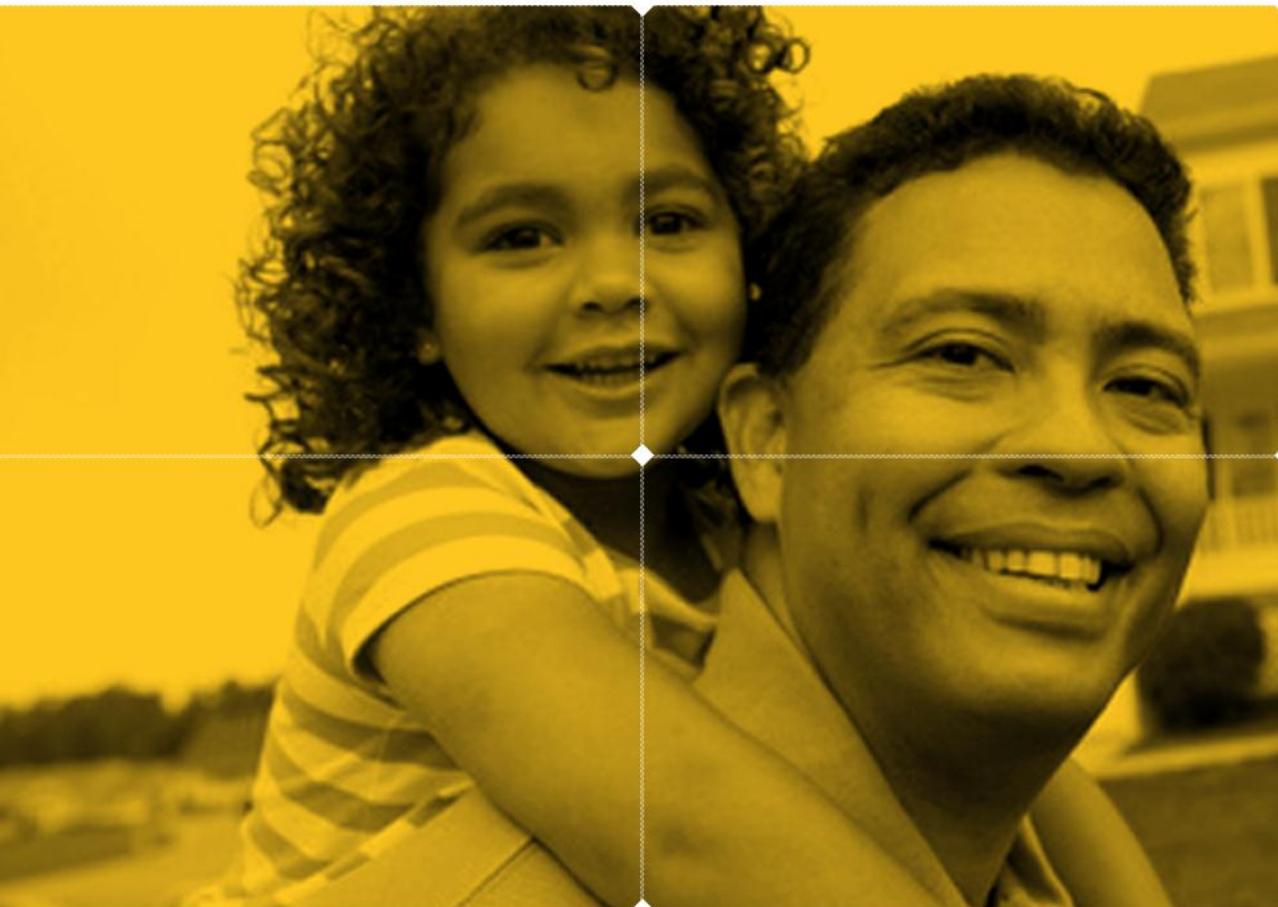




Weatherization Plus Health

Lynne Page Snyder
NASCSPP Healthy Homes Initiative



*Making connections
for healthier, more
energy efficient homes*





Weatherization Assistance Program

