



HealthierHere

The Accountable Community for Health of King County

# Chronic Disease Prevention & Control Workgroup: Asthma

May 7, 2018



# Chronic Disease Prevention - Asthma

## Project Goal

**Immediate:** Identify eligible individuals, stratify risk level for each patient, verify medical home/Primary Care Provider (PCP) for each enrollee, and enter patients' information to registry; assign patients to care coordinator and high-risk patients to Community Health Workers (CHW).

**Long-term:** Provide patients with asthma care consistent with NHLBI guidelines including: regular asthma visits; classification of severity, risk and control of asthma at each visit; appropriate Rx of asthma control meds; provide an Asthma Action Plan (AAP) at each visit carrying a primary diagnosis of asthma. Sustain home-based services to address asthma triggers and reduce avoidable asthma-related ED and hospital visits.

## Focus Populations

This project focuses on child and adult patients with uncontrolled asthma. Uncontrolled asthma is defined as having symptoms or using beta-agonist medications more than four times in the two weeks prior to a primary care visit or having a hospitalization or emergency department visit for asthma in the past year or receiving a steroid burst two or more times in the past year.

Patients with asthma will be assessed for their level of risk based on EPR-3 Guidelines on Asthma.

## Interventions

This project provides support for asthma patients to improve self-management with services tailored to meet the needs of those patients at highest risk for poor outcomes.

Based upon EPR-3 Guidelines on Asthma recommendations and NAEPP Guideline Implementation Panel (GIP) strategies, implementing providers will:

- Make the diagnosis of asthma.
- Assess asthma severity and control.
- Provide and use an Asthma Action Plan and support patients in self-monitoring of asthma symptoms.
- Prescribe and use medications per severity and control (with an emphasis on controllers).
- Screen asthma patients to identify those at high-risk who would benefit from care coordination by community health workers (CHWs).
- Include CHWs in "care teams" and review information provided by care coordinators and CHWs.
- Make referrals to asthma specialists for uncontrolled asthma or Step 4 treatment.

CHWs will be responsible to:

- Conduct home visits.
- Assess the home environment and work with patients on remediation (allergen and irritant exposure control).
- Provide self-management support based upon protocol-defined set of educational messages and demonstrations about medical management of asthma.
- Provide connections to community resources for other patient identified social service needs.

## Innovations

- Advance team-based care in the treatment and management of asthma.
- Utilize a shared-care plan that allows for coordinating care across multiple providers.
- Integrate interventions into routine clinic operations.
- Apply a systems approach to assuring quality care for asthma patients by addressing the home environment, treatment, and monitoring by providers and health plans.
- Demonstrate the effectiveness of home visits in achieving quality measures and producing a return-on-investment.

## Metrics

- Child and Adolescents' Access to Primary Care Practitioners
  - The percentage of members 12 months - 19 years of age who had a visit with a primary care provider. Report four separate rates: 12-24 months of age; 25 months - 6 years of age; 7-11 years of age; 12-19 years of age.
- Comprehensive Diabetes Care: Hemoglobin A1c Testing
  - The percentage of members 18-75 years of age with diabetes (type 1 and type 2) who had an HbA1c test during the measurement year.
- Comprehensive Diabetes Care: Medical Attention for Nephropathy
  - The percentage of members 18-75 years of age with diabetes (type 1 and type 2) who received a nephropathy screening or monitoring test or had evidence of nephropathy during the measurement period.
- Comprehensive Diabetes Care: Eye Exam (Retinal) Performed
  - The percentage of members 18-75 years of age with diabetes (type 1 and type 2) who had a retinal or dilated eye exam by an eye care professional during the measurement period, or a negative retinal exam (no evidence of retinopathy) in the 12 months prior to the measurement period.
- Inpatient Hospital Utilization
  - For members 18 years and older, the risk-adjusted ratio of observed to expected acute inpatient discharges during the measurement year.
- Medication Management for People with Asthma (5 – 64 Years)
  - The percentage of members 5-64 years of age who were identified as having persistent asthma and were dispensed appropriate medications that they remained on for at least 75% of their treatment period.
- All Cause Emergency Department Visits per 1000 Member Months
  - The rate of Medicaid beneficiary visits to emergency department per 1000 member months, including visits related to mental health and substance use disorder, reported for three age groups: 10-17 years, 18-64 years, and 65 years and older.
- Statin Therapy for Patients with Cardiovascular Disease
  - Percentage of males 21-75 years of age and females 40-75 years of age who were identified as having clinical atherosclerotic cardiovascular disease (ASCVD) and met the following criteria: (1) Received statin therapy: Members who were dispensed at least one high or moderate-intensity statin medication.
- \*Adult Access to Preventive/Ambulatory Care (AAP)

