FOUNDED BY BRIGHAM AND WOMEN'S HOSPITAL
AND MASSACHUSETTS GENERAL HOSPITAL

Integration with Providers:
Enhancing the Power of DM Programs

Presented by:

Rebecca J. Cunningham, MD

Allison McDonough, MD

Agenda

- What is Partners HealthCare?
- Medicaid Today
  - Statistics
  - HealthCare Reform
- Overview of Partners HealthCare Connection
  - Program Genesis
  - Who are the Medically Complex, Underserved?
  - Program Goal
- Partners HealthCare Connection *Adult*
- Partners HealthCare Connection *Pediatrics*
- BIMA Health Partnership
- Questions

Overview of Partners HealthCare (PHS)

- Not-for-profit organization based in Boston, Massachusetts
- Founded in 1994 by Brigham and Women's Hospital and Massachusetts General Hospital
- Integrated healthcare system that offers patients a continuum of coordinated high-quality care
- Hospitals are premier in the nation in biomedical research
- Major teaching affiliates of Harvard Medical School
- Advanced informatics system:
  - Clinical data repository with our 4 million unique individuals
  - Electronic Medical Records System
  - Leading the nation in safer prescribing

Partners HealthCare – High Performance Medicine Teams

1. **Investing in quality and utilization infrastructure**
   - Information systems
   - Other resources

2. **Enhancing patient safety** by reducing medication errors system-wide

3. **Enhancing uniform high quality** by measuring performance to benchmark for select inpatient and outpatient conditions

4. **Expanding disease management programs** by supporting activities for patients with complex chronic illnesses

5. **Improving cost effectiveness** through managing utilization trends and analysis of variance

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2006 Medicaid Statistics

- Nationwide
  - **47** million Americans are uninsured
  - **38** million rely on Medicaid to pay for their healthcare
- Statewide
  - **620,000** Massachusetts residents are uninsured
  - **870,000** children and adults rely on Medicaid to pay for their healthcare
- Partners HealthCare System
  - Provided free care to **35,000** uninsured patients
  - Provided care to nearly **91,000** children and adults who rely on Medicaid to pay for their healthcare

Source: The Henry J. Kaiser Family Foundation, www.kff.org ; Partners HealthCare System, www.partners.org

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Massachusetts – Health Care Reform

- Enacted legislation in April 2006 to provide healthcare coverage to nearly all residents
- Adults are required to obtain coverage or incur a financial penalty
- Creation of new plans
  - *Commonwealth Care* – low or no-cost coverage for those who qualify
  - *Commonwealth Choice* – unsubsidized, lower-cost private plan
- Since implementation, it is estimated that nearly **340,000** people have gained coverage
- **$90** million per year FY2007 to FY2009 will be used to increase Medicaid reimbursement rates for hospitals and physicians

Source: The Official Website of the Commonwealth of Massachusetts, www.mass.gov

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Partners HealthCare Connection - Program Genesis

- DM programs that improve coordination of care
  - *May* reduce hospitalizations and improve quality of life
  - Are not always available for Medicaid and uninsured patients

- **4%** of the Medicaid population accounts for **53%** of Medicaid spending

- Medically complex, uninsured patients place significant financial pressures on institutions

Source: The Urban Institute - www.urban.org

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Who are the Medically Complex, Underserved?

- Chronically-ill
- Uninsured
  - Working poor, no employer-provided coverage
  - Employed individuals unable to afford employer-sponsored coverage
  - Unemployed poor, ineligible for Medicaid
- Homeless
- SSI Disability
- Mental illness / substance abuse sufferers
- Below poverty level
- Frequent hospital utilization
- Those in need of long-term care

Potential Solutions

- Evidence-Based Practices
- Open Access
- Health Coaching
- Case Management
- Home Care Services
- Disease Management Programs
- Team-Based Care / Integrated Care
- Pay for Performance
- Predictive Modeling

Partners HealthCare Connection – Program Goal

To assist medically complex Medicaid and uninsured patients manage their chronic conditions and reduce unnecessary utilization by providing telephonic coaching services

- Partners HealthCare Connection *Adult* – July 2004
  - Services provided by an external vendor, Health Dialog, Inc.
- Partners HealthCare Connection *Pediatrics* – January 2007
  - Services provided internally through collaboration with the Nurse Partners Program at Massachusetts General Hospital

Partners HealthCare Connection *Adult*

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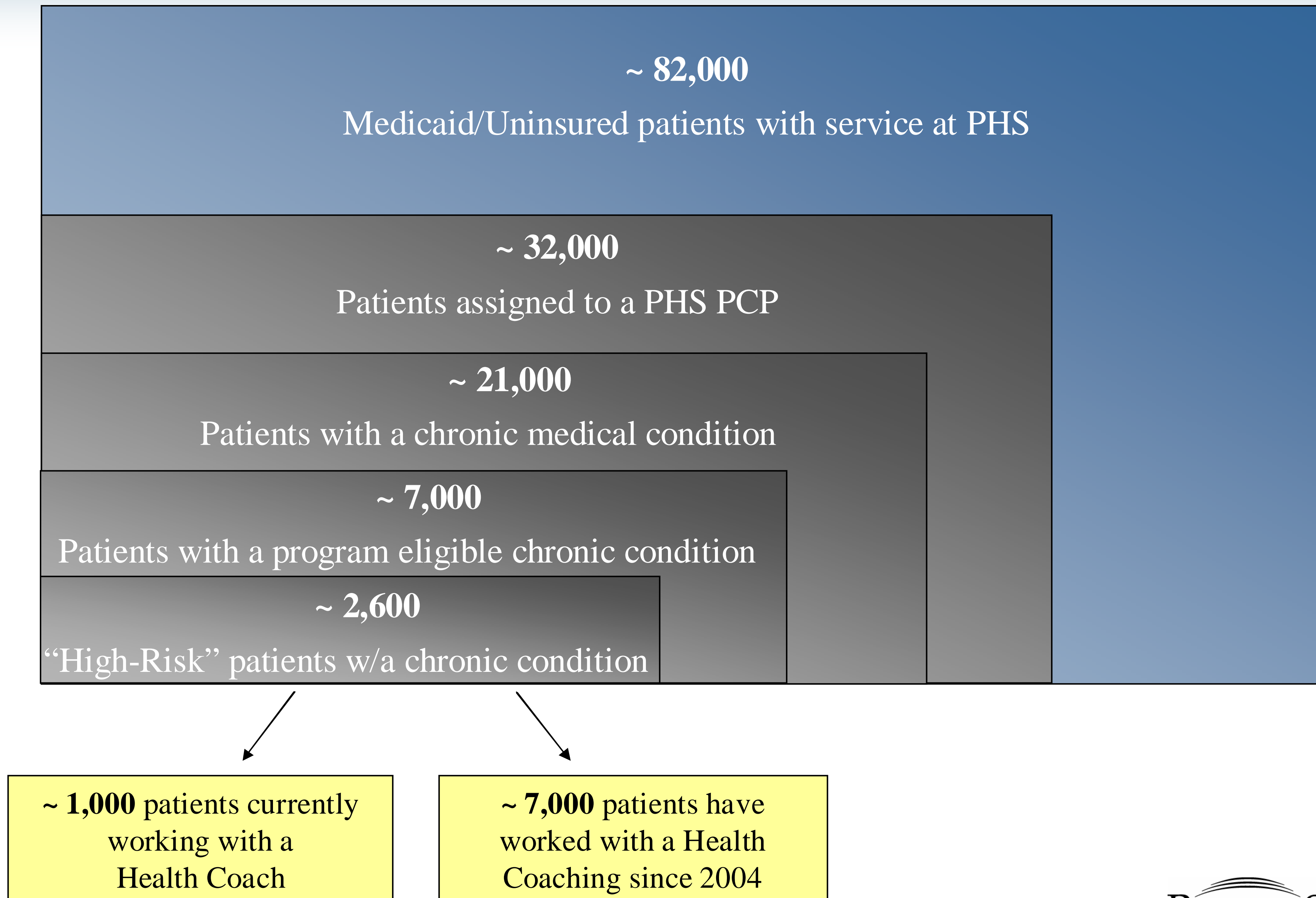
Partners HealthCare Connection *Adult*

- Enrollment
  - Opt-out email notification sent to PCPs with eligible patients
    - PCP can decline services on behalf of patient
    - No response indicates a physician's willingness to enroll their patient
  - Patient receives welcome letter prior to initial coaching call

- *Typical* Connection Patient
  - 35-year-old uninsured female smoker with obesity, GERD, DM II, HTN and frequent SOB
  - 67-year-old uninsured female who has COPD, DM II, peripheral neuropathy and glaucoma

Adult Population Overview[1]



[1]Includes 12-months of billing data (7/1/08 – 6/30/08)

