Managing Patient Populations at the Practice Level – the Geisinger Model

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Geisinger Health System

An Integrated Health Service Organization

Provider Facilities

- **Geisinger Medical Center**
  - ***Danville Campus*** *– includes Hospital for Advanced Medicine, Janet Weis Children's Hospital, Women's Health Pavilion, Level I Trauma Center, Ambulatory Surgery Center*
- **Geisinger Shamokin Community Hospital**
- **Geisinger-Bloomsburg Hospital**
  - **Geisinger Wyoming Valley Medical Center** *with Heart Hospital, Henry Cancer Center, and Level II Trauma Center*
  - ***Geisinger South Wilkes-Barre*** *campus with Urgent Care, Ambulatory Surgery Center and Inpatient Rehabilitation*
  - **Geisinger Community Medical Center** *with specialized medical & surgical services, including Level II Trauma and comprehensive cardiac & orthopaedic services*
  - **Marworth Alcohol & Chemical Trtmt Center**
  - **Mountain View Care Center**
  - **Bloomsburg Health Care Center**
  - **>77K admissions/OBS & SORUs**

Physician Practice Group

- **Multispecialty group**
  - **~1,000 physicians**
  - **~560 advanced practitioner FTEs**
  - **71 primary & specialty clinic sites (41 Community Practice Sites)**
- **Freestanding outpatient surgery center**
- **> 2.3 million clinic outpatient visits**
- **~380 resident & fellow FTEs**

Managed Care Companies

- **~430,000 members**
  - **~68,000 Medicare Advantage**
  - **~115,000 Medicaid**
- **Diversified products**
- **~34,000 contracted providers/facilities**
- **44 PA counties**
- **Out of state expansion**
  - **Eastern Maine HS**
  - **West Virg Univ**
  - **Merdian HS, NJ**
  - **Christiana, DE**

Note: Numerical references based on fiscal 2012 budget plus impact of GSACH , GCMC and GBH acquisitions.

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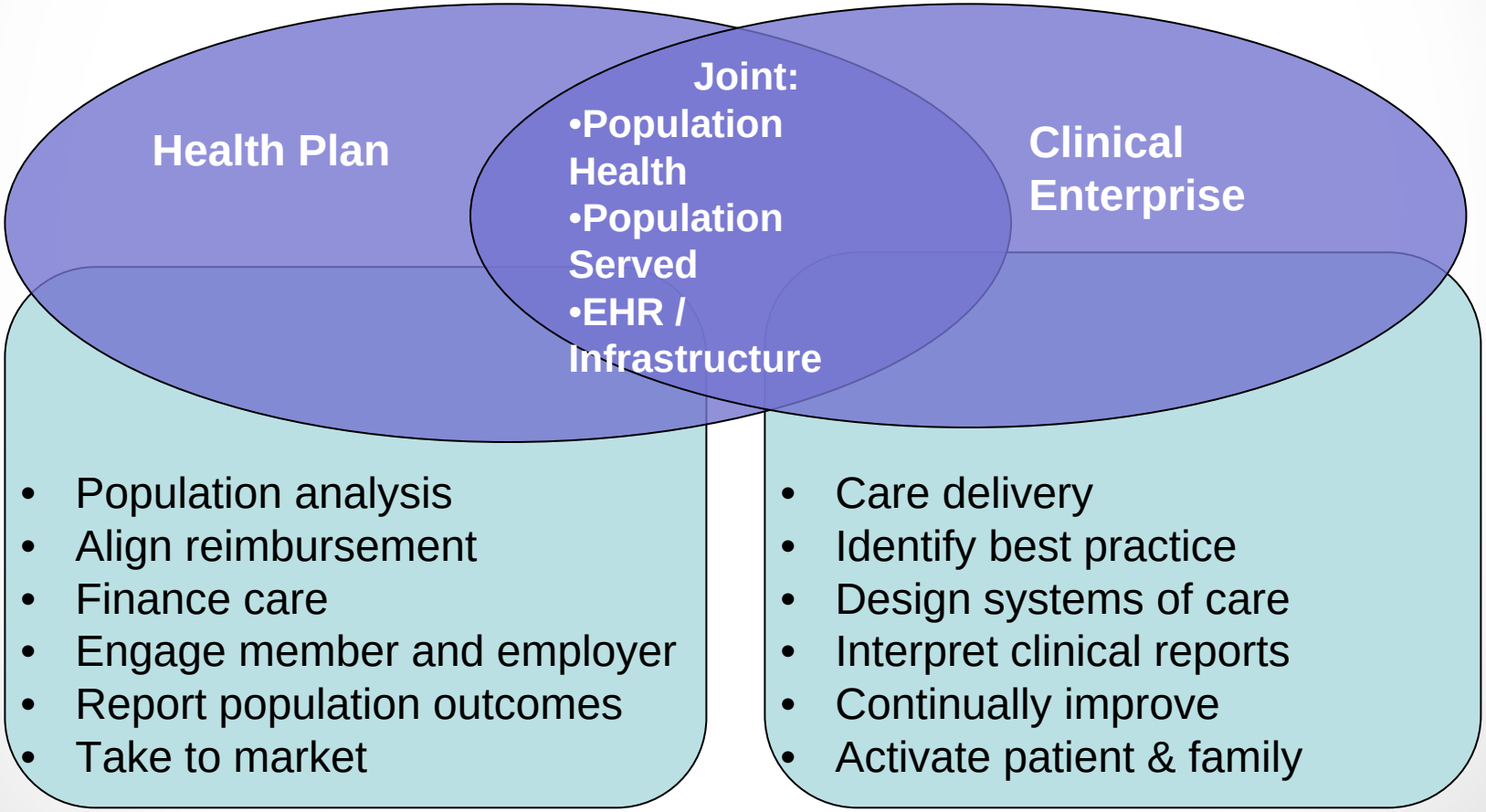
Sweet Spot for Partnership & Innovation

Aligned objectives between the health plan & clinical enterprise, with each organization contributing what it does best.



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PHN Expansion

Sites	# of Sites	Medicare Advantage Members	Commercial members	FFS Medicare	GHP Family (Medical Assistance) Members
Geisinger CPSL -PA	42	23,328	61,206	42,715	26,708
Non- Geisinger -PA	40	5,939	18,762	0	8,595
West Virginia	3	0	4,835	0	0
Maine	6	0	1,717	0	0
Total	**91**	**29,267**	**86,520**	**42,715**	**35,303**

PHN began in 2006 with 3 Pilot sites. The three pilot sites started with: 5,000 Medicare Advantage , 4,100 Commercial, and 2,100 Medicare lives.

Aug 2013

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Geisinger's PHN model has five core components

Patient-centered primary care	• Patient and family engagement & education • Enhanced access and scope of services • ***PCP led team-delivered care*** • Chronic disease and preventive care optimized with HIT
Integrated population management	• Population segmentation and risk stratification • Preventive care • ***GHP employed in-office case management*** • Disease management
Medical Neighborhood	• Micro-delivery referral systems • ***360°care systems*** – SNF, ED, hospitals, HH, etc
Performance Management	• Patient satisfaction • HEDIS and bundled chronic disease metrics • Preventive services metrics
Value-based reimbursement	• Fee-for-service with P4P payments for quality outcomes • Physician and practice transformation stipends • ***Value-based incentive payments*** • Payments distributed on Quality Performance

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Building the foundation for transformation

PATIENT CENTERED PHYSICIAN DIRECTED, TEAM DELIVERED CARE

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ProvenCare® Chronic Disease Management

Primary care redesign serves as the foundation of a patient centered medical home

- Patient Centered Primary Care
- Integrated Population Management
- Value Micro-Delivery Systems
- Quality Outcomes Program
- Value Reimbursement Program

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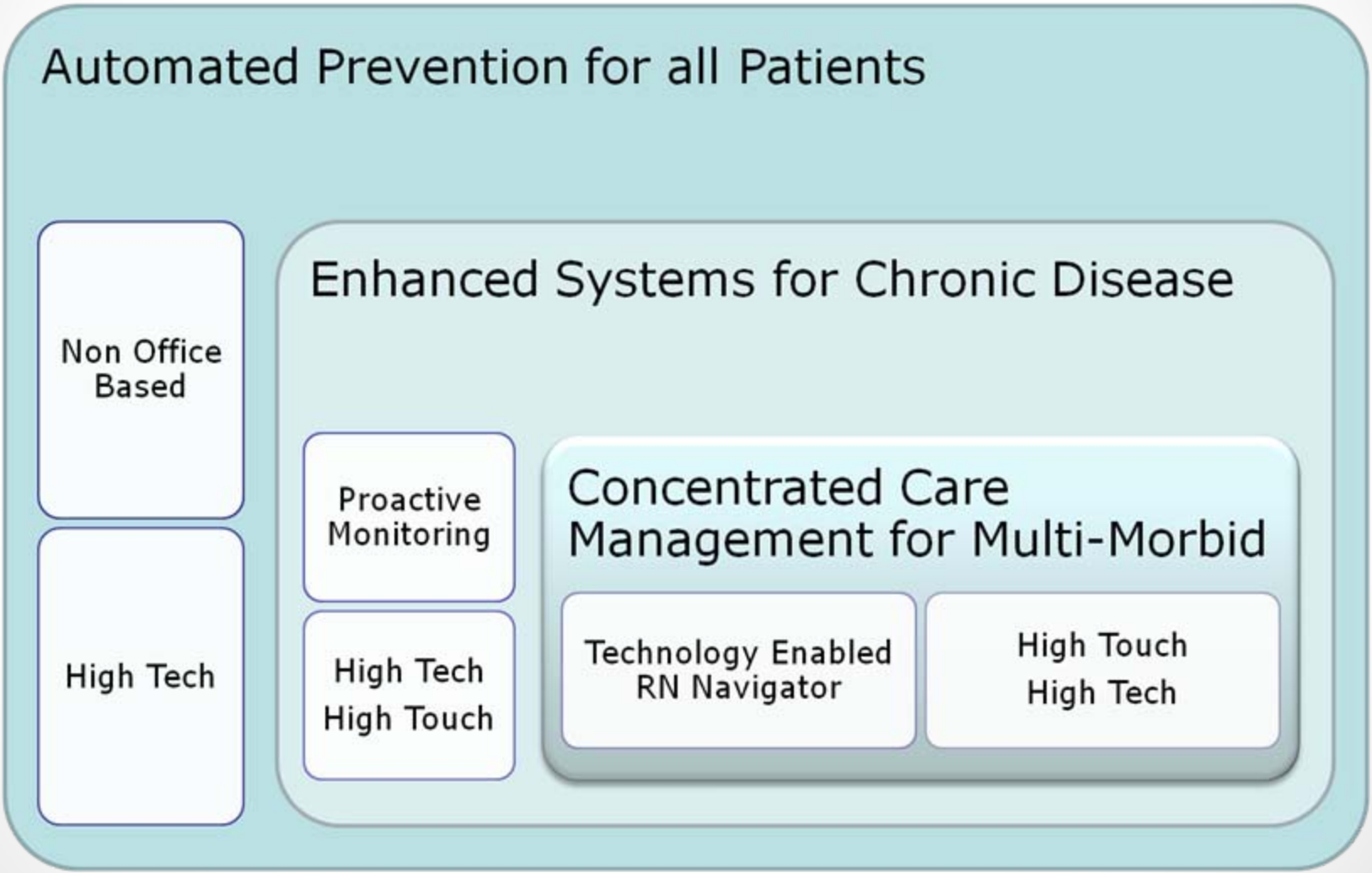
Population Primary Care



