

# Achieving the Triple Aim: Evidence from the MGH CMS Demo

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MASSACHUSETTS  
GENERAL HOSPITAL



MASSACHUSETTS GENERAL  
PHYSICIANS ORGANIZATION



# Overview

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## Goals

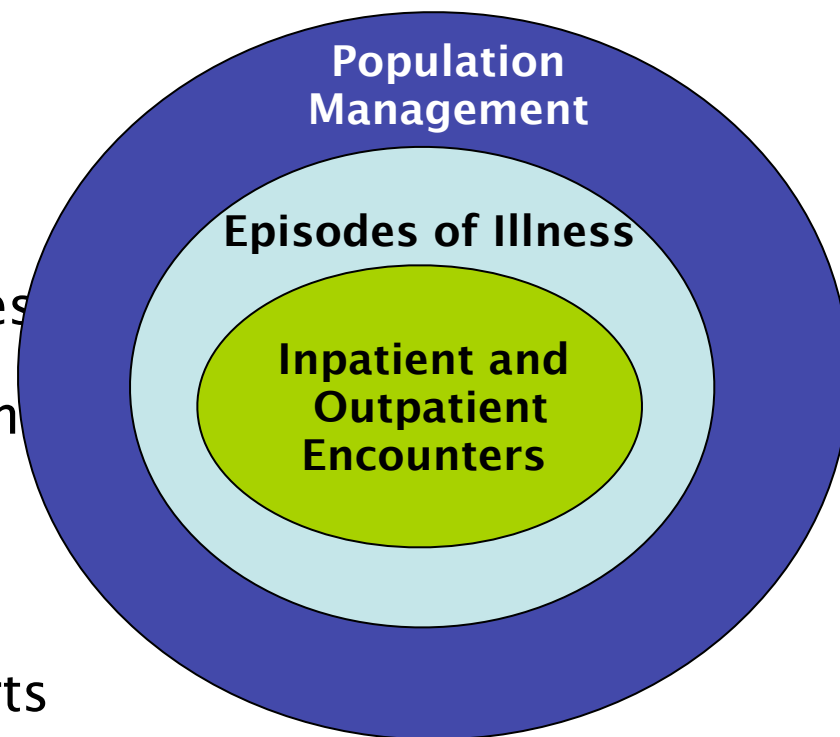
- Demonstrably higher quality
- Decreased unit cost
- Savings to purchasers

## Approach

- Improve quality (patient outcomes)
- Reduce unit costs
- Redesign care (fewer units/patient)
- Improve access (more patients)

## Process

- Set goals
- Integrate Partners and MGH efforts
- Support implementation teams
- Monitor progress (measurement)



# Care Redesign Tactics

	Longitudinal Care	Episodic Care	
	Primary Care	Specialty Care	Hospital Care
Access to care	Patient portal/physician portal		Hospital Access Center
	Extended hours/same day appointments		Reduced low acuity admissions
	Expand virtual visit options		
Design of care	Defined process standards in priority conditions (multidisciplinary teams)		
	High risk care management	Shared decision making	Re-admissions
			Hospital Acquired Conditions
	100% preventive services	Appropriateness	Hand-off standards
			Continuity visit
	EHR with decision support and order entry		
	Incentive programs		
Measurement	Variance reporting/performance dashboards		
	Quality metrics: clinical outcomes, satisfaction		
	Costs/population	Costs/episode	

# Four Observations, One Implication

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- **Small fraction of pts responsible for large fraction of costs**  
MedPac, June 2006 Data Book
- **Most high cost patients have multiple chronic conditions**  
Thorpe et al, Health Affairs, 2006
- **Outcomes for these patients depend on quality of care**  
Higashi et al, Ann Int Med. 2005
- **Outcomes also depend on patient's self-management**  
Lorig et al, Med Care, 2001
- **Implication:**
  - Improved delivery of care and better self-management should improve quality and reduce costs

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- **Case management (50+ pts/nurse)**

