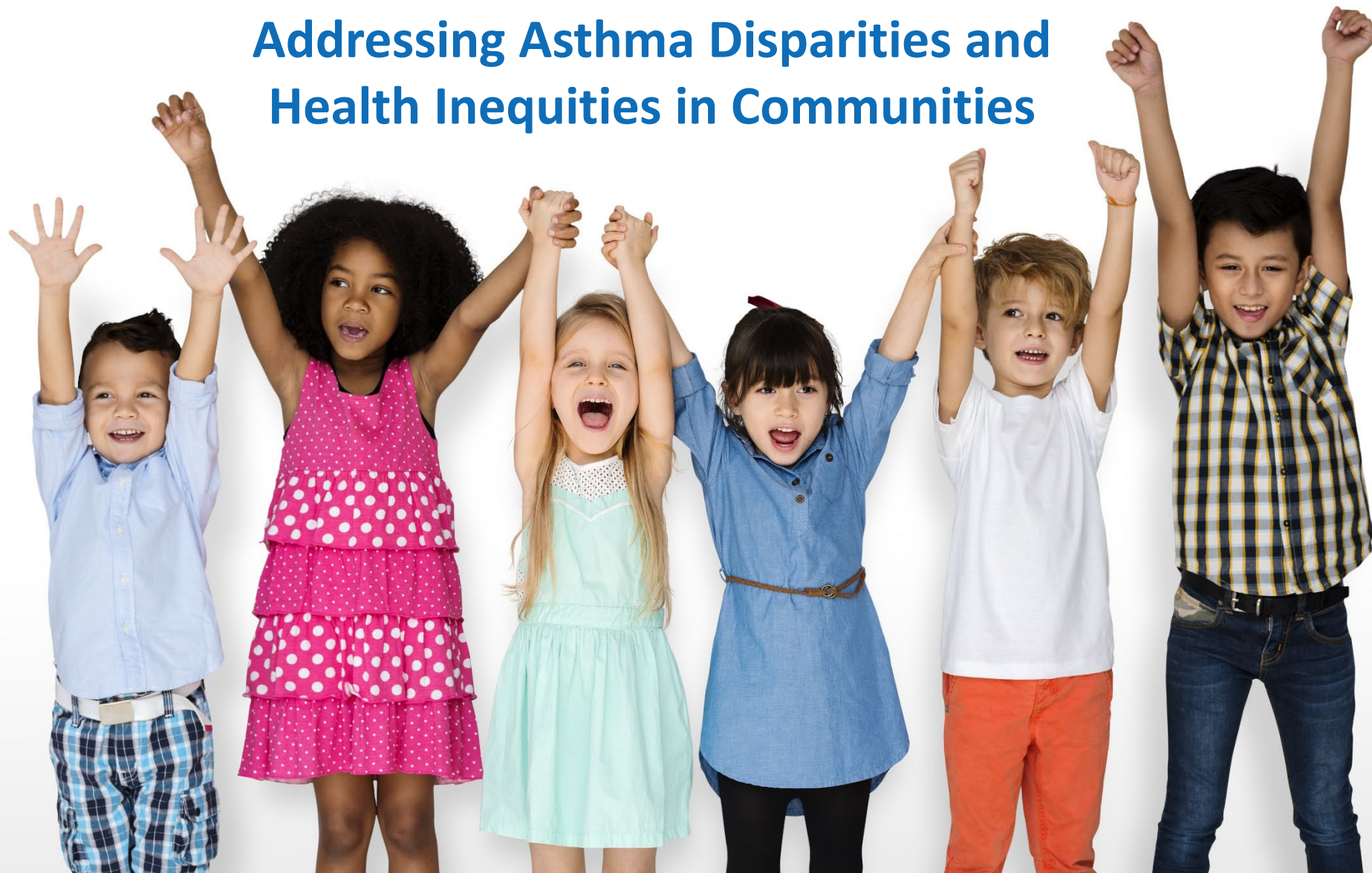




2021 Award Winners Webinar: Addressing Asthma Disparities and Health Inequities in Communities





Question & Answer Session on AsthmaCommunityNetwork.org Discussion Forum

Please join us in the [AsthmaCommunityNetwork.org Discussion Forum](#) for a
live online Q&A Session.

3:00 p.m. – 3:30 p.m. EDT

To post a question in the [Discussion Forum](#), follow these directions:

1. If you are a Network member, log in to your [AsthmaCommunityNetwork.org](#) account.

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Learning Objectives

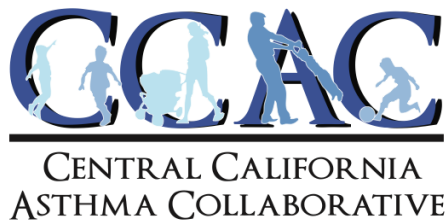
Winners will share—

- Successful strategies for effective in-home interventions to reduce in-home environmental triggers
- Effective approaches to address asthma in communities with health disparities and inequities
- The evolution of their asthma programs and how they've adapted during the current COVID-19 crisis
- Tips for building a sustainable program through reimbursement and other funding options

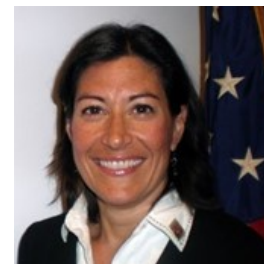
Featured Speakers



Kevin D. Hamilton, RRT,
Co-Director and CEO, Central
California Asthma
Collaborative



Keri Carstairs, M.D.,
M.B.A., FACEP, FAAP,
Chief Population Health
Officer, Rady Children's
Hospital–San Diego



Tracey Mitchell, RRT,
AE-C, U.S. Environmental
Protection Agency (EPA)



Polling Question 1

What type of organization do you represent?

1. Government agency
2. Health care provider
3. Health plan
4. Community-based program
5. Other

About the Award

National Environmental Leadership Award in Asthma Management



Nation's highest honor for exceptional asthma management programs

- **Goal:** The award program showcases and spreads best practices in comprehensive asthma care and management.
- **Eligibility:** Applicants must follow national guidelines (NIH) and address published criteria for achieving improved health outcomes and program sustainability, especially for environmental justice communities.
- **Review:** Applications undergo a two-tiered review process, which includes reviewers from other federal agencies and national nongovernmental organization (NGOs).