- Members age 20 years and older as of December 31st of the measurement year, who have one or more ambulatory or preventive care visits each year.
- \*Appropriate Testing for Children with Pharyngitis (CWP)
  - Percentage of children 3-18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (Strep) test for the episode. A higher rate represents better performance (i.e. appropriate testing).
- \*Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis (AAB)
  - Percentage of adults 18-64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription.
- \*Medical Assistance with Smoking and Tobacco Use Cessation
  - Advising Smokers and Tobacco Users to Quit: Adults 18 years of age and older who are current smokers or tobacco users and who received cessation advice during the measurement year.
  - Discussing Cessation Medications: Adults 18 years of age and older who are current smokers or tobacco users and who discussed or were recommended cessation medications during the measurement year.
  - Discussing Cessation Strategies: Adults 18 years of age and older who are current smokers or tobacco users who discussed or were provided cessation methods or strategies during the measurement year.
- \*All-Cause Readmission Rate (30 Days)
  - Among Medicaid beneficiaries age 18-64 years old, the percent of acute inpatient stays during the measurement year that were followed by an unplanned acute readmission within 30 days.
- \*Use of Spirometry Testing in the Assessment & Diagnosis of COPD (SPR)
  - The percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.
- \*Well Child Visits in the First Fifteen Months of Life (W15)
  - The percentage of members who turned 15 months old during the measurement year and who had six or more well-child visits with a PCP during their first 15 months of life.
- \*Well Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)
  - The percentage of members 3-6 years of age who had one or more well-child visits with a PCP during the measurement year.

\*Metrics in addition to Healthier Washington pay for performance metrics for this project

