



Green & Healthy Homes Initiative®

# 2021 Asthma Convening

EVENT WILL BEGIN AT 11:30 AM ET



Green & Healthy Homes Initiative®

## 2021 Asthma Convening

# Outcomes and Impact: National Initiative for Asthma Reimbursement

March 31, 2021

# Meeting Objectives

- 1 Introductions and Background
- 2 Partner Engagement
- 3 Outcomes and Impact
- 4 EMHOME National Workgroup
- 5 Virtual Toolkit

# Introductions



# Welcome and Introductions

## Executive Sponsors



**Ruth Ann Norton**  
President & CEO  
Green & Healthy Homes Initiative



**Tracey Mitchell, RRT, AE-C**  
Environmental Protection Specialist  
Environmental Protection Agency

# Welcome and Introductions

## GHHI Project Team



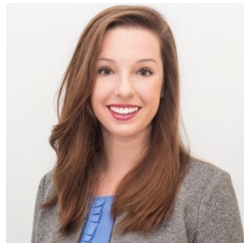
**Brendan Brown**  
Director of Research



**Michael McKnight**  
Senior VP of  
National Programs



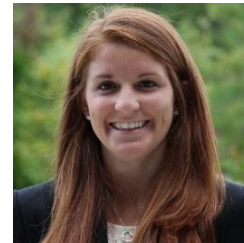
**Annie Summers**  
Director of Data,  
Evaluation & Learning



**Daniella Chambers**  
Social Innovation Specialist



**Kevin Chan**  
Senior Social  
Innovation Specialist



**Kiersten Sweeney**  
Senior Social  
Innovation Specialist



**Trent Van Alfen**  
Senior Social  
Innovation Specialist

# National Initiative for Asthma Reimbursement Program Goals

1

## **Business Development Technical Assistance**

Increase the number of home visiting programs providing comprehensive asthma (including environmental remediation of asthma triggers) interventions.

2

## **Reimbursement Technical Assistance**

Increase the number of health plans serving Medicaid populations and/or state Medicaid programs that reimburse for these comprehensive services.

3

## **EMHOME System**

Increase the use of standardized environmental management & health outcomes metrics for evaluation (EMHOME).

**Advancing  
Health and  
Racial Equity  
opportunities  
through Healthy  
Housing**

# In each of the sites, we are working towards building an evidence-based, in-home comprehensive asthma intervention to improve patient experience of care, improve health outcomes and reduce healthcare utilization costs

Based on independent systematic reviews of scientific literature, CDC's Community Preventative Task Force and NIH's Expert Panel ***recommend home-based interventions for patient care and remediation of environmental triggers.***



Comprehensive asthma intervention example



# National Initiative for Asthma Reimbursement

## Scope of Technical Assistance

1

### **Business Development Technical Assistance**

Provided TA to **11 sites** to develop and implement comprehensive asthma home visiting programs that include environmental control of home triggers.

2

### **Reimbursement Technical Assistance**

Provided TA to **10 sites** to increase Medicaid funding for comprehensive asthma services including environmental control measures

3

### **EMHOME Work Group**

Convened and managed the Environmental Management and Health Outcome Metrics for Evaluation (EMHOME) Work Group to recommend set of standardized outcomes for asthma home visiting programs.



# Poll Question

**What is your role in the continuum of care for providing comprehensive asthma services?**

- Advocate
- Asthma Educator or Community Health Worker
- Environmental Assessor
- Health Plan
- Healthcare Provider
- Policymaker
- Program Manager
- Researcher
- Other

# Partner Engagement

# Partner Map

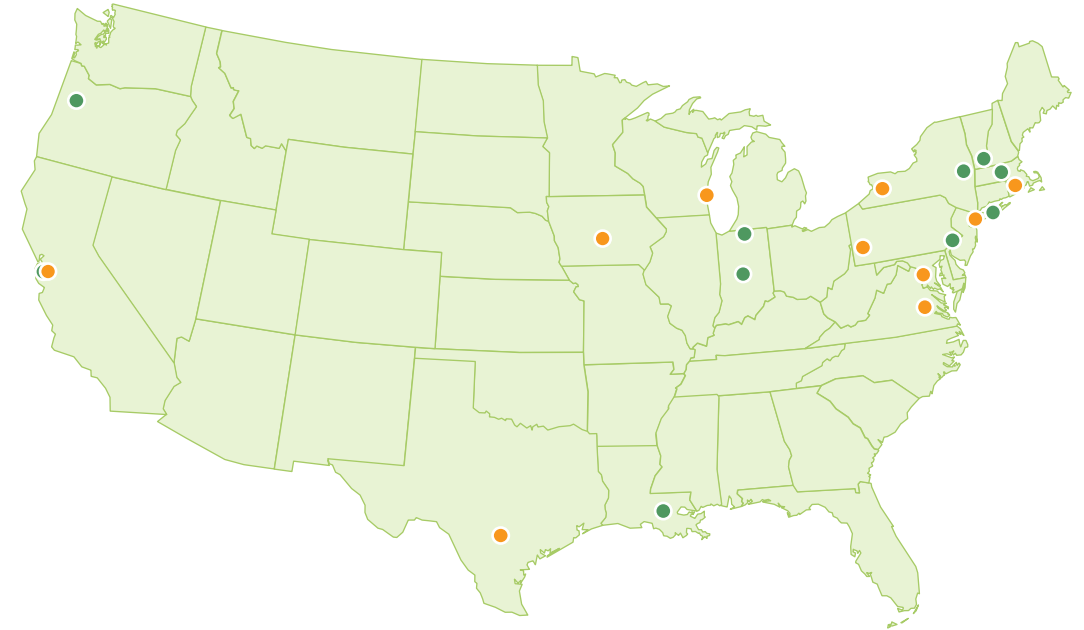
Under the EPA program, GHHI worked with partners in the following sites:

## Business Development •

- Albany, NY
- Albany, OR
- Baton Rouge, LA
- Contra Costa County, CA
- Indiana
- Philadelphia, PA (2)
- San Antonio, TX
- South Bend, IN
- Stony Brook, NY
- Worcester, MA

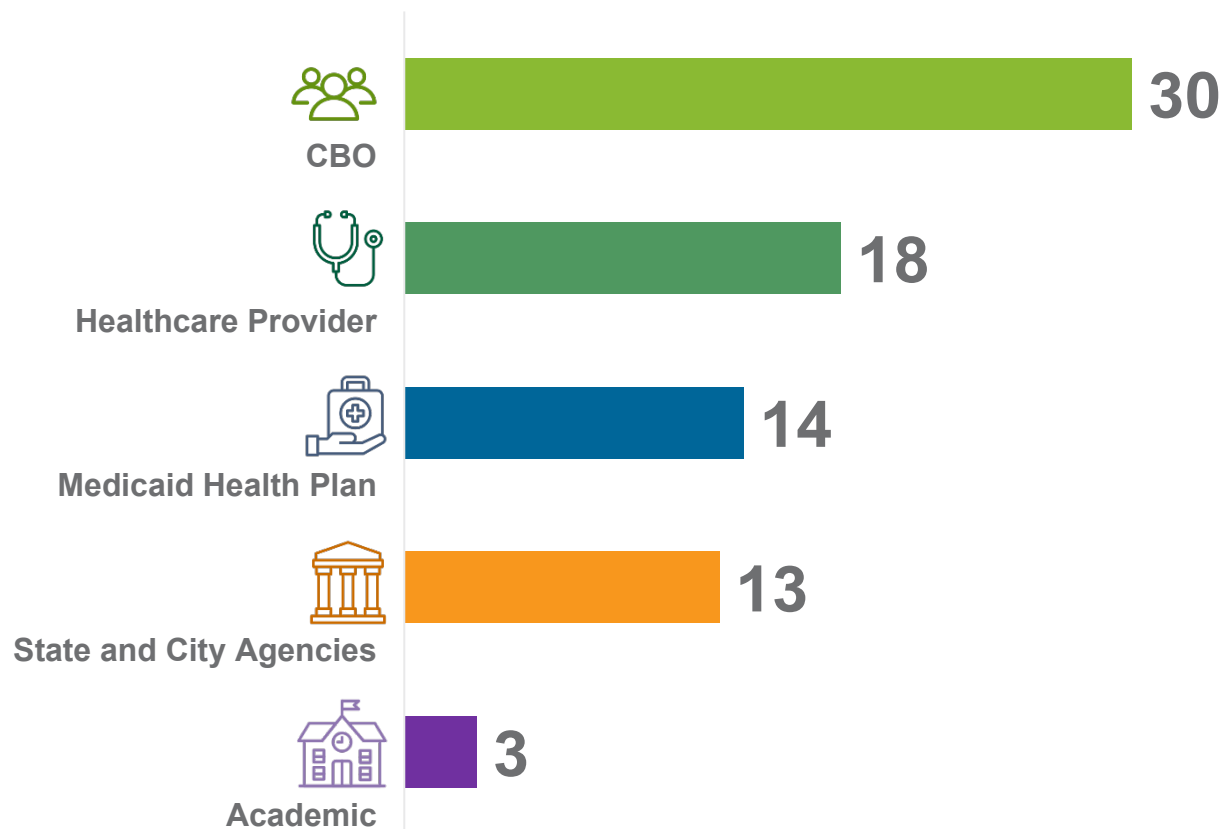
## Reimbursement •

- Buffalo, NY
- Contra Costa County, CA
- Des Moines, IA
- Milwaukee, WI
- New York, NY
- Pittsburgh, PA
- Providence, RI
- Richmond, VA
- San Antonio, TX
- Washington, DC



# Diversity of Partnerships

We convened a broad set of partners to advance asthma programs nationally.



We engaged policymakers to pursue sustainable reimbursement for comprehensive asthma services.

We engaged **seven State Medicaid offices** across select EPA projects

- Connecticut
- District of Columbia
- Iowa
- Massachusetts
- Rhode Island
- Texas
- Virginia

# Outcomes and Impact

# Outcomes and Impact

## Advances Towards Reimbursement for Comprehensive Asthma Services

GHHI worked with partners nationally to design programs and build capacity for delivering comprehensive asthma services that include control of environmental triggers.



16

Sites implementing comprehensive asthma programs

Services align with NAEPP guidelines and evidence-based recommendations.



13

Sites implementing environmental mgmt. measures

This includes assessment of the home environment, education about triggers, and in some cases, home repairs that address triggers.



242

Families served by partners

Number of families who received direct services from programs during the EPA engagement. **A total of 423 families will be served when all programs are completed.**



\$5.14M

Funding raised for asthma services

\$1.24 million for asthma services

\$3.9 million of leveraged funds

New funds secured via EPA to scale service delivery.

# Outcomes and Impact

## Reimbursement and Reach

GHHI worked with mature asthma programs to seek sustainable funding for services, engaging with key payers and policymakers to advance discussions around reimbursement.



**26**

Health plans  
engaged

Projects engaged multiple health plans across 17 sites to explore pathways for reimbursement- direct payment and value-based solutions.



**7**

Medicaid offices  
engaged

We engaged policymakers at state Medicaid offices to seek support and guidance for sustainable payment pathways.



**1,286**

Presentation and  
webinar attendees

GHHI reached a wide audience on topics of comprehensive asthma services and sustainable reimbursement strategies.



# **EMHOME National Work Group**

# Recommendations for Evaluation Metrics for Asthma Home Visiting Programs

The Environmental Management and Health Outcomes Metrics for Evaluation (EMHOME) Work Group convened a group of national stakeholders from different sectors and organizations to offer their input and guidance on which measures to include for recommendation.

**Source:** Norton, R.A., Brown, B.W., Sweeney, K., McKnight, M. & Andreyev, E. (2019). Recommendations for Evaluation Metrics for Asthma Home Visiting Programs: Measuring Environmental Management & Health Outcomes. Green & Healthy Homes Initiative. Retrieved from <https://www.greenandhealthyhomes.org/publication/recommendations-for-evaluation-metrics-for-asthma-home-visiting-programs/>





# Special Thanks to the EMHOME Work Group

Name	Title	Organization
Anne Kelsey Lamb	Director	Regional Asthma Management and Prevention
Christina Underhill	Program Evaluation Manager	Le Bonheur
Edward Thomas	Region 3 Field Representative	HUD Healthy Homes
Erica Marshall	Director of the Asthma Prevention and Control Program	Massachusetts Department of Public Health
Erin Maughan	Director of Research	National Association of School Nurses
Erin Rose	Vice-President	Social Equity Three-Cubed
Gayle Higgins	Pediatric Nurse Practitioner	St. Christopher Hospital
Hannah J. Green	Director of National Health Policy	American Lung Association
Janice Nolen	Assistant Vice President	American Lung Association
Kate Horton	Research Professor	George Washington Univ. School of Public Health
Myrna Esquivel	Senior Management Coordinator	City of San Antonio/GHHI
Paul Garbe	Senior Advisor	Centers for Disease Control
Peter Ashley	Director of Policy and Standards Division	Department of Housing & Urban Development
Rebecca Jensen Bruhl	Assistant Professor	Baylor College of Medicine
Sam H. Rubens	Assistant Director	Summit County Public Health
Shoshanna Brown	Executive Director	A.I.R. NYC
Susan Steppe	Program Director	Le Bonheur Hospital
Tracey Mitchell	Environmental Protection Specialist	Environmental Protection Agency

# Virtual Toolkit

# GHHI's Virtual Healthy Housing Toolkit

To support others in adapting in-person healthy housing services to the virtual setting, GHHI created a free [Virtual Healthy Housing Toolkit](#) with protocols, best practices, and other helpful resources



<https://www.greenandhealthyhomes.org/virtual-healthy-homes-toolkit/>



# Poll Question

**Which aspect of your asthma program is most important to its future success?**

- Incorporating environmental home assessments
- Incorporating environmental home repairs
- Providing services to more clients / scale up
- Securing a contract with health plan(s)
- Securing grant funding
- Other
- Not applicable

**Ruth Ann Norton**  
President & CEO

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410-534-6477

Website: <http://www.greenandhealthyhomes.org/>  
Twitter: @HealthyHousing  
Facebook: GHHInational  
Instagram: healthy\_housing





# EPA's Asthma Program

**Tracey Mitchell, RRT, AE-C**

**Environmental Protection Specialist, Indoor Environments Division**





# EPA'S ASTHMA PROGRAM

## Protecting Public Health and the Environment through Health Care Collaboration and Reimbursement of Preventive Asthma Control Strategies

Tracey Mitchell, RRT, AE-C  
U.S. Environmental Protection Agency  
Indoor Environments Division  
[mitchell.tracey@epa.gov](mailto:mitchell.tracey@epa.gov)

# EPA's Role in Asthma

## Agency Mechanisms

- Regulatory Measures
- Research
- Guidance Development
- Outreach & Education
- Partnerships; Leveraging systems

## IED Asthma Program Aim

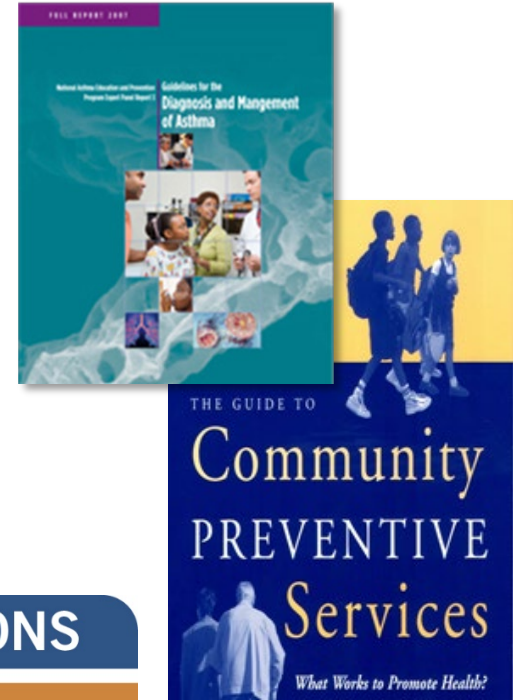
Get environmental controls into all elements of asthma management.

- Health care
- Housing
- Schools
- Community Systems, with a special focus on EJ



# 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.†



## 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-pro/guidelines/current/asthma-guidelines>

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

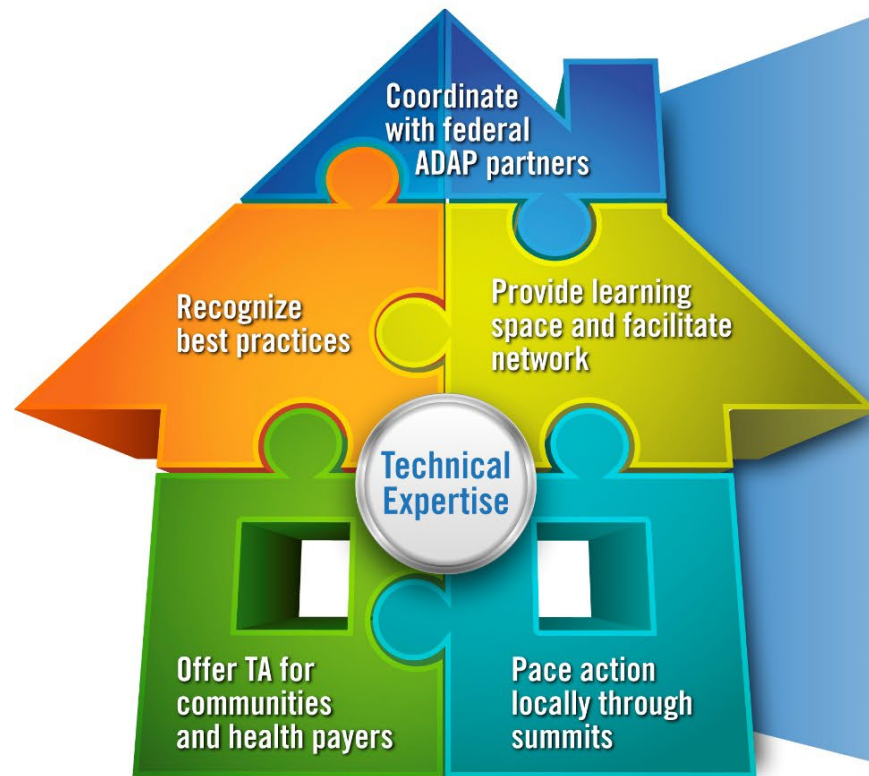
# Evolution of IED's Asthma Program



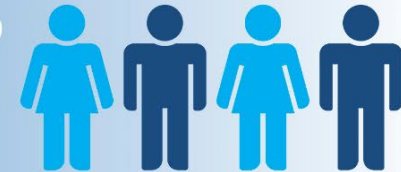
# EPA Supports High Value, In-Home Environmental Interventions



## Meeting Communities Where They Are




**SYNTHESIZE  
AND SPREAD  
LEARNING**



# Financing In-Home Asthma Care

## FINANCING IN-HOME ASTHMA CARE


You are here: Asthma Community Network Home » Financing In-Home Asthma Care



The Financing In-Home Asthma Care microsite within ACN.org focuses on delivering and paying for in-home asthma care to improve outcomes for children with out of control asthma. Health care policy change is creating new opportunities for financing evidence-based in-home asthma care. This site explores those opportunities and the work required to deliver effective and sustainable in-home asthma care.