About the Award

National Environmental Leadership Award in Asthma Management

The application focuses on three areas:

1. Comprehensive Asthma Management
 - a. Management and Operations
 - b. Integrated Health Care Services
 - c. **Tailored Environmental Services**
2. Getting Results: Evaluation
3. Sustainability

The System for Delivering High-Quality Asthma Care





Award Winners Hall of Fame

www.asthmacommunitynetwork.org/awards/winners



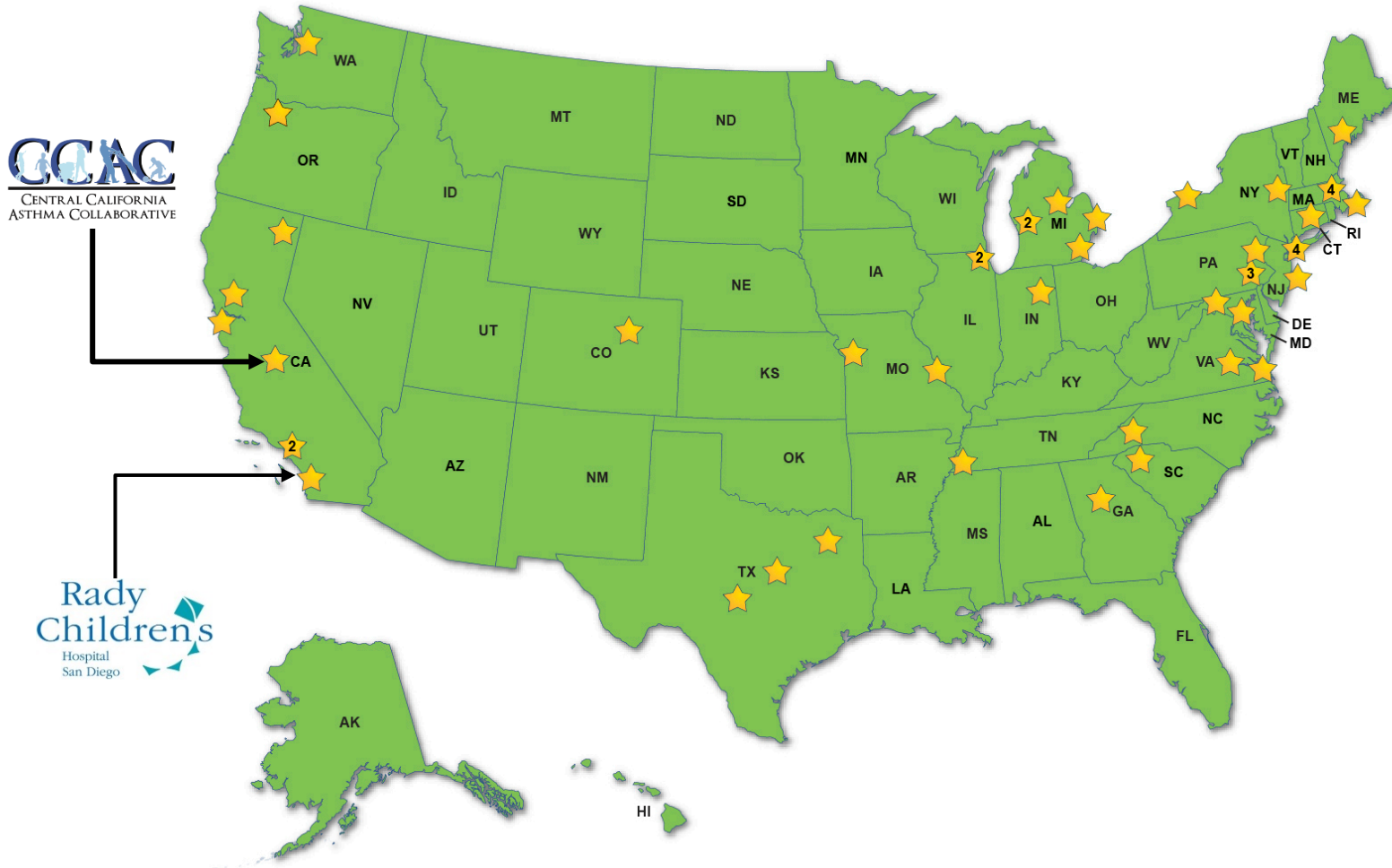
L.A. Cares About Asthma™





Awards Hall of Fame

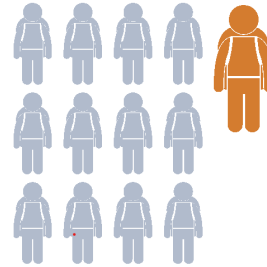
Since 2005, 50 asthma programs been inducted into the Awards Hall of Fame.



Asthma is a Public Health Challenge Characterized by Disparities

MORE
THAN **5.5**
MILLION

children ages 0 to 17 in the United States have asthma.^{*}



That's
1 in 13
children.⁴

14.2%

of black, non-Hispanic children have asthma

COMPARED TO

7.5%

of white, non-Hispanic children.¹

Black children have higher rates of emergency department visits and mortality.^{2,3}

**CHILDHOOD
ASTHMA** *in the*
UNITED STATES
An Important Public Health Challenge

Poor and minority children are disproportionately affected.⁵

POVERTY LEVEL

10.2%

of children living in poverty suffer from asthma.⁶



Environment Plays a Critical Role in Asthma Control

- Federal asthma guidelines recognize environmental trigger reduction as a critical component of comprehensive asthma care.*
- The evidence base demonstrates that in-home environmental interventions are effective at improving asthma control in children and adolescents.†

EPA is a federal lead for the integration of environmental risk reduction into standards of care.

