Asthma Mitigation Project

Year 2 Evaluation Report

October 2022

harder + co | community research

THE CENTER
at Sierra Health Foundation

Contents

Executive Summary

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 has awarded almost $12 million in grants to 28 "funded partner" organizations, who deliver culturally and linguistically responsive asthma home visiting services—as well as funding for asthma 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—provides infrastructure and technical assistance to funded partners, with the goal of building asthma home visiting workforce capacity and creating 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 can improve implementation and assess changes in short-term and intermediate asthma outcomes for program participants. The AMP Year 2 Evaluation Report builds on findings from AMP's first year to offer new insights into implementation, as well as emerging findings about participants' experiences with—and health improvements from—AMP services.

The following key findings highlight the **experiences of funded partners** in Year 2:

- Funded partners have become *skilled at adapting their outreach and asthma home visiting strategies* to respond to participant needs, use a participant-centered service delivery model, and remain flexible to a mix of in-person and virtual visits during the COVID-19 pandemic.

- Funded partners described *ongoing implementation challenges* related to continuous adjustments for the COVID-19 pandemic; ongoing difficulties with participant referral, enrollment, and retention; staffing shortages due to current economic conditions; and organizational infrastructure, especially for smaller and newer organizations.

- Funded partners were *supported by a wide array of resources*, trainings, technical assistance, and peer support. These were especially useful for funded partners at an earlier implementation stage or newer to providing asthma home visiting services. They also identified areas where they needed additional support, including how to understand—and participate in—the DHCS California Advancing and Innovating Medi-Cal (CalAIM) initiative and its asthma remediation components.

Importantly, this was also the first year where the evaluation gathered data directly from AMP participants about their experiences. The following key findings highlight the **experiences of AMP participants** in Year 2:

- *Over 1,900 participants enrolled in AMP during Year 2 (out of 2,671 total participants enrolled since program inception).* These participants represented AMP's priority Medi-Cal populations, such as communities of color, monolingual non-English speaking communities, recently immigrated

> **"The participant is empowered to take positive control over their life. It isn't just about 'Here, we fixed this.' It's more like 'let's empower you and work for sustainable change rather than quick, easy fixes."**
>
> **— AMP funded partner**

as well as settled refugee communities, elderly residents, tribal populations, and people in both rural and urban parts of the state.

- Participants shared *high satisfaction with the program's asthma education, remediation supplies, and home visitors*. Among respondents to a participant survey, 96% felt that their home visitor respected their family's cultural, racial or ethnic beliefs and values, and 92% felt that their home visitor helped them learn new strategies for controlling their asthma or their child's asthma.

- Participants *started to experience improvements in short-term and intermediate asthma outcomes*. Ninety seven percent of participants who completed the program addressed some or most asthma triggers in their home. In addition, 85% of survey respondents experienced fewer asthma attacks, and 87% of participants with poorly controlled asthma at enrollment had improved asthma control at follow-up.

- Participants also signaled *challenges related to improving their home environments and controlling their asthma*, including housing, environmental factors (such as poor air quality, wildfires, and climate change), economic limitations to sustaining remediation, healthcare access, and the ongoing COVID-19 pandemic.

> **"I was constantly missing work about one to two times per week. Now that doesn't happen."**
>
> **— AMP participant**

As the final year of the program begins, the following considerations can support efforts to strengthen program delivery and technical assistance, as well as inform the design and implementation of future asthma home visiting and asthma preventive services initiatives.

Considerations for AMP funded partners	Considerations for The Center and its partners	Considerations for future asthma home visiting and asthma preventive services initiatives
• Continue testing additional strategies to address enrollment and retention challenges. • Continue sharing materials such as videos, worksheets, and asthma diaries that participants can use after the end of their participation. • Take advantage of other established asthma home visiting networks and resources to strengthen programs and staff capacity.	• Continue being responsive to funded partners' training needs by addressing topics such as eligibility for other supportive programs for people with asthma, CalAIM transition, and fully accounting for asthma program investments. • Explore strategies to continue offering or expanding technical assistance after AMP ends, including both how to fund and how to deliver that technical assistance. • Continue working with healthcare providers, managed care organizations, and health plans to underscore the value of asthma remediation services.	• Prepare for higher-than-normal staff turnover under current economic conditions. • Work with partners to ensure that key training resources (such as the California Department of Public Health's Asthma Management Academy) are readily available to implementing agencies. • Place value in relationship- and trust-building as key factors in program implementation. • Support smaller organizations to build the infrastructure needed to participate in Medi-Cal services. • Further explore how variations in infrastructure impact funded partners' ability to serve participants.

Introduction to the Asthma Mitigation Project

Background

The Center at Sierra Health Foundation (The Center) was founded by the Sierra Health Foundation in 2012 as an independent 501(c)(3) nonprofit organization. With offices in Sacramento and Fresno, The Center pursues the promise of health, racial equity, and justice in communities across California.

The Center was awarded the California Department of Health Care Services (DHCS) $15 million Asthma Mitigation Project (AMP) contract. Authorized through Assembly Bill No. 74 (AB74), AMP supports local health departments, healthcare providers, and community-based organizations to offer asthma home visiting services to individuals with poorly controlled asthma throughout the state.

In August 2020, The Center funded 22 organizations statewide (referred to as Round One) to offer AMP home visiting services through June 2023, with a focus on low-income communities and communities of color with disproportionately high rates of asthma. In August 2021, The Center expanded its reach to fund six additional organizations (referred to as Round Two) who served priority populations and geographies not reached in the initial funding release. The Center has awarded close to $12 million in grantmaking through both rounds of funding to date.

Known as "funded partners", all 28 of these organizations deliver culturally and linguistically responsive asthma home visiting services to children and adults with poorly controlled asthma. See Exhibit 1 on the following page for a map of all funded partners across California, and Appendix Exhibit A1 to access more information about each funded partner.

Through AMP, The Center intends to build asthma home visiting workforce capacity and create a statewide asthma service provider network for Medi-Cal members or people who do not have health insurance, including undocumented adults under 50 years of age who do not qualify for Medi-Cal. This home visiting network will help fill gaps in asthma care and reduce disparities in asthma outcomes by increasing funded partners' capacity to serve individuals with poorly controlled asthma and building advocacy networks to support asthma prevention and treatment.

Exhibit 1. AMP funded partners across California

THE CENTER
at Sierra Health Foundation

THE ASTHMA MITIGATION PROJECT

Round One
$10 million – 22 partners

Round Two
$1.85 million – 6 partners

1 Alameda County Public Health Department
Alameda County

2 Breathe California of the Bay Area, Golden Gate, and Central Coast
Alameda, Contra Costa, Monterey, San Benito, San Francisco, San Mateo, Santa Clara and Santa Cruz Counties

3 El Concilio, Catholic Council for the Spanish Speaking of the Diocese of Stockton
San Joaquin County

4 Central California Asthma Collaborative
Fresno County

5 Comite Civico del Valle, Inc.
Imperial County

6 Community Action Partnership of Kern
Kern County

7 Contra Costa Health Services
Contra Costa County

8 El Sol Neighborhood Educational Center
San Bernardino County

9 Esperanza Community Housing Corporation
Los Angeles County

10 La Maestra Family Clinic, Inc.
San Diego County

11 LifeLong Medical Care
Contra Costa County

12 Juddah Project
Sacramento County

13 Little Manila Foundation
San Joaquin County

14 Mercy Foundation–Bakersfield
Kern County

15 Mutual Assistance Network of Del Paso Heights
Sacramento County

16 Roots Community Health Center
Alameda County

17 San Mateo County Family Health Services
San Mateo County

18 Santa Barbara Neighborhood Clinics
Santa Barbara County

19 Santa Rosa Community Health Centers (SRCHC)
Sonoma County

20 Sigma Beta XI, Inc.
San Bernardino and Riverside Counties

21 Vision y Compromiso
Kern, Madera and Riverside Counties

22 Watts Healthcare Corporation
Los Angeles County

23 Asian Pacific Self-Development and Residential Association
San Joaquin County

24 International Rescue Committee
Stanislaus, Merced, Mariposa and Madera Counties

25 Jakara Movement
Sutter County

26 McKinleyville Community Collaborative
Humboldt County

27 Nexus Youth and Family Services
Amador and Calaveras Counties

28 Somali Family Service of San Diego
San Diego County

The Asthma Mitigation Project is funded by the California Department of Health Care Services and is managed by The Center at Sierra Health Foundation.

AMP program design

The goal of the Asthma Mitigation Program is to provide culturally and linguistically appropriate asthma home visiting services to individuals with poorly controlled asthma. Through these services, AMP aims to:

1. Improve asthma self-management and asthma control
2. Decrease exposure to common household triggers
3. Improve asthma outcomes and quality of life
4. Decrease asthma-related costs for payors

The 28 AMP funded partners were selected based on their ability to reach Medi-Cal populations across California who could most benefit from asthma mitigation services. This includes both adults and children, with a special focus on low-income communities and communities of color with disproportionate rates of asthma. While adhering to the activities, outputs, and outcomes described in AMP's logic model (see Appendix Exhibit A2), each funded partner designed and adapted its program to reflect the specific needs of their priority populations, as well as their organization's unique infrastructure and approach. Common elements of AMP programs include:

Asthma in-person and virtual visits

Home visitors provide comprehensive health and asthma education through a series of in-person and virtual visits. AMP funds can be used for up to five visits for participants ages 0 to 21, and up to three visits for participants over age 21. Many programs also offer interim texts and calls to support participants between visits.

Comprehensive asthma education

Home visitors cover topics such as asthma basics, common triggers, asthma mitigation strategies, proper use of medication, asthma action plans, patient advocacy, and strategies for addressing challenges to asthma management.

Mitigation supplies and resources

AMP programs have dedicated funds to provide participants with up to $1,000 in mitigation supplies, such as home air purifiers, cleaning supplies, mattress covers, or minor home repairs such as mold remediation or ventilation improvements.

Community health worker model

AMP asthma services are provided by home visitors, including *promotores,* community health workers, and health educators. Many programs hired home visitors who are from and/or representative of the communities served, enabling them to meet participants where they are and intentionally build rapport, trust, comfort, and connection.

Culturally responsive services

Funded partners and their staff are positioned to provide culturally and linguistically appropriate services for the specific communities they serve. Asthma education and home remediation approaches are adapted to align asthma control best practices with community culture and needs. Funded partners also offer services in the languages spoken by their communities.

Participant-centered and holistic approach

Many home visitors are trained to see participants holistically, actively listening to participants' experiences and working in partnership to develop actions that improve their overall health and well-being. Some programs offer wrap-around or referral services that help them to address other unmet needs—such as housing, childcare, or other health concerns—that may or may not be related to their asthma.

As part of the program, The Center provides infrastructure to support funded partner program implementation, including trainings and ongoing learning opportunities, regular convenings to build partnerships and share knowledge, and access to technical assistance from subject matter experts including Regional Asthma Management and Prevention (RAMP), California Pan-Ethnic Health Network (CPEHN), and Children Now.

