



The Influence of Setting on Care Coordination for Childhood Asthma

A Webinar Presented by the
Merck Childhood Asthma Network, Inc.
September 24, 2013

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- Due to the large number of participants, we will answer as many questions as possible within the time frame allotted for this webinar. If your question was not answered, we encourage you to reach out to the individual presenter via e-mail following the webinar (email addresses will be provided at the end of the presentation).

Today's Agenda and Presenters



- > Challenges of Childhood Asthma/How Care Coordination Can Help
Dr. Floyd Malveaux, Merck Childhood Asthma Network, Inc.



- > Care Coordination/How it Can Help Children with Asthma
Dr. Noreen Clark, University of Michigan School of Public Health



- > Coordinating Asthma Care for Children in an Urban Community
Dr. Victoria Persky, University of Illinois at Chicago School of Public Health



- > Community-Partnered Asthma Care Coordination
Dr. Marielena Lara, RAND Corporation



- > Asthma Care Coordination in a Large Urban School District
Dr. Kimberly Uyeda, Los Angeles Unified School District



- > Care Coordination Within an Urban Pediatric Hospital System
Dr. Tyra Bryant-Stephens, Children's Hospital of Philadelphia

The Challenges of Childhood Asthma and How Care Coordination Can Help



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The Merck Childhood Asthma Network, Inc. (MCAN) is a nonprofit 501(c)(3) organization founded in 2005 and funded by The Merck Foundation

MCAN's Mission

Enhance the quality of life for children with asthma and their families, and reduce the burden of the disease on them and society.

Strategic Priorities

1. Fund implementation of Evidence Based Interventions in health care settings and communities to enhance access to and quality of care
2. Advocate for policies that are science-based and cost-effective
3. Enhance awareness and knowledge of quality asthma care

Goals

Through research, community programs and partnerships, MCAN is working to:

- Improve access to and the quality of asthma healthcare services for children, especially those who are vulnerable and medically underserved
- Advocate for policies that expedite implementation, dissemination and sustainability of science-based asthma care
- Increase awareness and knowledge of asthma and quality asthma care



Childhood Asthma Is Challenging On Many Levels

Widespread and Serious



- Most common chronic condition among children
- 1 in 7 ever diagnosed
- Prevalence and morbidity highest among minority children
- 55% had at least one asthma attack in the previous year