EFFECTIVE IN-HOME ENVIRONMENTAL INTERVENTIONS

Home-Based

- Includes at least one home visit by trained personnel to improve the home environment
- Examples: community health workers, clinicians, health care providers

Multi-Component

- Includes at least two components, including at least one environmental component
- Activities may include asthma-related education, self-management training, environmental assessment and remediation, social services, coordinated care

Multi-Trigger

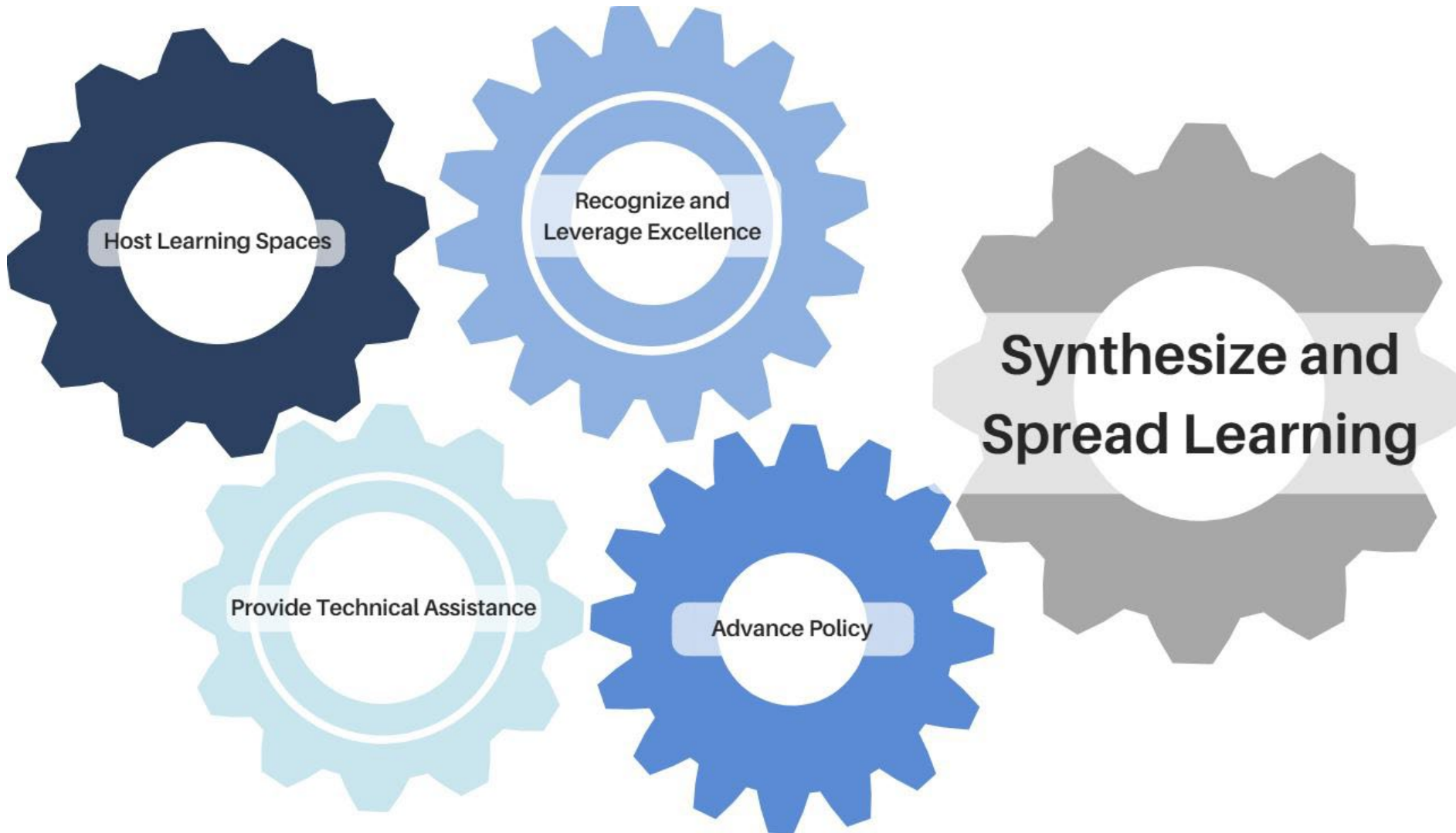
- Targets two or more potential asthma triggers, including mice, cockroaches, dust mites, excess moisture and mold, household pets, tobacco smoke

* NHLBI. *Guidelines for the Diagnosis and Management of Asthma* (EPR-3). 2007. <https://www.nhlbi.nih.gov/health-topics/guidelines-for-diagnosis-management-of-asthma>

† CDC. *The Guide to Community Preventive Services*. 2005. <https://www.thecommunityguide.org>



Supporting In-Home Interventions to Bring Asthma Under Control



AIM

(Asthma Impact Model)



Central California Asthma Collaborative (CCO)

Kevin D. Hamilton, RRT
Co-Director & CEO

AIM

AIM is—

- A multicomponent asthma intervention strategy based on NHLBI/NIH NAEPP guidelines.

AIM provides—

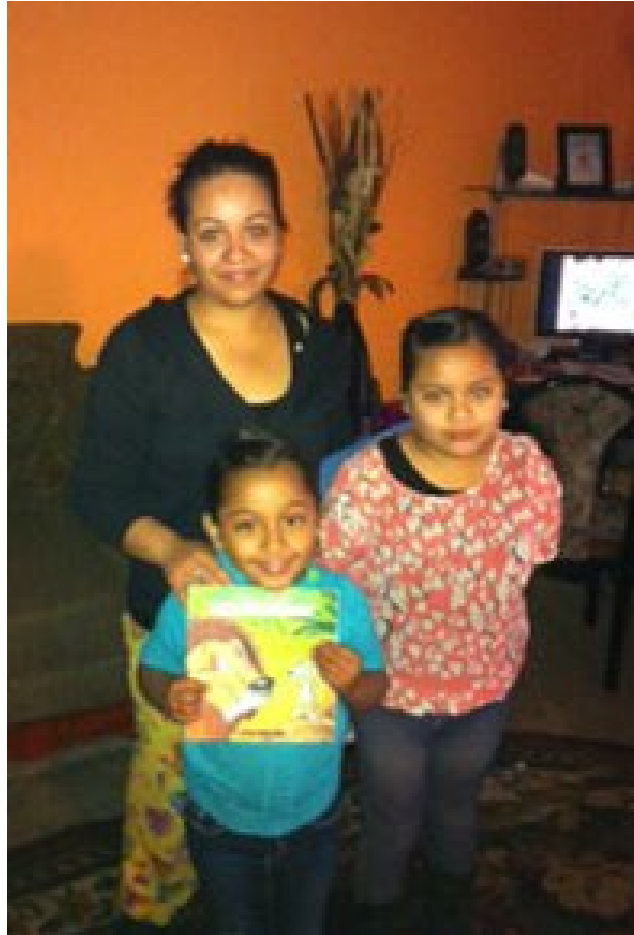
- In-home environmental evaluations, health education, case management, testing and utilization review
- partnership opportunities for local managed care organizations, agencies, providers and clinics.