Context for AMP launch and implementation

The AMP program was launched in the midst of the global SARS-CoV-2 coronavirus (COVID-19) pandemic. Through the end of August 2022, California has had more than 10 million COVID cases and 94,120 deaths,[1] placing a huge burden on healthcare and social service providers, including those involved in AMP. Funded partners have had to adapt their asthma home visiting programs to adhere to rapidly shifting public health and safety guidelines, while simultaneously managing changes to their own organizational capacity, infrastructure, and priorities. Community members eligible for AMP programs found themselves navigating the health, economic, social, and emotional burdens of the pandemic as part of their decision to participate or continue participating in AMP services. AMP has continued evolving to address these—and new—challenges as the pandemic continues through 2022.

AMP also comes at a time when DHCS is expanding and transforming Medi-Cal service delivery and financing through the California Advancing and Innovating Medi-Cal (CalAIM) initiative, a multi-pronged effort to make Medi-Cal "more equitable, coordinated, and person-centered to help people maximize their health and life trajectory."[2] One major component of CalAIM that impacts asthma prevention and care is Asthma Remediation under CalAIM's Community Supports Program (otherwise known as "In Lieu of Services"). Beginning in January 2022, managed care plans (MCPs) could opt to offer asthma remediation services—along with a menu of 13 other Community Supports—as lower-cost, non-medical alternatives to more expensive Medicaid benefits. Members can receive a lifetime maximum of $7,500 in supplies and services that mitigate asthma triggers, such as high-efficiency particulate air (HEPA) filtered vacuums, asthma-friendly cleaning supplies, minor mold remediation, or other interventions that are appropriate and cost-effective. While not all MCPs currently offer these services, RAMP is actively working to encourage others to opt into the Asthma Remediation Community Supports.[3] DHCS is also making capacity-building funding available to both MCPs and Community Supports providers to help incentivize and support participation in these efforts. By 2023, all MCPs will also be required to offer disease management care plans (including asthma care plans) as part of CalAIM's population health management strategy.[4]

Concurrently, the federal Centers for Medicare and Medicaid Services (CMS) approved the addition of asthma preventive services and community health worker services as Medi-Cal benefits. Effective July 2022, Medi-Cal covers both clinic-based and home-based asthma self-management education and environmental trigger assessments.[5] In addition, Medi-Cal providers and community-based organizations can now provide, supervise, and/or be reimbursed for services delivered by a community health worker.[6,7]

These changes to Medi-Cal represent important advancements in access to evidence-based asthma prevention and remediation services. They also pose significant implications for organizations—including AMP funded partners—who will be involved in delivering these new services.

Focus of Year 2 Evaluation

The Center has partnered with Harder+Company Community Research (Harder+Company) to evaluate AMP. The purpose of the evaluation is to generate useful data that can improve implementation and assess changes in short and intermediate asthma outcomes for program participants. Evaluation findings will both inform program implementation as well as offer insights into future asthma preventive services funding, policy, and sustainability opportunities.

The design and execution of the AMP evaluation spans two distinct but overlapping components. The **formative evaluation** explores program delivery, including variations in populations served, organizational structure, and program activities. This component is guided by principles of implementation science,[8] and designed to support AMP's ongoing planning and program improvement efforts by assessing implementation strengths and challenges. The formative evaluation sets the stage for the **summative evaluation**, which focuses on AMP outcomes for participants and an exploration of the relationship between program implementation and these outcomes.

Evaluation in Year 2 of AMP represented an intersection of these two components, when Round One funded partners were in their second full year of implementation and Round Two funded partners were establishing their programs. This report, which builds on the AMP Year 1 Evaluation Report, includes new insights into implementation, as well as emerging findings about participants' experiences with—and health improvements from—AMP services. In addition, Year 2 of the evaluation began to explore early learnings about how implementation is contributing to participant outcomes.

Adjustments to evaluation questions and methods

In Year 2, AMP collaborators—including The Center, RAMP, Children Now, CPEHN, AMP funded partners, and the external evaluation team—engaged in conversations about the profound impact of COVID-19 on both AMP's service delivery model and its evaluation. In particular, COVID-19 decreased non-COVID healthcare utilization (including asthma-related doctor's visits and emergency department use) due to factors such as decreased exposure to environmental triggers, better hygiene, and emergency department avoidance.[9,10] This meant that a planned analysis of asthma health outcomes and asthma-related costs before and after AMP participation would not produce reliable results, and attribution of any improved health outcomes to AMP would be tenuous.

At the same time, CalAIM and other Medi-Cal policy changes, described above, made asthma preventive services more widely available in California, relying on existing evidence about the efficacy and cost savings of asthma home visiting programs.

Combined, these two considerations led AMP to shift its evaluation away from assessing asthma-related cost savings for payors. Instead, the final year of AMP's evaluation will focus on delving deeper into the nuances of program implementation, with the goal of elevating lessons that could inform the rollout of CalAIM and asthma preventive services under Medi-Cal's recent State Plan Amendment. New evaluation questions and activities, approved by DHCS in April 2022, can be found in Appendix Exhibit A3.

Evaluation methods

The AMP evaluation uses a mixed-methods approach, incorporating both quantitative and qualitative data to ensure that quantitative data on AMP's reach, services, and outcomes are contextualized with factors influencing implementation. Data sources that informed this report include:

- semiannual progress report data from all 28 funded partners;
- participant surveys;
- participant focus groups;
- systemic document review and interviews with program leaders and home visitors for Round Two funded partners that joined AMP during Year 2.

Previously collected data, including data reported during Year 1, were also used to inform this report. A full description of these data sources can be found in Appendix Exhibit A4.

Program Implementation:
The experiences of funded partners

In AMP's second year, funded partner programs were underway, with Round One well established and Round Two at the beginning of program implementation. This section includes a brief profile of the organizations providing AMP services, key adaptations to the AMP service delivery model, and the resources that have helped AMP funded partners navigate implementation. Key implementation evaluation questions examined during Year 2 are summarized in the sidebar.

Profile of AMP funded partners

The 28 AMP funded partners were intentionally selected for their ability to reach Medi-Cal populations across California who could benefit most from asthma mitigation services. Funded partners serve myriad communities, across 29 California counties. A brief description of each funded partner, along with the counties they serve and award amount, is summarized in the Round One and Round Two press releases. Key characteristics are summarized in Exhibit 2.

Exhibit 2. Funded partner characteristics (n=28)

Geographic Area

39% **Urban** | **29%** **Rural** | **32%** **Both**

Program Funding History

Program existed before AMP, **61%**

Program began with AMP funding, **39%**

Organization Sector

68% **Nonprofit organization**

Healthcare Provider **18%**
Health Department **11%**
Healthcare Foundation **4%**

The six Round Two funded partners expanded the reach of AMP. Additional low-income communities and communities of color with disproportionate rates of asthma that are now receiving comprehensive, culturally responsive, participant-centered asthma education and services include immigrants, older adults, refugees, rural populations, and tribal communities. Geographically, funded partner programs now cover a wider area of California's northern and central regions, including Amador, Calaveras, Humboldt, Mariposa, Merced, Stanislaus, and Sutter counties.

Key implementation evaluation questions in Year 2

- How did program models vary across AMP funded partner programs?
- How (and why) was the service delivery model adapted?
- How did these adaptations support funded partner programs in achieving their outcomes?
- What supports and resources were most important for successful implementation of AMP? How did this vary based on a funded partners' implementation stage?
- How did the COVID-19 pandemic influence the program?

Adaptations to the AMP program model and implementation

Two years into AMP, all funded partners have become skilled at adapting their programs to support participants while maintaining the program's key components. At this phase of implementation, funded partners are particularly emphasizing the importance of participant-centered and culturally relevant approaches to asthma education and remediation. They recognize that participants' other needs—even beyond those traditionally considered health-related—are key to gaining trust and ultimately improving their asthma control. Exhibit 3 (following page) shares funded partners' own words about the importance of this program component.

In addition to underscoring this core component, funded partners also described adaptations to the AMP program model and its implementation.

- **New outreach and enrollment strategies.** After encountering initial outreach and enrollment challenges—including the suspension of in-person outreach events and decreased referrals from healthcare providers due to the COVID-19 pandemic—funded partners identified creative ways to enroll participants. For example, one funded partner saw a significant increase in referrals by sending text messages to potential participants about asthma triggers and providing a link for them to enroll in the program. A different program distributed interest cards with small incentives like hand sanitizers and masks at a partner senior center. Another program connected with their weatherization suppliers for referrals, explaining that suppliers "have their own clients…and if they discover their clients have severe asthma, they've been trying to say, 'Hey, we've got this program that you might be interested in.'" Finally, several funded partners described the role of healthcare providers in connecting eligible Medi-Cal members to AMP home visiting services. According to one funded partner, "a referral [from] a physician is easier, as they have usually told the parent to accept our call."

- **Continued mix of in-person and virtual visits.** As of June 2022, more than three-quarters of funded partners (n=22, 79%) still conduct at least some visits virtually. This posed challenges for funded partners and program participants, who had to navigate access to and problems with technology. As one funded partner shared, "most of our clients do not use smart phones and have limited access to the technology; therefore, it makes it very challenging to provide assistance."

  At the same time, some participants felt more comfortable with virtual visits to avoid COVID-19 exposure, and many preferred the convenience and increased privacy that phone and video visits offer over someone coming to their home in person. Some funded partners have built on this, using technology in support of trust-building; for example, allowing participants to send photos for the initial home assessment. They shared that, "being flexible to their needs has helped [participants] be more willing to participate in the program."

- **Ongoing contact with participants between AMP in-person and virtual visits.** Many funded partners reported contacting participants between visits to stay connected, establish rapport, and offer additional wraparound supports. These contacts go above and beyond visits formally offered as part of the AMP program model. They take the form of informal visits, calls or text messages (initiated by both the home visitor and the participant), and cover a wide range of topics, including trigger remediation supplies, recommended cleaning procedures, support for other

> **"Most of our clients do not use smart phones and have limited access to the technology; therefore, it makes it very challenging to provide assistance."**
>
> **— AMP funded partner**

Exhibit 3. Funded partner reflections on participant-centered and culturally relevant asthma services

"The participant is empowered to take positive control over their life. It isn't just about, 'here we fixed this.' It's more like, **let's empower you and work for sustainable change** rather than quick, easy fixes."

"[Our] strong relationships with local partners, community leaders, [and] religious groups allow our team to reach out to clients quickly and get them on board right away."

"Over the 20 plus years that we've been working with the community, we realize that **the best way to deliver service is to really make it something very comprehensive**…We essentially provide case management even if it's not included in a specific program structure. We always incorporate those features because we noticed that's what really drives the best results or outcomes for any of our programs."

"The community health workers definitely have that **connection and cultural expertise with the community**."

