# The Promise of Care Coordination: Models That Decrease Hospitalizations and Improve Outcomes for Beneficiaries with Chronic Illnesses

**August 5, 2009**

**Center for Health Care Strategies Webinar**

**Randall Brown, Ph.D.  Deborah Peikes, Ph.D.  Greg Peterson, M.P.A.  Jennifer Schore, M.S.W.**

MATHEMATICA
Policy Research, Inc.

# Acknowledgements


- **Funders:**
  - **Centers for Medicare and Medicaid Services**
  - **Robert Wood Johnson Foundation Health Care Financing Organization**
  - **Washington University**
  - **New York Academy of Medicine Social Work Leadership Institute (via Atlantic Philanthropies)**
  - **Mathematica Policy Research**
- **Other MPR team members:**
  - **Carol Razafindrakoto, Licia Gaber, Angela Gerolamo**

# Goals of Presentation

- Identify proven interventions for beneficiaries with chronic illnesses
- Describe key distinguishing features
- Outline model with greatest potential
- Suggest policy implications for Medicaid and Medicare

# The Problem

- **Most healthcare dollars are spent on a small percentage of beneficiaries who have complex chronic conditions.**
- **Causes of high utilization and costs:**
  - **Deviations from evidence-based care**
  - **Poor communications among primary physician, specialists, other providers, and patients**
  - **Poor adherence by patients**
  - **Failure to catch problems early**
  - **Psychosocial issues**

# What is effective care coordination?

**Intervention with rigorous evidence that it:**

- **Improves beneficiary outcomes**
- **Reduces total health care expenditures for participating beneficiaries**
  - Improved satisfaction or clinical indicators not sufficient
  - Net savings require reduced hospitalizations

# Promising Interventions

- **Most evidence showing impacts is unreliable**
- **3 types of interventions have been proven effective:**
  1. **Transitional care interventions (Naylor et al. 2004 and Coleman et al. 2006)**
  2. **Patient self-management interventions (Lorig et al. 1999, 2001 and Wheeler 2003)**
  3. **Coordinated care interventions (some sites from the Medicare Coordinated Care Demonstration)**

# 1. Transitional Care

- **Patients with chronic illnesses first engaged by APNs while hospitalized**
- **Followed intensively post-discharge**
- **Receive comprehensive post-discharge instructions on medications, self-care, and symptom recognition and management**
- **Reminded/encouraged to keep follow-up physician appointments**
- **Naylor and Coleman approaches differ**

# Effective Transitional Care Intervention: Naylor et al. (2004)

- Targeted patients age 65+ hospitalized for CHF
- Used advanced practice nurses (APNs)
- 12-week intervention; highly structured protocols: patient centered, medication reconciliation, early symptom recognition, symptom management, attend some physician visits, coordinate across providers
- RCT (118 treatment, 121 control)
- 1 year post-discharge followup
- Intervention patients had:
  - 34% fewer rehospitalizations per patient
  - Lower proportion rehospitalized (45% vs. 55%)
  - 39% lower average total costs ($7,636 vs. $12,481)

# Effective Transitional Care Intervention: Coleman et al. (2006)

- Used APNs as transition coaches for 1 month
- Targeted patients aged 65+ hospitalized for various conditions
- Patients received (1) tools to promote cross-provider communication, (2) encouragement to take a more active role in their care, (3) continuity/guidance from transition coach, (4) medication review
- Nurses do not coordinate or manage care; they empower the patient/family to do so
- RCT (379 treatment, 371 control)
- Lowered rehospitalization rates at 90 days:
  - For any reason (17% vs. 23%)
  - For initial condition (5% vs. 10%)
- Lowered hospital costs 19% over 180 days ($2,058 vs. $2,546)

# 2. Self-Management Education

- **Staff collaborate with patients and families to:**
  - **Identify individualized patient goals**
  - **Improve self-management skills**
  - **Expand sense of self-efficacy**
- **Assess mastery of these skills**
- **Uses group sessions led by peers or educators**
- **Limited duration (typically 1-2 months)**