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Workflow Redesign

1. **Eliminate** non-value added work
2. **Automate** work that can be done by a computer or done outside an office encounter
3. **Delegate** work that is done at an office visit to trained non-physician staff when possible
4. **Incorporate** new workflows into the provider practice - "Hardwire" with reminders and EHR tools to enhance the reliability and efficiency of care
5. **Activate** the patient with EHR assistance when possible

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Workflow Principles

1. Automate work that can be done outside of an office encounter

2. Distribute work that is done at an office visit to trained non-physician staff when possible

3. Create reminders and EMR tools to enhance the reliability and efficiency of care provided at the office encounter

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Practice Redesign Case Study Diabetes Systems of Care

- All or None “Bundle” measure for Diabetes
- Clinical process redesign – Eliminate, Automate, Delegate, Incorporate, Activate
- Clinical decision support – Health Maintenance and Best Practice Alerts
- Patient specific strategies using registry report data
- Care Gaps
- Patient centered strategies – Patient report cards
- Compensation

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All-or-None Bundle Measures

Donald Berwick:

- More closely reflect the interests and desires of patients
- Foster a system approach to achieving all goals
- Provide a more sensitive scale for assessing improvements

Nolan T, Berwick DM. All-or-none measurement raises the bar on performance.

JAMA 2006;295:1168-70

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Geisinger Diabetes Bundle

Measures	Quality Standard
HgbA1c measurement	Every 6 months
Hgba1c control – Patient Specific Goal	<7 or 7-8
LDL measurement	Yearly
LDL control – Patient Specific Goal	<70 or <100
Blood pressure control	<140/80
Urine protein testing	Yearly
Influenza immunization	Yearly
Pneumococcal immunization	Once before 65, Once after 65
Smoking status	Non-Smoker
Patients who receive/achieve ALL of the above measures	DM Bundle Percentage

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Diabetes Process Redesign

Automate

EHR

- **Previsit Planning**
- **Reminder letters – CareGaps Outreach**

Delegate

Clerical

- **Scheduling of Flu/Pneumococcal, Follow Up**

Clinic Nurse

- **Immunizations, Lab Testing, Foot Exam**

Case Manager

- **High Intensity Coordination/Education**

Incorporate

Nurses

- **Nurse Rooming Tool, Process Measure BPAs**

Providers

- **Alerts and Reminders for Complex Decisions**

Activate

Patients and Families

- **MyGeisinger, Patient Report Cards**

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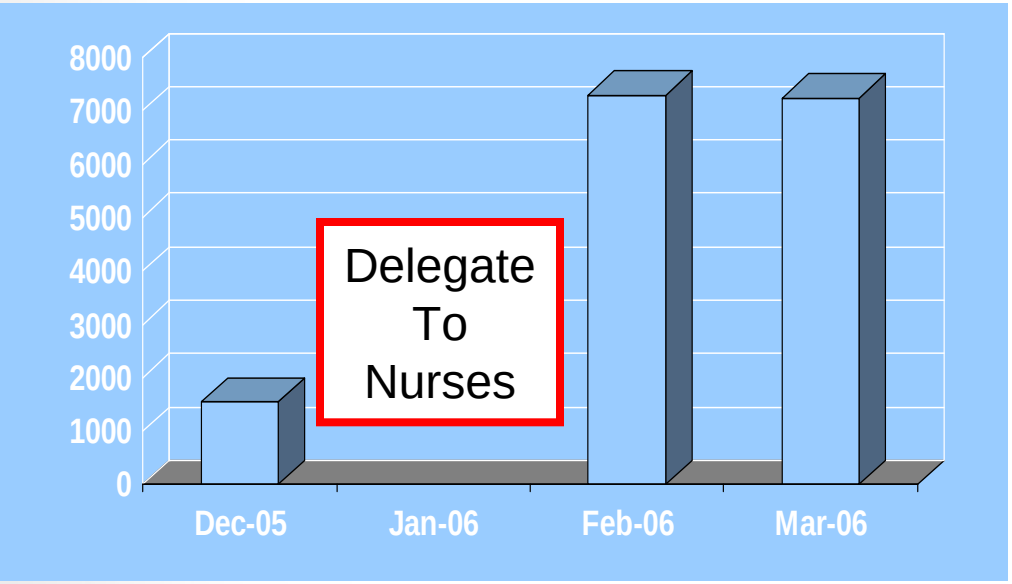
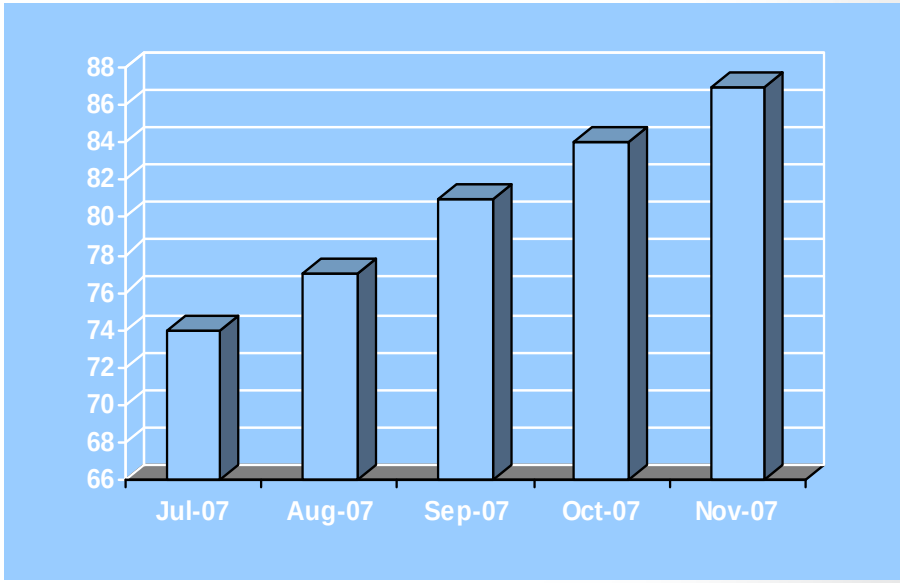
Nurse Rooming Tool Improvements

MyG Enrollments



Urine Microalbumin



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Patient Activation: Portal-Based Report Card

Your online health management tool

The following Health Reminders are recommended for people of your age, gender, and medical history. **If the procedures and dates are different from what your doctor has discussed with you, please follow your doctor's recommendation.**

If you want to find previous dates that health reminders were completed, click date Last Done.

Schedule	Name	Due Date	Status	Last Done
☐	DILATED EYE EXAM (PERFORMED BY AN EYE DOCTOR)	03/06/1968	Overdue	
☐	URINE MICROALBUMIN (URINE PROTEIN)	03/06/1968	Overdue	
☐	DIABETIC FOOT EXAM (AT LEAST EVERY 12 MONTHS)	03/06/1968	Overdue	
☐	PNEUMONIA SHOT (ONCE IN A LIFETIME, MINIMUM)	03/06/1968	Overdue	
☐	HEMOGLOBIN A1C (3 MONTH BLOOD SUGAR AVERAGE)	03/06/1968	Overdue	
	Mammogram-yearly, Ages 40-75	07/07/2006		07/07/2005
	DILATED EYE EXAM (PERFORMED BY AN EYE DOCTOR)	10/01/2006		
	LDL CHOLESTEROL (BAD CHOLESTEROL)	01/28/2007		01/28/2006
	Pap Smear (Every 2 Years)	02/13/2008		02/13/2006

To request an appointment for one of the procedures listed above, check in the schedule column and click **Schedule**.

