PCMH in Academic Medical Homes
Using Population Management and a Team-based Approach to Care for our Sickest Patients

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Reena Gupta, and Elizabeth Davis, San Francisco General Hospital, UCSF
Thomas Morland, Kathie Huang, Alitheia Gabrellas; University of Pennsylvania;
Brenda Matti-Orozco, St. Luke’s – Roosevelt Hospital Center
Workshop Objectives

- To review the principles of population management which are central to a successful PCMH
- To describe the 7 key components of an effective multidisciplinary academic team
- To drill down on implementing care management in an academic practice: risk stratification and resource allocation
- To examine the role and education of residents in an ambulatory-ICU
- To address the question of funding a PCMH
- To answer your questions!
Principles of Population Management
Critical Components

- Defining covered patient population
- Risk assessment, stratification, tracking
- Proactive, accessible, integrated care
  - Patient Centered Medical Home
  - Collaborative “Neighborhood”
  - Effective management of care transitions
  - Effective behavioral health care
- Robust quality improvement program
  - Operational effectiveness
  - Clinical quality
  - Patient Satisfaction
- Integrated clinical and practice management systems
  - Link types of care, quality, and cost
Principles of Population Health
Tailoring care based on patient attributes

Spectrum of care delivered in PCMH

Focus on all patients
Includes healthier patients
Preventive care, healthy lifestyles,
Less complex comorbid illnesses
Health coaches
Behavioral health
Innovative access models
Service/quality drive payment

Focus on high risk patients
Built on chronic disease model
Central role of care manager
Multidisciplinary care team
Robust Behavioral Health
Social Work
Home Visit Program
Transitional care
Cost saving critical driver
Staffing the PCMH
Designing care teams based on patient needs

<table>
<thead>
<tr>
<th>Role</th>
<th>Interview Range</th>
<th>MGMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider FTE</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Clerical</td>
<td>0.18 – 1.85</td>
<td>1.12</td>
</tr>
<tr>
<td>MA/Tech/LPN</td>
<td>0 – 1.66</td>
<td></td>
</tr>
<tr>
<td>RN</td>
<td>0.21 – 1.78</td>
<td>1.33</td>
</tr>
<tr>
<td>Case Manager</td>
<td>0 – 1.0</td>
<td></td>
</tr>
<tr>
<td>NP/PA</td>
<td>0 – 1.36</td>
<td>0.23</td>
</tr>
<tr>
<td>Health coaches</td>
<td>0 – 0.25</td>
<td>0</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>0 – 0.53</td>
<td>0</td>
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<tr>
<td>Social worker</td>
<td>0 – 0.50</td>
<td>0</td>
</tr>
<tr>
<td>Mental health</td>
<td>0 – 0.83</td>
<td>0</td>
</tr>
<tr>
<td>Nutritionist</td>
<td>0 – 0.20</td>
<td>0</td>
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<tr>
<td>Data analyst</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>2.68</td>
</tr>
</tbody>
</table>
Principles of Population Management
Importance of Care Management

- Analysis of CMS’s Medicare Coordinated Care Demonstration
- A randomized, controlled trial with 15 participating programs
- 4 of 11 programs reduced hospitalizations of high risk patients over a six year period, by 10.7% (p=0.001, range 8%-33%)
- 6 approaches present in 3 of 4 successful programs
  - Face-to-face contact and supplemental phone care between patients and care coordinator
  - Periodic contact between physicians and care coordinators
  - Care coordinators serve as communication hub for providers
  - Evidence-based patient education programs
  - Comprehensive medication management program
  - Comprehensive transitional care after hospitalization

Brown, RS, Peikes D, Pederson G et al. Health Affairs, 2012;31:6
Principles of Population Management
Integrating Behavioral Health

- 27%-43% prevalence rate of psychiatric disorders in PC
- 5%-10% point prevalence of depression in PC, higher in patients with chronic illness (DM 12%-18%, CAD 15%-23%)
- 20% of patients have ≥ 1 anxiety disorder
- Patients with psychiatric dx and comorbid medical disorders have more severe medical symptoms, worse outcomes, higher costs
- PCPs provide substantial psychiatric services, though inadequate treatment common
- Integration of psychiatric care into medical home offers opportunities to improve quality of medical and psychiatric care
- Collaborative Care and Co-location Models presented as options