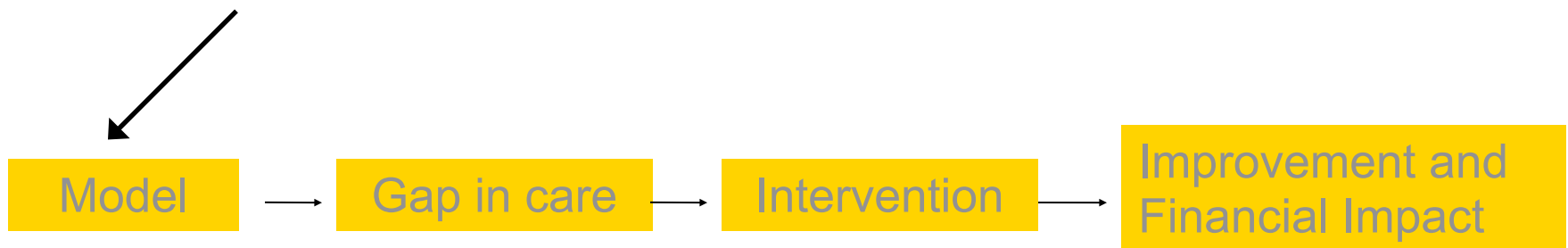
# Approaches to Population Management

	Low Engagement	High Engagement
Traditional	<p><b>Population Screening</b> Target patients by disease and age group</p> <p><b>Patient Education</b> Distribute brochures on how to manage chronic disease</p>	<p><b>Call Center</b> Centralized case managers call patients to monitor progress</p> <p><b>Guidelines / Support</b> Promote best practices among providers</p>
Emerging	<p><b>Risk Screening</b> Stratify patients for different program interventions based upon medical criteria</p>	<p><b>Remote Monitoring</b> Use devices to monitor patients at home</p> <p><b>Practice Based Case Managers</b> Supported by real-time alerts, workflow software, clinical decision support</p>

# Identifying Patients

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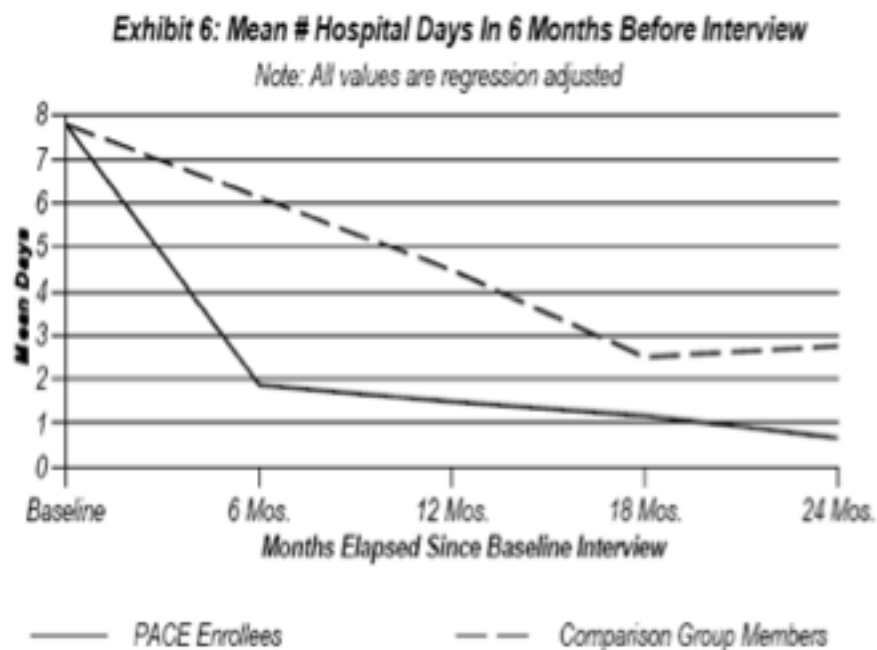
- Predictive Models: Ideal and Real
- Medical Claims Data
- Pharmacy Claims Data
- Demographics
- Patient Reported Information (Health Risk Assessment)\*
- Medical records\*
- Laboratory Data\*



**Most programs model “risk” and not “opportunity”**

# Exemplars in Population Management

- **Disease specific: Heart Failure (HF)**
  - CBO reports cites HF as the only consistent example of savings
  - Comprehensive discharge planning plus post-discharge support reduced readmission increasing costs.
- **High risk programs**
  - Not disease specific
  - PACE program



# Why Have Care Management Results Been So Modest?

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## 1. Flaws in Concept

- Expected big results rapidly (programs require maturation, CQI)
- Intervention differed little from usual care
- Participants not the ones with high costs (selection)
- Limits to patients’ “self management” of complex illness (esp. psych)