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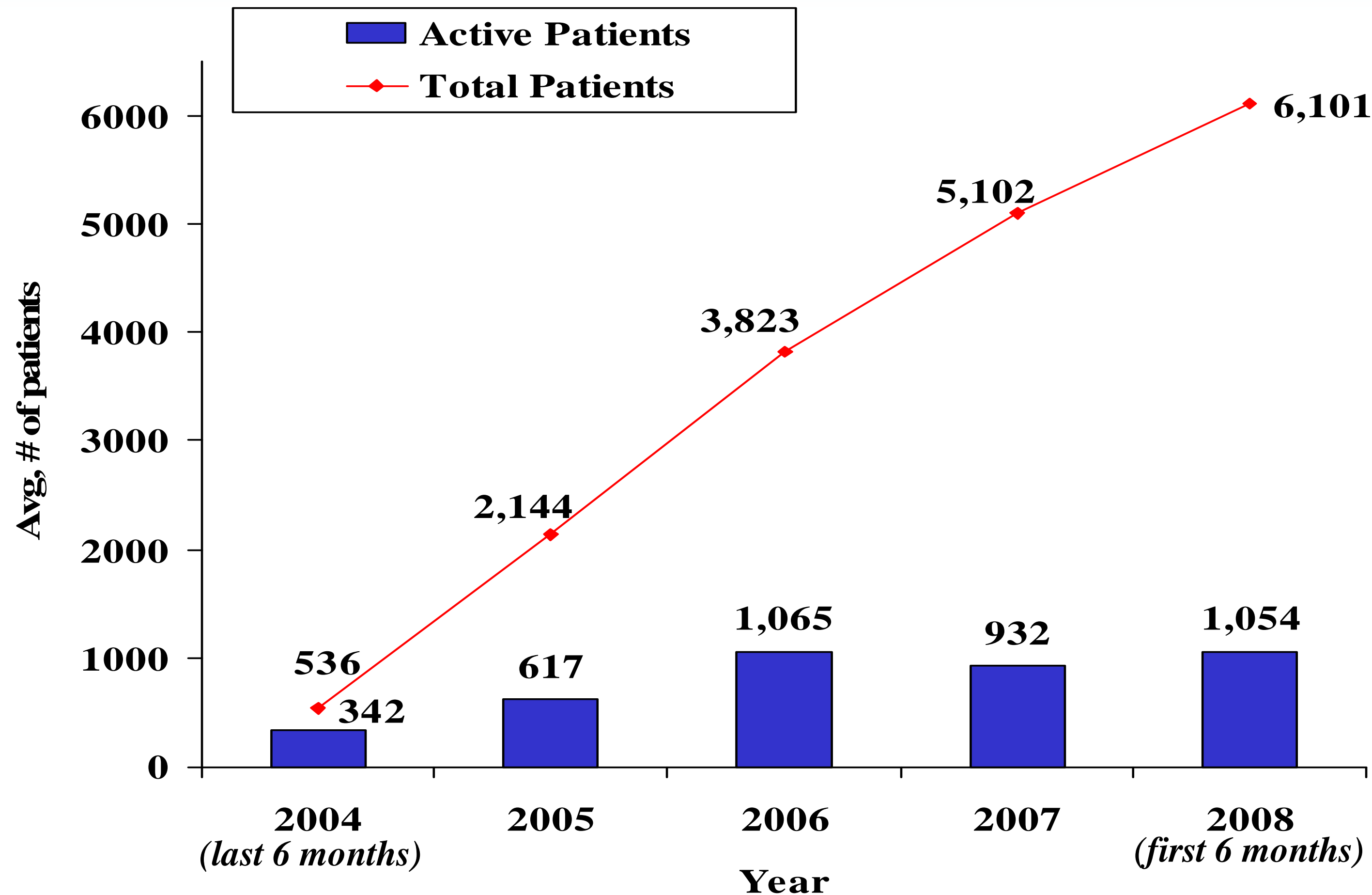
67% of Total Eligible Population has been Reached/Engaged



- **Of the enrolled, medically complex patients, >66% have Medicaid**
- **Only 3% of patients decline participation in Connection *Adult***

Data as of June 2008

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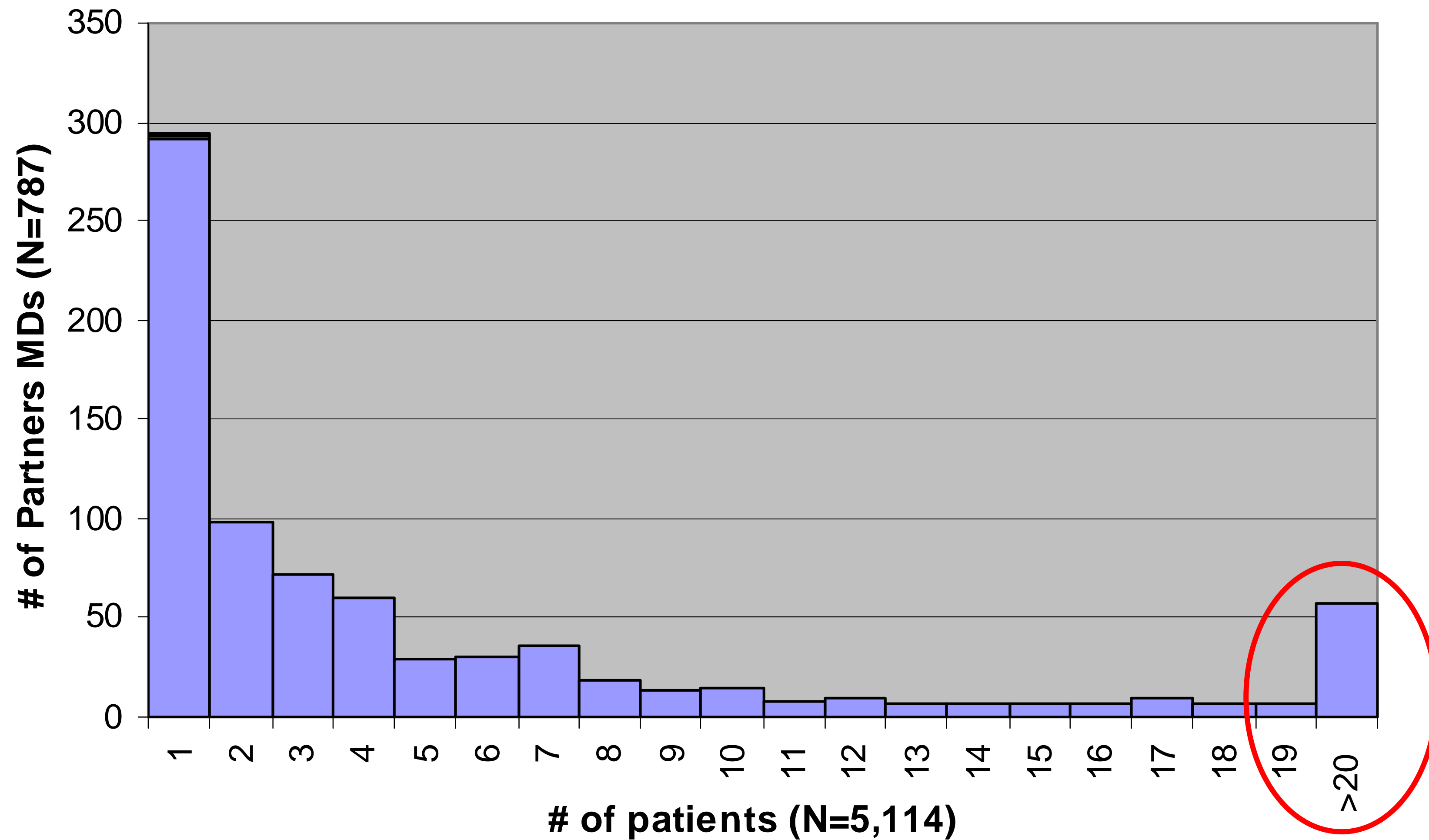
7% of PHS physicians treat and manage **40%** of the medically complex Medicaid patients



