

Asthma

About Technical Assistance Briefs. The MCH Evidence Center provides ongoing technical assistance (TA) to Title V agencies related to the emerging evidence base, strategies, and measures related to many topics interconnected with National Performance Measures and other critical topics in MCH. *Technical Assistance Briefs* are an outcome of these TA sessions that are designed to act as *conversation starters* in thinking about programs that can be developed to address issues that affect women, infants, children, adolescents, youth, families, and communities. These briefs are not meant to be comprehensive; full analyses of the NPM topic areas are provided in [Evidence Analysis Reports](#).

The Center makes these customized briefs available during TA and on the program website to identify evidence-based/informed strategies, promising practices, examples of ESMs from the field and peer-reviewed resources. Please [contact us](#) if you would like us to develop a similar report for topics that you are working on.

Initial Query for this Brief. Identify measures and best practices around Asthma.

Evidence-Based Strategy Measures

ESM: Program Integration. These ESMs have been chosen by other states. You can review the ESMs to see if any resonate with your goals. Evidence Center staff are available to talk through how you could modify select ESMs to serve your needs.

State	ESMs
PA	ESM 11.5 Percent of families who successfully complete the Room2Breathe Asthma home visiting program
WV	ESM 14.2.1 Percent of children in households where someone smokes
TX	ESM 14.2.1 Number of materials distributed to household members and caregivers intended to raise awareness about the risk of infant and child exposure to tobacco
KY	ESM 14.2.1 Increase by 5% the number of Kentuckians covered by comprehensive smoke-free policies by 2026. Baseline: 32.7% (2017) Data Source: DPH and Kentucky Center for Smoke-Free Policy

Evidence-Based Strategies – What Works for Health

The following programs have been identified as effective models related to asthma

Title	Link	Category
Smoke-free policies for indoor areas	https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/smoke-free-policies-for-indoor-areas	Scientifically Supported
Chronic disease management programs	https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/chronic-disease-management-programs	Scientifically Supported
Housing rehabilitation loan and grant programs	https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/housing-rehabilitation-loan-grant-programs	Scientifically Supported

Health home environment assessments	https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/healthy-home-environment-assessments	Scientifically Supported
Secondhand smoke education interventions	https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/secondhand-smoke-education-interventions	Mixed evidence
Chronic disease self-management (CDSM) programs	https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/chronic-disease-self-management-cdsm-programs	Scientifically Supported

Evidence-Based Strategies – Innovation Hub

The following programs have been identified as effective models related to asthma

Title	Link	Category
Environmental Health Training for Nursing Students	https://amchp.org/wp-content/uploads/2021/05/Environmental-Health-Training-for-Nurses_2015.pdf	Emerging
The Health e-Access Telemedicine Program	https://amchp.org/wp-content/uploads/2021/05/Health-e-access-program_2015.pdf	Best
Rapid Adolescent Prevention Screening (RAAPS)	https://amchp.org/wp-content/uploads/2021/05/Rapid-Adolescent-Prevention-Screening-RAAPS_Practice-Handout_Promising.pdf	Promising

[Evidence-based/evidence-informed, best, promising, and emerging practices](#)

2+2 ASTHMA CREW

- This project involves five elementary campuses in the North East Independent School District. These schools are considered economically disadvantaged and where asthma may be negatively impacting the students in meeting their full academic potential due to loss of instruction time and/or absenteeism. The asthma prevalence rates are above the district average of 12%.
- San Antonio, Texas

Accountable Communities: Healthy Together - Asthma (ACHT-A)

- Georgia
- ACHT-A is a collaborative between the Georgia State University Institute of Public Health, Southside Medical Center, and the Georgia Department of Early Care and Learning: Bright from the Start. The purpose of ACHT-A is to decrease the burden and experience of adverse effects associated with childhood asthma.

AFFORD (Asthma in Families Facing Out-of-Pocket Requirements with Deductibles) Study

- In partnership with the Harvard Pilgrim Health Care Institute and the Department of Population Medicine at Harvard Medical School, the Asthma and Allergy Foundation of America is evaluating how different types of health insurance plans affect the experiences of people with asthma.

A.I.R. NYC

- A.I.R. NYC (Asthma Intervention and Relief, New York City), is an evidence-based model to help families control asthma and maintain healthy, active lives.

