

**Clinical Integration and
Population Health:
*Perspectives from an
Integrated Child Health
System***



Alisa Haushalter, DNP, RN

Nemours Health and Prevention Services

Director, Department of Health Care Engagement

Project Director, Nemours CMMI Award



April 2014

Acknowledgements and Disclaimers

Nemours is currently funded by the Centers for Disease Control and Prevention (CDC) under a five-year Cooperative Agreement (1U58DP004102-01) to support states in launching ECE learning collaboratives focused on obesity prevention.

The views expressed in written meeting materials or publications by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

The project described was made possible by Grant 1C1CMS331017 from the Department of Health and Human Services, Centers for Medicare and Medicaid Services.

The contents of this PowerPoint are solely the responsibility of the authors and do not necessarily represent the views of the Department of Health and Human Services or any of its agencies.

Objectives

- ✓ Nemours journey into the integration of clinical care and population health
- ✓ Nemours approach to the integration of clinical care and population health
- ✓ Nemours Center for Medicare and Medicaid Innovation Award (CMMI)
 - ✓ Model
 - ✓ Successes and Challenges
 - ✓ Next Steps

Nemours Integrated Child Health System

- **Nemours is a non-profit organization dedicated to children's health & health care**
- **Nemours offers pediatric clinical care, research, education, advocacy, and prevention programs. Nationally, the goal is to improve child health and wellbeing, leveraging clinical and population health expertise**
- **Nemours operates Alfred I. duPont Hospital for Children and outpatient facilities in the Delaware Valley and a new state-of-the-art Children's Hospital in Orlando and specialty care services in Northern/Central Florida.**
- **Nemours focuses on child health promotion and disease prevention to address root causes of health**
 - Preventing childhood obesity and emotional/behavior health were the first initiatives
 - Complements and expands reach of clinicians using broader, community-based approach



Expanding the Model: Promoting Health and Prevention

Traditional Medical Model

Rigid adherence to biomedical view of health

Focused primarily on acute episodic illness

Focus on Individuals

Cure as uncompromised goal

Focus on disease



Expanded Approach

Incorporate a multifaceted view of health

Chronic disease prevention and management

Focus on communities/ populations – spread & scale

Prevention as a primary goal

Focus on health



Connecting Clinical Care and Population Health

An Integrated Health System

Our Community

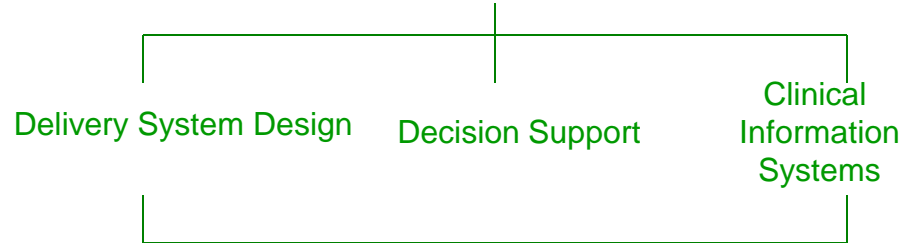
Resources, Policies and System Change



Informed, Activated Patient, Family and Community Partners

Our Health System

Health Care Organization



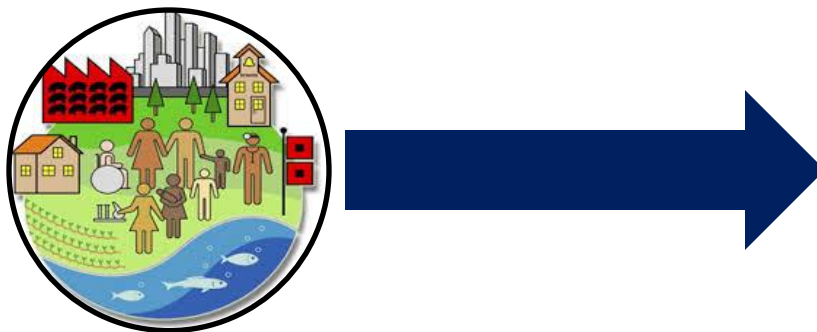
Organized, Prepared, Proactive Health Team with patient/family