"[The best home visitor] is **someone who has a deep involvement in their respective community.** Not only do they have the language and cultural understanding of their community, but they also are already super involved in various ways. I think that's been really key for us in terms of making sure that whoever is implementing this project is well attuned to the needs of the population that they're planning to serve."

"It's not about saying, you shouldn't use that [product], though, on [the funded partner's] side of things, you shouldn't. It's teaching them how to use things, open the windows, just being accommodating of the culture and their lifestyle…**I think we bring a lot of our compassion and understanding into the clients and the populations we serve**."

"We work collaboratively because we serve the family as a whole. So one family might be getting help finding housing [and], at the same time, we're working with them through AMP and connecting them to COVID-19 testing and vaccination; **providing more holistic care**."

"It's not very hard for us to gain access to folks who may be in need of the [asthma] services or to have them actually spread the word about the services because we've been here. **We've been a trusted source for quite a few years**…People know our faces."

"We determined a need to **bridge the gap between our clients and their medical health professionals to create space for trust and transparency**. Therefore, we outreached to various medical providers and Medi-Cal managed care organizations…and are currently working on commencing cultural competency trainings to the staff of the clinic who will be helping us with the referrals."

"People are really excited about it because **I don't think they've ever had a program that was tailored to them**, where they know that they're not going to have any barriers when it comes to a cultural language."

"The best way I have found to build rapport with my clients is providing a service for them…Once I have done one or more of these services, I have **demonstrated to them that I am trustworthy, capable, and proficient**."

health and non-health concerns, help making or navigating medical appointments, help to refill prescriptions, or referrals to other support services. One funded partner shared that they "believe that this has been an important aspect, as it relates to building a trusting relationship with the participant in the help-seeking process." For many, these interim connections were part of their organization's existing participant-centered approach to service delivery. Others noted their heightened importance while in-person visits have been limited.

Ongoing implementation challenges

While funded partners have been able to make these adaptations, they also pointed to ongoing challenges they are working to address. Key challenges, supported by funded partners' perspectives, are described in Exhibit 4.

Exhibit 4. Key implementation challenges in Year 2

Implementation challenge	Funded partner perspective
Continuous adjustments for the COVID-19 pandemic. Additional COVID-related safety precautions, recruitment efforts, participant check-ins, tech support, and training that funded partners do to make sure their participants are being served and staff are being kept safe, requires time and resources that many funded partners had not anticipated.	"COVID-19 implications have been a huge challenge with our home visitations and overall program operations, with recent spikes of COVID-19 cases and many of the immigrant populations still presenting skepticism of the vaccine." "Another challenge of course had been COVID; some families who expressed desire to participate have been navigating personal challenges related to COVID-19, which left some unexpected cancellations and increased use of virtual platform."
Ongoing challenges with participant referral, enrollment, and retention. While funded partners reported many new strategies for enrolling participants, they continued to note challenges keeping them engaged in their programs.	"Outreach efforts remain a challenge because either families are declining services or are unresponsive to our calls and letters." "Even before the individual enters the program, a challenge has been connecting to those interested in the program. During outreach, the interest in the program seems high. Then once they are contacted, the phone numbers provided might be wrong numbers, the calls will go straight to voicemail, or the individual might change their mind…Some participants will continuously reschedule or cancel visits."
Staffing challenges due to current economic conditions. Like many organizations in 2022, funded partners faced significant staffing shortages that impacted capacity and program delivery.	"Staff turnover has affected program planning, continuity of care, and rapport building with families." "The primary challenges have been staff turnover…We have been operating with minimal staff, which has limited the capacity of oversight on grant deliverables."
Organizational infrastructure. While larger organizations could lean on existing internal resources, smaller and newer organizations had more limited infrastructure for referrals and outreach, budgeting, administrative capacity, internal knowledge-sharing, and data collection capacity.	"[AMP] is such a new program for us…[but our organization previously] had home visiting programming. We have case management programs. So we had some experience to pull from." "Our biggest challenges during this reporting period were…issues with our digital survey and data platform. Some of our surveys were erased from our system. This caused us to have to re-enter data for many of our clients."

Key resources to support implementation

As part of their participation in AMP, funded partners are supported by a wide array of resources, including trainings, technical assistance, and peer support. In Year 2, funded partners continued to leverage these resources to successfully implement all aspects of their programs. This was especially useful for funded partners who were at an earlier implementation stage or newer to providing asthma home visiting services. Exhibit 5 provides a brief overview of each of the supports offered to funded partners.

Exhibit 5. Descriptions and feedback on AMP support

Support type	Support description	Funded partner feedback
Trainings 	Trainings are designed to be continuous sources of information for AMP funded partners, and cover topics such as virtual participant engagement and motivational interviewing. Those who participated in trainings reported high levels of satisfaction and shared that they were a helpful source of information about home visitation trends, best practices, and other topics.	"The trainings and meetings provided by the [The Center at] Sierra Health Foundation were very informative and useful in assisting in program delivery. I really enjoyed the Motivational Interviewing, Integrated Pest Control and Engaging Children through Virtual Visits trainings."
Technical Assistance 	Technical assistance provided by The Center at Sierra Health Foundation and RAMP ensured that funded partners have access to support should they encounter any issues. Technical assistance provided resources to help troubleshoot issues such as staff turnover, and supported ongoing requests for information on asthma best practices and resources. Funded partners shared high levels of gratitude and satisfaction with this technical assistance.	"I'd have to say that RAMP has been doing really great. [My colleague] and myself both had the same education when it came [to] the training for asthma…The monthly meetings—RAMP providing resources, such as pediatric doctors coming and speaking about asthma and children, and pregnancies of mothers who suffer from asthma and how fatal it can be if it's not managed—it's very helpful. I just love it."
Peer Support 	As funded partners continued to roll out their programs, they reinforced the importance of peer support through AMP's partner network. AMP offered various touch points for connection with other funded partners, including quarterly convenings alongside the trainings and TA sessions previously described. Funded partners attested that learning from their peers helped them get ideas to improve their programs, do peer-to-peer troubleshooting, and learn from more established asthma programs.	"Our team is always attending webinars [and] trainings that are hosted by RAMP, or other Asthma Mitigation Project [funded partners]. So we're always increasing our knowledge with that. Sometimes we're finding resources, sometimes we're connecting with other individuals in different programs within California, and just kind of [exchanging] ideas. What can we do better? This is our first time being a funded partner and oftentimes we're connecting with second year funded partners. So we're just gaining a lot of insight. So that has been a great help for us too."

Opportunities to enhance training and supports

In addition to these positive aspects, the following suggestions were made to improve training and technical assistance:

- **More information about eligibility for other programs that support asthma outcomes.** Funded partners referred participants to a wide range of additional services to establish rapport, address asthma triggers, or improve overall quality of life. Some funded partners requested additional training to learn about eligibility requirements for these programs—including tobacco cessation and housing support programs—to effectively connect AMP participants to services. Given the importance that many funded partners placed on wraparound supports, additional technical assistance or training on these programs could strengthen AMP implementation.

- **More support to transition to offering CalAIM services.** Some funded partners have already begun pursuing contracts with MCPs to offer asthma preventive services through Medi-Cal. For those providing both AMP services and Asthma Remediation services under CalAIM's Community Supports program, this has raised questions about how to choose the right option for their program participants, particularly since DHCS is the funder for all these services. One funded partner shared that, "the program has had some difficulty with the overlapping of AMP vs. CalAIM and is still trying to sort out how to determine what program a client should be enrolled in." Funded partners—particularly those with less experience with Medi-Cal and MCP partnerships—requested additional support to successfully make the transition to becoming on-the-ground partners delivering asthma remediation services to Medi-Cal members. As one funded partner said, "We are learning more about CalAIM and how to navigate the healthcare system, and the healthcare system is very complicated and difficult. We're a small community-based organization, but we're hoping to become experts in navigating that on behalf of our community."

- **Resources to take a full account of each organization's investments in their programs.** As AMP enters its final year, additional funded partners are likely to pursue contracts with MCPs to offer Medi-Cal asthma preventive services or seek other funding to continue offering their existing asthma home visiting services. Accounting for the full cost of asthma home visiting services will be critical to ensure that funding covers the high-touch service model favored by many funded partners, as well as the costs associated with program start-up and administration. The Center has started to offer technical assistance to tackle this topic. In June 2022, for instance, they hosted a webinar with the National Center for Healthy Housing, where funded partners learned about tools and approaches for calculating the full cost of serving participants with asthma home visiting services. The final year of AMP's evaluation will further explore the full financial cost to funded partners of offering AMP asthma home visiting services.

> **“We are learning more about CalAIM and how to navigate the healthcare system, and the healthcare system is very complicated and difficult. And we're a small community-based organization. But we're hoping to become experts in navigating that on behalf of our community.”**
>
> **— AMP funded partner**

- **More access to the Asthma Management Academy (AsMA) training from the California Department of Public Health (CDPH) California Breathing program.** AMP funded partners have been able to participate in asthma home visiting training (AsMA) through a partnership between AMP and the CDPH California Breathing program. Funded partners have cited this training as a crucial source of training for funded partners to learn about asthma basics, asthma remediation strategies, and asthma home visiting best practices.[11] The start of the AMP program represented a tremendous influx of programs that wanted to participate in AsMA training. CDPH and California Breathing worked closely with The Center to accommodate these additional training requests. At the same time, funded partners continued to express a need for more training opportunities. These included requests for more frequent trainings that could accommodate varied hiring timelines and increased staff turnover, as well as requests to include additional non-home visiting staff (such as supervisors) who contribute to AMP implementation. AMP and California Breathing have taken steps to respond to these requests by offering additional training for supervisors in 2022. As one funded partner shared, "The disconnect between supervisor and AMP educator education and required documentation was a barrier early on, but this has been addressed in a responsive way."

Asthma Outcomes:
The experiences of AMP participants

During AMP's second year, funded partners continued to ramp up service delivery to even more Californians with asthma. Importantly, this was also the first year where the evaluation heard directly from AMP participants about their experiences with AMP programs. This section provides insights into the demographic profile of AMP participants, their levels of satisfaction with AMP, and early insights into the impact of these services on their asthma outcomes. Key outcome evaluation questions examined during Year 2 are summarized in the sidebar.

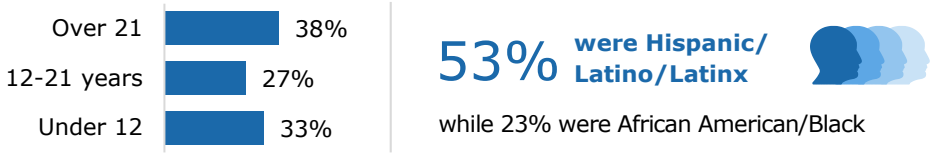
Key outcome evaluation questions in Year 2

- To what extent are the intended populations being served and receiving high-quality care?
- To what extent did AMP home visiting services lead to anticipated outcomes for program participants?
- In what ways did the social determinants of health (such as healthy housing, air quality, and healthcare access) influence anticipated outcomes?

