

Community Partnerships to Protect Children's Health

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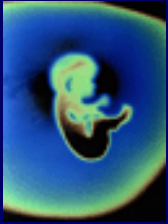
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Goals:

Participants will become aware of

- **Children's unique environmental vulnerabilities**
- **How EPA Region 5 works to build local capacity for CH, primarily in indoor environments**
- **Lessons learned from working in community partnerships to reduce environmental exposures in homes, schools and childcare facilities and be able to adapt them to improve CH**

Children Are Not Little Adults



**Windows of
Vulnerability in
Development**

**Differences in
Physiology**

**Differences in
Behaviors**



Children's Increased Vulnerability

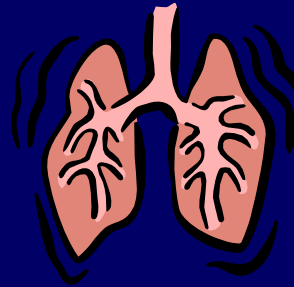
Main CEH Issues

EPA R5 Works On

- Lead poisoning prevention
- Healthy Learning Environments (*schools and childcare facilities*)
- Improved management of chemicals, including chemical disposals, especially in schools
- Environmental management of asthma triggers
- Diesel school bus retrofits / anti-idling campaigns
- Integrated pest management
- Healthy Homes
- Pollution prevention, including work with hospitals (*similar to H2E*)

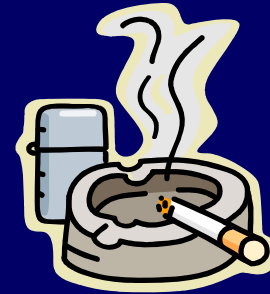
Major Indoor Pollutants

- Lead

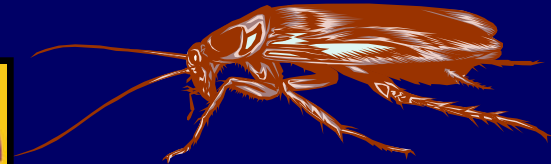


- Poor IAQ

- Asthma triggers
- Second-hand smoke
- VOC's
 - Cleaners
 - Fragrances
 - Off-gassing
- Products of incomplete combustion
- Mold



- Pests and pesticides



- Radon



- Mercury

Key Groups R5 Works With to Build Capacity for CH

- **Healthcare providers**
- **Public health professionals**
- **Educators**
- **School facilities managers**
- **Housing professionals**
 - **Code enforcement staff**
 - **Property managers**
 - **Real estate staff**

Examples of R5 CH Capacity Building Efforts

- **Increasing awareness**
- **Providing specialized training**
- **Providing technical assistance**
- **Sharing what others are doing; connecting**

Example: West Michigan CEH Pilot Project

- **Goal - to achieve a more holistic approach to children's environmental health through promotion and realization of healthier homes, childcare facilities, school environments and communities**
 - achieving early risk reductions
 - sustainability
 - replicability

Background

- **Many EPA R5 program resources go to support efforts to improve children's health, esp. home and school environments**
- **Efforts include leveraging resources of outside partnerships, with some of the same partners**
- **Request from R5 Senior Manager for geographically focused Children's Health Initiative**
 - **Pooling EPA resources in one place**
 - **Work on leveraging resources**

Anticipated Outcomes for CEH Collaboration

- **raise awareness of integrating CEH issues and resources**
- **achieve some early risk reductions**
- **become self-sustaining**
- **include participation and support from**
 - **public health and environmental agencies**
 - **local business and industry**
 - **community and advocacy groups**
- **be a replicable model to be shared across Region 5 and the nation**



West Michigan



- **Approximately 340,000 children**
- **Western Michigan has a long history of grass-roots and community based efforts to improve the environment**
- **Strong partnerships opportunities**
- **But our partners told us the area we had selected wasn't a community...**
 - **Started narrowing in on 2 general areas**
 - **Grand Rapids and Muskegon area**
 - **Kalamazoo and Battle Creek**
 - **Biggest “bang for our buck” came in the Grand Rapids area**