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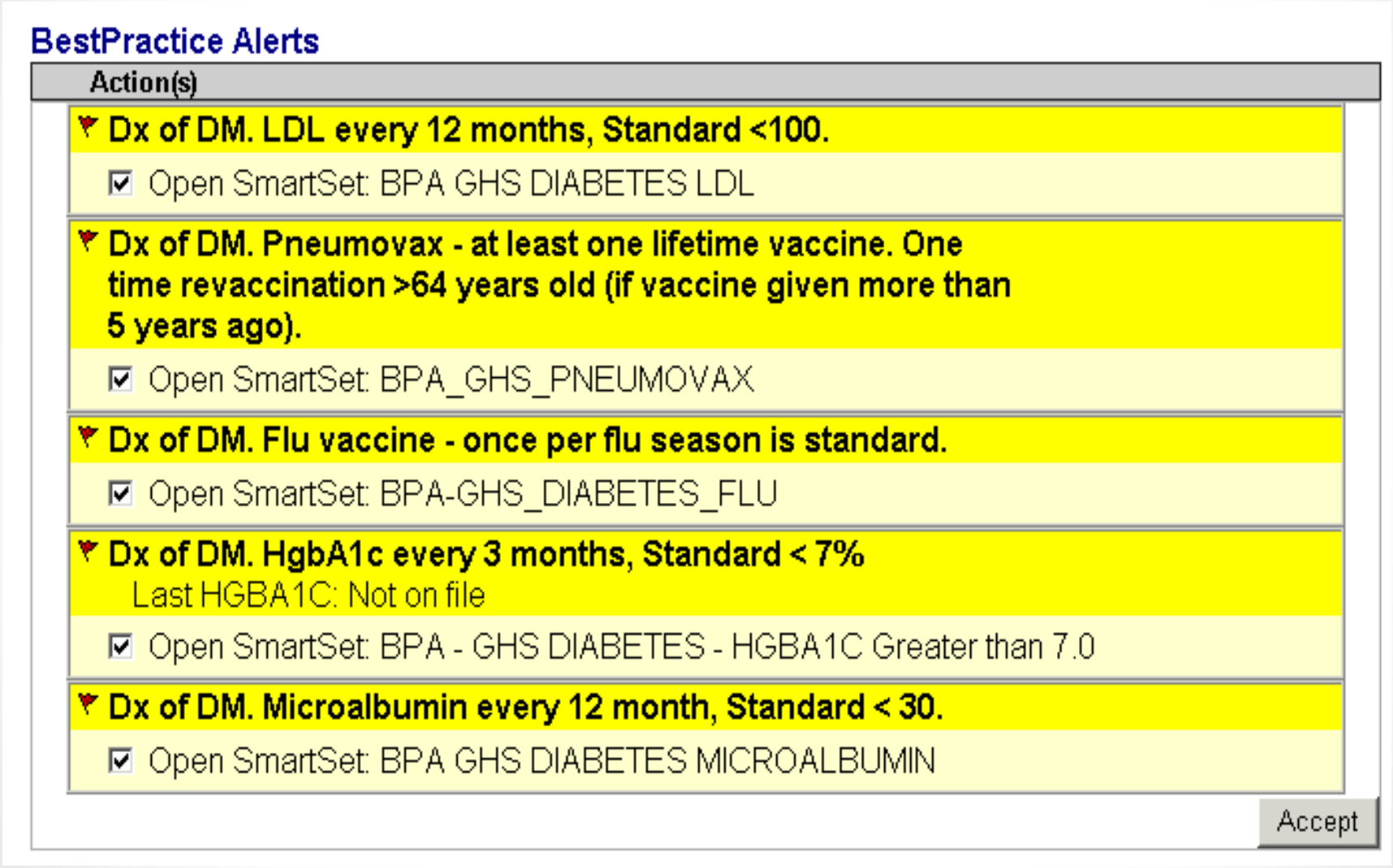
Diabetes Best Practice Alerts



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Diabetes: Patient Letter / Report Card

Last 2-3 values displayed

LDL values and goals.

Last BP readings

Personal Diabetic Report Card: Abigail L George

4/28/2006

Below is a summary of relevant Diabetes values that we feel could help you manage your health better. Feel free to discuss this with your care provider.

HEMOGLOBIN A1C

Your most recent Hemoglobin A1c values are:

HEMOGLOBIN, A1C(%)

Coll Dt/Tm	Resulted	Value	Status
3/2/06 11:23A	3/2/06	6.6*	FINAL
11/21/05 4:21P	11/22/05	8.7*	FINAL

The above values should be **LESS than 7 (< 7)**. If these are more than 7 then you have a higher chance of having eye, kidney, and heart problems in the future.

CHOLESTEROL

Your most recent LDL cholesterol (bad cholesterol) results are:

LDL (CALCULATED)(mg/dL)

Coll Dt/Tm	Resulted	Value	Status
11/15/05 8:20A	11/15/05	110	FINAL

The above values should be **LESS than 100 (<100).** If these are consistently higher than 100, then your chance for heart attack and stroke increases yearly.

BLOOD PRESSURE

Your most recent Blood Pressure readings are:

Last 3 BP Readings:

Date:	BP:
04/28/2006	100/60
04/25/2006	140/80
03/02/2006	124/80

The above values should be **LESS than 130/80**. Contact me if your readings at home are consistently higher than this.

Timely Feedback of Data

- EPIC EMR allows collection of clinical data without manual chart reviews
- Data is collected on an individual physician basis, but summarized into site reports to encourage team based solutions and accountability
- 9 components the Diabetic Bundle being collected this year
- Bundle percentage is the percentage of the site patients who are achieving all 9 of their diabetic goals

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Improving Diabetes Care for 27,258 Patients

	3/06	3/07	12/13
Diabetes Bundle Percentage	2.4%	7.2%	14.0%
% Influenza Vaccination	57%	73%	69%
% Pneumococcal Vaccination	59%	83%	79%
% Microalbumin Result	58%	87%	80%
% HgbA1c at Goal	33%	37%	47%
% LDL at Goal	50%	52%	60%
% BP < 140/80	39%	44%	66%
% Documented Non-Smokers	74%	84%	85%

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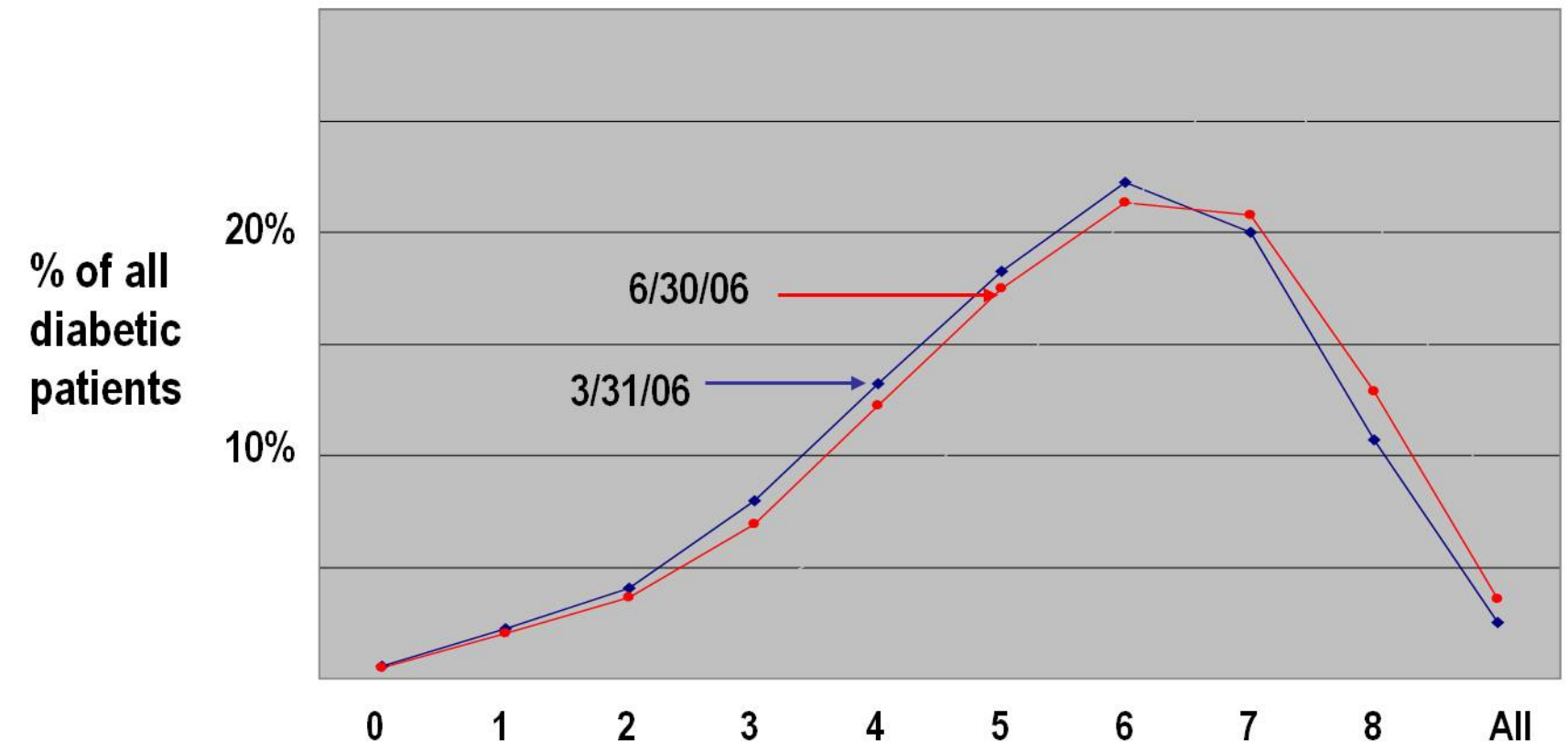
Diabetes Bundle Improvement