Designing a Multidisciplinary Team in An Academic PCMH

Reena Gupta, MD
Elizabeth Davis, MD
San Francisco General Hospital, UCSF
SNAPSHOT

- Active Patients: 6500+
  - Urban, low-income, ethnically diverse
  - 39% Medicaid, 28% Medicare
  - 32% Uninsured
  - High medical and social complexity –
  - 20% admission rate
- Providers: 83
  - 53 IM residents
  - 23 GIM faculty
  - 7 NPs

- Level 3: 5%
  - Complex healthcare needs
  - Complex Care Management Team: RN, SW, Health Coach

- Level 2: 80%
  - Multiple chronic conditions: diabetes, HTN, COPD
  - Primary Care Team: PCP, continuity NP, RN, MA, Clerk, Behaviorist

- Level 1: 15%
  - Uncomplicated chronic disease or risk factors: obesity, pre-diabetes
  - Primary Care Team: PCP, continuity NP, RN, MA, Clerk, Behaviorist
Academic Clinic Teams: 7 Key Components

1. Team Structure
   - Consistent Teamlets
2. Role Re-definition
   - Coaching new workflows
3. Leveraging Continuity NP/ RN
4. Effective Team Communication
   - Huddles, Team meetings, Feedback
5. Real-time, Actionable Team Data
6. Integrated Behavioral Health
7. Complex Care Management
# Team Staffing Ratios in High-Functioning Medical Homes

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Patient Panel Size</th>
<th>Provider FTE</th>
<th>RN FTE</th>
<th>MA FTE</th>
<th>Clerk FTE</th>
<th>Other support staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-teaching clinics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VA PACT</td>
<td>1200</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.5 SW, 0.3 pharmacist, 1 health promotion manager, 1 health behavior coordinator</td>
</tr>
<tr>
<td>SouthCentral Foundation, Alaska</td>
<td>1200-1400</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1 (care support)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For 5 teams: 2 behaviorists, 1 dietician, 2 NPs</td>
</tr>
<tr>
<td><strong>Academic teaching clinics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VA ED-PACT</td>
<td>1200</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.5 SW, 0.3 pharmacist, variable NP</td>
</tr>
<tr>
<td>OHSU FM Residency clinic</td>
<td>900-1300</td>
<td>1.3-1.8</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1 Panel manager</td>
</tr>
<tr>
<td>Group Health Residency clinic</td>
<td>1800</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
<td>For 3 teams: 1 RN Care Manager, 1 pharmacist</td>
</tr>
</tbody>
</table>
1. Team Structure: Residency Clinics
SFGH General Medicine Clinic Example

Patient Panel 2200

- Continuity NP (1 FTE)
- RN (1 FTE)
- Behaviorist (1 FTE)
- Clerks (2 FTE)

Teamlet 1
- MA (1 FTE)
- 1 Attending: 2 residents
- 1 Attending: 2 residents
- 1 Attending: 2 residents

Teamlet 2
- MA (1 FTE)
- 1 Attending: 2 residents
- 1 Attending: 2 residents
- 1 Attending: 2 residents

Teamlet 3
- MA (1 FTE)
- 1 Attending: 2 residents
- 1 Attending: 2 residents
- 1 Attending: 2 residents

Other support staff for all 3 care teams:
care management team, pharmacists, nutritionists

Staffing Ratios- 2200 patient panel: 1 NP: 1 RN: 1 Behaviorist: 2 Clerks: 3 MAs:
8-9 Attendings: 16-18 Residents = 2 provider FTE
Culture Shift: from I to We

Patient → Provider → Team A Patient → RN → Behaviorist → MEA → Clerk → Continuity NP
2. Team Role Definition: Right Person, Right Work

- Define all tasks being done
- Define all tasks which need to be done
- Negotiate who should be doing these
  - If add a task, take something off plate
- Create workflows for new processes
- Coach team members in new roles
  - Every team needs a coach

Standard work for roles of every member on team

**ONGOING PROCESS**
3. Leverage Team NP/ PA/ RN for Continuity and Access

- Continuity is major challenge to team-based care in academic clinics

- GMC NP Continuity Model:
  - 1 Continuity NP per care team
  - Provide same day access for team patients when PCP not in clinic
  - Continuity follow-up visits if needed in between PCP visits

- Achieved 89% continuity of patient visits with either team NP or PCP
# 4. Effective Team Communication