- Our staff members work closely with families, schools, community-based organizations, and healthcare providers to coordinate control efforts for maximum impact.
- After 12-months in our program, participants have a 64% decrease in emergency department visits, an 81% decrease in hospitalizations, and a 61% decrease in absences due to asthma.
- New York City, New York

American Academy of Pediatrics Community Pediatric Funded Projects

- [Developing a Pictorial Asthma Action Plan](#) (2020)
 - Develop culturally informed and health literacy friendly pictorial action plans for children living in Baltimore City
 - Similar study: [Using pictorial asthma action plans to promote self-management and health in rural youth with asthma](#) (West Virginia, ended 2018)
- [Identification of Asthma Among the Underserved](#) (2019)
 - Screening and diagnosis with children at high-risk or with uncontrolled disease
 - Kansas City, MO
- [Community Asthma Initiative Replication in New Communities](#) (2018)
 - Uses community health workers to work with low-income children
 - Boston, MA
- [Getting A Head Start on Asthma](#) (2018)
 - Focuses on preschool children in Head Start programs
 - Webster and Southbridge, MA
- [Urban School District's Action Against Asthma](#) (2018)
 - Understand school management of asthma for children ages 5 – 17 in an urban school setting
 - Utilizes the EPA's Air Quality Tool for Schools
 - Allentown, PA
- [Engaging Caregivers, Children and Adolescents in Managing Asthma](#) (2017)
 - Expands the existing Pediatric Asthma Project called Asthma Improves with Management (AIM) to serve high-risk, underserved families in an urban environment.
 - Create a learning network for asthmatic families and community stakeholders
 - Trenton, NJ
- [ECHO-Chicago "Complex Pediatric Asthma"](#) (2017)
 - Build capacity for management of complex pediatric asthma among PCPs in underserved communities using evidence-based practices and standardized assessments.
 - Connect with pediatric asthma community health workers, using the ECHO-Chicago trained providers on the south side of Chicago.
 - Chicago, IL
- [Asthma Control Every day at School](#) (2017)
 - Identify students in a school setting who have asthma, but lack medication and action plans
 - Charlottesville, VA
- [Asthma Community Ties/Innovation Network \(ACTION\)](#) (2015)
 - MCI is based on HCZ and provides baseline in-home environmental, air quality and asthma symptom/checklists assessment
 - Miami, FL

[AHRQ Agency for Healthcare Research and Quality: Innovation Exchange](#)

- [Translating an efficacious illness management intervention for African American youth with poorly controlled asthma to real-world settings \(2017 – 2022\)](#)
 - Multisystemic Therapy-Health Care (MST-HC) is an intensive, multi-component, home-based psychotherapy that targets the multiple causes of poor adolescent asthma management across individual, family, and community systems, focusing on the African American children and adolescents.
 - Michigan
- [Improving patient-centered outcomes after discharge among patients hospitalized with asthma exacerbations by focusing on a transition-to-home plan with community health workers \(2016 – 2021\)](#)
 - This project is a highly patient-centered approach to identifying and improving optimal outcomes for patients and families transitioning home after inpatient admissions for asthma exacerbations. Using the care coordination framework proposed by the Agency of Healthcare Research and Quality (AHRQ) in June 2014, this project utilizes the principles of patient-centered outcomes research (PCOR) and comparative effectiveness research (CER) to design and pilot a program of community health worker (CHW)-facilitated transition-to-home focusing on the changeover of care from inpatient to outpatient for patients hospitalized with asthma exacerbation.
 - Washington, D.C.
- [Using pictorial asthma action plans to promote self-management and health in rural youth with asthma](#) (ended in 2018)
 - This project sought to establish the feasibility, efficacy, and acceptability of a symptom-based, computer-generated pictorial AAP relative to usual care
 - West Virginia
 - Similar study: [Developing a Pictorial Asthma Action Plan](#) (Baltimore, MD - 2020)
- [Implementing a guidelines-based mHealth intervention for high-risk asthma patients](#) (2018 – 2023)
 - The overall goal of the RCT is to examine the effectiveness of a personalized, interactive asthma smartphone application in reducing asthma morbidity among adolescents who are at increased risk for future asthma exacerbations
 - Arkansas
 - Similar study: [Asthma mobile app development, dissemination and evaluation](#)
- [Peer-administered asthma self-management intervention for urban middle schools](#) (ended 2015)
 - The goal of this project was to develop and test a 4-session, peer-facilitated asthma self-management intervention for Latino, middle school-aged (6th-8th graders) children in urban public-school settings. Asthma Self-Management in Schools was designed to be administered by trained and supervised High School (HS) juniors and seniors of Latino descent with asthma to a group of younger peers with asthma (11-13 years of age).
 - Rhode Island and Puerto Rico
- [Using question prompts list during pediatric asthma visits to increase adolescent involvement](#) (ended 2019)
 - The objective of this project was to compare the asthma question prompt list intervention with usual care. Researchers conducted focus groups with providers, parents, and teens from diverse cultural backgrounds to determine how to involve teens during visits and how to improve the question prompt list. Short video educational program that emphasized the importance of engaging teens in meaningful conversation during their visits.
 - North Carolina
- [Peer-led self-management for adolescents \(PLASMA\): a multi-site study \(ended 2019\)](#)

