



## Case Studies in Healthcare Financing of Healthy Homes Services: Medicaid Reimbursement for Home-Based Asthma Services in Vermont

A large body of evidence suggests that home visiting programs addressing indoor environmental triggers (e.g., cockroaches, mice, tobacco smoke, mold) can improve asthma control, reduce asthma-related hospitalizations and emergency department visits, and provide a positive return on investment.<sup>1</sup> These types of services are recommended as a component of comprehensive asthma care for people with poorly controlled asthma but are not widely available and often limited in scale. However, recent changes resulting from healthcare reform have increased opportunities for states to consider more sustainable and widespread implementation. Some states have already invested heavily in developing programs, policies, and funding to increase access to these critical public health services. Yet many states may be

unsure about how to translate these evidence-based practices into policy. This case study summarizes the current healthcare financing landscape in Vermont for home-based asthma services with an emphasis on public financing. The case study is based on survey findings<sup>2</sup> and interviews with the state Medicaid agency, the state health department, and other stakeholders. It describes the current healthcare landscape, other important funding mechanisms, key barriers, next steps, and lessons learned. This information may be useful to stakeholders in other states that are seeking healthcare financing for home-based asthma or other preventing services, or for stakeholders within the state of Vermont interested in a summary of current and future opportunities within the state.



## AT A GLANCE

### Medicaid Reimbursement for Home-Based Asthma Services in VT

#### **Medicaid in Vermont**

Approximately 30% of Vermont residents (186,536 individuals as of August 2015) are enrolled in the state's Medicaid or CHIP programs. The majority of Medicaid beneficiaries are enrolled in Vermont's state-run managed care organization (MCO), Green Mountain Care. For most beneficiaries, enrollment in the MCO is mandatory and beneficiaries in both fee-for-service (FFS) Medicaid and the MCO are eligible for the same range of medically necessary services.

#### **Medicaid and MCO Coverage for Home-Based Asthma Services<sup>a,b</sup>**

Neither fee-for-service Medicaid nor the state's MCO currently provide reimbursement for any home-based asthma services in Vermont, despite the extensive amount of control the state has over the benefits delivered to its Medicaid MCO population and the high financial cost of asthma to the state and its residents. Interviewees revealed that Vermont is currently reviewing ways to expand Medicaid coverage for home-based asthma services.

#### **Barriers and Next Steps for Vermont (pages 5-6)**

Interviewees described challenges and barriers Vermont will face if and when the state implements reimbursement for home-based asthma services, including provider eligibility, workforce infrastructure, billing codes, and complying with federal Medicaid requirements.

#### **Other Funding Mechanisms in Vermont (page 4)**

Vermont has multiple public-private initiatives designed to promote asthma self-management in the state, a number of which involve Medicaid beneficiaries. For example, the Blueprint for Health (a statewide public-private partnership designed to improve care delivery and health) currently funds the In-Home Pediatric Asthma Program. Program participants are eligible to receive three home visits from a certified asthma educator (AE-C), who provides individualized asthma instruction and education, while a community health worker (CHW) provides an environmental assessment to identify and mitigate asthma triggers in the home.

#### **Key Insights from Vermont (page 6)**

While Vermont does not currently provide home-based asthma services through Medicaid, it has successfully spearheaded a number of innovative pilot programs to provide asthma self-management counseling and other services in nonclinical settings. Going forward, Vermont could offer an interesting case study for how a state can transition from implementing innovative pilot programs and initiatives designed to reduce the burden of asthma to Medicaid reimbursement.

#### **Medicaid in Vermont**

Approximately 30% of Vermont residents (186,536 individuals as of August 2015) are enrolled in the state's Medicaid or CHIP programs,<sup>3</sup> which are both administered by the Department of Vermont Health Access (DVHA) under the general authority of the State of Vermont's Agency for Human Services (AHS). In 1995, Vermont first began enrolling low-income uninsured adults into managed care plans.<sup>4</sup> The State of Vermont also initiated a "public managed care" network designed to provide behavioral health services to individuals with serious mental health issues that same year.

In 2005, building partially on this framework, CMS approved Vermont's Global Commitment to Health Demonstration Waiver (also known as Green Mountain Care), which sought to improve affordability, access to primary care, and healthcare delivery for individuals with chronic care needs, while containing cost.<sup>5</sup> The waiver implemented a public managed care delivery system designed to reduce the uninsured rate in the state, increase access to quality care, provide public health approaches to improve health outcomes and the quality of life for Medicaid eligible individuals in Vermont, and encourage the formation of public-private partnerships.

Vermont's managed care model is distinct because the DVHA serves as the managed care entity, using a series of intergovernmental agreements with other subdepartments of the AHS to provide administrative and service

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<sup>a</sup> Information based on responses to both the interview questions and responses to the original 2014 survey ([www.nchh.org/Resources/HealthcareFinancing/Snapshot.aspx](http://www.nchh.org/Resources/HealthcareFinancing/Snapshot.aspx)).