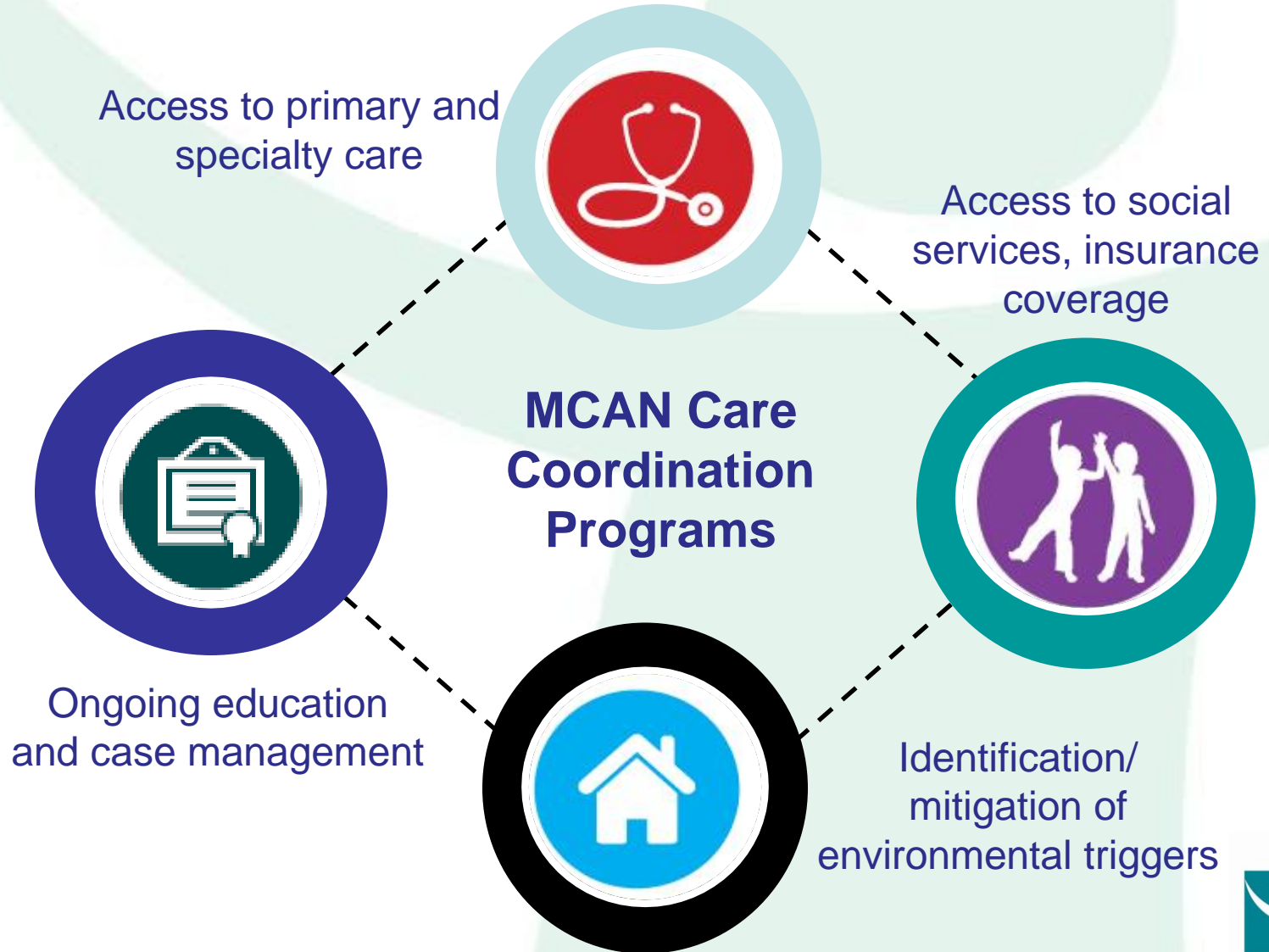
Costly



- Second most costly condition in children
- \$8-10 billion in medical expenditures
- Additional \$10 billion in indirect costs
- 40% higher emergency department costs

Preventable and Avoidable

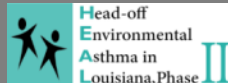
Controlling Asthma Requires a Multi-Faceted Approach Like Care Coordination



MCAN Programs Use Care Coordination to Improve Life for Children with Asthma



Care Coordination Program Sites (Chicago, Los Angeles, Philadelphia and Puerto Rico)



Head-Off Environmental Asthma In Louisiana (HEAL), Phase I and II



Community Healthcare For Asthma Management & Prevention Of Symptoms (CHAMPS)



THE CENTER
FOR MANAGING
CHRONIC DISEASE

Putting People at the Center of Solutions

What Is Care Coordination and How Can it Help Children with Asthma?



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What Are The Problems?

- Insufficient patient/family education
- Insufficient clinical follow-up
- Fractured health care
- Lack of communication with schools, day care
- Psychosocial stressors
- Unhealthy home environments
 - ETS, mold, pets, pests, dust



- Symptoms not controlled
- Increased ED visits
- Increased hospitalizations
- Activity limitations
- Lower quality of life
- Missed school days
- Missed parent work days

What Do We Mean by *Care Coordination*?

'Care coordination' is a **client-centered**, assessment-based interdisciplinary approach to **integrating health care and social support services** in which an individual's needs and preferences are **assessed**, a comprehensive **care plan** is developed, and services are managed and monitored by an **identified care coordinator** following **evidence-based** standards of care

- National Coalition on Care Coordination

Asthma Care Coordinators (ACCs)

Titles of ACCs vary:

- Community Health Educator [Chicago]
- Health Educator and Community Health Worker [San Juan]
- Asthma Care Navigator [Philadelphia]
- Asthma Nurse [Los Angeles]

