Health-Sector Funding for In-Home Energy Efficiency Programs

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This guidance document is part of a series of materials developed by ACEEE in 2021 for a network of program administrators exploring opportunities to incorporate health into energy efficiency programs. For more information, contact Christine Gerbode (Health and Environment program; cgerbode@aceee.org.)

This document is intended to provide energy efficiency program administrators guidance on how to identify and pursue health-related funding and resources.1 It aims to help administrators answer these questions:

- What funding opportunities and resources are available to our program?
- How can our program lay groundwork to obtain health-sector funding and resources?

We include examples of programs that have successfully used health-sector funds to deliver in-home programs and resources, with more information at the end.

WHAT FUNDING OPPORTUNITIES AND RESOURCES ARE AVAILABLE TO OUR PROGRAM?

Funding opportunities will vary across different states and localities. Some funding sources may target specific types of health harms or illnesses. Eligibility for funding may depend on what services a program offers or whether it can demonstrate that it effectively mitigates specific health harms. Funding may be offered by state or regional agencies and/or private and nonprofit organizations seeking to meet unique regional needs. Some general categories of funding that are widely available include the following:

Federal Health Care Funding. Mechanisms within national health services payment programs including Medicaid, Medicare, and the State Children's Health Insurance Program can be used to provide in-home services. Several programs and initiatives have demonstrated the use of such funds for energy efficiency services or for in-home services with the potential to affect health.

Funding opportunity	Example of how used
Medicaid: State-run Medicaid providers can reimburse programs for in-home services and provide upfront funding for energy efficiency programs. Amount available is negotiated on a case-by-case basis.	NYSERDA's Value-Based Payment Healthy Homes program is designed to be reimbursed with Medicaid funds for services provided, including weatherization and other in-home health, safety, and energy measures.
	IMPACT DC Asthma Clinic and associated programs receive some direct up-front support from a local Managed Care Organization (MCO) for providing home-based services that reduce the need for costly asthma care among the MCO's service population.
Children's Health Insurance Program Health Services Initiative (HSI): More than $950 million available nationwide; amount varies by state based on federally allocated budget. Funds can be used to support interventions that impact health.	Maryland and Michigan have used HSI funds to support lead remediation and/or in-home environmental case management for reducing asthma triggers.

Federal Grant Funding. Programs meant to support housing improvements and related community development funding—such as the lead and healthy homes remediation grants offered through the Department of Housing and Urban

Development (HUD)—can support energy efficiency programs and initiatives. States and localities that receive these grants may already have the flexibility to use funds in this way.

Funding opportunity	Example of how used
Office of Lead Hazard Control and Healthy Housing Grants (OLHCHH): Over $300 million total is awarded as renewable grants yearly. Grants can be used for up to five years. Funds support lead remediation and healthy housing improvements.	In Rhode Island, the Green and Healthy Homes Initiative (GHHI) has developed a set of partnerships that enable the use of HUD lead grant funds with funds from the federal Weatherization Assistance Program (WAP), Community Development Block Grant, local utilities, legal settlement grants, and other local sources.
National Asthma Control Program: These five-year grants use variable funding scaled to population ($100,000–800,000/year/state). $70 million total is awarded. Grants support asthma mitigation.	The Montana Asthma Control Program supports in-home asthma education and nurse visits, and referrals to services including weatherization and other housing improvements.

Hospitals, Clinics, and Other Health Service Providers. Preventive approaches to protecting public health are an increasingly preferred strategy by doctors and other health professionals. Hospitals and other healthcare providers may invest resources, such as grants, to deliver preventive in-home services.

Funding opportunity	Example of how used
Private Insurance: This may take the form of support via a philanthropic arm of an insurance corporation.	Blue Cross Blue Shield of North Carolina's philanthropic arm supports a Healthy Homes Initiative coordinated by the North Carolina Community Action Association that serves homes in need of serious remediation prior to weatherization.
Hospital Community Benefit Funds: To retain nonprofit status, hospitals must allocate a percentage of their spending towards addressing community needs. Some have allocated these funds to support in-home residential services.	Yale New Haven Hospital supported a Connecticut program that offered home assessments and referrals for remediation of lead and other health-related housing factors.