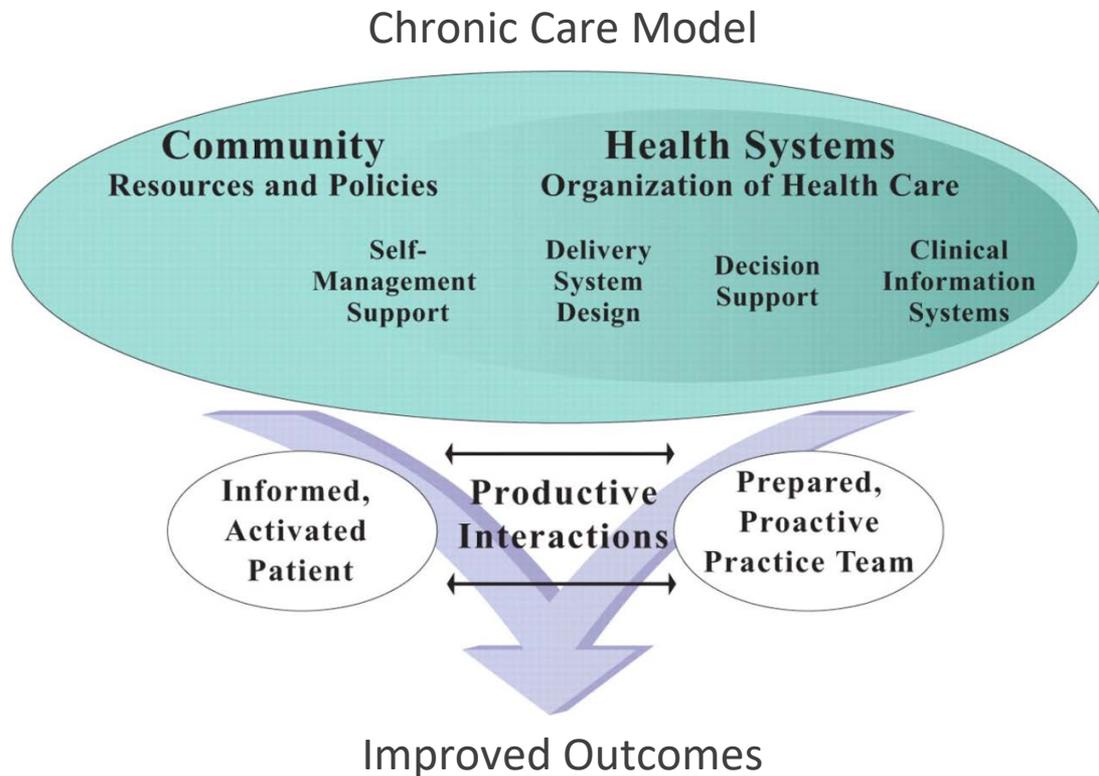
## References/Guidelines

1. NHLBI Guidelines 2007: <https://www.nhlbi.nih.gov/files/docs/guidelines/asthgdln.pdf>
2. Global Initiative for Asthma-Pocket Guide for Asthma Management and Prevention 2017: <http://ginasthma.org/2017-pocket-guide-for-asthma-management-and-prevention>
3. National Diabetes Prevention Program; <https://www.cdc.gov/diabetes/prevention/index.html>



# Evidence Based Approach: Chronic Care Model

The basic elements for improving care in health systems at the community, organization, practice, and patient levels.



Elements of the Chronic Care Model	
<u>Self-Management Support</u>	Empower and prepare patients to manage their health and health care.
<u>Delivery System Design</u>	Assure the delivery of effective, efficient clinical care and self-management support.
<u>Decision Support</u>	Promote clinical care that is consistent with scientific evidence and patient preferences.
<u>Clinical Information Systems</u>	Organize patient and population data to facilitate efficient and effective care (registries).
<u>Community-based Resources and Policy</u>	Activate the community, increase community-based supports for disease management and prevention, and development of local collaborations to address structural barriers to care.
<u>Health Care Organization</u>	Create a culture, organization and mechanisms that promote safe, high quality care.