Data as of November 2005

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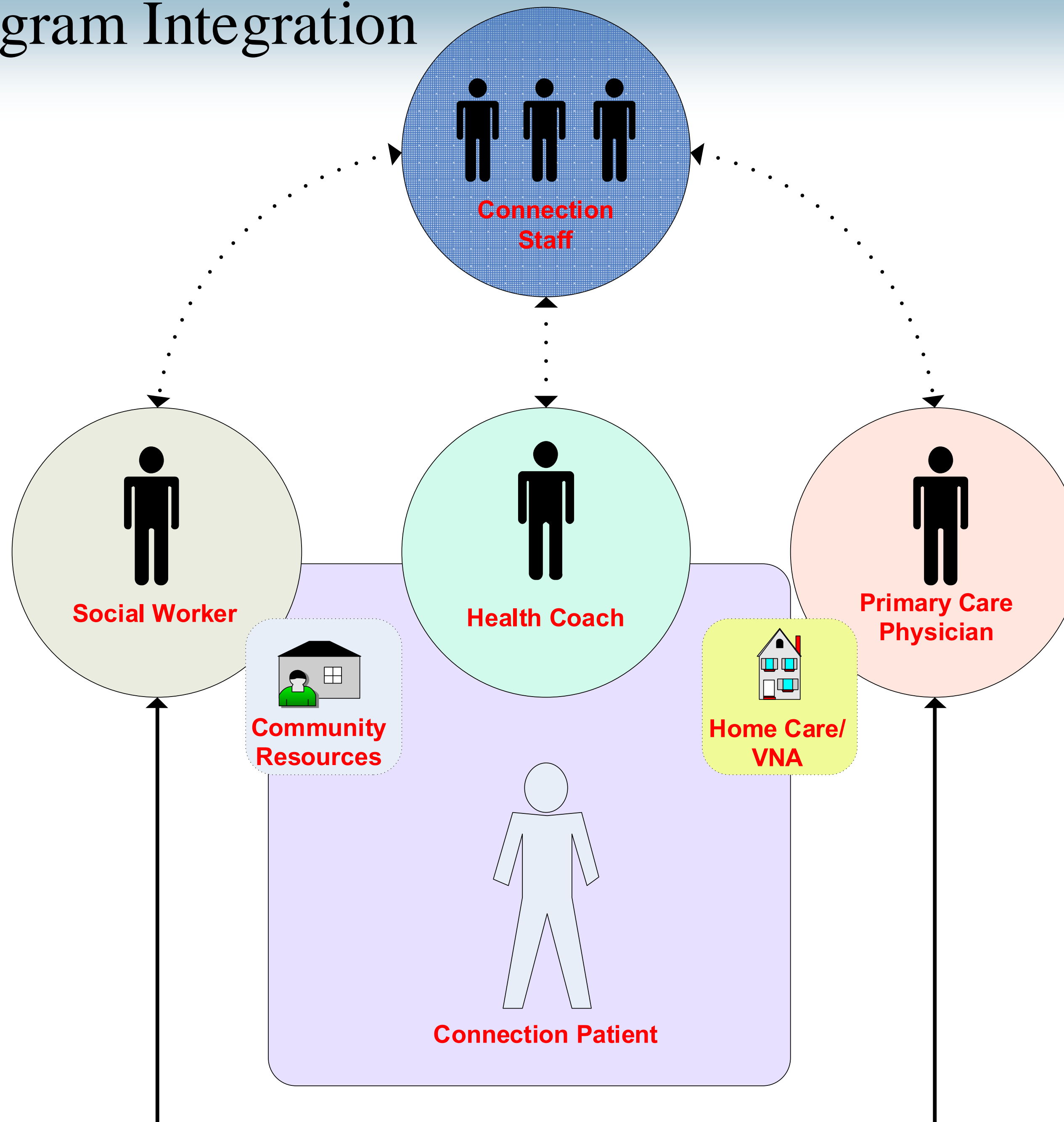
Adult Program Integration



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Integrating with Providers

- Health Dialog Coaches are able to communicate with PHS staff, helping integrate services and provide a higher quality of care

- Communication with PHS Social Worker
  - Health Dialog has made **522** social work requests, referring **406 unique patients** (**6%** of patients ever engaged)
  - Social Workers assist with:
    - Transportation
    - Housing
    - Insurance benefits
    - Affordability of medications
  - PHS Social Workers contacted **71%** of the patients referred
  - Updates provided to Health Dialog Coaches for future follow-up calls

Data as of June 2008

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Integrating with Providers

- Communication with Patient's PCP
  - Health Dialog has completed **254** Coach Communications, reaching **157 physicians** and **212 unique patients** (**3%** of patients ever engaged)
  - Coach Communications are patient-specific, alerting PCPs to:
    - Critical safety risks
    - Office access issues
    - Medication adherence
    - ED utilization
  - Coach Communications assist PCPs engage with their patient in real-time

- Quarterly updates on enrolled patients
  - Provides PCP with intervention data, report includes:
    - Current coaching status
    - Call detail
    - Education materials sent
    - Topics recently discussed
  - PCPs have opportunity to deliver feedback on program/patients enrolled

Data as of June 2008

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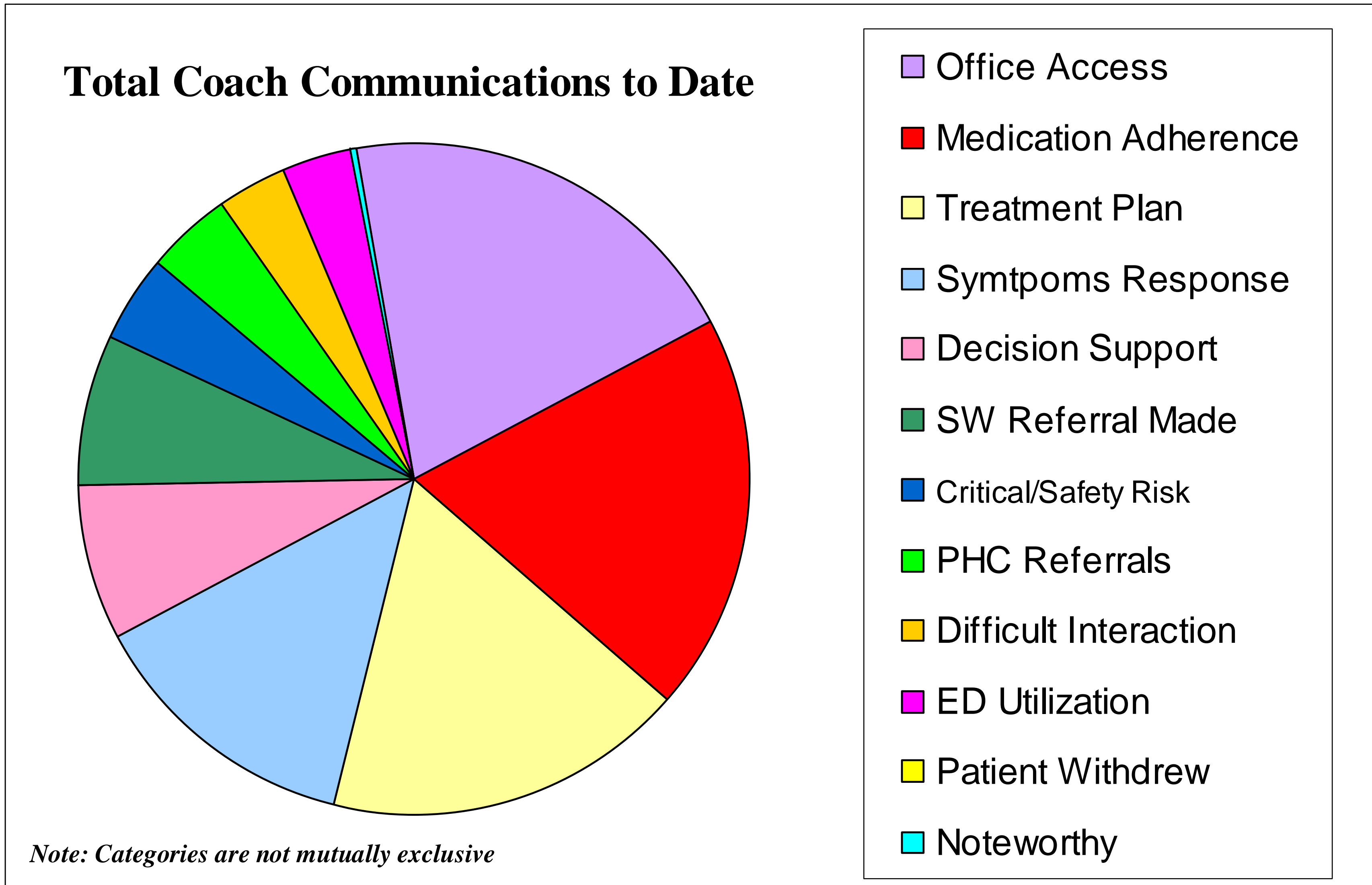
Coach Communications illustrate majority of patient issues discussed with Health Coaches relate to Office Access



Data as of June 2008

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Examples of Provider Integration

✓ Coach Communications

Office Access/ Communication	☑ Explore Patient Needs	Pt complaining no access to appts, calls daily, always put on hold
	☐ Resolve Barrier	
Medication Adherence	☑ Clarify/Reinforce medication(s)	Does not use asthma controller medication, Advair
	☑ Resolve Barrier	Doesn't like taste, doesn't believe works well (has tried during coughing)

✓ Social Work Referrals

- ☑ Advocacy/Navigating the System
- ☑ Affordability of Medications
- ☑ Community/Medical/Dental Resource Assistance
- ☑ Financial Constraints
- ☑ Food Stamps/Food Pantry
- ☐ Housing
- ☐ Insurance/Benefit Questions
- ☑ Interpreter Services
  - portugese
  - Spoken language (if known)
- ☐ Legal Issues
- ☐ Medical Equipment Availability
- ☐ Mental Health
- ☐ Substance Abuse
- ☐ Transportation

☑ Other (only if no applicable choice above):

Cannot aford food for her and family

Notes / Comments

Mbr has leukemia and received bone marrow transplant over 2 years ago. When asked how HC could help she asked for assistance with basic needs; encouraged look into community resoures. She has trouble due to language barrier.