Other Sources. A diverse array of other potential funding sources may exist at the state and local level, based on locally relevant laws and funding initiatives. This potentially includes city-, county-, or state-level community development funding, private or nonprofit philanthropic grants and initiatives, or even lawsuit settlement funds meant to be used to benefit a particular region or to mitigate a particular type of health harm. Energy efficiency measures and complementary retrofits can collectively impact a wide range of health issues and health determinants, opening the door to braiding financial support aimed at a range of illnesses, housing-related health and safety risks, and socioeconomic issues. Local and state-specific funding to mitigate these broad issues, as well as various local private-sector and philanthropic sources of funding, may be options worth exploring.

Funding opportunity	Example of how used
State and Local Government Support: Opportunities vary, but may include state-, county-, or city-level initiatives to fund public health and community development programs.	The State of Washington's Weatherization Plus Health (Wx+H) pilot work supported a range of coordinated services, including comprehensive in-home repairs, cross-program referrals, and community health worker visits. The Wx + H Initiative was first funded by the Washington state legislature in 2015.
Private Spending and Philanthropy: Opportunities vary, but may include corporate sponsorship and nonprofit grants that support work to improve housing-related health issues or reduce energy efficiency program deferrals.	From 2015 to 2017, Duke Energy funded a Helping Home Fund in North Carolina. This program supported health-related in-home services coordinated with WAP and other energy efficiency retrofit funds, administered through the North Carolina Community Action Association.

HOW CAN OUR PROGRAM LAY GROUNDWORK TO OBTAIN HEALTH-SECTOR FUNDING AND RESOURCES?

The types of funding streams and coordination opportunities available are diverse; they range from targeted grants accessed through a direct application process to reimbursement funds that might be available through state-level administrative action or through cooperation with specific types of government, nonprofit, and/or private-sector partners. Given this range and the uniqueness of any local context, there are many potential paths to health-sector funding for energy efficiency programs.

Health-related funding might flow directly to your program via grants, contractual payments, or reimbursements for services. Other types of support might include cooperative arrangements, technical assistance, mutual referrals, or other administrative coordination between providers that offset expenses for energy efficiency programs. Table 1 below lists some of the ways health-sector resources have been used to support energy efficiency programs.

Table 1. Potential uses for health-related funding

Potential use	Description
Home assessment	An initial visit or series of visits to understand the current state of housing or resident health and identify opportunities for remediation or improvements
Relationship management	Communication with program participants and partners, along with some aspects of program administration
Education and training	Encompasses health- or energy-related education for program participants, contractors, or others who will carry out program work
Labor and materials	Materials and labor to alter the home environment and/or remediate in-home hazards
Impact assessment	Post-work evaluation of changes to housing conditions or changes in resident health and well-being

The following are concrete steps for getting started.

Step 1. Identify the potential funding types available to your program. Conduct preliminary research to identify what funds might be available to your program, whether from national or more local sources. Does your state have unused Children's Health Insurance Program administrative funds that could be put toward a Health Services Initiative? Do any of the Medicaid managed care organizations in your service area have experience with (or interest in) piloting innovative reimbursement mechanisms or contract arrangements? Is a local hospital open to partnerships to address relevant needs identified in its latest community health needs assessment? Is there a health or community aid foundation operating in your area that might be interested in supporting a preventive health program or offering grants for work related to addressing social determinants of health?

Some considerations to help identify whether an opportunity is appropriate for your program:

- What types of activities can the funding support? Do these align with your program's funding needs?
- Does (or could) your program meet any specific needs for which the funding opportunity is intended—whether addressing a target set of health issues, serving a specific population, or other performance requirements?
- Does your program have sufficient administrative resources to manage new levels of coordination or reporting required by the opportunity?
- Are key local or state agencies open to working to develop and submit any needed applications, or take any administrative actions needed to access this type of funding?

Step 2. Build relationships with health-focused organizations. Developing relationships with organizations in your service area focused on remediating housing-related health harms and/or city/county health issues can help you learn what local health needs exist and what other groups or resources might be available to support cross-sector initiatives to address these needs. As you make contact with new organizations, try to identify at least one regular point of contact—ideally someone with a genuine interest in supporting the kind of collaborative work you hope to advance. Health-sector advocates can help energy partners navigate complex health systems and decisions; they can also champion programs within their institutions and networks and can help program advocates "speak the language" of health-focused audiences.

Step 3. Develop a health-based value proposition for your program. Pursuing funding from another sector requires the ability to speak in terms that will resonate with those audiences. Three ingredients can help programs develop a health-based value proposition.

