EXECUTIVE SUMMARY

About the Asthma Mitigation Project

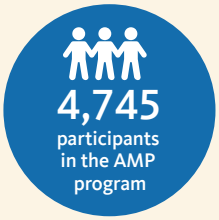
Asthma is a common chronic respiratory condition and a leading cause of hospitalization. Although it affects Californians of all ages, races, and ethnic groups, low-income communities and communities of color suffer substantially higher fatality rates, hospital admissions, and emergency department visits. Many studies have shown that asthma home visiting programs can improve asthma control, thereby reducing emergency department visits, hospitalizations, and missed work or school days.

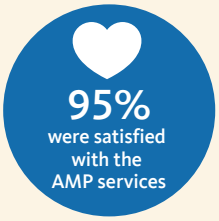
The Center at Sierra Health Foundation (The Center) was awarded $15 million from the California Department of Health Care Services (DHCS) to implement the Asthma Mitigation Project (AMP), which supports asthma home visiting services to individuals with poorly controlled asthma throughout the state. AMP awarded almost $12 million in grants to 28 "funded partner" organizations, who delivered culturally and linguistically responsive asthma home visiting services, mitigation supplies, and resources to children and adults in low-income communities and communities of color with disproportionate rates of asthma. The Center, along with subject matter experts from Regional Asthma Management and Prevention (RAMP), California Pan-Ethnic Health Network (CPEHN), and Children Now, provided infrastructure and technical assistance, to build asthma home visiting workforce capacity and create a statewide asthma service provider network for Medi-Cal members and people who do not have health insurance.

The Center partnered with Harder+Company Community Research to evaluate AMP, with the goal of generating useful data that improves program implementation and assesses changes in program participants' short- and intermediate-term asthma outcomes. This AMP final evaluation report builds on findings from the Year 1 and Year 2 evaluation reports, summarizes AMP's implementation, and describes how outcomes were met. It is intended as a resource for those seeking to provide and/or support community-based asthma home visiting services, education, environmental trigger mitigation, and disease-management services to individuals with poorly controlled asthma.

Each AMP funded partner designed and implemented its asthma home visiting program to **reflect the needs of their communities and priority populations**, as well as the organization's unique infrastructure and approach. Common elements that were key to AMP programs' successes included:

- **In-person and virtual home visits**
- **Mitigation supplies and services**
- **Community health worker model**
- **Comprehensive asthma education**
- **Culturally responsive services**
- **Participant-centered and holistic approach**



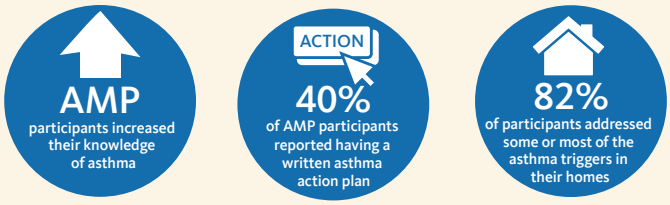


Funded partners successfully reached AMP's priority populations, including communities of color and other historically underserved or under-resourced communities with higher rates of poorly controlled asthma. Funded partners enrolled 4,745 participants in the AMP program between August 2020 and May 2023, and conducted 19,478 home visits, which included both in-person and virtual visits as well as environmental assessments. AMP participants reported a positive experience with AMP services. Almost all participants (95%) were satisfied with the AMP services provided to them.

AMP Funded Partner Successes

Funded partners achieved the following **short- and intermediate-term program outcomes** aligned with AMP's logic model displayed on page 15:

- AMP participants increased their knowledge of asthma and asthma self-management.
- AMP participants improved asthma self-management skills and confidence, as well as attained better medication adherence and asthma control. Over 40% of AMP participants reported having a written asthma action plan after program participation, a substantial improvement from 14% with such a plan at enrollment.
- AMP participants experienced improved home environments and reduced asthma triggers. Asthma mitigation supplies — combined with asthma education — helped 82% of participants address some or most of the asthma triggers in their homes.



Funded partners identified **key program-related factors** that facilitated their ability to successfully deliver AMP services. These included:

- Passionate, culturally and linguistically responsive, non-judgmental staff who are adequately trained on asthma and asthma home visiting services.
- Sufficient organizational infrastructure, funding, and resources to cover the comprehensive costs of implementing AMP programming.
- Supportive internal leaders and champions who provide program staff the flexibility and resources to implement and adapt their programs to meet communities' needs.
- Partnerships with community-based organizations, public agencies, health plans, and medical providers to facilitate outreach, referral, enrollment, and service delivery.
- Technical assistance supports such as RAMP's individualized technical assistance and asthma home visiting resources, the California Breathing AsMA Academy, and peer networks.

AMP partner Little Manila Rising's image showcases their commitment to asthma health education at an outdoor community event

AMP Funded Partner Challenges

As funded partners successfully supported individuals with asthma in communities across California over the past three years, several notable challenges emerged that others who are conducting community-based asthma home visiting services should consider and plan for. These challenges fall into two broad categories: challenges related to program implementation and those related to systems-level inequities.

Implementation Challenges

Funded partners and participants found implementation challenges related to staffing, funding, partnerships, and program sustainability.

Staffing. Almost all funded partners reported staffing shortages and turnover that led to higher workloads for remaining staff, interruptions in service for program participants, and changes in relationships with partner organizations.

Funding. Most funded partners reported that remediation services and home repairs typically exceeded their allowed budget and/or that they had trouble partnering with vendors due to complex contracting and billing requirements. Likewise, both funded partners and participants expressed concerns about participants' ability to sustain home mitigation changes, particularly if they could not afford to replenish supplies after leaving the program.