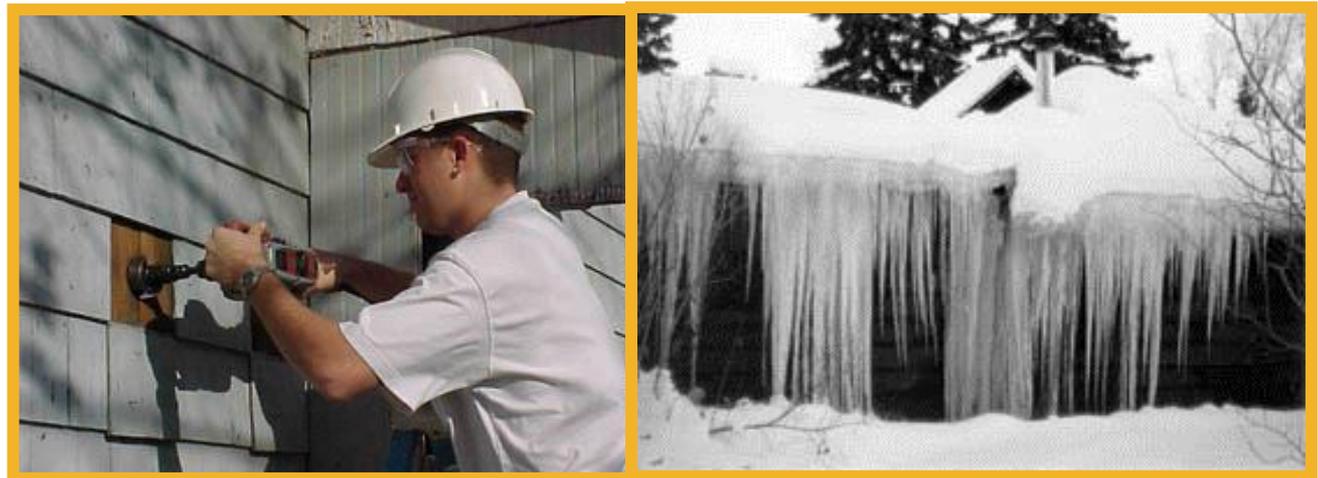
National Association for State Community Services Programs: Administrators of the Department of Energy Weatherization Assistance Program (WAP) and the Department of Health and Human Services Community Services Block Grant (CSBG)

