

Bree Pediatric Asthma 05.04.22  
Home Environment Draft Recommendations

Resources for Recommendations:

CDC: Asthma Home-Based Multi-Trigger, Multicomponent Environmental Interventions for Children and Adolescents ([Link](#))

AAFA: Asthma Disparities in America (direct intervention recommendations start on page 133) ([Link](#))

NCQA/Penn Medicine: Critical Inputs for Successful Community Health Worker Programs ([Link](#))

Brookings Center for Health Policy: A Case Studying in Payment Reform to Support Optimal Pediatric Asthma Care ([Link](#))

Draft Recommendations

Home-based multi-trigger, multicomponent interventions can reduce exposure to multiple indoor asthma triggers (allergens and irritants). These interventions involve home visits by trained personnel to:

- Assess the home environment
- Change the indoor environment to reduce exposure to asthma triggers
- Provide trigger-abatement products, such as bedding encasements, vacuums, and cleaning supplies
- Provide education about the home environment

Programs may also include additional non-environmental activities:

- Training and education to improve asthma self-management
- General asthma education on self-care including medication adherence, inhaler technique, symptom management, and trigger assessment/reduction
- Social services and support
- Coordinated care for the asthma client, including referral to resources, such as cleaning services, mold removal, legal/housing assistance
- Reduce exposure to triggers in the home by providing trigger-abatement products and offering referrals to resources such as cleaning services, mold removal, pest management, and legal/housing assistance.
- Note: Remediation or remodeling may be out of reach due to financial barriers or the potential to increase triggers such as dust and volatile organic compounds.
- Pest management education and tools
- Encouragement of smoke-free environments
- Combined asthma-related interventions with other health interventions, such as teaching lead-poisoning prevention and offering vaccinations.

Successful asthma programs must include:

- Comprehensively target behavioral and social drivers of disparities, often through integrated medical, educational, and environmental interventions.
- Consider environmental tobacco smoke at the same level of importance as other asthma triggers.
- Tailor the program for diverse populations and cultures and design outreach to patients and their families.
- Address all four components of the National Heart Lung and Blood Institute's (NHLBI) National Asthma Education Prevention Program's (NAEPP) clinical guidelines.
- Include a face-to-face educational element.

Operational/Programmatic Recommendations:

- Hire and train community health workers to implement interventions to improve outreach to primarily low-income and ethnic minority populations.
  - Follow the [NCQA/Penn Medicine guidelines](#) to support CHWs, including recruitment via community-based avenues, minimizing traditional hiring barriers, providing promotions/leadership opportunities, and ensuring sustainable funding.
- Several different professionals may be responsible to conduct home-based assessments and interventions, including community health workers, promotoras, nurses, social workers, or certified asthma educators.
- Expand adoption of comprehensive asthma education programs for high-risk populations. Use existing evidence on improved outcomes and cost-effectiveness to make the case for adoption.
- Address barriers to implementation, including reluctance of families or caregivers, inability to maintain follow-up, difficulty scheduling, and poor compliance.

Care Coordination/Communication Recommendations

- Form strong partnerships and communication policies between health and social service organizations.
- Invest in bidirectional care coordination solutions.

Funding Recommendations (will be included in later conversations as well)

- Consider payment model other than FFS, including bundled payment options for asthma
- Draw on existing payment reform from other states, including Massachusetts' high-risk asthma bundle payment through a Medicaid 1115 waiver and Arkansas' statewide acute care bundle for asthma based on a patient-centered medical home model.