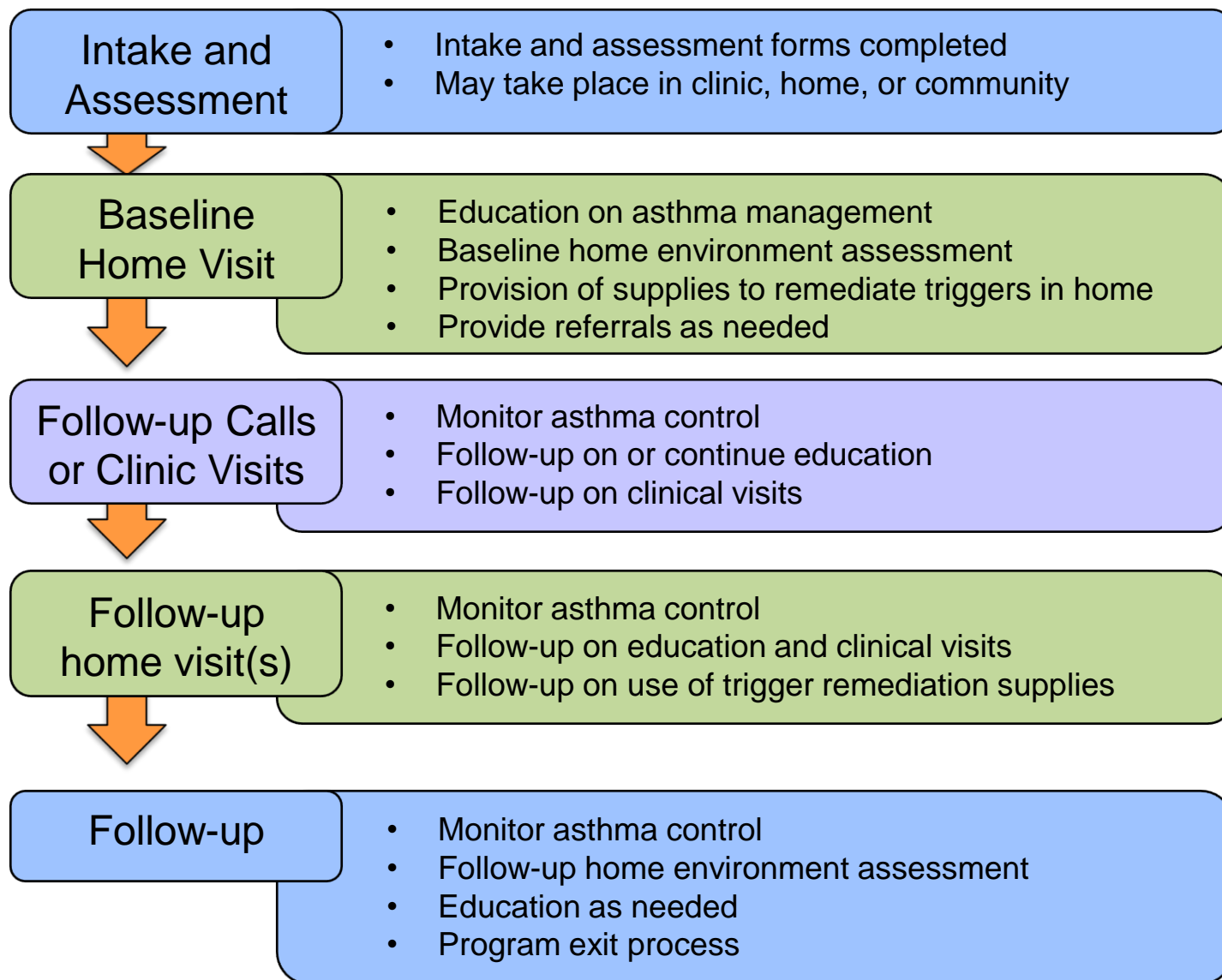


ACCs:

- Understand the culture of those they serve
- Assess asthma control and other mediating factors
- Provide education and referrals
- Make home visits
- Encourage clinical follow-up
- Provide continuity



Basic Care Pathway



Types of Referrals Provided

Social Services:

- Child care services, parenting classes, Headstart
- Housing
- Employment website
- Asthma camp
- Food pantry

Addressing Environmental Triggers:

- Smoking cessation programs
- Home repair
- Pest management
- Housing relocation

Medical Care:

- School clinic
- BreathMobile
- Mental health department
- Medical centers

Insurance Coverage:

- Enrollment assistance program
- Government health plan administration

The Institutions and Settings

- Academic researchers in partnership with multiple providers and organizations serving a defined urban geographic community [Chicago]
- Academic researchers in partnership with a Federally Qualified Health Center serving an urban geographic community [San Juan]
- Within Nursing Services of a large urban school district [Los Angeles]
- Within an urban pediatric health care system [Philadelphia]

Addressing Asthma in Englewood Project: Coordinating Asthma Care for Children in an Urban Community



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Addressing Asthma in Englewood Project: Who's the Target Population?

- Englewood & West Englewood and 10 blocks around their boundaries
- Health care providers in target area
- Community members, school staff, students
- Families with asthmatic child
 - Ages 0-18 years



Asthma Coordinators Are...

- Community-based/resident
- Trained and knowledgeable about asthma
- A **link** between family, health care provider, school and social services