## 2. Flaws in Design

- Interventions were not sufficiently standardized or robust
  - Targeting of appropriate patients
  - Low prevalence of some outcomes
- Programs more effective if patient choices are constrained
- Neuro-psych issues not sufficiently accounted for

## 3. Flaws in Implementation

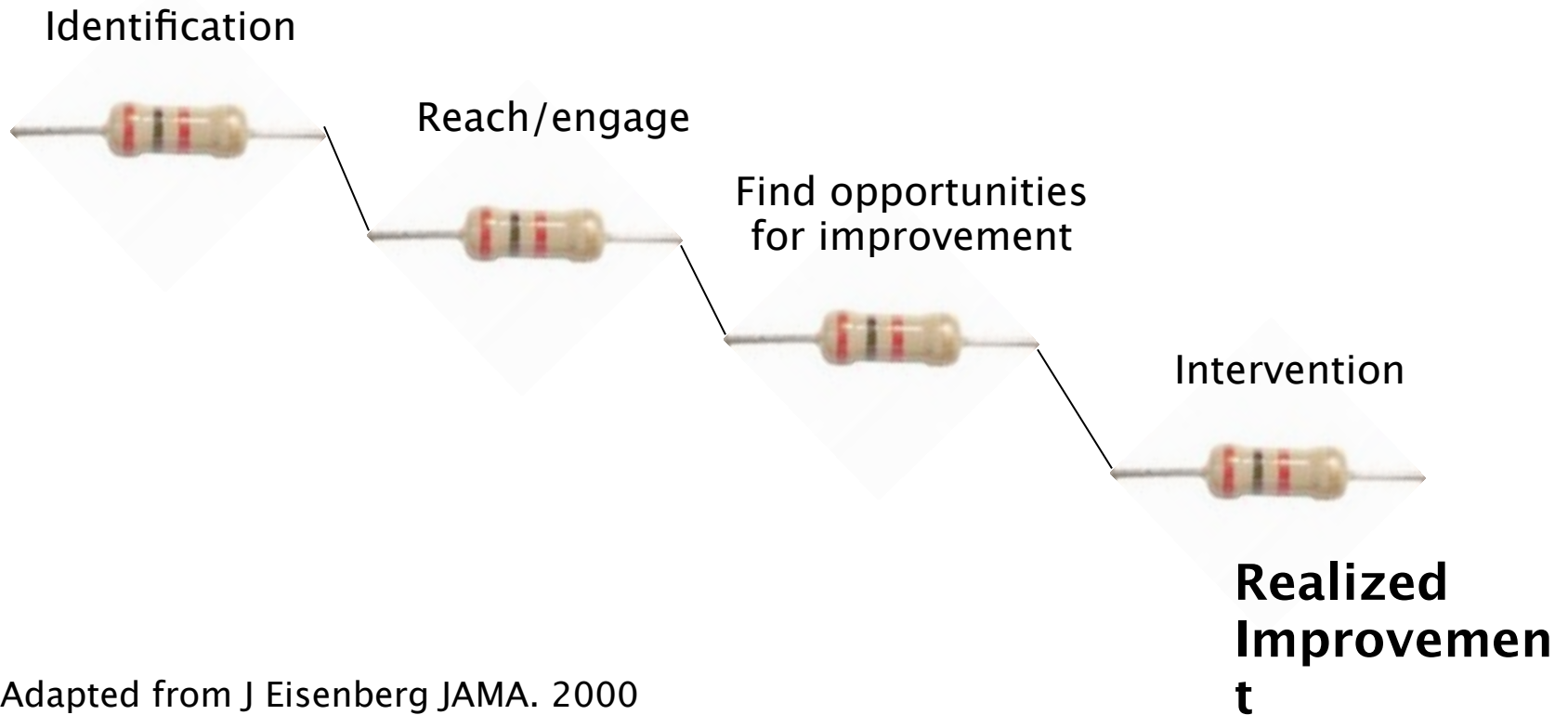
- Internal approval processes took too long
- Challenges in recruiting patients quickly