Number of Bundle Elements Achieved



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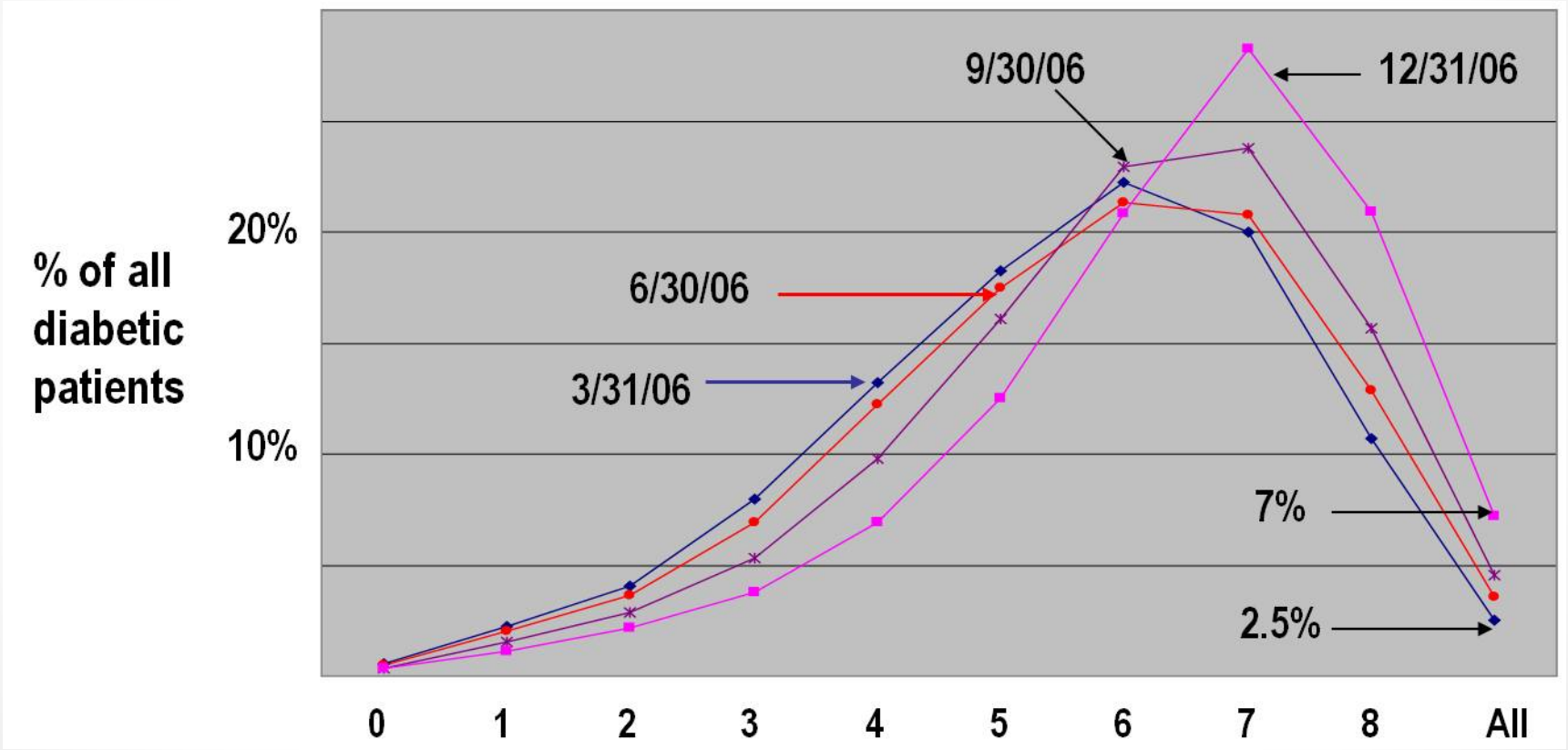
Diabetes Bundle Improvement

Number of Bundle Elements Achieved



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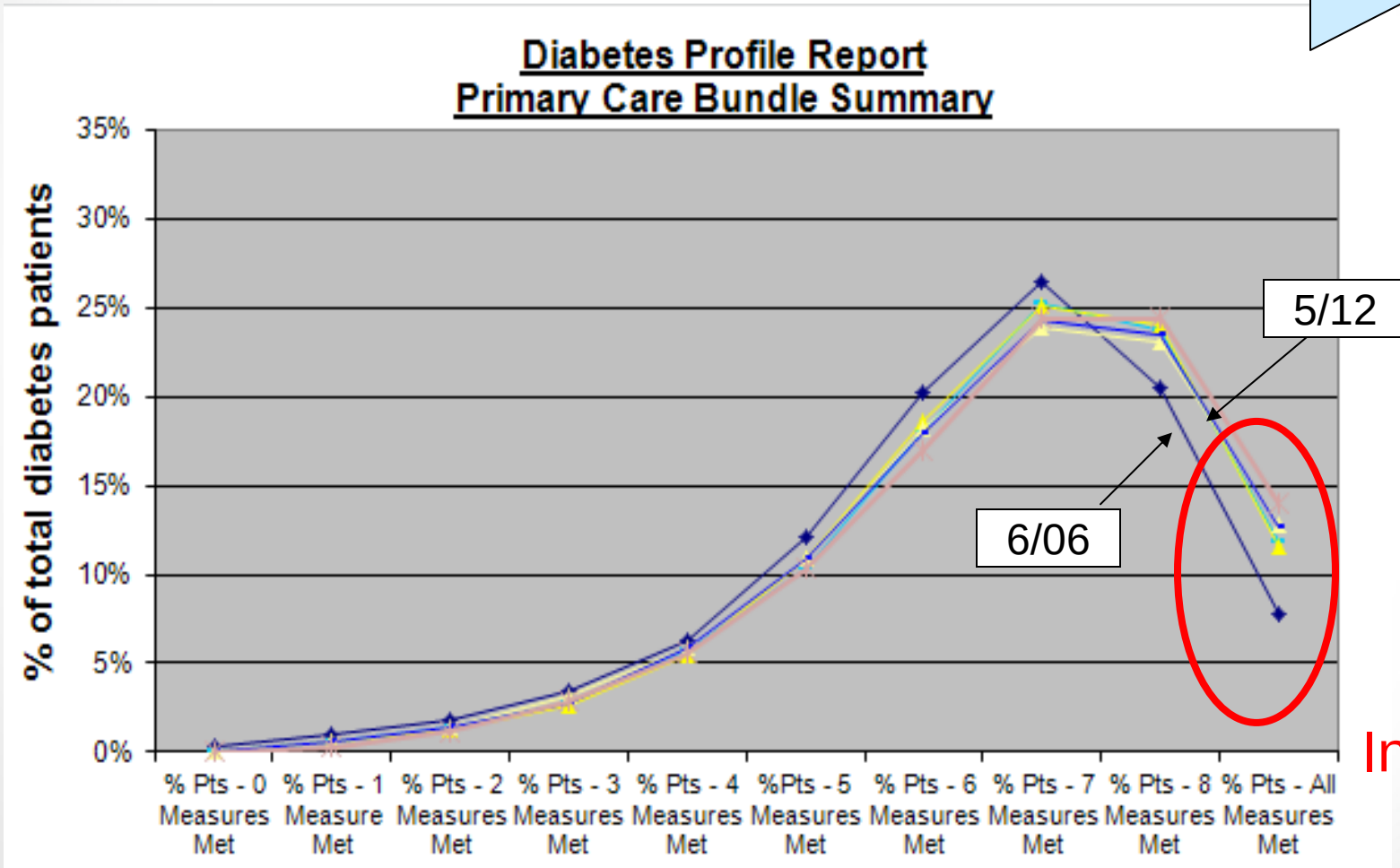
Diabetes Bundle Improvement

Entire Population Shifts Toward Better Care



Bundle Increases

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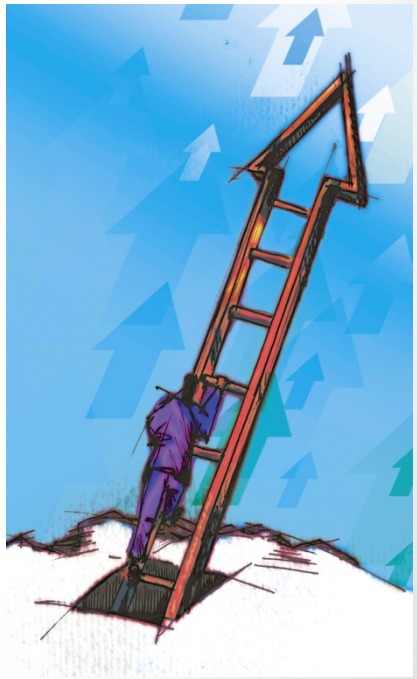
Redesign requires behavior change which can be led, managed

- Paradigm shift for leaders, clinicians & staff and leadership to population management by a collaborative care team
- Work behaviors must change (redesign) in order to effect outcomes
- Change process must be proactively managed
- Behavior Change "Catalysts"
  1. Proactive identification of patients at risk or with care gaps
  2. Embedded nurse case managers
  3. Care team meetings which discuss patient care & performance reports



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Monthly Care Team Meetings

- Foundational to success
- Shared leadership
- Case review
  - Missed opportunities
  - Pattern recognition
- Workflow gaps and redesign
- Performance monitoring
- Review of patient ID reports & performance outcomes
- Care Team training

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Understanding and managing a population

INTEGRATED POPULATION MANAGEMENT

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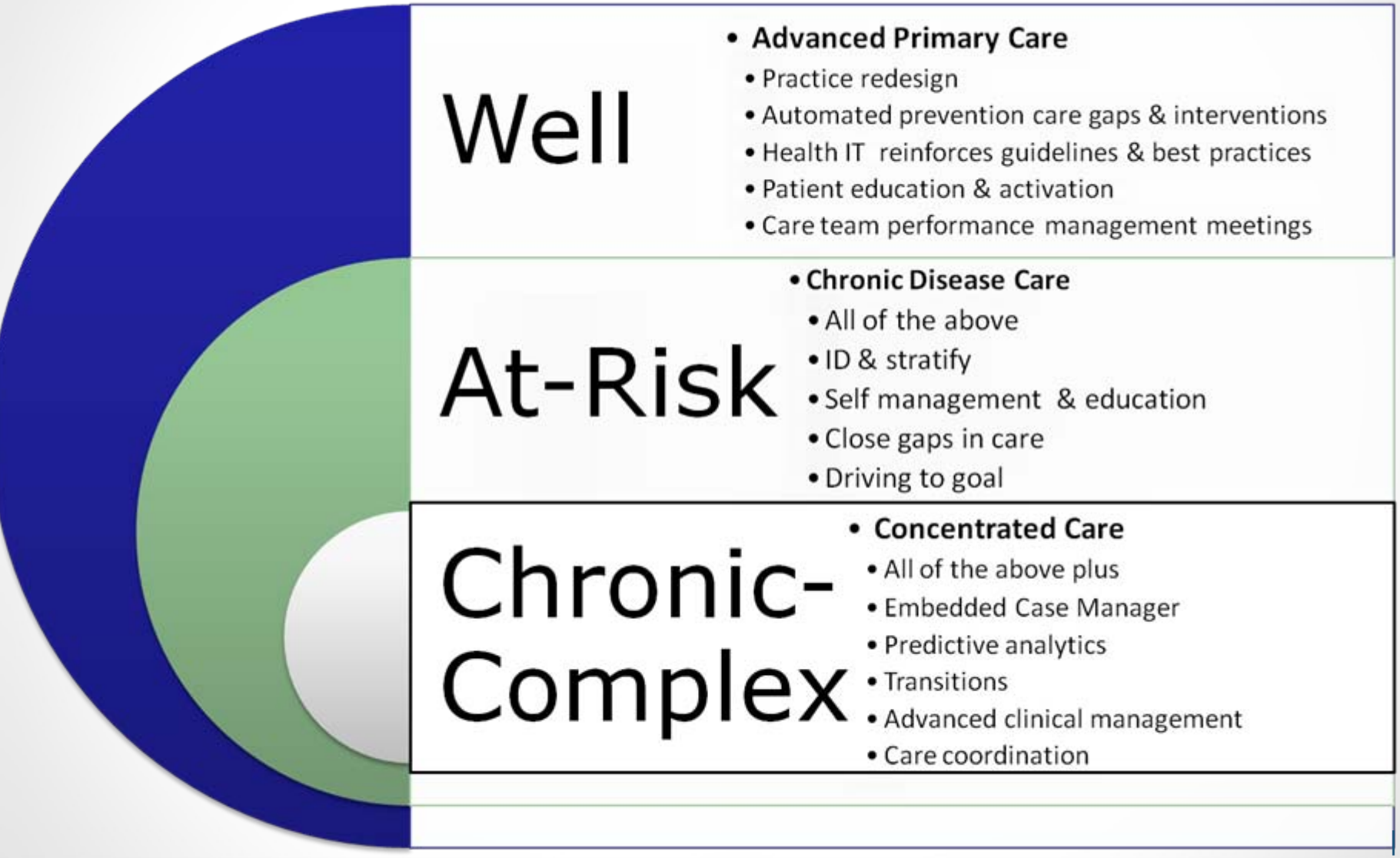
Care Approach by Patient Risk Status