The Need to Reach the Target Population Influenced Project Design

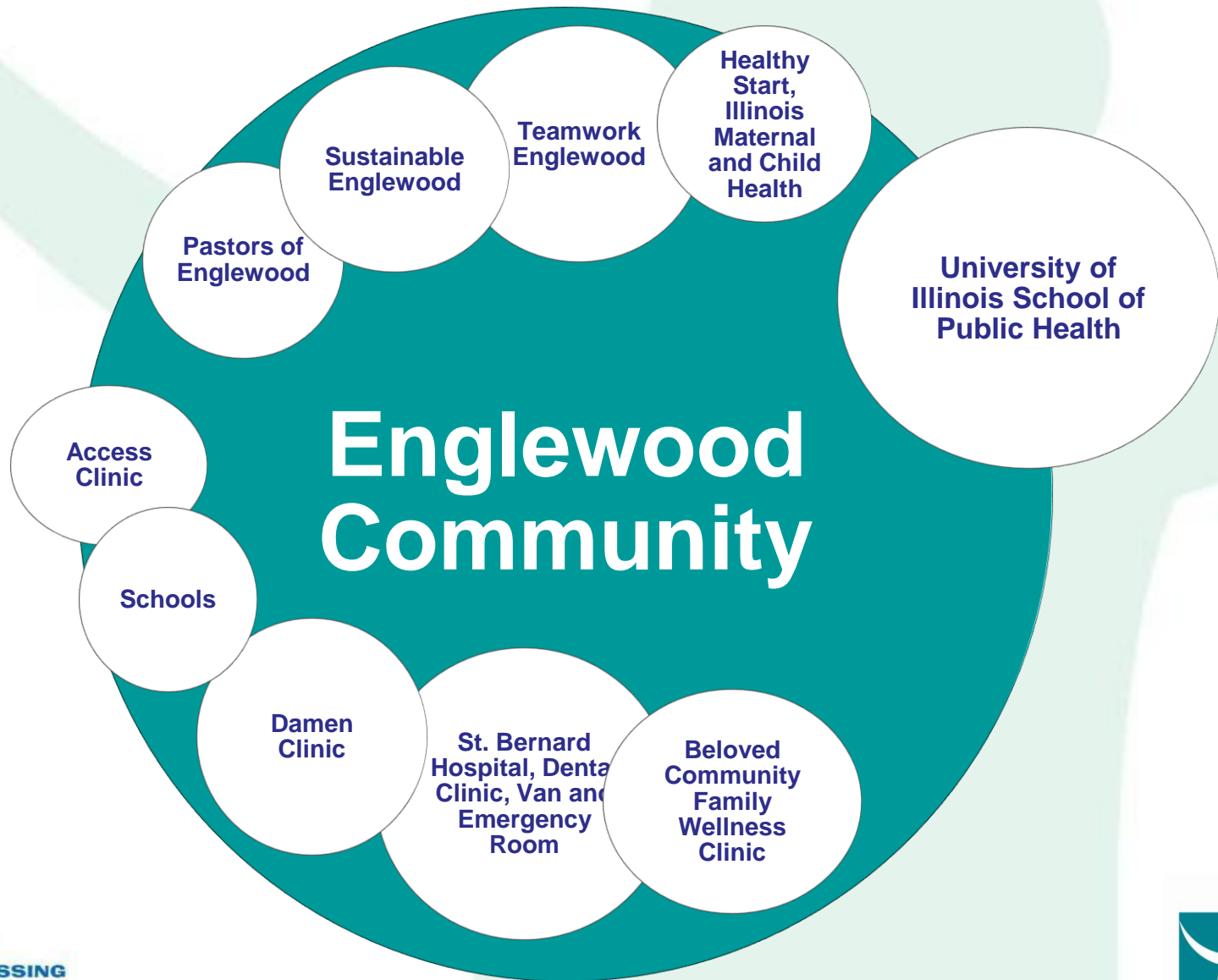


- Underserved community with predominately independent health providers
- School screenings maximized initial reach
- Health providers and community groups supplemented screenings in Phase I
- Phase II focus shifted to health care providers to facilitate integration – decreased potential reach

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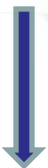
Englewood's Key Core & Ongoing Partners



Components of Home Intervention Program

RECRUIT ELIGIBLE PARTICIPANTS

- Children with diagnosis of asthma
- Age 0-18 years
- Reside in Englewood /West Englewood
- Referrals from:
 - Physician offices
 - Community organizations
 - Community outreach
 - Schools



HOME VISIT 1: Consent and Medical Baseline Assessment



HOME VISIT 2 : Baseline Environmental Assessment and Intervention

- Asthma education
- Home assessment & education on remediation intervention
- Contract with caregiver to make changes
- IPM kits given
- Answer questions
- Provide referrals to address issues

QUARTERLY FOLLOW UP PHONE CALLS/HOME VISITS: Intermediate Assessment and Further Targeted Intervention, if required

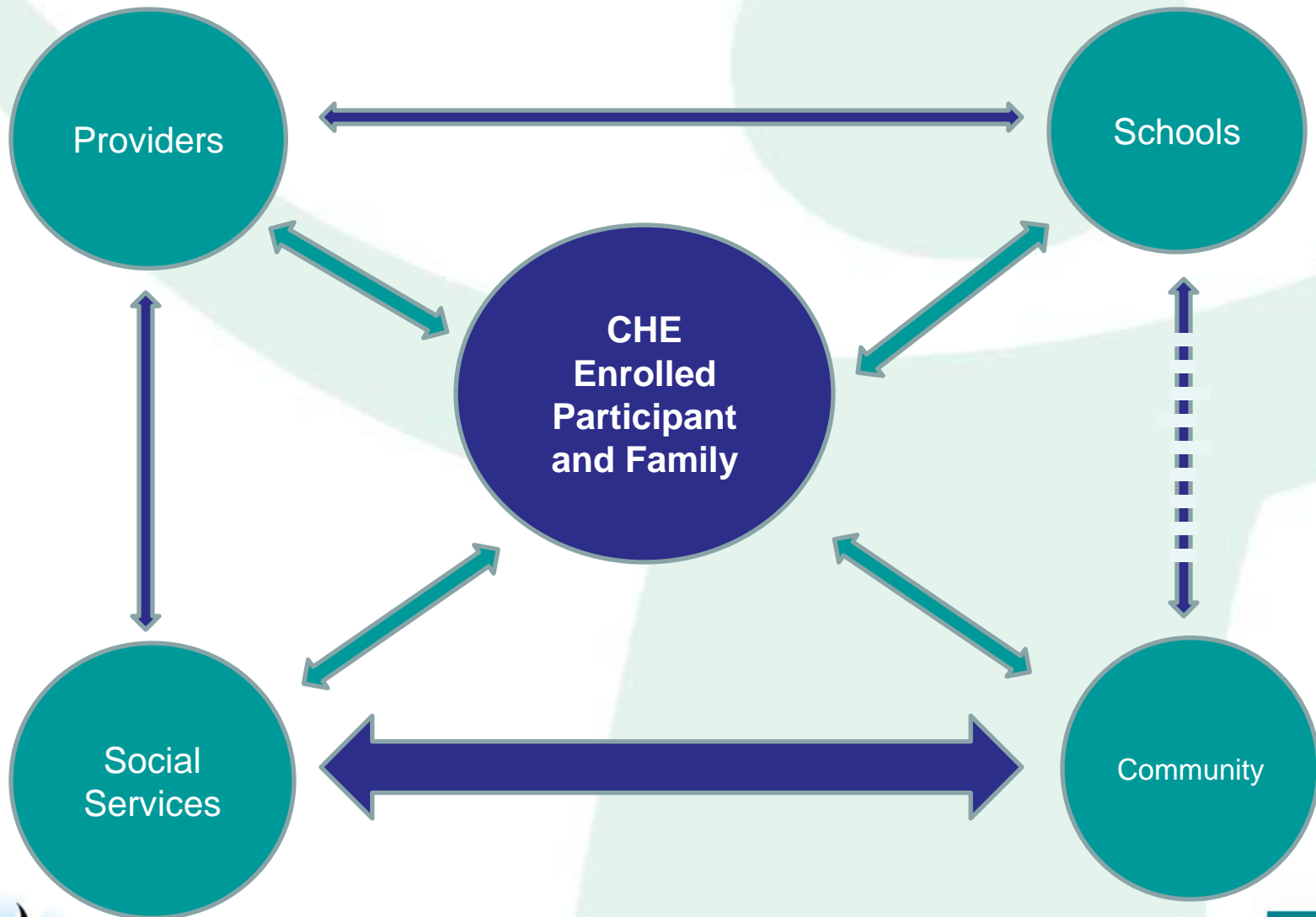
- Assess symptom control
- Assess remediation efforts
- Assess follow through on referrals, provider appointments/visits
- Assess medication adherence

