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Navigating Policy and Systems Change Approaches to Non-Energy Health Valuation

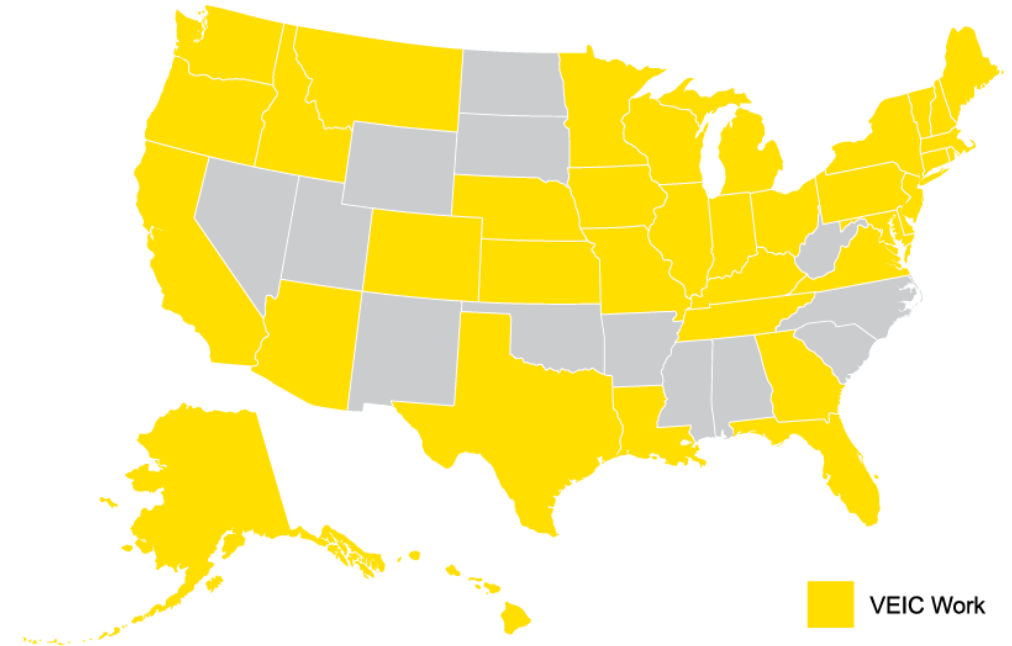
Case Studies from Vermont and Washington D.C.

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About VEIC

- Nonprofit founded in 1986
- 300+ employees
- Locations: VT, DC, OH, NY
- Design, deliver, and evaluate programs nationwide:
 - Energy efficiency
 - Clean transportation
 - Renewable energy



Our Customers:

- Utilities
- Government
- Foundations
- Environmental & Consumer Groups

Project Impetus

- VEIC identified an opportunity to incorporate emerging data on health-related non-energy benefits into cost-effectiveness screening for programs we administer in DC and VT
- Pew Charitable Trust & Robert Wood Johnson Foundation Health Impact Project funding:
 - Policy or systems change that addresses health equity
 - VEIC one of five grantees nationally



DC
SUSTAINABLE ENERGY
UTILITY

Project Goals

Develop monetized health benefits of weatherization measures

Efficiency Sector:

Provide data for adjusting NEBs in cost-benefit tests

Focus of DC project

Health Sector:

