

Health + Energy Program Design Network

Session 5: 'Programs In The Wild'

ACEEE Health and Environment Team

Thursday, June 24, 2021 @ 3pm Eastern



American Council for an Energy-Efficient Economy



The American Council for an Energy-Efficient Economy is a nonprofit 501(c)(3) founded in 1980. We act as a catalyst to advance energy efficiency policies, programs, technologies, investments, & behaviors.

Our research explores economic impacts, financing options, behavior changes, program design, and utility planning, as well as US national, state, & local policy.

Our work is made possible by foundation funding, contracts, government grants, and conference revenue.

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ACEEE
American Council for an Energy-Efficient Economy

Agenda

- Resources
 - Jonathan Cohen, DOE
- Program Examples
 - Al Ripley, North Carolina Justice Center
 - Bruce Tonn, Three3
 - Todd Miles, CLEAResult
- Q&A / Group Discussion
- What's Next?

Resource Recap

- Resource folder link in the chat
- Past recordings available in this folder, along with:
 - Workbook links
 - Services, Funding, and Measuring Guidance Documents
 - PDF of slides from previous sessions
- Feel free to share these materials with others!

Jonathan Cohen



U.S. DEPARTMENT OF
ENERGY

Office of **ENERGY EFFICIENCY
& RENEWABLE ENERGY**

**Founder and Director, Better Buildings
Residential Network**

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DOE Health + Energy Efficiency Infographic

- New – Soft launch
- Premieres today
- Available to use
- For utilities
- For governments
- Conversation starter

Do You Have a “Healthy Home?”

A qualified contractor can help you assess and address indoor air quality, improve your comfort, and cut your utility bills.

Answers to a few basic questions can help you get started:

- **How old are your heating and cooling systems?**

Ensuring your system is updated and well maintained can save money and improve health and comfort.

- **Is your home insulated?**

Properly installed insulation in your walls and attic, at levels recommended for your home's climate, will cut bills, and improve comfort.

- **Have you ever noticed mold in your home?**

Visible mold likely means humidity levels need to be better addressed or indicates a potential leak or water damage.

- **Are your windows caulked and doors weather-stripped?**

These relatively simple fixes reduce air leaks and help maintain indoor temperature levels.

- **Are your appliances ENERGY STAR® rated?**

ENERGY STAR appliances are energy efficient and help you save money.

- **Do you know if your home's heating and cooling systems include proper levels of ventilation?**

Effective ventilation is important for both health and safety. Ventilation, along with frequently replaced air filters, can help make sure your home is bringing in fresh air as needed, and keep out pollutants when outdoor air quality is poor due to ozone, fire, or other factors.



GET started

FIND A QUALIFIED CONTRACTOR:

- Home Performance with ENERGY STAR® at ENERGYSTAR.gov/HomePerformance
- Building Performance Institute at bpi.org/locator-tool

WHO, WHAT, WHERE, WHY

- **WHO**: Residential energy efficiency programs and partners -- like contractors, program implementers
- **WHAT**: Infographic from trusted source
- **WHERE**: At kitchen table or digitally
- **WHY**: To communicate with homeowners to increase the number of homes that are healthy and energy efficient
 - Most do not get link between home, health, & efficiency



Messaging – for Discussion

- **INFORMS**: Communicates the health value of home performance quickly
- **VISUAL**: Visual aid for the “kitchen table conversation”
 - Where decisions are often made about whether and to what extent to do energy efficiency work
- **CLEAR**: Simple question and answer format
- **CONTRACTORS**: Can direct homeowners to resources where they can find a qualified contractor if they do not already have one

Session 5: Programs In the Wild

Themes To Consider

- What combination of health-and-safety-related services and EE measures are programs providing?
- How is this work funded?
- How are impacts being measured?
- What partnerships have enabled the work?
- Challenges and lessons learned

Al Ripley



Opportunity and Prosperity for All

**Director, Consumer Housing & Energy
Project**

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Bruce Tonn, Ph.D.



Three³

President

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LINKING HEALTH CARE AND WEATHERIZATION IN KNOXVILLE, TENNESSEE

Bruce Tonn
Three³, Inc.
Knoxville, Tennessee

June 24, 2021



About the Project

- The Energy Foundation provided a small grant to pilot an effort to link two hospitals in Knoxville to its weatherization program.
- The focus was on children with uncontrolled asthma and adults with COPD.
- The East Tennessee Foundation provided a grant to fund seven weatherization jobs.
- The Mayor of Knoxville hosted a kick-off meeting at one of the hospitals in October 2019.
- A Weatherization Day was held at the City of Knoxville – Knox County Community Action Committee (CAC) for the hospitals' staff.
- A checklist was created for the hospitals to do some pre-screening with families about home conditions.