<sup>b</sup> For the purpose of the original survey and the follow-up interviews and case studies, home-based asthma services were defined according to the Community Guide to Preventive Services definition of home-based, multitrigger, multicomponent asthma interventions. These interventions typically involve trained personnel making one or more home visits and include a focus on reducing exposures to a range of asthma triggers (allergens and irritants) through environmental assessment, education, and/or remediation.

management functions that would typically be carried out by a managed care organization.<sup>6</sup> Vermont does not contract directly with health plans to manage care for Medicaid beneficiaries. Instead, AHS pays DVHA a capitated per-member/per-month rate, similar to the way other state Medicaid agencies pay managed care organizations. The DVHA then contracts with providers for nearly all Medicaid benefits, using other state agencies mainly to provide specialty services.<sup>7</sup>

In 2013, CMS approved the renewal of Vermont's state-administered Medicaid MCO model. Green Mountain Care is now mandatory for most Medicaid beneficiaries in Vermont and covers most Medicaid services, except certain long-term services and supports, which remain in fee-for-service (FFS). Some beneficiaries are exempt from enrollment in the managed care delivery system and receive covered services through a FFS delivery system.<sup>8</sup> Beneficiaries in both FFS Medicaid and the MCO are eligible for the same range of medically necessary services.<sup>9</sup> As of 2013, 56.5% of all Medicaid beneficiaries (102,816 individuals) were enrolled in Medicaid managed care in Vermont.<sup>10</sup>

### **Medicaid and MCO Coverage for Home-Based Asthma Services<sup>b</sup>**

In a 2014 survey conducted by the National Center for Healthy Housing and Milken Institute School of Public Health, survey respondents from Vermont reported that home-based asthma services were optionally or potentially reimbursable under the state's Medicaid program.<sup>11</sup> However, interviews and additional research have not uncovered any existing or prior Medicaid-supported coverage of home-based asthma services in Vermont.

Neither FFS Medicaid nor the state's MCO currently provides reimbursement for any home-based asthma services in Vermont,<sup>12</sup> despite the fact that the burden of asthma on the state and its residents is high.<sup>13</sup> The prevalence of asthma in Vermont for all adults in 2012 was 11%, the third highest in the U.S., while the prevalence for those living under 125% of the federal poverty level (FPL) was 22%.<sup>14</sup> Among those with asthma and household income less than 125% FPL, 70% report that their asthma is uncontrolled.<sup>15</sup> The financial costs of uncontrolled asthma are significant: In 2009, the state spent \$7 million covering 2,500 emergency department (ED) visits and upwards of 400 hospitalizations related to asthma.<sup>16</sup> While the state focuses on asthma management for the highest-risk and highest-cost Medicaid enrollees through the Vermont Chronic Care Initiative (a statewide program that provides care coordination and intensive case management services to certain Medicaid beneficiaries with one or more chronic conditions),<sup>17</sup>

these services do not extend to home settings.

There does not appear to be a unique or singular reason for why Medicaid does not yet reimburse for home-based asthma services in Vermont. As noted above, the financial costs associated with uncontrolled asthma are high, which is certainly an incentive for Vermont to explore nonclinical services designed to reduce asthma-related ED visits and hospitalizations. Vermont also has direct administrative control over its Medicaid program because of its unique state-run public managed care network. Most states contract with external plans to administer services for their Medicaid MCO population, and these plans often have substantial autonomy in designing and implementing patient care; Vermont does not have to undergo these types of hurdles to institute benefit changes.

Practically speaking, however, Vermont has been occupied in the last few years with implementing the Affordable Care Act (ACA) while simultaneously administering a number of both new and existing healthcare programs, including some of the programs detailed below. In 2011, Vermont also passed legislation to implement the country's first statewide, publicly funded single-payer healthcare system, which had originally been set to begin in 2017. Despite having to contend with all these complicated administrative obligations, Vermont is still taking steps towards establishing Medicaid reimbursement for home-based services. An official for the DVHA revealed in an interview that Vermont is currently reviewing ways to expand coverage for home-based asthma services. The ongoing process to expand coverage for these services is detailed in the penultimate section of this case study.

### **Other Mechanisms for Funding Home-Based Asthma Services, Outside of Medicaid**

Similar to most states, Medicaid support for home-based asthma services is nonexistent in Vermont. However, there are a number of public-private initiatives designed to address asthma in the state that involve Medicaid beneficiaries.

#### **Public Health Funding**

The *Vermont Asthma Program* (VAP)<sup>18</sup> is run by the Vermont Department of Health (VDH) and funded by the Centers for Disease Control (CDC). One of the primary goals of the VAP is to expand access to comprehensive asthma control services through home-based strategies, which VDH has sought to accomplish by establishing strategic partnerships with other state agencies, healthcare providers and payers, and community- and school-based partners. Within VDH, the partnership includes the divisions

## THE BURDEN OF ASTHMA IN VERMONT:

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of Environmental Health, Maternal and Child Health, Health Surveillance, and Health Promotion and Disease Prevention; the Agency of Education; and the Department for Children and Families. The partnership also includes the Vermont Department of Labor, the University of Vermont Medical Center, the Rutland Regional Medical Center and Community Health Team, and the Vermont Blueprint for Health.