Demographics of AMP participants

Between August 2020 and June 2022, the 28 funded partners enrolled a total of 2,671 participants (757 in Year 1; 1,914 in Year 2). Participants enrolled in the program included AMP's priority Medi-Cal populations, such as communities of color, monolingual non-English speaking communities, recent immigrants as well as settled refugee populations, elderly residents, tribal populations, and people in both rural and urban parts of the state (Exhibit 6).

Exhibit 6. AMP participant characteristics across Years 1 and 2*



53% **were Hispanic/ Latino/Latinx**

while 23% were African American/Black

75% **were insured only through Medi-Cal**

7% had Medi-Cal and Medicare coverage, while 6% were uninsured

Within the year prior to enrolling in the program,

35% had visited **urgent care** or the **emergency department** or been **hospitalized for asthma**

14% of participants, prior to enrollment, **had a written asthma action plan**

* Percentages are cumulative (Years 1 and 2 combined); full demographic characteristics can be found in Appendix Exhibit A5 to Exhibit A7.

Funded partners focused on people with poorly controlled asthma

Following the completion of the Year 1 Annual Report, RAMP and The Center identified that a higher-than-expected percentage of AMP participants had well-controlled asthma (45%). In conversations with funded partners, The Center and RAMP identified several possible explanations for this, including: reluctance to turn away community members, particularly with pandemic-related recruitment challenges; limitations to methods like the Asthma Medication Ratio in identifying poorly controlled asthma; lag between referral and completion of an Asthma Control Test as part of AMP services; and provider referrals of patients who did not necessarily have poorly controlled asthma.

During Year 2, RAMP and The Center reminded funded partners that people with poorly controlled asthma were the intended audience for AMP services. In addition, funded partners shared additional information about how they identified enrollment eligibility. Funded partners reported the use of numerous tools to increase outreach and enrollment of individuals who had poorly controlled asthma. Common strategies used by funded partners included reviewing healthcare utilization such as hospitalizations or emergency department visits, reviewing results of an asthma control test, and using referrals from licensed clinicians. As a result, the percent of newly enrolled participants with poorly controlled asthma increased from 45% in Year 1 to 68% in Year 2. For additional details on asthma control characteristics, see Appendix Exhibit A8 to Exhibit A10.

Program satisfaction

Participants shared high satisfaction with the various components of the program, including in-person and virtual visits, asthma education, and mitigation/remediation supplies. Specifically, participants reported positive experiences with their home visitor, including both how they were treated and what information they received (see Exhibit 7). Exhibit 8 (following page) includes examples of participants' reflections on their AMP home visiting experiences.

Exhibit 8. Survey and focus group participant reflections on their AMP experiences

"I know I can reach out to [my home visitor] at any time, day or night, and she's going to give me her opinion, and from her opinion is how I'm going to treat my son…**I personally find [the home visitor] more helpful for my son's asthma than his own pediatric provider.**"

"I have suffered with asthma for almost 20 or 25 years. It is only recently that I was **able to control my asthma because I educated myself [with the program]**. It has also helped my daughters."

"The other thing here is the items that they provided us with, like the filters and everything. I wasn't buying them on a regular basis or replacing them**. So definitely the incentives that they [provided] definitely help out and we wouldn't have them without the program.**"

"I was **constantly missing work about one to two times per week. Now that doesn't happen.** It's because of the changes we made, and the information I received has helped me. I changed, and economically things are different too."

"Personally, it helped me learn that the products that I used in my house are harmful for my children and for me. I also learned to use less harmful products, my children learned how to use their medications correctly for asthma, what happens when they have an asthma attack, what are the symptoms. **Thank you very much for the program which is very useful for people who suffer from [asthma]**."

"We didn't know our home could have triggers that affect us. This helps me a lot because now I can check the windows for mold. They taught us to put food in plastic containers. They showed us cleaning products could harm us and now help us identify the asthma triggers. Having received the flyer, **I saw that the people had an interest to improve my family's well-being regarding asthma**. They are so committed as if we are family."

"**Now I feel more equipped, more secure, confident, and I also feel less nervous.** My asthma was a very frustrating thing for me; sometimes I felt like I was going to die when I got an asthma attack. It's really hard not to be able to breathe. It's a very difficult thing."

"Truthfully, I did not know what to do before I started this program. I did not have any idea how to help my daughter and I felt lost. **Since we started the program, they showed me how I could help my daughter,** how I could improve things for her. **This was a great relief**. "

"Thanks to the program and [my educator] for the important information about the health of my daughter with asthma and of my family in general. There were things that I already knew, but with the daily routine and so many concerns, I had forgotten them. But they also talked with me about new asthma control tools. **Thank you for taking care of the health of children and adults with asthma.**"

"My children have different triggers, and one has more severe asthma than the other. My facilitator was great with **helping me with a wide range of support, education, and supplies my family wouldn't be able to afford at the time.**"

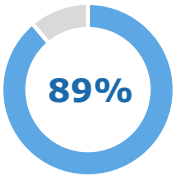
"[My home visitor] even helped me hook up the air purifier that was in my house. I had been dreading [that]. And she basically…bypassed the anxiety part [by] doing it for me…So that was really nice."

Participant outcomes

AMP participants reported improvements in key short-term and intermediate outcomes such as asthma knowledge and self-management, home environment, medication adherence, and asthma control. Across data sources—including participant focus groups, participant surveys, progress reports, and interviews with funded partners—participants also signaled ongoing challenges related to improving their home environments and controlling their asthma. This section concludes with participants' suggestions for program improvement. Additional data summarizing participant outcomes can be found in Appendix Exhibit A11 to Exhibit A13.

AMP participants increased knowledge of asthma and asthma self-management

Across Years 1 and 2, funded partners reported that 89% of AMP participants who completed the program and participated in follow-up data collection improved asthma self-management knowledge (n=615).[1] This included AMP participants who had experienced asthma for many years and learned new information that helped them manage their asthma. For instance, an adult AMP participant shared the following, "I have suffered for many years from asthma, but through [my home visitor], I have learned the things or triggers that can be hurting me at home, how to use the medications correctly, and, above all, how to keep cleanliness."

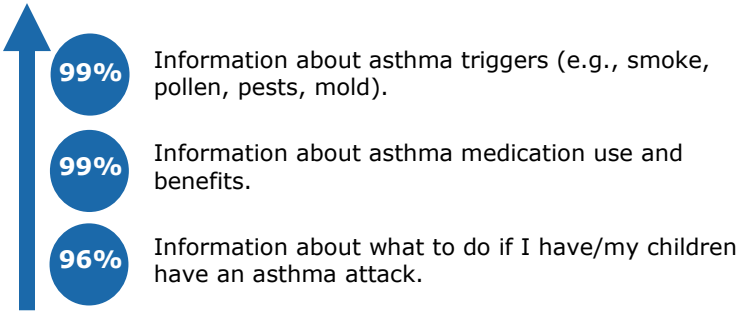


of participants improved asthma self-management knowledge

Participants also described the benefits of learning more about asthma, including the usefulness of cleaning information and best practices to reduce environmental triggers. When asked about the most useful components of the program, one participant commented, "Being aware of the triggers and incorporating that into our lifestyle. And basically, being cleaner about a lot of triggers for my son." In the same vein, another participant shared that "Before I entered the program…I didn't know what to do. I had no idea how to help my daughter. I was at a loss. And since we entered the program, they made me see everything, how I could help my daughter, how I could get better, and…it was like a great relief."

Respondents to the AMP participant survey shared the most useful aspects of the program that are shown in Exhibit 9.

Exhibit 9. Percentage of participants who found asthma education beneficial (n=104)



In addition to directly benefiting from information on asthma self-management, a quarter (26%) of AMP survey respondents reported joining the program with

[1] Denominators for this and all other asthma outcomes reported by funded partners in AMP progress report forms exclude those who started the program and remained at the highest possible level for that outcome.

another family member. This finding signals an increase in asthma mitigation knowledge to multiple members of a household. Some focus group participants mentioned taking what they learn home, benefiting other family members even if they themselves did not participate in AMP. As one participant shared, "It was quite hard to come into that change, but I feel like the benefit in the end was worth more. So instead of conforming to the way in which I was living prior to [the program], I just embrace [the changes I've made], and now with my knowledge…I've learned to teach it to my family so they can adapt the same thing."

Participants credited AMP with facilitating improved home environments

According to funded partners, 1,896 AMP participants received trigger remediation supplies based on 2,250 environmental assessments conducted in Year 2 (see Exhibit 10).

Exhibit 10. Number of participants in Year 2 who received trigger remediation supplies

	n	%
Participants who received any trigger remediation supplies or direct support	1,896	60%
Cleaning supplies	1,294	41%
Pillow and mattress covers	1,176	37%
Portable air purifier/cleaner or new filter for HVAC system	956	30%
Dehumidifiers or humidity monitors	609	19%
Pest traps or other integrated pest management supplies	492	16%
HEPA vacuums	378	12%
Minor home repairs	19	1%
Other supplies or support	717	23%

AMP participants were highly satisfied with the tangible supplies they received to reduce their asthma triggers, with 99% of survey respondents reporting this was beneficial for them. Focus group participants reported changing their cleaning products and cleaning supplies to reduce newly identified triggers, while others changed or eliminated asthma triggers identified through the program's environmental home assessments (see Exhibit 11).

Exhibit 11. Participant strategies for improving their home environment

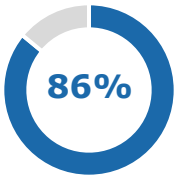
"They gave me a vacuum with a HEPA filter in it…because I live in the desert area and in a double wide trailer, so there's a lot of dirt that comes in my house…[and now] **the air is breathable in my house**."

"I started tracking the humidity in my room to help me understand. So, the tracker—the **thermostat given to me shows the humidity in my room. And that's something I've never tracked before**. So, it's actually just helped me understand why I can't breathe well some days."

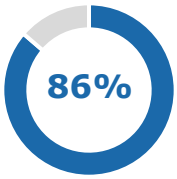
"[I learned] which cleaners to use…because there are cleaning products that can be harmful because they have chemicals in them. **And now that we are using natural products, it is healthier, and it does not affect us.** And I think that is the most important thing we have learned and continue to learn."

AMP contributed to improved asthma self-management practices and behaviors

Across Years 1 and 2, funded partners reported that 86% of AMP participants who completed the program and follow-up improved asthma self-management skills (n=588). Similarly, 86% (n=592) reported improved asthma management confidence at follow-up during the same period.



of participants improved asthma self-management skills



of participants improved asthma self-management confidence

Notably, participants described an improved ability to advocate for their health. One participant shared that the practice of tracking potential triggers in the home, "can also help us a lot because [we know] how we're doing with our lungs. We can take that to the doctor and say, you know what, look, I'm like this. Because there are some doctors that, honestly, sometimes they're not listening to you and they're not helping you and they don't want to help you…And so that chart that they gave us is very good."