Productive Interactions & Spreading Change

Improved Health Among Patients
Improved Health for Delaware's Children

Approaches to Population Health

- Two ways to approach population health:
 - Start from the Community



- Start from Clinical Approach



Start from Clinic: Health Care Innovation Award: The Nemours/AIDHC Model

- Nemours expanded its population-based strategy to explicitly link to primary care
- **Project Goals**
 - To reduce asthma-related emergency department use among pediatric Medicaid patients in Delaware by 50% and asthma-related hospitalization by 50% by 2015, with incremental declines in 2013 and 2014
 - Other goals include:
 - Reduce asthma-related admissions and readmissions.
 - Improve the rate of flu counseling and/or vaccinations
 - Increase complete clinical adherence to evidence-based asthma guidelines
 - Increase the number of children reached by implemented policy, systems and environmental change strategies to support asthma-related child well-being from baseline of 0 to 50,000



CMMI Background:

The Health Care Innovation Challenge

- Funding through the Affordable Care Act (ACA)
- Center for Medicare and Medicaid Innovation
- Funding to applicants for innovative ideas to achieve the CMS Mission: *“As an effective steward of public funds, CMS is committed to strengthening and modernizing the nation’s health care system to provide access to high quality care and improved health at lower cost.”*



The Nemours/AIDHC Model: 3 Primary Drivers of the Project

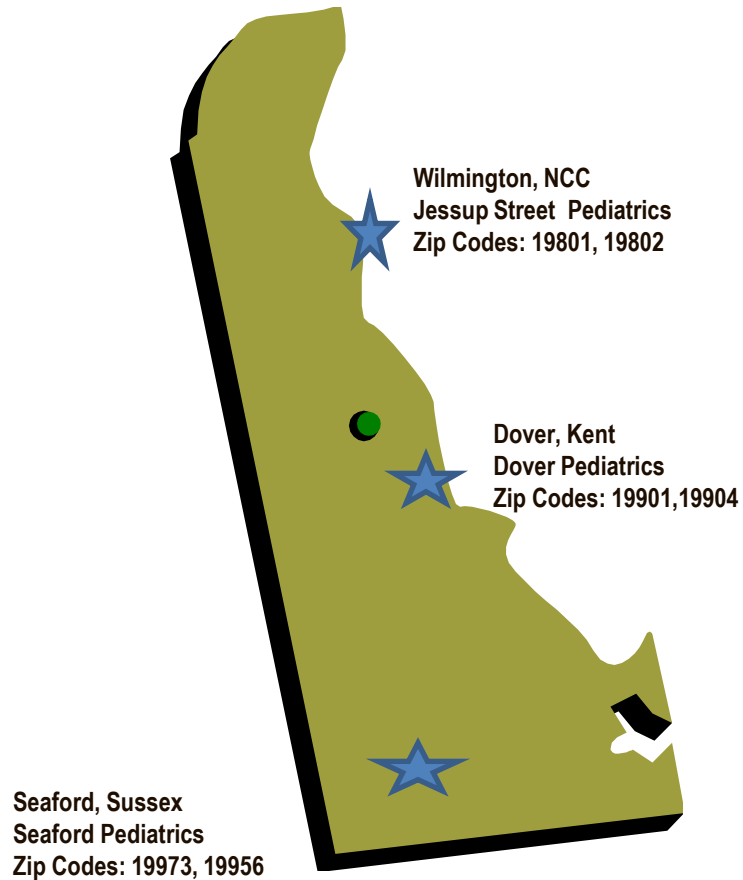
- Enhancement of family-centered medical home
- Development of “integrator” model surrounding each site
- Deployment of “navigator” workforce
- Optimizing use of technology