# Chronic Asthma: NIH EPR-3

## Key Clinical Activities for Quality Asthma Care

Establish Asthma Diagnosis	Determine that symptoms of recurrent airway obstruction are present, based on history and exam: history of cough, recurrent wheezing, recurrent difficulty breathing, recurrent chest tightness; symptoms occur or worsen at night or with exercise, viral infection, exposure to allergens and irritants, changes in weather, hard laughing or crying, stress, or other factors; all patients $\geq 5$ years of age, use spirometry to determine that airway obstruction is at least partially reversible; consider other causes of obstruction.
Asthma Control	<ul style="list-style-type: none"> <li>Reduce Impairment: prevent chronic symptoms; require infrequent use of short-acting beta2-agonist (SABA); maintain (near) normal lung function and normal activity levels.</li> <li>Reduce Risk: prevent exacerbations; minimize need for emergency care, hospitalization; prevent loss of lung function (or, for children, prevent reduced lung growth); minimize adverse effects of therapy.</li> </ul>
Assessment & Monitoring	<ul style="list-style-type: none"> <li>Initial Visit: Assess asthma severity to initiate treatment</li> <li>Follow-up Visits: Assess asthma control to determine if therapy should be adjusted. Assess at each visit: asthma control, proper medication technique, written asthma action plan, patient adherence, patient concerns. Obtain lung function measures by spirometry at least every 1–2 years; more frequently for asthma that is not well controlled. Determine if therapy should be adjusted: maintain treatment; step up, if needed; step down, if possible. Schedule follow-up care. Asthma is highly variable over time. See patients: every 2–6 weeks while gaining control, every 1–6 months to monitor control; every 3 months if step down in therapy is anticipated.</li> </ul>
Use of Medications	<ul style="list-style-type: none"> <li>Select medication and delivery devices that meet patient's needs and circumstances: use stepwise approach to identify appropriate treatment options; inhaled corticosteroids (ICSs) are the most effective long-term control therapy; when choosing treatment, consider domain of relevance to the patient (risk, impairment, or both), patient's history of response to the medication, and willingness and ability to use the medication.</li> <li>Review medications, technique, and adherence at each follow-up visit.</li> </ul>
Patient Education for Self-Management	<ul style="list-style-type: none"> <li>Teach patients how to manage their asthma.</li> <li>Teach and reinforce at each visit: Self-monitoring to assess level of asthma control and recognize signs of worsening asthma (either symptom or peak flow monitoring); Taking medication correctly (inhaler technique, use of devices, understanding difference between long-term control and quick-relief medications).             <ul style="list-style-type: none"> <li><i>Long-term control medications</i> (such as inhaled corticosteroids, which reduce inflammation) prevent symptoms. Should be taken daily; will not give quick relief.</li> <li><i>Quick-relief medications</i> (short-acting beta2-agonists or SABAs) relax airway muscles to provide fast relief of symptoms. Will not provide long-term asthma control. If used <math>&gt;2</math> days/week (except as needed for exercise-induced asthma), the patient may need to start or increase long-term control medications.</li> </ul> </li> <li>Develop a written asthma action plan in partnership with patient/family (sample plan available at <a href="http://www.nhlbi.nih.gov/health/public/lung/asthma/asthma_actplan.pdf">www.nhlbi.nih.gov/health/public/lung/asthma/asthma_actplan.pdf</a>). Agree on treatment goals. Teach patients how to use the asthma action plan to: take daily actions to control asthma; adjust medications in response to worsening asthma; seek medical care as appropriate. Encourage adherence to the asthma action plan. Choose treatment that achieves outcomes and addresses preferences important to the patient/family. Review at each visit any success in achieving control, any concerns about treatment, any difficulties following the plan, and any possible actions to improve adherence. Provide encouragement and praise, which builds patient confidence. Encourage family involvement to provide support.</li> <li>Integrate education into all points of care involving interactions with patients. Include members of all health care disciplines (e.g., physicians, pharmacists, nurses, respiratory therapists, and asthma educators) in providing and reinforcing education at all points of care.</li> </ul>
Other Activities	<ul style="list-style-type: none"> <li>Control of Environmental Factors and Comorbid Conditions: Recommend ways to control exposures to allergens, irritants, and pollutants that make asthma worse. Treat comorbid conditions.</li> <li>Exercise-Induced Bronchospasm: Prevent EIB</li> <li>Pregnancy: Maintain asthma control through pregnancy</li> <li>Home Care: Develop a written asthma action plan and teach patients to: Recognize early signs, symptoms, and PEF* measures that indicate worsening asthma. Adjust medications (increase SABA* and, in some cases, add oral systemic corticosteroids) and remove or withdraw from environmental factors contributing to the exacerbation. Monitor response. Seek medical care if there is serious deterioration or lack of response to treatment. Give specific instructions on who and when to call.</li> <li>Urgent or Emergency Care: Assess severity by lung function measures (for ages <math>\geq 5</math> years), physical examination, and signs and symptoms. Treat to relieve hypoxemia and airflow obstruction; reduce airway inflammation. Monitor response with repeat assessment of lung function measures, physical examination, and signs and symptoms, and, in emergency department, pulse oximetry. Discharge with medication and patient education.</li> </ul>