- This multi-site randomized controlled study implemented and evaluated a peer-led asthma self-management for adolescents (PLASMA). PLASMA comprised three main components: (a) peer-leader training, (b) a one-day asthma camp where peer leaders delivered manualized self-management content recommended by the national guidelines, and (c) bi-monthly peer-leader contacts.
- [Baltimore, Maryland; Buffalo, New York and Memphis, TN](#)
- [Comparative effectiveness of multi vs. single individual allergen reduction strategies on asthma morbidity \(PCORI\) \(2020 – 2024\)](#)
 - The research team is comparing two ways to improve asthma symptoms. These include: Reducing Cockroaches vs. Reducing Multiple Triggers
 - [New Orleans](#)
 - Similar study: [Imperial County asthma comparative effectiveness research project](#)
- [Health literacy: Disparities and transition in teens with special healthcare needs](#) (ended 2018)
 - The objective of this study was to conduct a large-scale study of health literacy and health outcomes in teens with special health care needs.
 - United States

[Asthma-Friendly Child Care](#)

- This project reduces the incidence of asthma, asthma related complications and hospitalizations among children who are in childcare settings. The project provides asthma prevention and management training to childcare providers and parents through individualized on-site consultation and group trainings.
- Training and resources are provided in Spanish, Chinese and English.
- Alameda, CA

[Asthma and Allergy Foundation of American \(AAFA\)'s Asthma Management Education](#)

- Funded by the EPA, this program will teach health professionals about asthma management and environmental control through the [Asthma Management Education \(AME\)](#) onsite and online programs.
 - The online course offers 8.75 contact hours for respiratory therapists and nurses.
- Using the [Asthma and Allergy Essentials for Childcare Providers program](#) (under development), a six-year project will teach childcare providers about asthma management and controlling indoor and outdoor environmental triggers.

[Asthma and Allergy Foundation of America \(AAFA\)'s Community Health Interventions to Advance Self-Management of Asthma \(CHI-ASMA\) Project](#)

- The CHI-ASMA project aims to help people with asthma improve asthma control in order to reduce asthma rates and deaths.
- Strategies include:
 - Promoting updated guidelines from [Expert Panel Report 4 \(EPR-4\)](#) by developing programs for clinicians, patients and caregivers;
 - Promoting guidelines-based asthma care for military service members;
 - Working with community health workers to reduce asthma triggers in the home; and
 - Launching three national awareness campaign.
- CHI-ASMA project also works with partners to promote NACP asthma strategies and interventions (CCARE and EXHALE)

- [Controlling Childhood Asthma and Reducing Emergencies](#) (CCARE) is a new objective from the CDC that used EXHALE strategies.
- CDC's [EXHALE Strategies to Control Asthma](#) include:
 - Education on asthma self-management
 - X-tinguishing smoking and secondhand smoke
 - Home visits for trigger reduction and self-management education
 - Achievement of asthma guidelines-based medical management
 - Linkages to the coordination of care across settings
 - Environmental policies or best practices to reduce indoor, outdoor, and at-work asthma triggers.
- Using the [Power Breathing Program](#), a five-year school-based program educates school staff, teens, parents and community health professionals with asthma.
- Using the [You Can Control Asthma](#) program, a three-year project teaches school-age children with asthma and their families to manage their chronic condition.
- Using the [Asthma Basics for Children](#) program, a five-year project trains Head Start health service coordinators to teach fellow staff, young children with asthma and their families to manage their chronic condition.
- A five-year project will create easy-to-read educational lessons and materials in English and Spanish about asthma for home visitors and childcare providers.

