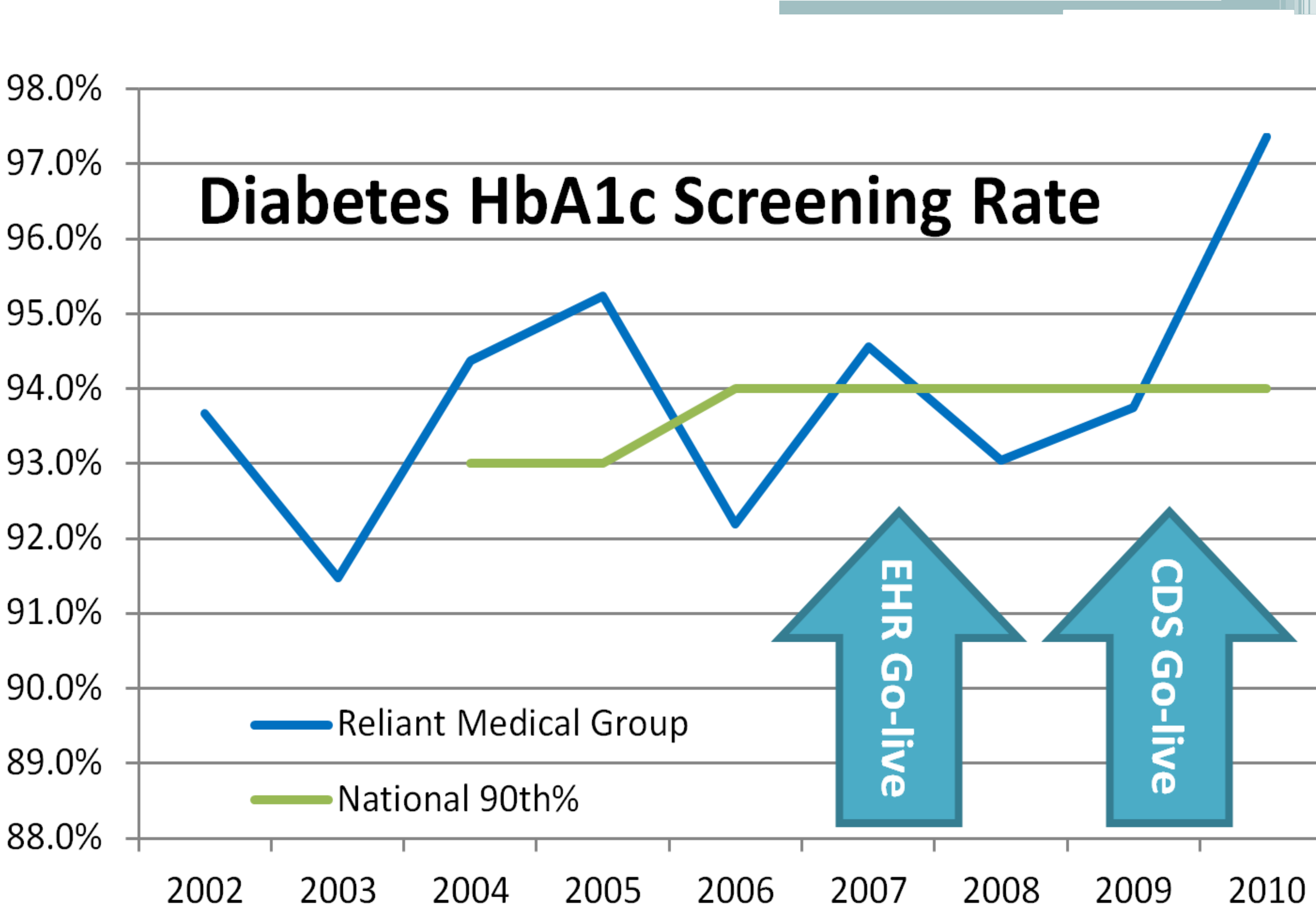