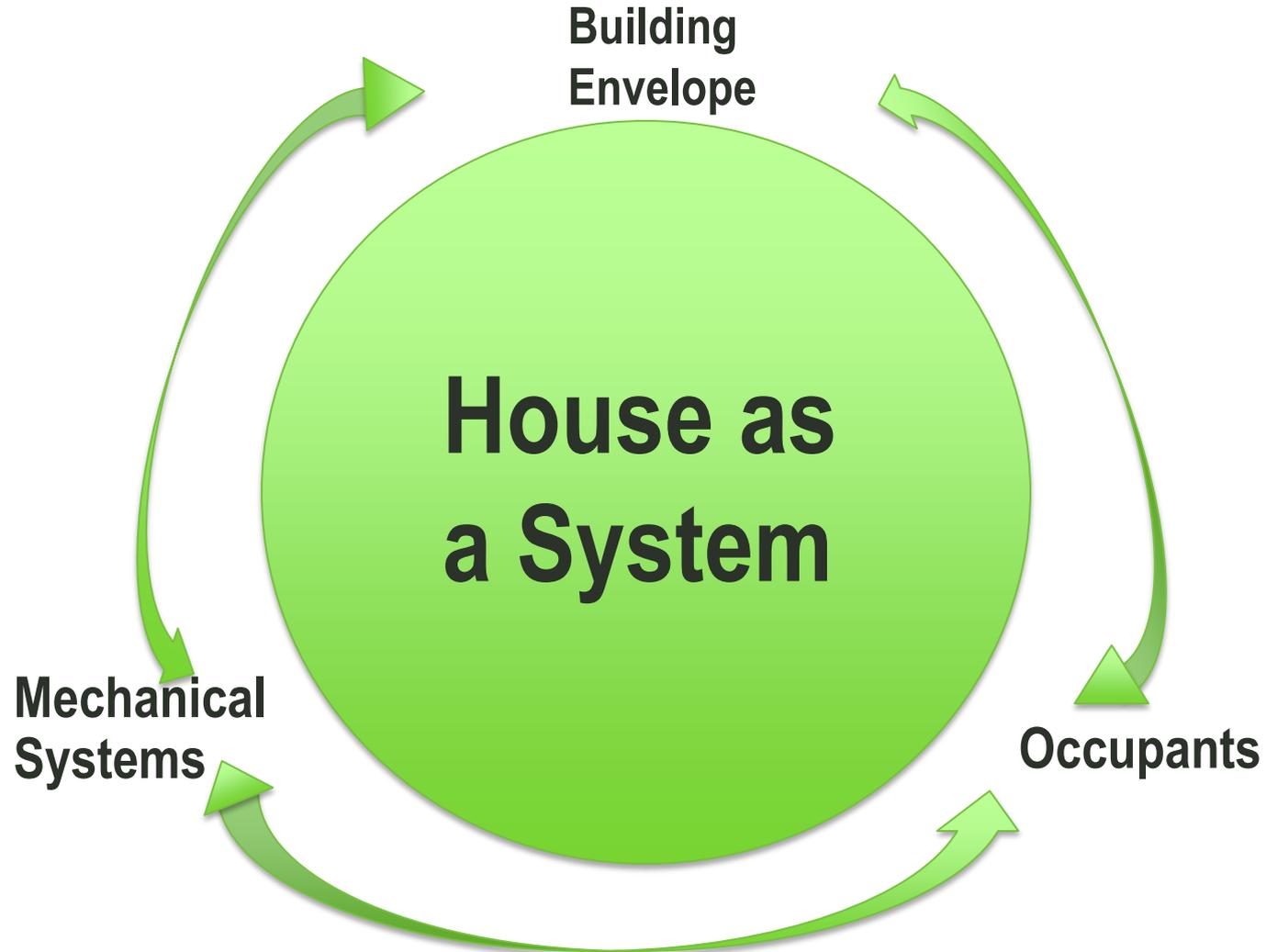
- Supports the WAP and CSBG Network with information about best practices, new programs, resources, and anti-poverty tools.
- Manages the WAPTAC website (www.waptac.org), a virtual library of WAP rules, regulations, policies and procedures, best practices, and much more.
- Collects national data documenting the CSBG Network.
- Provides training and technical assistance to States and local agencies in data collection, management, and performance evaluation.



Reduce energy costs for low-income families, particularly for the elderly, people with disabilities, and children, while **ensuring their health and safety**

- U.S. Department of Energy program created in 1976 to assist low-income families
- Operated in all 50 states, DC, Native American tribes, and U.S. Territories





Energy Conservation

- Air sealing, attic & wall insulation, furnace repair/replacement, electric base load reduction (lighting, appliances), window & door weatherization
- Performance metric: return on investment (SIR) for energy efficiency
- Up to \$6,500 per dwelling (2009+), additional \$\$ for health and safety (varies by state)

Who's Eligible

- Income: 150% --200% federal poverty; higher under ARRA
- Home-owners and renters (landlord agreement)
- Not entitlement; priority to lowest incomes/highest energy bills, households with elders with disability (age 60+) or child (<=5 yrs)

Intake/Admin: State housing, economic development, or human services department → Community Action Agency subgrantees for outreach, intake, program operations