“Yours, Mine, Ours”

Approach in Support of CEH

- **“*Yours*”** - Partners agreed to continue individual activities
- **“*Mine*”** – Partners agreed to help EPA reach target audiences for various opportunities
- **“*Ours*”** - Partners agreed to act together, as appropriate

Healthier Housing

(selected EPA led activities)

- Training

- 55 public health professionals (with NCHH)
- 20 HUD field office staff
- 50 property owners, managers (with HUD and MAHMA)
- Lead education sessions *(followed press coverage of enforcement actions)*

- Hazard reductions - - commitments for

- Self-assessments
- On-going improvements

Asthma

(selected EPA led activities)

- Training
 - 450 Respiratory Therapists, asthma trigger training
 - 50 Public Health professionals, asthma training (with MDCH)
- Awarded grants (routine Indoor Air)
(WM limited geographic competition)

Grants Awarded

- Radon and ETS Assessment Project, to increase radon testing and ETS control in targeted households
- Accessing Systems to Help Manage Asthma (ASTHMA), to demonstrate difference in asthma morbidity in patients receiving in-home environmental education and interventions for their asthma
- Tribal Asthma / ETS grant, to assess for and reduce ETS and other asthma triggers in 15% of tribal homes

Note: Brought Tribal partner to the larger collaboration

Healthier Learning Environments

(selected EPA led)

- **Training**

- 111 Science Teachers (chemical management)
- 103 school facilities managers
- 45 school transportation managers (idle reduction / diesel retrofit)
- 132 childcare administrators / providers

- **Hazard Reductions**

- Each of 45 school districts installed at least one school bus diesel oxidation catalyst
- A total of 12,500 pounds of hazardous, outdated, or unnecessary laboratory chemicals was disposed by 82 schools
- 24 school districts completed Indoor Air Quality Tools for Schools walkthroughs and made commitments to make improvements

Partner-Led Activities

- **Kent County Health Dept, CEH training for 8500 families, WIC recertification (*CEH module will be taught every 5th quarter*)**
- **WM Asthma Network, CEH training @ Spectrum Health**
 - **Pediatric Residents**
 - **Emergency and Urgent Care employees**
- **Kent County Health Department**
 - **Successful competition for CDC Env Health Capacity-Building grant, CEH Healthy Homes project**
 - **FEMA grant for CO and smoke detectors**

Coalition-Led Activities

- **Radon awareness week, January 2007**
 - TV news spots on 3 channels
 - Requests for more than 300 radon testing kits
- **Successful submission CARE Level II grant, healthy homes CEH project**
- **Developed continuum indicators matrix**
- **Developed home assessment tool and referral system (*for in-home service providers*)**
- **Community charette for CEH planning**

True Community Collaboration

- **A very successful example of community collaboration between federal, state and local governments**
- **Includes participation and support from**
 - **community and advocacy groups, state and local public health and environmental agencies, and local business and industry**

True Community Collaboration

(cont'd)

- **Collective efforts to achieve results to improve children's environmental health in their communities**
 - **U.S. EPA CARE Level II grant**
 - **CDC/EPA model collaboration site**
 - **CDC Environmental Health Capacity Building Grant - Kent County Health Department**
 - **FEMA grant for CO & smoke detectors / Kent County Health Department**
 - **Long term strategic planning for CEH in Kent County ongoing**



EPA Lessons Learned

- EPA's definition of community is not necessarily the same as the community's definition
- Be flexible
- Be respectful
- Consider whether "wholesale" or "retail" approach is what's feasible
- Consider working with "grass tops" organizations

EPA Lessons Learned (*cont'd*)

- **Bundling training, technical assistance & hazard reduction activities through “Sector” approaches (HH, HLE) and focusing these opportunities on key stakeholders led to greater impacts than what would have been achieved through more traditional program-by-program approaches**
- **EPA’s presence and resources, including external facilitation and participation as an active partner in the community, was essential to the formation of the children’s health collaboration.**

EPA Lessons Learned (*cont'd*)

- State agency cooperation and buy-in by both management and staff was crucial for a successful geographically-targeted CEH project
- Cooperation and active participation of other Federal agencies, including US Department of Housing and Urban Development and Centers for Disease Control and Prevention, proved to be valuable to geographically-focused CEH activities.