# Chronic Disease Self-Management: Stanford CDSM

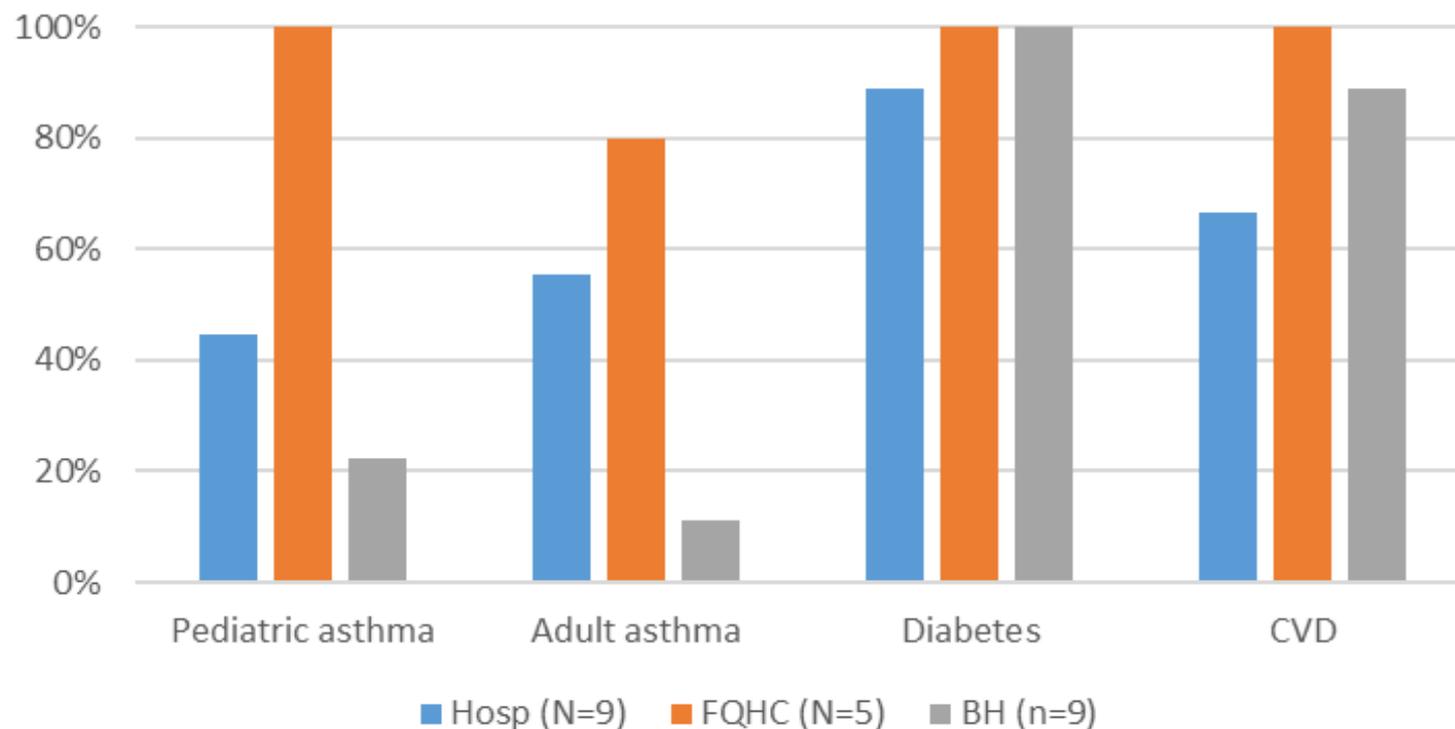
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- Program Goal: Enable participants to build self-confidence to take part in maintaining their health and managing their chronic health conditions.
- CDSMP is a weekly 2.5 hour lay-led participant education program over six weeks for adults experiencing chronic health conditions such as hypertension, arthritis, heart disease, stroke, lung disease, and diabetes; their family members, friends and caregivers can also participate. The program provides information and teaches practical skills on managing chronic health problems. The CDSMP gives people the confidence and motivation they need to manage their challenges.
- Reasoning behind the program design and elements:
  - People with chronic conditions have similar concerns and problems;
  - People with chronic conditions must deal not only with their disease(s), but also with the impact on their lives and emotions;
  - Lay people with chronic conditions, when given a detailed leader's manual, can teach the CDSMP as effectively, if not more effectively, than health professionals (Lorig et al, 1999);
  - The process or the way the CDSMP is taught is as important, if not more important, than the subject matter that is taught.
- The CDSMP focuses on problems common to individuals suffering from chronic diseases. Coping strategies such as action planning and feedback, behavior modeling, problem-solving techniques, and decision making are applicable to all chronic diseases. Individuals are taught to control their symptoms through: Relaxation techniques; Healthy Eating; Managing sleep and fatigue; Manage Medications; Exercise; Communication with health providers.
- Desired Outcomes:
  - Increases in healthy behaviors (i.e., exercise and cognitive symptom management techniques, such as relaxation);
  - Positive changes in health status (less pain, fatigue, and worry; less health distress);
  - Increased self-efficacy;
  - Better communications with health providers;
  - Fewer visits to physicians and emergency rooms.