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Embedded Case Management has been Core to our Success

Personal Care Link	Embedded Case Manager	Recognized Team Member
Comprehensive Care Review – medical, social support	-**High risk** patient case load - 15 - 20% Medicare - 5% commercial - 125 - 150 pts per CM	Regular follow-up of high risk patients
TOC follow-up – acute care, SNF, ED	- 1 CM per 800 Medicare lives - 1 CM per 5000 commercial lives -1 CM per 3500 Medicaid lives	Facilitates access – PCP, specialist, ancillary
Direct phone access – questions, exacerbation protocols	- Not disease management focused - Focus on those at most risk - Focus on driving issue within the case	Facilitate special arrangements – home care, hospice, AAA
Patient, family support contact		Links health care team to payer

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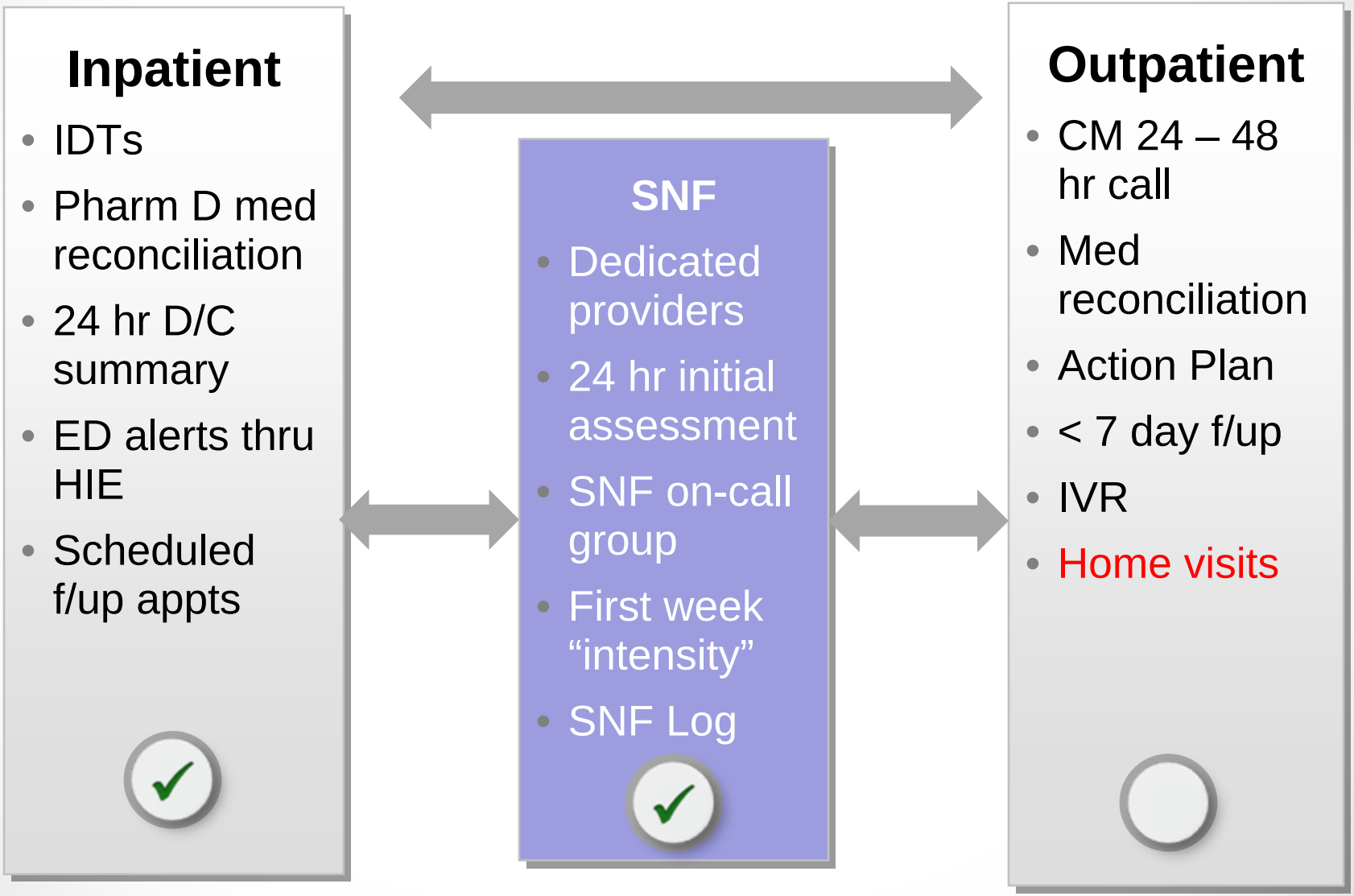
Transitions of Care



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Evaluating the Impact

PROVENHEALTH NAVIGATOR®

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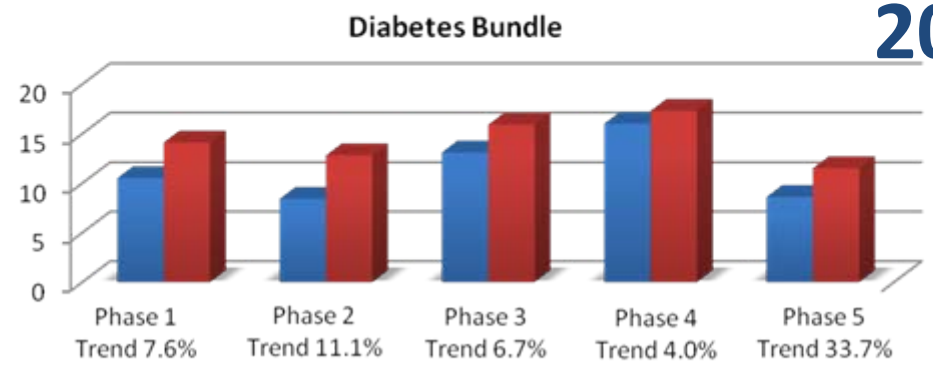
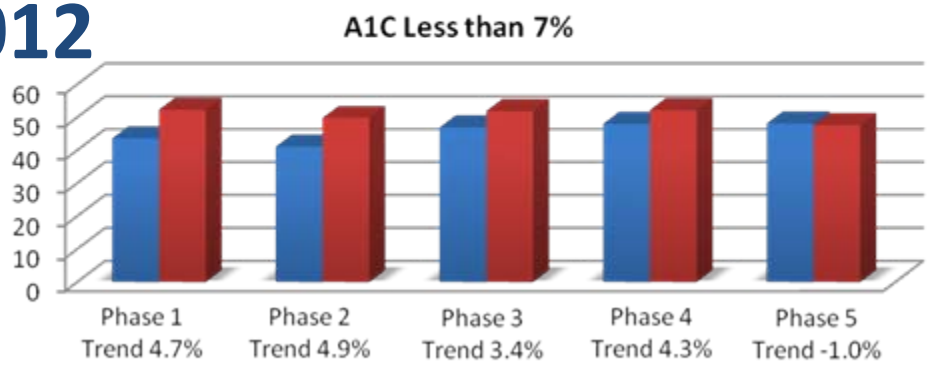
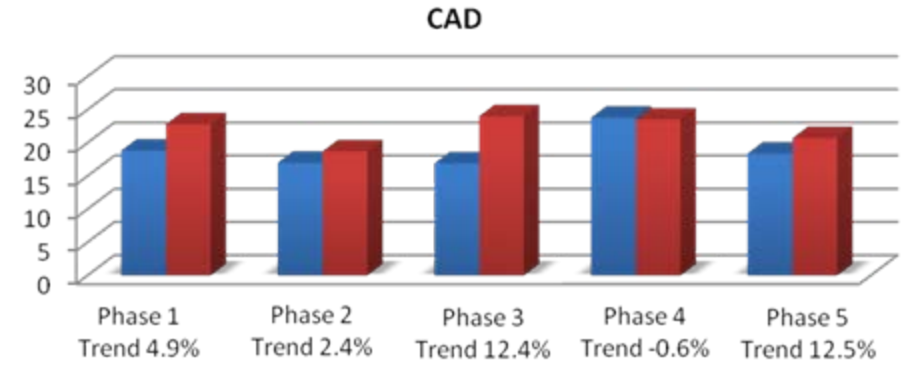
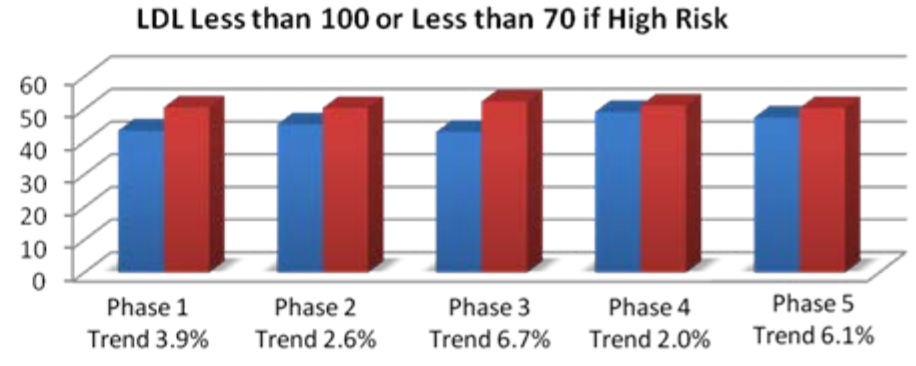
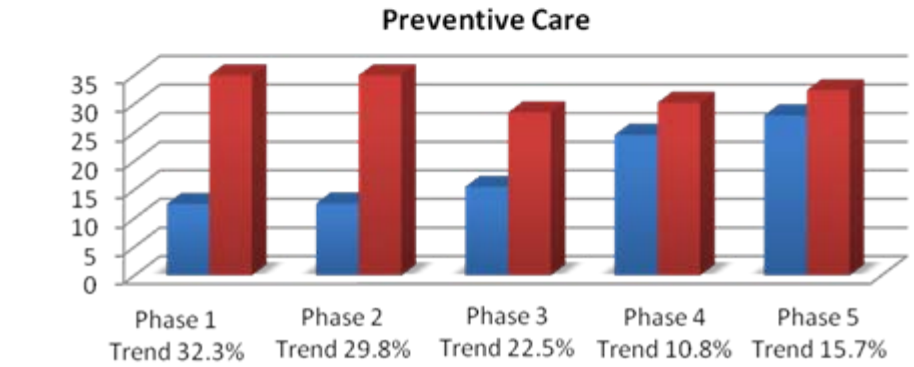
ProvenHealth Navigator® Quality Outcomes - 2012