## Huddle Checklist

### PART 1:
**Entire Team: Led by team RN**

- Brief checkin – How is staffing? Any issues/announcements for the day?
- RN - Any patients who are complex / nursing needs?
- Behavioral health - Any patients with behavioral health needs?
- Clerk - Review confirmation calls and any open slots

### PART 2:
**MA – Provider Teamlets: Led by MA**

- MEA reviews chart prep and healthcare maintenance needs
- Provider identifies any additional patient needs i.e. interpreter, labs, EKG, pap
5. Real-time Actionable Team Data

MA Chart Prep (by team)

RN Visits (by team)

Clerical confirmation calls

No Show Rate (by team)
6. Integrated Behavioral Health

Warm Hand-offs to Team Behavioral Health Clinician
GMC Primary Care Team Outcomes

- **Consistent teams** that huddle daily
- **Continuity** increased from 43% to 89% of visits with either PCP or team continuity NP
- **Access:** Third next available appointment (TNAA) was 58 days for appt with PCP, now TNAA is 7 days for follow-up appt with team NP
- **No show rate** decreased 30% with clerical confirmation calls
- **Clinical quality** scores: consistent improvement

**Resident Survey:**
- “My patients receive good continuity of care” improved 24%->100%
- Felt improved quality of care with abnormal labs (18 to 88%), prevention of errors (33 to 73%), and patient access to clinic (18 to 88%)
General Medicine Clinic
San Francisco General Hospital, UCSF

Level 3: 5%
- Complex healthcare needs

Complex Care Management Team:
- RN, SW, Health Coach

Level 2: 80%
- Multiple chronic conditions: diabetes, HTN, COPD

Primary Care Team:
- PCP, continuity NP, RN, MA, Clerk, Behaviorist

Level 1: 15%
- Uncomplicated chronic disease or risk factors: obesity, pre-diabetes

Primary Care Team:
- PCP, continuity NP, RN, MA, Clerk, Behaviorist
7. Care Management

- In 2011, 2.7% of GMC patients accounted for 35% of admissions
- The majority of these admissions were for ambulatory sensitive conditions
- Providers felt overwhelmed caring for these patients
Referral Process

- Patients with three or more admissions
- Provider/staff referral
- Health Plan referral based on utilization
- Exclusion criteria: participation in another case management program
<table>
<thead>
<tr>
<th>Team member</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN Care Manager</td>
<td>• Initial assessment and Care Plan</td>
</tr>
<tr>
<td></td>
<td>• Complex clinical issues and medication issues</td>
</tr>
<tr>
<td></td>
<td>• Clinical back-up for Health Coach</td>
</tr>
<tr>
<td>Medical Assistant</td>
<td>• Outreach to patients</td>
</tr>
<tr>
<td>Health Coach</td>
<td>• Coaching toward care plan goals</td>
</tr>
<tr>
<td></td>
<td>• Focus on self-management</td>
</tr>
<tr>
<td></td>
<td>• Primary point of contact for patients</td>
</tr>
<tr>
<td>Provider (Resident, attending, or NP)</td>
<td>• Refer patients</td>
</tr>
<tr>
<td></td>
<td>• Collaborate with CM team</td>
</tr>
<tr>
<td></td>
<td>• Titrate medications, plan diagnostic work ups</td>
</tr>
<tr>
<td>Coordinator</td>
<td>• Manages referrals, data tracking, reporting</td>
</tr>
<tr>
<td>Social Worker</td>
<td>• Referrals to entitlements and community-based programs</td>
</tr>
<tr>
<td>Physician CM lead</td>
<td>• Program development and evaluation</td>
</tr>
<tr>
<td></td>
<td>• Clinical back-up to team</td>
</tr>
<tr>
<td></td>
<td>• Lead quality improvement</td>
</tr>
</tbody>
</table>
**GMC Care Management Program: Enrollment and Levels of Care**

**ASSESSMENT:** The team RN and health coach conduct a comprehensive assessment, either in the home, in clinic, or by phone. From this information, they develop a care plan and assign the patient a level of care.

