

WCC Visits for Children with Asthma-Does Social Needs Navigation Help Drive Visit Attendance?

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Link to Oral Presentation: <https://youtu.be/rd-iR4JTm4g>



Background: Promoting Pediatric Primary Prevention (P4) Challenge

- However, due to COVID-19, regular check-ups (Well Child Visits or WCC) have diminished, and the Promoting Primary Pediatric Prevention (P4) multi-site challenge was implemented by the Health Resources & Service Administration's (HRSA) maternal and child health division.
- The University Hospitals Rainbow Ahuja Center for Women & Children in Cleveland, OH was chosen as one of these sites to increase attendance for well-child visits.
- The site implemented two methods: one where nurses actively call and schedule with caregivers and another where Rainbow Connects actively calls and schedules with caregivers while also providing social needs navigation.
- Asthma has been proven to be multifactorial, and therefore social needs navigation was expected to not only increase rates of scheduling but also increase patient retention from scheduling to attending their visit.
- About 18% of children in the RPP (Rainbow Pediatric Practice) have asthma, which is more than double than the national average (7.0%)¹ provided by the CDC as of 2019, and is likely reflective of the social needs of the community the community serves, where air pollution is high and poor housing conditions are common.
- In Spring 2021, about one third of the practice's patients with asthma have not had WCC in the past year, despite evidence that annual WCC visits can decrease severe asthma exacerbations.
- As of February 2021, 37% of the total patients were overdue for WCC, and about 30% of the daily visits, the majority of which are WCC appointments, were no-shows.
- At the beginning of the P4 challenge, the practice currently had more than 750 children with asthma who were overdue for WCC, so the practice decided to divide the list of patients who were overdue between the Rainbow Connects program, which conducted outreach for appointment scheduling with social needs navigation, and the RPP nursing and scheduling staff which did outreach for appointment scheduling only.
- Those families that screened positive through the Rainbow Connects screening for social needs will be connected with needed resources.

Demographics for all pediatric patients in the Rainbow Pediatric practice:

Race:	Insurer:
<ul style="list-style-type: none">• Black 93%• Caucasian 3%• Other 2%• Asian 1%• Native American <1%• Hispanic/Latino – not reported	<ul style="list-style-type: none">• Public (Medicaid, Medicaid HMO, CHIP) 89%• Private/Employer-based 7%• Self-pay/uninsured 3%• Other (Tricare, DJFS, other gov't) 1%
Gender:	Residence:
<ul style="list-style-type: none">• Female 51%• Male 49%	<ul style="list-style-type: none">• City of Cleveland 72%• Inner ring suburbs 21%

Learning Objectives

- Understand a process for multidisciplinary (medicine, nursing, social needs) primary care outreach, engagement, and care coordination in Midtown Cleveland
- Analyze qualitative data (informal interview through call outreach and visual media) describing Midtown's residents' perspectives, experiences, and observations regarding health and health equity in the neighborhood
- Translate quantitative and/or qualitative data into visualizations for communication with clinicians and staff

Deliverables

- Describing project processes and progress towards over time
- Problem-solving and implementing methods to increase collaboration and efficiency between research team and clinical team to provide clinical care coordination based on weekly data updates
- Data collection, input, and informal visualization in REDCap

Activities

- Weekly check-in with clinical staff at UH Midtown to collect physical data
- Inputting and analyzing data in REDCap
- Communicating progress to research team to clinical staff, Rainbow Connects team, and data analysis team at CCHP (Center of Child Health and Policy) via email and during meetings
- Attending HRSA P4 meetings

Results of Outreach Efforts

- In total, 744* children with asthma were eligible for WCC outreach (>365 days since last WCC with no future visit scheduled), of whom we scheduled 288 for WCC; in addition, we offered assistance scheduling siblings at outreach and scheduled 70 siblings for WCC
- * Handled by project team as rolling cohort, adding to the initial set of 645 children as new children met inclusion criteria
- 192 patients with asthma ultimately scheduled AND attended WCC during project period, with an additional 71 patients that have been scheduled for appointments after 11/1/21 for which attendance is pending; sibling attendance rates were not tracked
- There was no statistically significant difference in success rate of visits attended between outreach arms (nursing vs social needs)
- At the end of the project period (Nov 2021) 332 patients with asthma remained overdue for WCC (reduction reached by both project outreach and self-scheduling). Therefore we achieved our SMART aim of 50% reduction of patients with asthma overdue for WCC (28% of patients with asthma overdue in May 2021, 14% overdue in Nov 2021).
- While there was no difference in attendance rates between patients scheduled by nurses and those who had social needs outreach with scheduling, there were meaningful interactions between parents and the social needs team. Example notes from the proactive social needs outreach/appointment scheduling
 - "Did have utility concerns-- gas shut off, and wanted to get air conditioning for daughter with asthma. I talked about the summer crisis program and also medical certificates in case she gets shut off. Informed her to make a CHN appointment. All this info will be emailed to the patient. Patient also asked about nebulizer machine..."