Source	FY2010 \$\$, in millions	% of Total \$\$	# of Homes Weatherized
WAP/DOE	\$175.6	18.3%	61,156
LIHEAP/HHS	\$571.1	59.6%	61,926
Other (Utility, Regional Greenhouse Gas Initiatives, State)	\$211.2	22.1%	20,110
Total	\$957.6	100.0%	143,192

ARRA (Recovery Act)	\$\$, in millions	# of Homes Weatherized
April 2009-March 2012	\$4,746.2	590,194 target

Steps to Weatherize A Home

- Intake
- Subgrantee (Community Action Agency) sends auditor to home, conducts computerized energy audit/priority list to identify most cost-effective energy conservation measures, prepare work order
- Crew/contractor completes work order
- Final inspection to check quality & completeness

State Health & Safety Plan --Example

- Combustion appliances check (carbon monoxide, fire hazard)
- OSHA worker protection
- Lead-Safe Work Practices



Health & Safety In Weatherization

- Housing as a vehicle to
 - prevent disease, injury, and premature death
 - close gaps in health disparities among groups defined by ethnicity, race, and class
 - promote health
- Evidence links substandard housing to adverse outcomes, for example, asthma, lead poisoning, unintentional injuries.
- Healthy homes practices during retrofit, renovation, and new construction have potential to promote the growth and development of children, save on health care costs.
- Childhood lead poisoning prevention (CDC), asthma prevention (CDC), radon mitigation (EPA), home repair (HUD), and more

Advanced diagnostics (ie, blower door technology) bring focus on air sealing & indoor air quality

Weatherization can protect & promote health:

- Insulation & tightening of building envelope lowers indoor humidity (condensation) & maintains indoor temp
- Heater repair/replacement maintains indoor warmth
- Combustion safety prevents CO exposure
- Adequate ventilation minimizes back drafting, exposure to chemicals and pollutants
- More efficient use of energy lowers fuel bills, making energy more affordable
- Warmer dwelling, more affordable energy makes use of oven/stove for heat less likely, lowering nitrogen dioxide exposure

Outcomes: improved physical & mental health, reduced respiratory symptoms & illness, fewer school/work days missed, lower health care utilization (Howden-Chapman et al., 2007; Manuel, 2011; Thomson et al., 2009)



Constraints on WAP:

- Federal mandate is energy efficiency, metrics = Energy savings, Energy savings per dollar invested

Criteria for H & S:

- Eliminate hazard(s) before, or as result, of WAP installation
- H&S spending limited (% average dwelling unit costs)
- Beyond scope: remediate lead and mold, other IAQ issues, major electrical and plumbing, most structural and non-energy related H&S

What happens?

- Deferral until problem(s) resolved → no receipt of WAP or H&S
- WAP Network wants and needs additional partnerships to address