- **WAIT LIST**
- **INITIAL CONTACT AND CHART REVIEW**
- **ASSESSMENT**
  - CRITICAL: Intensive case mgmt in 1st and 2nd wk post-discharge.
  - LEVEL 1: > or = 1x/wk check-ins
  - LEVEL 2: Check-ins every 2 wks
  - LEVEL 3: Check-ins every 3 wks
  - LEVEL 4: Monthly check-ins
  - LEVEL 5: Pt calls team PRN
  - GRADUATE: Pt graduated from program

**LEVELS OF CARE:** The assigned level of care determines the intensity of our care management for each patient. Patients can move up and down the levels of care at any time depending on need.

- **PT DECLINED**
- **HAS OTHER SERVICES**

<table>
<thead>
<tr>
<th></th>
<th>Year prior to enrollment in CM</th>
<th>During CM</th>
<th>Percent reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital days per year per patient</td>
<td>9.37</td>
<td>5.75</td>
<td>39%</td>
</tr>
<tr>
<td>ED Visits per year per patient</td>
<td>1.48</td>
<td>1.02</td>
<td>31%</td>
</tr>
</tbody>
</table>

Utilization data for patients in CM for > 6 months (n=27)
Resident and Provider Experience

- Resident education: Pre-clinic conferences, home visits with care management team
- Resident QI projects
- All providers surveyed thought quality of care improved with care management
- "The largest impact that having teams at the GMC has had on me is this feeling that I'm not on my own advocating and caring for our patients--and that has been a huge emotional burden lifted."
Risk Stratification & Resource Allocation based on Risk

Brenda Matti – Orozco, MD
St. Luke’s – Roosevelt Hospital Center
Primary Care Physician/ Resident takes lead
Identify population of focus (i.e. diabetes, CHF)
Determine risk stratification method
Apply risk stratification

Identify high-risk/ highest risk patients
Assign to care manager

Personalized based on Patient assessment
In collaboration with PCP, patient, family

Risk stratification process is dynamic. Patient’s risk and plan of care may change over time.
## Identification of High-Risk Patients

### Predictive Models/Tools
- UCSD’s Chronic Illness and Disability Payment System (CDPS) and Medicaid Rx (MRX)
- Johns Hopkins’ Adjusted Clinical Groups (ACG)
- Charlson Comorbidity Index
- Probability of Repeated Admission (Pra™ and PraPlus™): A Health Risk Screening Tool for Seniors
- Washington State’s Predicting Risk Intelligence System (PRISM)
- Vulnerable Elders Survey (VES-13)

### Risk Factors
- ED utilization
- Prior health service utilization
- Chronic illness burden
- Disease severity
- Clinician referrals
- Health risk assessments: self-administered or clinician-administered
- Functional status
- Behavioral health status
- Social determinants of health
<table>
<thead>
<tr>
<th>RISK CHARACTERISTICS</th>
<th>LOW</th>
<th>MEDIUM (2 points)</th>
<th>HIGH (3 points)</th>
<th>HIGHEST (4 points)</th>
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</thead>
<tbody>
<tr>
<td>Severity of Illness/ Risk of Mortality</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>Highest (likely to die in 6 months)</td>
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<tr>
<td># Chronic Diseases</td>
<td>0 – 1</td>
<td>&lt; 3</td>
<td>≥ 3</td>
<td>≥ 3</td>
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<tr>
<td>Behavioral/ Mental Health Co-morbidities</td>
<td>0</td>
<td>Depression Psych Diagnosis</td>
<td>Depression Psych Diagnosis Substance Abuse</td>
<td>Depression Psych Diagnosis Substance Abuse Dementia</td>
</tr>
<tr>
<td>Self-Care/ Functional Status</td>
<td>Independent Self-directed</td>
<td>Minimal assistance with ADL/ IADL</td>
<td>Moderate assistance with ADL/ IADL</td>
<td>Total Care Cognitive impairment</td>
</tr>
</tbody>
</table>

**INTERVENTIONS BASED ON RISK CATEGORY**

- **Disease Management**
  - LOW: PCP/ PCIM Resident
  - MEDIUM: PCP/ PCIM Resident + Specialist
  - HIGH: PCP/ PCIM Resident + Specialist
  - HIGHEST: PCP/ PCIM Resident + Specialist

- **Coordination Support**
  - LOW: Navigator/ Patient Care Liaison
  - MEDIUM: Navigator/ Patient Care Liaison
  - HIGH: Navigator/ Patient Care Liaison
  - HIGHEST: Navigator/ Patient Care Liaison