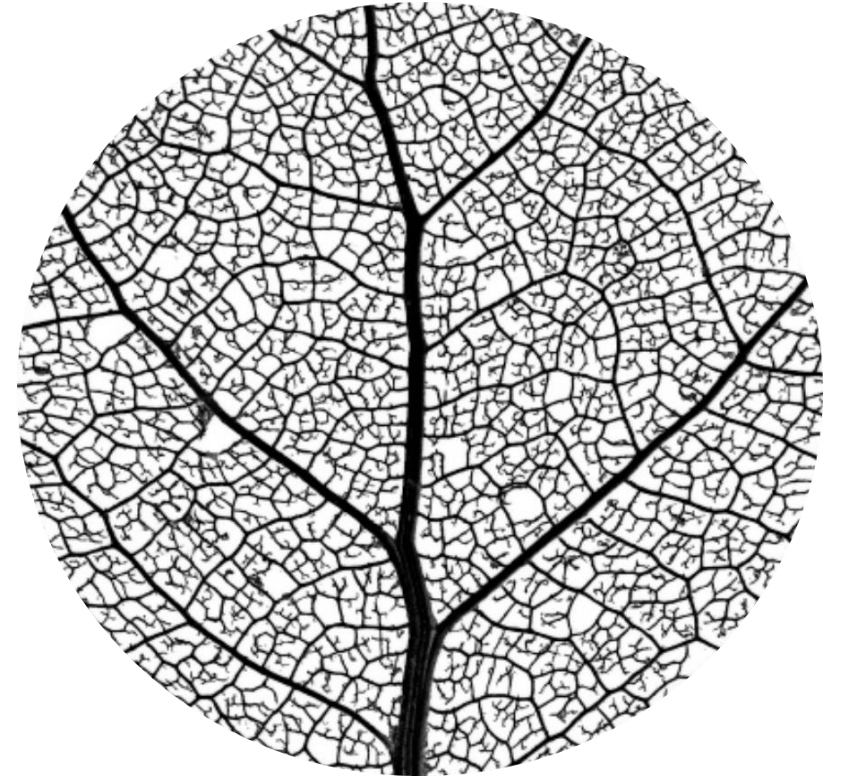
Provide data to build the case for Medicaid funding of energy efficiency measures

Focus of VT project

Case Study I: Vermont Systems Change

Process used:

- Cultivate relationships with public health and health care sector
- Formalize referral process between regional hospitals' community health workers and Weatherization Assistance Programs (WAPs)
- Implement Weatherization-Plus-Health (Wx+Health) approach in asthma patients' homes
- Document health and energy savings outcomes



Key Partners

- Two regional rural hospitals with community health worker model; recently added University of Vermont Medical Center
- VT Department of Health Asthma Collaborative
- VT Office of Economic Opportunity and two regional Weatherization Assistance Programs
- Three³, Inc. as advisor on data extrapolation



VT Learnings

Public health department's adoption of national **Health In All Policies framework** inspired engagement from public health officials

Education of community health workers, existing partnership with WAPs, and offer of energy efficiency resources for patients inspired **engagement from health care providers**

Cross-sector collaboration required identifying mutual goals, learning other industry's language and protocols, and addressing data privacy

Collaborative agreements codified resource leveraging and data protection; enabled expanded pilot to include trips & falls prevention

Contractor training through **Wx+Health and BPI Healthy Homes Evaluator curriculum** created new skills to deliver healthy homes assessments

Eliminating redundancy in service delivery by streamlining applications, processes, and customer communications was key to success

Patient's living conditions determine readiness for retrofit - adds time and varies significantly

Resources from three sectors enabled **comprehensive workscope**

VT Outcomes

- Created templates: formal agreements between hospitals, Efficiency Vermont and VT Office of Economic Opportunity & customer/patient application forms
- 10 homes in pilot; health impact data tracked pre/post and in 12 mos.
- VT Department of Public Health report extrapolated Three³, Inc. MA data and found, **“The estimated 10-year economic benefit per [low-income] household is nearly three times greater than the initial expense.”**

Benefit Category	Primary Beneficiary	1 st -year Benefit	10-year Benefit
Thermal and electric energy cost savings	Household	\$1,174	\$11,740
Reduced impacts of asthma, cold & heat*	Household	\$276	\$2,762
Reduced fine particulate emissions	Public	\$1,026	\$10,255
Total	Household + Public	\$2,476	\$24,757

*More benefits are expected by could not be quantified, such as better mental and social health, fewer accidental injuries, and increase productivity.

