

## BETTER BUILDINGS HEALTHY HOUSING ACCELERATOR

Over the past five years, the Better Buildings Challenge has implemented several accelerators to address critical barriers faced by BBC partners to improve the efficiency, resilience, or overall performance of their properties. We propose to launch a Healthy Housing Accelerator that will bring together the resources of DOE and HUD as well as key partners and stakeholders to support the financing and adoption of healthy housing practices in the residential sector.

### **Better Buildings Challenge**

The Better Buildings Challenge is a highly successful public-private partnership initiated by DOE in a wide range of building sectors<sup>1</sup> including, in partnership with HUD, the residential multifamily sector. There are currently 106 Multifamily Challenge partners with some 750,000 households, primarily in public housing and privately-owned HUD-assisted housing, as well some market rate housing.

These are highly motivated property owners and managers who have committed to a portfolio-wide 20 percent reduction goal in energy consumption over a 10-year period.<sup>2</sup>

The Healthy Housing Accelerator utilizes this platform of partners and allies already committed to improving the performance of their buildings, in collaboration with other interested stakeholders. It adds to 15 accelerators that have been successfully implemented as part of the Better Buildings Initiative to tackle key topics that need short-term, intensive attention or to explore next generation topics or issues that move the ball forward.<sup>3</sup>

### **Background: Why Healthy Housing?**

It's now widely accepted that the indoor home environment is a significant factor in resident health, especially for seniors and children. The devastating health impacts of lead hazards in older (pre-1978) homes are well known - but health concerns in housing are not limited to older buildings with lead.

A survey by the Harvard Joint Center for Housing Studies showed that 36 percent of renters reported some level of healthy housing concerns or suspected risks, while 24 percent of homeowners did. Indoor air quality issues were most prevalent—including dust, dampness and moisture, lack of sufficient ventilation, and other indoor-air related problems including air pollution from outdoors.<sup>4</sup>

Other major concerns included water quality, and basic safety issues such as pests, and concerns about the physical structure. A significant area of impact is the more than 24 million Americans (almost 8 percent of the population) who suffer from asthma, with higher rates among adolescents.<sup>5</sup> Improving indoor air quality by removing allergens and other interventions has been shown to significantly lower childhood asthma symptoms - resulting in fewer doctor and emergency room visits, fewer missed school days, and significantly lower medical expenses.<sup>6</sup>

This is especially important when tightening a building through an energy efficiency retrofit: adequate ventilation is critical to ensuring that indoor air quality is not compromised when air sealing a building.

## **What's an Accelerator?**

The accelerator concept is borrowed from private industry - by definition, it is ***topic-intensive and time-limited***, with a strong emphasis on networking and resource development.

The proposed Healthy Housing Accelerator is intended to accelerate the adoption of healthy housing practices by convening an interdisciplinary group of community stakeholders, housing, and health experts supported by HUD and DOE leadership to better address the impacts of unhealthy, inefficient housing through best practice green, energy efficiency upgrades of housing.

The Accelerator builds on the rapid progress that's already being made in building healthy housing in the U.S. – through new health and wellness certifications, adoption of healthy housing elements in existing green building standards, innovative partnerships between the housing and health care industries, the new Healthy Housing Evaluator credential, and increased HUD funding to remove or abate lead and simultaneously address other health hazards in older homes.

## **Targeting Key Barriers**

The Accelerator aims to address three barriers to greater integration of investments in healthy housing practices with other housing interventions:

- (1) Lack of financing for healthy housing assessments and interventions, e.g. through Medicaid and hospital community benefit funds.
- (2) Barriers between agencies (local, state and federal) that prevent collaboration and coordination of existing services (e.g. weatherization, home health interventions) that can be integrated to deliver 'one-stop shop' services that result in high-performing, healthy and energy efficient homes.
- (3) Lack of data to quantify health and safety benefits of green building interventions, e.g. for utility cost effectiveness tests of energy efficiency measures.

## **Accelerator Goals**

The Healthy Housing Accelerator is proposed as a 24-month initiative focused on the following:

- Identify and demonstrate innovative financing sources and strategies for integrating high performance, healthy housing and home energy efficiency retrofits.
- Demonstrate successful partnerships between the home performance/weatherization industry and the healthcare community for integrating energy efficiency with healthy housing principles.
- Facilitate shared solutions, resources, and technologies that will increase integration of healthy housing interventions with energy efficiency improvements in homes and residential buildings.
- Increase visibility and replication of best practices and successful models of integrated energy efficiency and healthy housing.

## Objectives

- Convene a dialogue between the home performance/weatherization industry, health services, and the medical community on innovative ways to strengthen the financing and implementation of healthy housing practices.
- Develop tools and resources to help states and communities replicate financing models that leverage new sources of funds for assessing and implementing healthy housing measures in homes, including but not limited to leveraging Medicaid, hospital community benefit funds, and other sources of financing.
- Develop tools and resources for overcoming institutional barriers to integrating healthy housing measures with energy upgrades in the residential sector, e.g. breaking down silos between agencies that provide home health and weatherization services.

## Approach

- HUD will work with up to 25 partners to foster collaboration among state and local agencies, housing providers, home performance providers, hospitals, managed care providers, utilities, and key stakeholders to identify barriers and solutions to incorporating healthy housing practices into energy efficiency upgrades of existing buildings.
- The Accelerator will feature 1 to 2 one-day convenings of interested stakeholders, including at next year's 2020 Better Buildings Summit.
- HUD will facilitate up to 10 open calls and/or webinars between convenings to provide support and share progress.

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<sup>1</sup> See <https://betterbuildingsinitiative.energy.gov/challenge>

<sup>2</sup> Four multifamily partners have achieved their energy savings goals: 2Life Communities; Jersey City Housing Authority; Cambridge Housing Authority and Tenderloin Neighborhood Development Corporation in San Francisco.

<sup>3</sup> <https://betterbuildingsinitiative.energy.gov/accelerators>. Accelerator topics have included Smart Labs, Zero Energy Schools, Data Centers, Outdoor Lighting, and Home Energy Information.

<sup>4</sup> Joint Center for Housing Studies, *Challenges and Opportunities in Creating Healthy Homes: Helping Consumers Make Informed Decisions*, May 2016. See <https://www.jchs.harvard.edu/blog/renters-also-have-healthy-housing-concerns/>

<sup>5</sup> Centers for Disease Control, [https://www.cdc.gov/asthma/most\\_recent\\_data.htm](https://www.cdc.gov/asthma/most_recent_data.htm) The Asthma and Allergen Foundation reports that some 20 percent of the population have environmental allergies of some kind, with 25% reporting allergies to indoor environmental allergens such as dust mites and mold.

<sup>6</sup> E4theFuture, *Occupant Health Benefits or Residential Energy Efficiency*, November 2016.