U.S. EPA and our partners, the Departments of Health and Human Services (HHS) and Housing and Urban Development (HUD), among others, are coordinating federal efforts on asthma as is described in the [Coordinated Federal Action Plan to Reduce Asthma Disparities](#). This microsite, which consolidates information about financing in-home asthma care in order to deliver effective care, particularly in underserved communities, is one example of our effort.

**New Technical Assistance eLearning Platform**



**Building Systems to Sustain Home-Based Asthma Services**

Created by the National Center for Healthy Housing in partnership with EPA, this new eLearning and technical assistance platform equips participants with information about how to build the systems, infrastructure and financing to put home-based asthma services in place in their own states, communities or regions. [Click on the icon to access the eLearning modules.](#)

## Learn more about—

- The Value of Asthma Home Visits
- Building Your Workforce
- Effective Reimbursement Strategies
- Understanding the Options
- How to Make Your Case to Funders

**Value of Asthma Home Visits**

In-home care can reduce the costs of care and improve health outcomes for people with poorly controlled asthma.

**Learn More About:**

- Evidence Base
- Program Results
- Asthma Home Visits for Health Plans

[Learn More](#)



**Understanding the Options**

Health policy change has created many options for financing in-home asthma care.

**Learn More About:**

- Braided Funding
- Medicaid Financing
- Health Plan Financing
- Social Impact Financing
- Housing Financing

[Learn More](#)

Visit [www.AsthmaCommunityNetwork.org/Financing](http://www.AsthmaCommunityNetwork.org/Financing)



Green & Healthy Homes Initiative®

# 2021 Asthma Convening

## Lessons from the Field

March 31, 2021

# Lessons from the Field

- 1 Introductions
- 2 BREATHE – East Baton Rouge, LA
- 3 Contra Costa County Asthma Mitigation Pilot
- 4 CHAMP – Milwaukee, WI
- 5 Integra and GHHI Rhode Island



# Introductions

# Introductions

## East Baton Rouge, LA



**Dr. Arundhati "Runa" Bakshi**  
Program Monitor,  
Louisiana Department of Health



**Brady Dunklee**  
Manager of Community Health Strategy  
Integra Community Health Care Network



**Margarita Robledo Guedes**  
Outcome Broker  
GHHI Rhode Island

## Rhode Island



**Michael Kent**  
Hazardous Materials Ombudsman,  
Contra Costa Health Services



**Ameerah Thomas**  
Quality Improvement Program Manager,  
Contra Costa Health Plan

## Contra Costa County, CA



**Langston Verdin**  
Program Leader of Strategic Partnerships,  
Children's Health Alliance of Wisconsin

## Milwaukee, WI



**BREATHE:**

**Bringing Respiratory Health Equity for  
Asthmatics Through Healthier Environments**

**Dr. Arundhati “Runa” Bakshi  
Program Monitor, Louisiana Department of Health**

# **BREATHE:** **Bringing Respiratory Health Equity for Asthmatics Through Healthier Environments**

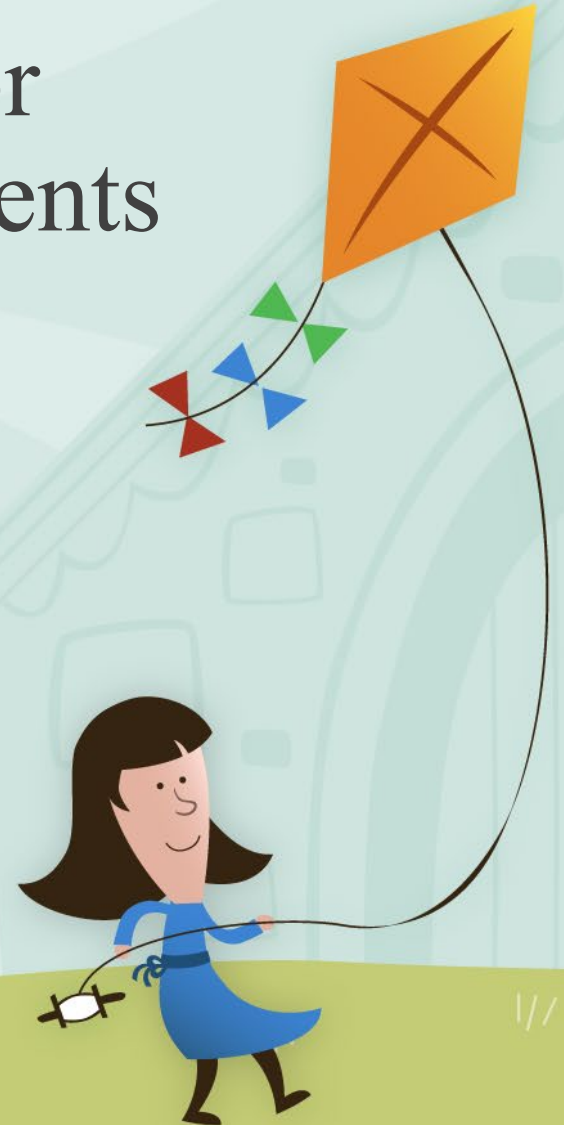
Louisiana Department of Health

Louisiana Center for Health Equity

Louisiana State University Health Sciences Center

Our Lady of the Lake Children's Hospital

Green and Healthy Homes Initiative



# Many socioecological factors coincide in high-risk areas for childhood asthma



Indoor mold



Race



Poverty



Proximity to industry



Living conditions



Tobacco smoke

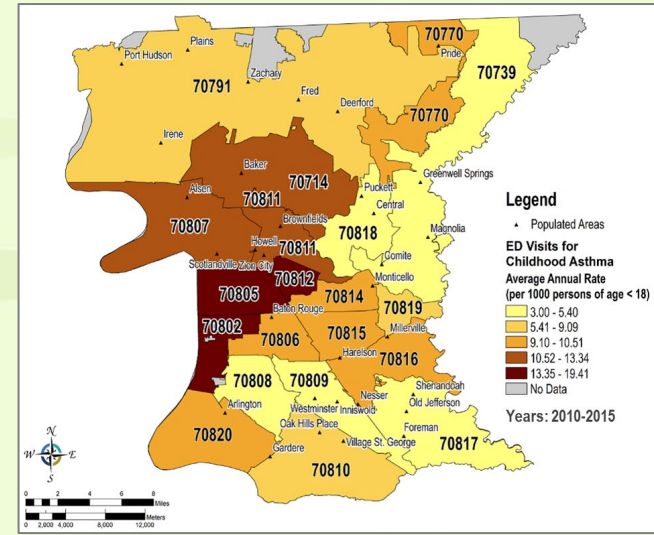


Access to healthcare



High Medicaid usage

Areas of greatest concern:  
**70802, 70805, 70812**



# BREATHE Program Model

- Services



*Tier I:  
Home visits*



*Tier II:  
Home assessment*



*Tier III:  
Home remediation*



- Education
- DIY
- Easy fixes

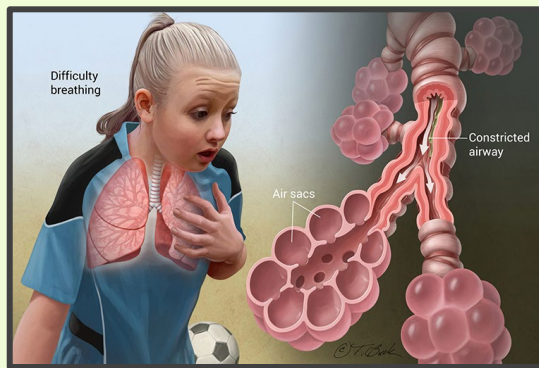


# BREATHE Program Model

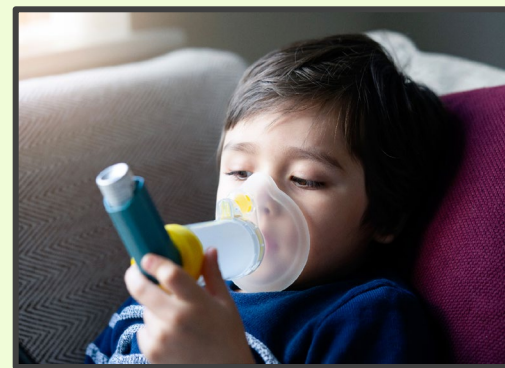
- Eligibility / Program Evaluation



*ED usage/  
Hospitalization*



*Symptom frequency  
& severity*



*Rescue inhaler and/or  
controller medication usage*



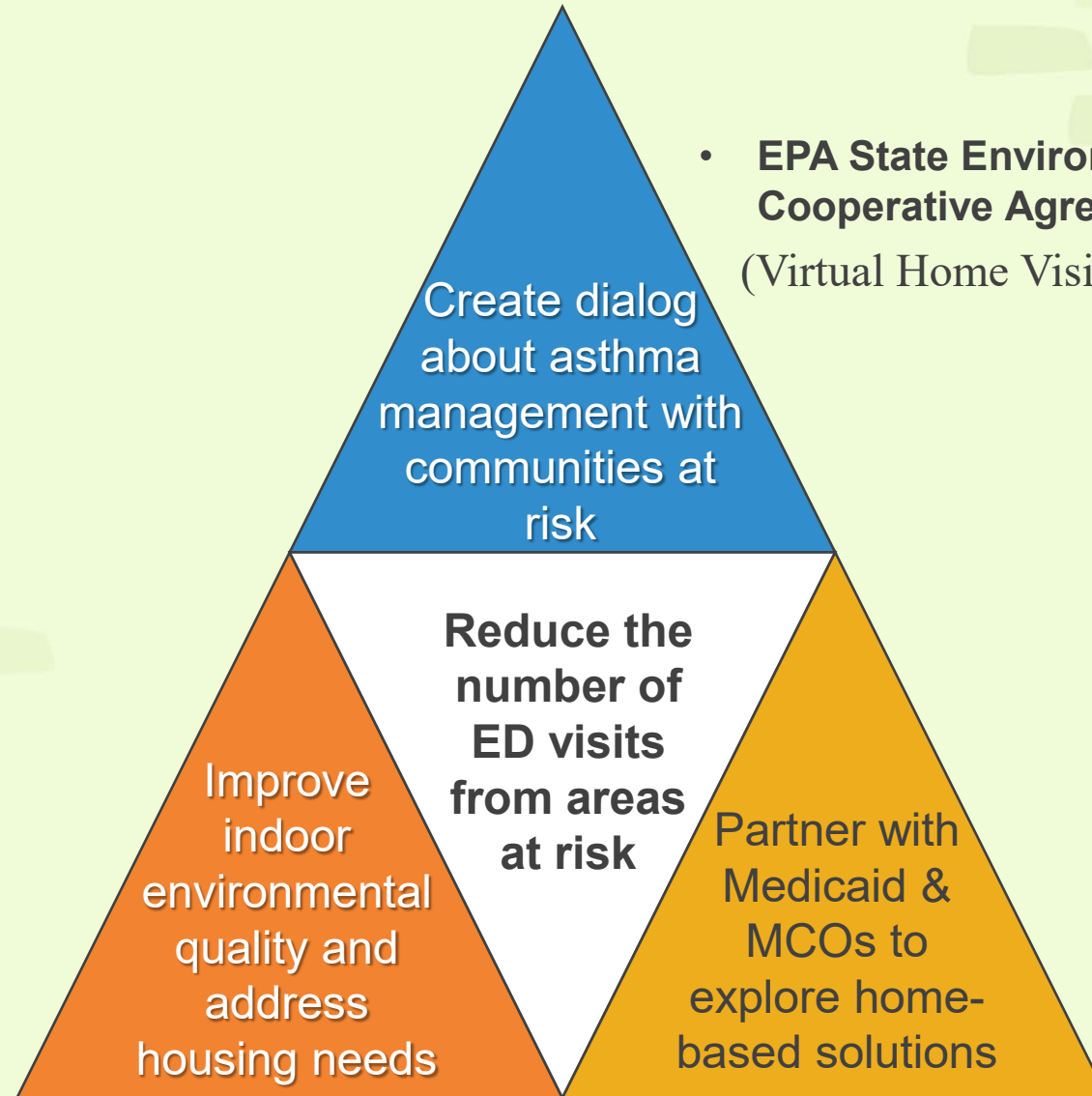
*Home Environmental  
Triggers*



[www.lah.gov/breathe](http://www.lah.gov/breathe)



# Goals for BREATHE



- **EPA State Environmental Justice Cooperative Agreement**  
(Virtual Home Visiting, 2-year statewide pilot)





# Virtual Home Visiting Pilot



Participants *not eligible* for virtual visits get

- Two Asthma Control Tests (3 months apart)
- One phone check-in with LDH (at ~3-4 weeks)

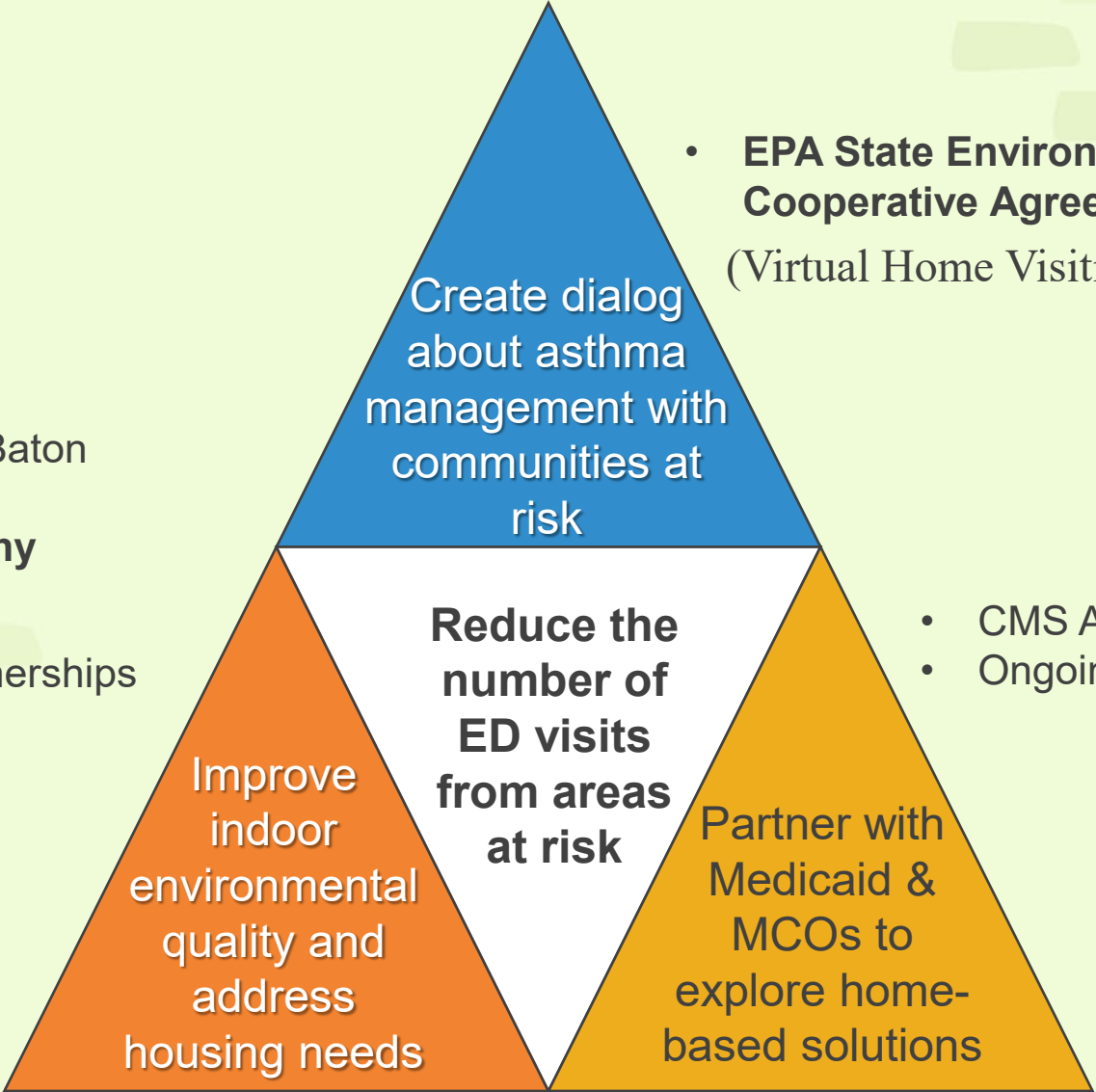


[www.ldh.la.gov/breathe](http://www.ldh.la.gov/breathe)





# Goals for BREATHE



- **EPA State Environmental Justice Cooperative Agreement**  
(Virtual Home Visiting, 2-year statewide pilot)

- Partnership with City of Baton Rouge on **HUD Lead Remediation and Healthy Homes grant**
- Seeking grants and partnerships with LSU

- CMS Asthma Affinity Group
- Ongoing conversations with MCOs...