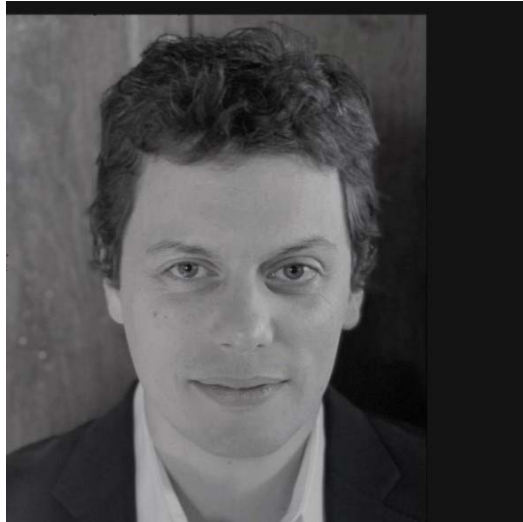
Results

- No homes have been weatherized yet.
- Issues with the Children's hospital include:
 - Some delay to get IRB approval
 - COVID reduced pediatric asthma admissions by two-thirds
 - COVID put CAC's Wx program in hiatus
 - Families not previously knowledgeable about weatherization were reluctant to pursue this opportunity
 - Many homes fell outside of the City of Knoxville, were being rented, were not single family, may not have passed the home condition screening, may not be low-income, and allowed smoking
 - Hard to work this task into daily interactions with patients
 - All told none of about a dozen referrals have made it to the energy audit stage
- Issues with the other hospital
 - Never got on board; we failed to meet enough physicians

Lessons Learned and Next Steps

- Hospitals need to assign a champion
- Hospitals may need to have some of their own funds invested to become more involved
- Need to allow renters and maybe even homes with smokers
- Expand health issues open for referral
- Maybe it is better to work with insurers who have the time to sift through medical claims records (e.g., ICD-10 z-codes) to identify likely candidates for weatherization
- Make it easy for hospitals to refer patients to a larger social services network, through systems such as NowPow.
- Now working with a local CBO to contact households with asthma sufferers and contacting local health clinics.

Todd Miles



CLEAResult[®]

Senior Market Approach Manager

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CLEAResult[®]
Healthier Homes
Overview



We change
the way people
use energy[™]





Current Programming

Client	State	Launch
Wisconsin Focus on Energy	Wisconsin	2020
SEMCO Gas	Michigan	2021
Efficiency United	Michigan	2021
CenterPoint Indiana	Indiana	2021
Consumers Energy	Michigan	2021
UPPCO	Michigan	2021

Key Features

Energy + Health










The same players in a typical LMI program can add this into the work they do:

	Typical Outreach	<ul style="list-style-type: none">+ Health Screening Questions+ Doctor Referrals into Program
	Home Energy Assessment (HEA)	<ul style="list-style-type: none">+ BPI Healthy Home Evaluation
	Typical EE measures	<ul style="list-style-type: none">+ Health Measures
	Typical QA/QC	<ul style="list-style-type: none">+ Drop Off and Collection of IAQ Monitors



In-Home Remediations

During a health-focused assessment, our energy experts will determine if any of the following specific measures would be a beneficial addition to other efficiency products recommended for the customer's home:

-  **Insulation & air sealing (required)**
-  **HVAC filter replacement/upgrade**
-  **Spot ventilation repair/replacement/installation**
-  **Integrated pest control**
-  **Minor mold remediation (per room basis)**
-  **Hypoallergenic bedding, indoor air purifiers, dehumidifiers**
-  **Green cleaning kits**
-  **Carpet removal & hard surface installation (per room basis)**
-  **And more!**

CLEARresult®



EXAMPLES

- Innovation/pilot funds
- Rural funds
- Health & safety funds

Funding



Any funding not directly tied to cost-effectiveness, and hence allows for non-energy spending



Earmarked funds

Healthcare Partners

- Mayo Clinic (WI)
- Gundersen Health
- Spectrum Health
- Henry Ford Health
- Aspirus Health
- Evansville Community Health Org (ECHO)

NON-PROVIDER PARTNERS

Wisconsin Asthma Association
under the Children's Health
Alliance of Wisconsin

Indoor Air Quality (IAQ) Monitoring



Countertop devices offered pre- and post-installation to measure change in specific IAQ metrics



Pacific Northwest National Laboratory (PNNL) will aggregate IAQ data from the devices and set of standardized house data as part of their work

