**Project Plan and Interventions**

**Actions and Interventions**

**Background**

Evidence is now abundant that asthma self-management education is effective in improving outcomes of chronic asthma.

**National Heart Lung Blood Institute**


**Pediatric Asthma Coaching Program**

Brendan Burkart, AE-C (HCN) in collaboration with:

Robin Andersen, NP
Lee Atkinson-McDow, MD
Dina Intaternelli, RN, PhD
Nanah Park, MD

**January 2014 Asthma Registry = 2,052 Patients**

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Pediatrics</th>
<th>Have Asthma</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Zion</td>
<td>13,224</td>
<td>1,627</td>
<td>12.3</td>
</tr>
<tr>
<td>Lakeshore</td>
<td>1,444</td>
<td>156</td>
<td>10.8</td>
</tr>
<tr>
<td>Adolescent</td>
<td>1,134</td>
<td>168</td>
<td>14.8</td>
</tr>
<tr>
<td>UC PC</td>
<td>1,054</td>
<td>101</td>
<td>9.6</td>
</tr>
</tbody>
</table>

**Asthma Utilization for Jan 2013 – Jan 2014**

<table>
<thead>
<tr>
<th>ED Visits</th>
<th>Patients</th>
<th>Admits</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1921</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>1</td>
<td>101</td>
<td>1</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

**PROBLEM STATEMENT**

Poor health literacy surrounding the asthma disease process and management contributes to poor asthma control in the pediatric population resulting in increased health system utilization.

**Project Goals**

- **Goal:** Reduce pediatric emergency department visits and admissions for asthma through self-management education and coaching.
- **Current State:** In the Outpatient setting, Physicians provide asthma education during office visits for primary care or acute care.
- **Target State:** Pediatric patients with asthma utilization (or risk) receive standardized self-management coaching and follow up by trained staff to review technique and action plan.

**Gap:**

- No dedicated staff available to train
- No standardized curriculum for training
- No standardized patient coaching workflows

**Process Metrics:**

- Number of pediatric patients seen
- Number of Primary Care Clinics referring
- Number of education materials created

**Outcome Metrics:**

- Asthma-related utilization, comparing 1 year prior to 1 year post coaching
  - ED visits
  - Admissions
  - Acute Care visits
  - Episodes of Oral Steroids

**Project Evaluation & Impact**

**Clinical Outcomes**

Comparing the Percentage of Patients with Zero Utilization in the Category

**Baseline:** compared utilization per asthma registry: 2013 to 2014 (where data available for both)

**Intervention:** 1 year prior to HCN first contact compared to 1 year post HCN last contact

**Next Steps, Dissemination & Lessons Learned**

**Next Steps:**

- Consider further analysis of intervention vs. control groups, control for: age, zip code, treatment step
- Consider identifying patients based on receiving albuterol treatments: Inpatient, ED, Acute Care, or PCP

**Dissemination:**

- Clinically Integrated Network (One Medical Group) is working to pilot this model with their patients
- Consider developing a similar process for other chronic conditions (COPD, Diabetes, Hypertension)

**Lessons Learned:**

- Patients can be difficult to engage → offer them something before asking for something from them
  - Example: Helping a patient get an extra spacer before asking them a series of intake questions
  - Providers are busy → do the work (ie: identifying patients and processes) before ask for their input
  - Example: Identify patients with ED visits and ask providers if there is a reason to not engage
- Data requests change as the process develops → keep reporting and analysis close to those doing the work

**Managing Population Health - Pediatric Asthma -**

**Actions and Interventions** (timeline below)

A. Population Health hired Health Care Navigator (HCN)
B. HCN embedded at Pediatric Primary Care
C. HCN documentation and workflows standardized
D. Established referral process to SF DPH for asthma home visits
E. Asthma Clinic established at Pediatric Primary Care
F. HCN became a Certified Asthma Educator
G. Expanded to all UCSF Practices that see pediatrics
H. Created monthly ED asthma discharge tracker
I. Clinical outcomes measurement
J. One Medical Group piloting this program

**Barriers and Challenges**

- Pediatric asthma reporting was based on primary care reports;
  - when those changed, pediatric asthma reports had to evolve
- Some patients prefer using the ED because it is closer to home than an Acute Care office
- Language barriers can hide gaps in patient understanding
- Building rapport with providers and patients at different clinics across the City requires much transportation time

**HCN became**

One Medical Group piloting this program

**Hospitals & Clinics**

- Pediatric Asthma
- 1,134
- Nanah Park, MD

**HCN documented**

and workflows standardized

**Pediatric Asthma Coaching**

- Lakeshore: 1,444
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- UC PC: 1,054

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**Project Evaluation**

521 Patients seen by Navigator

**Clinical Outcomes**

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