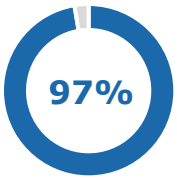
In addition, 79% of AMP participants who used asthma medication (n=426) improved their controller medication adherence at follow-up. This was supported by participant feedback where most respondents to the AMP participant survey (99%) reported that the information about asthma medication use and its benefits was very helpful, and several focus group participants described learning about the proper use of their asthma medications. A parent of a youth AMP participant shared that before AMP, they would stop giving their child asthma medication as soon as symptoms subsided. According to the parent, "I talked to the pediatrician, and I clarified this point through the program that…when the medicine was doing its job of taking away all the symptoms she had, it was not as I thought it was, to take her off the medication. She has to stay on the medicine because, based on that, it keeps her lungs open. And that's the right way to take her medication."

A funded partner offered an example of a similar success story: "[We] assisted a family with a disabled son who is unable to communicate. The mom expressed she was not confident about her knowledge of asthma and what to do when [her son] has asthma symptoms/flare-ups. She usually just takes him to the ER. We were able to educate and train the mom about asthma and asthma medications. He now has control medications and mom has been given training about what to do before taking [her son] to the ER, like giving rescue medication via his nebulizer." These types of improvements to asthma self-management practices and behaviors—and the subsequent reduction in asthma-related emergency room utilization and hospitalization—reduces costs for both payors[12] and individuals households.[13]

AMP participants also receive additional referrals to services that support their asthma needs, as well as other needs. This included referrals to smoking cessation programs, professional home cleaning, and major structural home improvements, as well as social services such as counseling or mental health programs. According to funded partners, 1,512 participants received these referrals in Year 1 and 2. Survey respondents indicated they were satisfied with referrals to these additional asthma services (94%) and social supports (85%).

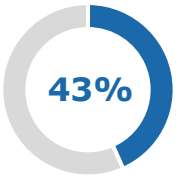
Participants report improved asthma control after participating in AMP

Funded partners reported that 97% of AMP participants who completed the program in Years 1 and 2 were able to address some or most asthma triggers by follow-up (n=740). A majority of survey respondents (85%) agreed or strongly agreed that they experienced fewer asthma attacks. Funded partners also reported that 87% of AMP participants with poorly controlled asthma at enrollment had improved asthma control at follow-up (n=448).



of participants addressed some or most asthma triggers during AMP

Participants learned and put into action new strategies that helped them control their (or their child's) asthma. Some credited journaling, oxygen meters, and their increased ability to track asthma triggers and asthma attacks. For example, one participant shared how an oxygen meter helped to reduce their family's emergency department visits: "We used to go to the [emergency room] a lot, and I had to learn how to decipher when we needed to go and when I could take care of it at home. So, it helped a lot to get an oxygen meter to put on my daughter's finger. So that would be like the first thing I would do is measure her oxygen level to know where she was at."



of participants had a written asthma action plan

Another participant shared that, with the asthma home visitor, they identified the need to ask the doctor to conduct a skin allergy test, which helped them identify specific triggers. The participant credited this strategy to a significant improvement in asthma control. They stated that, "Thanks to my home visitor who told me about this skin test, I'm now receiving weekly injections to control my allergies and it's been seven or eight months since I have no problems at all, no asthma attack, and I also don't have any allergic reactions."

Finally, an important tool for asthma control is the asthma action plan (AAP). Funded partners reported that 43% of AMP participants who completed the program had a written action plan at follow-up (n=342), a substantial improvement from the percentage with a written action plan at enrollment (10%). Funded partners shared insights in the challenges with obtaining these AAPs. Some reported that participants are not consistently given an AAP, with some providers only giving them to children despite best practices. In an effort to overcome this challenge, some home visitors signed release of information forms to talk directly with participant's doctors, and reported having to educate providers on the importance of AAPs (even when they were aware of them). Others found it challenging to have their AAP periodically updated by their health care provider when they already faced barriers to seeing a provider.

> **"We used to go to the [emergency room] a lot, and I had to learn how to decipher when we needed to go and when I could take care of it at home."**
>
> **— AMP participant**

While many of these changes to asthma control are promising, improvements are likely an outcome of both AMP services and a variety of other factors in participants' lives. Participants themselves acknowledged that other factors, in combination with the program, could account for their improved asthma outcomes. For instance, participants noted changes in air quality, relocation to different cities with less pollen or better environmental conditions, and people's socio-economic status and privilege as other contributors to changes in their asthma.

Participants experienced ongoing challenges related to improving their home environments and controlling their asthma

Numerous positive outcomes from AMP were reported by participants. At the same time, they recognized that their ability to manage their asthma was also impacted by systemic factors. More specifically, they noted the following challenges:

Housing. Home visitors and participants noted difficulties working with landlords to make home improvements. One common challenge was described by a focus group participant: "[My] landlord is out of state…I can't really get a hold of my landlord." This situation was exacerbated in a difficult housing and rental market, with some participants not wanting the program to contact their property owner to perform repairs because they were afraid of retaliation or eviction.

Environmental factors, including those specific to their community (such as poor air quality), as well as larger issues like wildfires and climate change. An AMP participant described the impact of environmental factors: "Our biggest climate threats here are wildfires and sea level rise. And we're a huge county…All of us on the coast deal with high moisture and mold…that's going to have an increase in asthma. And then inland is more prone to wildfires and wildfire smoke…our allergy season here is terrible. And with climate change, that's getting longer."

Economic limitations to sustaining remediation, such as ongoing replacement of mitigation supplies like air filters. As one participant shared, "The filters, the monitors, the metering, the level in the house, the humidity, all those little things, they help out a lot. And then especially things that are expensive." A second participant agreed, "This goes back to my point in not having the privilege to make changes, since I can't afford a lot of the things they did provide me with."

Healthcare access, including a shortage of Medi-Cal providers (particularly those with linguistic and cultural competence) and the ability of participants to advocate for appropriate asthma management care. A funded partner noted healthcare access as a challenge, "Actually finding a physician is really hard, too. Especially Medi-Cal, and then some of the folks that are undocumented. They aren't necessarily willing to go to a doctor."

COVID-19. Participants continued to experience challenges related to asthma services both as a result of the effects of COVID as well as COVID-related changes in their daily lives. Funded partners reported participants' varied interest in asthma in-person and virtual visits as the pandemic continues to require adjustments to daily life. For example, many home visitors shared the challenge in helping participants prioritize their asthma when school, work, and social gatherings continue to fluctuate with rising and falling (and rising again) case rates. A home visitor reported that "One of our clients was very exhausted. I see our job as just reassuring her and letting her know what a great job that she's doing, and to keep it up."

Acknowledging historical harms and traumas

Funded partners stressed the importance of understanding each community's unique histories to deliver culturally appropriate asthma preventive services. For example, one agency talked about a case where "[one potential participant] has been through PTSD or depression…[you have to] prep yourself and prepare to encounter [that]. And we have that kind of client a lot in our community, especially [because we] serve immigrant or refugee communit[ies]." Another funded partner highlighted their attention to historical trauma when thinking about reaching Native American residents in their county: "If you think about the Native American population who have had their children forcibly removed and taken into boarding schools and foster care…they don't want me in their home either…so [it was really nice] to have that flexibility to do [visits] over the phone." They also indicated that in some cases, these histories might influence what organizations are best positioned to deliver asthma preventive services. They shared, "I imagine if this [program] were based at the [local federally qualified health center (FQHC)], that'd be great, because then I would have access to the names of everyone in the county who has asthma, and I could call them, and I could do the program. But a lot of people have been harmed by our FQHC."

Participant suggestions for program improvement

In addition to sharing their experiences in the program, participants offered suggestions for program improvement. Many noted the deep impact of this program, and the need for broader community education about environmental triggers and resources available for people with asthma. They suggested increased outreach to expand community access to services and asthma information. In addition, one participant shared there might be community skepticism around services with a home visitation component. Their home visitor shared with them that "she's aware that people think that she's CPS…I told her…I've told people [about the program]. But they don't believe me that they help you with free stuff like vacuums or pillow covers. It's because there's always a catch to things. And people are so used to doubting. So it's really hard to get them to believe about this program." To address any hesitancy, they recommended that programs clarify who they are and that services are voluntary.

Finally, participants recognized that their trajectories in improving their asthma do not end once the program concludes. Many focus group participants noted that they continue to seek resources and educational opportunities to expand their asthma understanding. As a result, some expressed interest in having a higher number of visits as part of the program or increasing access to resources after the program ends.

Looking Ahead:
Strengthening implementation to continue improving asthma outcomes

Since its launch, the AMP evaluation has sought to understand how program delivery could be strengthened to improve participant experiences and asthma-related health. This focus takes on new importance in Year 2, as lessons learned can now be used to inform the launch of CalAIM's asthma preventive services as well as ongoing efforts to enhance and expand asthma benefits in California. This section includes considerations for funded partners and AMP to improve implementation in Year 3, as well as considerations for future asthma home visiting and asthma preventive services initiatives. Key evaluation questions examined during Year 2 are summarized in the sidebar.

Key evaluation questions explored during Year 2

- Which implementation drivers (such as staff competency, leadership skills, and organizational track record) should be bolstered to strengthen program implementation?
- How can lessons learned inform others who are implementing similar programs, as well as those who will be involved in implementing CalAIM?

Considerations for funded partners

The following key considerations could support funded partners to strengthen their program delivery during AMP's final year:

- **Continue testing additional strategies to address enrollment and retention challenges.** Suggestions—including successful strategies already in use, as well as ideas shared by participants—were to:
    - Spread out incentives and asthma mitigation supplies across AMP visits to motivate families to complete all visits.
    - Develop flyers and brochures that provide clear, simple information about how participants will benefit and what services to expect. Identifying the funded partner on these materials—as well as the fact that programs are free and voluntary—helps to legitimize these services to potential participants.
    - Reconnect with local clinics and hospitals to support recruitment, given the role they play as trusted sources of medical information and referrals.
    - Meet with participants prior to the first home visit to thoroughly explain the services being offered. Although these meetings fall outside AMP’s funding, some funded partners have cited the benefit of these additional visits for building trust with the participants.
    - Share success stories and encourage word-of-mouth referrals as one avenue for recruitment. While word-of-mouth referrals may sometimes reach participants who are not eligible for services, they also come with built-in credibility about the program's benefits.

- **Continue sharing materials that participants can use after the end of their participation.** AMP services are only available to participants for a limited number of home visits. Therefore, participants expressed particular appreciation for asthma resources that they could continue to use on their own after the end of their visits. Funded partners should therefore consider sharing (or continue to share) resources such as asthma education videos, worksheets, and asthma diaries that participants can reference after services end.

