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# **Wiring Care Coordination into Medical Homes: How Do We Achieve Integrated Care?**

**Patient-Centered Primary Care Collaborative  
Care Coordination Webinar  
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**Richard C. Antonelli, MD, MS  
Medical Director  
Children's Hospital Integrated Care Organization (CHICO)  
Associate/ Interim Medical Director Physicians' Organization  
Children's Hospital Boston/ Harvard Medical School**



# Learning Objectives

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- **Describe current opportunities to drive transformation of primary care settings into family- and patient-centered Medical Homes with respect to evolution of care coordination functionality**
- **Discuss how Medical Home model can be enhanced by integration with broader systems of care utilizing care coordination as an enabling function**



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# What Constitutes CC in a Pediatric Medical Home?



# National Study of Care Coordination Measurement in Medical Homes

Antonelli, Stille, Antonelli, 2008

## Focus of Encounter – Aggregate Data –

<u>Primary Focus</u>	<u>% Encounters</u>
<b>Clinical / Medical Management</b>	<b>67%</b>
<b>Referral Management</b>	<b>13%</b>
<b>Social Services (ie. Housing, food, clothing...)</b>	<b>7%</b>
<b>Educational / School</b>	<b>4%</b>
<b>Developmental / Behavioral</b>	<b>3%</b>
<b>Mental Health</b>	<b>3%</b>
<b>Growth / Nutrition</b>	<b>2%</b>
<b>Legal / Judicial</b>	<b>1%</b>



# National Study of Care Coordination Measurement in Medical Homes Antonelli, Stille, and Antonelli, 2008

## Outcomes Prevented – Aggregate Data

(32%) of total 3855 CC encounters had something prevented

**Of the 1232 CC Encounters where prevention was noted as an outcome:**

<u>Outcome Prevented</u>	<u># CC Encounters</u>	<u>Percentage</u>
Visit to Pediatric Office / Clinic	714	58%
Emergency Department Visit	323	26%
Subspecialist Visit	124	10%

62% of RN CC Encounters prevented something

33% of MD CC Encounters prevented something

**Non-revenue-generating office nurses drive the most system-level cost savings: avoidance of ED and office visits**





**MAKING CARE COORDINATION A CRITICAL COMPONENT OF THE  
PEDIATRIC HEALTH SYSTEM: A MULTIDISCIPLINARY FRAMEWORK**

Richard C. Antonelli, Jeanne W. McAllister, and Jill Popp

May, 2009



# A Framework for High-Performing Pediatric Care Coordination

Antonelli, McAllister, and Popp, The Commonwealth Fund, 2009

## PEDIATRIC CARE COORDINATION FRAMEWORK

### Care Coordination Definition:

*Pediatric care coordination is a patient- and family-centered, assessment-driven, team-based activity designed to meet the needs of children and youth while enhancing the care giving capabilities of families. Care coordination addresses interrelated medical, social, developmental, behavioral, educational, and financial needs in order to achieve optimal health and wellness outcomes.*

### Defining Characteristics of Care Coordination

1. Patient- and family-centered
2. Proactive, planned, and comprehensive

3. Promotes self-care skills and independence
4. Emphasizes cross-organizational relationships

### Care Coordination Competencies:

- 1) Develops partnerships
- 2) Communicates proficiently
- 3) Uses assessments for intervention
- 4) Is facile in care planning skills
- 5) Integrates all resource [clarify] knowledge
- 6) Possesses goal/outcome orientation
- 7) Takes an adaptable and flexible approach
- 8) Desires continuous learning
- 9) Applies team-building skills
- 10) Is adept with information technology

### Care Coordination Functions:

- 1) Provides separate visits and care coordination interactions
- 2) Manages continuous communications
- 3) Completes/analyzes assessments
- 4) Develops care plans with families
- 5) Manages/tracks tests, referrals, and outcomes
- 6) Coaches patients/families
- 7) Integrates critical care information
- 8) Supports/facilitates care transitions
- 9) Facilitates team meetings
- 10) Uses health information technology

# Delivery of Family-Centered Care Coordination Services includes:

Antonelli, McAllister, and Popp, The Commonwealth Fund, 2009

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## Measuring Care Coordination: Outcomes and Needed Measures (Antonelli, McAllister, Popp, The Commonwealth Fund, 2009)

Clinical, cost, functional, and satisfaction outcomes to be measured at the child and family/caregiver levels, the primary care level, at all specialty care points, and from the perspective of critical community partners.

### Dimension of Value

#### Satisfaction:

1. Achieve patient/family goals
2. Reduce unmet needs
3. Increase provider & staff satisfaction

#### Function:

1. Ease of access to resource information
2. Achieve self-management skills
3. Enhance communication among providers/family/community partners
4. Increase functional abilities
5. Support achievement of optimal developmental trajectory

### Source for Measure

1. Patient, family, caregiver
  2. Patient, family, caregiver
  3. Provider (staff)
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1. Patient, family, and primary care physician (PCP), specialist
  2. Patient, family, PCP, specialist
  3. Patient, family, community partner, PCP, specialist
  4. Family, clinician, school
  5. Developmental surveillance/ screening tools

### Process

1. Parent report
  2. Parent report
  3. Provider/staff report
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1. Patient, family, PCP, and specialist report
  2. Patient, family, PCP, and specialist report
  3. Care plans
  4. Functional assessments
  5. Standardized screening