Model Sustainability

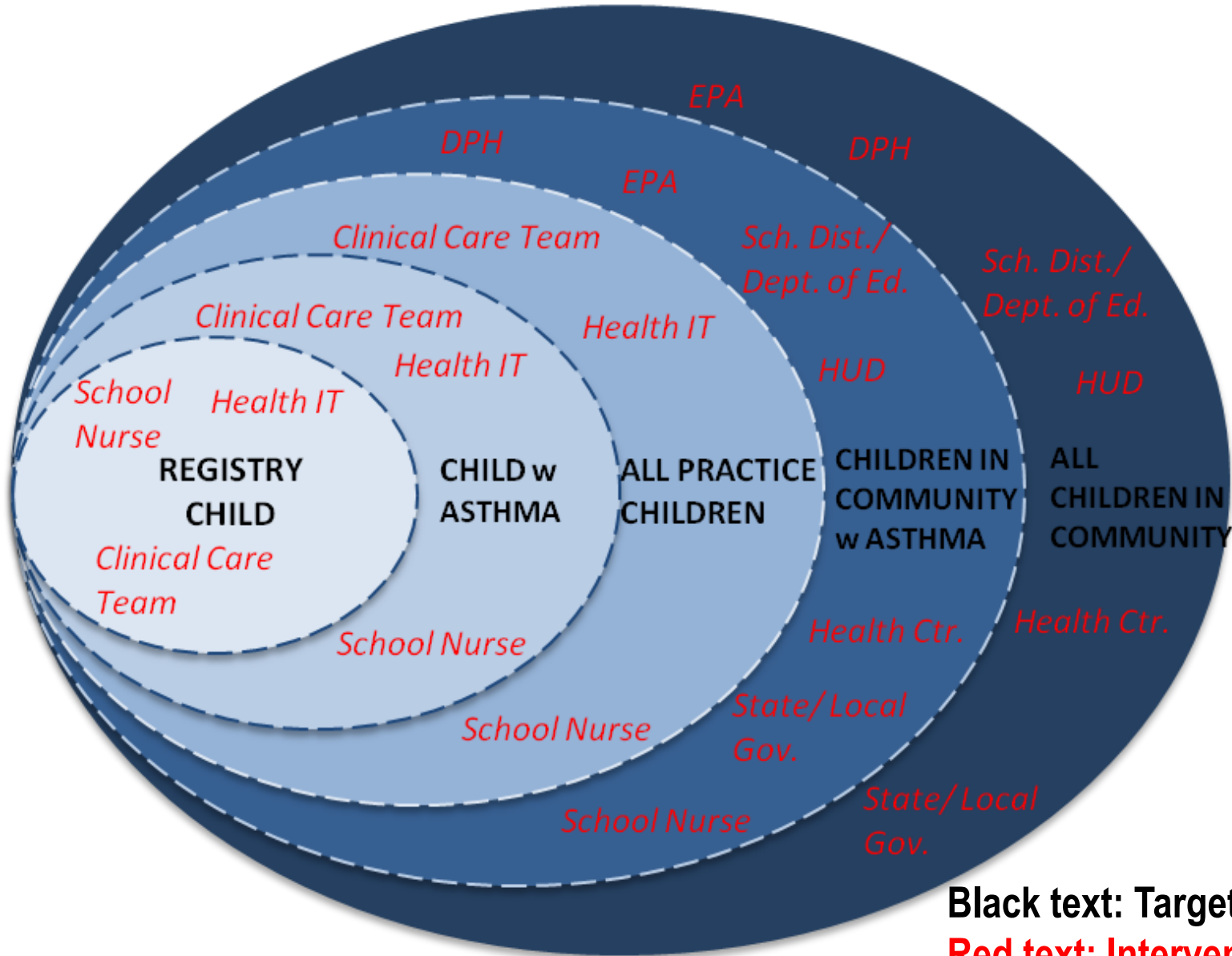


CMMI Population(s)

Delaware: The First State



CMMI Population Health Model



Black text: Targeted population
Red text: Interventions

Optimizing Health Outcomes for Delaware's Children

DRIVER DIAGRAM

Overall Aim: Integrate medical care with community-based, population health -with a focused intervention to improve health, improve health care, and reduce costs for children with asthma for A) Children receiving care at each of three Nemours primary care sites located in Wilmington, Seaford, and Dover; B) Children living in the surrounding communities as identified by the following ZIP codes: Wilmington (19801, 19802), Dover (19901, 19904), Seaford (19973 and 19956).