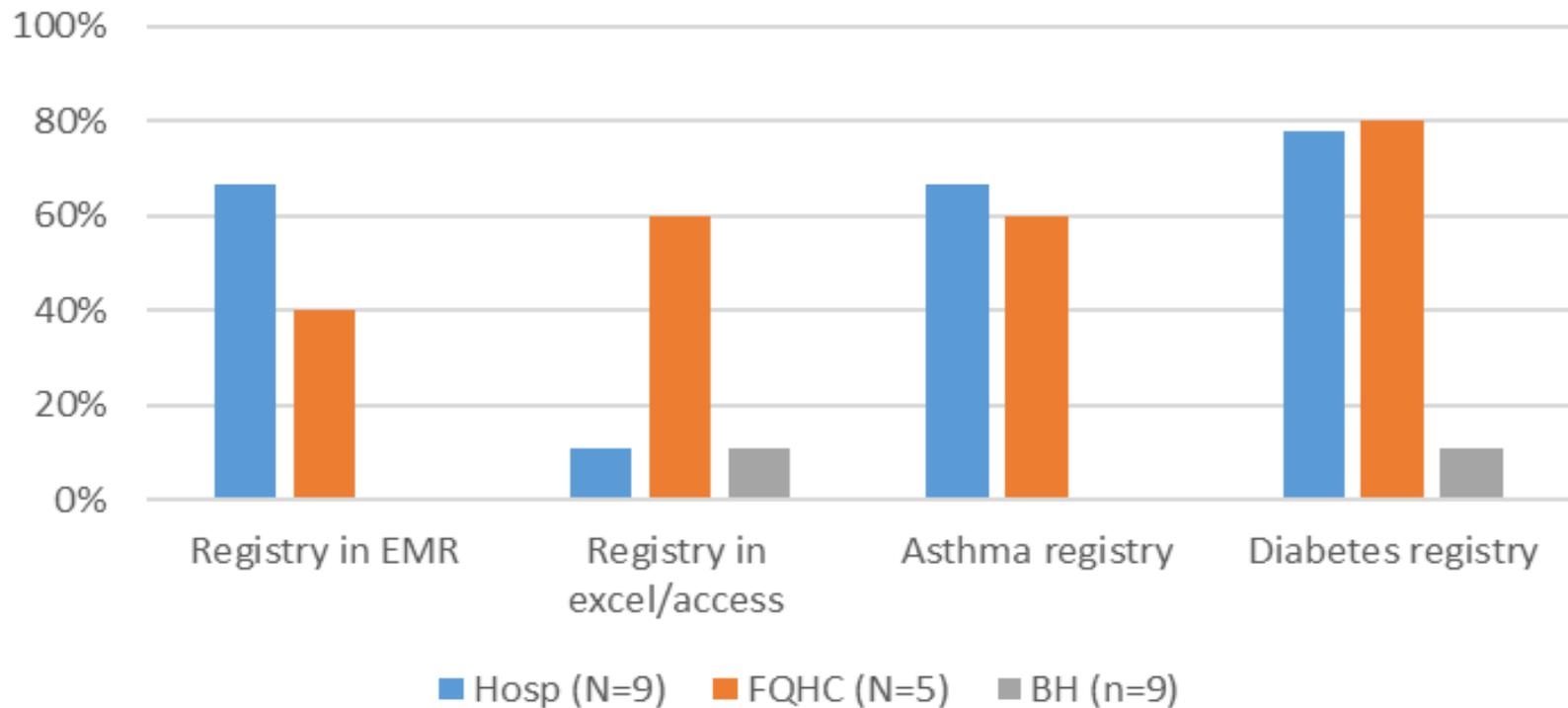
# Chronic Disease Prevention: Project-specific Current State Assessment Results