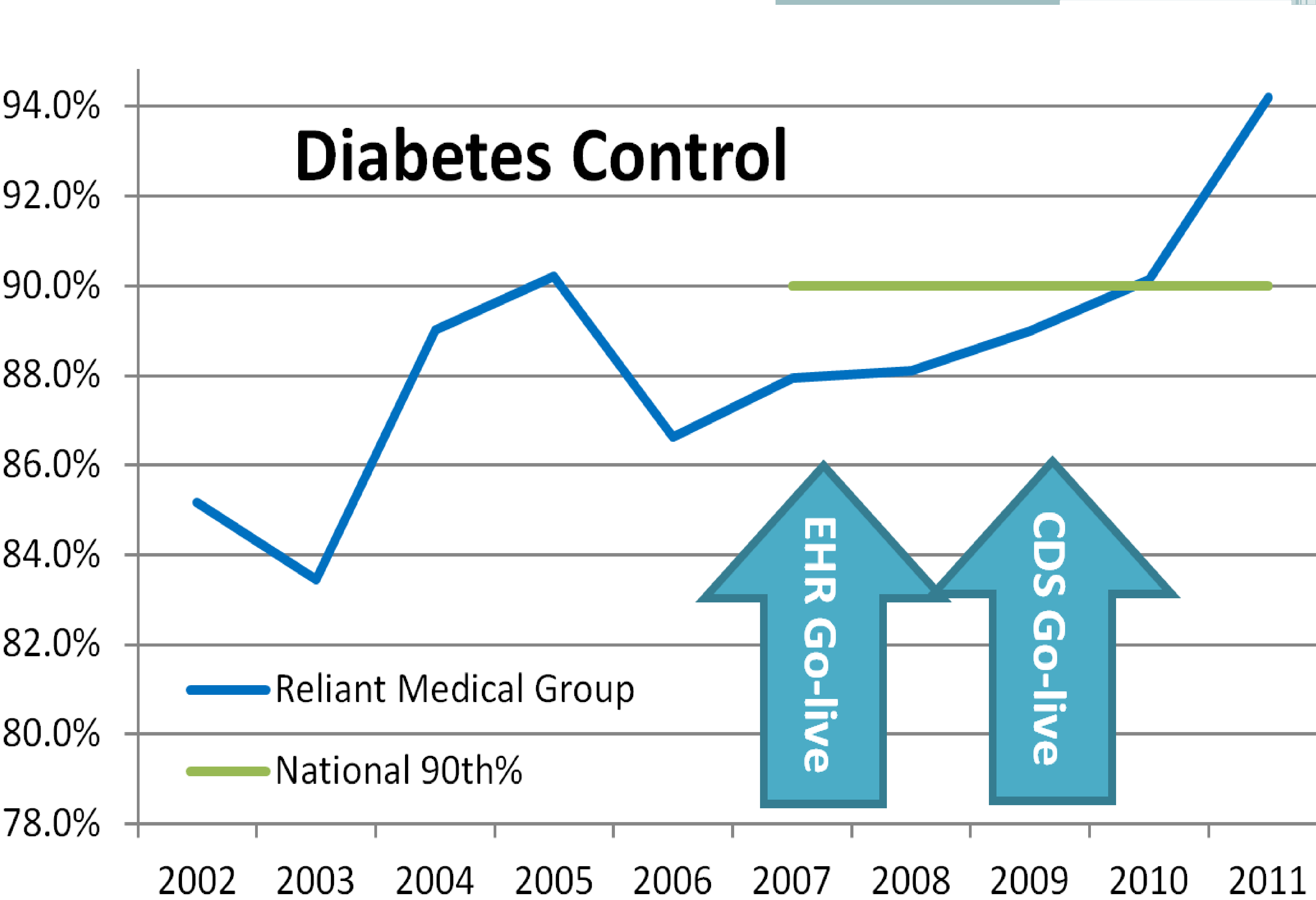
MAs call patients in between visits