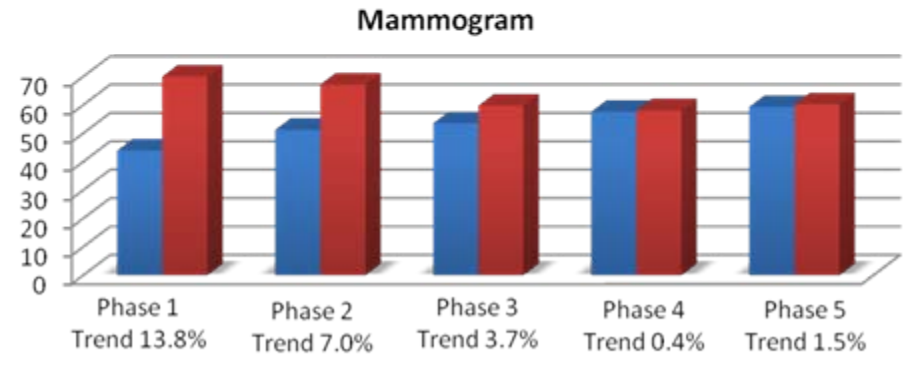












Phase 1 and 2 trends represent 2007 through 2011 trends – Blue Bar = 2007 & Red Bar= 2012
Phase 3 trends represent 2008 through 2011 trends – Blue Bar = 2008 & Red Bar = 2012
Phase 4 trends represent 2009 through 2011 trends – Blue Bar = 2009 & Red Bar = 2012
Phase 5 trends represent 2010 through 2011 trends – Blue Bar = 2010 & Red Bar = 2012

Value Driven Care
Patient Centered Outcome Improvements

•Microvascular

- Retinopathy
  - Less than three years
  - Number needed to treat to avoid one case: 151
- "Intention to treat" type analysis - e.g. does the patient's physician employ a system of care or not, regardless of patient adherence to the system of care (bundle score)

•Macrovascular

- Heart Attack
  - Less than three years
  - Number needed to treat to avoid one heart attack: 82
- Stroke
  - Less than three years
  - Number needed to treat to avoid one stroke: 178

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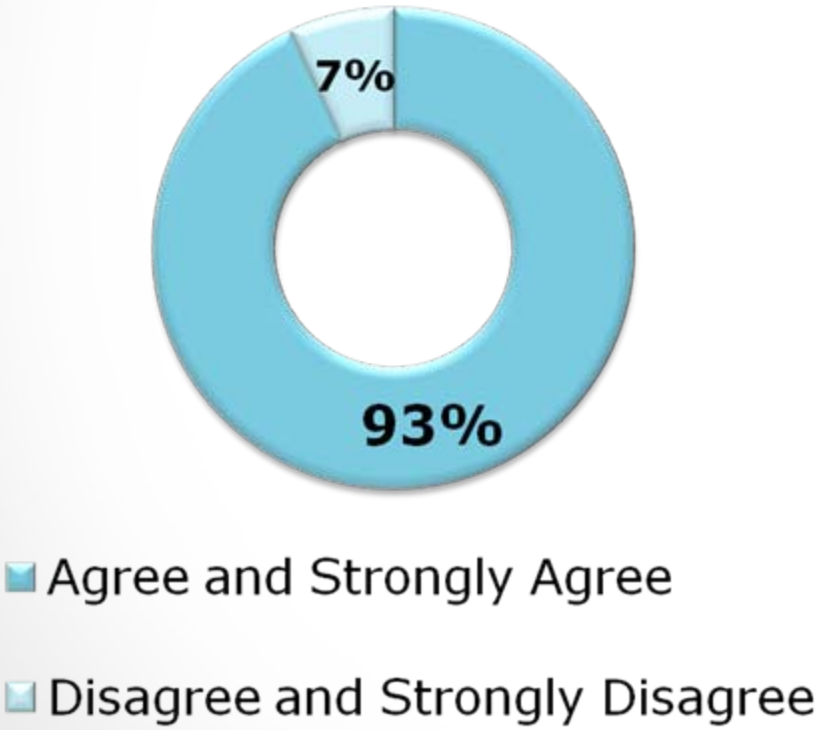
Patient Satisfaction Survey Responses: Overall Experience with the Medical Home

Has your care improved?



How satisfied are you with your Primary Care site?

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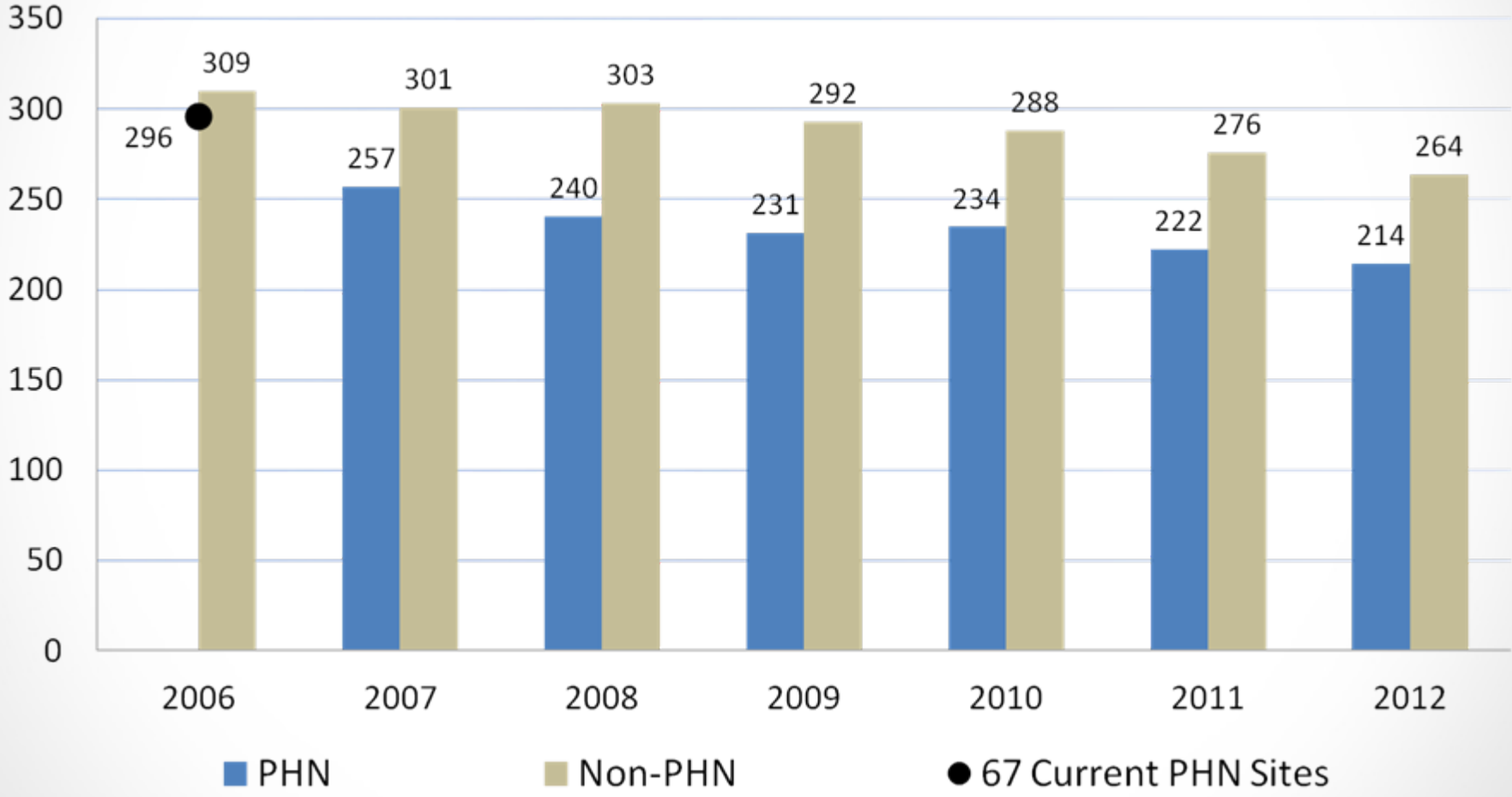
Medicare
Risk Adjusted Acute Admissions / 1000