[Boston Children's Hospital's Community Asthma Initiative \(CAI\)](#)

- Boston Children's CAI selects at-risk children, based on inpatient admission and emergency department records, and specialty and primary care provider referrals. Children are stratified by risk for participation. The majority are low-income Black and/or Latino children.
- The intervention begins with a home environmental assessment to determine the child's exposures.
 - Program staff work with each family to understand its child's asthma, reviewing the medications used to treat it and identifying asthma triggers in the home and other places where the child spends time.
 - After the needs of the child have been assessed, CAI staff address some of the underlying causes unique to that family, such as substandard housing or lapses in insurance that can be additional barriers to the family in controlling the child's asthma.
- CAI was designed to provide culturally and linguistically appropriate asthma education to the family and caregivers of children with asthma.
- Nurses and community health workers provide case management, tailored to the needs and health literacy of the family, through home visits and telephone follow-up.
 - This tailored case management ensures that the child's care is coordinated with primary care and asthma specialists.
- The lessons learned and best practices from that effort have been collected into the [Boston Children's Hospital Community Asthma Initiative Program Replication Manual](#)
- To learn more about the [Community Asthma Initiative](#)

[Children's Health Alliance of Wisconsin](#)

- [School-based Asthma Management Program \(SAMPRO\) Toolkit](#) developed in collaboration with University of Wisconsin-Madison's School of Medicine and Public Health, Health Innovation Program and AAAAI.

Community Asthma Prevention Program (CAPP)

- The Community Asthma Prevention Program (CAPP) at the Children’s Hospital of Philadelphia (CHOP) serves low-income and under-resourced communities in Philadelphia, PA which have high asthma prevalence and hospitalization rates.
- CAPP focuses on fighting disparities in childhood asthma and providing asthma self-management education in all sectors of a child’s life, including the home, community, school, and health care environments.
- The program equips families with asthma self-management education, in-home assessments for asthma triggers, remediation supplies, and connections to community-based resources to improve children’s asthma.
- Community in Action award winner from the [Asthma Community Network](#)

County Health Rankings – What Works for Health

- [School-Based Health Centers \(SBHCs\)](#)
 - Providers at SBHCs often manage chronic illnesses such as asthma, mental health conditions, and obesity. Most patients treated at SBHCs are children insured by Medicaid or children without insurance ([CG-SBHC](#), [Keeton 2012*](#)). SBHCs are most common in urban areas and may be funded at the federal, state, or local level ([SBHA-SBHC](#)).
 - There is strong evidence that SBHCs
 - increase access to care ([Bains 2016*](#), [Mason-Jones 2012](#), [Guo 2010a*](#), [Wade 2008*](#), [Kisker 1996*](#), [Anyon 2013*](#), [Albright 2016*](#))
 - improve health outcomes ([CG-SBHC](#), [Kong 2013](#), [McNall 2010*](#), [Guo 2008](#))
 - reduced health care costs, particularly costs to Medicaid ([Guo 2010a*](#), [Guo 2008](#), [Wade 2010*](#)) and costs from asthma-related hospitalizations ([Guo 2010a*](#))
 - increase academic achievement ([CG-SBHC](#), [Wade 2008*](#), [Strolin-Goltzman 2014*](#), [Walker 2010*](#)) for participating children.
 - SBHCs are associated with
 - improved quality of care ([CG-SBHC](#), [Riley 2016*](#))
 - fewer emergency room visits
 - reduced hospital utilization ([CG-SBHC](#), [Guo 2005*](#))
 - increased immunization rates ([CG-SBHC](#), [Federico 2010*](#))
 - improved students’ health behaviors including physical activity and consumption of healthy foods ([McNall 2010*](#))
 - reduced absenteeism ([Walker 2010*](#), [Strunk 2008*](#))
 - increased graduation rates and reduced dropout rates ([CG-SBHC](#), [Strunk 2008*](#))
 - increased students’ connectedness to school ([Strolin-Goltzman 2014*](#)).
 - SBHCs have been shown to
 - increase access to care for minority students ([CG-SBHC](#), [Guo 2010a*](#)), particularly black and Latino students ([Anyon 2013*](#)), students with disabilities ([Guo 2010a*](#)), and underserved urban youth ([Kisker 1996*](#))
 - reduce disparities in academic achievement ([Kerns 2011*](#)).
- [Text message-based health interventions](#)
 - Text message-based health interventions provide patients with reminders, education, or self-management assistance for a broad spectrum of health conditions. Interventions are most frequently used as a part of broader health promotion efforts or to help individuals manage chronic diseases ([Tofighi 2017*](#)).
 - Text messages may be standardized or tailored to specific patients and sent at varied frequencies based on the intervention ([Orr 2015](#)). Text messaging can be combined with other approaches or delivered as part of a stepped care or