# Proposed “Comprehensive Pilot” Design

Category	CBA Considerations
Target Population	Pediatric asthmatics with poor asthma maintenance (2+ ED / 1+ IP per year)
Geography	East Baton Rouge Parish and surrounding areas, with interest in scaling statewide
Annual Enrollment (estimate)	50 clients
Enrollment Term	2 years
Evaluation Term	3-4 years
Cost Per Person (estimate)	\$5,254.00

*Avg. asthma COC for 2+ ED: ~\$500*  
*Avg. asthma COC for 1+ IP: ~\$6500*



# Impact from BREATHE

*Fewer sick days due to asthma, and more ball games!*

I hate it when asthma keeps me from playing with my friends!



I still have asthma, but now it gets in my way less often!

**Contact:** [Runa.Bakshi@LA.gov](mailto:Runa.Bakshi@LA.gov)





# **Contra Costa County Asthma Mitigation Program**

**Michael Kent**

**Hazardous Materials Ombudsman, Contra Costa Health Services**

**Ameerah Thomas**

**Quality Improvement Program Manager, Contra Costa Health Plan**

# Contra Costa County Asthma Mitigation Program

Providing Comprehensive Asthma Services to Communities  
Impacted by Environmental Inequities

Green and Healthy Homes Initiative National Asthma Convening

March 31, 2021

**Contra Costa Health Services**





## Contra Costa Asthma Initiative

A business plan for a comprehensive home-based asthma program



“

*Our communities don't get the attention we need. I feel most healthcare services are negligent towards us. I'm thankful that our communities are being targeted. It's making a difference for my family and is very helpful.”*

- Contra Costa Health Plan asthma pilot participant



# Contra Costa County



## Demographics

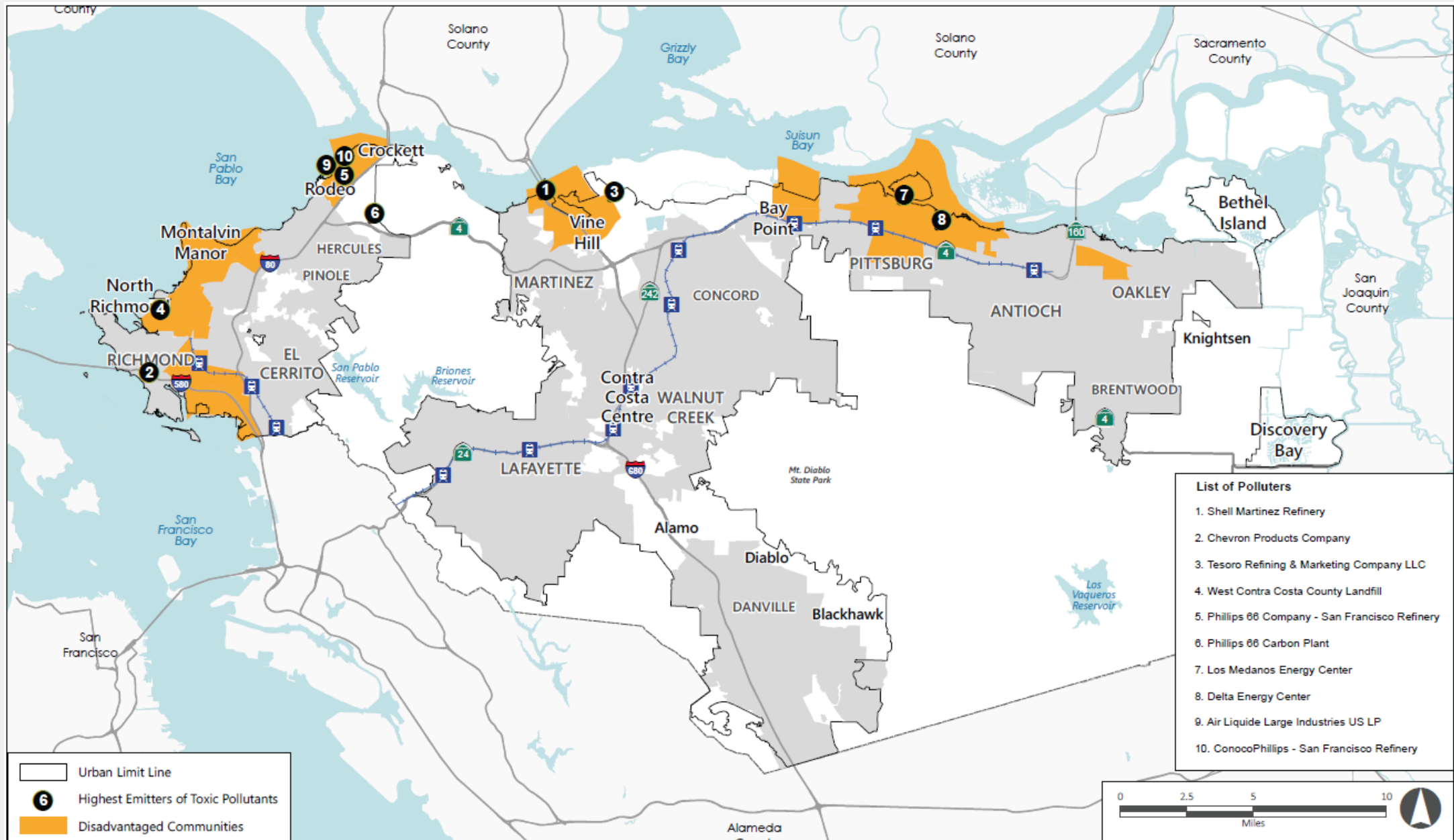
Population: 1,150,215

- 20% Over 60 Years Old
- 7.8% in Poverty
- 19 Cities

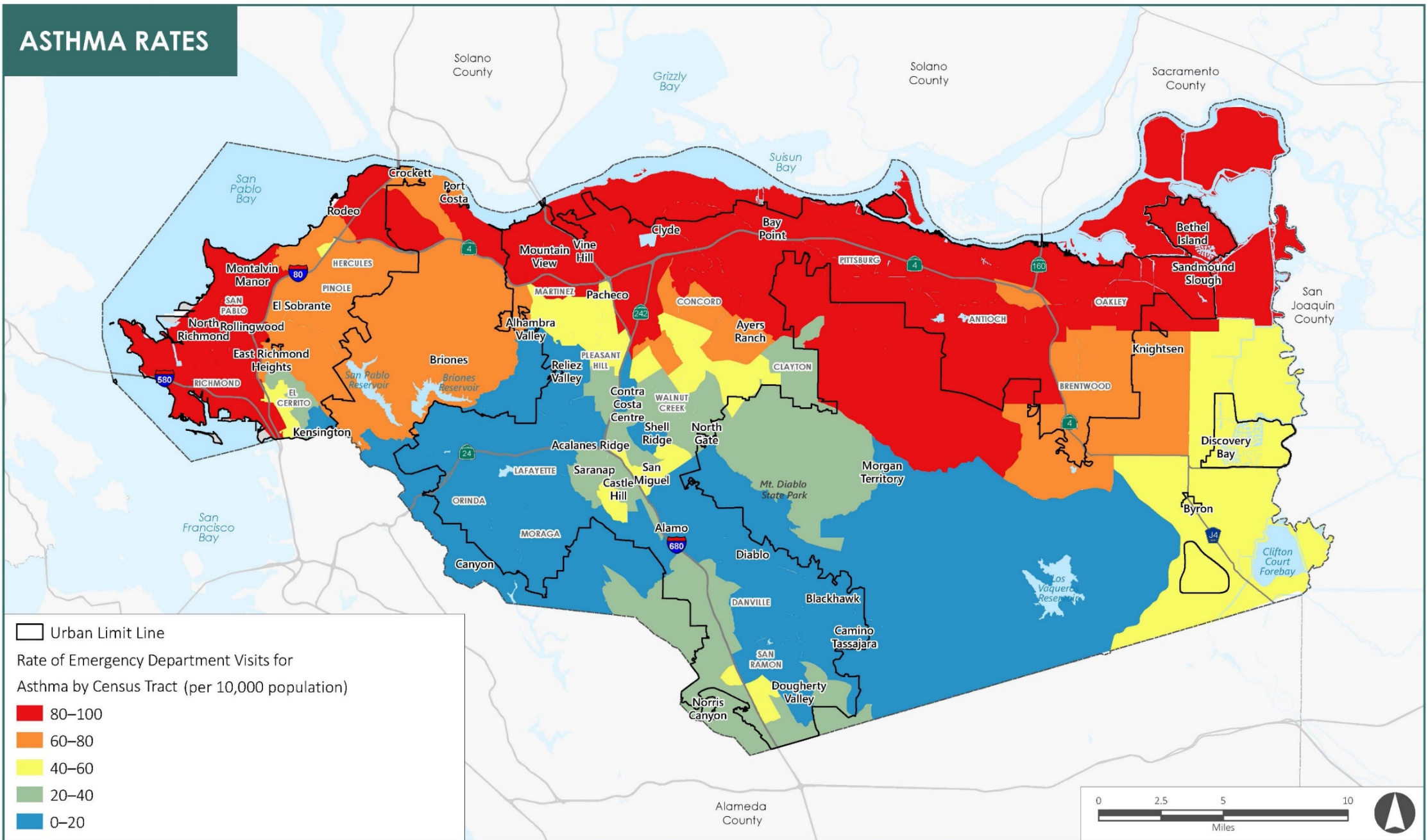
### Population by Race

- White: 43.2%
- Hispanic Latino: 25.8%
- Asian: 18%
- African American: 9.5%
- American Indian: 1%
- Other: 2.5%



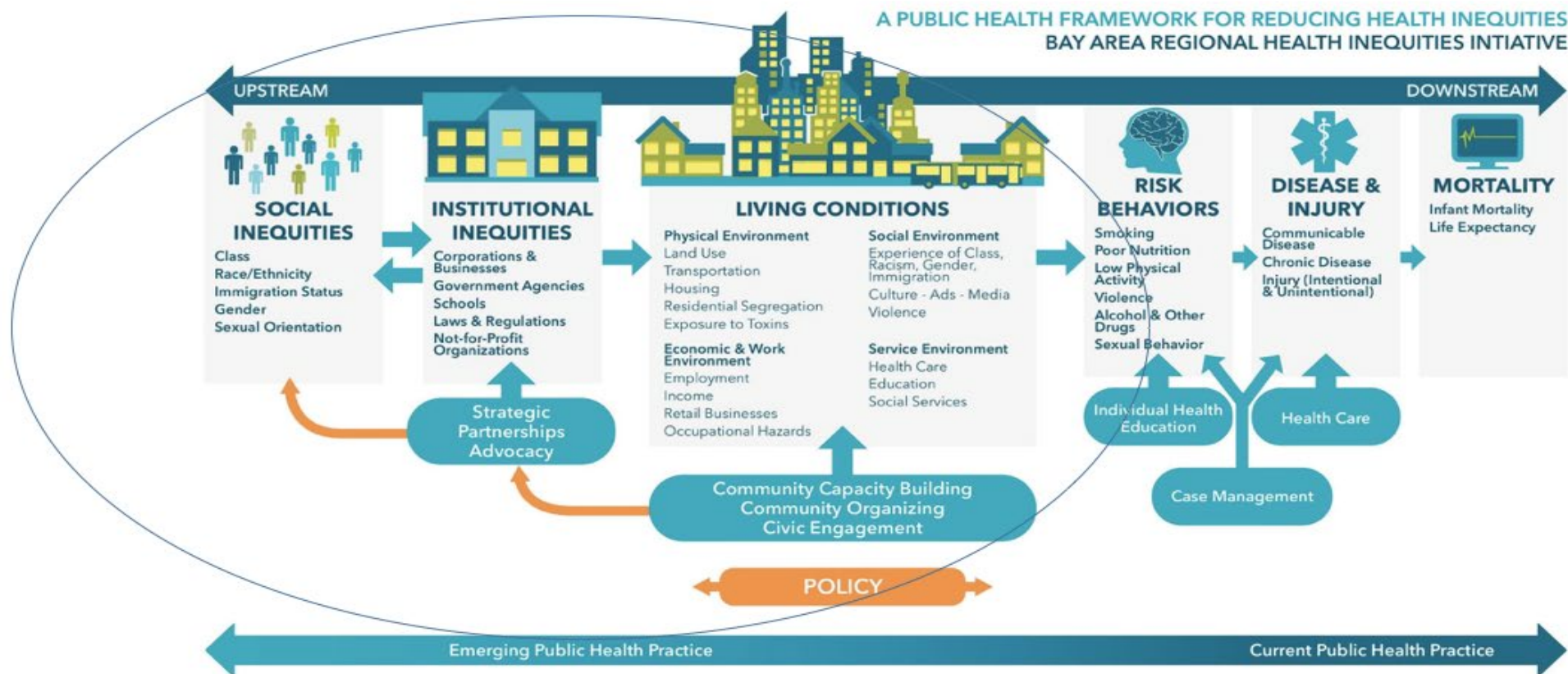


# ASTHMA RATES



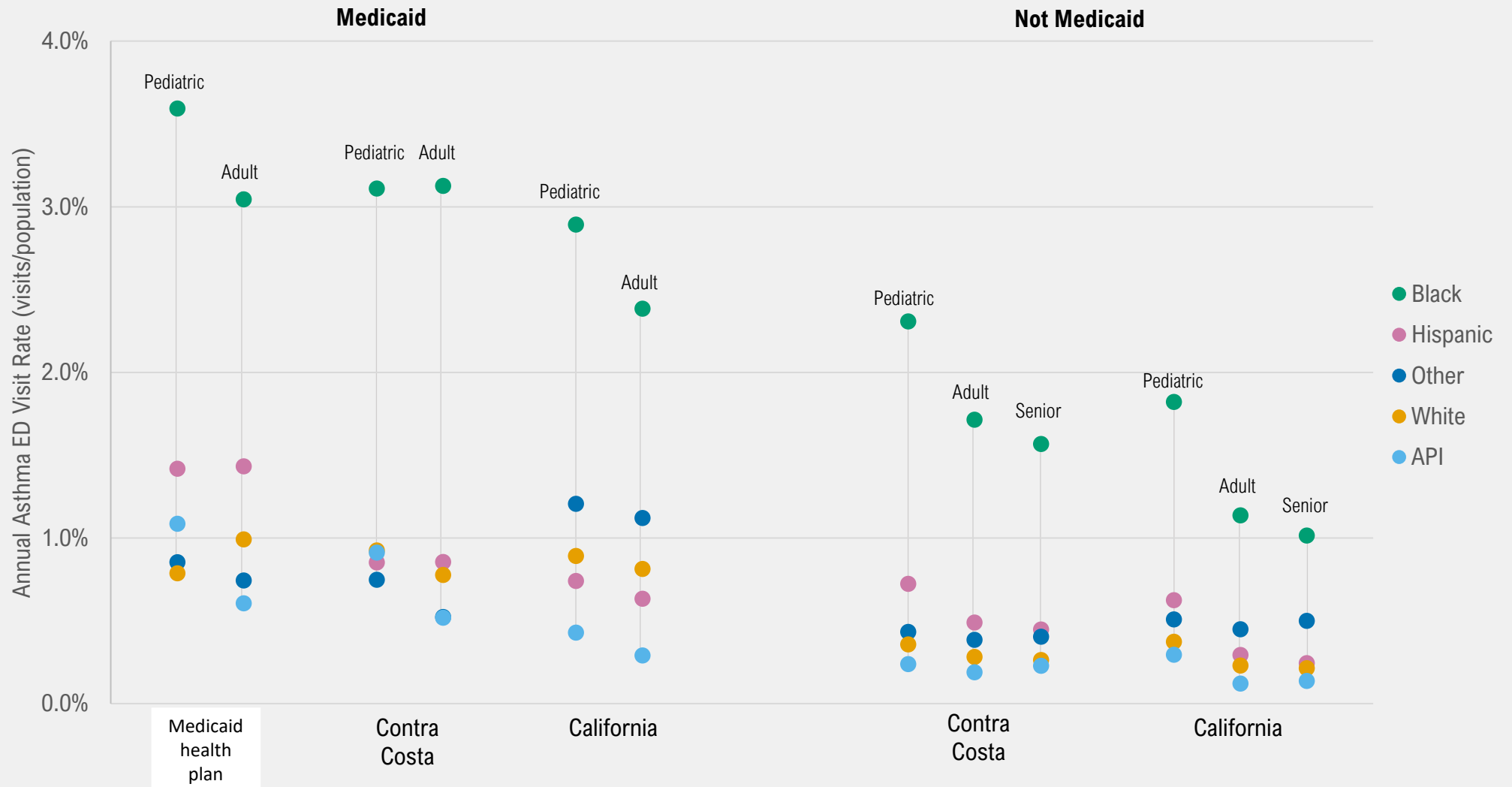
Source: California Office of Environmental Health Hazard Assessment, 2018; Contra Costa County, 2019; PlaceWorks, 2019.