Influencing Development of Sustainable Community CEH Collaboration

- **Not driving the bus**
 - External neutral party facilitation
- **Showing Up**
 - EPA participated at all the monthly partnership meetings in the first six months
 - Commitment to the collaboration-building process
- **Bringing something to the table**
 - Direct EPA outreach and educational activities in the West Michigan area concurrently with initial collaboration development

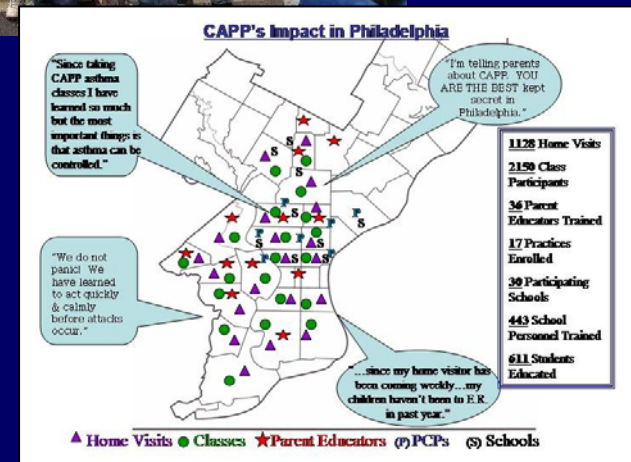
EPA not merely an outside convener, rather an active partner with a valuable, however limited, local presence and impact.

Critical Elements for a Geographically Focused CEH Project

- **Meaningful internal cooperation and sustained commitment**
- **Choice of an appropriate pilot location**
- **A significant amount of “Up-Front” work**
- **A mutual definition of “community**
- **Leadership from local partners, CHAMPIONS**
- **Recognition that EPA serves as the “Connector” or “Architect” but not the authority**
- **Timing is critical for maintaining the CEH collaboration and / or achieving sustainability, especially as relates to funding**