IQAir
AirVisual Pro



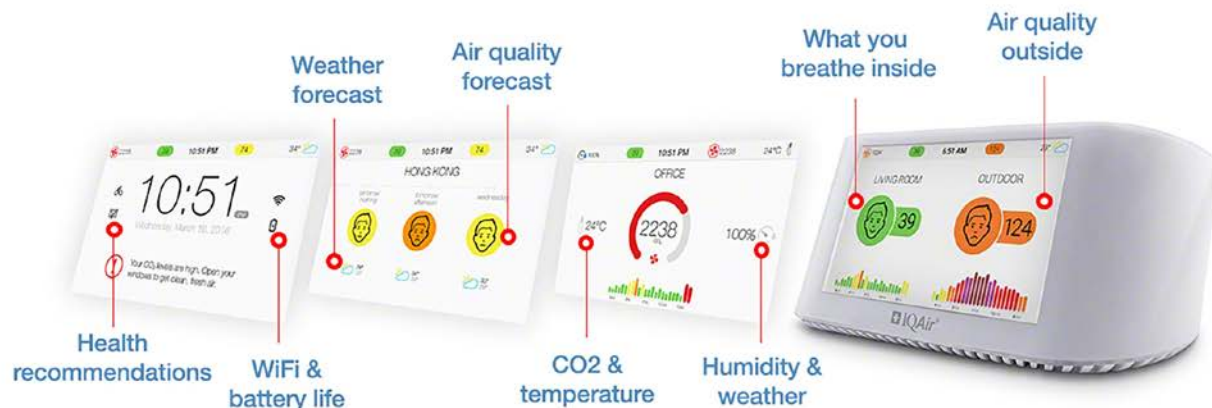
Display + Sensor Specifications

PM (Particulate Matter) 0.3 - 2.5 μm

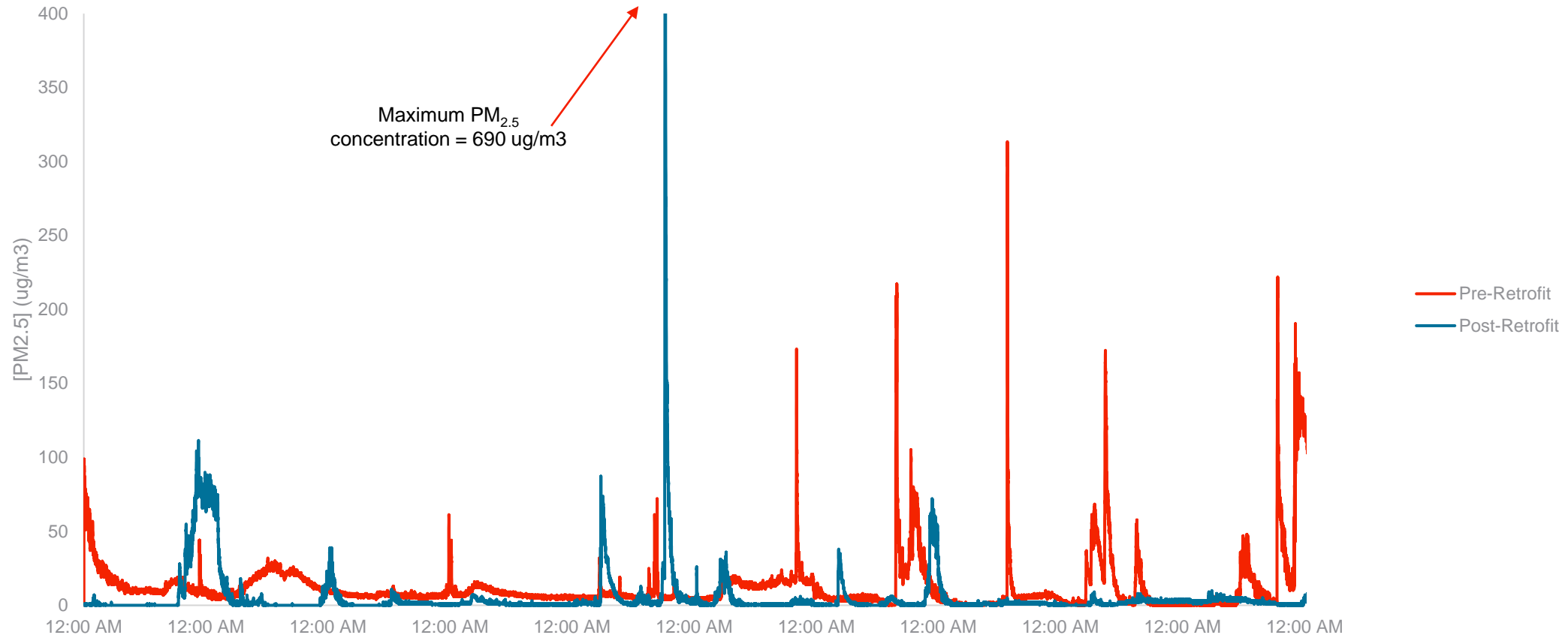
CO₂ (Carbon Dioxide) 400 - 10,000 ppm (parts per million)