Partnerships. As some AMP funded partners pursued contracts with Medi-Cal Managed Care Plans to continue providing asthma home visiting services beyond the life of the grant, some found that the process of contracting with managed care plans is complex and challenging, especially for smaller community-based organizations with limited resources and experience. The intricate requirements, extensive documentation, and competitive nature of contracting pose significant obstacles. Similarly, the systems within which community-based organizations and medical providers operate can be very different; for example, they often do not use the same data systems or abide by the same privacy laws, creating challenges for referring potential program participants.

Sustainability. Funded partners are charting different courses to a post-AMP future. Sixteen funded partners (57%) have secured additional funding, three (11%) plan to continue their programs but lack funding, four partners are unsure of the future of their programs (14%), and five others (18%) have decided not to continue with their asthma home visiting programs after the end of AMP. A large majority of funded partners including those continuing services and those needing to pause services, named concerns such as the complex nature of securing contracts with Medi-Cal managed care plans, managing new Medi-Cal billing and reimbursement structures, and being able to continue asthma home visiting and education and retaining the bilingual staff needed without Medi-Cal funding.

External Factors

AMP services were designed for Medi-Cal members and people who do not have health insurance, in low-income communities and communities of color with disproportionate rates of asthma. As such, participants were more likely to face structural and systemic inequities that made it more difficult for AMP to improve asthma control. These challenges included:

Housing. Many funded partners worked with participants living in substandard housing with unaddressed mold, outdated heating and air systems, and poor insulation. Many of these had property owners/landlords that were resistant to remediation, denying or sometimes ignoring requests to make home repairs.

Unequal exposure to environmental triggers. Participants' exposures to asthma triggers outside their homes — including air pollution, pesticides, and the effects of climate change including wildfires and extreme weather — varied based on socioeconomic factors such as income, neighborhood, and occupation.

Healthcare access. Although 82% of AMP participants had Medi-Cal coverage, many had difficulty accessing care due to a shortage of Medi-Cal providers, particularly providers with linguistic and cultural competence. Participants also described challenges getting appointments, navigating those appointments, and advocating for appropriate asthma care.

Poverty. When participants are in survival mode, seeking basic needs such as employment, housing, and food, asthma care often becomes less of a priority.

> ***"There are a lot of socioeconomic factors that our program obviously cannot address directly...Being an advocate for the client and trying to identify resources that could help mitigate some of those challenges has also been an ongoing challenge."***

Five Successes of AMP That We Recommend For All Future Asthma Home Visiting Programs

To address program and system barriers to increasing access to asthma home visiting services, the following recommendations are proposed, emerging from lessons learned delivering AMP services:

Design programs that include the common elements that were key to AMP programs' successes including: in-person and virtual visits, comprehensive asthma education, mitigation supplies and resources, a community health worker model, culturally and linguistically responsive services, and a participant centered and holistic approach. These core components of AMP facilitated successful implementation and led to improved asthma outcomes for participants.

Public and private funding should build technical assistance into asthma mitigation work that supports the administrative, organizational, and service delivery needs of organizations implementing this work. Technical assistance within AMP has proven to be a successful and necessary resource for organizations offering asthma services, especially those who are newer to asthma home visiting. Launching new programs and refining approaches takes time and experimentation, especially given the systemic barriers such as complex healthcare systems and billing structures that may pose additional challenges for smaller grassroots organizations. Programs thrived with the technical support that helped adjust and adapt their models.

3 **Funders, both private and public, should continue to support a diverse range of agency types, including small and large organizations, government and community-based organizations (CBOs), and health and social service providers.** Recognizing that all communities have unique needs, this approach ensures that a variety of organizational structures are available to address those needs effectively. Program data demonstrated that participant outcomes did not vary by organization type, thus reinforcing the importance of allowing communities to be served by the funded partners that best align with their needs.

4 **Funders, both private and public, should offer flexible budgets and collaborate to connect funding resources.** Acknowledging funding siloes, technical assistance providers and funders should collaborate to connect the funding dots at the state and funder level to support smaller organizations' access to the financial resources necessary to sustain their programs. Additionally, to accommodate start-up time, staffing fluctuations, changing program needs, and unanticipated challenges, supporting budget flexibility allows programs to adapt to real-time learning and evolving circumstances.

5 **Partnerships between programs, health plans, providers, and funders should be encouraged to support sharing resources and best practices.** As the program concludes, AMP funded partners should continue to take advantage of the emerging communities of practice centered around asthma home visitation. By sharing experiences, best practices, and challenges, these programs can continue to improve their services. This could build on RAMP's ongoing capacity building workshops, including the California Asthma Financing Workgroup, a network of diverse stakeholders committed to improving the financial sustainability of home-based asthma education and environmental trigger reduction, and the California Healthy Housing Network. Many AMP funded partners already participate in these networks; all would benefit from joining and continuing participation. The Center should consider continuing to support this community of practice by sharing contact information, connecting partners, and, if resources allow, hosting ongoing touch points through newsletters or virtual meetings.

These recommendations aim to create an environment of collaboration, flexibility, and learning among all partners involved in asthma home visiting services. By fostering connections, aligning funding processes, supporting diverse agency types, allowing budget flexibility, and providing time for program development, all partners can work together to build the quality and accomplishments of their programs, leading to improved health and quality of life for individuals, families, and communities affected by asthma.

AMP partner Mercy Foundation of Bakersfield highlights an asthma health educator conducting a home visit.

For more information and to view the full Asthma Mitigation Project Final Evaluation Report, please visit www.shfcenter.org/asthma-mitigation-project.