- **Take advantage of other established asthma home visiting networks and resources.** Through AMP, funded partners have had the opportunity to establish relationships with other asthma home visiting networks, such as the California Asthma Financing Network and RAMP's Community Health Worker groups. In addition, funded partners have participated in RAMP's capacity-building workshops, which have been offered for 20 years through other sources of funding. These workshops—including ones cited by funded partners as particularly useful—have helped to further enhance AMP implementation. Funded partners should continue to leverage multiple funding sources and networks to strengthen their programs and staff capacity.

Considerations for The Center and its partners

The Center and its partners—including DHCS, RAMP, CPEHN, Children Now, and Harder+Company—can use the following considerations to improve their strategies to support AMP's funded partners:

- **Continue being responsive to funded partners' training needs.** Funded partners spoke positively about training and technical assistance supports provided through AMP, as well as the ways that AMP has adapted trainings to meet emerging needs. Training topics identified for the coming year included:

    - Participant eligibility for other non-asthma services and programs that support healthy asthma outcomes

    - Resources to capture the full cost of program implementation

    - Information and support to navigate California's healthcare system, including Medi-Cal and CalAIM

- **Explore strategies to continue offering or expanding technical assistance after AMP ends**. Given the high value placed on the technical assistance and trainings accessed through AMP, funded partners will likely continue to turn to these resources after AMP's funding ends in 2023. AMP should consider engaging in further discussions with DHCS about the funding and/or other resources that would be required to ensure ongoing access to these resources. There is more to be learned about the specific technical assistance topics that would be most beneficial for AMP funded partners moving forward. Some topics could be addressed by AMP's existing technical assistance partners, while others might be best addressed by new partners, or (in the case of training on Medi-Cal or CalAIM) by DHCS directly. Evaluation efforts in Year 3 will further explore this topic.

- **Continue working with healthcare providers, MCPs, and health plans to underscore the value of asthma remediation services.** This year, funded partners reiterated the important role that medical providers play in enrolling participants in AMP services. Furthermore, strong relationships with MCPs and health plans support the long-term sustainability of current AMP funded partners. During Year 3, AMP should consider additional capacity-building efforts that help funded partners establish relationships with these key healthcare collaborators. RAMP, CPEHN, and Children Now are already at the forefront of efforts to educate providers about the value of partnering with asthma remediation programs and should continue these efforts in the year ahead.

Considerations for future asthma home visiting and asthma preventive services initiatives

Finally, partners involved in the design and implementation of future asthma home visiting and asthma preventive services may benefit from the following considerations:

- **Under current economic conditions, all collaborators should be prepared for higher-than-normal staff turnover.** Funded partners consistently described challenges in staffing, including recruitment difficulties, low retention, and reassignment or low capacity due to COVID-19. To account for staffing challenges, implementing organizations may want to prepare by planning for more trainings than usual; documenting program procedures to ensure knowledge transfer and program fidelity; and identifying ways to establish continuity with participants who may be impacted by changes in home visiting staff. In addition, funders, MCPs, and Medi-Cal should anticipate longer ramp-up periods for programs, as well as periods of transition when staff leave and new people are hired.

- **Work with partners to ensure that key training resources—such as the CDPH AsMA training—are readily available to implementing agencies.** The CDPH California Breathing AsMA training has been instrumental in preparing AMP home visitors to provide evidence-based asthma education to participants. California Breathing has worked closely with The Center to be as responsive as possible to the added demand for their trainings. At the same time, funded partners expressed an ongoing need for more frequent trainings, particularly given the high level of staff turnover. If the AsMA training will continue to play this important role for asthma home visitors and other providers of asthma preventive services, DHCS may need to identify resources and strategies to enable California Breathing to keep up with this demand.

- **Place value in relationship- and trust-building as key factors in program implementation.** As evidenced throughout this report, relationship- and trust-building played critical roles in successfully enrolling, retaining, and supporting AMP participants. Funded partners described the particular importance of having established roots with both community members and local organizations to give participants confidence that they are trustworthy service providers with an understanding of their communities' needs and history. In addition, many funded partners used service delivery models that explicitly encouraged this trust- and relationship-building, with interim connections that went above and beyond the number of visits formally described in AMP's program design. Across these different approaches, funded partners

underscored the value of investing time and resources into this high-touch service delivery model.

- **Support smaller organizations to build the infrastructure needed to participate in Medi-Cal services.** Small, grassroots organizations often have the deep roots in—and good track records with—historically marginalized communities that could most benefit from asthma prevention services. At the same time, these smaller organizations may need additional support to build the infrastructure required to successfully implement their asthma home visiting programs, or to be able to partner with Medi-Cal to offer asthma preventive services as part of CalAIM.

- **Further explore how variations in infrastructure impact funded partners' ability to serve program participants.** Evaluation during AMP's third year will further assess which aspects of infrastructure were most important for successful implementation, with a special focus on understanding how smaller organizations could build their internal capacity to successfully implement asthma home visiting and other asthma preventive services. This will help to further inform efforts to support smaller organizations to participate in CalAIM.

Appendix

Exhibit A1. AMP funded partners

August 2020 Funded Partners (Round One)

- Alameda County Public Health Department
- Breathe California of the Bay Area, Golden Gate, and Central Coast
- Central California Asthma Collaborative
- Comite Civico del Valle
- Community Action Partnership of Kern
- Contra Costa Health Services
- El Concilio California
- El Sol Neighborhood Educational Center
- Esperanza Community Housing Corporation
- Judahh Project
- La Maestra Family Clinic
- LifeLong Medical Care
- Little Manila Foundation
- Mercy Foundation – Bakersfield
- Mutual Assistance Network of Del Paso Heights
- Roots Community Health Center
- San Mateo County Family Health Services
- Santa Barbara Neighborhood Clinics
- Santa Rosa Community Health Centers
- Sigma Beta Xi
- Visión y Compromiso
- Watts Healthcare

August 2021 Funded Partners (Round Two)

- Asian Pacific Self-Development and Residential Association
- International Rescue Committee
- Jakara Movement
- McKinleyville Community Collaborative
- Nexus Youth and Family Services
- Somali Family Service of San Diego

Exhibit A2. Asthma Mitigation Project logic model

The Center developed a logic model for AMP prior to the selection of funded partners in 2020. The logic model was revised in 2022 to reflect updates to the program model, add technical assistance activities and outcomes, and detail the external factors that influence implementation.

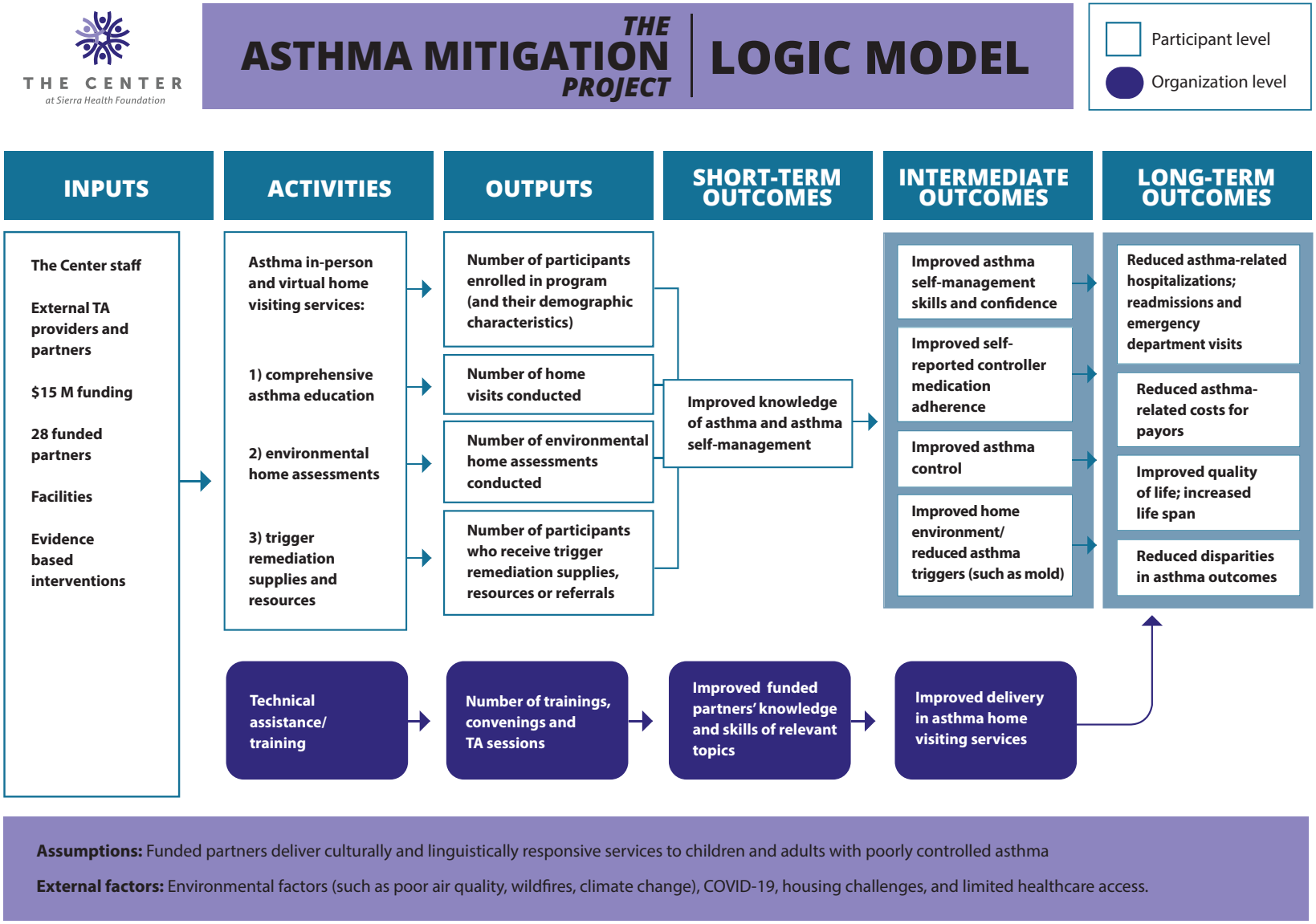


Exhibit A3. Revised AMP evaluation questions

The following revised list of evaluation questions was approved by DHCS in April 2022:

1. How do implementation variables (such as the types of organizations, combinations of services, and service dosage) vary across AMP programs?
    a. How (and why) was the model adapted?
    b. How did these adaptations support the program in achieving its outcomes?
2. Which implementation drivers (such as staff competency, leadership skills, and organizational track record) should be bolstered or adapted to strengthen program implementation?
    a. What supports and resources were most important for successful implementation of AMP? How did this vary based on a funded partners' implementation stage and prior experience with asthma home visiting?
    b. How did the COVID-19 pandemic influence implementation variables (such as virtual vs. in-person visit models) and implementation drivers (such as staff capacity, leadership commitment, and other external factors)?
3. To what extent did AMP participation lead to changes in funded partners' infrastructure and organizational capacity?
    a. What was the full financial and human cost of implementing AMP? In addition to AMP funding, what financial resources contributed to AMP program implementation?
4. What were the unintended benefits/consequences of AMP home visiting services? How did these unintended benefits/consequences influence AMP's success?
    a. How can lessons learned be used to inform others implementing similar programs, policy makers, and managed care organizations/community-based organizations implementing CalAIM?
5. To what extend did the home visiting services lead to anticipated outcomes for program participants?
    a. What implementation variables are associated with successful and unsuccessful outcomes for participants?
    b. To what extent are the intended populations being served and receiving high-quality care?
    c. In what ways did the social determinants of health (e.g. healthy housing, air quality, and healthcare access) influence anticipated outcomes?