Results at Patient Level: Program to Date

Program to date, PHD and referred patients are:

- Easier to reach
- More likely to be receptive candidates to follow up calls
- More likely to have a key impact recorded

Patient Population	Patients Attempted	Reached (of Loaded)	Key Impact (of Reached)	Follow Up Scheduled (of Reached)
PHD	1,496*	53%	68%	46%
Referred Patients	1,658	58%	57%	53%
Claims-Identified Patients	6,533	34%	44%	38%

Data from program start through June 30, 2008.

*The methodology applied above reflects eligible patients with PHD and other referrals who were loaded into call campaigns on or before May 31st and who did not satisfy the exclusion criteria (patients loaded into call queue less than 30 days prior to June 30th, and patients with multiple campaign activities loaded in a 30 day period). Patients are categorized into the mutually exclusive groupings above in the order of Referred patient, PHD, or Claims-Identified patient, based on if the patient was ever sent as either a referral or PHD referral.

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Program Challenges

- Working with vendor to customize program for PHS unique population
- Achieving physician *buy-in*
- Lack of Health Coach access to detailed, updated medical information
- Transient Population
  - Invalid phone numbers
  - Insurance changes
  - Socioeconomic issues
- Data limitations, incomplete patient records
- Lag time between utilization and initial connected call
- Measuring Success
  - Outcomes measurement analysis
  - Managing regression

Program Success

- Built database systems/processes to systematically identify and enroll medically complex patients
- Initial outcomes analysis has shown a reduction in utilization and costs
- Achieved high-level of patient satisfaction
  - Offers 24/7 inbound call services
  - Staffed to engage 1,000 patients at any given time
- Processes tailored to meet the needs of the Medicaid/uninsured population are effective
  - Additional attempts to engage patients after 3 unsuccessful call attempts
    - Patient receives letter from Health Dialog with toll-free dial-in
  - Coach Communications allow Health Coach ↔ PCP communication
  - Social Work Referrals allow Health Coaches address patient needs without veering into CM

Partners HealthCare Connection *Adult* – Program Analysis

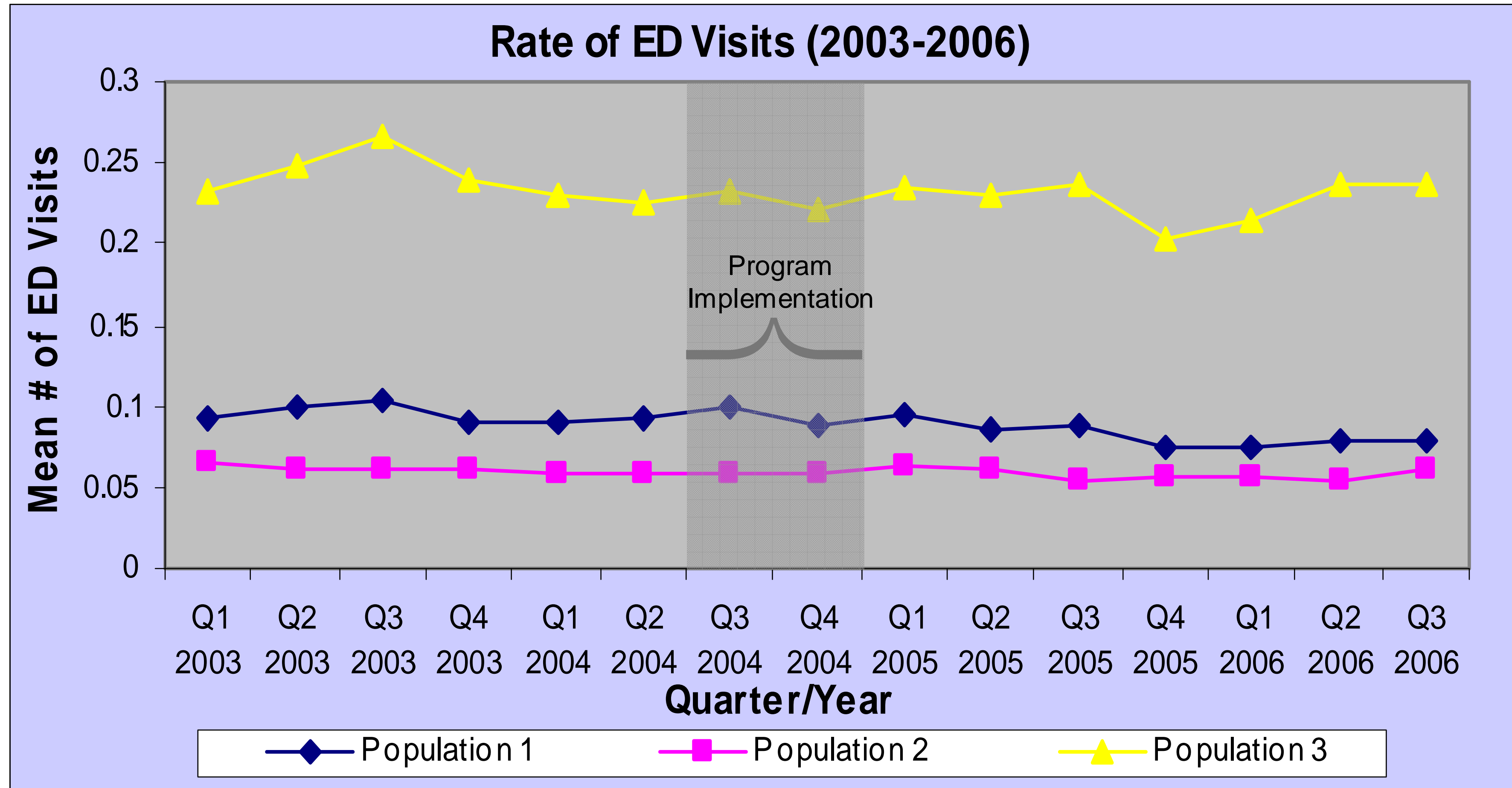
- MD and Patient Satisfaction Survey Findings
  - PCPs strongly support the idea of a non-physician health professional working with their patients outside their office (**92%**), but were neutral regarding Connection *Adult*
  - A majority of patients reported Health Coaches to be "very helpful" (**84%**) and their ability to manage their medical conditions are "much better" (**78%**)

Patient Satisfaction Survey Comment

"..I learned a lot of things and when she sent the video and I learned a lot ... when you receive a diagnosis that you don't like you can call your Health Coach and she can talk you through it. I don't know of any other program like this because you can't call the Hospital and ask them questions…"

- Next Steps
  - Complete independent outcomes analysis with University of Massachusetts, Center for Health Policy and Research
    - Determine if intervention has intended effect on service utilization and quality of care

Outcomes Analysis – Decrease in ED Visits



	Pop. 1	Pop. 2	Pop. 3
Mean	<.0001	.089	.0005
Slope	.033	.25	.13
Direction	▼	▼	▼

Mean ED visits for Population 3 dropped from 24.0 to 22.7 per 100 patients – **A decrease of 5.1%**

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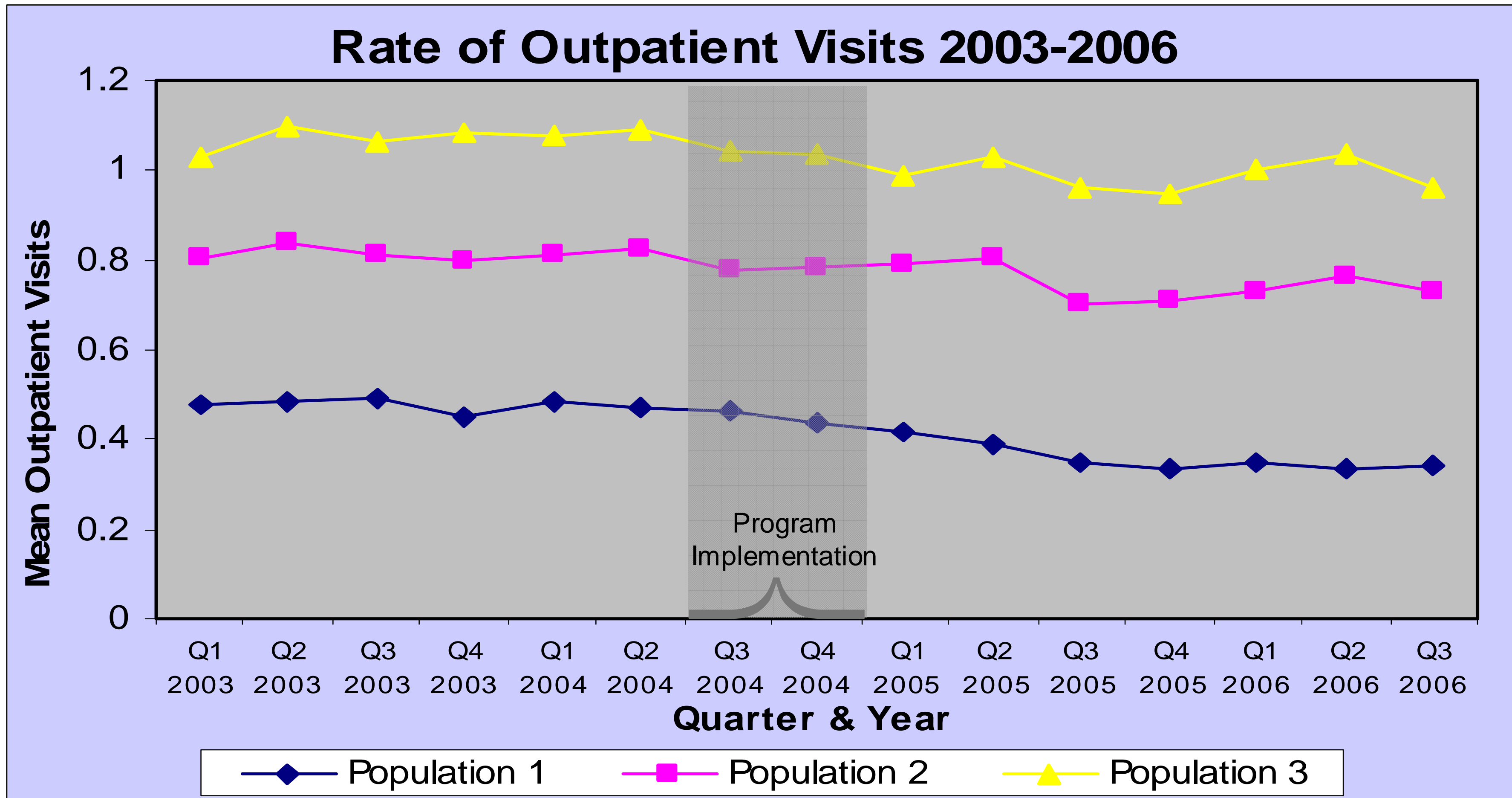
Outcomes Analysis – Decrease in OP Visits