CLOSEOUT HOME VISIT: Final Assessment

- Assess symptom control and healthcare utilization
- Assess equipment use technique
- Assess caregiver knowledge, quality of life, ability to manage asthma
- Assess need and provide referrals if needed
- Letter of completion to participants Providers



The Model of Care Coordination



Despite Success, There are Challenges to Program Sustainability

- Lack of third party reimbursement for Community Health Workers (CHWs)
- Lack of infrastructure within the community
- Stress within the community
 - Unemployment – 26% (2010 census)
 - Violent crimes – 141 homicides in Englewood (2010-2012)
 - Foreclosures/ eminent domain/ demolitions
 - Population decline – 22% (2000-2010 census)
 - Norfolk Southern railroad yard move to Englewood
 - School closings – 49 closed of about 600 in Chicago; one-third of schools in targeted community closed
- Changing health care systems

Sustaining Program Means Taking Important Steps

- Education
 - Providers
 - Allied Health Workers
 - Families
 - Community
- Asthma champions within provider groups
- Policy
 - Modification of IL asthma inhaler school rules
 - Modification of IL Cert. of Child Health Examination school form
 - Closure of 2 coal-fired plants
 - Negotiations with Norfolk Southern Railroad to reduce pollution in Englewood
 - Development of legislation for CHW definition and certification
 - Approval of CHW curriculum by area college



La Red de Asma de Puerto Rico: **Community-Partnered Asthma Care Coordination**



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La Red de Asma Collaborators & Partners



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HealthProMed Community Health Center (FQHC)

Dr. Hector Villanueva and team

Department of Health of the Municipality of San Juan

G-8/Barrio Obrero

Communities & Leaders

Merck Childhood Asthma Network

Staff & Fellow Grantees



Puerto Rico's Problem with Childhood Asthma Impact, Widely Reported

The Washington Post

Puerto Rico baffled by high asthma rate

By *DANICA COTO*

The Associated Press

Monday, December 27, 2010



What's it Like to Have Asthma?

David Díaz Story



- 7-year-old Puerto Rican boy
- Lives in the Manuel A. Pérez Housing Project in San Juan, PR
- Rarely counted 7 days without asthma attacks
- Frightening, frequent bus rides to the urgent care center
- Not certain how to manage asthma even after long waits at health care facilities

La Red de Asma: Multi-Dimensional, Evidence-Based Intervention (EBI)

- Key components include:
 - Care giver education, home trigger assessment/reduction, care coordination by CHW/health educator
 - Partnership with FQHC (HealthProMed): clinical assessment, QI efforts related to action plans
 - Community engagement
- Effective in reducing childhood asthma disparities and asthma-related costs (Lara et al 2013)
- Adapted from ICAS and Yes We Can EBIs