Case Study II: DC Policy Change

Process used:

- Partnership with ACEEE to connect with medical community
- Literature review on health value attribution
- Develop recommendations to DCSEU Advisory Board to increase NEB and low-income adders
 - NEB adder had recently decreased from 10% to 5%
 - DCSEU did not have a low-income adder

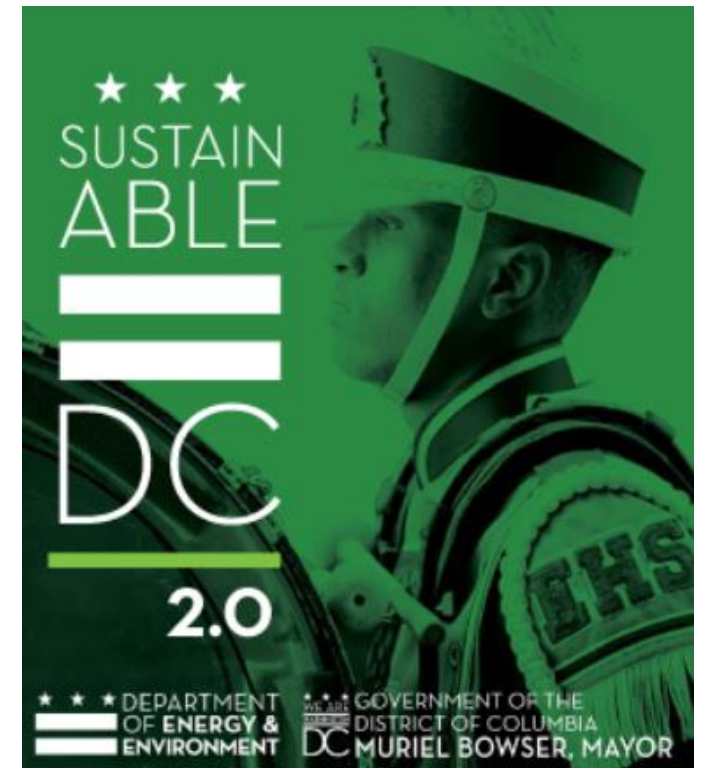


Literature Review

- National Standards Practice Manual - policy framework for valuing benefits
- Health benefits of energy efficiency in low-income weatherized homes and nursing homes.
 - Three³, Inc & NMR, Inc. Massachusetts study monetizing health benefits in low-income homes; replicated in Knoxville, TN and multifamily cohort.
 - Midwestern Lighting Institute & Gunderson Health Lighting Studies.
 - E4TheFuture, “Occupant Health Benefits of Residential Energy Efficiency”
- Health community publications incorporating energy efficiency into health treatment plans
 - Regional Asthma Management Partnership, Contra Costa, CA
 - National Center for Healthy Homes

DC Learnings

- Medical Society Consortium on Climate and Health has keen interest in energy efficiency and surveyed members about needs
- DC Health In All Policies framework and VEIC findings generated interest in health benefits of EE among DCSEU Advisory Board members
- Opportunities exist to bring more EE resources to medical providers



DC Outcomes

- DCSEU Advisory Board agreement to consider new research on health benefits of energy efficiency, particularly in multifamily properties and nursing homes
- New adders currently under consideration:
 - Proposed increase of NEB adder to 15%
 - Proposed addition of low-income adder at 15%
- Ongoing partnership with ACEEE to explore development of resources for medical community

Overall Project Learnings

Efficiency projects in multiple markets deliver health benefits	<ul style="list-style-type: none">• Single family in Vermont• Multifamily in DC
Accurate valuation of health benefits is now possible through new methods	<ul style="list-style-type: none">• Data to support NEB adders in cost-benefit testing• Emerging opportunities to unlock new health-based funding streams
Cross-sector collaboration is key	<ul style="list-style-type: none">• Learning each others language, protocols, and data needs

Energy-Plus-Health Playbook

- Energy Plus Health Playbook
- Sponsored by E4TheFuture
- Supported by Tohn Environmental Strategies
- Comprehensive resource for EE program administrators interested in starting or expanding Energy-Plus-Health programs
 - Making the case to utility decision-makers and regulators
 - Choosing the right program model
 - In-depth program design guidance for cross-sector collaboration
 - Navigating health care industry partners
 - Case studies from multiple states
 - Resources and sample materials
- Available at: www.veic.org/resource-library/energy-plus-health-playbook



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Thank
you!