Gold M et al. Health Affairs. 2005;W5-199



# Drops in Potential for Care Management

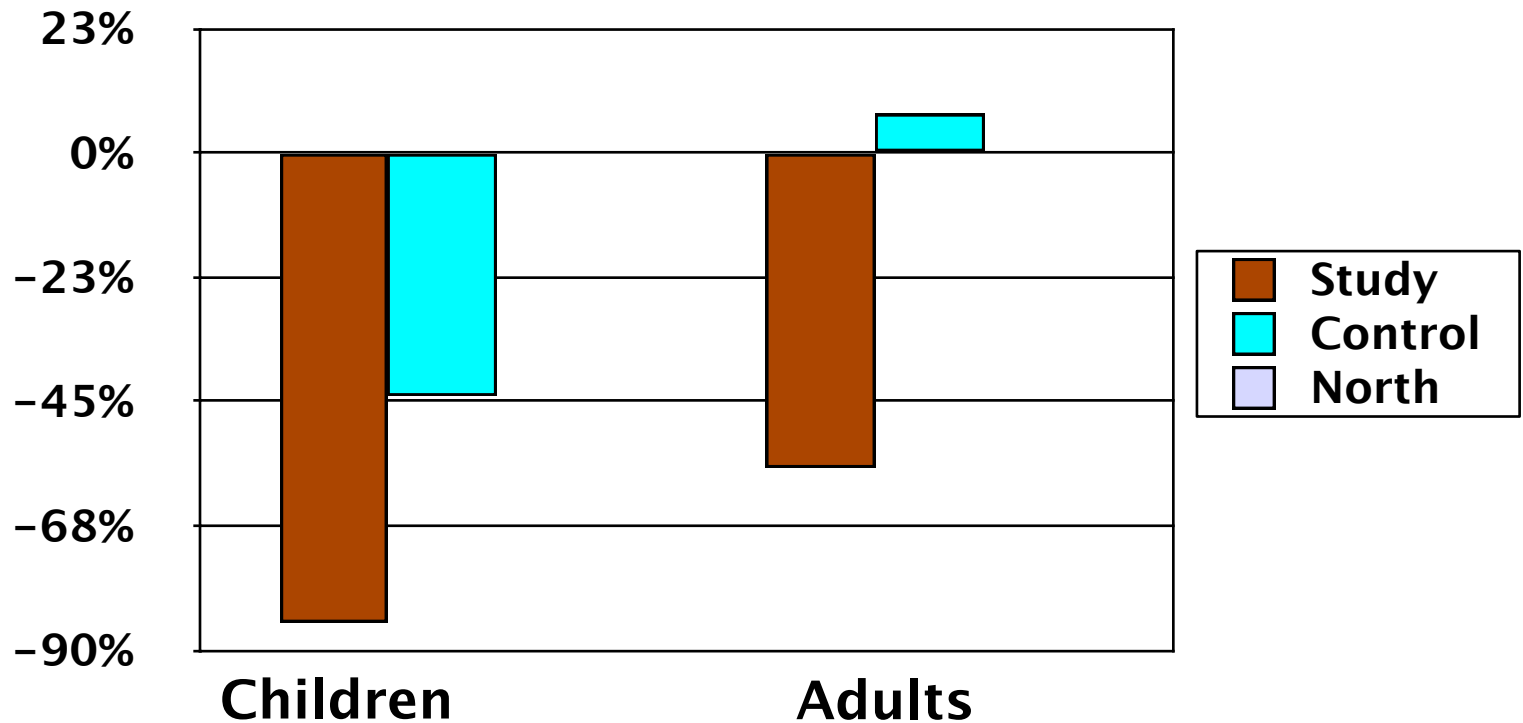
## Potential Opportunity



Adapted from J Eisenberg JAMA. 2000

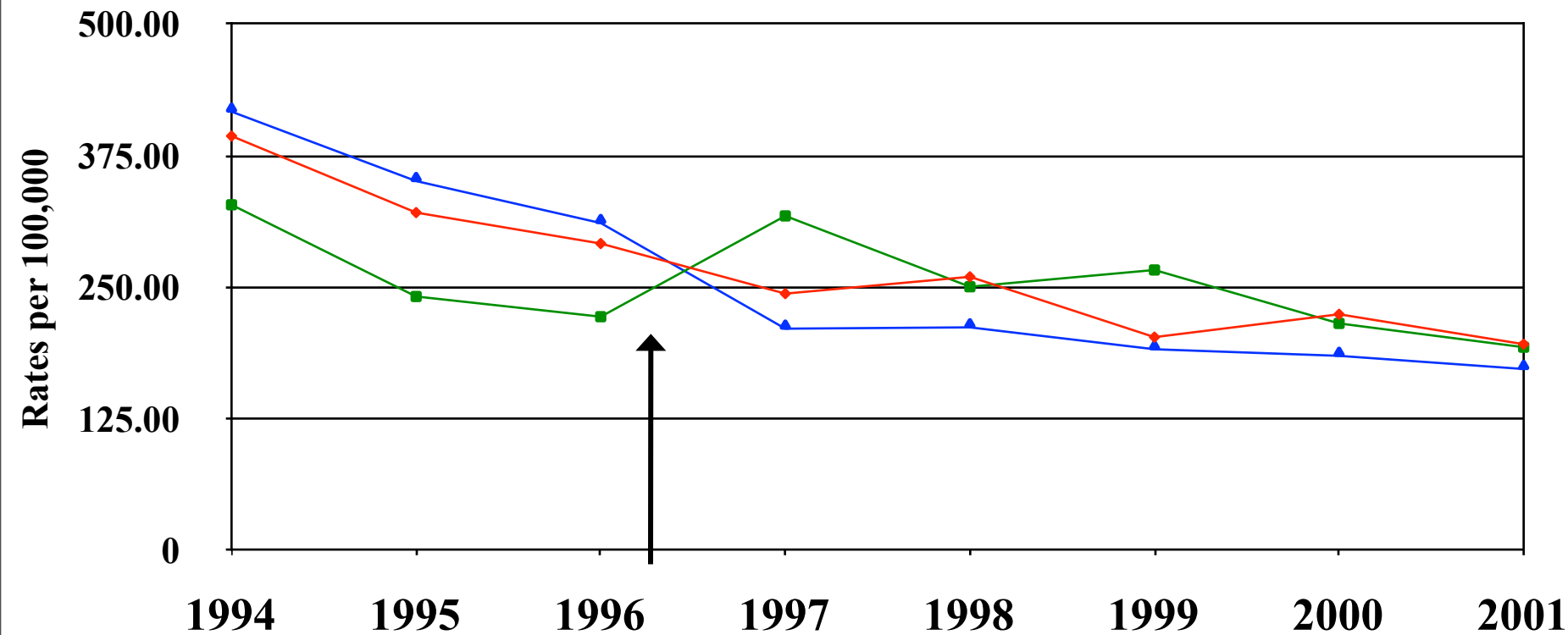
# Chelsea Asthma Management Program

## Percent Change in Hospitalizations for Children and Adults



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Asthma Hospital Discharges: Chelsea, Holyoke and Lawrence: 1994-2001



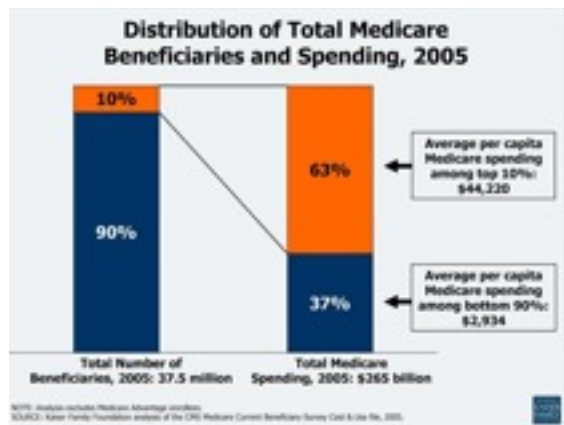
# MGH Medicare Demo: Care Management for High Cost Beneficiaries

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## The Opportunity

- 10% of Medicare patients account for nearly 70% of spending



- 20% of Medicare patients have 5 or more chronic conditions
  - Congestive heart failure
  - Chronic pulmonary disease
  - Coronary disease
  - Diabetes
  - Depression

## The Demonstration

- 3-year Medicare demonstration
  - MGH one of 6 participating sites
  - Focus is on high-cost beneficiaries
- Goal
  - Test strategies to improve coordination of Medicare services for high-cost FFS beneficiaries
- Paid monthly fee based on # patients enrolled
- Success determined using prospective control
- Cost Outcomes
  - Required to cover program costs + 5%
- Quality Outcomes
  - Hospitalizations, Mortality

# High Cost Beneficiaries: The Patients

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## Selection

- All primary care practices (19); 190+ PCPs
- Risk & cost criteria applied to PCP claims
- **Inclusion:** chronic illnesses
- **Exclusions:** ESRD, HMO, geography