AIM tracks—

- Health outcomes.
- Costs.
- Policy implications and develops specific policy goals around sustainability.



Patient Population



The AIM Program is focused at improving the lives of—

- Residents of low-income and communities of color.
- Medi-Cal and uninsured patients suffering from asthma.

Our current patient population is predominantly Latinx/Hispanic and African American.

Asthma Prevalence

- Asthma prevalence across the eight counties of the San Joaquin Valley (SVJ) served by CCAC reach as high as 21 percent in school-age children.
- According to the California Department of Public Health's (CDPH) *California Breathing* report for 2017–18 (most recent available), lifetime asthma prevalence rates in the SVJ average 19 percent, one of the highest in the nation.
- Over 40 percent of SVJ residents live below 150 percent of the federal poverty level, and 20 percent of Valley children experience hunger on a daily basis.

Lifetime Asthma Prevalence Rates (All ages)

California	15.3%
San Joaquin Valley	18.9%
Fresno	18.2%
Madera	17.6%
Tulare	18.1%
Kings	18.1%
Kern	20.7%
Merced	15.6%
Stanislaus	17.7%
San Joaquin	20.1%



Community Health Workers

- AIM puts trained allied health professionals in the homes of asthmatic families.
- CCAC's community health workers (CHWs) graduate from an accredited public health or other health-focused baccalaureate program.
- CCAC's CHWs are from and/or have families living in communities they work in.
- Health education and environmental interventions are delivered in the home.
- Environmental remediation and/or mitigation plans are developed with families.

AIM & COVID-19

- In response to COVID-19, Webex and DocuSign HIPAA agreements were completed, and patient technical capacity assessment was developed.
- CCAC initiated virtual visits beginning April 6, 2020.
- In May 2020, the CDPH's California Breathing recognized our virtual visit model as a best practice.
- On June 4, 2020, CDPH arranged a statewide webinar for statewide asthma home-visitor partners to share this model as an open-source tool with 143 attendees.

Results: AIM Significantly Improves Asthma

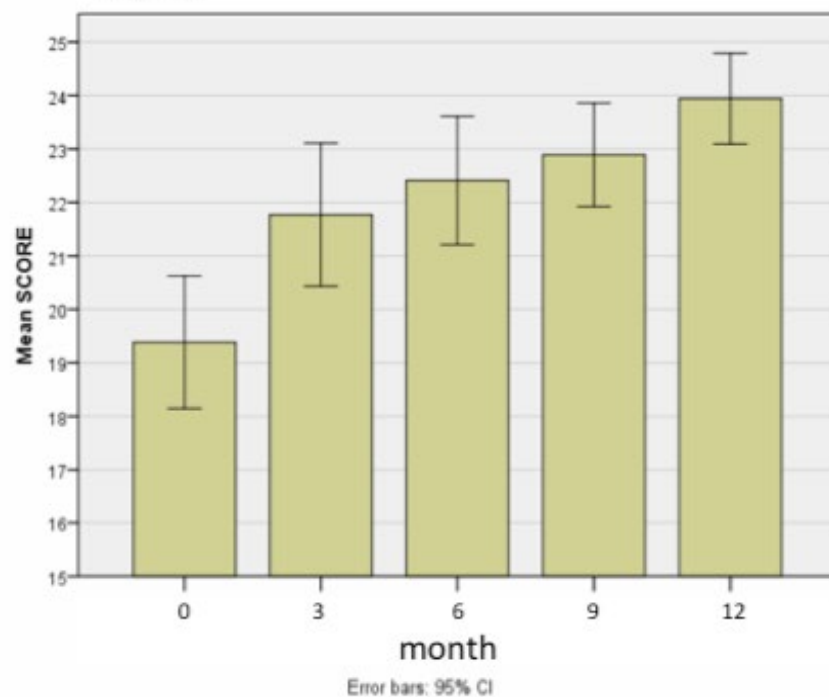
Patient-reported unintended utilization of the health care system dropped significantly compared to the previous year:

- 70 percent decrease in asthma-related hospitalization.
- 81 percent decrease in asthma-related emergency room visits.
- 53 percent decrease in unplanned outpatient visits.

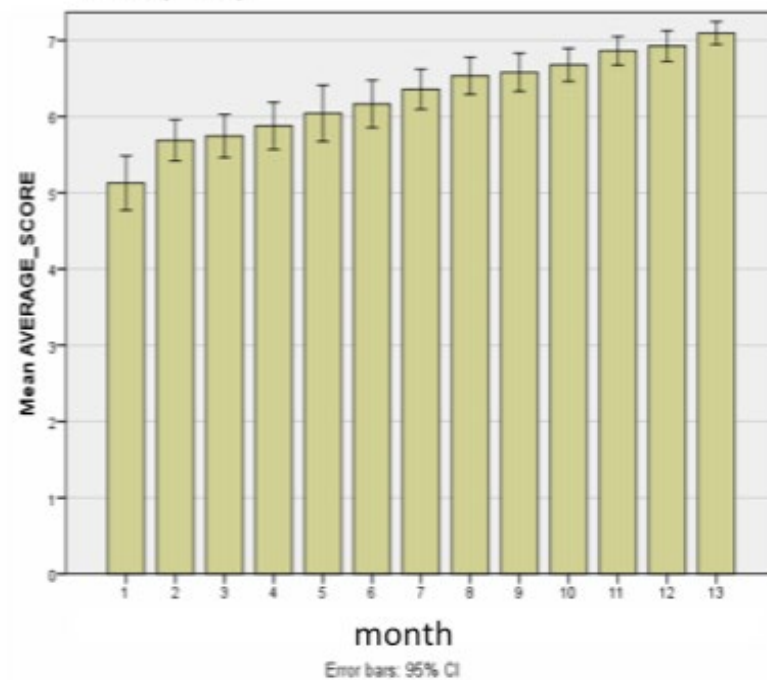
Data also revealed that—

- Patient well-visits (preventive care) increased more than 40 percent.
- Medication compliance increased more than 70 percent.
- Asthma symptoms (ACT score) improved significantly: 19.4 to 24.0.
- Quality of life (AQLQ) improved every month (as shown on next slide).