Example

Asthma Communities in Action



Example: Mobilizing Community Action to Address Asthma, From Alisa Smith, EPA HQ

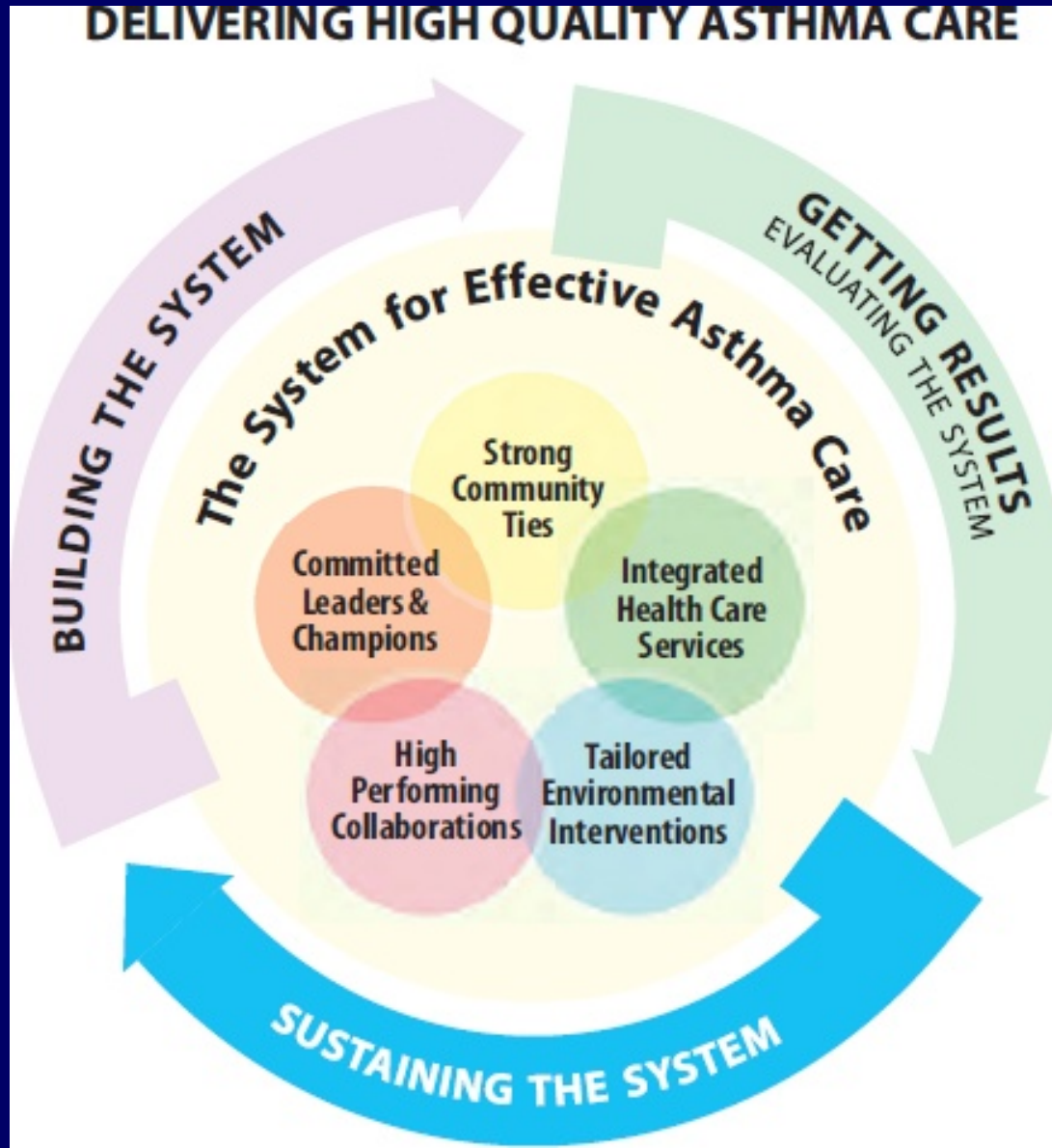
Communities in Action for Asthma-Friendly Environments

Key Drivers* of Successful Community-based asthma programs:

- Committed Leaders and Champions
- Strong Community Ties
- High Performing Collaborations
- Integrated Health Care Services
- Tailored Environmental Interventions

* *Communities in Action* Key Drivers are grounded in the results of the Asthma Health Outcomes Project, learn more at www.asthmacommunitynetwork.org

System Approach for Creating & Sustaining Effective Community Asthma Programs



Communities in Action: Boston MA has one of highest asthma rates in US

- Persistent racial and ethnic disparities in hospitalization and ED visit rates, esp. children under 5 and older adults**
- In a survey of MA schools, 5 Boston schools had 35% of students diagnosed with asthma**
- Some Boston neighborhoods have 5 times the national average hospitalization rates for asthma**
- Asthma diagnosis among Boston public housing residents is 21.9% compared to 10% of residents in affordable or market rate housing**
- Boston Public Housing Commission (BPHC) program directly serves about 150 Boston residents with asthma/year**

BPHC: System for Asthma Control

Building the System

- Seek Input from Your Community: Advocacy organizations urged the city to address asthma
- Be Data-Driven: Data confirmed citizen concerns
- Environmental Health Office received requests for asthma-related home inspections
- Hired program manager with a clinical and a community background
- Devoted inspectors time and equipment for home visits