## Utilization

- **2500 patients (top 2.5%)**
  - Average # Meds = 12.6
  - Average # hospitalizations/year = 3.4
  - Average annual costs = \$24,000

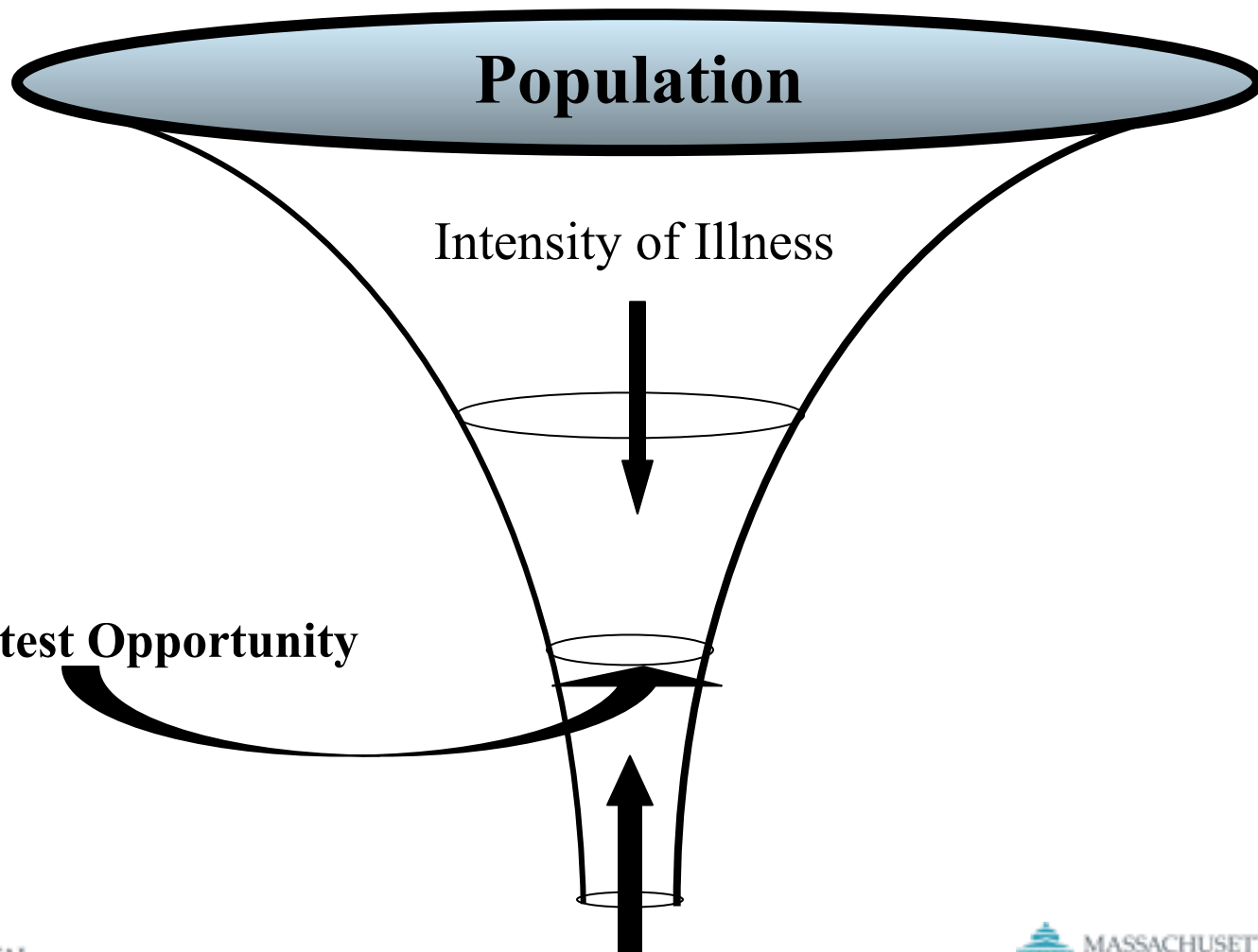
## Total Costs

- **Annual cost of enrolled patients = \$60M**



# Effective Targeting of Care Management