ACT



AQLQ



Cost-Benefit

AIM is cost effective and an economic driver:

- A University of California, Santa Barbara economic evaluation of the AIM program found that 1 year post-program completion, the Medicaid system saved **\$3.63** for every dollar invested.

Patients also reported fewer missed school and/or work days, which results in—

- Better academic performance.
- Higher average daily attendance for schools.
- Improved economic stability.

Sustainability

There is no direct reimbursement at this time from the constructed health care system for this intervention; however—

- We believe the results from the AIM demonstration project and the present Asthma Mitigation Project will help accelerate efforts in California to reimburse in-home asthma management through local contracted Medi-Cal managed care organizations (MCOs).
- CCAC's AIM program has served as a model for other asthma home-visiting programs in California and is the only program to have a dual partnership with MCOs and community benefit organizations to provide comprehensive asthma care.

Rady Children's Hospital—San Diego

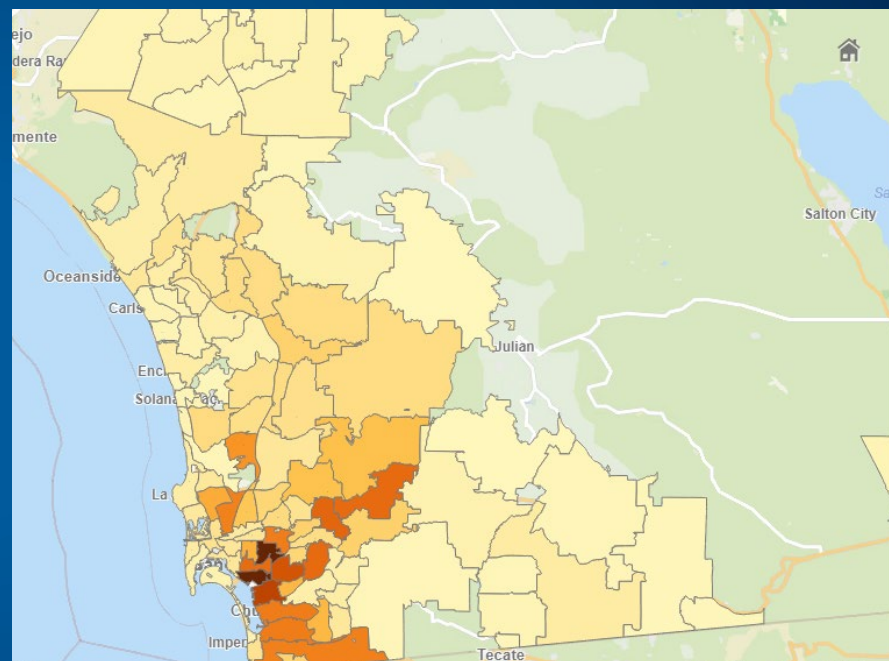
Asthma Program

Keri Carstairs, M.D., M.B.A.
Chief Population Health Officer

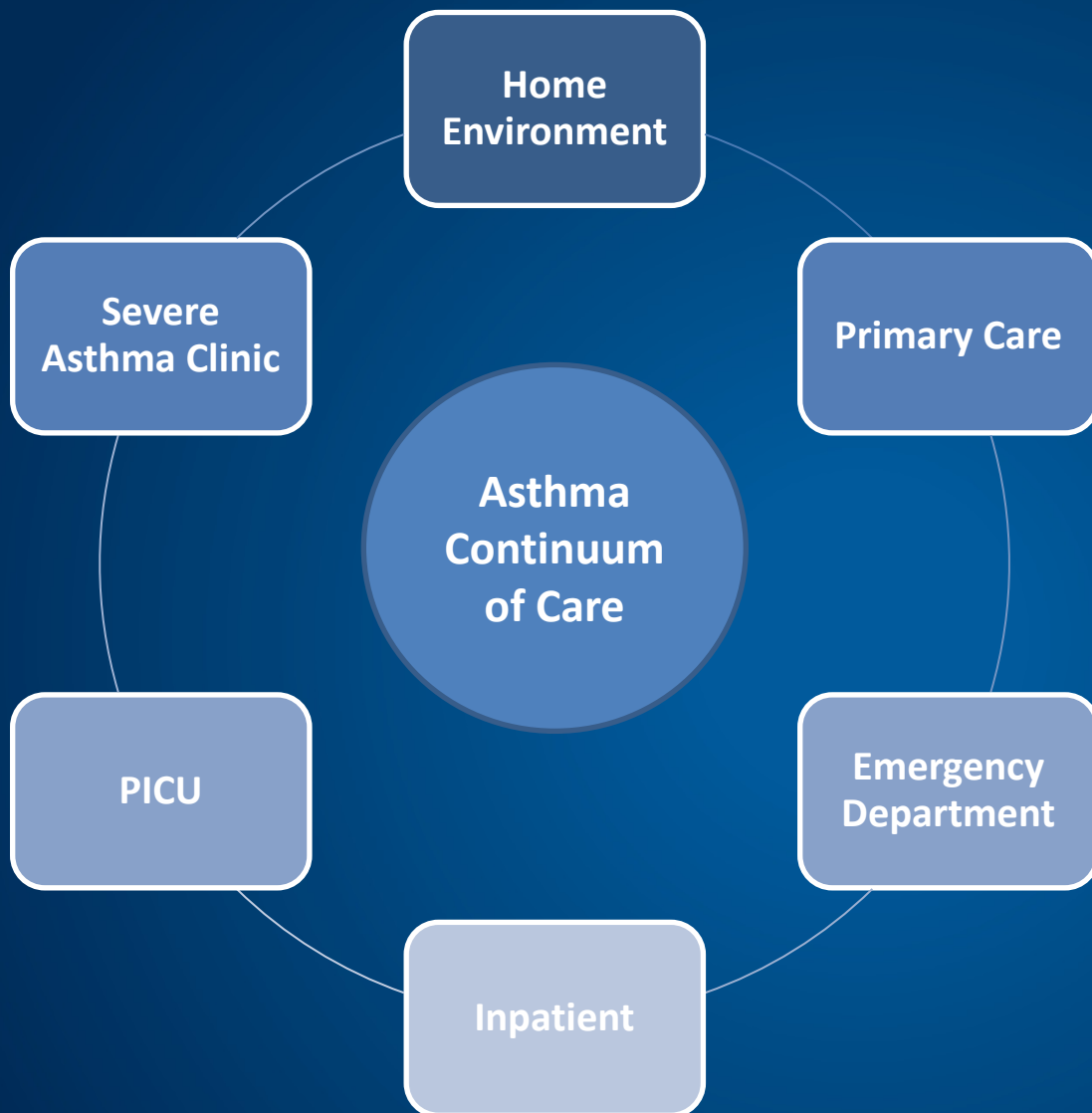


Population Served

- In fiscal year 2019, over 247,000 children relied on Rady Children's for specialty care:
 - More than 55 percent of patients had Medi-Cal or no insurance.
- Medi-Cal or undocumented children:
 - 2,882 children have moderate to severe asthma.
 - 32.5 percent are 0–4 years old.
 - 48.8 percent are 5–11 years old.
 - 18.7 percent are 12-plus years old.
- Currently, Rady Children's Health Network has an asthma prevalence of 8.2 percent.
 - Primarily Latinx (65%) and African American (12%) seen in emergency department (ED).

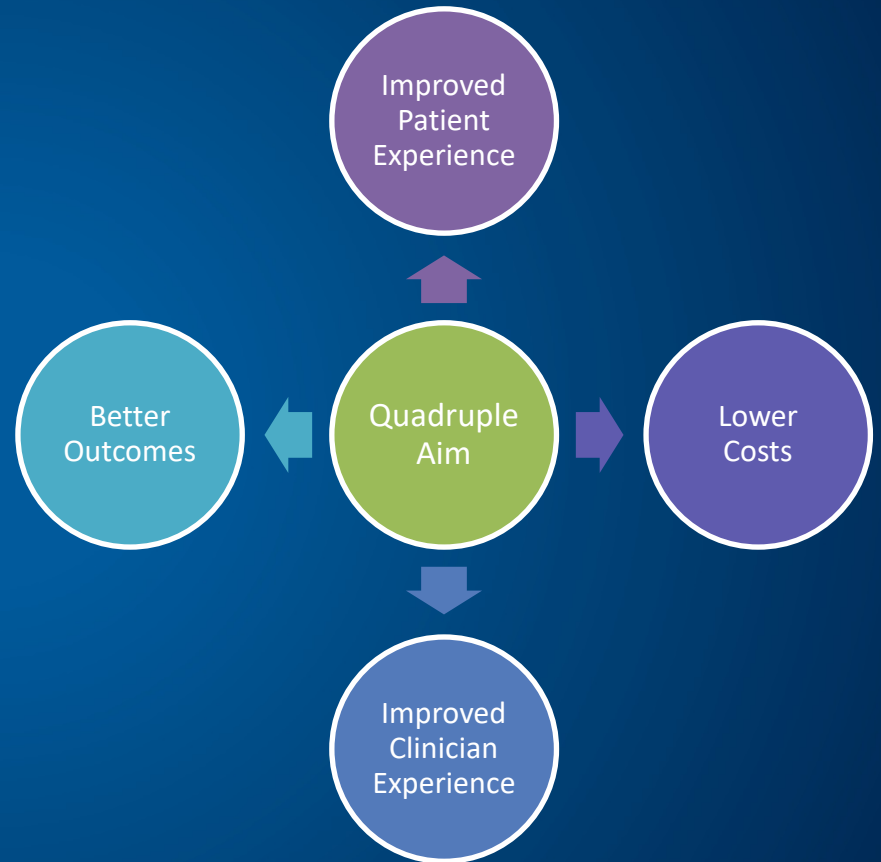
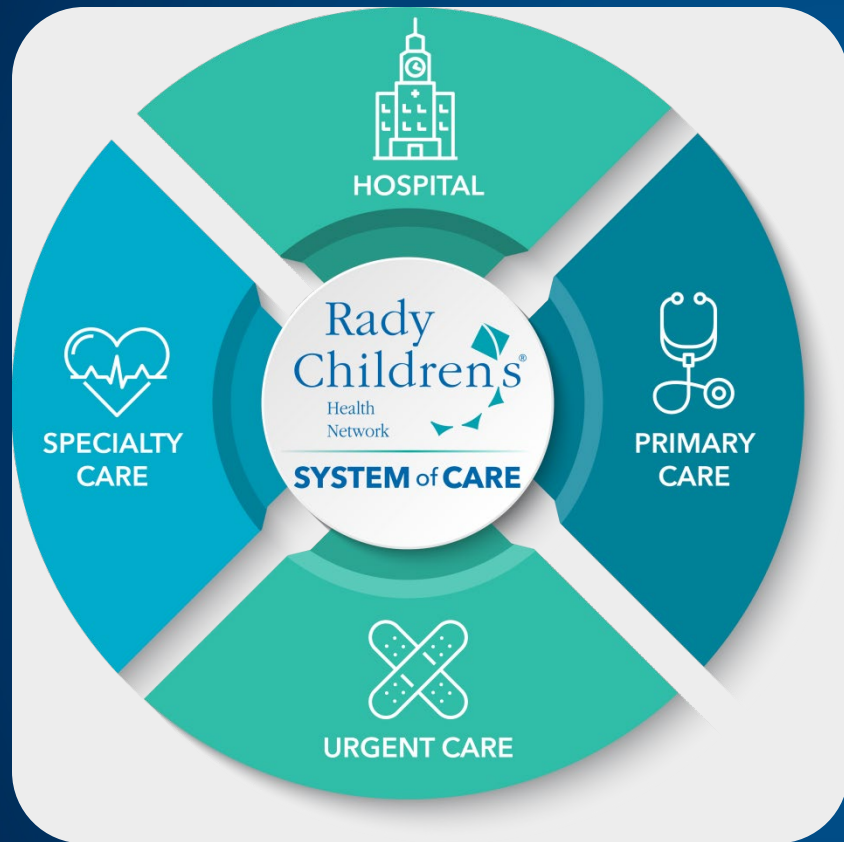