	Pop. 1	Pop. 2	Pop. 3
Mean	<.0001	<.0001	<.0001
Slope	<.0001	.004	.071
Direction	▼	▼	▼

Mean OP visits for Population 3 dropped from 107.5 to 99.0 per 100 patients – **A decrease of 7.9%**

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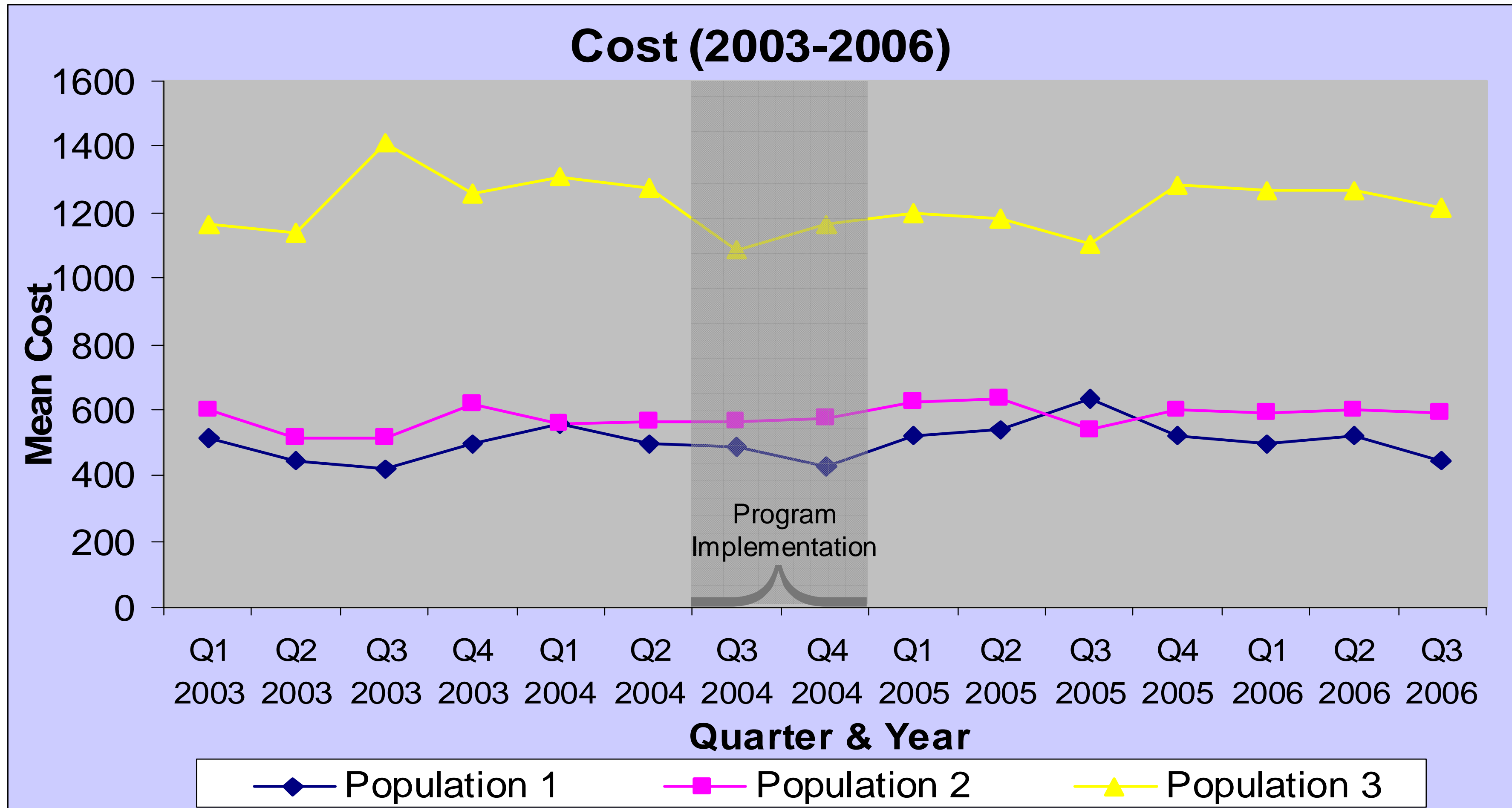
Outcomes Analysis – Decrease in Cost



	Pop. 1	Pop. 2	Pop. 3
Mean	<.0001	.90	.010
Slope	<.0001	<.0001	.009
Direction	▲	▲	▼

Mean cost for Population 3 **decreased by 3.5%**

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Current Statistics

- Over **10,100** PHS patients have been enrolled since program launched in July 2004
- Since inception, **6,811** patients have been engaged in health coaching
- **1,100** PHS physicians have one or more patients enrolled in Connection *Adult*
- Enrolled patients have had **24,163** inbound and outbound calls to date, an average of **2.4** calls per enrolled patient
- **658** videos and **5,017** pieces of educational literature have been distributed to patients
- **107** patients have had a Coach Communication *and* a Social Work Referral sent

Data as of August 2008

Partners HealthCare Connection *Pediatrics*

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Partners HealthCare Connection–*Pediatrics*

- Enrollment
  - Opt-out email notification sent to PCPs with eligible patients
    - PCP can decline services on behalf of patient
    - No response indicates a physician's willingness to enroll their patient
  - Patient receives welcome letter prior to initial coaching call
  - Process developed to ensure accuracy of guardianship identification

- *Typical* Connection Patient
  - A 6-year-old female of Spanish-speaking parents who has ADHD, developmental delays, and a seizure disorder
  - A 13-year old male living with his grandmother who has several urgent care visits for sports-related injuries