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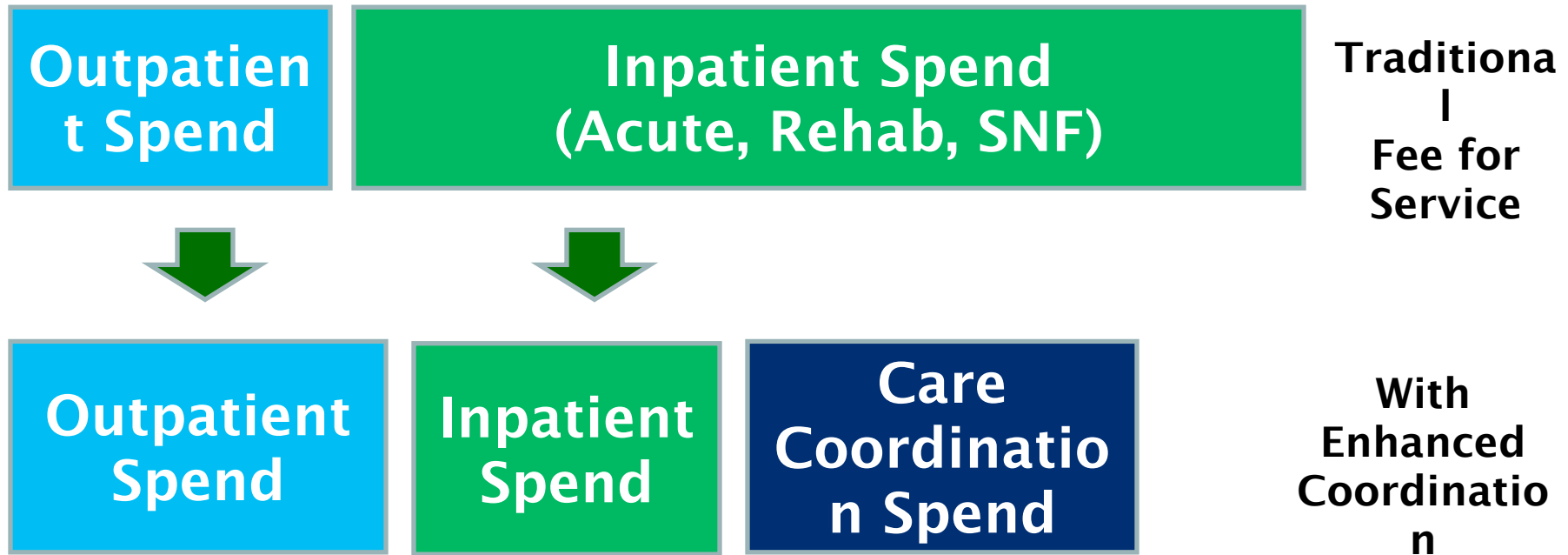


Area of Greatest Opportunity

# Care Management Program: Strategy

## Strategy:

To improve patient care and outcomes with enhanced management resources and care coordination for the sickest patients in our practices