# Addressing Social Determinants of Health



# 2017 Asthma ED Visit Rates by Insurance Type, Race/Ethnicity, Age, Geography

Asthma ED rates are 2-3X higher among Blacks, higher among children, and 1.5-2X higher in the low-income population (Medicaid)



Data source: GHII analysis of 2017 OSHPD Asthma-Related ED Visit data (via Tracking California), American Community Survey 2017 data, and CCHP internal data. ACS Medicaid estimates are adjusted to align with DHCS Certified Eligible counts.  
 CCHP: Contra Costa Health Plan Medi-Cal members (e.g. excludes dual eligible, non-Medicaid enrollees), CPN and RMC networks only; OSHPD: Office of Statewide Health and Planning District; API: Asian/Pacific Islander

## Green & Healthy Homes Initiative

- 2018/2019: Awarded Phase I Technical Assistance Grant to Develop Business Plan to Expand Services to improve Health Outcomes for Asthma
- 2019/2020 (Now): Awarded Phase II Technical Assistance Grant
  - Research feasibility of integrating Project into the State health care billing system

## Current Asthma Initiative Project

- Grant from State of California Department of Health Care Services through the Sierra Health Foundation

Three years, 150 assessments

- Grant from the Bay Area Air Quality Management District

One year, 38 assessments augmented

# Connecting Health and Energy Efficiency Resources

## **Health**

- **County Health Department**
  - Operates Hospital and 9 Ambulatory Care Clinics serving CCHP clients and others
  - Operates its own Health Plan
    - Contra Costa Health Plan (CCHP) serves 80% of Medical patients in County

## **Energy Efficiency**

- Low-Income Federal Weatherization Program, Contra Costa County (LIHEAP)
- BayREN and MEC weatherization rebate programs
- Association of Energy Affordability – Assessor and intermediary

# Health Benefits of Weatherization

- Reduces energy consumption
- Keeps homes cooler in the summer if no air conditioning (or if power goes out) and more comfortable in the winter
- Reduce energy costs, leaving more \$ for essentials, and less likely to lead to disconnection
- Keeps out particulate matter, making the air easier to breath for people with respiratory problems
- Keeps out moisture, which can help reduce insect pests and mold, both asthma triggers



**Program Component**

**Staffing Organization**

**Home Visits**

**2-3 Home Visits for Asthma Education**

Coordinate with PCP on Asthma Action Plan; medication usage training; environmental triggers training; follow up with PCP and care managers



**Consumer Supplies to reduce asthma triggers**

e.g. green cleaning supplies, hypo-allergenic mattress and pillow covers, integrated pest management, food storage containers

**Home Assessment**

**Environmental assessment**

Identify home-based asthma triggers and write remediation scope

Single-Family:  
County  
Weatherization

Multi-Family:  
Association for  
Energy Affordability

**Trigger Remediation**

**Remove asthma triggers from home**

Moisture issues (mold removal, ventilation, plumbing leaks)  
Allergens (carpet removal/cleaning), and  
Irritants (HVAC, combustion gases, VOCs)

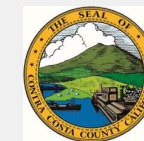


**EE/  
Weatherization**

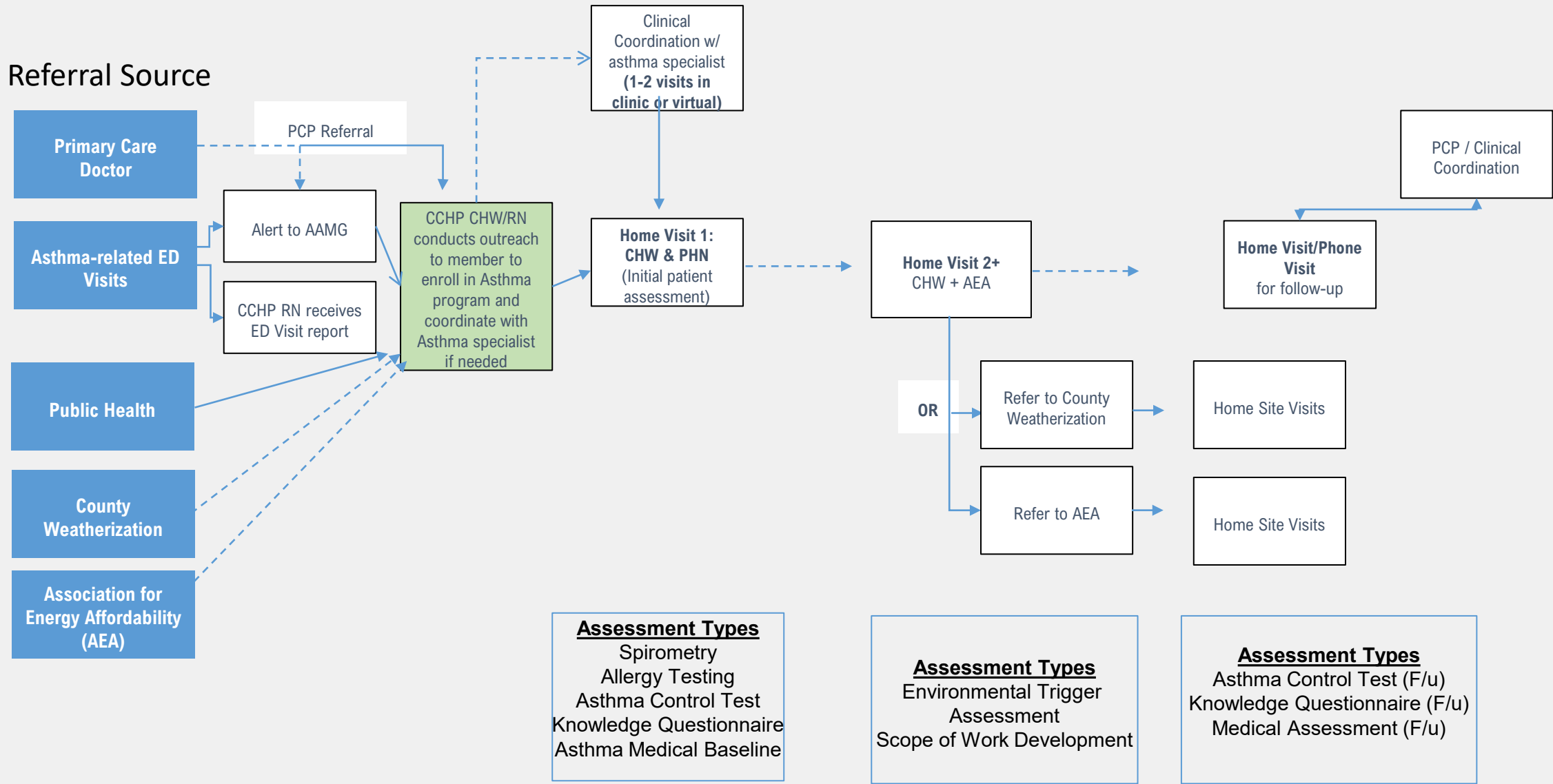
**Lower energy bills and improve comfort of home**

*Leveraged funds*

Lighting, heat pumps, energy-efficient appliances, HVAC



# 3 & 4: Coordination of Health/Energy Programs



# Placing Current Work in Perspective

1

## **Development and implementation of demonstration pilot.**

50 members/year, focus on a) Medi-Cal enrollees and b) asthma triggers

2

## **Securing ‘sustainable’ healthcare funding of healthy homes, including home remediation**

Coordination with RAMP on state policy work, conversations with CCHP and CCHS on existing funding options beyond the pilot’s scale

3

## **Expansion of program in terms of a) eligibility and b) services**

a) Expand program beyond Medi-Cal to other income brackets and eligibility groups and b) expand services beyond prioritization of asthma triggers to comprehensive green and healthy homes services (single intake)

# Questions?

For general information about Asthma Mitigation Program grant or weatherization services contact:

**Michael Kent**

Hazardous Materials Ombudsman

Contra Costa Health Services

[mkent@cchealth.org](mailto:mkent@cchealth.org)

925-250-3227 (c)

For general information about Contra Costa Health Plan or referrals into the program contact:

**Ameerah Thomas**

Contra Costa Health Plan

Quality Management

[Ameerah.Thomas@cchealth.org](mailto:Ameerah.Thomas@cchealth.org)

**Nicole Branning**

Contra Costa Health Plan

Quality Management

[Nicole.Branning@cchealth.org](mailto:Nicole.Branning@cchealth.org)



# **Children's Home Asthma Management Program (CHAMP)**

**Milwaukee, WI**

**Langston Verdin, MPH**

**Program Leader of Strategic Partnerships, Children's Health Alliance of Wisconsin**



# Children's Health of Alliance of Wisconsin



WISCONSIN  
**ASTHMA**  
COALITION

★ Children's Health  
Alliance of Wisconsin



**EMSC**  
Emergency Medical  
Services for Children  
WISCONSIN

★ Children's Health  
Alliance of Wisconsin



Infant  
Death  
Center

★ Children's Health  
Alliance of Wisconsin



Keeping  
Kids Alive  
IN WISCONSIN

★ Children's Health  
Alliance of Wisconsin



WISCONSIN  
Medical  
Home

★ Children's Health  
Alliance of Wisconsin



Oral Health

★ Children's Health  
Alliance of Wisconsin

# Lessons From the Field

## Building a Case for Reimbursement for Comprehensive in-home Asthma Services

Langston Verdin, MPH

Program Leader of Strategic Partnerships | Asthma and Lead Programs  
Children's Health Alliance of Wisconsin

3/25/2021

# Background

- In Wisconsin, **asthma disproportionately burdens low-income communities and communities of color**, and it can be especially detrimental for children.
- In response, the Wisconsin Department of Health Services' Asthma Care Program (ACP) offers comprehensive, **in-home asthma services for children with uncontrolled asthma**.



# Project Partners



Kids deserve the best.



- Project Partners:
  - Children's Wisconsin Community Health Asthma Management Program
  - Children's Community Health Plan
  - Wisconsin Department of Health Services Asthma Program
  - Weatherization/EE: Social Development Commission & Wisconsin Focus on Energy

# Key Movements Towards Sustainability

- Building Partnerships
- Using Data & Results
- Lessons Learned

# Building Partnerships

- Who will prioritize innovative asthma services?
  - Size of payer (#of members)
  - Geography
  - Executive priorities
- Can you get a meeting?

# Data: What data do I need?

- Good
  - Pre-Post
  - Healthcare utilization
  - Qualitative (self-report)
- Better
  - Quantitative (Claims)
- Best
  - Control/Treatment Comparison

# Data Reality Check

- Self-reported data might get you a meeting.
- Qualitative data is **needed** to seal the deal.
- Always connect **outcomes** to your partner's **mission and values**

# Our Methods

- Retrospective, controlled pre-post evaluation using a **difference-in-differences** analysis of Wisconsin Medicaid claims.

# Our Results

- After adjusting for confounders and limiting our analysis to 5- to 17-year-old Medicaid enrollees, the ACP is associated with...
  - 35.5% reduction in asthma-related ED visits
  - 35.7% reduction in the probability of 2 or more ED visits
  - 8.1% increase in the count of asthma medications.
  - **35% reduction in all-purpose inpatient hospitalizations**
  - **37.7% reduction in total days of all-purpose inpatient hospitalizations**

# **GHHI TA: Lessons Learned**

- All partners need to have the same “Why”
- Lean on your data!
- Watch for scope creep
  - Focus on reduction to high-cost services/  
high utilization
- Have a clear communication plan



# **GHHI TA: Lessons Learned**

- Keep momentum, share successes
- Be honest about barriers/challenges
- Push your partners
- Keep executive sponsors in the know
- Don't put all your eggs in one basket

# Thank you

Langston Verdin  
lverdin@chw.org



Follow the Alliance on Facebook and Twitter @CHAWisconsin



# Integra and GHHI Rhode Island

**Brady Dunklee**

**Manger of Community Health Strategy, Integra Community Health Care Network**

**Margarita Robledo Guedes**

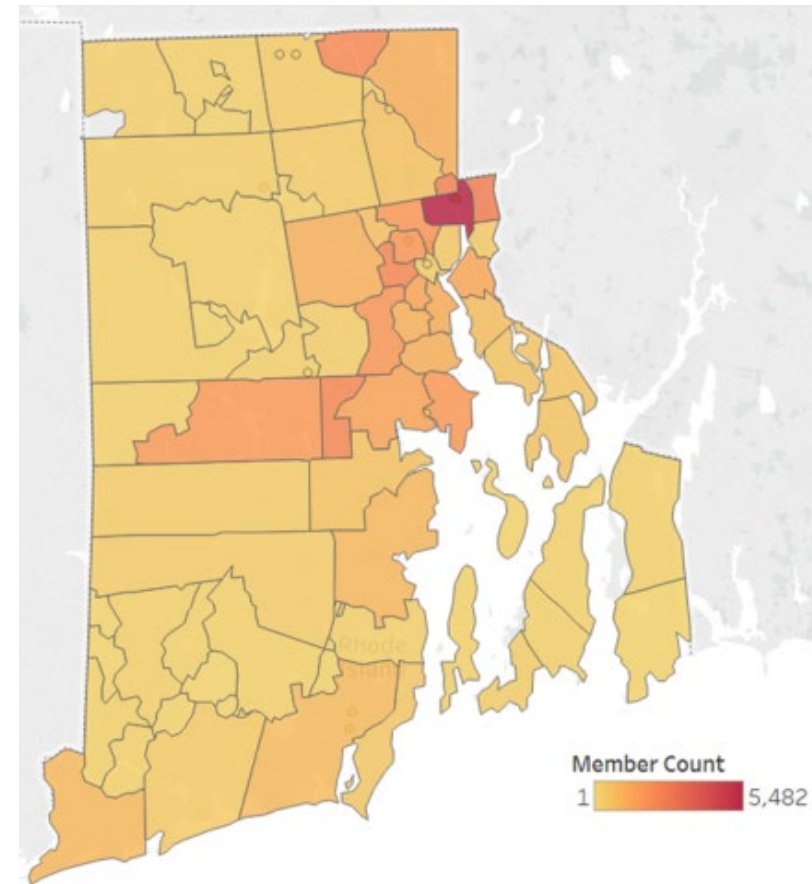
**Rhode Island Outcome Broker, Green & Healthy Homes Initiative**

# Integra is an Accountable Care Organization (ACO) in Rhode Island

 *Care New England*

**RHODE ISLAND**  
**PHYSICIANS CORPORATION**  
**PRIMARY CARE**

 SOUTH COUNTY HEALTH



## Respiratory health strategy tied to Social Determinants of Health (SDOH) strategy

- **Medicaid Accountable Entity (AE)** pilot programs
- **ARISE** Asthma program
- **I-SPII** established partnerships with community-based organizations to pilot SDOH interventions.

## ARISE

Asthma Response,  
Integrated Supports  
& Education



- Partnership with St. Joseph's Health Center
  - Referral from pediatrics
  - Three home visits from AE-C and CHW
  - Trigger management supplies
  - Care coordination with Integra Complex Care Management team
- 
- ~30 families participating to date
  - Reported ED reduction, need more time to evaluate.

# I-SPH partnership

## GHHI & RI Builders Association

- Referral from ARISE or Integra
- Home assessment – currently virtual
- Scope of Work development
- Contractor management, quality assurance, clearance by GHHI



### Green & Healthy Homes Initiative & RI Builders' Association

Home assessment and remediation to manage asthma and create healthy homes

Households Referred:	Assessments:	Remediations:	Relocations:
5	5	3	2

# I-SPII partnership GHHI & RI Builders Association



## Red Flags for Respiratory Healthy Home Remediation

### Combustion byproducts

- No or broken smoke/carbon monoxide detectors
- Gas/Oil furnace in poor condition/not vented to the outside
- Wood burning or fireplace in home
- Gas stove in home in poor condition/not vented to the outside
- Gas water heater in poor condition/not vented to the outside
- Combustion space heaters in poor condition/not vented to outside

### Mold/Moisture

- Musty smell in the house
- High moisture in the home leading to presence of dust mites
- Roof in poor condition
- Dryer not vented to the outside
- Plumbing leaks
- Bathroom not vented to the outside/no bathroom vent system
- Downspout issues (poor condition)

### Pest

- Roaches
- Rodents

### Surface conditions

- Water stains in carpet
- Visible dust on surfaces
- Carpet in the home/Poor carpet condition



# I-SPH partnership

## GHHI & RI Builders Association



## Family Case Study

### Owner-Occupied/One family

The family owns their home in Providence, built in 1930. Three children in the family have asthma. GHHI developed an asthma reduction scope of work to address the most pressing issues:

- Reduction of mold/moisture
- Combustion reduction
- IPM for pest control
- Reduction of air leakage

## I-SPH partnership GHHI & RI Builders Association

- GHHI also working with technical assistance Health Resources in Action to create a racial equity assessment, “developing outcome measures in order to monitor and evaluate the equity and inclusion of Black and Brown contractors and families.”