Better Health

By December 31, 2012: For population A: 1) Reduce asthma admissions from a current rate of 0.7% to the lowest (good) national quartile: **0.1% (100 per 100,000)**. 2) Reduce Nemours asthma readmissions by half: **from 2.8% to 1.4%**. 3) Reduce Nemours asthma-related ED visits by half: **from 42% to 21%**.

By June 30, 2013: For population A: Reduce the average number of school days missed by 25% for the 2012-2013 school year as compared to the 2011-2012 school year.

By June 30, 2015: For population A and B: 1) Decrease asthma related ED use among pediatric patients. 2) Decrease asthma related ED use among pediatric patients on Medicaid from 25% to 12.5%. 3) Decrease asthma related hospitalizations among pediatric patients. 4) Decrease asthma related hospitalizations among pediatric patients on Medicaid from 0.3% to 0.15%.

Better Health Care

By June 30, 2013: For population A: 1) Increase the % of children with asthma who are connected with a community resource for non-medical, health-related needs from 0% to greater than 50%. 2) Increase provision of directed educational and community resources from 0% to >75% of families identified as being at high risk for smoking exposure to the child.

By June 30, 2015: For population A: 1) Improve the rate of flu counseling and /or vaccine from 25% to >75%. 2) Increase complete clinician adherence to evidence-based asthma guidelines from 0% to 100%. 3) **For the state of Delaware:** Increase the number of children reached by implemented policy, systems and environmental change strategies to support asthma-related child well-being from baseline of 0 to 50,000.

Reduced Costs

For population A: Reduce overall cost of care for patients with asthma, including Medicaid beneficiaries from a baseline annual cost of \$11,132,936 to: **\$10,020,458 by June 30, 2013; \$8,519,668 by June 30, 2014; \$6, 389,751 by June 30, 2015.**

Primary Drivers

Enhancement of family-centered health home

Deployment of a "navigator" workforce

Development of "integrator" model surrounding each primary care site

Optimizing use of Information Technology

Model Sustainability

Secondary Drivers

Develop a well-coordinated interdisciplinary approach to care

Provide case management of non-medical needs for high-need families

Hire Community Health Workers as part of practice teams to identify and address non-medical and community issues

Integrate Community Liaisons into practice teams

Partner with community leaders to affect environmental changes

Embed best practice guidelines in Nemours EMR and provide feedback to clinicians to guide practice improvement

Provide family-centered age-appropriate electronic health communications

Track service utilization statewide through the DHIN (Delaware Health Information Network) and use rapid cycle quality improvement strategies to make needed changes to model

Use data from this model to work with Delaware Medicaid and the Governor's Office to propose reimbursement strategies that would expand the model throughout the state of Delaware.

Processes/Systems Changes

Implemented Asthma Registries

Inclusion Criteria (initial):

- Patient has had at least one office visit at the practice between January 1, 2011 and June 30, 2012
- Patient definitely has asthma
 - Age 2-17.9 years on July 2012
 - Has been prescribed any bronchodilator AND has asthma as a diagnosis on any encounter in the Nemours system
- High utilizer
 - Jessup (n=161)
 - **At least 1 ED visit OR hospitalization**
 - For a primary diagnosis of asthma
 - Over the past 24 months (7/1/10-6/30/12)
 - Seaford (n=230) & (Dover n=98)
 - **At least 2 office “sick” visits**
 - For a primary diagnosis of asthma
 - Over the past 24 months (7/1/10-6/30/12)

Inclusion Criteria (ongoing):

- Patient has had at least one office visit at the practice between January 1, 2013 and November 30, 2013
- Patient definitely has asthma (see above)
- Based on clinical assessment of need, including asthma-related ED visits, hospitalizations, and/or office “sick” visits