- **Self-Management**
  - LOW: Health Coach/ CDE + Home Care
  - MEDIUM: Health Coach/ CDE + Home Care
  - HIGH: Health Coach/ CDE + Home Care
  - HIGHEST: Health Coach/ CDE + Home Care

- **Care Management**
  - LOW: 0
  - MEDIUM: 0
  - HIGH: Care Manager
  - HIGHEST: Care Manager

- **Symptom Management/ Goals of Care**
  - LOW: 0
  - MEDIUM: 0
  - HIGH: 0
  - HIGHEST: Palliative/ Hospice
Risk-Stratified Care Management

- Periodic and systematic health risk assessment
- Using criteria from multiple sources to develop a personalized care plan
  - Assist in predicting health care needs and gaps in appropriate preventive and chronic care services
  - Identify needs for care coordination, intensive care management, or collaboration with community resources
- Likely to be embedded in future payment models

Risk-Stratified Care Management & Coordination, AAFP, 2013
SLRHC CARE MANAGEMENT
Based on Geisinger Health Plan Model

Comprehensive Risk Assessment

ASSESS
Function
Cognition
Safety
Directives
Barriers
Gaps

COORDINATE
DME, resources
Care Transition
Medications
Preventive Care

Coordinate Within Medical Neighborhood

Provide Support

EDUCATE/ TRAIN SELF-MANAGEMENT
Diet, Exercise
Chronic Diseases

Exacerbation Management Protocol

Manage Disease
CHF, COPD
CKD, Asthma
DM, CVD

PCP/ Specialist Collaboration

INTERVENE & DOCUMENT
Contact
Referral
Risk Status
Tracking

Phone Calls
Post-DC Appointments
Frequent Touches

Provider – LED
Team – Based
Care Management

CARE MANAGER
Stratifying Patients to Appropriate Resources

- **LEVEL 1 LOW RISK**
  - Primary Care Physician/ Resident
  - Patient Navigator/ Care Liaison

- **LEVEL 2 MEDIUM RISK**
  - DISEASE MANAGEMENT: Home Care Services, Multidisciplinary Team, Transitional Care/ Post-Discharge

- **LEVEL 3 HIGH RISK**
  - CARE MANAGEMENT: Comprehensive Complex Care, Home Visits, Symptom Management

- **LEVEL 4 HIGHEST RISK**
  - INTENSIVE CARE MANAGEMENT: Palliative Care/ Hospice
  - PALLIATIVE CARE/ HOSPICE: Home Care Services, Multidisciplinary Team, Transitional Care/ Post-Discharge
  - Specialists, Decision Support, Self-Management & Education, Health Coach
  - Primary Care Physician/ Resident, Patient Navigator/ Care Liaison
SLRHC – Ryan Health Network
Hospital – Medical Home Demonstration Program

W.F. Ryan CHC
TEAM A
PRECEPTOR
3 RESIDENTS
1 Med Student

1 NURSE
1 Med Asst

Care Manager, SW, Health Coach

RYAN/Adair CHC
TEAM B
PRECEPTOR
3 RESIDENTS
1 Med Student

1 NURSE
1 Med Asst

Care Manager, SW, Health Coach

Ryans/Chelsea-Clinton CHC
TEAM A
PRECEPTOR
3 RESIDENTS
1 Med Student

1 NURSE
1 Med Asst

Care Manager, SW, Health Coach

TEAM B
PRECEPTOR
3 - 4 RESIDENTS
1 Med Student

1 NURSE
1 Med Asst

Care Manager, SW, Health Coach

Patient Care Liaison/ Patient Care Navigator

Goal: All Sites PCMH Level 3 (2011) | Total 158 Medical Residents
Ambulatory ICU in a Resident Clinic

Thomas Morland, MD
Kathie Huang, MD
Alithea Gabrellas, MD

Hospital of the University of Pennsylvania
Primary Care Track Residency Program
Penn Center for Primary Care: Our Population

- Predominantly West Philadelphia/University City zip codes

- Average household income $30-50,000 per year

- ~50% of patients are African-American or Asian
Medically Complex Patients

Patients skewed toward higher mortality decile counts
Ambulatory ICU Pilot Project

- Started as a QI initiative in 2011-2012 created by 6 residents in the junior and senior classes of the UPenn Primary Care IM track

- Enrolled 1-3 patients per resident who were high-utilizers of the ER or hospital system in a primary care based care management intervention designed and run by the residents
Our Clinic Model