## Key takeaways



- Asthma management requires an SDOH and health equity lens
- A comprehensive strategy can include:
  - Education
  - CHW supports & care management
  - Trigger management supplies
  - Addressing housing conditions
  - Legal & enforcement supports



# Thank you!

Brady Dunklee  
bdunklee@carene.org



# Questions + Answers

# BREAK

(Event will resume at 1:15 PM ET)



Green & Healthy Homes Initiative®

# Strategies for Pursuing Medicaid Funding of Home-based Asthma Services

GHHI 2021 Asthma Convening

March 31, 2021

# Session Presenters



**Trent Van Alfen**

Senior Social Innovation Specialist, GHHI  
[tvanalfen@ghhi.org](mailto:tvanalfen@ghhi.org)



**Susan Steppe, LAPSW**

Program Director - CHAMP, Le Bonheur Children's Hospital  
[Susan.Steppe@lebonheur.org](mailto:Susan.Steppe@lebonheur.org)



**Kevin Chan**

Senior Social Innovation Specialist, GHHI  
[kchan@ghhi.org](mailto:kchan@ghhi.org)



# Level-Setting

## Session Focus

- The purpose of this session is to share insights on pursuing Medicaid funding for home-based asthma programs
- The recommendations in the presentation come from GHHI's experience as both a direct service provider and as technical assistance provider
- While most of the presentation content is applicable to a variety of programs, we developed the recommendations primarily with community-based asthma programs in mind

## Session Agenda

- 1) Overview of 6 Key Recommendations for Pursuing Medicaid Funding
- 2) Brief presentation and Q&A with Best-in-Class Asthma Program in Memphis: CHAMP
- 3) Audience Q&A

## A bit of terminology...

**Health plan/MCO** = managed care organization, accountable care organization, payer

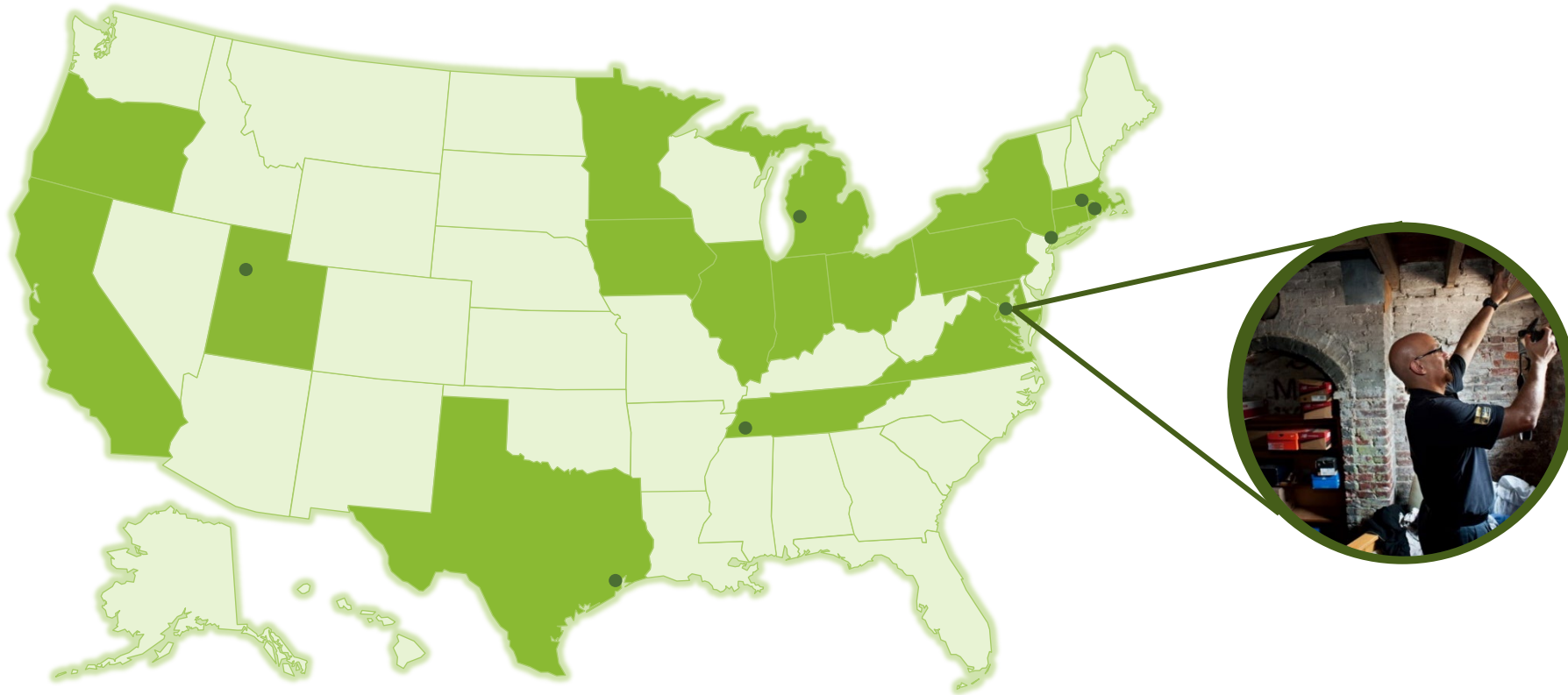
**SDOH** = Social determinants of health

**CMS** = Centers for Medicare & Medicaid Services

**MLR** = Medical-loss ratio

**VBP** = Value-based payment/purchasing, alternative payment models

# GHHI-Supported Healthcare Partnership Projects



GHHI is directly involved in a healthcare partnership via its flagship Baltimore program and has supported over 30 additional healthcare partnerships across the nation.

GHHI has helped asthma programs secure Medicaid funding in:

*Houston | Memphis | Grand Rapids | NYC | Rhode Island | Salt Lake City | Worcester | More in development...*

# Audience Poll

***Where is your organization in the process of establishing a healthcare/Medicaid funding contract for home-based asthma services?***

- A. N/A
- B. Early research/exploration
- C. Early discussions
- D. Actively working towards a funding contract
- E. Fully executed funding contract

# Key Recommendations From Experience of GHHI and Partners



Understand Relevant Medicaid Policies, Authorities, and Payment Mechanisms



Understand What Motivates Medicaid Health Plans & Providers



Know Your Program's Performance and Impact



Be Strategic in Building Relationships

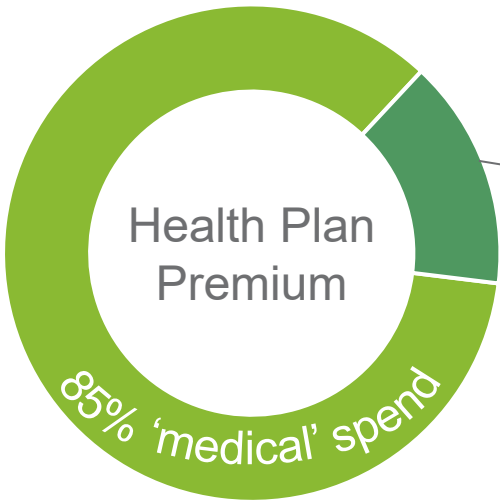


Be Strategic in Contract Negotiations



Research Existing Contracts and Learn From Programs Involved

# Understand Relevant Medicaid Policies, Authorities, and Payment Mechanisms



- CMS provides a portion of a state’s Medicaid budget. Ensuring approved ‘federal match’ for what health plan premiums cover is a priority for states.
- The Medical-Loss Ratio (MLR) requires health plans to spend at least **85%** of premium on medical and quality improvement expenses. A max of **15%** can be used for administration, marketing, salaries, etc.
- Each state has a Medicaid state plan that lays out what services/benefits are covered.
- Home-based asthma services are either not covered or under-covered by Medicaid in many states – see ALA’s [Asthma Care Coverage Initiative](#)
- Despite the 15% cap, the ‘admin’ portion of the premium is more flexible as to what it can pay for.
  - Multiple health plans pay for non-covered asthma services with admin. dollars, but funding amount and sustainability can be limited that way.



## Understand Relevant Medicaid Policies, Authorities, and Payment Mechanisms (cont.)

### **Common Mechanisms to Enable Coverage of Home-based Asthma Services**

- **State Plan Amendments (SPAs)** – permanent CMS-approved changes to a state plan.
  - See [2014 preventive services rule change](#) and [CHIP Health Services Initiative](#).
- **1115 Demonstration Waivers** – temporary (5-10yr) budget neutral payment and service delivery reforms within a state that can become permanent through SPAs if successful. See [DSRIP waivers](#).
- **Managed Care Contracts and Quality Improvement Activities** – States can incentivize/require MCOs to address SDOH via procurement or state quality strategies.
- **[Community Care Coordination Services](#) & [Targeted Case Management](#)** – Some asthma-related services could be covered sustainably through these authorities.
- **[Value-added Services](#)** – Additional services beyond covered benefits. Voluntarily provided by health plans. Can be ‘medical’ spend but not included in premium.
- **“In lieu of” services** – State-approved non-medical services that health plans can offer as a medically appropriate and cost-effective substitutes for state plan benefits.
  - See [new CA proposed reforms](#) designating asthma-related home remediation as “in lieu of” service.

[Click here for 2021 CMS letter on Medicaid mechanisms to address SDOH](#)



[Click here for the Financing In-home Asthma Care site on Asthma Community Network](#)



# Understand What Motivates Medicaid Health Plans and Providers

## *Primary Motivators for Health Plans and Providers*



- **State requirements and incentives** – Examples:

- NY requires health plans to address SDOH in certain VBP contracts
- MI withholds 1% of premium until health plans execute a contract to address SDOH

- **Quality measures** – tied to health plan ratings and payer/provider incentive payments

- **“Triple Aim”** – better health outcomes, better quality care, lower costs...increasing interest in SDOH in recent years



- **Member engagement and retention** – engaging hard-to-reach members, making PCP connections, SDOH screening



- **Market leadership** – showing innovation and membership incentives to increase market share

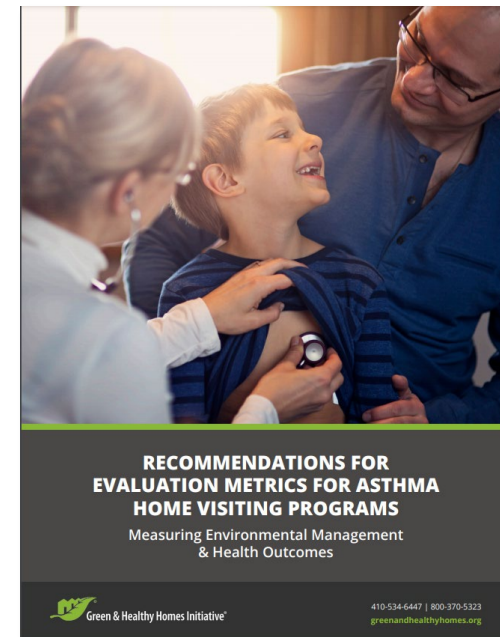
- Asthma program's **return on investment** via impact on utilization and costs

- The **medical-loss ratio** (% 'medical' costs vs. % 'admin' costs)



# Know Your Program's Performance and Impact

- Be urgent about evaluation planning and implementation
- Focus on gathering evidence for *outcomes* as well as *process* improvements
- Start with self-reported survey data (quantitative and qualitative) and case studies; work towards obtaining administrative data from healthcare entities – use it all!
- Explore research partnership opportunities with local universities
- Develop a data security plan and infrastructure to prepare for healthcare engagements



## Success Stories on Data and Evaluation

- Memphis [CHAMP](#) won a CMS innovation grant to evaluate its program, then obtained access to state Medicaid claims data for further evaluation...all of which helped it contract with two different health plans.
- In Baltimore and Salt Lake, survey data and referral partnerships grew into funding contracts after health plans performed internal analyses on claims data



# Audience Poll

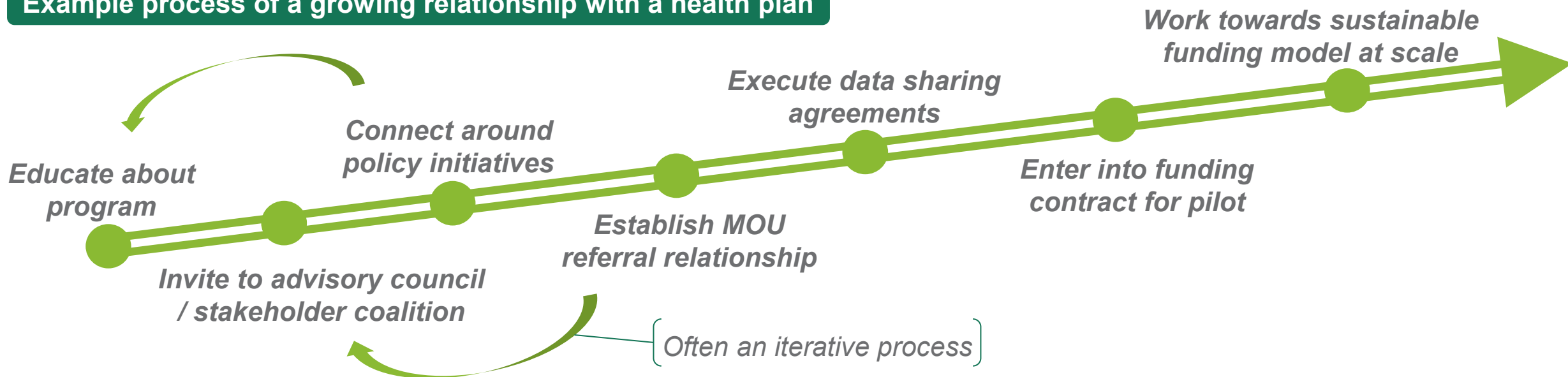
*What level of evaluation/analysis have you been able to perform on your asthma program (or the one you are partnered or exploring partnership with)?*

- A. N/A
- B. No program evaluation yet
- C. Process evaluation only
- D. Self-reported survey analysis
- E. Cost-benefit analysis with survey data and/or evidence from comparable programs
- F. Robust evaluation with administrative claims data



# Be Strategic in Building Relationships

## Example process of a growing relationship with a health plan




## Recommendations

- Connect with staff at different levels of health plan; health plans can have frequent turnover
- Look for opportunities to advocate for policies together with health plans and providers
- Invite health plans and providers to participate in stakeholder meetings
- Consider what existing or potential partners might have additional resources to help expand the program



# Be Strategic in Contract Negotiations

## *As early as possible...*

- Understand what payment structure options you would be comfortable with:
    - Upfront payment vs. reimbursement basis
    - Standard rate per enrollee
    - Standard monthly payment over contract term
    - Segmented rate by completion status (e.g., 50% upfront, 50% after completion)
    - Specific rate per type of service (e.g., \$ per home visit, \$ per school visit)
  - Determine what portion of administrative/overhead you need to incorporate into fees
  - Understand your 'need to have's vs. 'nice to have's (e.g., upfront working capital vs. bonus payments)
  - If working on a VBP contract, understand what risk you may or may not be willing to take on
- 

## *During negotiations...*

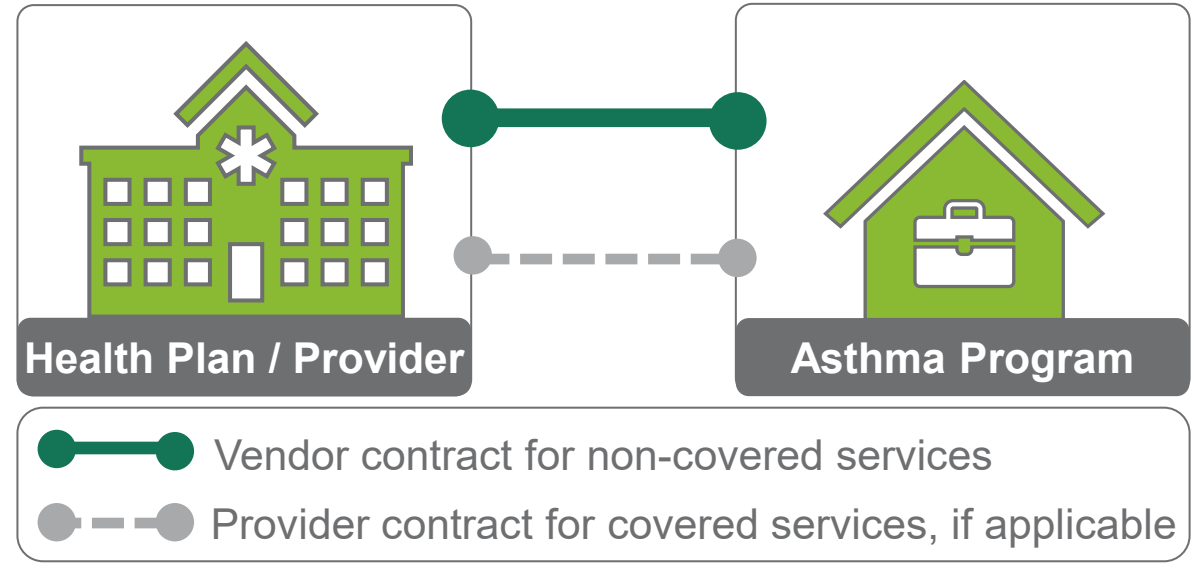
- Get clarity on exactly what constitutes success for all parties involved in the contract
- Gauge health plan's/provider's ability and willingness to increase the scale if showing success
- Request contract requirements for health plan/provider to support enrollment (warm handoffs), share data



# Research Existing Contracts and Learn From Programs Involved

## Common Starting Point: Direct Vendor Contract

- Paid for out of health plan's admin. budget, which has competing priorities due to 15% cap
- Ideally, a step towards more sustainable contract
- Specific payment structure negotiated by the parties



### **GHHI Baltimore & Amerigroup**

*Developed from referral relationship to expansion with funding after Amerigroup MD analyzed program's impact.*

*Includes home-based education, supplies, home assessment, IPM.*

### **Healthy Homes Coalition of W. Michigan & Priority Health**

*Priority Health incentivized by state requirement to address SDOH to receive the 1% premium withhold.*

*Includes home assessment and remediation of environmental triggers.*

### **Salt Lake County & University of Utah Health Plans**

*Developed from two small pilots and UUHP's internal impact analysis into a paid engagement. UUHP performs home visits.*

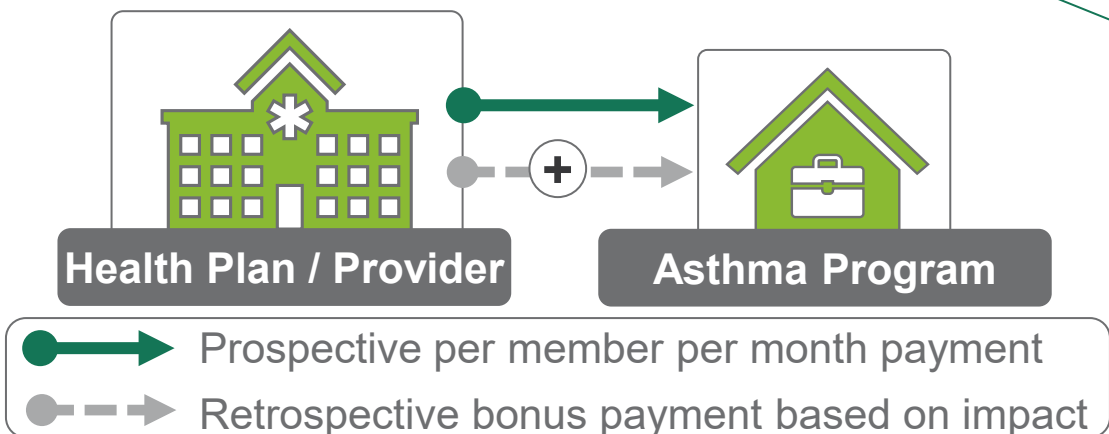
*Contract covers home assessment, remediation of triggers, and supplies.*

# Research Existing Contracts and Learn From Programs Involved (continued)

## On the Horizon: More Asthma Programs Included in Value-based Payment / Alternative Payment Models

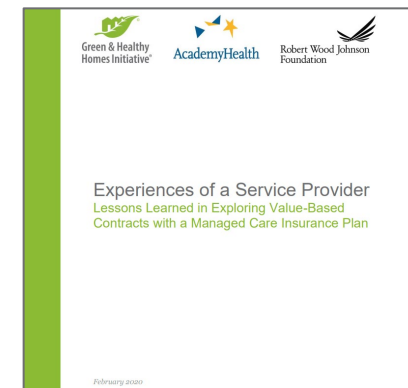
- Growing model that ties payments to quality measures and savings...“value instead of volume”
- There are a few [varieties of VBP payment structures](#) that vary by level of risk assumed by the provider
- Contract must be between health plan and certified Medicaid provider (typically a health system)
- Much more flexible and sustainable way of funding traditionally non-covered services as ‘medical’ expenses
- VBP aligns well with growing focus on addressing social determinants of health

### Example VBP model with upside risk



*GHHI partners in Texas are working toward a similar model*

[Click here for GHHI's resources on VBP](#)



# Audience Poll

***Based on your experience, which of these recommendations do you feel is most important for pursuing Medicaid funding of home-based asthma services?***

- A. Understand Relevant Medicaid Policies, Authorities, and Payment Mechanisms
- B. Understand What Motivates Medicaid Payers and Providers
- C. Know Your Program's Performance and Impact
- D. Be Strategic in Building Relationships
- E. Be Strategic in Contract Negotiations
- F. Research Existing Contracts and Learn From Programs Involved



***BEST-IN-CLASS SPOTLIGHT***

**Overview of the CHAMP Asthma Program and  
Q&A with Susan Steppe, Program Director**

# CHAMP

## Changing High-Risk Asthma in Memphis through Partnership

Dr. Christie Michael, Medical Director

Susan Steppe, LAPSW Program Director





# What is CHAMP?

- Multi-disciplinary program to improve asthma management for high-risk asthma patients.
- Intervention includes coordinated medical and community-based services.