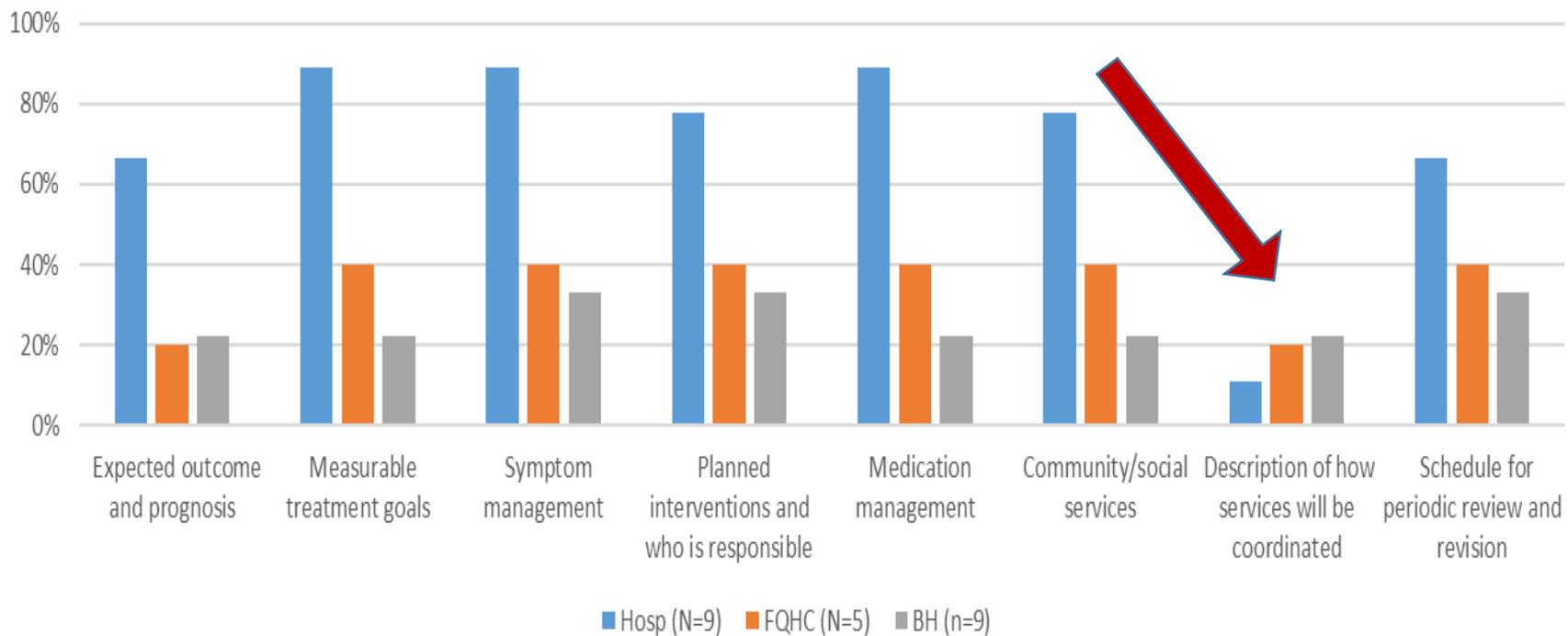
## All settings have interest are Diabetes and CVD