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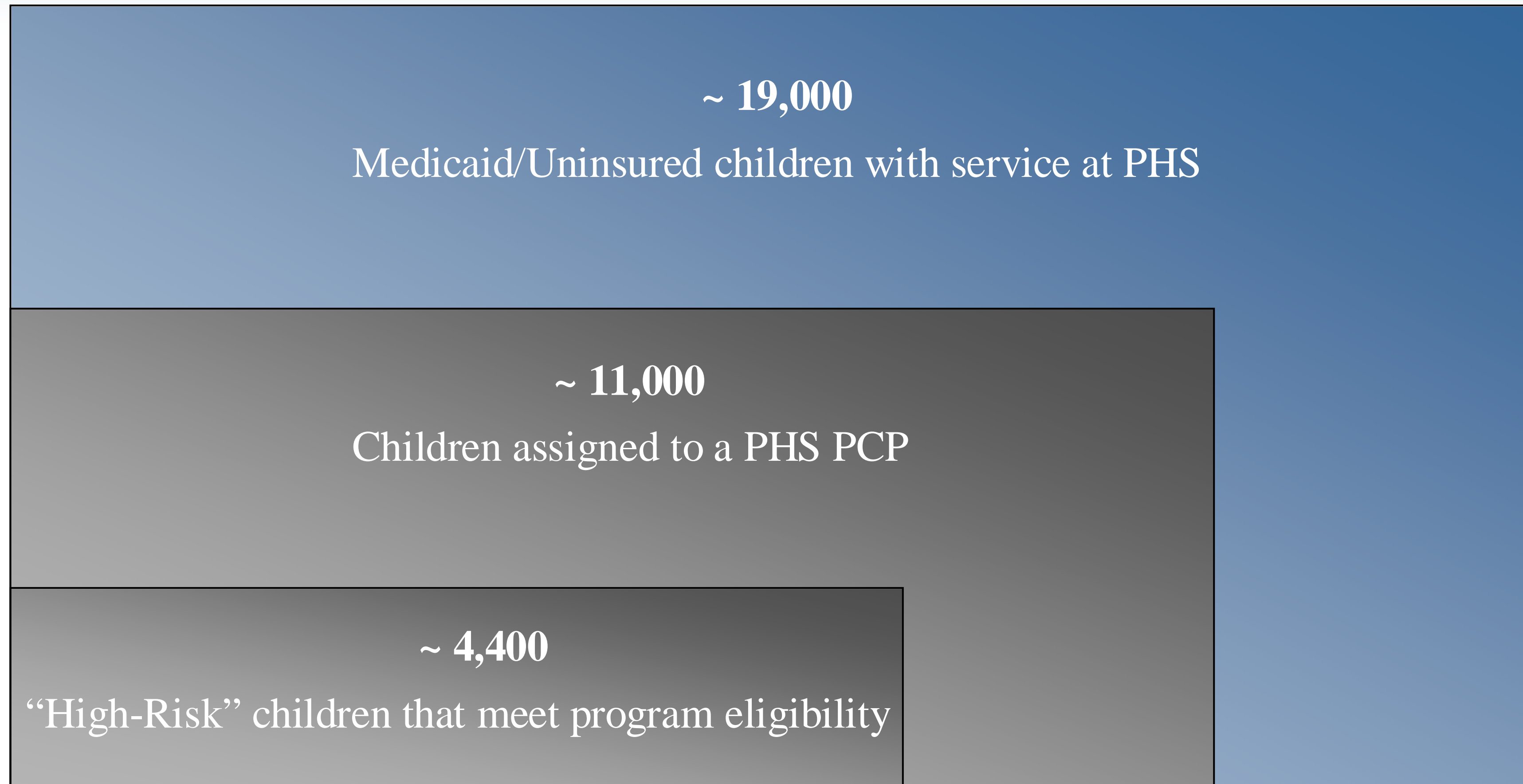
Pediatric Population Overview[1]



~ 400 parents/guardians currently working with a Health Coach

~ 640 parents/guardians have worked with a Health Coaching since 2007

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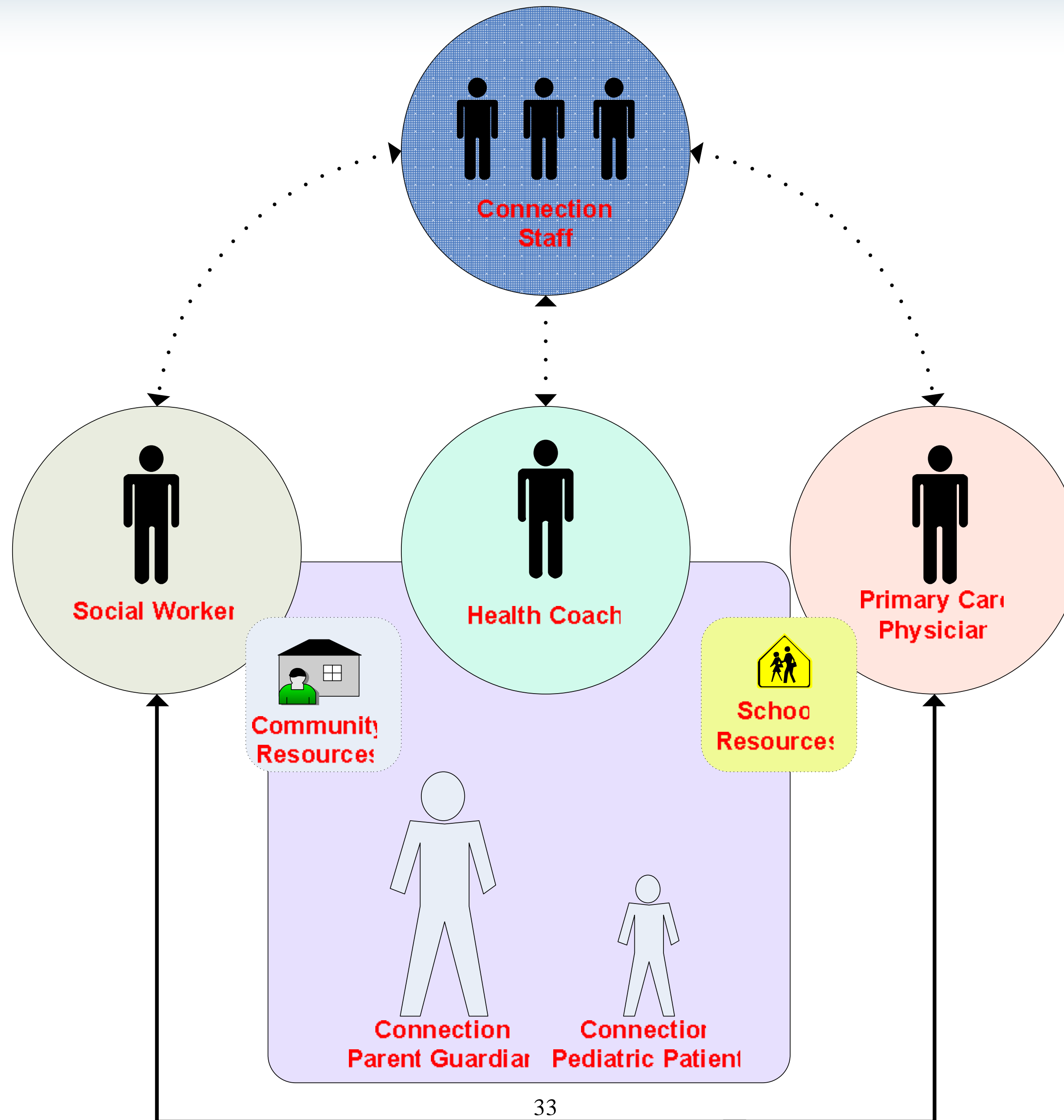
[1]Includes 12-months of billing data (7/1/08 – 6/30/08)

Who are the Medically Complex, Underserved?

- Chronically-ill
  - Without access to coordinated care programs
  - Those who visit multiple specialists
  - Obesity epidemic and associated complications
- Uninsured
- Below poverty level
- Frequent hospital utilization
- Children of compromised parents
  - Mentally, cognitively, developmentally, socially, etc
  - Parental custody conflicts, inconsistent guardianship issues
- Mental illness
- Cognitive, Developmental issues

Pediatrics Program Integration



Integrating with Providers

- Pediatric Coaches use real-time ED/IP notification, making outreach immediately following a recent utilization

- Communication with PHS Social Worker
  - Nurse Partners Pediatric Coaches have made **54** social work requests, referring **41 unique patients** (**6%** of patients ever engaged)
  - PHS Social Workers assist with:
    - Transportation
    - Community Resources
    - Affordability of medications
    - Insurance questions
  - PHS Social Workers contacted **88%** of the patients referred
  - Updates provided to Pediatric Coaches for future follow-up calls

