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.

   Not a member? Create an account at AsthmaCommunityNetwork.org by clicking the “Join Now” link at the top of the page. Your account will be approved momentarily, and you can begin posting questions.

2. Click on the “Discussion Forum” button on the home page.
3. Click on the “Live Online Q&A for 5/26/21 Webinar” link.
4. Click on the “Add new Forum topic” link to post your question.
5. Enter your question and click the “Save” button at the bottom of the page.
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
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.¹

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

An Important Public Health Challenge

Children and poverty

POVERTY LEVEL

10.2% of children living in poverty suffer from asthma.⁶

Poor and minority children are disproportionately affected.⁵

EPA

Indoor Air Quality (IAQ)
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.**

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Supporting In-Home Interventions to Bring Asthma Under Control

- Host Learning Spaces
- Recognize and Leverage Excellence
- Provide Technical Assistance
- Advance Policy
- Synthesize and Spread Learning
AIM
(Asthma Impact Model)

Central California Asthma Collaborative (CCO)

Kevin D. Hamilton, RRT
Co-Director & CEO
AIM is—
  o A multicomponent asthma intervention strategy based on NHLBI/NIH NAEPP guidelines.

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

AIM tracks—
  o Health outcomes.
  o Costs.
  o Policy implications and develops specific policy goals around sustainability.
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 across the eight counties of the San Joaquin Valley (SJV) 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 SJV average 19 percent, one of the highest in the nation.

Over 40 percent of SJV 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)

<table>
<thead>
<tr>
<th>Location</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>15.3%</td>
</tr>
<tr>
<td>San Joaquin Valley</td>
<td>18.9%</td>
</tr>
<tr>
<td>Fresno</td>
<td>18.2%</td>
</tr>
<tr>
<td>Madera</td>
<td>17.6%</td>
</tr>
<tr>
<td>Tulare</td>
<td>18.1%</td>
</tr>
<tr>
<td>Kings</td>
<td>18.1%</td>
</tr>
<tr>
<td>Kern</td>
<td>20.7%</td>
</tr>
<tr>
<td>Merced</td>
<td>15.6%</td>
</tr>
<tr>
<td>Stanislaus</td>
<td>17.7%</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>20.1%</td>
</tr>
</tbody>
</table>
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.
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).
Results: ACT and AQLQ scores
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.
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).
Rady Children’s Health Network
Clinically Integrated Network

- Improved Patient Experience
- Lower Costs
- Improved Clinician Experience
- Better Outcomes
- Quadruple Aim

HOSPITAL
SPECIALTY CARE
URGENT CARE
PRIMARY CARE
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

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

Follow-up Assessments
- Follow-up ATAQ
- 2-1-1 assessments
- Tracking of utilization
A Focus on Health Equity

- Social determinants of health screening
- Health equity dashboard
- Resource connection
- Community ecosystems
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.

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

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 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 air purifier really helped alleviate symptoms!

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

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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

<table>
<thead>
<tr>
<th></th>
<th>No Follow-up Call % 30 Day Return</th>
<th>No Follow-up Call % 7 Day Return</th>
<th>Follow-up Call % 30 Day Return</th>
<th>Follow-up Call % 7 Day Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>9.39</td>
<td>6.26</td>
<td>3.64</td>
<td>0.405</td>
</tr>
<tr>
<td>Medicaid</td>
<td>13.6</td>
<td>7.92</td>
<td>7.99</td>
<td>2.87</td>
</tr>
<tr>
<td>Overall</td>
<td>12.8</td>
<td>7.51</td>
<td>6.96</td>
<td>2.29</td>
</tr>
</tbody>
</table>
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).
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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