First, understand your audience and speak their language. Invest in understanding the motivations, decision-making process, and vocabulary of both your potential health-sector partners and potential funders. Taking time to understand the goals, strengths, and limitations of potential partners can help you establish a shared vision of how a collaborative health and energy program might function. Understanding potential funders may help you craft more compelling arguments for their support. For example, you might build your pitches and application narratives using a framing focused on access to in-home services that address social determinants of health rather than leading with the energy efficiency services your program provides.

Second, document the health-related benefits that are (or could be) provided by your program. For more information on what kinds of impacts you might measure, as well as considerations for collecting health-related impact data, see the companion guidance in this series on measuring health impacts. Similarly, monetizing a program's health benefits can demonstrate—to hospitals, managed care organizations, public health departments, and insurers—that an investment in the program will generate positive public health results at a lower cost than reactive health care (i.e., emergency room visits).

Third, identify and present examples of how programs similar to yours have successfully leveraged funding or partnered in similar ways. This can help reassure your target partner or funder that the collaboration you are proposing is realistically achievable.

Step 4. Seek opportunities to reduce costs through shared program administration. Funding might be available in the form of resources and support that reduce or offset the cost of program administration. For example, programs that coordinate resources to target different health harms or housing conditions could combine the funding available to separate initiatives to reduce individual program costs and serve more participants. Many programs will share similar core administrative elements (see Figure 1). Programs are already providing lessons and collecting evidence as to how these efficiencies can best be achieved: See case studies in the later section of this document; watch also for outcomes from recent coordination grants.[2]

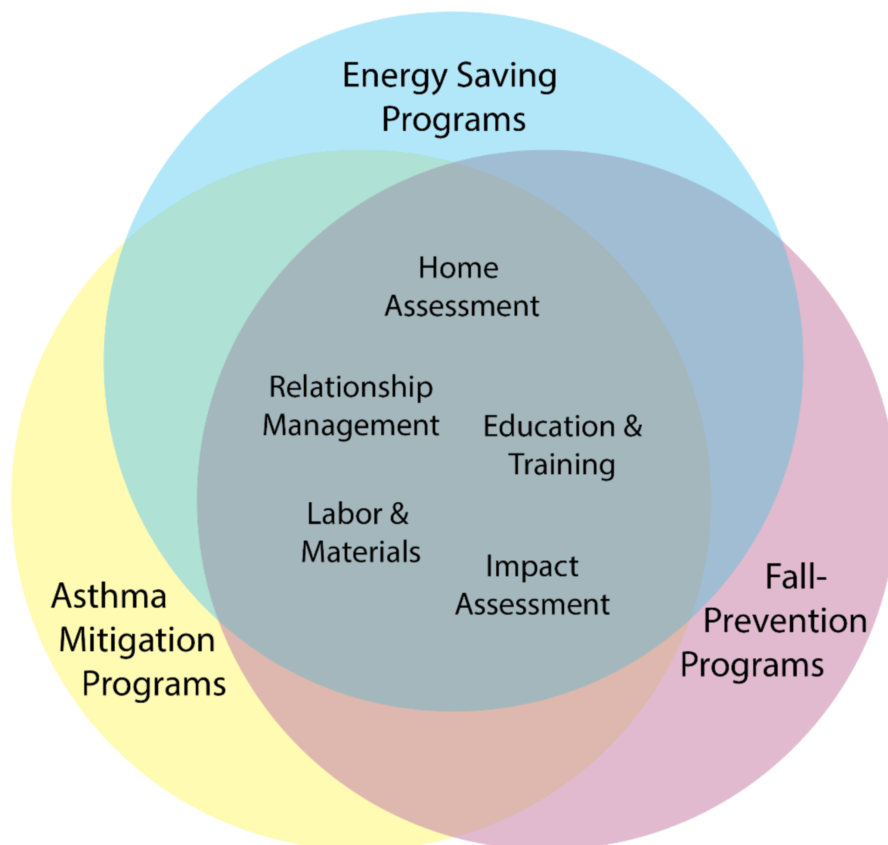

Figure 1. Elements common to different types of in-home programs (Hayes and Gerbode 2020[3]).