Heat map of ED and inpatient volume for Rady Children's



Rady Children's Health Network

Clinically Integrated Network



Dedication to Asthma

Standardizing Care

- Clinical pathways
- Standardized discharge care
- Patient education
- Asthma order sets
- Decision-support tools
- Registries and dashboards

Transforming Clinical Practices Initiative (TCPI)

- Clinical guidelines
- Group asthma visits
- Respiratory therapist (RT) collaboration
- ED call backs
- Primary care training
- Learning collaboratives

Environmental Awareness

- Virtual home visits
- Environmental remediation
- Connection to community resources

Health Equity Lens

- Asthma equity dashboard
- Social determinants of health screening
- Connection to community resources



Community Approach to Severe Asthma (CASA)



ED or Inpatient Visit

- Post-visit outreach
- Respiratory therapist education
- Social determinants of health screening

Follow-up Assessments

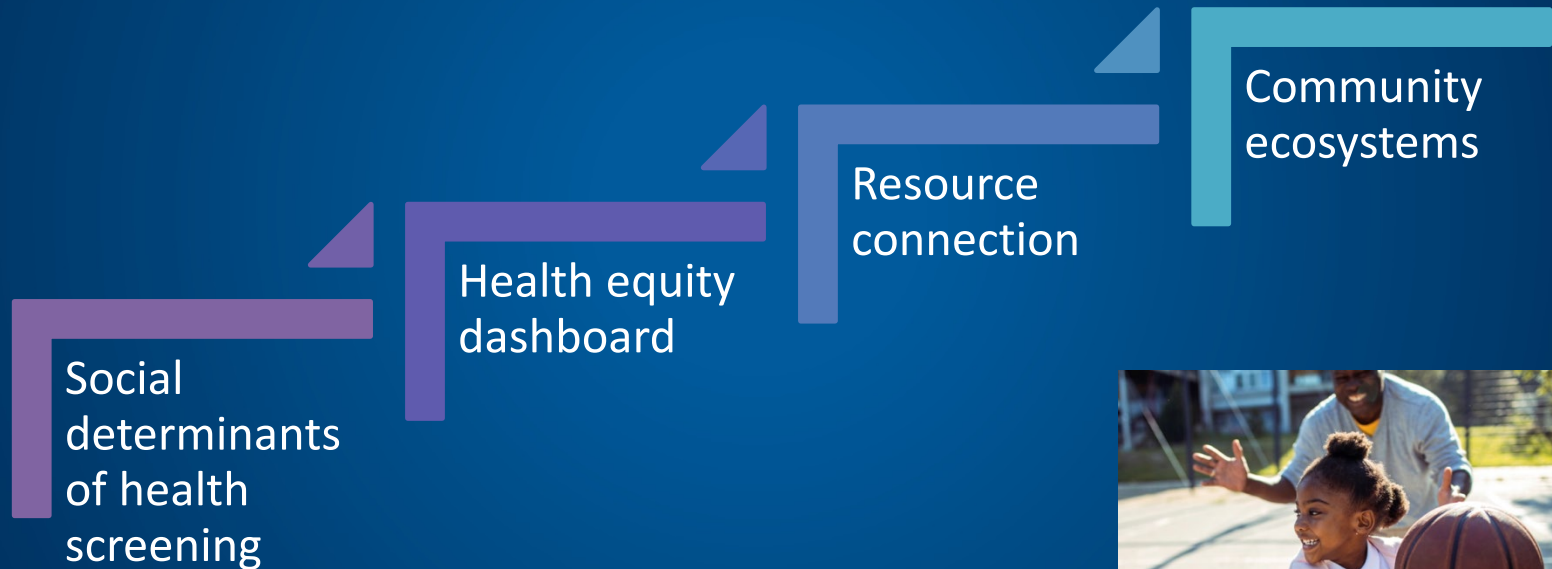
- Follow-up ATAQ
- 2-1-1 assessments
- Tracking of utilization

Virtual Home Visit

- Asthma Therapy Assessment Questionnaire (ATAQ)
- Environmental trigger remediation
- Connection to resources
- Severe Asthma Clinic



A Focus on Health Equity



Feedback from our Families

Loved the cleaning products and thankful the smell is not too harsh—they have made it so much easier for my daughter to breathe.

Mom expressed gratitude for the CASA program and found the air purifier and dust mite encasements really helpful. She was tearful about having her child be able to do normal kid things like gymnastics and dancing again now that she can breathe easier.

The air purifier really helped alleviate symptoms!

I really like the castile soap; I use it for the floors, my baby's bath (he's got eczema), everything.

The vacuum has helped so much! We use it every day, and my child no longer been waking up with red swollen eyes.

Thank you for all the assistance—I truly think my daughter's improvement is because of the supplies.

The supplies definitely made a difference! I no longer need to send my daughter outside when cleaning.

211 has helped with food insecurities, rental assistance, our mold removal, and even legal assistance.