Data as of August 2008

Integrating with Providers

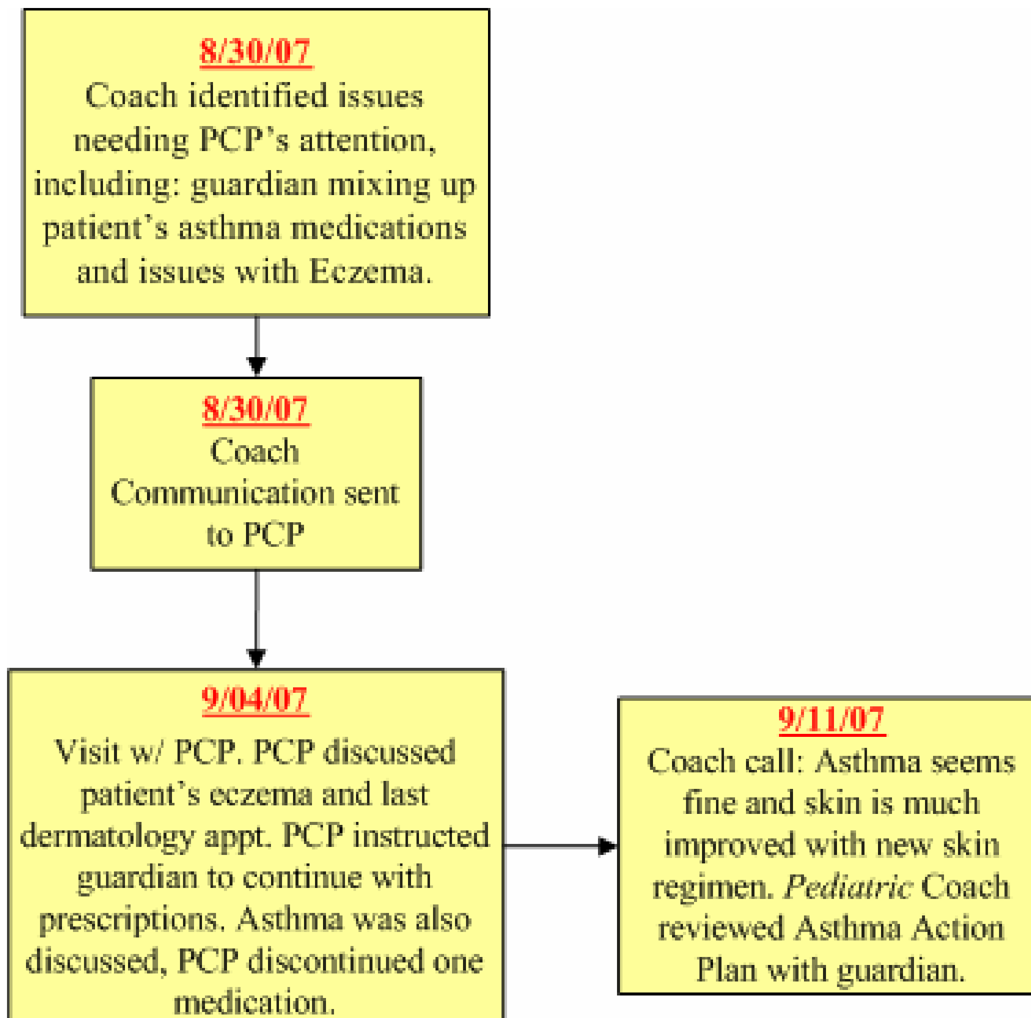
- Communication with Patient's PCP
  - Pediatric Coaches complete an initial Coach Communication for all enrolled patients
    - Subsequent Coach Communications alert PCPs of potential concerns
  - Nurse Partners has completed **693** Coach Communications, reaching **41 physicians** and **614 unique patients** (**96%** of patients ever engaged)
  - Coach Communications help PHS Pediatric PCPs work with their patient's parent/guardian in real-time

Data as of August 2008

Integrating with Providers - Coach Communication Case Study

8/30/07

Patient's guardian speaks with a Pediatric Coach (*Coach*)



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Program Challenges

- Significant number of Spanish speaking patients
- Pediatric Coaches may potentially "walk the line" of DM and CM, resulting in higher PMPM dollars
- Transient Population
  - Invalid phone numbers
  - Insurance changes
  - Socioeconomic issues
- Data limitations, incomplete patient records
- Lag time between utilization and initial connected call

Program Success

- Existing relationship with PHS PCPs
  - Physicians were receptive to program, enrolling **97%** of patients identified
- Access to electronic medical record to aid in coaching activity
- Operational team has direct access to coaching notes and call detail
- Appropriate management of unclear guardianship issues
- Real-time ED/IP notification
- Processes tailored to meet the needs of the Medicaid/uninsured population are effective:
  - Additional attempts to engage patients after 3 unsuccessful call attempts
    - Patient receives letter from Pediatric Coach with toll-free dial-in
  - Coach Communications allow Pediatric Coach ↔ PCP communication
  - Social Work Referrals allow Pediatric Coaches to address patient needs without veering into CM

Program Analysis

- MD Satisfaction Survey Findings
  - **96%** of respondents believe that non-physician health professionals can help guardians of medically complex children *improve care coordination* and *better manage their child's medical conditions*
  - **81%** of respondents believe that non-physician health professionals can help guardians of medically complex children *with useful decision support,* in order to *decrease inappropriate utilization*

MD Satisfaction Survey Comments

- *"I like that the calls are made by a familiar organization within PHS (nurse partners)"*
- *"I do think it is well designed and should work"*
- *"Compared to the Adult side of the program, I really like getting more specific report/feedback on what was discussed"*

- Next Steps
  - Complete patient satisfaction survey and begin planning outcomes analysis

Current Statistics

- **1,020** PHS patients have been enrolled since program launch in January 2007
- Only **4%** of patient guardians decline participation in Connection *Pediatrics*
- Since inception, **640** patient guardians have received a connected outbound call from a Pediatric Coach
- **43** PHS physicians have one or more patients enrolled in Connection *Pediatrics*
- **36%** of the phone call attempts made by Pediatric Coaches have resulted in a connected call
- Guardians of enrolled patients have had **1,521** inbound and outbound calls to date, an average of **1.5** calls per enrolled patient

Data as of August 2008

BIMA Health Partnership

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Program Genesis

- Over **50%** of medically complex Medicaid/uninsured patients have co-morbid substance abuse and/or psychiatric illness

- Inadequate treatment of these issues significantly impacts the medical treatment plan
  - Limited adherence to treatment recommendations
  - Frequent inpatient admissions
  - High utilization of ED services

- No existing care management program addresses unique needs of this population
  - Telephonic interventions less suitable for these patients

Our Hypotheses

- Comprehensive team-based management of medical and psychiatric conditions may improve care, quality of life, and utilization

- A consistent and experienced care team may enhance patient adherence to treatment

- Such a team should include clinicians familiar with and committed to the dual diagnosis patient:
  - Social worker
  - Consulting primary care physician
  - Consulting psychiatrist

- Collaborative work flows with hospital staff and community resources should enhance treatment success

Pilot Site – Brigham Internal Medicine Associates (BIMA)

- Large, adult primary care practice within PHS
- **35** faculty internists, **95** medical residents
- Services on site at Brigham and Women's Hospital (BWH)
- Patients typically admitted to BWH
- **29%** of patient population has Medicaid or is uninsured
- Social Worker deemed part of the care team in BIMA

BIMA Health Partnership

- Program Goal
  - Provide intensive care management to medically complex, dual diagnosis patients, in order to:
    - Increase treatment adherence
    - Improve quality of life
    - Decrease utilization

- Program Eligibility
  - Medicaid, uninsured or dually insured (Medicaid/Medicare)
  - Adult patients with chronic medical conditions plus substance abuse and/or mental health condition
  - At least 1 inpatient stay or 2 ED visits within a 12-month period

BIMA Health Partnership

- Enrollment
  - Opt-out email notification sent to PCP and, if applicable, outpatient psych provider
    - PCP/psych provider can decline services on behalf of patient
    - No response indicates willingness to enroll patient
  - Patient receives welcome letter and follow-up call to determine interest in enrollment
  - Enrollment goal set at 30 patients

- *Typical* BIMA Health Partnership Patient
  - A 55-year-old male with diabetes and upper GI bleeding, as well as EtOH, cannabis, and cocaine abuse
  - A 42-year-old female with asthma, gastrointestinal hemorrhage, EtOH abuse and depression

Role of Social Worker

- Assessment and referral for services
- Tangible assistance with immediate needs
- Patient advocacy

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Role of Social Worker

Assessment and Referral for Services

- Identify psychiatric/substance abuse needs
- Collaborate with medical and psychiatric providers to develop comprehensive treatment plan
- Optimize utilization of psychiatric resources within the community
  - Build relationships with community resources and psychiatric providers
  - Include all outpatient providers and relevant community resources in the creation of treatment plan
- Coordinate/communicate across continuum of care to increase adherence to psychiatric and medical treatment plans
- Identify and address barriers to compliance with treatment plan

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Role of Social Worker

Tangible Assistance with Immediate Needs

- Financial/Transportation Assistance
  - Grocery store gift cards
  - Dunkin Donuts gift cards
  - Train passes
  - Cab vouchers
- Clothing
- Medical supplies/organizational tools
  - Assistive devices (eg, shower chair)
  - Pill boxes
  - Appointment date books
- Housing assistance