progressive intervention that is tailored to patients' needs, beginning with the least intensive treatment and moving to more intensive, and often expensive, treatments as needed ([Tofighi 2017*](#)).

- Text message software and smartphone apps can be integrated into electronic health records (EHRs) to send alerts and reminders to patients ([Perri-Moore 2016](#))
- Text message-based health interventions improve health outcomes for adolescents with chronic conditions ([Badawy 2017a](#)) and appear to be as effective as, and in some cases better than, usual care in the self-management of chronic illnesses....[including] improve asthma self-management ([Buhi 2013*](#))
- Text messaging, alone or with an internet-based component, has been shown to change health behaviors in the short-term ([Buhi 2013*](#), [Head 2013a*](#), [Fjeldsoe 2009*](#)) and in some cases has longer-term effects ([Armanasco 2017*](#), [L'Engle 2016*](#), [Poorman 2015](#), [Loescher 2018*](#)). Such interventions increase tobacco cessation ([Cochrane-Whittaker 2016*](#), [Poorman 2015](#)) and reduce tobacco ([Scott-Sheldon 2016*](#), [Mason 2015a](#), [Loescher 2018*](#))
- Text messaging interventions can increase medication adherence ([Schwebel 2018*](#), [Tofighi 2017*](#), [L'Engle 2016*](#), [Orr 2015](#), [Hamine 2015](#))...adolescents ([Badawy 2017a](#)) with chronic conditions such as asthma ([Hall 2015](#), [Loescher 2018*](#))
- In some cases, two-way text communication can be more effective than one-sided reminders ([Vargas 2017](#)).
- Tailoring messages and using participants' preferred language may contribute to participant satisfaction with text message-based health interventions ([Park 2014*](#)).
- The intervention characteristics that are most beneficial will vary based on the specifics of the health condition addressed and population served ([Schwebel 2018*](#), [Loescher 2018*](#), [Armanasco 2017*](#), [Hall 2015](#)).
- No impact on disparities, likely

[Esperanza Community Housing Corporation's Healthy Breathing Program](#)

- Esperanza Community Housing Corporation (Esperanza) serves the communities located in South Los Angeles, an area that is home to almost one million residents and one of the most economically disenfranchised areas in the County of Los Angeles.
- Along with their team of **Promotores**, Esperanza's **Healthy Breathing Program** partners with federally qualified health centers, local hospitals, and clinics to provide comprehensive services to asthma patients throughout the year. Esperanza's Healthy Breathing Program features repeated in-home visits and a year-long patient evaluation; identifies and helps control in-home asthma triggers; and, provides in-depth asthma education for patients, household members, and caregivers.
- The Healthy Breathing Program provides valuable cost savings by reducing the number of unnecessary emergency room visits. A 2012 analysis of a single emergency department saw more than 1.4 million dollars in savings by utilizing preventative in-home and outreach education.
- Community in Action award from the [Asthma Community Network](#)

[Green and Healthy Homes Initiative \(GHHI\)](#)

- GHHI serves low-income families living in Baltimore City, MD, using a transformative asthma management model that combines in-home family asthma education; a comprehensive health, safety, and home energy audit; and root cause remediation.