SCHEMATIC: NOT DRAWN TO SCALE

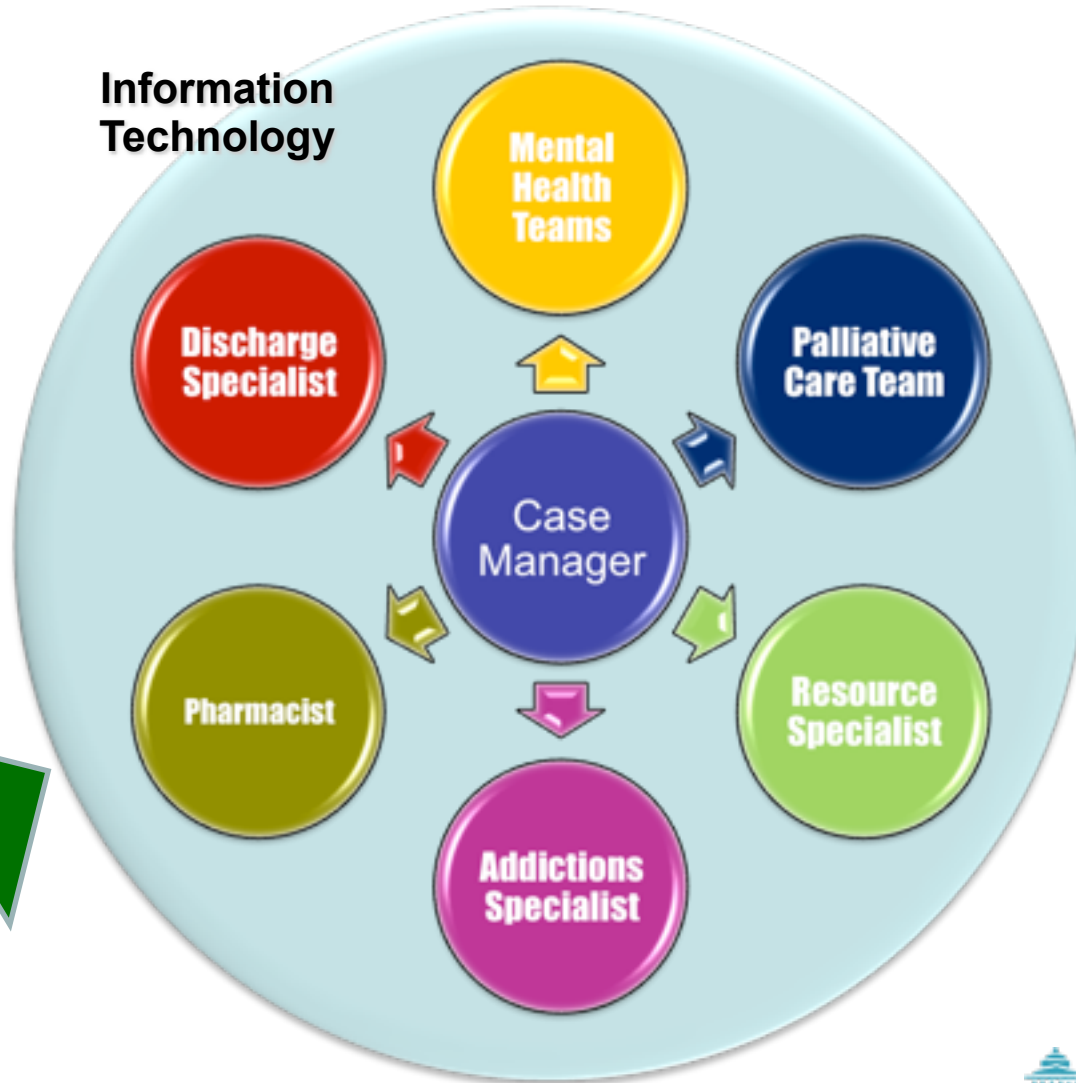
# Care Management Program: Design

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- **Primary Care practice based**
- **Heavy reliance on IT/real-time data**
- **Mass customization: services to fit patient needs**
  - End-of-life management
  - Psych/social evaluations & interventions
  - Focus on transitions: home-hospital-home
  - Provider fee encourages participation
  - Flexible: modifications based on experience
- **Care managers are integrated into all Primary Care practices**
  - 12 Care Managers (approx 200 patients/Care Manager)
  - Assess Patients: Identifying risks for poor outcome
  - Coordinate care between providers, services
  - Facilitate better communication / transitions
  - Specialized training and ongoing team based learning

# Delivery Model Incorporates Other Specialized Services to Manage Specific Needs

Information  
Technology



# Milestones

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- **Phase I completed July 2009**
- **Expanded for an additional three years**
  - 1500 new patients enrolled at MGH
  - Program expanded to
    - North Shore Medical Center,
    - Brigham and Women's Hospital
  - 3000 additional patients
- **Total Program Size: 8000 Patients**

# MGH Medicare Demonstration Project: Outcomes

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## Results from Independent Evaluator (RTI)

- **Successful Enrollment**
  - 87% of eligible beneficiaries enrolled
- **Successful Targeting of Interventions**
  - Interventions focused on the enrolled patients with the greatest opportunity
- **Successful Communication**
  - Improved communication between patients and health care team
  - High patient and physician satisfaction
- **Successful Outcomes**
  - Hospitalization rate among enrolled patients was 20% lower than comparison\*
    - ED visit rates were 25% lower for enrolled patients\*
  - Annual mortality 16% among enrolled and 20% among comparison
- **Successful Savings**
  - 7.1% net savings (12.1% gross) for enrolled patients
  - Approximately 4% annual savings for total population
  - For every \$1 spent, the program saved at least \$2.65

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- **Programs like the MGH Care Management Program can be a piece of the solution**