# Program Criteria

- Reside in Shelby County, TN (Memphis)
- Focus on High-risk or Poorly controlled asthma
  - Typically Identified by Hospital Utilization
- Medicaid (TennCare).
  - Access to charge data to EVALUATE OUTCOMES

# Metrics

Based on evaluation of TennCare charge data

- Reduction in hospital utilization, pre and post intervention
- Reduction in total asthma exacerbations requiring any level of medical care
- Quality Metrics: Asthma Medication Ratio (AMR) and Annual Well-Child visits
- \*Cost of care (linked to reduced utilization)

# Medical Services

## Access to Care

- Medical Evaluation w/follow-up
- Certified Asthma Education in clinic
- Access to 24/7 call line answered by EMT's at Le Bonheur with next day follow-up.
- Sick Call Triage on week days
- Respiratory Therapist coordinating care with schools.

# Key Component – Community Based Services



## Key Component – Community Based Services

- Reinforcing Asthma Education in the community
  - Asthma basics, spacer use, strategies to take controller meds, medication review and accessing meds.
- Addressing Environmental Concerns
  - EPA environmental assessment, education on asthma triggers in the home, cleaning supplies, advocacy with landlords
- Connecting families with Resources to meet SDOH
  - MLH Medical/Legal Partnership
- Case Management, including supporting medication fill and EPSD&T



# Outcomes Pave the Way to Sustainability 2020 Report

825 children completing one full year of the program

- 59% reduction in emergency room visits
- 71% reduction in “in-patient” hospitalizations and observations
- 45% reduction in urgent care visits
- 56% reduction in total asthma exacerbations
- Report on reduction in cost of care\*

# Keys to Successful Outcomes

- The Basics
  - Strong, specific problem statement
  - Well defined target population and means to reach them,
  - Specific measurable goals and a **means** to measure progress
  - THAT'S A LOT
- Collect and evaluate relevant data
- Be nimble and respond to the data – Don't be scared to make a change - Do what works



# What May Appeal to Payers?

- Results – things that “work”
- Scalability - serving enough patients to make a dent (enough juice for the squeeze)
- Quality Measures– National Committee for Quality Assurance (NCQA)
  - AMR – ratio of controller meds to all asthma meds
  - Lead screening
  - Child Immunizations
  - Annual Well-Child Visits
  - Flu Vaccinations
  - Fall Risk for older adults
- Cost Savings – Yes, but . . . . .

# About Payer Contracts

- Fee for Service vs. Vendor Contract
- Billing system
- Health Care Reimbursement Rarely Pays Total Program Costs
- Continued need for grants, philanthropic, or community based support – but at a lower level.

# Q&A with Susan Steppe



**Susan Steppe, LAPSW**

Program Director - CHAMP, Le Bonheur Children's Hospital  
[Susan.Steppe@lebonheur.org](mailto:Susan.Steppe@lebonheur.org)



**Kevin Chan**

Senior Social Innovation Specialist, GHHI  
[kchan@ghhi.org](mailto:kchan@ghhi.org)

# Thank You!

*Feel free to reach out with any questions or requests*



**Trent Van Alfen**

Senior Social Innovation Specialist, GHHI  
[tvanalfen@ghhi.org](mailto:tvanalfen@ghhi.org)



**Susan Steppe, LAPSW**

Program Director - CHAMP, Le Bonheur Children's Hospital  
[Susan.Steppe@lebonheur.org](mailto:Susan.Steppe@lebonheur.org)



**Kevin Chan**

Senior Social Innovation Specialist, GHHI  
[kchan@ghhi.org](mailto:kchan@ghhi.org)



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# BREAK

(Event will resume at 2:30 PM ET)



Green & Healthy Homes Initiative®

# Advancing Asthma Healthy Housing Initiatives in 2021 + Beyond

Wednesday, March 31, 2021 | 2:30pm ET

## Panelists



**Michelle Freemer**  
NIH



**Peter Ashley**  
HUD

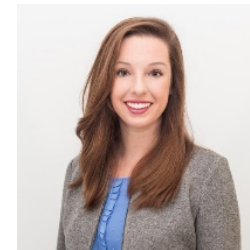


**Tracy Washington Enger**  
EPA

## Moderators



**Michael McKnight**  
GHHI



**Daniella Chambers**  
GHHI



# National Institutes of Health

**Michelle Freemer, MD, MPH**

**Program Director, Division of Lung Diseases**





# **Asthma Disparities Subcommittee**

## **President's Task Force on Environmental Health Risks and Safety Risks to Children**

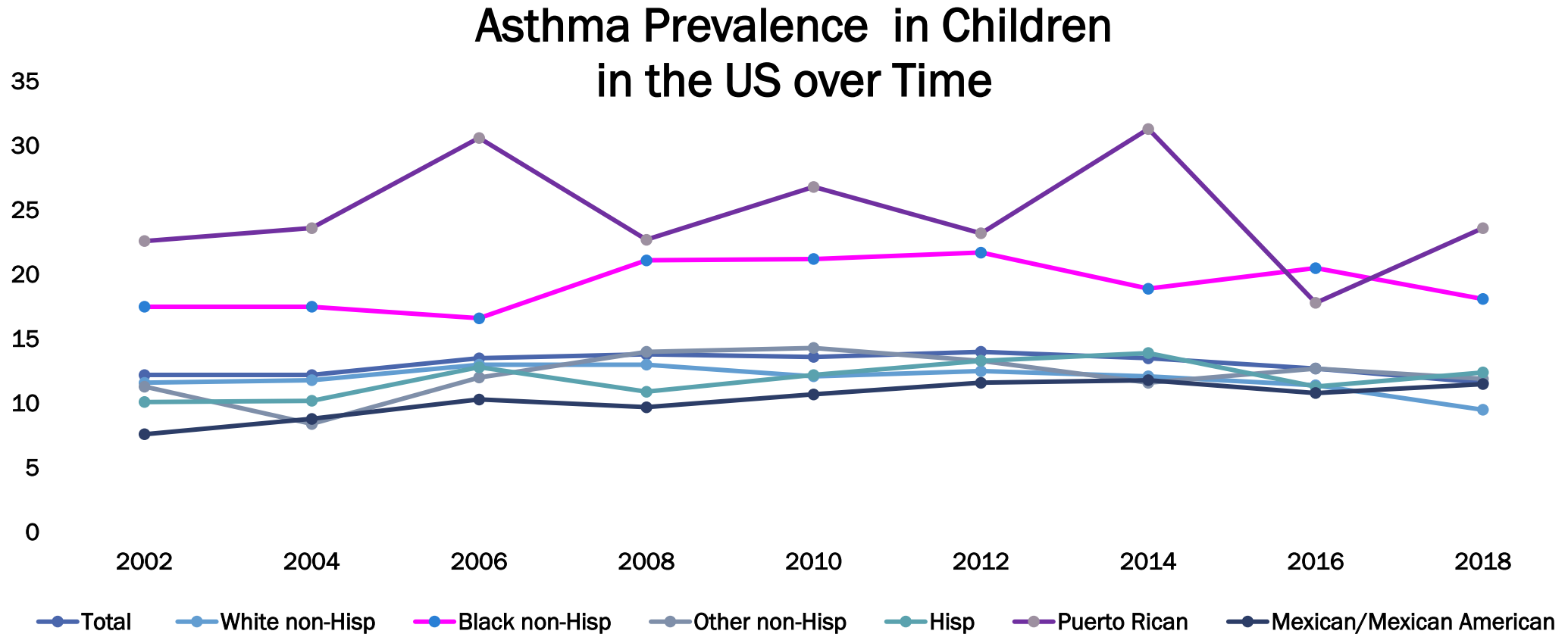
Michelle M. Freemer, MD, MPH (NHLBI)

March 31, 2021

# Overview

- What's the problem?
- Who is working on it?
- How have we approached the problem?
- Where have NIH/NHLBI efforts been focused?
- When will research be ready to integrate with other efforts ?

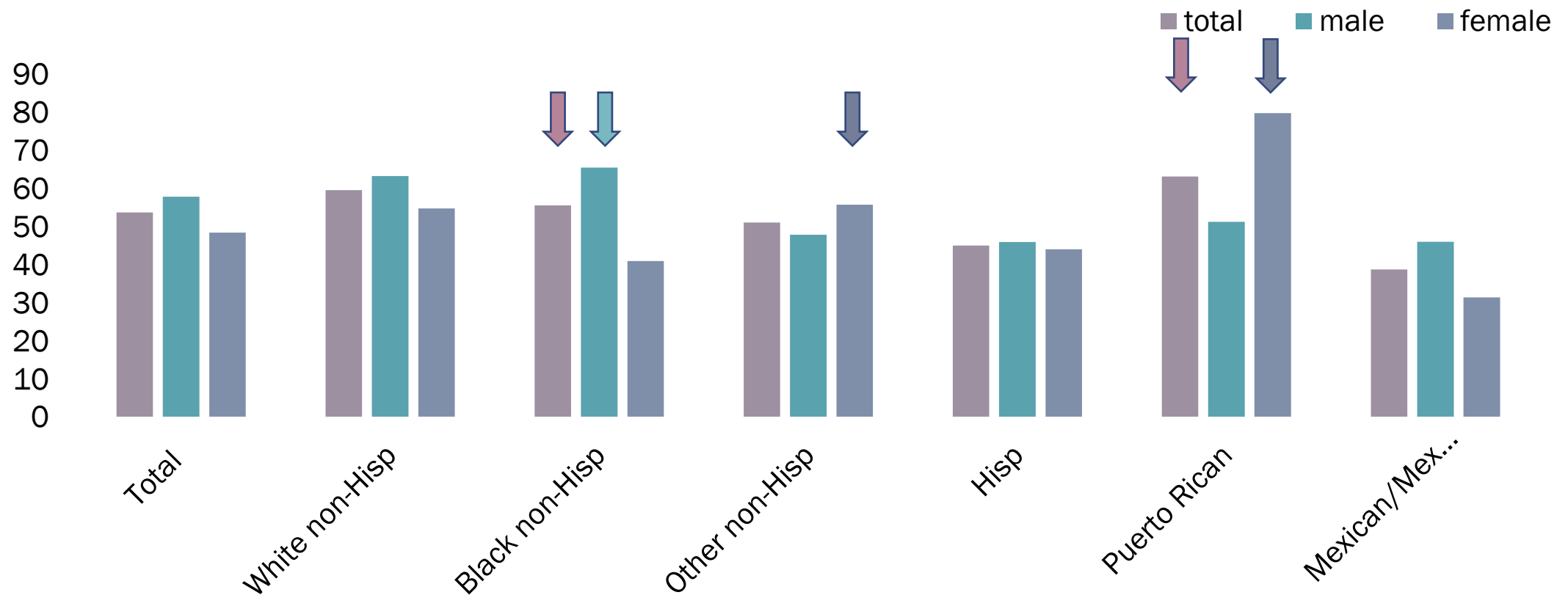
# What's the problem?



Data extracted from National Health Interview Survey (NHIS) tables by year <https://www.cdc.gov/asthma/nhis>

# What's the problem?

## 2018 Asthma "attack" prevalence in children with asthma



Data extracted from CDC ped asthma data\Table 6-1 Asthma Attack Prevalence Percents among those with Current Asthma by Age, United States\_ NHIS, 2018 \_ CDC.html

# Who is working on it?

- Department of Education
  - Office of Safe and Healthy Students
- Department of Energy
  - Office of Weatherization and Intergovernmental Program
- Department of Housing and Urban Development
  - Office of Healthy Homes and Lead Hazard Control
- Environmental Protection Agency
  - Office of the Administrator
  - Office of Research and Development
  - Office of Air and Radiation\*
- U.S. Consumer Product Safety Commission
- Department of Health and Human Services
  - Administration for Children and Families
  - Agency for Healthcare Research and Quality
  - Centers for Disease Control and Prevention
  - National Institute for Occupational Safety and Health
  - Centers for Medicare and Medicaid Services
  - Health Resources and Services Administration
  - National Institutes of Health\*
  - Office of the Assistant Secretary for Health
  - Office of Health Reform
  - Office of Minority Health
  - Office of the National Coordinator for Health Information Technology


\*Co-Chair

How?

# 2012: Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities

May, 2012 [www.epa.gov/childrenstaskforce](http://www.epa.gov/childrenstaskforce)

**President's Task Force  
on Environmental Health  
Risks and Safety Risks  
to Children**



**Coordinated Federal Action Plan  
to Reduce Racial and Ethnic  
Asthma Disparities**

## 4 Strategies

- **Strategy One:** Reduce barriers to the implementation of guidelines-based asthma management.
- **Strategy Two:** Enhance capacity to deliver integrated, comprehensive asthma care to children in communities with racial and ethnic asthma disparities.
- **Strategy Three:** Improve capacity to identify the children most impacted by asthma disparities.
- **Strategy Four:** Accelerate efforts to identify and test interventions that may prevent the onset of asthma among ethnic and racial minority children.

Aligned with Healthy People 2020

How?

## Coordinated Federal Action Plan: Principles

- Collaboration across federal agencies, other levels of government, and community partners.
- Utilizing existing federal resources and optimizing their impact through synergies.
- Emphasizing activities that address the preventable factors that impact asthma disparities.

How?

# Evolution of priorities

## Coordinated Federal Action Plan 2012

- Strategy One  
**Reduce barriers to guidelines-based asthma management**
- Strategy Two  
Enhance capacity to deliver integrated, comprehensive care
- Strategy Three  
**Improve capacity to identify the children most impacted**
- Strategy Four  
**Identify and test interventions that may prevent asthma**

### Priorities 2013

1. Sustainable Strategy For Comprehensive Asthma Control Programs
2. Implementation Research Agenda
3. Data Systems to Identify and Track High Risk Children

### Priorities 2015 - 2017

1. Broaden collaboration on reimbursement for asthma care
2. Expand research coordination
3. Partner and leverage efforts in tribal communities

### Priorities 2018 - 2019

1. Sustainable financing for home-based care
2. Research gaps
3. Expectations for asthma care



Where?

# National Institutes of Health: National Heart Lung and Blood Institute Efforts

## Priorities 2013

1. Sustainable Strategy For Comprehensive Asthma Control Programs
2. Implementation Research Agenda
3. Data Systems to Identify and Track High Risk Children

## Priorities 2015 - 2017

1. Broaden collaboration on reimbursement for asthma care
2. Expand research coordination
3. Partner and leverage efforts in tribal communities

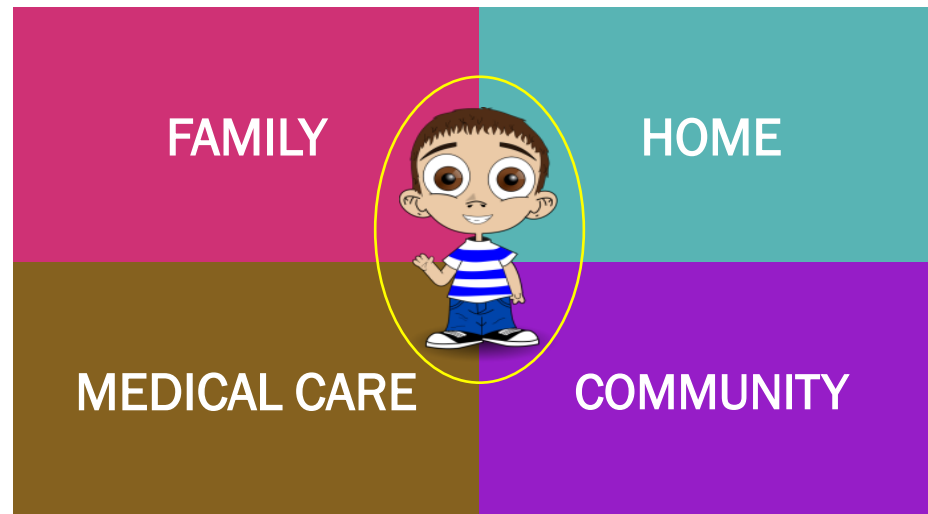
## Priorities 2018 - 2019

1. Sustainable financing for home-based care
2. Research gaps
3. Expectations for asthma care

Where?