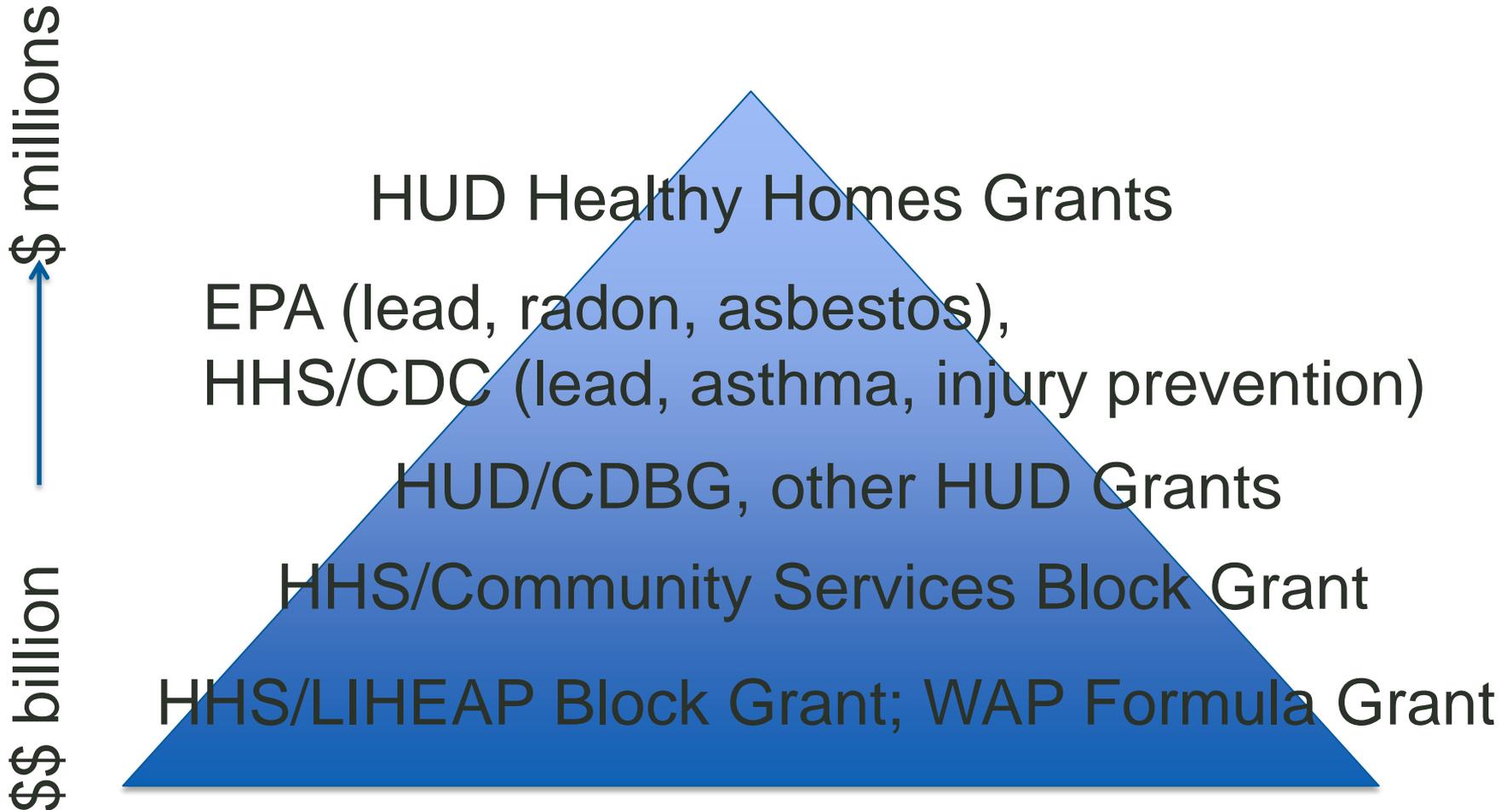


- Updates and clarifies requirements, measures allowed, and those not allowed, in addressing H&S
- Describes most common issues encountered during weatherization
- Guides Grantees in creating H&S plans; once approved by DOE, guides work of WAP sub-grantees
- Likely expand H&S scope in most states

Issues
Replacements
Asbestos
Codes & structures
OSHA for WAP
Lead-based paint
Moisture & mold
Radon
ASHRAE 62.2
Combustion appliance & heating systems safety
Occupant wellness

Typically defined by seven principles. Homes should be:

- **Dry** (exterior drainage, condensation, plumbing leaks)
- **Clean** (allergens, asthma triggers, lead paint dust, cleaners)
- **Ventilated** (combustion byproducts, volatile organics, ETS)
- **Pest-Free** (integrated pest management)
- **Safe** (falls, poisonings, electrical wiring hazards, firearms, drowning)
- **Contaminant-Free** (lead paint, asbestos, radon; see ventilation above)
- **Maintained**