Location of San Juan Community Sites



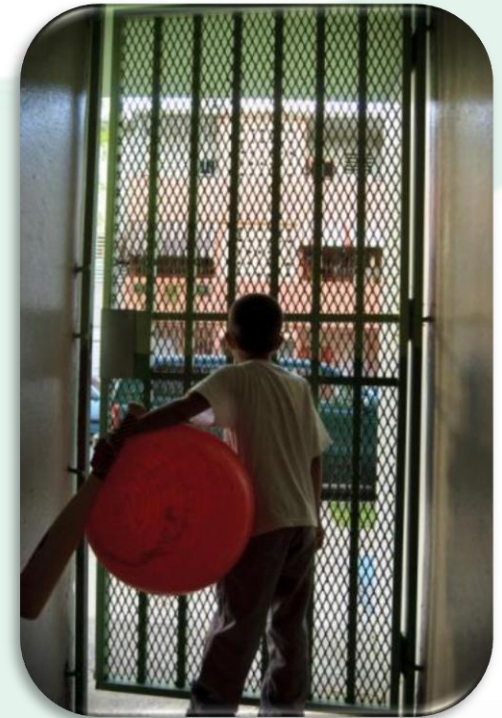
Intervention Reaches the Neediest Children Where They Live

- **Eligibility Criteria:**

- Children 0-17 years-old with moderate or severe asthma
- Receive medical services at HealthProMed

- **Characteristics of La Red Sample (n=250)**

- Age: 7.37 (SD 4.33)
- Male: 53%
- Household Characteristics
 - Smoking 25%
 - Mold 20%
 - Cockroach 25%
 - Pets 37%
 - Dust sensitivity (perceived) 87%



What is an Asthma Care Coordinator for the La Red Project?

- Health Promoter (Educator)
 - Coordinates and confirms appointments for educational sessions
 - Provides individualized health education about asthma
 - Liaises between the participant and clinical staff, as needed
 - Develops and delivers AAP to the participants
- Environmental Counselor (CHW/Home Visitor)
 - Coordinates appointments for home visits
 - Conducts home assessment in accordance with the ICAS
 - Reinforces the education provided in the clinical setting
 - Ensures that families are project materials
- Project Coordinator
 - Liaises between researchers, health center staff, care coordinator, patient
 - Refers special needs patients to social work staff and case management



La Red de Asma Care Pathway

Enrollment & Baseline

Determine Eligibility and Baseline Survey
(Clinic setting)

Two Educational Sessions adapted from ICAS and Yes We Can (Clinic setting)

Provision of supplies to remediate triggers in home

2 - 3 Home visits adapted from ICAS (Experimental group only)

Follow up: 12-month exit survey
(Home setting - Home visits for control group)

How Setting Impacts Sustainability



SETTING: **Institutional (Healthcare)**

Facilitators: HealthProMed (FQHC); Focus on Medical Home Model in partnership with Community

Inhibitors: Pediatrician shortage; Structural barriers to asthma clinics



SETTING: **Institutional (Academic)**

Facilitators: MOU's; Puerto Rican Investigators

Inhibitors: Need for ongoing grant funding



SETTING: **Community**

Facilitators: Highly organized; Engage community leaders; Community based linkages

Inhibitors: Socioeconomic instability; Geographic dispersion of target communities

David's Story: A Happy Ending



- Participated in *La Red de Asma* community-based care coordination program
- Clinical assessment and controlled medications
- Home visits: environmental assessment, education, and mitigation
- David now spends his days working hard in school and being physically active

LAUSD Asthma Program:

Asthma Care Coordination in a Large Urban School District



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Asthma Contributes to Low School Attendance and Performance

- Attendance
 - 2 to 4 days of school missed due to asthma
 - 7 to 11% of students with asthma miss >10 days due to asthma
- Some evidence that achievement is correlated with asthma control

650,000 students
X 10% prevalence
= **65,000 students with asthma**

65,000 students
X 3 days school/yr
= **195,000 days of school missed**

195,000 days missed
X \$30 ADA
= **\$5.85 million lost annually**



Los Angeles Unified School District's Asthma Program

- **Design:** Adapted “Yes We Can” childhood asthma care model
 - Medical-social model
 - Risk stratification (ACT/CACT)
 - Home and school visitation with
 - Environmental assessment, mitigation and education
 - Self management education, including an asthma action plan
- **Implementation site:** schools in large urban district
- **Demographics (LAUSD):**
 - 73% Latino; 10% African American;
 - 25% English Language Learners
 - 80% qualify for FRPL (<185% FPL)
- **Target population:**
 - 300 school-age children/year



Setting in Urban School District Influences Care Coordination in the Following Ways:

- Identification of cases and referrals
- Integration of asthma care coordinator in clinical care team
- Intensity of intervention
- Sustainability of care coordination



Identifying and Referring Cases To Asthma Educators

- Schools are where the students are
- Students who are absent may be demonstrating signs of poorly controlled asthma
- We have developed a **“school-appropriate” referral and eligibility criteria** that is based on information known to the school:
 - Number of days absent
 - Recent absence due to hospitalization/ER use
 - Frequent use of school health office
- Schools do not diagnose or classify severity of asthma
 - Control can be measured through a survey such as the Asthma Control Test (ACT)
 - Use the ACT/CACT with the referral from has helped Asthma Program Nurses stratify risk and respond appropriately



Integrating Asthma Care Coordinators into Clinical Care Teams

- **Schools have few staff or employees who can function as a medical care coordinator**
 - School Nurses have the training and skills to conduct home visits, assist students and families in accessing services in the community and are familiar with asthma care and medications.
 - Other possible care coordinators may be social workers, community health workers
- **Barriers to integration with clinical care team:**
 - School Nurse is part of the education system vs. health system.
 - Health privacy laws (such as HIPAA), require parent consent and involvement with patient information and data exchange
 - All students are not served or covered by one health care system— making the integration with clinical care team complex.
- **Opportunities for integration:**
 - Working with a school-based provider, such as the Breathmobile and school-based health center providers