Lessons Learned

- Almost universally if we reached a family the parent wanted to schedule their child for an appointment regardless of whether they were assigned to the nursing arm or the SDoH arm. Reaching a parent by phone could be challenging. We left many voicemails and also found that many families had disconnected phone numbers.
- It was important to schedule WCC appointment at the time of the initial call: Because the Rainbow Connects program could not schedule the appointments, they had to either do a warm hand-off or send an email to the office coordinator to get their patients scheduled. The office coordinator had trouble reaching some patients who had outreach from Rainbow Connects and wanted to schedule appointments.
- Our intervention was challenged by significant staffing shortages: Currently our clinic is at 60% nursing staffing which impacted our ability to do patient outreach for the appointment only arm. In addition, for 3 months we had both a Rainbow Connects volunteer and a community health worker doing calls for SDoH but after the volunteer returned to school we were similarly challenged with telephone outreach to the SDoH arm. Going forward we are using state Medicaid population health dollars to hire a patient navigator who will have dedicated time for outreach to our patients with asthma. The Rainbow Connects program will also continue to explore how best to do proactive outreach for SDoH needs.
- Addressing resource needs (i.e. housing, utilities, food, government benefits) alone did not influence visit show rates. In future proactive SDoH outreach we also plan to explore and address possible barriers to appointment attendance, such as transportation and childcare.

Public Health Implications: Possible Built Environment Interventions

- A missed opportunity in the P4 challenge was to target and fully assess the range of social determinants that impact asthma.
- Screening specifically for the built environment during the outreach phone call might be more conducive to connecting patients to resources that are of the highest priority and exacerbate asthma
 - HEAP (Home Energy Assistance Program) or the Summer Crisis Program (HEASCP), Air Conditioners, Fans
- Asking questions about potential asthma triggers like mold growth and doing a closed-loop referral to local advocacy group: Environmental Health Watch
 - Environmental Health Watch conducts home visits and cleans up triggers for chronic asthma patients cost-effectively
- The nurse's got the bulk of the patients that were overdue for Well-Child Visits, but they did not conduct any social needs navigation. Perhaps, implementing a warm-handoff from the nurse's to the Rainbow connects team
- Helping families address SDoH specifically by screening for the built environment before a Well-Child Visit may foster a more trusting relationship between the families and our medical center that may also translate to higher show rates for medical appointments.
- A combination of appointment scheduling and pre-appointment SDoH (Built Environment) navigation, could also serve as a model for outreach to other high risk groups, like children with mental health issues or other chronic illnesses.
- Adverse effects of COVID-19: RSV (Respiratory syncytial virus) & COVID-19 Appointments, Staffing & Time [Human Resources]
- In conclusion, screening for aspects of the built environment during well-child visit scheduling could open the door to more interventions targeting the fundamental factors of asthma, even though it may not necessarily guarantee better asthma outcomes.
- In areas of future research a high priority is to examine mechanisms that spatially link built environment and chronic disease.
- It is important to keep in the multifactorial nature of asthma because disparities can arise from many different parts of our life from the air we breathe to where we live. Therefore, it is important to further explore how specific parts of the built environment, a social determinant of health, can affect pediatric asthma outcomes and apply it to the context of Cleveland, Ohio.

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Rainbow Connects Program: Genevieve Birkby & Volunteers (Sam)

References

-Shown on the following slides

-For final practicum poster, I will employ a QR code to my references document



Outreach Call

"Hi, my name is _____ and I am calling from the Rainbow Connects program at the Rainbow Center for Women & Children. Is _____ available?"

Have you heard of Rainbow Connects? We connect you to resources like diapers, clothes, & help with utilities to patients at the Rainbow Center. We are reaching out to our patients with asthma to make sure they are connected to resources.

Would you like to talk about any of those things?

Yes No

Great - where would you like to start?

--Discuss resources and complete social need navigation --

Topics Discussed

Baby stuff Food Benefits Housing - general Eviction Rent assistance Utilities Other

Intervention

- Our SMART aim was to reduce the proportion of patients in our practice with asthma who were overdue for WCC by 50% by November 2021.