Exhibit A4. AMP Year 2 evaluation data collection methods

In Year 2, the AMP evaluation continued to gather and analyze both quantitative and qualitative data. Each data collection method used to inform the Year 2 Evaluation Report is described below.

Document review

To understand variations in planned program implementation, documents (including program applications, organization websites, and information from technical assistance calls) were systematically abstracted for all AMP funded partners. Document review for 22 Round One funded partners occurred in October 2020 (AMP Year 1); the process was repeated for the six Round Two funded partners in January 2022.

Data were abstracted for a defined set of key implementation variables, including the geographic focus, priority populations, implementation stage at the time of AMP application, and details about the asthma home visitation model. The evaluation team reviewed and discussed all data for insights into variability of implementation across AMP programs.

Interviews with program leaders and home visitors for Round Two funded partners

To gather baseline information on program implementation (including priority populations, program model, and early insights into program delivery), in-depth, semi-structured video interviews were conducted with program leaders and home visitors for Round One and Round Two funded partners. Interviews with Round One funded partners were conducted between February and April 2021 (AMP Year 1), with home visitors interviewed separately from program leaders. In May 2022, interviews were conducted with five out of six Round Two funded partners. For Round Two, staff *across* both roles (i.e., program leader and home visitor) were invited to participate in a group interview.

Participant surveys

In April 2021, a participant survey was launched to gain insights into participants' experiences and satisfaction with their AMP program. Home visitors invite participants to complete the survey at their final visit using a flyer that contains a link/QR code to complete the survey online, or a phone number to complete the survey by phone. Both the survey and outreach flyer are available in Spanish and English. Between April 2021 and April 2022, survey respondents were entered into a quarterly raffle for a $100 gift card. To boost response rate, incentives were changes in April 2022 to allow all respondents to receive a $15 gift card. All previous respondents who did not win the gift card raffle were also given a $15 gift card. This report includes analysis of 105 survey responses received between April 2021 and June 2022; total number of responses varied for each survey question.

Participant focus groups

Participant focus groups were conducted to understand participant perspectives on program implementation, satisfaction, and impact. The focus group protocol was developed in partnership with AMP and piloted in early April with a small group of AMP participants. After receiving feedback from the pilot focus group, the protocol was finalized, adapted for use with three different audiences (adult participants, parents/caregivers of youth participants, and youth participants ages 14 to 18), and translated into Spanish.

Funded partners conducted outreach directly with current and former AMP participants, inviting them to register online to express their interest in participation. Participants were then selected from among registrants to ensure that a variety of AMP funded partners were

represented in the focus groups. Participants received individualized text, email or phone support to ensure they could participate in the video focus groups. All outreach and participation support was available in English and Spanish.

Six focus groups (including two in Spanish) were completed in April and May 2022. Seventy people expressed interest in participation, 36 people completed focus group registration, and 17 people (including adult AMP participants and parents/caregivers of AMP participants) joined the focus groups. These focus group participants represented seven different funded programs (including new and established programs, programs from both Rounds One and Two, and programs across Northern, Central and Southern California). Only three youth participants expressed interest in focus group participation; ultimately, they were not available or able to gain parent consent to participate in the focus groups. All participants received a $50 gift card as an incentive and thank-you for their time.

Progress reports

As part of their grant requirements, funded partners capture and submit data about their AMP programs in a biannual progress report. These reports allow The Center to monitor program progress and identify opportunities to support implementation, while also providing ongoing insights into AMP's overall reach, interventions, and early outcomes. The form was developed to reflect key outputs and outcomes in the AMP logic model, guidance set forth in AB74 regarding AMP funding, input from funded partners, data collection required by the California Department of Public Health's California Breathing program, and discussion with The Center and RAMP. This report includes data—including both quantitative data and narrative responses—from all four progress reports submitted between January 2021 and July 2022.

Exhibit A5. Year 1 AMP participant demographics for those who newly enrolled and those who completed the program (August 1, 2020 to June 30, 2021, AMP funded partner progress reports)

Indicator	Newly enrolled		Completed program*	
	n	%	n	%
Age	**757**	**100%**	**152**	**100%**
Ages 0-11	266	35%	63	41%
Ages 12-21	214	28%	48	32%
Ages 22 and older	220	29%	41	27%
Age unavailable	57	8%	0	0%
Race/ethnicity	**757**	**100%**	**152**	**100%**
American Indian or Alaska Native	3	<1%	0	0%
Asian	18	2%	6	4%
African American or Black	193	25%	41	27%
Hispanic or Latino/Latinx	382	50%	104	68%
Native Hawaiian or Pacific Islander	2	<1%	0	0%
White	64	8%	0	0%
Two or more races	30	4%	0	0%
A different race/ethnicity not listed here	16	2%	1	1%
Race/ethnicity unknown	49	6%	0	0%
Primary language	**757**	**100%**	**152**	**100%**
English	440	58%	58	38%
Spanish	291	38%	93	61%
Other language*	12	2%	1	1%
Primary language unknown	14	2%	0	0%
Insurance status	**757**	**100%**	**152**	**100%**
Medi-Cal and Medicare dual coverage	20	3%	14	9%
Medi-Cal only	518	68%	70	46%
Uninsured	84	11%	14	9%
Other	--	--	0	0%
Insurance coverage unknown	135	18%	54	36%
Housing status	**757**	**100%**	**152**	**100%**
Own/rent	580	77%	126	83%
Shared housing with extended family/friends	36	5%	7	5%
Other housing situation (including temporary housing, supportive living facility, group home, or place not suited for habitation)	59	8%	1	1%
Housing status unknown	82	11%	18	12%

* Other languages included Amharic (<1%), Arabic (<1% among newly enrolled), Farsi (<1%), and Tagalog (<1%).

Exhibit A6. Year 2 AMP participant demographics for those who newly enrolled and those who completed the program (July 1, 2021 to June 30, 2022, AMP funded partner progress reports)

Indicator	Newly enrolled		Completed program*	
	n	%	n	%
Age	**1,914**	**100%**	**1,113**	**100%**
Ages 0-11	612	32%	396	36%
Ages 12-21	496	26%	317	28%
Ages 22 and older	789	41%	393	35%
Age unavailable	17	1%	7	1%
Race/ethnicity	**1,914**	**100%**	**1,113**	**100%**
American Indian or Alaska Native	18	1%	1	0%
Asian*	182	10%	30	3%
African American or Black	427	22%	223	20%
Hispanic or Latino/Latinx	1,045	55%	755	68%
Native Hawaiian or Pacific Islander	15	1%	3	0%
White	129	7%	64	6%
Two or more races	41	2%	25	2%
A different race/ethnicity not listed here	24	1%	9	1%
Race/ethnicity unknown	33	2%	3	0%
Primary language	**1,914**	**100%**	**1,113**	**100%**
English	961	50%	560	50%
Spanish	736	38%	522	47%
Other language**	179	9%	25	2%
Primary language unknown	38	2%	0	0%
Insurance status	**1,914**	**100%**	**1,113**	**100%**
Medi-Cal and Medicare dual coverage	174	9%	75	7%
Medi-Cal only	1,485	78%	927	83%
Uninsured	75	4%	54	5%
Other	34	2%	12	1%
Insurance coverage unknown	146	8%	45	4%
Housing status	**1,914**	**100%**	**1,113**	**100%**
Own/rent	1,656	87%	1,042	94%
Shared housing with extended family/friends	101	5%	40	4%
Other housing situation (including temporary housing, supportive living facility, group home, or place not suited for habitation)	42	2%	11	1%
Housing status unknown	115	6%	20	2%

* Detailed Asian and Native Hawaiian or Pacific Islander subgroup information began to be collected in Year 2. Asian includes Chinese (<1% among newly enrolled), Filipino (1%), Vietnamese (<1%), Asian Indian (6%), Cambodian (2%), Hawaiian (<1%), Guamanian (<1%), Samoan (<1%), and unknown subgroups (1%).

** Other languages included Arabic (2% among newly enrolled), Cantonese (<1%), Dari (1%), Farsi (<1%), Khmer (1%), Mandarin (<1%), Punjabi (4%), Somali (<1%), Swahili (<1%), Tagalog (<1%), and Vietnamese (<1%).

Exhibit A7. Years 1 and 2 AMP participant demographics for those who newly enrolled and those who completed the program (August 1, 2020 to June 30, 2022, AMP funded partner progress reports)

Indicator	Newly enrolled		Completed program*	
	n	%	n	%
Age	**2,671**	**100%**	**1,265**	**100%**
Ages 0-11	878	33%	459	36%
Ages 12-21	710	27%	365	29%
Ages 22 and older	1,009	38%	434	34%
Age unavailable	74	3%	7	1%
Race/ethnicity	**2,671**	**100%**	**1,265**	**100%**
American Indian or Alaska Native	21	1%	1	0%
Asian*	200	7%	36	3%
African American or Black	620	23%	264	21%
Hispanic or Latino/Latinx	1,427	53%	859	68%
Native Hawaiian or Pacific Islander	17	1%	3	0%
White	193	7%	64	5%
Two or more races	71	3%	25	2%
A different race/ethnicity not listed here	40	1%	10	1%
Race/ethnicity unknown	82	3%	3	0%
Primary language	**2,671**	**100%**	**1,265**	**100%**
English	1,401	52%	618	49%
Spanish	1,027	38%	615	49%
Other language**	191	7%	26	2%
Primary language unknown	52	2%	0	0%
Insurance status	**2,671**	**100%**	**1,265**	**100%**
Medi-Cal and Medicare dual coverage	194	7%	89	7%
Medi-Cal only	2,003	75%	997	79%
Uninsured	159	6%	68	5%
Other	34	1%	12	1%
Insurance coverage unknown	281	11%	99	8%
Housing status	**2,671**	**100%**	**1,265**	**100%**
Own/rent	2,236	84%	1,168	92%
Shared housing with extended family/friends	137	5%	47	4%
Other housing situation (including temporary housing, supportive living facility, group home, or place not suited for habitation)	101	4%	12	1%
Housing status unknown	197	7%	38	3%

* Detailed Asian and Native Hawaiian or Pacific Islander subgroup information began to be collected in Year 2. Asian includes Chinese (<1% among newly enrolled), Filipino (1%), Vietnamese (<1%), Asian Indian (4%), Cambodian (1%), Hawaiian (<1%), Guamanian (<1%), Samoan (<1%), and unknown subgroups (1%).