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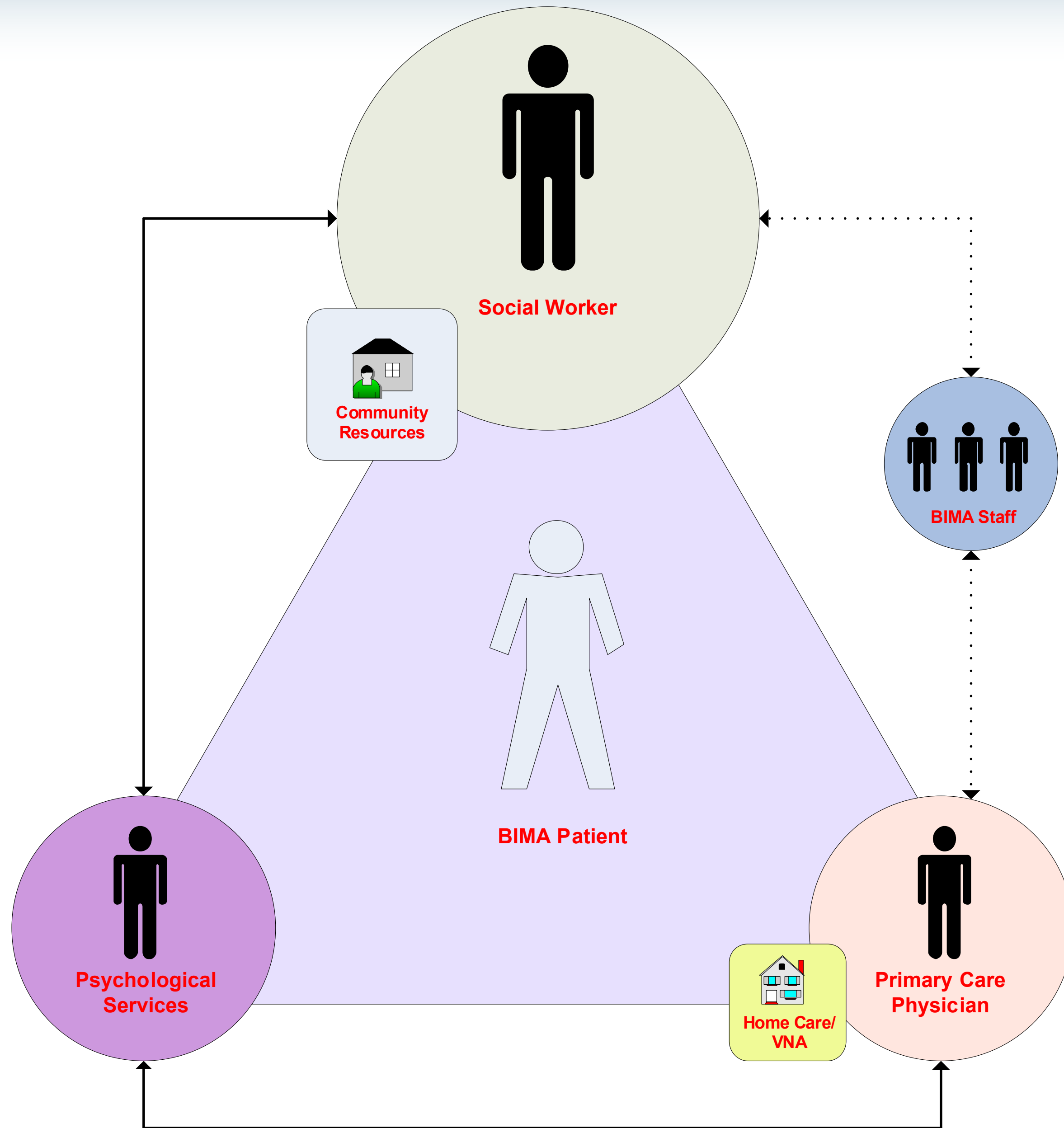
Role of Social Worker

Patient Advocacy

- Conducts home visits to assess environment and home care needs
- Provides supportive counseling focused on coping with chronic illness in the context of severe social stressors
  - Available by dedicated cell phone for direct calls from patients
- Encourages patient involvement in managing health care
  - Reminds patient of upcoming appointments
  - Provides patients with vouchers to assist with transportation
  - Accompanies patients to appointments as needed
  - Provides assistance with immediate financial needs
- Serves as trusted liaison between patient, PCP, and medical team during inpatient admissions

BIMA Program Integration



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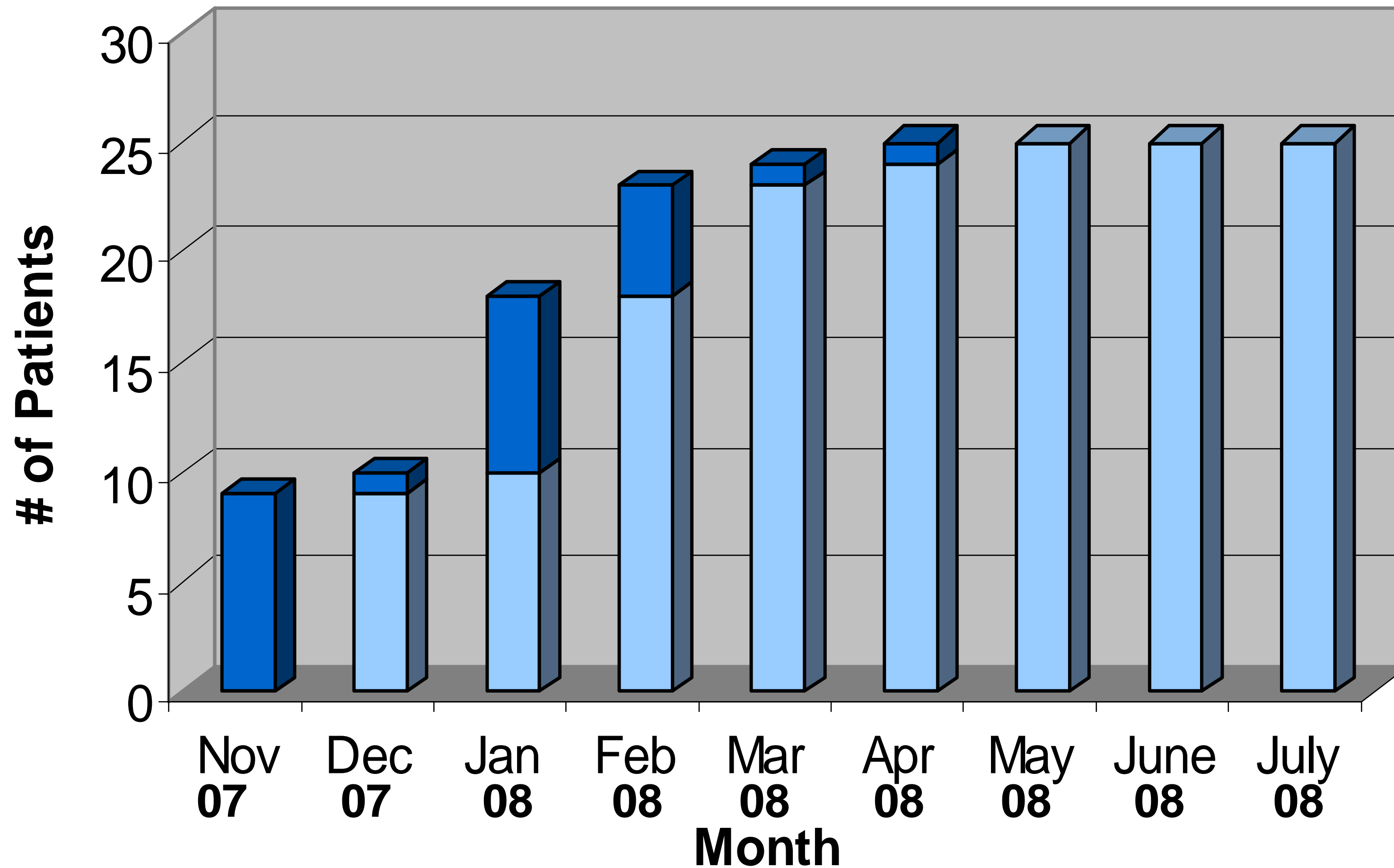
Data Collection and Workflow

- Access database tracks each patient in program
  - Patient goals/barriers to care
  - Visits/calls
  - Qualifying diagnoses and ED visits/inpatient admissions
  - Upcoming appointments and scheduled follow-up
  - Averted ED utilization
- Initial clinical assessment and follow-up information documented in patient's electronic medical record
- Social Worker automatically notified by pager when patient presents to the ED
- Social Worker available by dedicated cell phone to address patient needs

BIMA enrollment currently remains steady at **25** patients



Patients Enrolled During the Month

Cumulatively Enrolled Patients

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Case Discussion

Patient Background

- 55-year-old male with h/o DM, chronic pancreatitis, seizure disorder; also cocaine, marijuana and EtOH abuse
- Drinking binges last 4-7 days and typically end with a seizure
- Frequent BWH ED visits and inpatient admissions for uncontrolled seizures

Enrollment/Social Work Contacts

- SW has contacted patient 58 times in 9 months (32 visits; 26 calls)

Interventions

- SW accompanied patient to intake visit for outpatient EtOH treatment
- Patient engaged in outpatient EtOH tx for the first time (multiple prior referrals)
- SW provides sobriety support, coordinates appointments, encourages attendance

Outcomes

- Patient has had long spans of sobriety with intermittent minor relapses
- Patient started on Antabuse after requesting help from SW/PCP in avoiding EtOH
- 4 admissions + 4 ED visits in 9 months prior to enrollment→ 2 admissions + 0 ED visits in 9 months since

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Next Steps – Evaluation

Process Measures

- Evaluation to determine future process improvements
- Data points for evaluation will include:

Patient level statistics:

- Identification method
- # of visits/calls
- # of missed appointments
- # of days working w/BIMA HP team

Population level statistics:

- Population demographics
- Average # of qualifying ED/IP admits
- Average cost/inpatient risk
- Average # of calls/visits

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Next Steps – Evaluation

Outcomes Analysis

- After completion of year 1 pilot, October 2008

- Qualitative feedback
  - Patients
  - Providers

- Currently considering analysis design – some limitations:
  - Small enrollment numbers
  - Non-randomized intervention

- Data points for evaluation will include:
  - Cost
  - ED visits
  - Inpatient admissions
  - Re-admission

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Questions