# Effective Self-Management Education Intervention: Lorig et al. (1999, 2001)

- People age 40+ with heart disease, lung disease, stroke, arthritis
- 7 weekly group sessions on exercise, symptom management techniques, nutrition, fatigue and sleep management, use of medications, dealing with emotions, communication, problem-solving
- RCT (664 treatment, 476 control)
- One-third fewer hospital stays per person (0.17 vs. 0.25)
- Savings of $820 per person over 6 months

# Effective Self-Management Education Intervention: Wheeler (2003)

- Women age 60+ with cardiac disease
- 4 weekly group sessions with health educators teaching diet, exercise, and medication management specific to cardiac disease
- RCT (308 treatment, 260 control)
- Intervention group findings over 21 months:
  - 39% fewer inpatient days
  - 43% lower inpatient cost

# 3. Care Coordination

- **These programs typically:**
  - **Teach patients about proper self-care, medications, how to communicate with providers**
  - **Monitor patients' symptoms, well-being, and adherence between office visits**
  - **Advise patients on when to see their physician**
  - **Apprise patients' physician of important symptoms or changes**
  - **Arrange for needed health-related support services**
  - **Coordinate communication among physicians**
- **Goal: reduce need for hospitalizations**
  - **Don't wait for the train wreck, like transitional care**
  - **Need ongoing contact for chronic illnesses**

# Medicare Coordinated Care Demonstration (MCCD) Programs

- **RCT in 15 programs:**
  - **Varied populations (only 7 percent were under age 65)**
  - **Varied interventions**
- **Samples ranged from 934 to 2,657 for 12 programs**
- **Only 2 programs reduced annualized hospitalizations (Peikes, Chen, Schore, Brown, JAMA 2/11/09)**
- **Subsequent work shows 4 programs reduced hospitalizations for *higher-risk* patients by 0.14 to 0.22/year over 3-year followup**

# Keys Components of Effective Models

1. **Targeting of patients at high risk of hospitalization**
2. **Staffing primarily by experienced registered nurses**
3. **Building rapport**
   - **With patients via some (~monthly) in-person contacts, not just by telephone**
   - **With physicians using different strategies:**
     - Colocation, past work together, accompanying patients to doctors visits, contacts during hospital rounds, linking 1 nurse with each doctor
4. **Early, comprehensive, and consistent response to hospitalizations**
   - **Access to timely information on hospital and ER admissions**

# Keys Components of Effective Models

5. **Medication management**
   - Check for adverse interactions, polypharmacy, patient filling Rx's
6. **Strong self-care education**
   - Support adherence to treatment recommendations, educate about early warning signs and when to call the doctor, how to take medications
7. **Provide social support services to patients when needed**
8. **Serve as communications hub between patients and providers**
   - Share patient Rx lists, reconcile Rx's
   - Provide hospital staff with relevant patient information upon admission and assist patients following discharge
   - Make sure tests recommended by evidence-based guidelines are ordered on schedule and that providers have the results when they see the patient

# Lessons for Medicaid and Medicare: The "Optimal" Care Coordination Model?

- **Augment effective ongoing care coordination with transitional care**
- ***Offer* group education on self-management**
  - **Tailor educational materials to people with lower educational levels**
  - **Assess comprehension**
  - **(Not realistic in rural areas)**
- **It's not just what you do, but how well:**
  - **Incorporate key features identified in Naylor, Coleman, Lorig, Wheeler, and MCCD**
  - **Use protocols to detail effective interventions**
  - **Focus on individual patients' goals/needs**
  - **Quality of patient interactions; education**
  - **Degree of physician trust**

# Ongoing Research Issues

- What is the optimal target population?
- Episodic vs. continuous enrollment
- How best to provide transitional care
- How to provide care coordination effectively
- How to provide care coordination efficiently
- How best to target and provide social service supports

# Contact Information

- rbrown@mathematica-mpr.com