Barometer of
Actionable
Deficiencies

	MRN	Patient Name	B.A.D.	Last A1C Date	Last A1C Value	Last LDL Date	Last Eye Exam	Next Appt. Date
Detail			21		0			9/20/2010
Detail			18	8/22/2007	9.5	12/7/2005	7/3/2003	
Detail			18		0			
			18	8/6/2008	13.1		6/2/2008	
			17	4/29/2008	10.5	4/29/2008		
			16	1/11/2008	8.7	1/11/2008		
			16		0			
			16	10/15/2007	7.5	10/15/2007	7/11/2006	
			16	7/5/2006	6.5	2/3/2005	8/28/2007	
Detail			16	11/9/2007	7.1	11/9/2007	4/26/2007	
Detail			16	7/12/2007	5.6	7/12/2007		
Detail			16		0	9/15/2004	9/25/2007	
Detail			16	9/17/2008	7.4	1/23/2008		
Detail			15	4/9/2010	9.1			10/18/2010
Detail			15	3/9/2008	15.3	3/9/2008		
Detail			15		0			10/5/2010



Diabetes HbA1c Screening Rate
98.0%
97.0%
96.0%
95.0%
94.0%
93.0%
92.0%
91.0%
90.0%
89.0%
88.0%
2002
2003
2004
2005
2006
2007
2008
2009
2010
Reliant Medical Group
National 90th%
EHR Go-live
CDS Go-live



Diabetes Control
94.0%
92.0%
90.0%
88.0%
86.0%
84.0%
82.0%
80.0%
78.0%
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Reliant Medical Group
National 90th%
EHR Go-live
CDS Go-live

What do you need to be in place?

- Leadership
- EMR reporting capability
- Knowledge of data collection, interpretation, translation into meaningful action steps for improvement
  - Teams to support implementation of change

How DPH can help

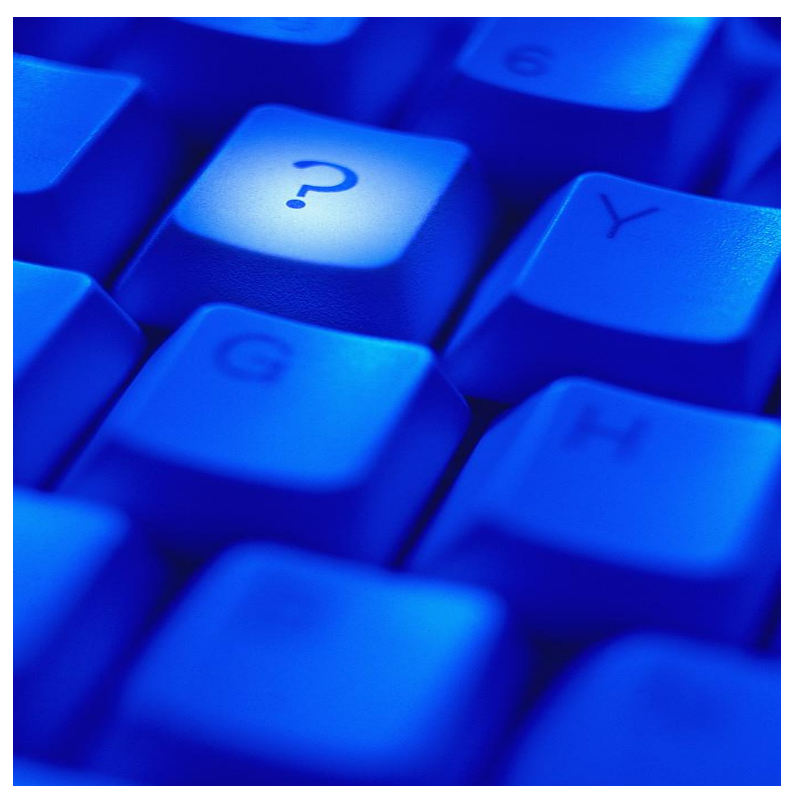
- Webinars
  - Data Assessment
  - Aim Statements and Charters
  - Team Development
  - QI Tools and Techniques

- Individual Technical Assistance as resources allow

MeHI Assistance

- eHealth Services & Support
  - Meaningful Use Services & Support
    - Medicaid EHR Incentive Payment Program registration, attestation, and validation process support
    - Regional Extension Center direct assistance
  - Coming Soon!
    - Meaningful Use Remote & Onsite Services
    - Medicaid & Medicare Incentive Payment Program Audit Preparation
    - Physician Quality Reporting System (PQRS) Registry & Services
    - Member Services Portal: HIPAA compliant portal with tools and resources that support the above services

Questions



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