- Working as a coalition of 35 federal, state, local, nonprofit, university and philanthropic partners, GHHI provides health-based housing intervention services to families with asthmatic children ages 2–14 who live in neighborhoods with the highest rates of asthma in the state.
- GHHI integrates “green” weatherization and energy efficiency work with traditional healthy homes services, such as integrated pest management and mold removal, to achieve maximum health benefits for the target population.
- GHHI Baltimore builds the community’s human capital by deploying its own team of contractors to conduct multi-component home interventions and by hiring residents of at-risk Baltimore communities who receive training and accreditation to conduct interventions.
- With MDHMH funding, GHHI provides training to clinicians and staff of local community clinics and participates in Grand Rounds Trainings for physicians, pediatricians, nurses, and other health care providers.
- Community in Action award from the [Asthma Community Network](#)

[Indoor Air Quality \(IAQ\) Tools for Schools Action Kit by the Environmental Protection Agency](#)

- *IAQ Tools for Schools* Action Kit shows schools how to carry out a practical plan to improve indoor air problems at little- or no-cost using straightforward activities and in-house staff. The Kit provides:
 - best practices
 - industry guidelines
 - sample policies
 - a sample IAQ management plan

[King County Asthma Program \(KCAP\) and Guidelines to Practice \(G2P\) Asthma Project](#)

- For more than 20 years, KCAP’s home visiting program with community health workers (CHWs) to reduce asthma triggers in homes and improve asthma outcomes has informed asthma services offered across the nation.
- KCAP’s current Guidelines to Practice (G2P) is a PCORI funded project that focuses on coordinating care and services for low-income clients with poorly controlled or uncontrolled asthma, specifically for King County’s African American, Hispanic, and Somali communities. These communities are disproportionately affected by asthma and more likely to live in housing that exposes them to asthma triggers.
- The program coordinates care between the patient, the patient’s health care provider and the patient’s health plan.
 - Experienced CHWs work with patients in their homes to reduce asthma triggers; they also provide case management, support, supplies and resources to help patients self-manage their asthma.
- Working with several clinics and health plans, KCAP has developed an enhanced electronic health record template that streamlines communication between CHWs, care providers and health plan managers, making it easier for patients to access care. The three care teams are now able to work from a shared asthma care plan.
- KCAP’s current program works with care providers and health plans to change systems and improve delivery of services in the community. KCAP is working with 13 clinics and two health plans to improve clinical care guidelines; equip clinics with spirometry and allergy testing; and optimize electronic health records to improve communication and care coordination between care providers, patients, CHWs and health plans.
- Community in Action award from the [Asthma Community Network](#)

National Heart, Lung, Blood and Sleep Disorders (NHLBI) Institute Publications and Resources

- [A Breath of Life: Asthma Control for Children.](#)
 - Designed to help promote and teach a 6-lesson course on asthma management and control specifically created for the Latino community. Content is based on the NHLBI National Asthma Education and Prevention Program's updated Guidelines for the Diagnosis and Management of Asthma.
 - [English](#)
 - [Spanish](#)
- [National Asthma Control Initiative \(NACI\): Keeping Airways Open](#) (Fact Sheet)
 - This 2-page summary of NACI's multi-component, mobilizing, and action-oriented initiative highlights the program and their efforts to engage diverse stakeholders who are concerned about or involved in improving asthma control. Its ultimate aim is to align the asthma care that patients receive with evidence-based recommendations from two reports published by the NAEPP: The Expert Panel Report 3 (EPR-3) and its companion Guidelines Implementation Panel (GIP).

Promoting Asthma Patient Engagement in Research

- A PCORI funded project working with asthma patients and the research community.
- Aims:
 - Increase the knowledge and skills of asthma patients, families, and caregivers;
 - Prepare patients, families, and caregivers to take part in the design, implementation, and evaluation of outcomes research; and
 - Train patients to understand and use the results of research to make health care decisions.