Temperature 14 to 104 °F (-10 to 40 °C)

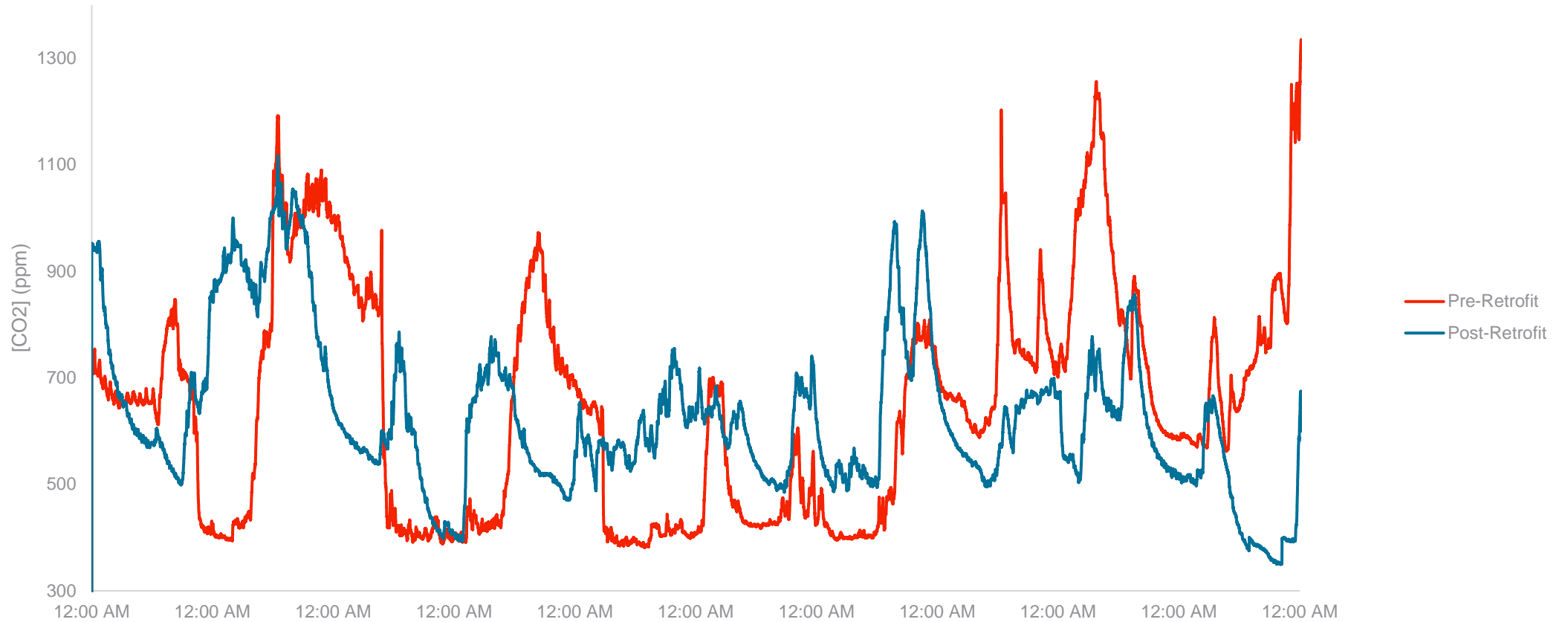
Humidity 0 - 95%



First Home From Pilot: Results



First Home From Pilot: Results



Discussion

Themes To Consider

- What combination of health-and-safety-related services and EE measures are programs providing?
- How is this work funded?
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What's Next for this Network?

- Taking a break for the summer
- ACEEE will be looking at opportunities related to CHIP Health Services Initiatives
 - If you're interested in developing this in your state, let us know
- Got a pilot or a program in development? Tell us about it (link in chat)

We Need Your Feedback!

- Short survey on this year's PDN sessions so far:

<https://forms.gle/wYqfnVkUXBzuv84s6>

- What worked well?
- What did you find most useful?
- What might you like to see in the future?

We also want to hear about your program's work! Tell us about your goals and initiatives to incorporate health into energy efficiency work, ongoing or upcoming

Thank you for attending today's session!

Have a great summer!

Feel free to send questions, comments, or feedback to
Christine at cgerbode@aceee.org.