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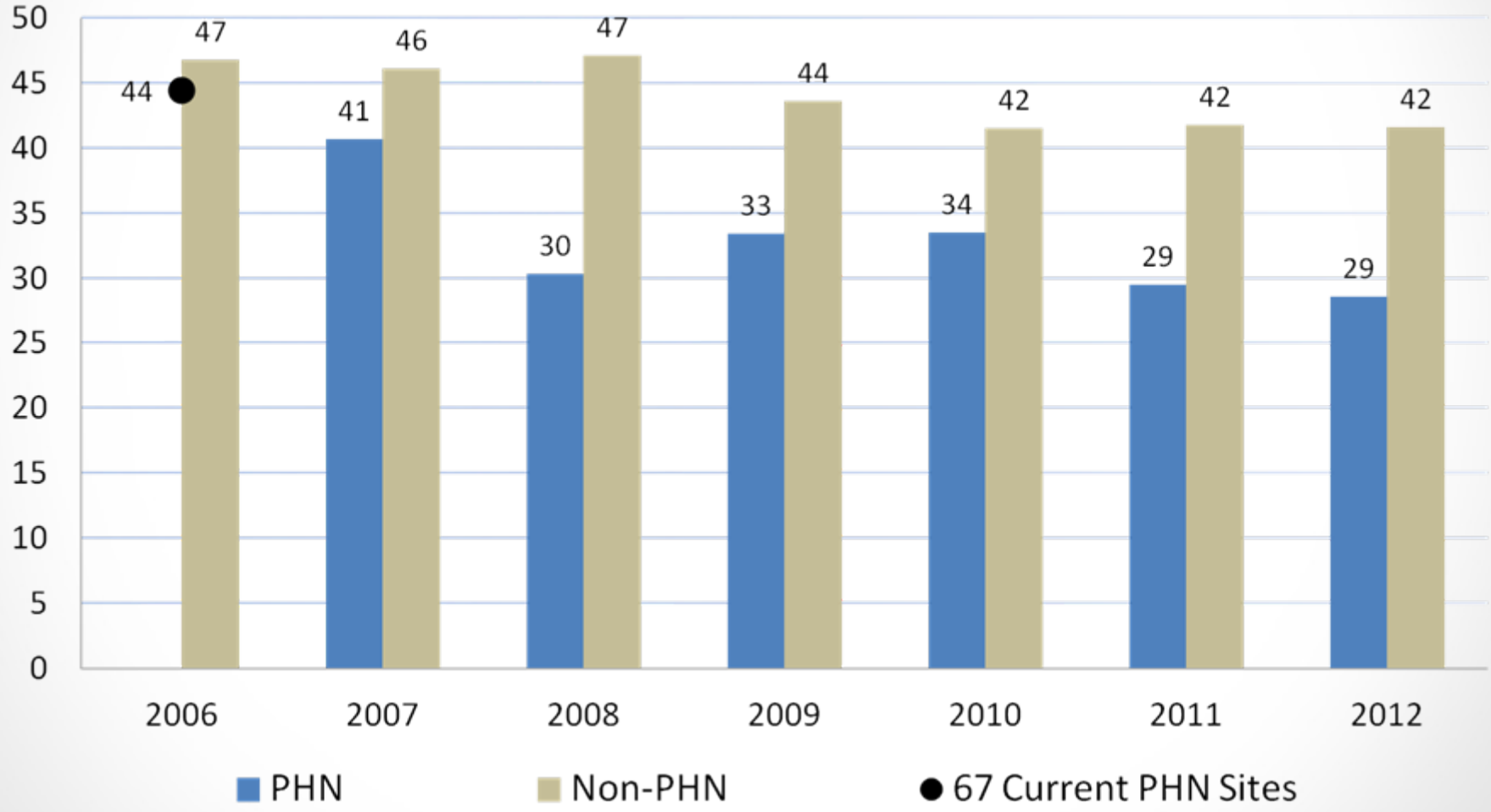
Medicare
Risk Adjusted Readmissions / 1000



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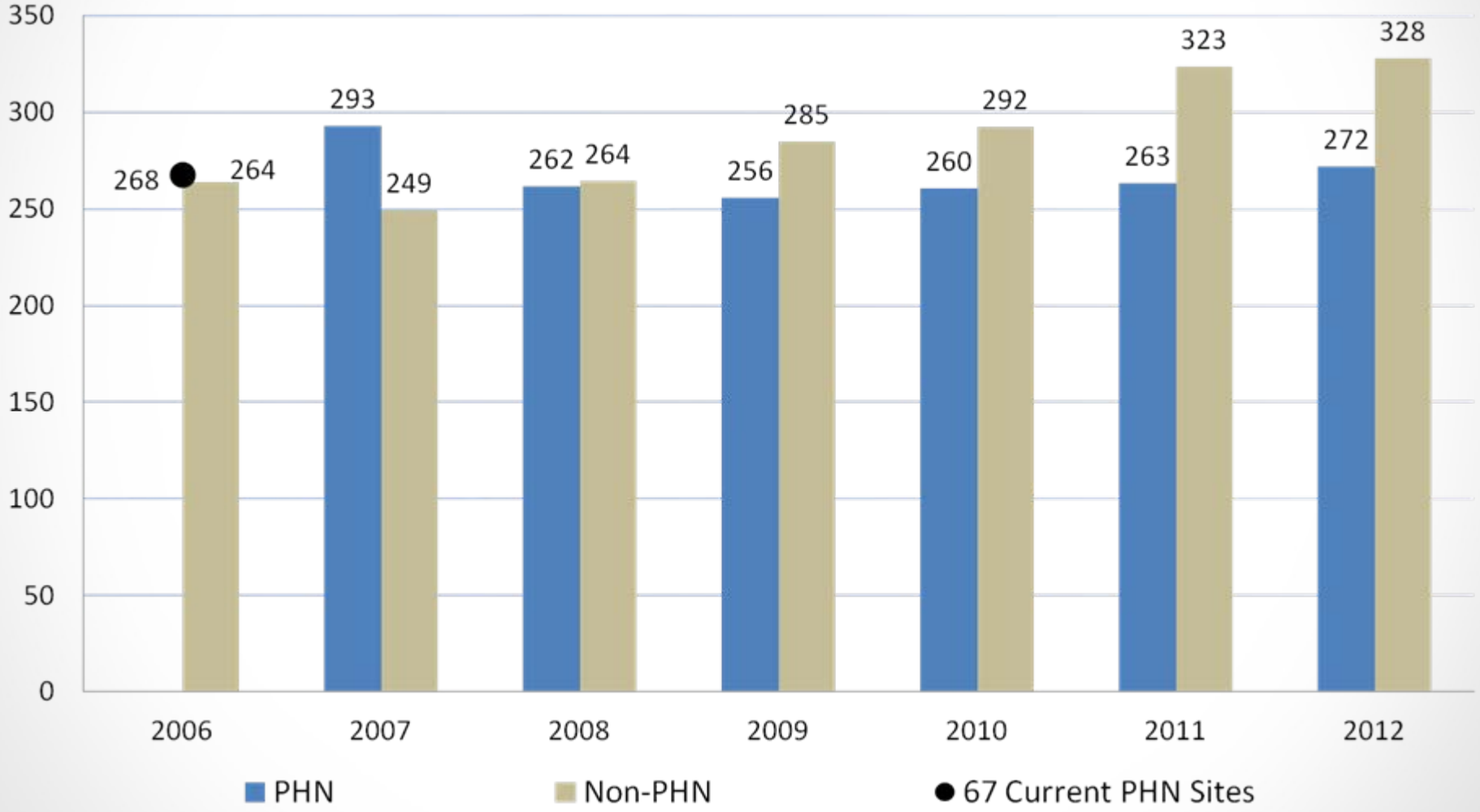
Medicare
Risk Adjusted ED Visits / 1000



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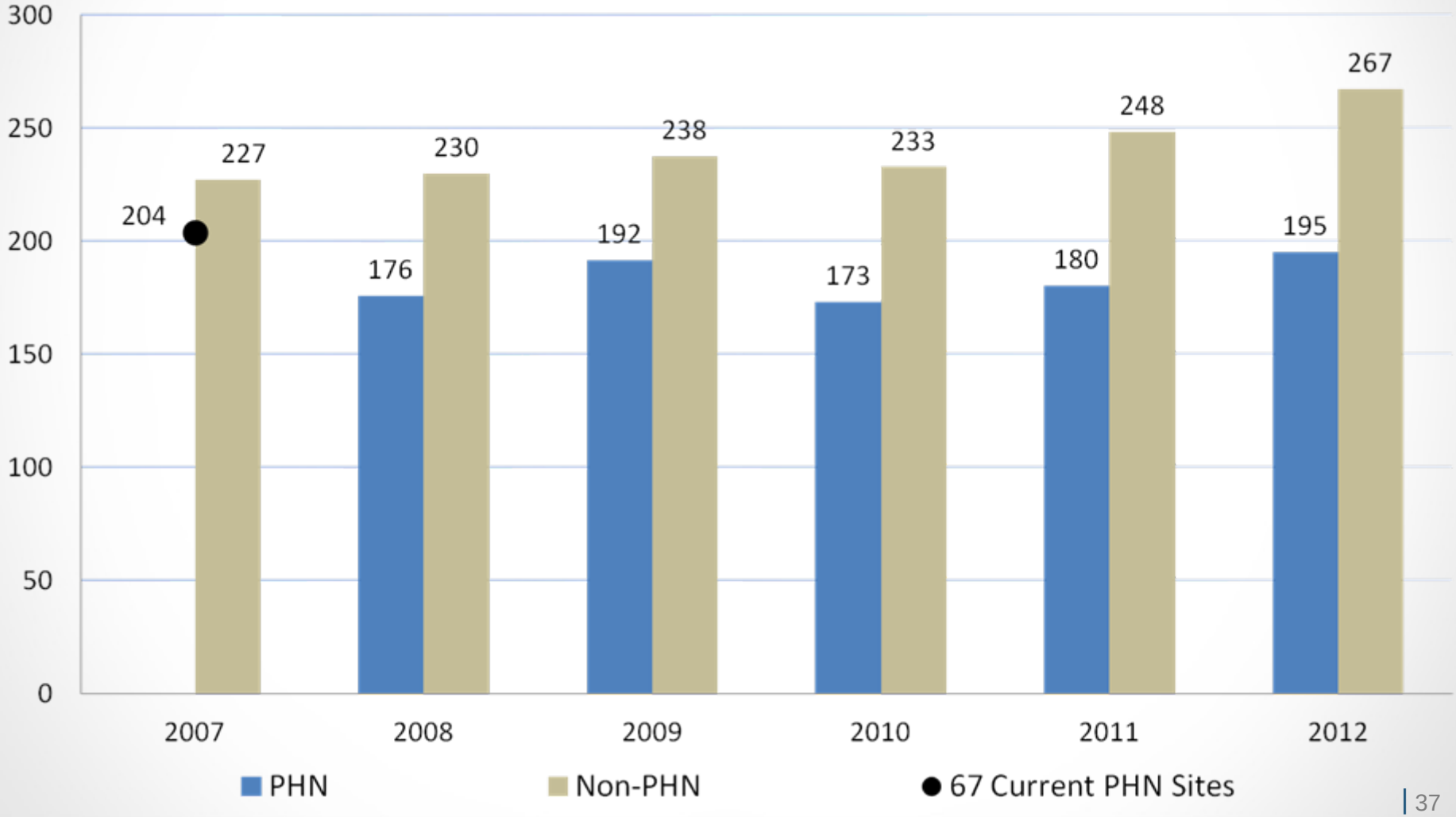
REDEFINING BOUNDARIES