Key Drivers of Program Effectiveness

- ✓ Effective Leaders & Champions
- ✓ Strong Community Ties
- ✓ High-Performing Collaborations
- ✓ Integrated Health Care Services
- ✓ Tailored Environmental Interventions

Sustaining / Resourcing the System

- External funds through CDC, HUD
- Inspector, inspection equipment and system built on Environmental Health Office functions
- Housing offices in Boston including Boston Housing Authority, Dept. of Neighborhood Development, Inspectional Services Dept.
- Sustainable funding through BPHC, 3 year grants for special activities from EPA and Kellogg Fdn.
- Maintain close collaboration with clinical and advocacy communities

Getting Results – Evaluating the System

Process Outcomes Goals/Measures:

Program Retention; Participant Satisfaction, Quality of Life; Number and location of referrals

Health Outcomes Goals/Measures:

Hospitalizations; Self-reported asthma severity; Symptom-free days

Environmental Outcome Goals/Measures

Reduction of in-home environmental asthma triggers

BPHC: Key Drivers of Program Effectiveness

✓ Effective Leaders & Champions

- Supported by a diverse group of high-level champions and supporters, including Pediatrician from the Boston Medical Center, the Boston Urban Asthma Coalition, the Committee for Boston Public Housing, Boston Public Health Commission and the Mayor

✓ Strong Community Ties

- Work closely with community partners on program design and address THEIR priorities
- Provide financial support to community partners!

✓ High-Performing Collaborations

- Partner with health care institutions, housing, advocacy and other city departments
- Address what is important to each partner
- Build on core functions of each partner

✓ Integrated Health Care Services

- Referrals from health center and hospital nurses and doctors and school nurses, conduct in-home education and inspection, provide low-cost supplies, provide reports back to clinicians
- Reflect Care Model and Socio-Ecological Model

✓ Tailored Environmental Interventions

- Clinicians report, client report, inspection and interview
- Some air quality monitoring, environmental sampling is too expensive

BPHC: Building the System

- **Collaborate to Build a System That Will Last: Channeled Community Advocacy into Action** (the “Perfect Storm”)
- **Recruit and Mobilize Partners (health, housing and advocacy)**
 - Emphasized “core functions” and community needs
 - Instituted sustainable policies
- **Needs-Based Planning: Develop Interventions Tailored to Community Needs**
 - Reflect priorities of partners
 - Responsive to expressed needs of the community
- **Ongoing Outreach to Providers & Staff**
 - Improve ease of referral system
 - Continually improve communication between partners
 - On-going education for providers and staff

Getting Results – Evaluating the System

- **Process Outcomes**
 - Evaluate recruitment, retention, and participant satisfaction
 - Use data to determine whether program is reaching the underserved
- **Health Outcomes**
 - Trained home visitors to collect self-reported health outcomes from clients on ER visits, hospitalizations, symptom days and QOL
 - Who asks the questions matters
- **Environmental Outcomes**
 - Self-reporting by clients is a reliable source of environmental outcome data
- **Using the Data**
 - With data and visibility came increased internal support

Tailored Environmental Interventions: IPM

- **Integrated pest management reduces pest infestation by eliminating sources of food, water, shelter and entry, thus decreasing the need for chemicals**
- **Requires involvement of pest control professionals, residents and housing management**
- **Professional Services consist of monitoring, trapping, blocking access, reducing harborage, multiple visits**

Outcomes

- **Statistically significant improvement in symptom days, medication use, lost sleep from asthma**
- **No significant difference in outcomes between low/moderate intensity interventions**
- **Participant report of asthma severity was consistent with severity indicators**
- **Participant report of pest infestations was consistent with dust analysis**

Sustaining / Resourcing the System

- **Major costs are staff and support for community partners**
- **Resource plan:**
 - **BPHC supports significant staff and program costs**
 - **Success at raising money**
 - **Maintaining strong partnerships/high level of trust**
 - **Demonstrated positive outcomes helped bring in funding**
 - **Leveraged funds from city departments, foundations, government**
- **Funding challenges and our solutions**
 - **Maintain a program of in-home education and low cost supplies**
 - **Raise external funds to support special initiatives with higher cost interventions**