Intensity of Intervention

- LAUSD Asthma Program typically has 3 to 4 contacts with students and their parents
 - Baseline visit/survey/intervention
 - Parent-home visit;
 - Student-school or home-based education visit
 - Follow-ups, as needed and generally at 6 and 12 months
- Schools are convenient places to meet students, but the intervention for parents and caretakers optimally occurs in the home



Sustainability of Care Coordination

- LAUSD Asthma Program uses multiple funding sources to sustain services:
 - Grants
 - Local Education Agency Medicaid billing reinvestment
 - School District funding
 - Third-party Medicaid managed care billing
- Benefits of working in a school district/education system
- Challenges of not working in a typical health care setting
- Changes in health care financing and education programming may offer opportunities for sustainability of care coordination and like programs



You Can Control Asthma Navigator Project:

Care Coordination within an Urban Pediatric Hospital System



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Community Asthma Prevention Program



Objectives: You Can Control Asthma Program

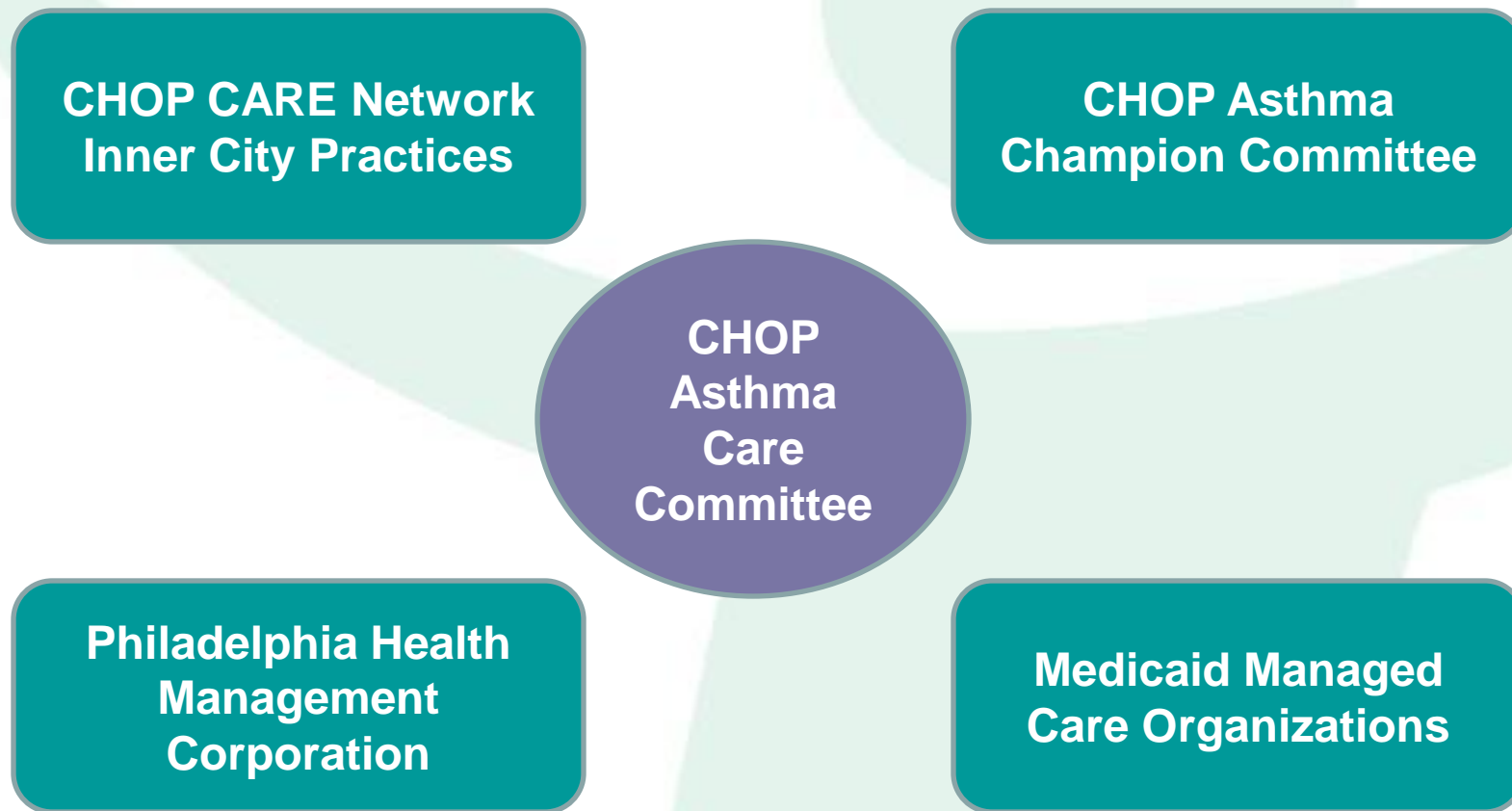
- Identify high risk children with asthma and enroll in YCCA care coordination program
- Implement YCCA model in 4 (now 3) practices
 - Integrate Asthma Navigator (AN) within the clinical team and office care
 - Improve communication between caregivers and clinical team
 - Improve asthma control and reduce asthma utilization for enrolled children
 - Improve caregiver and patient's self-management skills
 - Connect caregivers with resources