6 Residents
1 Pharmacist
1 Social Worker

11 Attendings  21 Residents
4 MAs  2 RNs  2 LPNs
2 Pharmacists  1 SW  1 NP

Ambulatory ICU
8-9 High-Utilizing Patients

Resident Clinic
Level III PCMH
7112 Patients
Ambulatory ICU

40 Minute Intake Visit

- Patients selected at resident discretion
- Patient/provider goals identified, Care plan established
- Bi-Weekly phone calls
- SW/Pharmacy referrals
- Buddy system: 2 residents in block schedule ensures continuity
Anecdotal Success

- COPD patient with multiple admissions per month now with >2 years since last admission

- Young woman with poorly controlled diabetes who miscarried twice from severe hyperglycemia now with an A1c of 7.1

- Residents and patients also reported increased satisfaction with the level of care provided

- Initial QI project not formally studied
Curriculum Project with A-ICU

- In 2012-2013 three residents involved in the initial pilot project created an experimental QI curriculum to be taught to the junior resident class

- Used the framework of the PCMH to engage residents in learning about quality improvement and novel health care delivery structures

- Involved didactic lectures, review of personal and group performance data and enrolling patients in the ambulatory ICU
National Goals for Resident Learning in the Patient-Centered Medical Home

- The 2011 SGIM PCMH Education Summit competency work group suggested 25 entrustable professional activities (EPAs) for residents using the 2011 NCQA PCMH standards as an organizing framework.
# UPenn Curriculum: Learning Objectives in the A-ICU

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Attitudes</th>
<th>Skills/Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Understand key components of A-ICU and/or case management strategies for high utilizers</td>
<td>• View high utilizers as a group with some potential for positive patient-centered intervention</td>
<td>• Work effectively in team-based environment</td>
</tr>
<tr>
<td>• Understand roles of members of multidisciplinary team</td>
<td></td>
<td>• Demonstrate ability to identify high risk patients and follow them more closely</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Effectively manage key conditions associated with high rates of readmission, including CHF and COPD</td>
</tr>
</tbody>
</table>
Baseline Knowledge and Attitudes

- Survey administered to junior class (N=6)

- Knowledge
  - Six of six residents had heard of PCMH
  - Zero of six residents could distinguish PCMH vs. ACO on two questions related to structure and finance

- Attitudes
  - Residents rated the impact of the PCMH on their interest in clinical primary care as 4.0 on a five point scale
  - Residents rated their level of preparedness to lead a modern primary care practice as 2.6 on a five point scale
Difficulties Implementing the A-ICU

- Difficulty defining inclusion criteria
  - Including patients who don’t need it
  - Excluding patients who do need it

- Scheduling is challenging (High utilizer = high no show rate)

- IRB issues: is an A-ICU standard of care or an experiment?

- Residents trying to take on too many care management roles
  (Doctors can’t do it alone)
Lessons Learned

• Figure out ways to identify and assign patients to residents early in the year (i.e. inpatient “nurse care connectors”)

• Train support staff to take on more of the care management roles so that residents can learn to be leaders of care management teams

• Structure project to allow for rapid cycle innovation
Conclusions

- Population management and case management can be successfully applied to academic clinics

- The role of residents in these efforts is unclear: should residents be learning the nuts and bolts of care management or be team leaders?

- A consensus is emerging regarding learning objectives

- Further study is needed to validate methodology for teaching and evaluating residents in core competencies
“Achieving high value for patients must be the overarching goal of health care delivery, with value defined as the health care outcomes achieved per dollar spent.

“...value is defined as outcomes relative to cost...”

“...The only way to measure value, then is to track patient outcomes and costs longitudinally..”