Integrated Practice Teams

- Community Health Workers (3 FTE at each practice)
- Community Liaison (1 FTE at each practice)
 - Community Mapping
 - Risks(violence, toxins, transportation)
 - Resources (churches, day cares, community programs, etc.)
 - Compilation of issues learned from CHWs

Goal: Creation and implementation of local community asthma action plans
- Psychologist (1 FTE at each practice)
 - Asthma-related psychology services
 - Treatment adherence
 - Behavioral/Parenting support
 - Co-morbidities: ADHD, Anxiety, Depression
 - Smoking Cessation
- Care Coordinator (1FTE at each practice **for ALL patients- not just CMMI**)
 - Monitor ED visits and hospitalizations & call families to identify needs, connect to resources as appropriate
 - Assist CHW to triage identified needs and track to appropriate course

Other Process/Systems Changes

- Student Health Collaborative – successful, sustained in Delaware
- Addition of Medical Home and CMMI-based tools and resources in the EMR, as well as streamlined data mining plans, with the assistance and collaboration of NHI and NEI.
- Physicians/clinical staff/care coordinators/community health workers reviewing asthma registries.
 - Put asthma on problem list
 - Flu shot
 - Document asthma control
 - Complete asthma action plan
- Development of community profiles and community asthma action plans in conjunction with community partners.

Other Policy/System Changes

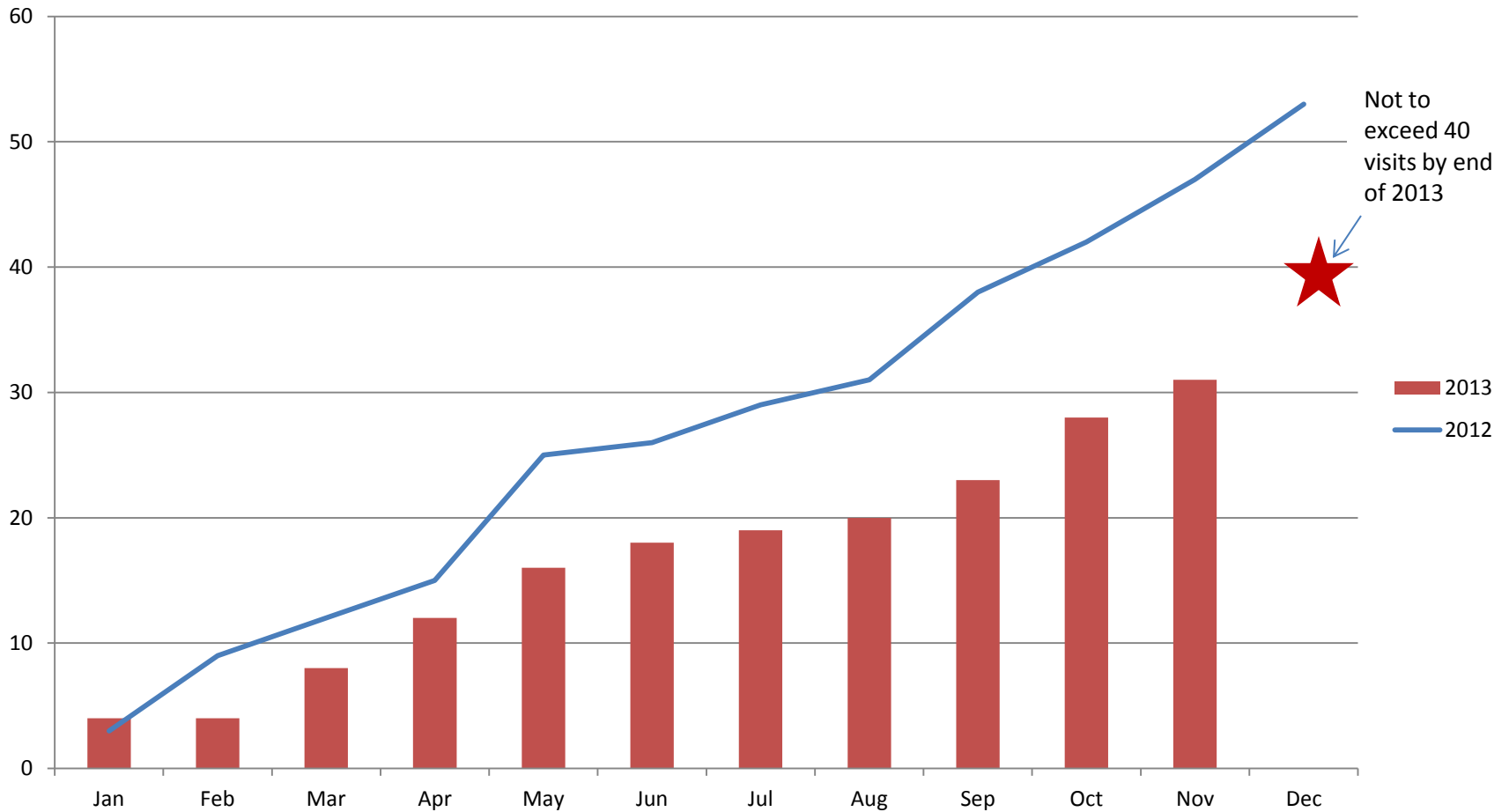
- Submitted NCQA corporate application; in process of working on individual practice applications. Plan developed for implementation in 3 other sites in 2014 and 4 in 2015.
- Assessing strategies to integrate CMMI model for care across the Nemours Enterprise and for other disease groups.
- Collaboration, integration across Nemours to assure successful implementation of model
- Lessons learned utilized to provide feedback to improve Nemours grants application and management processes.
- Lessons learned utilized to inform the DE SIM model development and CMMI 2 draft/discussion.