Commercial
Risk Adjusted ED Visits/1000



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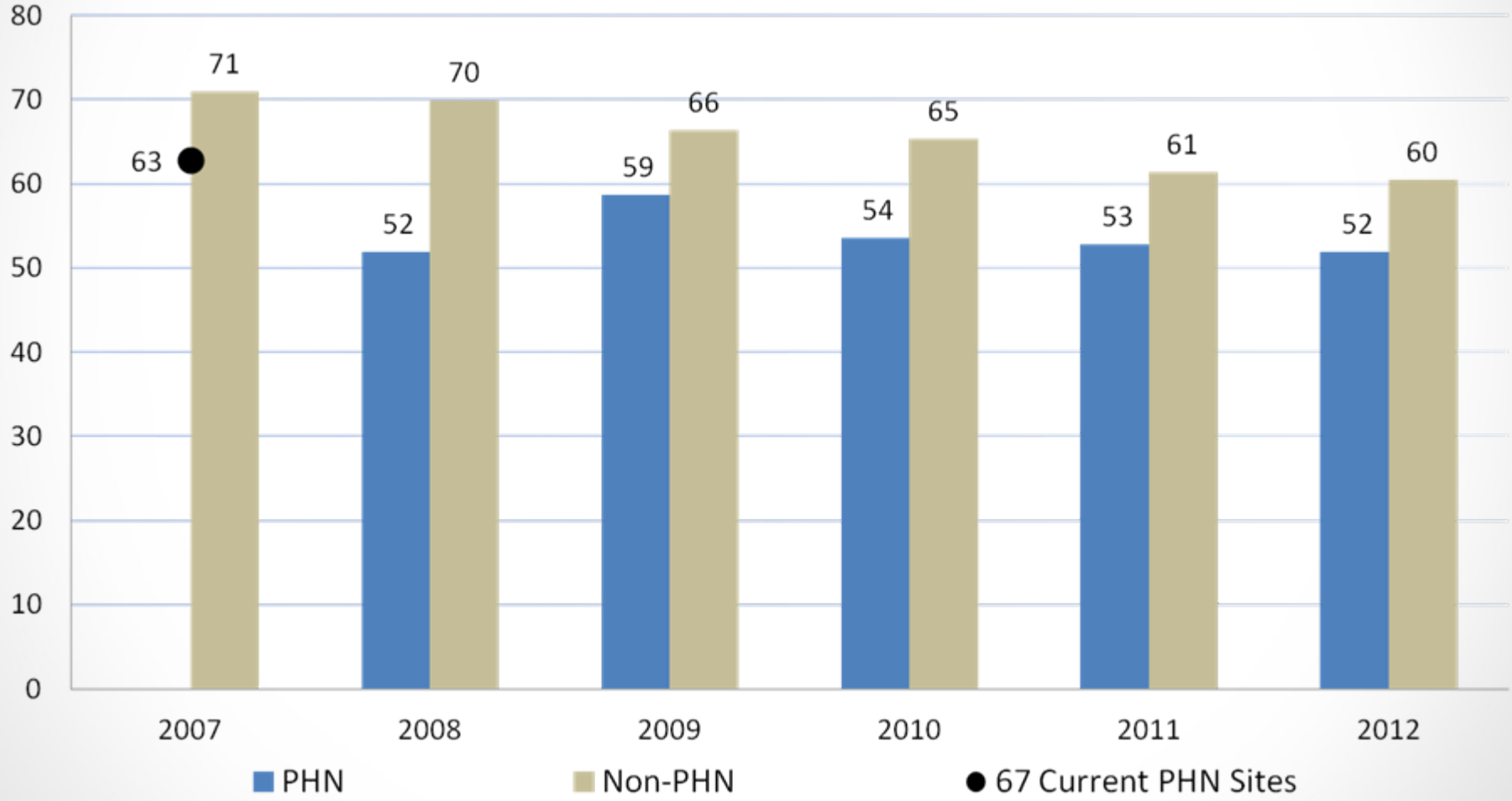
Commercial
Risk Adjusted Acute Admissions/ 1000



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PHN Results for Medicare

Table 4. Estimated Effect of ProvenHealth Navigator on Admissions, Readmissions, and Spending[a]

Variable	PHN Participants		Expected Difference Attributable to PHN	95% CI	*P*
	Active	Simulated			
Admissions per 1000 members per year	257	313	−56 (−18%)	−30% to −5%	<.01
Readmissions per 1000 members per year	38	59	−21 (−36%)	−55% to −3%	.02
Total costs PMPM, $	107	116	−9 (−7%)	−18% to +5%	.21

CI indicates confidence interval; PHN, ProvenHealth Navigator; PMPM, per member per month.

[a]Total spending (plan payment plus member copayment) values exclude prescription drugs and are indexed to equal $100 for non-PHN sites in January 2005 to protect confidentiality of spending figures. Results are reported for 2 groups: (1) PHN participants (active), representing only data from participants at PHN sites after implementation and (2) PHN participants without PHN (simulated), representing the expected outcomes from the previous group if the PHN had never been implemented.

(Am J Manag Care. 2010;16(8):607-614)

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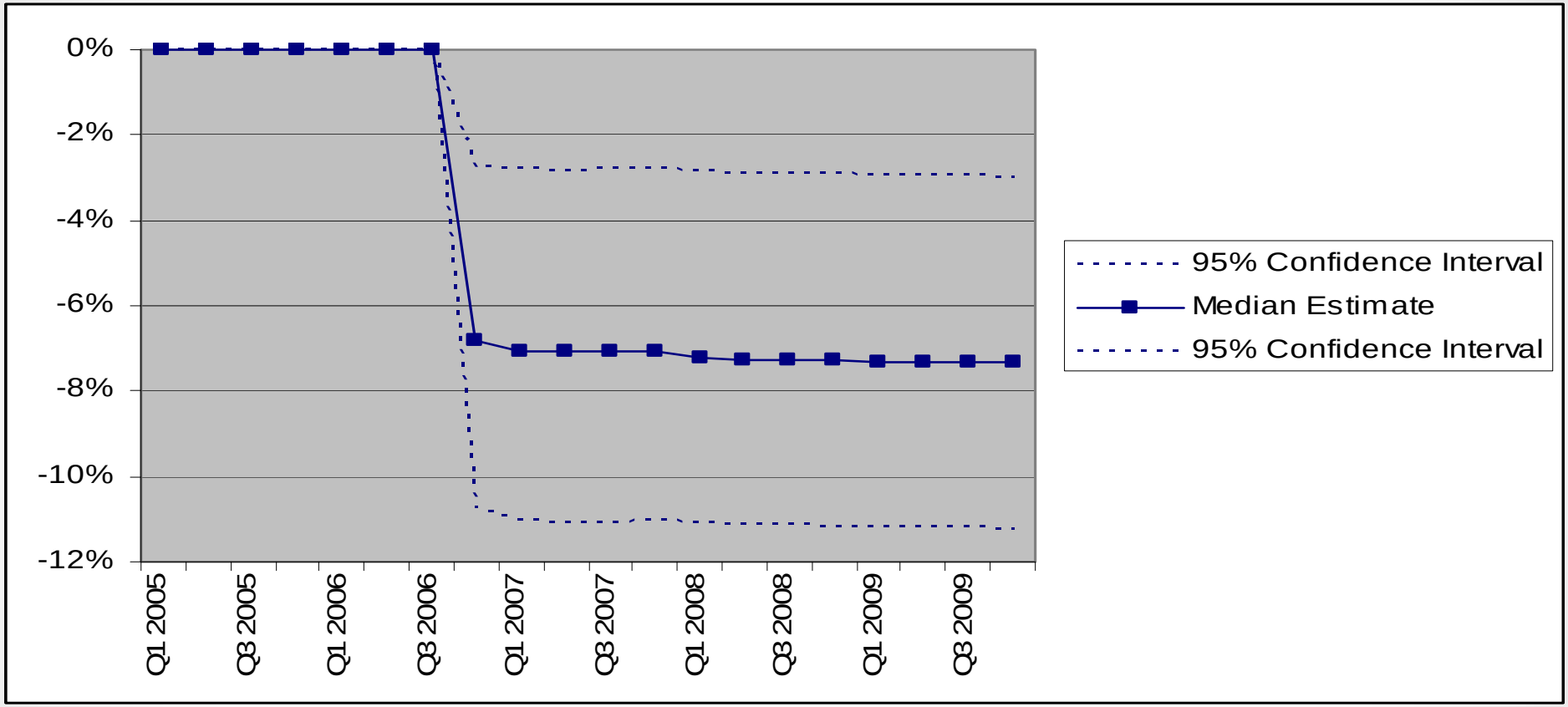
Cumulative percent difference in spending attributable to PHN



Cumulative percent difference in spending (Pre-Rx Allowed PMPM $) attributable to PHN in the first 21 PHN clinics for calendar years 2005-2009. Dotted lines represent 95% confidence interval. P = < 0.003

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Discussion & Questions