** Other languages included Amharic (<1% among newly enrolled), Arabic (2%), Cantonese (<1%), Dari (1%), Farsi (<1%), Khmer (1%), Mandarin (<1%), Punjabi (3%), Somali (<1%), Swahili (<1%), Tagalog (<1%), and Vietnamese (<1%).

Exhibit A8. **Year 1 asthma control characteristics for participants who newly enrolled and those who completed the program (August 1, 2020 to June 30, 2021, AMP funded partner progress reports)**

Indicator	Newly enrolled		Completed program*	
	n	%	n	%
Asthma control status at enrollment	**757**	**100%**	**152**	**100%**
Well controlled asthma at enrollment	335	44%	71	47%
Poorly controlled asthma at enrollment	308	41%	73	48%
Unknown asthma control level at enrollment	114	15%	8	5%
Prior hospitalization, ED visits, or urgent care visits in the 12 months prior to enrollment	**757**	**100%**	**NA**	**NA**
Yes	226	30%	--	--
No	403	53%	--	--
Unknown	128	17%	--	--
Written asthma action plan prior to enrollment	**757**	**100%**	**NA**	**NA**
Yes	170	22%	--	--
No	469	62%	--	--
Unknown	118	16%	--	--

* Program completion is defined as completing at least two visits for adult participants over age 21, or three visits for participants ages 0-21.

Exhibit A9. **Year 2 asthma control characteristics for participants who newly enrolled and those who completed the program (July 1, 2021 to June 30, 2022, AMP funded partner progress reports)**

Indicator	Newly enrolled		Completed program*	
	n	%	n	%
Asthma control status at enrollment	**1,914**	**100%**	**1,113**	**100%**
Well controlled asthma at enrollment	386	20%	338	30%
Poorly controlled asthma at enrollment	1,303	68%	740	66%
Unknown asthma control level at enrollment	225	12%	35	3%
Prior hospitalization, ED visits, or urgent care visits in the 12 months prior to enrollment	**1,914**	**100%**	**NA**	**NA**
Yes	698	36%	--	--
No	970	51%	--	--
Unknown	246	13%	--	--
Written asthma action plan prior to enrollment	**1,914**	**100%**	**NA**	**NA**
Yes	215	11%	--	--
No	1,535	80%	--	--
Unknown	164	9%	--	--

* Program completion is defined as completing at least two visits for adult participants over age 21, or three visits for participants ages 0-21.

Exhibit A10. Years 1 and 2 asthma control characteristics for participants who newly enrolled and those who completed the program (August 1, 2020 to June 30, 2022, AMP funded partner progress reports)

Indicator	Newly enrolled		Completed program*	
	n	%	n	%
Asthma control status at enrollment	**2,671**	**100%**	**1,265**	**100%**
Well controlled asthma at enrollment	721	27%	409	32%
Poorly controlled asthma at enrollment	1,611	60%	813	64%
Unknown asthma control level at enrollment	339	13%	43	3%
Prior hospitalization, ED visits, or urgent care visits in the 12 months prior to enrollment	**2,671**	**100%**	**NA**	**NA**
Yes	924	35%	--	--
No	1,373	51%	--	--
Unknown	374	14%	--	--
Written asthma action plan prior to enrollment	**2,671**	**100%**	**NA**	**NA**
Yes	385	14%	--	--
No	2,004	75%	--	--
Unknown	282	11%	--	--

* Program completion is defined as completing at least two visits for adult participants over age 21, or three visits for participants ages 0-21.

Exhibit A11. Year 1 and 2 trigger remediation supplies or direct support received by for participants who completed the program (August 1, 2020 to June 30, 2021, AMP funded partner progress reports)

Indicator	Year 1 (August 1, 2020 to June 30, 2021)		Year 2 July 1, 2021 to June 30, 2022)		Cumulative (August 1, 2020 to June 30, 2022)	
	n	%	n	%	n	%
Total participants served (including newly enrolled and continuing)	**808**		**3,146**		**3,954**	
Participants who received any trigger remediation supplies or direct support	**555**	**69%**	**1,896**	**69%**	**2,451**	**62%**
Cleaning supplies	452	56%	1,294	41%	1,746	44%
Dehumidifiers or humidity monitors	92	11%	609	19%	701	18%
HEPA vacuums	82	10%	378	12%	460	16%
Minor home repairs	9	1%	19	1%	28	1%
Pest traps or other integrated pest management supplies	115	14%	492	16%	607	15%
Pillow and mattress covers	338	48%	1,176	37%	1,564	40%
Portable air purifier/cleaner or new filter for HVAC system	86	11%	956	30%	1,042	26%
Other supplies or support	182	23%	717	23%	899	23%

Exhibit A12. Asthma outcomes for participants who completed the program and completed follow-up* (August 1, 2020 to June 30, 2022, AMP funded partner progress reports)

	Year 1 n=57-62 (August 1, 2020 to June 30, 2021)		Year 2 n=481-728 (July 1, 2021 to June 30, 2022)		Cumulative n=538-790 (August 1, 2020 to June 30, 2022)	
Asthma outcome	**n**	**%**	**n**	**%**	**n**	**%**
Improved asthma self-management knowledge	58	100%	557	88%	615	89%
Improved asthma self-management skills	58	100%	530	85%	588	86%
Improved confidence in ability to manage asthma	59	100%	533	85%	592	86%
Improved self-reported controller medication adherence **	48	84%	378	79%	426	79%
Have a written asthma action plan	30	48%	312	43%	342	43%
Reduced asthma triggers ***	59	98%	681	97%	740	97%

* Program completion is defined as completing at least two visits for adult participants over age 21, or three visits for participants ages 0-21. Follow-up data collection is defined as any information, including self-reported information, collected by funded partners after the participant's final home visit/virtual session. All denominators exclude those who reported starting and exiting the program at the highest levels for each asthma outcome. This methodology has been updated since previous evaluation reports to reflect changes to progress report data collection requirements.

** Denominator excludes those who had no controller medication prescribed.

*** Denominator excludes those who had no identified asthma triggers that needed to be addressed.

Exhibit A13. Self-reported outcomes for participants who completed the program and completed follow-up, by asthma control status at enrollment and by year*(August 1, 2020 to June 30, 2022, AMP funded partner progress reports)

	Year 1 n=62 (August 1, 2020 to June 30, 2021)		Year 2 n=687 (July 1, 2021 to June 30, 2022)		Cumulative n=749 (August 1, 2020 to June 30, 2022)	
Indicator	**n**	**%**	**n**	**%**	**n**	**%**
Well-controlled asthma at enrollment	**23**	**100%**	**210**	**100%**	**233**	**100%**
Any improvement in asthma control	21	92%	151	72%	172	74%
No improvement in asthma control	1	4%	48	23%	49	21%
Unknown change in asthma control	1	4%	11	5%	12	5%
Poorly controlled asthma at enrollment	**39**	**100%**	**477**	**100%**	**516**	**100%**
Any improvement in asthma control	39	100%	408	86%	448	87%
No improvement in asthma control	0	0%	50	10%	50	10%
Unknown change in asthma control	0	0%	19	4%	19	4%

* Program completion is defined as completing at least two visits for adult participants over age 21, or three visits for participants ages 0-21. Follow-up data collection is defined as any information, including self-reported information, collected by funded partners after the participant's final home visit/virtual session.

References

[1] California for All. Tracking COVID-19 in California. Updated August 31, 2022. Accessed August 11, 2022. https://covid19.ca.gov/state-dashboard/.

[2] California Department of Health Care Services. California Advancing and Innovating Medi-Cal (CalAIM): Our journey to a healthier California for all. Updated April 2022. Accessed August 15, 2022. https://www.dhcs.ca.gov/CalAIM/Documents/CalAIM-Primer-042022.pdf.

[3] Regional Asthma Management and Prevention. 2022 brings exciting opportunities for asthma home visits. Accessed August 15, 2022. http://www.rampasthma.org/archives/16792.

[4] California Department of Health Care Services. CalAIM Population Health Management Initiative. Updated August 22, 2022. Accessed August 24, 2022. https://www.dhcs.ca.gov/CalAIM/Pages/PopulationHealthManagement.aspx.

[5] California Department of Health Care Services. Medi-Cal Part 2 Provider Manual. Asthma Preventive Services (APS) (asth prev). Updated July 2022. Accessed August 24, 2022. https://files.medi-cal.ca.gov/pubsdoco/Publications/masters-MTP/Part2/asthprev.pdf.

[6] California Department of Health Care Services. Medi-Cal Part 2 Provider Manual. Community Health Worker (CHW) Preventive Services (chw prev). Updated July 2022. Accessed August 24, 2022. https://files.medi-cal.ca.gov/pubsdoco/Publications/masters-MTP/Part2/chwprev.pdf.

[7] Department of Health & Human Services Centers for Medicare and Medicaid Services. Approval of California State Plan Amendment (SPA) 22-0001. Released July 26, 2022. Accessed August 24, 2022. https://www.dhcs.ca.gov/formsandpubs/laws/Documents/SPA-22-0001-Approval.pdf.

[8] University of Washington UW Implementation Science Resource Hub. What is implementation science? Updated 2022. Accessed September 1, 2022. https://impsciuw.org/implementation-science/learn/implementation-science-overview/.

[9] Lucero AD, Lee A, et al. Underutilization of the emergency department during the COVID-19 pandemic. West J Emerg Med. 2020;21(6):15. DOI:10.5811/WESTJEM.2020.8.48632.

[10] Satty T, Ramgopal S, et al. EMS responses and non-transports during the COVID-19 pandemic. Am J Emerg Med. 2021;42:1-8. DOI: 10.1016/j.ajem.2020.12.078.

[11] California Department of Public Health Environmental Health Investigations Branch. Asthma Management Academy (AsMA). Updated May 27, 2022. Accessed August 24, 2022. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHIB/CPE/Pages/AsMA.aspx.

[12] California Department of Public Health. Strategic plan for asthma in California, 2015-2019. Released April 2015. Accessed September 1, 2022. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHIB/CPE/CDPH%20Document%20Library/SPAC2014_7-28-15APR.pdf.

[13] Naufal G, Naiser E, Patterson B, Baek J, Carrillo G. A Cost-Effectiveness Analysis of a Community Health Worker Led Asthma Education Program in South Texas. J Asthma Allergy. 2022;15:547-556. DOI: 10.2147/JAA.S351141.

harder + co | community research

harderco.com

Harder+Company Community Research works with public- and social-sector organizations across the United States to learn about their impact and sharpen their strategies to advance social change. Since 1986, our data-driven, culturally-responsive approach has helped hundreds of organizations contribute to positive social impact for vulnerable communities. Learn more at www.harderco.com.