## RFA HL 17-001: Asthma Empowerment Collaborations to Reduce Childhood Asthma Disparities (U01)

- **Community based**
- Provide **comprehensive care** for children at **high risk** of poor asthma outcomes
- Integrate interventions with demonstrated efficacy from four different sectors (medical care, family, **home, and community**)



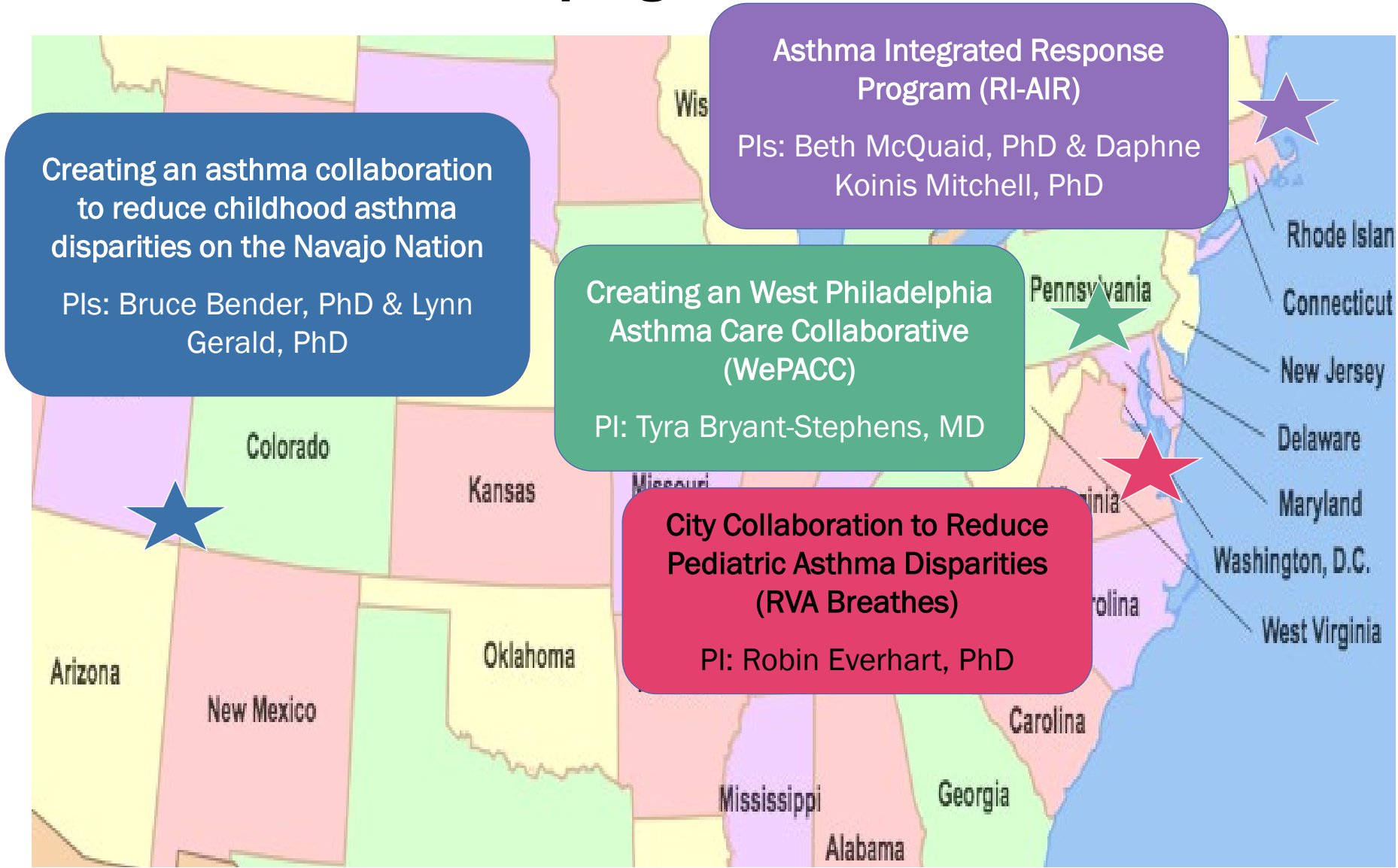
- Collaborations to ensure **sustainability**

<https://grants.nih.gov/grants/guide/rfa-files/rfa-hl-17-001.html>



Where?

# Funded programs:



When?

# NHLBI: National Asthma Education and Prevention Program Coordinating Committee & 2020 Focused Updates to the Asthma Management Guidelines



*Working group report*

## **2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group**

Check for updates

Expert Panel Working Group of the National Heart, Lung, and Blood Institute (NHLBI) administered and coordinated National Asthma Education and Prevention Program Coordinating Committee (NAEPPCC)\* *Bethesda, Md*

When?

**2020 FOCUSED  
UPDATES TO THE  
Asthma  
Management  
Guidelines**



National Heart, Lung,  
and Blood Institute

**2020 Focused Updates to the Asthma Management Guidelines**

A Report from the National Asthma Education and Prevention Program  
Coordinating Committee Expert Panel Working Group

[nhlbi.nih.gov/AsthmaGuidelines](https://nhlbi.nih.gov/AsthmaGuidelines)

# Guidelines Provider Resources

**2020 FOCUSED UPDATES TO THE Asthma Management Guidelines**

A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group

U.S. Department of Health and Human Services  
National Institutes of Health  
National Heart, Lung, and Blood Institute

**2020 FOCUSED UPDATES TO THE Asthma Management Guidelines**

**CLINICIAN'S GUIDE**

**PURPOSE**

This Clinician's Guide summarizes the 2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group to help clinicians integrate the new recommendations into clinical care. The full 2020 Report, which is focused on selected topics rather than a complete revision of the 2007 Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma (EPR-3), can be found at [nhlbi.nih.gov/asthmaguidelines](http://nhlbi.nih.gov/asthmaguidelines). This summary guide should be used in conjunction with the full report. The Guide is organized by the following topics:

- Intermittent Inhaled Corticosteroids
- Long-Acting Muscarinic Antagonists
- Indoor Allergen Mitigation
- Immunotherapy in the Treatment of Allergic Asthma
- Fractional Exhaled Nitric Oxide Testing
- Bronchial Thermoplasty

Multiple stakeholders contributed to the selection of topics for the update. The Agency for Healthcare Research and Quality's (AHRQ) Evidence-Based Practice Centers conducted systematic reviews on these topics, which were subsequently published in peer-reviewed journals and used by the Expert Panel Working Group (the Expert Panel) of the National Asthma Education and Prevention Program Coordinating Committee (NAEPCC), coordinated by the National Heart, Lung, and Blood Institute, as a basis for the updates. The Expert Panel used GRADE (Grading of Recommendations Assessment, Development, and Evaluation), an internationally accepted framework, for determining the certainty of evidence and the direction and strength of recommendations based on the evidence. Each recommendation is described as either strong or conditional. For all recommendations, shared decision making should be used to help individuals with asthma make choices that are consistent with their risks, values, and preferences; this is especially important for conditional recommendations.

Diagrams showing the recommended approaches to care, including the new recommendations, for individuals with asthma based on age have been updated from EPR-3. Within a given step, the preferred options are the best management choices supported by the evidence reviewed by the Expert Panel. When the available evidence was insufficient or did not change a previous recommendation, the diagrams list the preferred options from EPR-3. The diagrams are meant to assist, and not replace, clinical judgment or decision making required for individual patient management with input from individuals with asthma about their preferences.

U.S. Department of Health and Human Services  
National Institutes of Health  
National Heart, Lung, and Blood Institute

NH Publication No. 20-141-814  
December 2020

**2020 FOCUSED UPDATES TO THE Asthma Management Guidelines**

**AT-A-GLANCE GUIDE**

This AT-A-Glance Guide describes a treatment management approach based on recommendations from the 2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group. Step diagrams from the 2007 Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma (EPR-3) were updated with the new recommendations. The diagrams are intended to help clinicians integrate the new recommendations into clinical care, and are meant to assist, and not replace, clinical judgment or decision-making for individual patient management, with input from individuals with asthma about their preferences.

**AGES 0-4 YEARS: STEPWISE APPROACH FOR MANAGEMENT OF ASTHMA**

	Intermittent Asthma	Management of Persistent Asthma in Individuals Ages 0-4 Years				
	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6
<b>Treatment</b>	PRN SABA and as the part of RTI, AAS short course daily ICS*	Daily low-dose ICS and PRN SABA	Daily low-dose ICS-LABA and PRN SABA* or Daily low-dose ICS + montelukast* or daily medium-dose ICS, or PRN SABA	Daily medium-dose ICS-LABA and PRN LABA	Daily high-dose ICS-LABA and PRN SABA	Daily high-dose ICS-LABA + oral systemic corticosteroid and PRN SABA
<b>Preferred</b>						
<b>Alternative</b>		Daily montelukast* or Cromolyn* and PRN SABA		Daily medium-dose ICS + montelukast* and PRN SABA	Daily high-dose ICS + montelukast* and PRN SABA	Daily High-dose ICS + montelukast* + oral systemic corticosteroid and PRN SABA

For children age 4 years only, see Step 3 and Step 4 in Management of Persistent Asthma in Individuals Ages 5-9 Years diagram.

**Assess Control**

- First check adherence, inhaler technique, environmental factors, and comorbid conditions.
- Step up if needed: reassess in 4-6 weeks.
- Step down if possible (if asthma is well controlled for at least 3 consecutive months).

Consult with asthma specialist if Step 3 or higher is required. Consider consultation at Step 2.

Control assessment is a key element of asthma care. This involves both impairment and risk. Use of objective measures, self-reported control, and health care utilization are complementary and should be employed on an ongoing basis, depending on the individual's clinical situation.

**Abbreviations:** ICS, inhaled corticosteroid; LABA, long-acting beta<sub>2</sub>-agonist; SABA, inhaled short-acting beta<sub>2</sub>-agonist; RTI, respiratory tract infection; PRN, as needed.

\* Updated based on the 2020 guidelines.  
\* Cromolyn and montelukast were not considered for this update and/or have limited availability for use in the United States. The FDA issued a Boxed Warning for montelukast in March 2020.

The full-length report, 2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group, can be accessed at [nhlbi.nih.gov/asthmaguidelines](http://nhlbi.nih.gov/asthmaguidelines).

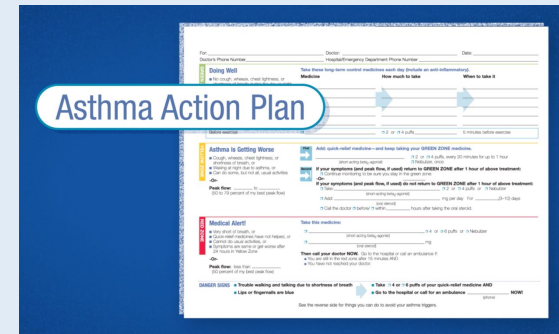
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# Patient/Caregiver Resources



Downloadable fact sheets



[nhlbi.nih.gov/BreatheBetter](http://nhlbi.nih.gov/BreatheBetter)

# Summary

- What's the problem?
- Who is working on it?
- How have we approached the problem?
- Where have NIH/NHLBI efforts been focused?
- When will research be ready to integrate with other efforts ?

As a partnership of federal agencies, the Asthma Disparities Working Group collaborates to address disparities in asthma outcomes in children.

As a federal partner, NHLBI supports research targeted on interventions to address disparities and disseminates the asthma guidelines based on available evidence.

2021+





# **Environmental Protection Agency**

**Tracy Washington Enger**

**Program Manager, Indoor Environment Division**

**Green and Healthy Home Initiative Convening  
EPA and the Asthma Disparities Working Group  
Sustainable Financing for In-Home Asthma Interventions**

Presented by Tracy Enger for the  
U.S. Environmental Protection Agency (EPA)

**March 31, 2021**

## **Priority 1 Broaden interagency and stakeholder collaboration on initiatives for asthma care reimbursement from payers [particularly around home-based services]**

- # of collaborative engagements focused on reimbursement for asthma interventions hosted by 2 or more ADWG members;
- # of technical assistance resources developed, and disseminated individually and in collaboration; # of programs accessing technical assistance and resources;
- # of state and community programs trained on seeking reimbursement for in-home asthma interventions;
- # of state and community programs integrating health, environment and housing approaches to seek reimbursement;
- # of state Medicaid programs currently reimbursing for in-home education, home assessment, and basic trigger control.

# Advancing Policy Nationally

## Asthma Disparities Action Plan and Working Group

### EPA

- AsthmaCommunityNetwork.org
- Technical assistance on environmental management and sustainable financing
- Asthma summits & Community of Practice
- National Environmental Leadership Awards in Asthma Management

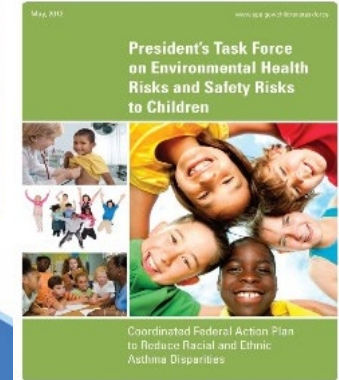
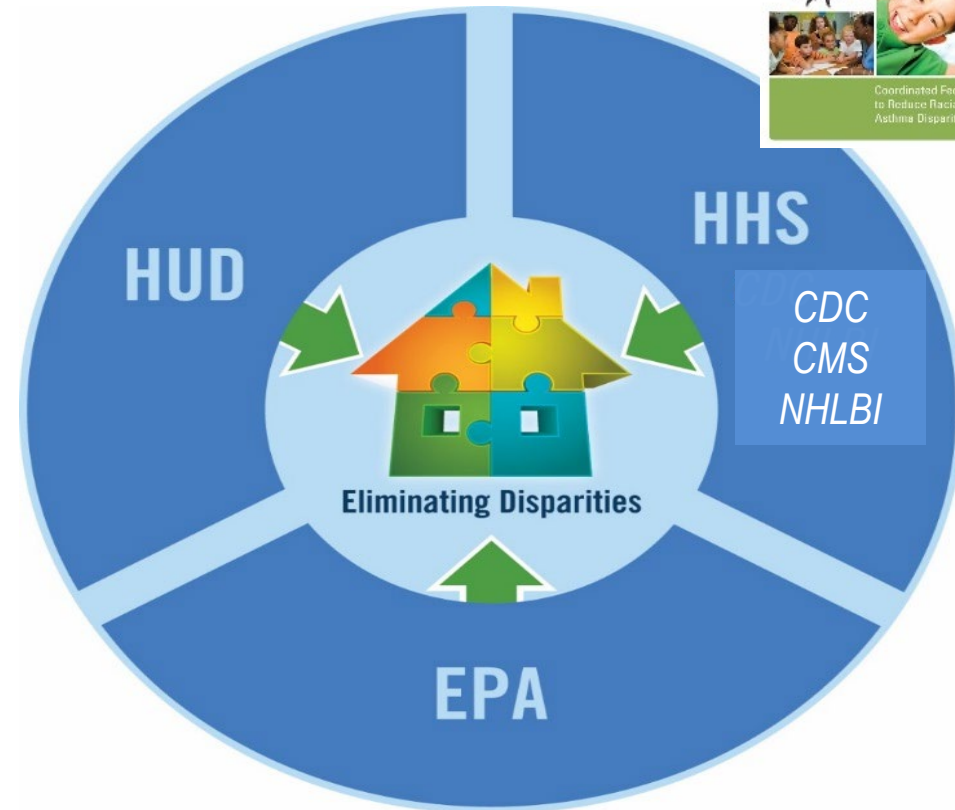
### HHS

- Develop standard measures
- National Asthma Control Program / Grants to states
- 6|18 Initiative & CMS Affinity Groups
- Track Medicaid coverage for guidelines-based care
- Community-based integrated interventions guidance

### HUD

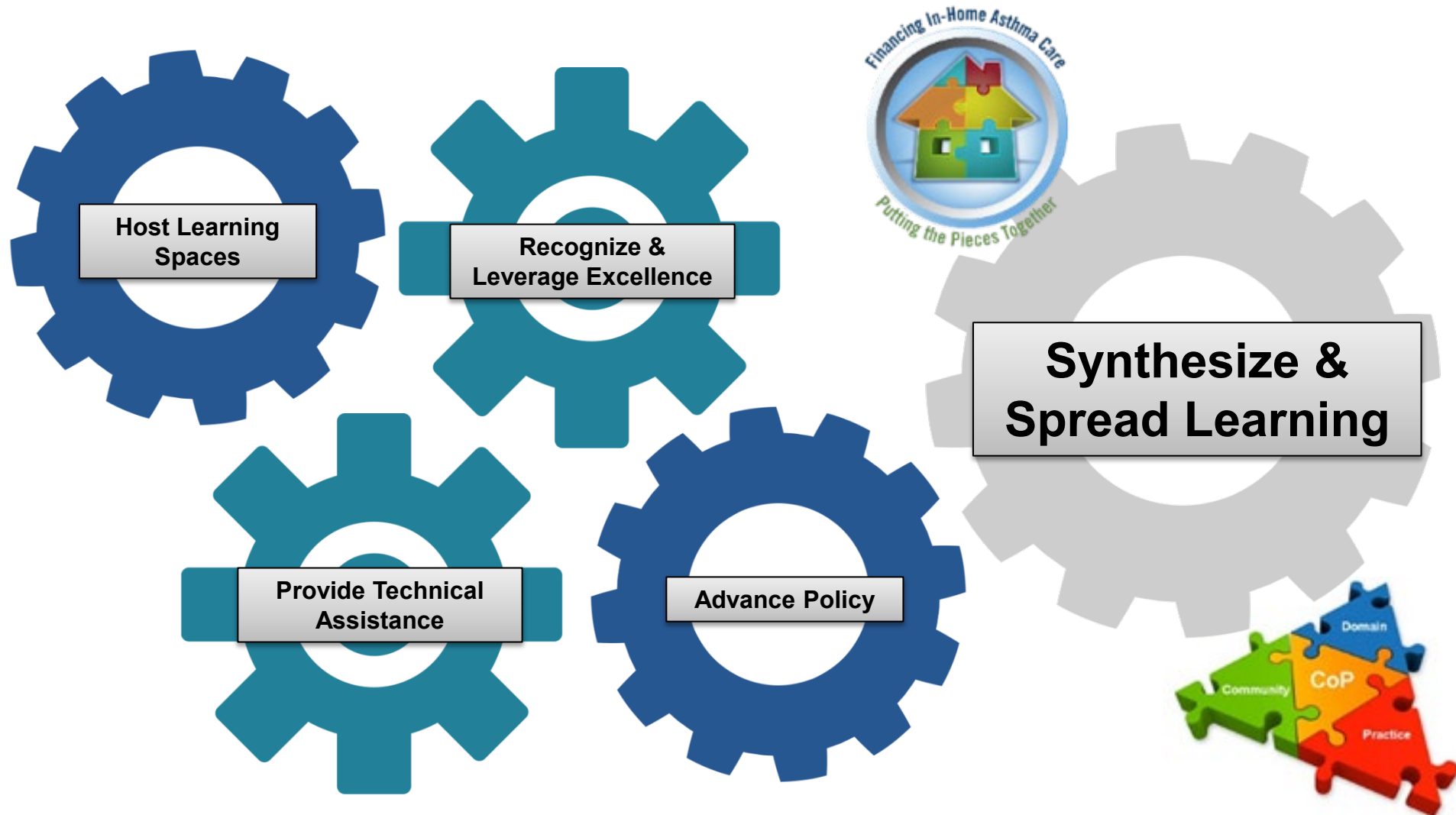
- Asthma summits
- Healthy homes grants (including research on home interventions)
- Smoke-free multifamily housing
- Integrated Pest Management training

## Asthma Disparities Working Group



# EPA's Asthma Program

*Meeting Communities Where They Are*



## What is our Community of Practice?

An expert group formed to collaborate and advance efforts on sustainable financing.