Step 5. Offer services that maximize health benefits. Although many standard energy-saving interventions positively impact health, incorporating program design elements that maximize health benefits can better position programs to obtain health-focused funds. For example, air sealing and insulation, which are standard energy-saving measures, can reduce exposure to common asthma triggers such as pests and drafts. By incorporating a few additional services—such as in-home asthma-trigger education, identification, and/or mitigation—a program can more holistically address asthma triggers and will be better positioned to obtain asthma-based funding. Programs can begin to assess these opportunities by identifying the public health needs of the communities they serve and/or estimating the monetary impact of providing services that avoid health care costs.[4]

Step 6. Promote equitable outcomes. Some communities lack access to safe and healthy housing; they experience higher rates of preventable disease and injury, greater exposures to environmental harms, higher energy costs, and greater exposure to climate threats. Risk factors for severe asthma include poverty, local air pollution levels, and the inability to maintain sufficient health insurance coverage.[5] These risk factors are disproportionately borne by black communities and other communities of color compared to the U.S. population as a whole.[6] Disproportionate health harms and inequitable exposures to environmental and housing risks are likely already on the radar of health-sector actors serving these communities. The problems are known, but most hospitals and other health service providers do not have ready solutions. Energy-saving programs designed to target these risk factors and health harms will be preventively addressing health needs in new ways and helping healthcare providers meet patient needs. By providing preventive services to hard-to-reach and overburdened communities, programs will be positioned to partner with health-sector actors and seek health-sector funding.

Step 7. Start small now. Even small actions—like adding health-related questions to an energy audit or identifying the leading cause of health- and safety-related deferrals during the intake process—can help demonstrate your commitment to home health and illuminate your program's potential for positive health impacts. Similarly, a partnership with a health provider who refers patients to your program may not require additional direct funding; but by establishing this trusted relationship and learning to more effectively meet health needs, future partnerships, funding, and benefits may be possible.

Case Study/Program Spotlights

The programs below have used health-sector funding sources to incorporate health-related services into home health programs. We include hyperlinks to more detailed information on each program.

CHIP Health Services Initiative Funding: Maryland Lead and In-Home Environmental Assessment. In 2017, Maryland funded two programs through a Health Services Initiative (HSI) focused on assessment and remediation of conditions impacting home health: Healthy Homes for Healthy Kids and Childhood Lead Poisoning Prevention and Environmental Case Management. The programs offer testing and remediation for lead in the home. Environmental hazard assessments and asthma management and education are also offered. The programs fund a home assessment and a variety of supplies to address environmental hazards, among other issues. This example illustrates a program model where CHIP HSI funds can be braided with energy-saving program services to offset program costs, expand services, and mitigate pre-existing housing conditions. Program description.

National Asthma Control Program Support: Montana Asthma Control Program. Montana's Department of Public Health and Human Services coordinates state-wide asthma work using federal grant funds available through the National Asthma Control Program (NACP) and administered by the Montana Asthma Control Program (MACP). In 2010, the MACP initiated the Montana Asthma Home Visiting Program (MAP), a holistic in-home program. MAP involves regular home visits by a nurse over the course of a year, with advice and education on a variety of asthma-related topics and interventions. Following an evaluation of the program's pilot versions in 2015, nurses were given a list of service providers and programs to refer patients to, including weatherization programs providing assistance both nationally and locally. This case demonstrates that the public health infrastructures supported by NACP funding can be used to leverage health partners for program marketing and outreach, identify target households, and obtain referrals. Program description.

Lead Remediation Funding: GHHI Rhode Island. The Green and Healthy Homes Initiative (GHHI) has developed a set of partnerships that use federal funds made available through Lead Hazard Control and Healthy Housing Grants in coordination with a broad range of healthy homes service providers and funding sources. These include WAP-funded weatherization agencies and various sources of community development funding that help reduce program deferrals by paying for health-related repairs in homes that need the most work. The program includes partnerships with academic institutions to document health and educational outcomes for participants. This case showcases the blending of HUD lead remediation funding with a range of weatherization and community development sources. Program description

Medical System and Local Community Development Funding: Healthy Homes Vermont. In 2016, NeighborWorks of Western Vermont developed collaborative programming to link energy efficiency incentives from Efficiency VT—the statewide energy efficiency program implementer—with existing in-home asthma care programming from Rutland Regional Medical Center. This case demonstrates the potential value of linking existing program work (and thereby, funding) from a medical source to complementary healthy homes and energy interventions. The collaborative program also drew on WAP and other community development funding. Program evaluation and report

Additional Reading and Resources

Report on funding social determinants of health (SDOH) interventions through MCO contracts and 1115 waivers

- ACAP (Association for Community Affiliated Plans) and CHCS (Center for Health Care Strategies). 2018. *Addressing Social Determinants of Health via Medicaid Managed Care Contracts and Section 1115 Demonstrations*. Washington, DC: ACAP. www.chcs.org/media/Addressing-SDOH-Medicaid-Contracts-1115-Demonstrations-121118.pdf.