### Outcome

1. Goals achieved
  2. Reduced percentage of unmet needs
  3. Increased satisfaction
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1. Increased family and professional access to information about available resources
  2. Increased positive patient/family “teach-back” skills demonstrated
  3. Increased documentation of care plan/medical summary use and oversight
  4. Increased functional assessment school attendance/success, ability to perform activities of daily
  5. Optimal levels achieved; milestones marked



# Measuring Care Coordination: Outcomes and Needed Measures (Antonelli, McAllister, Popp, The Commonwealth Fund, 2009)

## Clinical:

1. Enhance communication among providers/family/community partners
2. Increase measures of health
3. Increase activity: developmental screening and health promotion (Early and Periodic Screening, Diagnosis, and Treatment)

1. Patient, family/caregiver, PCP, specialist, team
2. Child/family
3. PCP/medical home

1. Shared care plans; co-management agreements
2. Family survey, clinical measures/outcomes
3. Measure screenings, milestone checks, community-focused measures
3. PCP/care team document screening, results and next steps if necessary.

1. Reduced % children seen by specialists without info from PCP; reduced % children seen by PCP without information from consultants/specialists
2. Clinical goals reached; family perception of child/youth's health increased
3. Increased % all children screened for developmental delays and sensory deficits by select periodic well child visits and/or school entry

## Costs of care:

1. Reduce Emergency Department visits
2. Reduce hospitalizations/hospital days
3. Reduce duplication of tests, services
4. Reduce repeat data gathering by service providers
5. Reduce caregiver work days lost

1. Health plan/family
2. Health plan/family
3. Health plan, PCP, specialist, community partners
4. PCP, specialist
5. Family/caregiver

1. Plan and family report
2. Plan and family report
3. Plan, practice, specialist, and community partner report
4. Practice report of efficiency
5. Family/caregiver report

1. Reduced utilization
2. Reduced utilization
3. Reduced utilization, redundancy
4. Increased care team efficiency
5. Reduced lost work days



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## Where Do We Go From Here?

Is it reasonable to expect primary care providers to  
“do it all”?

- **Medical Home demands system re-design:**
  - **Financing**
  - **Quality measurement**
  - **Regulatory support**
  - **State and Federal policy support**



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# What Will Make Medical Homes Most Effective?

## Integration of Care

### What Is Integrated Care?

Integrated care is the seamless and coordinated provision of health care services, from the perspective of the patient and family, across the entire care continuum, irrespective of institutional and departmental boundaries.



# Children's Hospital Boston Integrated Care Organization

## Integrated Care Infrastructure Enables Interaction



- Clinical Communications
  - Care Plans
  - Structured Referrals
- Optimal Models of Care
  - Disease Specific Care Pathways
  - Collaborative Care Models
- Interoperable IT Infrastructure for IP and OP settings:
  - E-prescribing
  - Test & Referral Tracking
  - Personal Health Record (PHR)
- Utilization Management
- Performance Reporting
  - Quality/Outcomes
  - Finance



# Development of Patient- and Family-Centered Created Care Plan

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- **Care plan created jointly with patient/ family, and health care team**
- **Plan focused on needs of patient/ family**
- **Integrated into the Health Record**
- **Map to Acquisition of Services**
  - **Updated on an ongoing basis**
  - **Collaborate with families to ensure engagement and satisfaction**
  - **Shared with community partners, upon consent of family**
- **Care plan follows the patient**



# Care Plan Elements

## Medical Home Practice Care Plan

Prepared for:  
Date Plan Prepared:

Primary Care Provider PCP:

Prepared by: Care Coordinator

Problem	Activity	Who will do	By When	Expected Outcome	Follow-Up

# Needs Assessment

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- **Develop a Standard Tool for Assessment**  
(**HINT: create in conjunction with practice youth and family advisory partners**)
- **Prioritize concerns of youth and family.**
- **Clarify goals and values.**
- **Assist in linkages for the youth and family.**
- **Categories should include health, mental health, financial, education, support groups, developmental needs, and social services.**



# Communication Strategies

- **Co-Management**
  - Especially useful for Youth with chronic conditions transitioning to adult systems of care
- **Structured Consultations**
  - PCP as primary manager
  - Specialist as primary manager
  - Shared Care
- **Critical Elements**
  - Relationship-based
  - Patient/ family critical partners in requesting consultations and understanding follow-up
- **Documentation is Critical**



# References

- **Antonelli, R, McAllister, J, and Popp, J, Making Care Coordination a Critical Component of the Pediatric Health System: A Multidisciplinary Framework, The Commonwealth Fund, May, 2009.**
- **Turchi, R, Berhane, Z, Bethell, C, Pomponio, A, Antonelli, R, Minkovitz, C. Care Coordination for Children with Special Health Care Needs- Associations with Family Provider Relations and Family/Child Outcomes, Pediatrics, Pediatrics Supplement, November, 2009.**
- **Wegner, SE, Antonelli, RC, and Turchi, RM. The medical home- improving quality of primary care for children, Pedatri Clin North Am, 1 Aug 2009 56 (4): p. 953.**
- **Wegner SE, Humble CG, Antonelli RC, Looming financial issues for medical homes in healthcare reform. Pediatr Ann. 2009 Sep;38(9):524-8.**
- **McAllister J, Presler E, Turchi R, Antonelli RC, Achieving effective care coordination in the medical home. Pediatr Ann. 2009 Sep;38(9):491-7.**
- **Antonelli, RC, Stille, C, and Antonelli, DM, Care coordination for children and youth with special health care needs: a descriptive, multisite study of activities, personnel costs, and outcomes. Pediatrics. 2008 Jul;122(1):e209-16.**