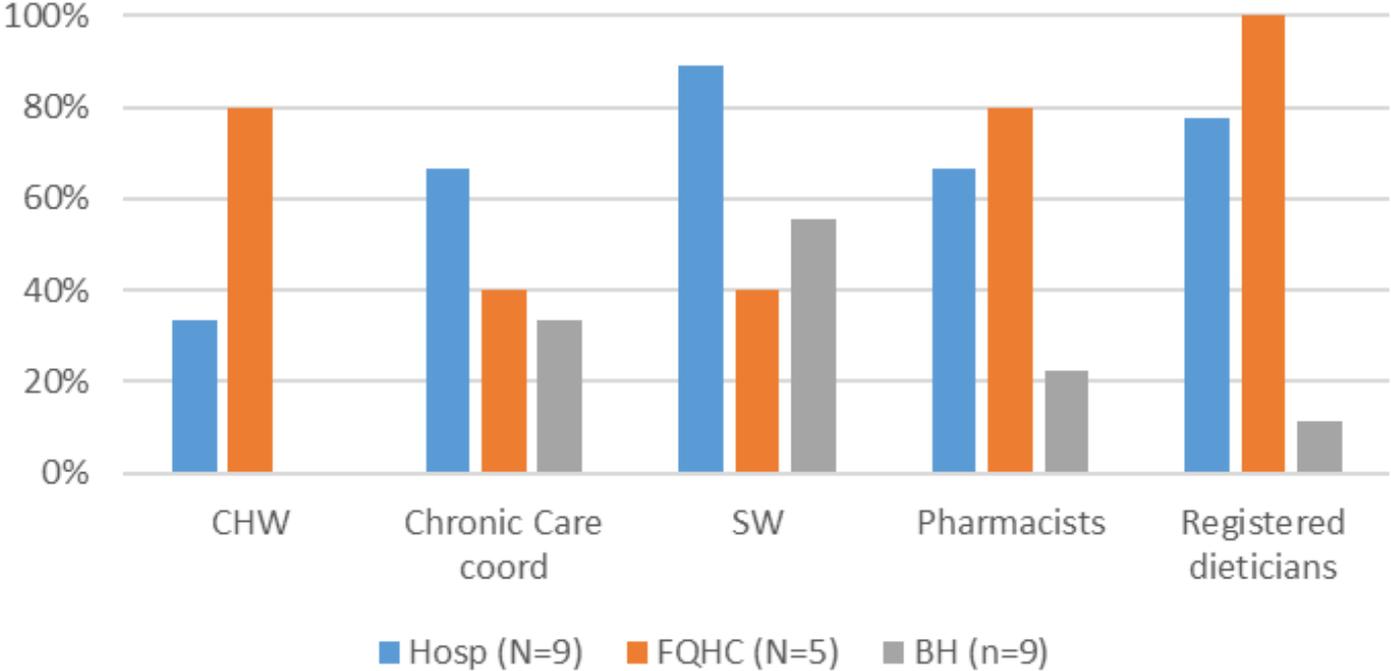
## BH agencies lag in use of registries



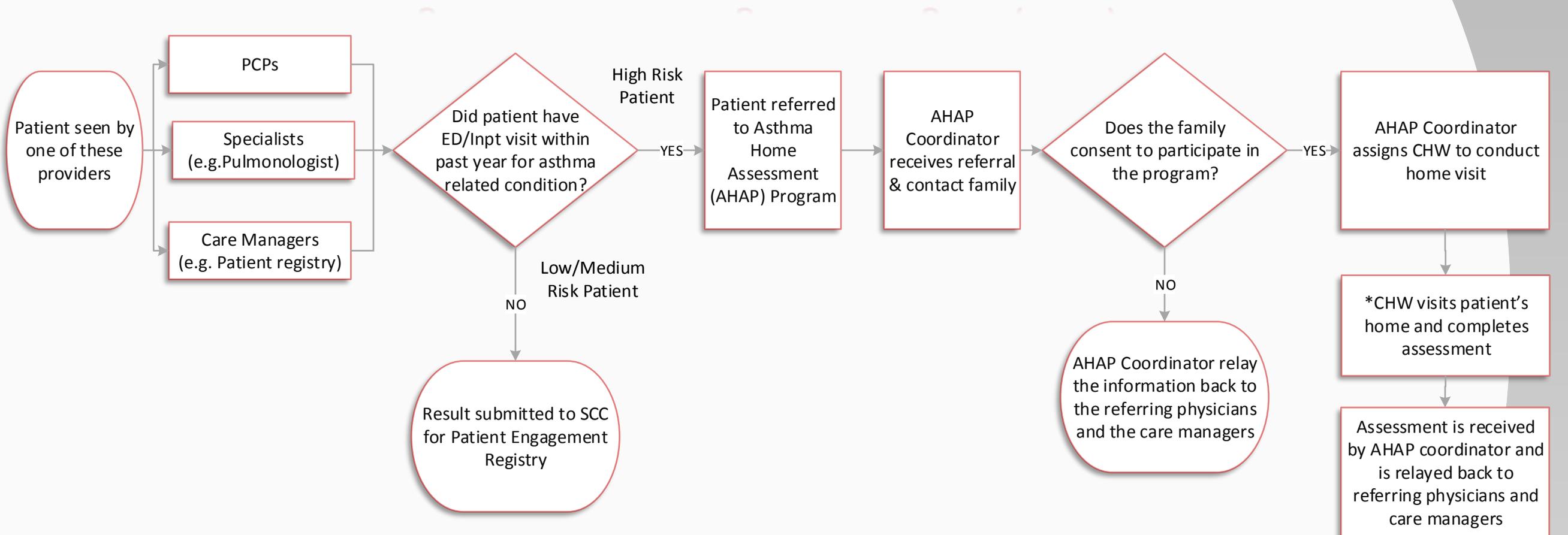
## Care plan content: inconsistent - and coordination is a notable gap



### Chronic disease care team composition varies



# Promoting Asthma Self Management Program (PASP) Flow Chart



1. Eligible Population: patients who are 0-25 years old, with Medicaid Insurance and diagnosed with asthma.
2. Patients could move from High Risk category to Medium/Low Risk category and vice versa with change of their health condition.

3. \* Please refer to the following diagram for CHW’s role as a bridge between clinicians and families.

## CHW acts as a bridge between clinicians and families