Porter ME. What Is Value in Health Care  NEJM 2010;363:26
## Funding the PCMH
### Augmented Medicaid Capitation Payments

<table>
<thead>
<tr>
<th>PCMH Criteria</th>
<th>PCMH Level</th>
<th>Fee-for-Service Add-on</th>
<th>Managed Care PMPM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Article 28 Clinics</td>
<td>Office-based Practitioners</td>
</tr>
<tr>
<td><strong>Effective April 1, 2013</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognized under <strong>2008</strong> PCMH Criteria</td>
<td>Level 1</td>
<td>NA(1)</td>
<td>NA(1)</td>
</tr>
<tr>
<td></td>
<td>Level 2</td>
<td>NA(2)</td>
<td>NA(2)</td>
</tr>
<tr>
<td></td>
<td>Level 3</td>
<td>$16.75</td>
<td>$21.25</td>
</tr>
<tr>
<td>Recognized under <strong>2011</strong> PCMH Criteria</td>
<td>Level 1</td>
<td>NA(1)</td>
<td>NA(1)</td>
</tr>
<tr>
<td></td>
<td>Level 2</td>
<td>$11.25</td>
<td>$14.25</td>
</tr>
<tr>
<td></td>
<td>Level 3</td>
<td>$16.75</td>
<td>$21.25</td>
</tr>
</tbody>
</table>

(1) On January 1, PCMH add-on payments for Level I recognition were terminated
(2) Effective April 1, providers recognized under the 2008 NCQA criteria are ineligible for Level 2 add-on payments
(3) Effective April 1, providers recognized under the 2008 NCQA criteria receive reduced Level 3 Managed Care add-on payments

Funding the PCMH
Pay for Performance: Medicaid Incentives

<table>
<thead>
<tr>
<th>Measures</th>
<th>Cut Points</th>
<th>Weight</th>
<th>Min Den</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 Star</td>
<td>3 Star</td>
<td>4 Star</td>
</tr>
<tr>
<td>QARR/HEDIS MEASURES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Care Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes Care: Hemoglobin A1c (HbA1c) Testing</td>
<td>87%</td>
<td>88%</td>
<td>91%</td>
</tr>
<tr>
<td>Diabetes Care: LDL-C Screening</td>
<td>82%</td>
<td>86%</td>
<td>90%</td>
</tr>
<tr>
<td>Diabetes Care: Nephropathy</td>
<td>83%</td>
<td>85%</td>
<td>87%</td>
</tr>
<tr>
<td>Diabetes Care: Eye Exam</td>
<td>60%</td>
<td>64%</td>
<td>66%</td>
</tr>
<tr>
<td>HIV Comprehensive Care: Engaged in Care</td>
<td>76%</td>
<td>85%</td>
<td>89%</td>
</tr>
<tr>
<td>HIV Comprehensive Care: Viral Load Monitoring</td>
<td>55%</td>
<td>68%</td>
<td>74%</td>
</tr>
<tr>
<td>HIV Comprehensive Care: Syphilis Screening</td>
<td>50%</td>
<td>63%</td>
<td>67%</td>
</tr>
<tr>
<td>Cholesterol Management LDL-C Testing</td>
<td>85%</td>
<td>90%</td>
<td>93%</td>
</tr>
<tr>
<td>Monitoring for Patients on Persistent Meds: Total</td>
<td>88%</td>
<td>90%</td>
<td>91%</td>
</tr>
<tr>
<td>Use of Spirometry Testing in The Assessment and Diagnosis of COPD¹</td>
<td>38%</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis¹</td>
<td>72%</td>
<td>77%</td>
<td>81%</td>
</tr>
<tr>
<td>Asthma Medications 3+ Controlling Events - (5-64)</td>
<td>77%</td>
<td>78%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Maximum Incentive
2012: $1.75M

Access and Preventive Care: 9 measures
Acute Care: 3 measures
Chronic Care Management: 12 measures
Patient Satisfaction: 6 questions
## Funding the PCMH