Omaha Healthy Kids Alliance (OHKA), Asthma In-Home Response Program

- Project AIR is a program within the OHKA and serves children 0 – 18 who have an asthma or asthma-related diagnosis by reducing in-home hazards.
- Project AIR works to improve the quality of life for children with asthma and their families by educating them on indoor environmental asthma triggers, empowering positive behavior changes, connecting them with low-cost supportive solutions, and supporting them by providing free construction services.
- Project AIR aims to reduce emergency department visits and hospitalizations resulting from pediatric asthma, decrease symptomatic days, improve quality of life for children and their families, and increase productivity by reducing asthma-related missed school and workdays.
- After 12 months, Project AIR noted a significant decrease in symptomatic days, fewer missed school days, fewer emergency room visits and hospitalization rates, and a decrease in medication usage. An evaluation of Project AIR return on investment showed for every \$1 invested in a family and their home, a \$1.83 return was made.
- Community in Action award from the [Asthma Community Network](#).

Rhode Island Department of Health Asthma Control (RIDHAC) Program: Home Asthma Response Program (HARP)

- HARP provides community-based services and interventions for children 0 - 17 with asthma in four high-poverty, urban “core cities” throughout the state, where the burden of asthma is the highest.
 - The burden of asthma also falls disproportionately on black and Hispanic children, children in low-income households, and children living in low-income urban neighborhoods.
- The program recently expanded to provide HARP home-visiting services statewide for Medicaid-enrolled children.

- HARP is an evidence-based program established in 2010 to address the needs of children with poorly controlled asthma and uses certified asthma educators (AE-Cs) and community health workers (CHWs) to conduct up to three intensive in-home sessions for each child.
 - During these home visits, AE-Cs and CHWs provide tailored educational and environmental services, including an extensive environmental assessment, asthma self-management education, and cost-effective supplies to reduce home asthma triggers.
- CHWs have reported reductions in environmental triggers, including mold, pests, dust, pets, tobacco smoke and chemicals. Using hospital claims data, the program was able to show a 75% reduction in asthma-related hospital and emergency department costs for HARP participants. For every \$1 invested, HARP participants realized a \$1.33 return on investment.
- In 2015, RIACP and partners launched the Comprehensive Integrated Asthma Care System (CIACS) to link home-based, school-based and health systems interventions as one unified package. HARP became one of four interventions offered, in addition to the Breathe Easy at Home Project, Controlling Asthma in Schools Effectively Project, and Draw A Breath workshop program.
 - These interventions have been implemented in the four core cities, and a CIACS Advisory Group—comprising public health professionals, asthma researchers, a nurse, CHWs, and a data manager—works collaboratively on the implementation and evaluation of asthma services.
 - The CIACS Advisory Group is Rhode Island’s first researcher-practitioner partnership to reduce the burden of asthma in children.
- Community in Action award from the [Asthma Community Network](#)

Resources and Information

[Agency for Healthcare Research and Quality - Asthma](#)

- [Asthma Care Quality Improvement: A Resource Guide for State Action](#). This comprehensive guide offers a wealth of information and details for a range of participants in a State's quality improvement effort, including State elected leaders, executive branch officials, and other nongovernmental State and local health care leaders. The Resource Guide provides background information on why States should consider asthma as a priority for State action, presents analysis of State and national data and measures of asthma quality of care, and gives guidance for developing a State quality improvement plan. A list of over 100 separate national, State, and local efforts to improve asthma care quality is included.
- [Asthma Care Quality Improvement: A Workbook for State Action](#). A companion to the Resource Guide, the interactive Workbook presents review exercises for State leaders on the key skills and lessons from the Resource Guide to use in making the case for asthma care quality improvement, learning from improvement efforts already underway, measuring asthma quality of care, and implementing asthma care quality improvement plans using a State-led quality improvement framework. These practical exercises enable Workbook users to focus on their States in comparison to the Nation and other States.

[2019 State Honor Roll of Asthma and Allergy Policies for Schools](#)

- Ranks the states with the best public policies for people with asthma, food allergies, anaphylaxis, and related allergic diseases in U.S. elementary, middle, and high schools.
- [Maryland's Report](#)

[Community-Based Approaches for Optimal Asthma Outcomes and Accountable Population Health](#)

- AAFA and the Brookings Institute released [Community-Based Approaches for Optimal Asthma Outcomes and Accountable Population Health](#) that looks at how communities and clinics can improve outcomes for patients with asthma and lower health care costs.
- The paper examines the social causes of asthma and how we can address them in order to improve health, treatment, and lower costs.

Asthma: Technical Assistance Brief

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Access other resources at <https://www.mchevidence.org>

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