Weatherization Plus Health

Voluntary initiative sponsored by DOE to enable the comprehensive, strategic coordination of resources for energy, health, and safety in low-income homes

- Facilitate strong, effective partnerships between WAP and Healthy Homes programs
- WAP network accesses hundreds of thousands of low-income homes across the United States annually

Outcome: enhanced collaboration among public agencies and private organizations, yielding safer and more energy efficient homes, lower home energy costs, and healthier families



Weatherization Plus Health: Regional Conferences

MAY 23-25

Portland, Maine

AUGUST 24-26

Bozeman, Montana

SEPTEMBER 13-15

Atlanta, Georgia

OCTOBER 4-6

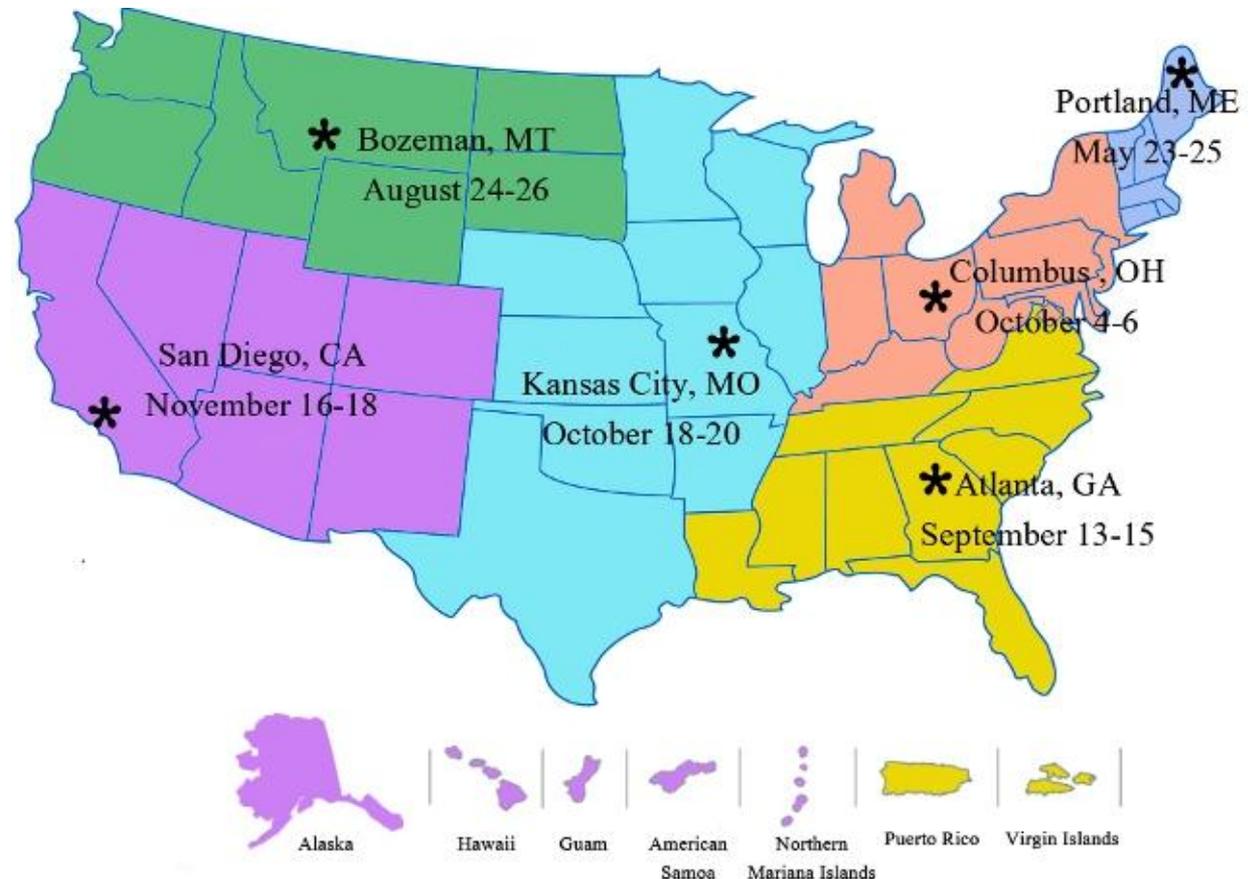
Columbus, Ohio

OCTOBER 18-20

Kansas City, Missouri

NOVEMBER 16-18

San Diego, California

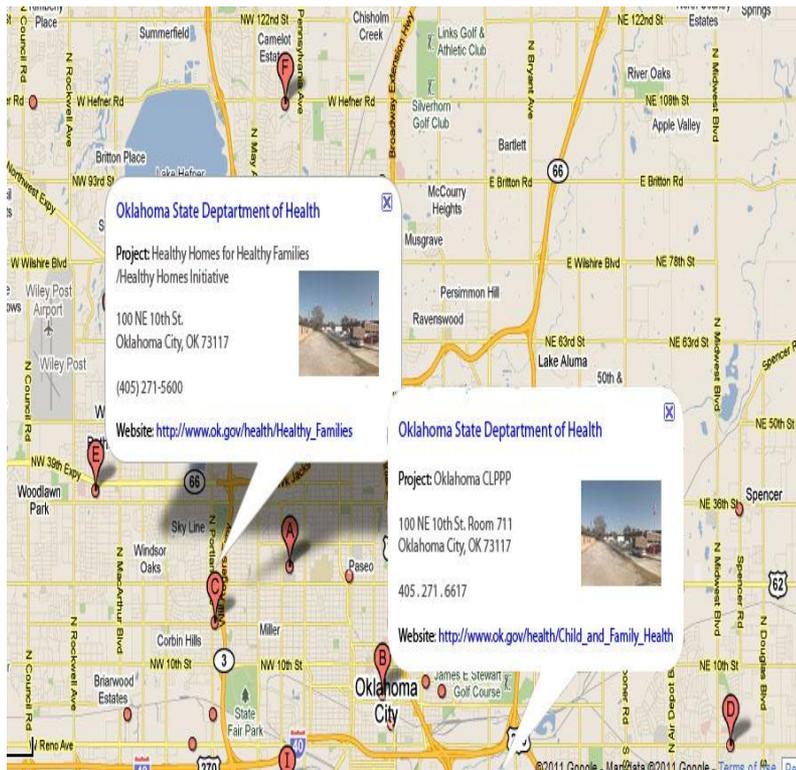


Connect organizations, cross-train at introductory level (Intro to WAP for Healthy Homes practitioners, Intro to Healthy Homes for WAP), identify best practices, and facilitate strategic planning at state and local level



Best Practices Highlighted:

- **WAP:** Opportunity Council's Weatherization Plus Health (WA).
- **Health Dept:** NH Healthy Homes & Lead Poisoning Prevention's One Touch Project
- **Utility/Ratepayer Weatherization:** CT Efficient Healthy Homes Initiative
- **Green & Healthy Homes Initiative**
- **Indoor Air Quality:** Maine Housing (radon pilot)



- Public website will map WAP and healthy homes programs nationwide, training opportunities, inventory of healthy homes projects funded by HUD, EPA, and CDC, including detailed GIS data on provider location
- Searchable online
- To be hosted at www.waptac.org

Development of a Referral System

NASCSP will disseminate information on best practices for an ideal referral process for the WAP and HH partnerships.

Training & Technical Assistance

NASCSP will research and provide a report on available training, certification, or accreditation programs.

Reports on Healthy Homes Infrastructure in every state and territory:

- HHI and WAP programs, by location and type of service.
- Best practices and models for establishing and strengthening relationships with WAP and CSBG Networks.
- A national report will summarize trends and recommendations.

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