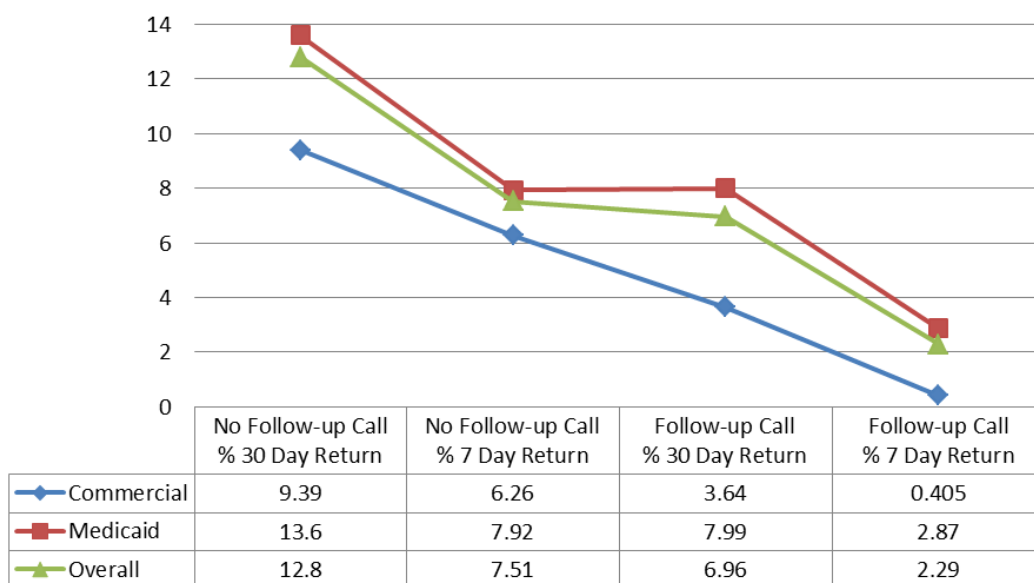
Getting Results



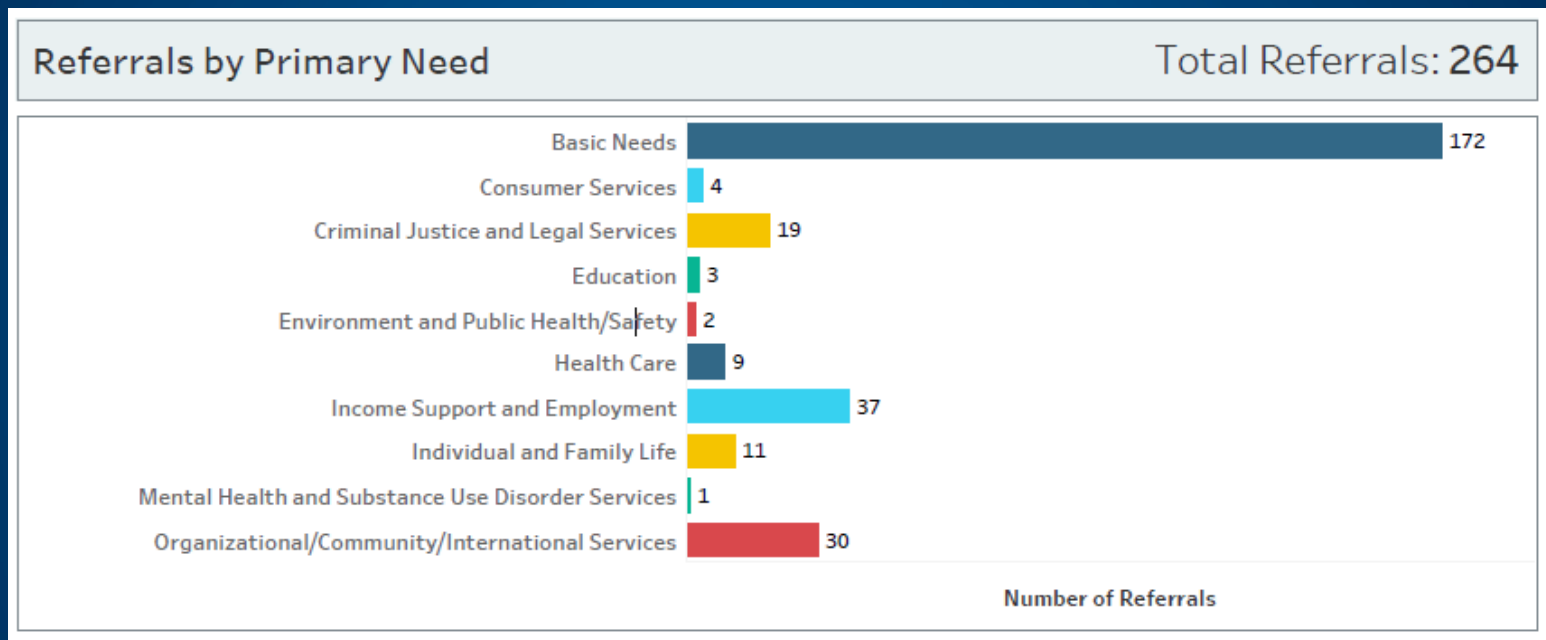
Call Back Pilot

- 771 successful calls were made.
- 21 percent referred to RT.
- 87 percent better understood discharge instructions.
- 84 percent were better prepared to manage asthma at home.
- 48 percent made an appointment or saw their primary care physician.
- 80 percent picked up their prescription.

2019 Call Back Pilot: 7-Day and 30-Day Bounceback Rates



Home Visit and Environmental Remediation Program



- 31 virtual home visits over 12 months.
 - Three returned to ED over the pilot period.
- Twenty-four families successfully enrolled in 211 case management program.
 - Ninety-two percent experienced a decreased vulnerability score in at least one domain (i.e., housing, income, legal).

Sustainability

Annual Budget

Grant Funding

Philanthropic Gifts

Strategic
Partnerships

Ongoing Education
of Environmental
Triggers

Advocacy Efforts

Investing in early childhood interventions has the potential to be incredibly impactful on an individual's and family's trajectory and lead to easier transitions of managing chronic conditions as an adult.

Polling Question 2

Based on today's presentation, what action do you feel more equipped to take in your asthma program?

1. Approach new community partners.
2. Pivot and adjust to provide virtual home visits.
3. Refine my programs tracking to demonstrate more effective health outcomes and return on investment data.
4. Request a mentor on AsthmaCommunityNetwork.org.
5. Apply for the 2022 National Environmental Leadership Award in Asthma Management.



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