## Why now?

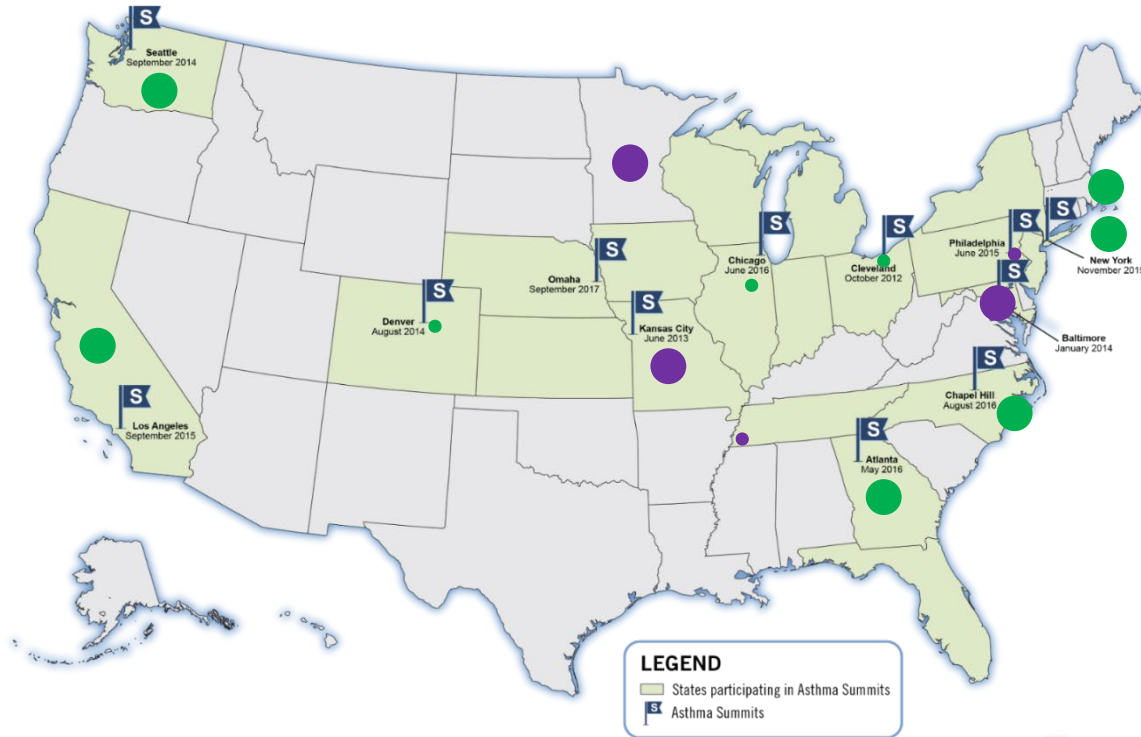
We have built a national network of technical experts with first-hand experience pursuing reimbursement pathways in 12 summit communities.

## Who is it?

Local and regional leaders, physicians, researchers, and program directors representing 9 states and 2 cities with 900,000+ children with asthma covered by Medicaid.



**2024 Target:** 50% of CoP members have sustainable reimbursement mechanisms in place, with the potential to provide access to in-home interventions for up to 560,000 children with asthma covered by Medicaid



## History and Landscape



## Recent CoP Engagements

- August 2020 CoP discussion on what is working and what is not for asthma home visits and environmental interventions now.
- January 2021 ACN.org event by CoP for 400+ audience on addressing the environmental factors in asthma during COVID, and lessons environmental health has learned from COVID.
- February 2021 work with CoP on alternative payment models for CHWs, asthma home visiting and environmental mitigation.



- Communities with **established connections** between healthcare, housing and environmental sectors have **successfully pivoted** to delivery of in-home interventions via virtual platforms.
- **Virtual platforms** present opportunity to **reach hardly and hard-to reach patients**.
- **Healthcare payers** continue to **recognize and reimburse** for environmental intervention services.



## Key Take-Aways: Innovations at All Levels

- Home environmental interventions are still happening, and reimbursement for CHWs and in-home interventions is expanding.
- Innovation in healthcare financing continues. In CA, for example, a \$15M CHW in-home pilot is moving, modified for some virtual, and exploration is underway of a bundle to “top off” environmental mitigation funds for the highest-risk patients.
- Home as the root of health is powerfully clear: the energy efficiency industry—market rate and low income—is focusing on SDOH and seeking to partner with partners like the CoP members.

## Key Take Aways: Challenges and Requests

- Standard CHW home visits reimbursement cover about 1/3 of costs which inhibits some programs from pursuing it and scaling, which limits value. EPA is working on focused TA for payers and providers on this topic.
- Asthma urgent care utilization declined in COVID because, the CoP thinks, school closures limited virus transmission, keeping at-risk children below a symptom threshold. The lesson should be that environmental trigger reduction in schools *and* homes is critical.
- Research is needed on the declines in urgent care (above) and relative effectiveness of virtual vs. in-person components of asthma care.



# Housing + Urban Development

**Peter J. Ashley, DrPH, MPH**

**Director of Policy + Standards**

**Office of Lead Hazard Control + Healthy Homes**

# HUD Office of Lead Hazard Control and Healthy Homes Update

## GHHI 2021 Asthma Convening

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Peter J. Ashley, DrPH

Office of Lead Hazard Control and Healthy Homes

U.S. Department of Housing and Urban Development



# Topics

- Current HUD-sponsored research focusing on asthma and respiratory health
- Efforts to promote health insurer reimbursement of home asthma assessments and low-level interventions
- Initiatives to promote asthma-friendly environments in HUD-assisted housing
- HUD OLHCHH funding that can support home-based asthma interventions

# HUD Grant-Supported Research

- **MA Department of Public Health (FY18):** Teaming with U. of Massachusetts Lowell and a community health clinic to assess CHW-delivered multicomponent home interventions among adults 55+ with asthma. Will conduct cost benefit analysis and determine a ROI.
- **Baylor College of Medicine (FY18):** Conducting a pragmatic randomized clinical trial of home interventions among residents (18+) with asthma living in Houston multiunit public housing. Will also use novel exposure assessment methods to assess associations with symptoms.
- **U. of Massachusetts Lowell (FY19):** Assessing the efficacy of HEPA air filters with activated charcoal to improve IAQ (PM and NO<sub>2</sub>) and asthma among older adults (55+) with gas stoves living in smoke-free public housing. Will compare filtration only with filtration + multicomponent interventions.
- **Illinois Institute of Technology (FY19):** Will use low-cost air quality sensors to assess the association between IAQ and symptoms among adult veterans with COPD and efficacy of portable HEPA filters to improve IAQ and participant health.

# Promoting Coverage of in-Home Asthma Services

- The OLHCHH provided to support to the **National Council of State Legislatures** to provide information on their website on Medicaid and CHIP options for supporting in-home lead and asthma services
  - Target audience is state legislators and staff:  
<https://www.ncsl.org/research/health/healthy-housing.aspx>
  - Content also updated/developed on senior fall prevention:  
<https://www.ncsl.org/research/health/elderly-falls-prevention-legislation-and-statutes.aspx>



# Initiatives to make HUD-assisted housing more asthma friendly

- **Prevalence of current asthma:** linkages between HUD resident data and national health survey (NHIS and NHANES) data (2006-12) found prevalence of 21.2% (children) and 16.3% (adults)
  - Linked data are currently being updated for more recent years.
- **Smoke-free housing policies:** public housing agencies were required to implement SF policies by August 2018.
  - There is interest (HUD and federal partners) to increase promotion of SF policies among assisted multifamily properties (i.e., project-based Section 8).
- **Integrated Pest Management:** continued support for the Stop Pests Program through Cornell University's Northeastern IPM Center ([www.stoppests.org](http://www.stoppests.org))
- **Improving HUD's Housing Inspection Standards:** standards currently being revised with increased emphasis on public health (NSPIRE)

# HUD OLHCHH Funding

- **Healthy Homes Supplement Funds:** Available to HUD Lead Hazard Reduction (LHR) Program grantees. In FY 2020, maximum amounts of \$700K and \$400K for previous and new grantees, respectively. (funds restricted to homes recruited under LHR program requirements)
- **Healthy Homes and Weatherization Cooperation Demo Grants:** New program in FY20: 5 grants of \$1M to be awarded to support delivery of coordinated services by HUD LHR and Dept. of Energy Weatherization Assistance Program subgrantees. Required to recruit minimum of 20 households housing a resident with poorly controlled asthma. Will be offered again in FY21.
- **Healthy Homes Production Grants:** grants are offered when sufficient funds are available. \$40M will be available in FY21 with awards ranging from \$1 - 2 million. Eligible applicants: city, county, and state agencies, tribal governments, non-profits.
  - Funding supports integrated “healthy homes” assessments and interventions in low-income housing.

# Thank You!

HUD Office of Healthy Homes and Lead Hazard Control:  
[www.hud.gov/lead](http://www.hud.gov/lead) or [www.hud.gov/healthyhomes](http://www.hud.gov/healthyhomes)

[Peter.J.Ashley@HUD.gov](mailto:Peter.J.Ashley@HUD.gov)

# Questions + Answers

# Opportunities for Improved Healthy Homes Programming

**GHHI 2021 Recommendations**

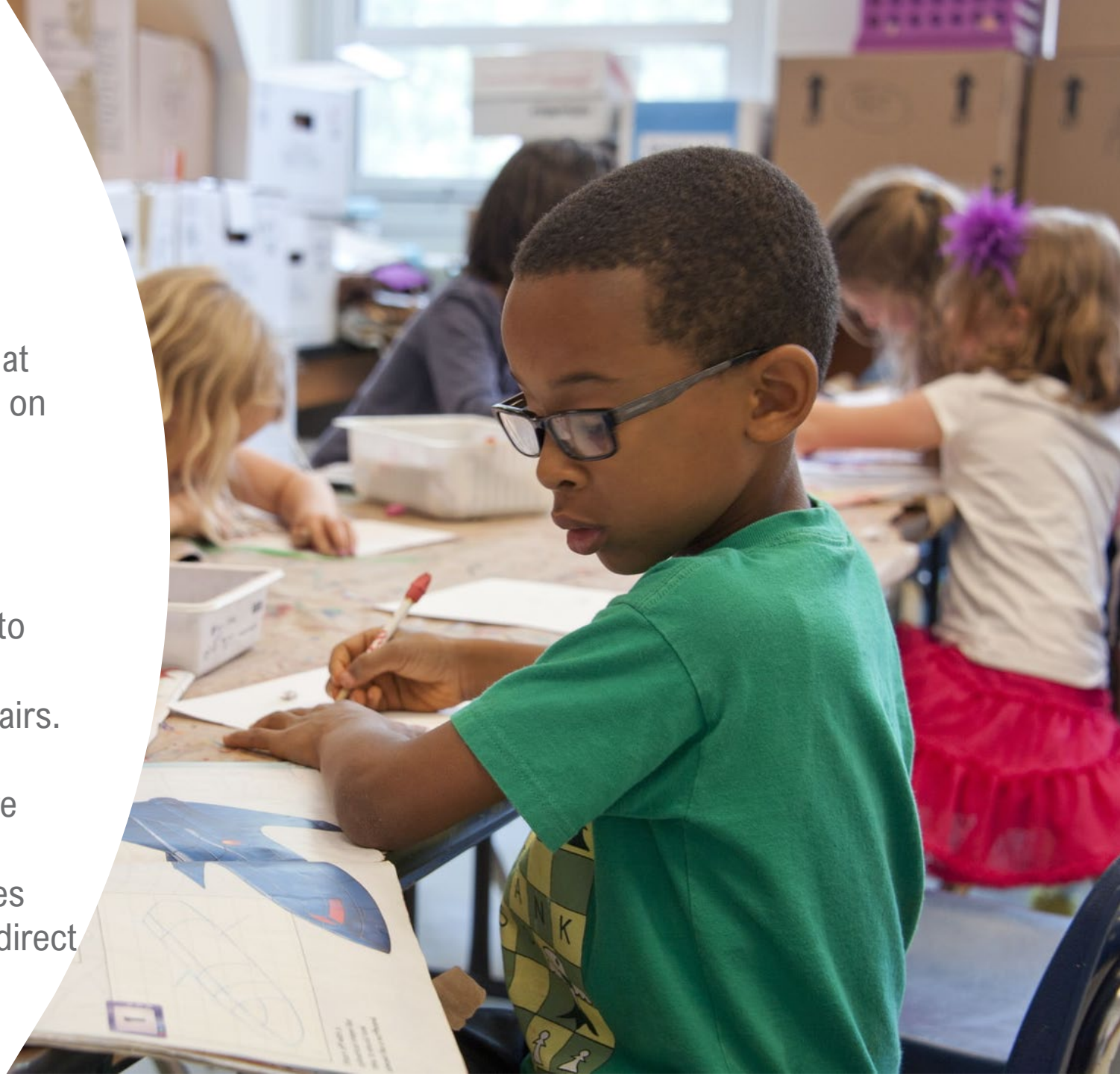
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## Priority Recommendations – Research

- Policy Development and Research (PD&R) at HUD, and NIH should focus more research on the impact of addressing environmental conditions on asthma.

## Funding

- Establish a Lead and Healthy Homes Fund to scale public-private investment, including providing low and no-interest loans for repairs.
- For specific healthy homes services that are part of NIH and/or CDC guidelines, with an evidence base of impacting health outcomes and reducing costs, CMS should allow for direct funding of these services.



## Priority Recommendations –

### Funding (cont.)

- Medicaid should promote value-based models for healthy housing efforts and other services that address the social determinants of health. (e.g. NY VBP Roadmap)
- Home environmental assessments should be a Medicaid covered service.

### Rulemaking + Guidance

- In response to COVID-19, issue guidance and provide support for platforms to provide a suite of virtual home inspections and hazard mitigation guidance.



## Priority Recommendations –

### Rulemaking + Guidance (cont.)

- Specify environmental asthma trigger remediation measures as part of allowable Community Development Block Grant (CDBG) scope of services.
- Strengthen assessments for HUD owned and assisted properties and utilize comprehensive assessments.

### Cross-Sector Integration

- Incentivize cross-sector efforts at the state and local level in grant programs, including with anchor institutions, hospitals and health systems (hospital community benefits), health plans, and Medicaid programs (CHIP Health Service Initiative).
- Work across agencies and departments to align income eligibility standards and requirements across social and housing programs, and to streamline eligibility determination processes.





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**Thank You!**



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Senior Vice President of National Programs

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[www.ghhi.org](http://www.ghhi.org)



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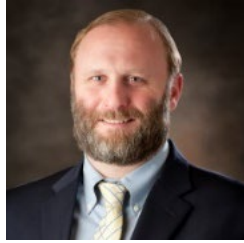
Green & Healthy Homes Initiative®

# Closing Remarks

# GHHI EPA Project Team



**Ruth Ann Norton**  
President + CEO



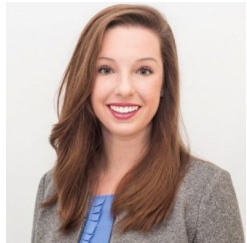
**Brendan Brown**  
Director of Research



**Michael McKnight**  
Senior VP of  
National Programs



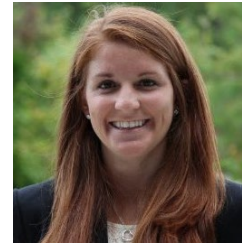
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# GHHI Asthma Resources

## Asthma Technical Assistance

- Personalized technical assistance offerings to support:
  - program development
  - strategic planning
  - service implementation
  - materials development
  - policy development and advocacy
  - grant writing and program funding

## GHHI Trainings

- Tailored sessions to support your organizations goals, needs, and level of expertise in:
  - Health in Energy Efficiency and Weatherization
  - Comprehensive Environmental Assessment

## Virtual Healthy Homes Toolkit

- Free resource to help adapt in-person healthy housing services to the virtual setting

## EMHOME Metrics

- Recommendations for evaluation metrics for asthma home visiting programs



# Feedback Survey