Toolkit on developing a value proposition (free AsthmaCommunityNetwork.org login required)

- Asthma Community Network. 2020. “Value Proposition.” Accessed March 4. www.asthmacommunitynetwork.org/resources/valueproposition

National Center for Healthy Housing (NCHH) healthcare funding case studies and resource links

- Malcarney, M.B., K. Horton, A. Reddy, L. Fudala, and K. Korfmacher. 2016. *Case Studies in Healthcare Financing of Healthy Homes Services*. Washington, DC: NCHH. nchh.org/tools-and-data/financing-and-funding/demystifying-healthcare-financing/case-studies-in-healthcare-financing/
- NCHH. 2020. “Healthcare Financing of Healthy Homes.” Accessed March 4. nchh.org/tools-and-data/financing-and-funding/healthcare-financing/

Resource page from CHCS on cross-sector partnerships for SDOH/health

- CHCS. 2020.“Cross-Sector Alignment.” Accessed March 4. www.chcs.org/topics/cross-sector-alignment/

Vermont Energy Investment Corporation (VEIC) Energy-Plus-Health Playbook

- Levin, E., L. Curry, and L. Capps. 2019. *Energy-Plus-Health Playbook*. Winooski, VT: VEIC. www.veic.org/resource-library/energy-plus-health-playbook

Excerpts from Centers for Disease Control and Prevention (CDC) Practical Playbook on multisector partnerships for health

- McKnight, M., and R. A. Norton. 2019. “Capitalizing on the Health Impacts of Improving Housing Conditions." *The Practical Playbook II: Building Multisector Partnerships That Work*, edited by J. L. Michener, B. C. Castrucci, D. W. Bradley, E. L. Hunter, C. W. Thomas, C. Patterson, and E. Corcoran, 35-46. New York: Oxford University Press. www.practicalplaybook.org/page/capitalizing-health-impacts-improving-housing-conditions

Brookings Institution report on obstacles to braiding funding for social objectives generally, including discussion of issues related to using Medicaid for healthy housing purposes

- Butler, S., T. Higashi, and M. Cabello. 2020. *Budgeting to Promote Social Objectives—A Primer on Braiding and Blending.* Economic Studies at Brookings. Washington, DC: BI. www.brookings.edu/wp-content/uploads/2020/04/BraidingAndBlending20200403.pdf

[1] Funding and resources include money that can be used by program administrators to provide services and program administration as well as resources that can offset program costs such as participant screening or relationship management, provision of home audits, data sharing related to program outcomes, client referrals and more.

[2] For example, grants like the HUD FY20 Healthy Homes and Weatherization Cooperation Demonstration Program; see program Notification of Funding Opportunity (NOFO). U.S. Dept. of Housing and Urban Development. 2020. "HUD FY20 Healthy Homes and Weatherization Cooperation Demonstration Program NOFO." Accessed March 4. www.hud.gov/program_offices/spm/gmomgmt/grantsinfo/fundingopps/fy20_healthyhomes_weatherization

[3] Hayes, S. and C. Gerbode. 2020. *Braiding Energy and Health Funding for In-Home Programs: Federal Funding Opportunities.* Washington, DC: American Council for an Energy-Efficient Economy. www.aceee.org/research-report/h2002

[4] See ACEEE's 2020 report on monetizing health benefits and contact ACEEE for more information or technical assistance. Hayes, S., C. Kubes, and C. Gerbode. 2020. *Making Health Count: Monetizing the Health Benefits of In-Home Services Delivered by Energy Efficiency Programs.* Washington, DC: American Council for an Energy-Efficient Economy. www.aceee.org/research-report/h2001

[5] See discussion of these risk factors and others in the 2019 Asthma Capitals report. Asthma and Allergy Foundation of America: 2019. *Asthma Capitals 2019: The Most Challenging Places to Live with Asthma*. Arlington, VA: AAFA. Accessed March 23. aafa.org/media/2426/aafa-2019-asthma-capitals-report.pdf

[6]Williams, D.R., M. Sternthal, and R.J. Wright. 2009. *Social Determinants: Taking the Social Context of Asthma Seriously*. Pediatrics. 2009:123 (Suppl 3):S174-S184. doi:10.1542/peds.2008-2233H

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