Successes

Successes

- Increased patient engagement
- Improved clinical training for providers
- Integration & coordination of care within practice sites and communities, including PCPs, CHWs, care coordinators, and school nurses
- Reduced ED visits
- Cost data currently not available

ED Visits for Asthma registry patients from 2012 to 2013



Successes

- Faster turnaround of data and use of data to drive change at the practice level
 - Constantly improving and streamlining processes
- Practice integration
 - “Care team” consists of more than clinical providers
 - Coordinated approach to providing care and managing patients’ illnesses

Successes

- Flu vaccination counseling (NOTE: The majority of flu shots are administered in the fall. Data for Fall 2013 is pending.)
 - January-February 2012, 2.9% registry children received flu shot
 - January-February 2012, 3.6% of non-registry children received flu shot

 - January-February 2013, 11.8% of registry children received flu shot
 - January-February 2013, 11.6% of non-registry children received flu shot

 - Increase in both registry and non-registry populations could be due in part to improved training by clinical staff, thereby ensuring that flu shots are offered to more children overall.

- Evaluation-based asthma guidelines
 - Clinician MOCs.

Challenges and Next Steps

Challenges - and Opportunities

- Changing national, state and local landscape
- Data
- Commitment – grass roots and tree tops
- Innovation award
- Interdisciplinary team work
 - Within the practices
 - Across Nemours
- Integration
 - Team members
 - Roles
 - Community, Population health
- Communication
- Culture Clashes

Focus in 2014 - 2015: Refine, Sustain and Spread

- Integration of the model and concepts
- Implement community asthma action plans
- PCMH individual applications
- PCMH to expand to 3 additional practices
- Utilize and refine EPIC tools/supports (PDCA)
- Develop financial modeling framework
- With providers – assess current driver diagram and make revisions as appropriate to continue to decrease ED visits and 30 day hospital readmissions

Focus in 2014 - 2015: Refine, Sustain and Spread

- Explore current 30 day hospital readmission data to assess opportunities for continued improvement.
- Explore current ED utilizers to assess opportunities for continued improvement.
- Explore CHW certification
- Pursue reimbursement for services including services provided by CHW
- Consider innovative access solutions
 - Telemedicine
 - School-based visits for asthma management
- Collaborate with national office to advance the conversation regarding population health management.





Alisa Haushalter, DNP, RN
Project Director, Nemours CMMI Award
alisa.hausghaltger@nemours.org

www.nemours.org

www.HealthyKidsHealthyFuture.org