BPHC: Lessons Learned

Building the System

- Build efforts around your core functions and work with partners on their key functions
- Find out what is important to your partners

Key Drivers of Program Effectiveness

- Broad based coalition creates visibility and partner investment
- External funders are interested in supporting real coalitions
- Institutions respond to good press and positive outcomes

Getting Results - Evaluating the System

- Include evaluation plan and evaluation team from day one
- Partners involved in defining evaluation measures and collecting data

Sustaining / Resourcing the System

- Build on core functions
- Maintain internal and external visibility
- Stay flexible and cutting edge

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SPOTLIGHT

Changing pO₂licy
The Elements for Improving Childhood Asthma Outcomes
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Resource Spotlight

Changing pO₂licy: The Elements for Improving Childhood Asthma Outcomes

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FROM THE BLOG

Transform a Bedroom - Transform a Life

drhealthyliving 6 Oct 2010 - 1:49pm 161 views

Call for Success Stories

kelly.reeves 22 Sep 2010 - 3:26pm 199 views

Community coalitions successfully improve asthma health

Upcoming Events

- OCT 16** ASHA Asthma Workshop
- NOV 03** 12th Annual ACCP Community Asthma and COPD Coalitions Symposium
- NOV 18** Healthy Homes/Healthy Communities Expo

[more events >](#)
[add your event >](#)

From The Discussion Forum

HUD has published its FY 2010 Asthma Notice of Funding Availability (NOFA)

rmriley
23 Sep 2010 - 3:14pm
110 views

MA Community Events

kali17tt
28 Aug 2010 - 4:31pm
158 views

asthma

New Resources

10/12/10
Linking Improvements in Health-Related Quality of Life to Reductions in Medicaid Costs Among Students Who

CARE Grants

Communities Protect Children's Health

- **CARE = Community Actions for a Renewed Environment**
- **Level I: Organizing / planning / prioritizing grants for about \$100K**
- **Level II: Implementation grants for about \$300K**

www.epa.gov/care

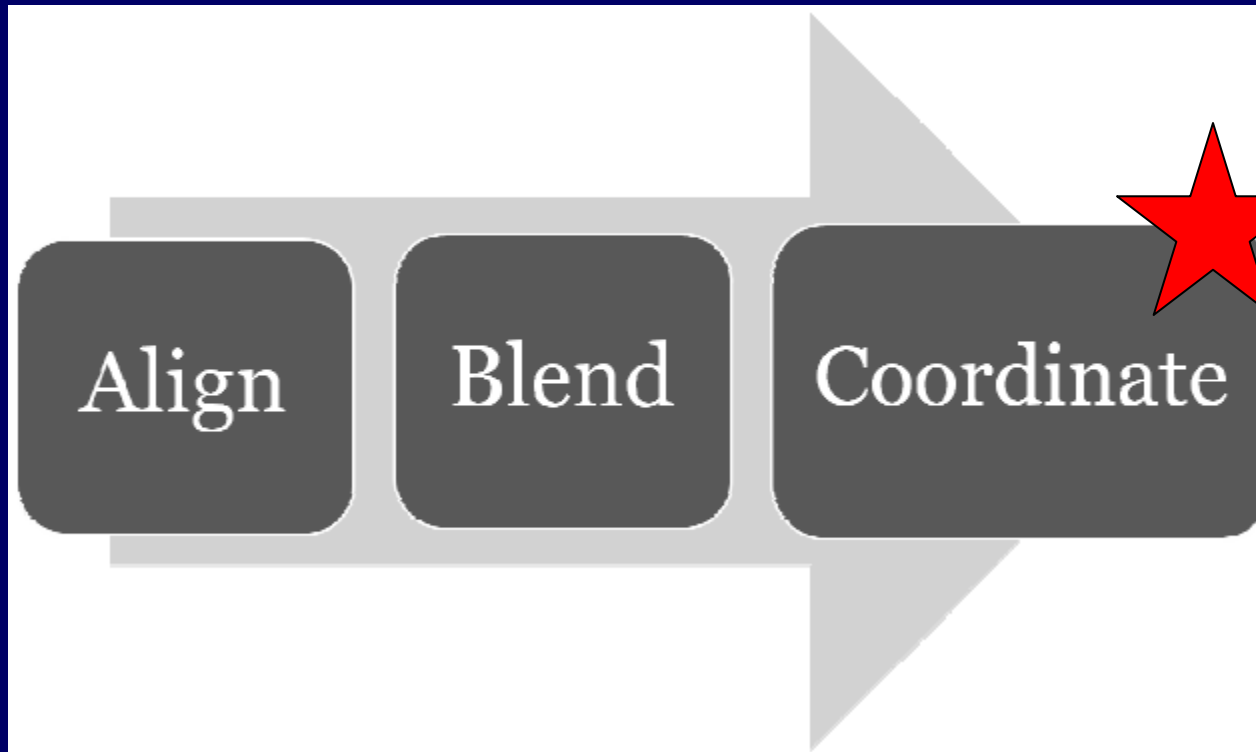
**Green and Healthy Homes
Initiatives (GHHI)
Communities Protecting
Children's Health**