### Pay for Performance: Medicare Incentives

<table>
<thead>
<tr>
<th>Measures</th>
<th>Cut Points</th>
<th>Weight</th>
<th>Min Den</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEDIS MEASURES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Care Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes Care: Hemoglobin A1c (HbA1c) testing</td>
<td>79%</td>
<td>82%</td>
<td>85%</td>
</tr>
<tr>
<td>Diabetes Care: LDL-C Screening</td>
<td>79%</td>
<td>82%</td>
<td>85%</td>
</tr>
<tr>
<td>Diabetes Care: Nephropathy</td>
<td>76%</td>
<td>84%</td>
<td>85%</td>
</tr>
<tr>
<td>Diabetes Care: Eye Exam</td>
<td>48%</td>
<td>56%</td>
<td>64%</td>
</tr>
<tr>
<td>Cholesterol Management LDL-C Testing</td>
<td>79%</td>
<td>82%</td>
<td>85%</td>
</tr>
<tr>
<td>Osteoporosis Management in Women Who Had Fracture</td>
<td>16%</td>
<td>26%</td>
<td>60%</td>
</tr>
<tr>
<td>High Risk Medication</td>
<td>23%</td>
<td>20%</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Avoiding Readmission</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-Cause Readmission</td>
<td>30%</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>MEDICATION ADHERENCE MEASURES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication Adherence for Oral Diabetes Medications</td>
<td>69%</td>
<td>73%</td>
<td>75%</td>
</tr>
<tr>
<td>Medication Adherence for Hypertension</td>
<td>68%</td>
<td>72%</td>
<td>75%</td>
</tr>
<tr>
<td>Medication Adherence for Cholesterol</td>
<td>64%</td>
<td>69%</td>
<td>71%</td>
</tr>
<tr>
<td><strong>ENROLLEE HEALTH RISK ASSESSMENT MEASURES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Flu Vaccine</td>
<td>62%</td>
<td>67%</td>
<td>71%</td>
</tr>
<tr>
<td>Improving Bladder Control</td>
<td>36%</td>
<td>43%</td>
<td>60%</td>
</tr>
<tr>
<td>Monitoring Physical Activity</td>
<td>49%</td>
<td>53%</td>
<td>60%</td>
</tr>
<tr>
<td>Reducing the Risk of Falling</td>
<td>50%</td>
<td>57%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Preventive and Screening: 6 measures
Chronic Care Management: 6 measures
Readmissions: 1 measures
Medication Adherence: 3 measures
HRA Measures: 4 measures
Patient Satisfaction: 6 questions

**Maximum Incentive 2012:** $1.3M
Funding the PCMH
Shared Savings Programs

Devers K and Berenson R. RWJ 2009,
## Funding the PCMH

### Initial Outcomes from “PCMH” Programs Mixed

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Study Type</th>
<th>Effect Size (95% CI)</th>
<th>Summary Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED Visits</td>
<td>RCT</td>
<td>RR: 0.81 (CI 0.67-0.98)</td>
<td>Low strength evidence for lower ED visits in older adults</td>
</tr>
<tr>
<td></td>
<td>Observational</td>
<td>-1.2% (3.1% to -8.3%)</td>
<td></td>
</tr>
<tr>
<td>Hospital Admissions</td>
<td>RCT</td>
<td>RR: 0.96 (CI 0.84 to 1.10)</td>
<td>No reductions in admissions</td>
</tr>
<tr>
<td></td>
<td>Observational</td>
<td>-0.2% (1.4 to -8.9)</td>
<td></td>
</tr>
<tr>
<td>Total Costs</td>
<td>RCT</td>
<td>No summary estimate</td>
<td>Insufficient evidence for adults</td>
</tr>
<tr>
<td></td>
<td>Observational</td>
<td>No summary estimate</td>
<td></td>
</tr>
</tbody>
</table>

Studies published through June 2012
Horizon scan noted 31 ongoing studies

## Funding the PCMH

### Recent Outcomes Studies Encouraging

<table>
<thead>
<tr>
<th>Study</th>
<th>Journal Information</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Colorado Multi-Payer PCMH Pilot</strong></td>
<td>Health Affairs 2012;31:2010-2017, 2012;31:2002-2009</td>
<td>Preliminary results of pilot indicate significantly reduced ED visits and hospital admissions, particularly for patients with multiple chronic illnesses. One payer’s ROI ranged from 250%-450%</td>
</tr>
<tr>
<td><strong>Empire BCBC, NY,</strong></td>
<td>AJMC 2012;18:534</td>
<td>In 1-2 years, achieved an 11% decrease in ED visits, 12% fewer hospitalizations, and 15% decrease in total costs (all statistically significant)</td>
</tr>
<tr>
<td><strong>Wellpoint, New Hampshire</strong></td>
<td>Health Affairs 2012;31:9</td>
<td>Preliminary multipayer pilot data indicates reduced ED visits and an attenuated increase in costs (+5% versus +12%)</td>
</tr>
<tr>
<td><strong>UPMC</strong></td>
<td>Health Affairs 2012;31:11</td>
<td>A 2 yrs, significant reductions in total costs, ED visits, readmissions achieved (p&lt;0.01, p&lt;0.05, p&lt;0.05 respectively). ROI 160%</td>
</tr>
</tbody>
</table>
Thank You!