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Program Partners



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Community Asthma Prevention Program



Eligibility Criteria

Eligibility Criteria

- 0-17 years old
- 1 inpatient or 2 ED visits in past year
- On two drug controller therapy (moderate-severe persistent)
- Primary Care Provider in CHOP Inner city primary care practices

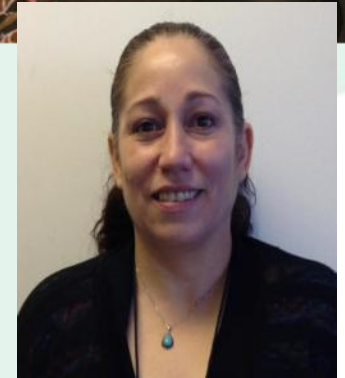
Case Matched

- Date of birth
- Gender
- Ethnicity
- Number of ED or inpatient visits year prior to identification



What is an Asthma Navigator?

- **Resident of inner-city Philadelphia**
- **Role:** Provide care coordination, asthma education and navigation
 - Staffed by a Community Health Worker with previous experience in asthma education and home visits
- **Goal:** AN to be integrated into clinical health care team



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Community Asthma Prevention Program



Chronic Care Model



Components of YCCA Navigator Program

Care Coordination

Increase Follow-up
Visits

Integrated Asthma
Care

Identification of Goals
in Asthma Management

Improved
patient/provider
communications



Education

Understanding
Medications

Environment Mitigation

Asthma Care Plan



Navigation

Needs Assessment

Identification of Resources

Specialist Visits



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Core Care Coordination Services

Asthma Education

- ACN provides one-on-one education for caregivers in the home
- ACN teaches Asthma Care Plan, Controller Medicine, Asthma as a chronic disease, provider communication

Home Visits

- ACN makes 3 home visits - assessment, intervention, observation
- ACN identifies common indoor triggers
- ACN assists in removing triggers and distributes supplies

Follow-Up Appointments

- ACN facilitates scheduling appointments, sets up reminders
- Caregivers expected to return every 3 months after initial visit
- Each visit includes: asthma control tool, review of goals, asthma care plan

School Linkages

- ACN contacts school nurse of patient and shares asthma care plan
- ACN empowers caregivers to communicate with school nurse
- After first year, school nurses can refer patients who are patients at CHOP Care Network

Community resources/ Social services

- ACN works with social worker to identify resources for families and to link them with needed services
- ACN meets regularly with social worker to review difficult cases



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Community Asthma Prevention Program



Program Outcomes

Primary Outcomes

- Improved Asthma Control
- Reduced Emergency Visits
- Reduced Inpatient Visits



Secondary Outcomes

- Improved pulmonary function
- Improved caregiver knowledge
- Reduced missed school days
- Reduced missed parent work days



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The Impact of Setting on Case Identification

- Considerations
 - Creating a link between project and sources of referrals in the hospital
- Opportunities
 - EMR facilitates identification of study subjects
 - ACC allows interfacing with many disciplines for referrals
- Challenges
 - Matching cases in non-randomized study



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Community Asthma Prevention Program



Setting's Impact on Intensity of Interventions

- Considerations
 - NHLBI guidelines for number of visits
 - Assessment of asthma severity and control
 - Providing asthma education over a series of visits
- Opportunities
 - AN goes into exam room while patient is waiting for MD/NP
 - AN prompt MD/NP to complete ACT and ACP
- Challenges
 - Scheduling follow-up visits
 - Combination of two practices- transition



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Community Asthma Prevention Program



Integration of Asthma Navigator within the Clinical Care Team

- Considerations
 - How to make AN accepted in practice setting
 - How to integrate them into all aspects of practice and create relationships with office staff
 - Create feedback loop
- Opportunities
 - AN fill important role in providing asthma education freeing up other staff
 - Caregivers enrolled on-site
- Challenges
 - Busy office setting and non-disruption of the clinic flow
 - Creating feedback loop



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Community Asthma Prevention Program



Sustainability of Care Coordination

- Considerations
 - Creating a positive experience with AN
 - Showing added value for addition of AN
- Opportunities
 - Support of CARE Network administration from the beginning of the project
 - AN accessibility for asthma education for any patient
 - AN coordination of consignment for asthma devices
 - Medicaid/CHIP ruling
- Challenges
 - Creating a model that is accepted, feasible and easily reproduced in other settings



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Summary

- Overall purpose of care coordination is to **remove barriers** and facilitate health care for high-risk asthmatic children
- Asthma Navigators are able to facilitate care coordination while at the same time **support caregivers** to navigate the health care system
- **Integration of Asthma Navigators** is a process that supports caregivers to become more **activated** and the health care team to become more **proactive**

Q&A



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