<http://www.greenandhealthyhomes.org/>

Public / Private Partnerships to GHHI to

- **Break the link between unhealthy housing and sick children**
- **Replace stand-alone programs (weatherization, lead hazard control, fire safety, etc.) with a comprehensive strategy to enable/ensure a national healthy housing standard**
- **Create feasibility for low and middle income communities**
- **Reduce inefficiencies under current system by reducing number of programs and contractors required to complete multiple interventions in a single home**
- **Reduce barriers to intergovernmental coordination**
- **Reduce potential unsafe work practices in weatherization and energy efficiency interventions that could generate lead hazards**

GHHI Strategy



Partnerships on Purpose

“Coordinate”

- **Asset Map Resources/Tools**
- **Fill Gaps Strategically**
- **Create a Single Portal and Shared Data platform**
- **Learning Networks**
- **Spread the Wealth and the Concept**
- **Integrated Training**
- **Increase Efficiencies, Reduce Time and Costs**

Baltimore GHHI Example

- **Clear efficiencies and cost savings realized when weatherization and energy efficiency interventions are coupled with HH and & lead hazard reduction**
- **Key Progress – Policy and Practice Changes Resulting in Integration of Health Interventions into Energy Efficiency and Weatherization Interventions**
- **GHHI approach addressing health and safety hazards resulting in increased Wx assistance enrollment**
- **Increased Contractor Skills and Expanded Green Job Opportunities**

Common Elements for Success

- **Passion for improving children's health**
- **Key champions**
- **Strong collaboration, that includes more than just the usual "suspects"**
- **Mutual definition of "community"**
- **Do your homework**

Common Elements for Success

- **Share leadership and agree early on how decisions will be made (document)**
- **Be adept at sharing, borrowing, “stealing” shamelessly - - no use re-inventing the wheel**
- **Flexibility (priorities, financing, other)**
- **Things always take longer than you think they’ll take....be prepared**

Region 5 Center for Children's Environmental Health

866-967-7337, 312-864-5526

- **Co-funded by EPA and ATSDR**
- **Serves as a Regional resource to:**
 - **evaluate, treat and prevent environmental illness in children**
 - **train pediatricians and others in environmental health issues**
 - **promote children's environmental health in communities**

Satellite: Cincinnati Children's Hospital & Medical Center

OH: (513) 803-3688

Please feel free to contact me for more information, or to suggest ways we may be able to partner in activities that will have a positive impact on children's health

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We MUST Make This Work !