The VAP targets all individuals with asthma, with a focus on those who are either Medicaid-eligible, live in areas where the prevalence of asthma is disproportionately high, or who have asthma but also smoke. The VAP provides funding and technical assistance to facilitate the integration of self-management education with home visits and other community-based services. The VAP also works with schools to increase their capacity in asthma management and coordinates with health systems to establish information-sharing agreements for patients with chronic diseases.

Another important initiative is the *Blueprint for Health*, a statewide public-private partnership designed to improve care delivery and health outcomes to enable seamless, well-coordinated care.<sup>19</sup> The program, launched in 2003 and codified into law in 2006,<sup>20</sup> is built on medical homes that are supported by community health teams.<sup>21</sup> These medical homes provide advanced primary care services and receive comprehensive support from the locally staffed community health teams, which are often composed of nurse coordinators, behavioral health counselors, and social workers.<sup>22</sup>

One initiative supported by the Blueprint is the *In-Home Pediatric Asthma Program*, a regional program affiliated with the Rutland Regional Medical Center.

Program participants are eligible to receive three home visits from a certified asthma educator (AE-C), who provides individualized asthma instruction and education, while a community health worker (CHW) provides an environmental assessment to identify asthma triggers such as allergens and irritants in the home and develops ways to reduce contact with these triggers and mitigate asthma symptoms.<sup>23,24</sup> Families are eligible for the program if they have children between the ages of two and 17 with an active diagnosis of asthma, are located in the Rutland Regional Medical Center service area, and have uncontrolled asthma demonstrated by a number of potential factors. For example, a child who meets all of the above criteria but also had one or more unscheduled visits for emergency or urgent care due to asthma, or who has missed more than two days of school (or other activities), is eligible for enrollment in the program.<sup>25</sup>

While the Rutland program is the only known asthma initiative in the state that is currently employing home visits specifically, there are elements for improving asthma management that are being carried out by *North Country Hospital* in Newport, Vermont.<sup>26</sup> North Country Hospital has established an Asthma Management Service (AMS) to provide diagnosis, treatment, and educational support for adolescents and adults in the area.<sup>27</sup> The AMS employs a team of specially trained healthcare professionals, led by a board-certified pulmonologist and composed of primary care providers, some of whom are AE-Cs, to work alongside asthma patients and their families to “assure optimal lung functional activity level.”<sup>28</sup>

Finally, the *American Lung Association of New England* provides AE-C training sessions throughout Vermont. Vermont does not require AE-C certification for individuals who provide asthma services, but AE-Cs have mainly been used by state initiatives and pilot programs to educate individuals and families about asthma management, working in coordination with CHWs and licensed providers to establish comprehensive asthma self-management support.<sup>29</sup>

### **Health Care Innovation Award Funding**

The *New England Asthma Innovations Collaborative* (NEAIC)<sup>30</sup> was a multistate project funded through the Centers for Medicare and Medicaid Innovation (Innovation Center) from 2012 to 2015. The project was directed by the Asthma Regional Council (ARC) of New England, a program of Health Resources in Action, which combined healthcare providers, payers, and policy makers in an effort to provide high-quality, cost-effective care for children with severe asthma who were enrolled in Medicaid or CHIP.<sup>31</sup> The collaborative—which also included Connecticut,

Massachusetts, and Rhode Island—provided asthma self-management education and home environmental assessments through nonphysician providers such as CHWs and AE-Cs, who used moderate environmental interventions designed to reduce asthma triggers in the home.

Along with participating state Medicaid programs, the collaborative also comprised nine clinical partners that provided asthma home visits to more than 1,100 pediatric patients over the demonstration period. In Vermont, NEAIC funded the Rutland Regional Medical Center’s In-Home Pediatric Asthma Program detailed above.<sup>32</sup> The Vermont Blueprint for Health and the local community health team absorbed the Rutland program when Innovation Center funding for NEAIC ended in early 2015.<sup>33</sup> An economic evaluation of the initiative is underway.<sup>34</sup>

### Barriers to Implementing Home-Based Asthma Services within Medicaid

*Provider Eligibility Restrictions.* Existing state law does not allow for nonlicensed health professionals to seek Medicaid reimbursement (e.g., community health workers or other nonlicensed providers certified as home assessors). Vermont, like many states, is engaging in discussions about whether, and how, to adopt and implement a new federal Medicaid rule change that allows state Medicaid programs to cover and pay for preventive services provided by professionals that may fall outside of a state’s clinical licensure system – such as asthma educators, healthy home specialists, and other CHWs – so long as the services have been initially recommended by a physician or other licensed practitioner.<sup>35,36</sup> Interviewees report that discussions are ongoing in the state regarding what certification or qualifications will be required of nonlicensed professionals who would potentially become eligible for Medicaid reimbursement should the state move forward with implementing the federal rule change. Interviewees describe the difficult balance that the state will need to strike between requirements for education/training to assure competence and quality in the delivery of preventive health services versus the availability of a robust workforce.

*Inadequate Workforce Infrastructure.* Interviewees stated concern about whether the current workforce available to provide effective asthma services in home settings is large enough to provide an adequate volume of necessary home-based asthma care for the population. Nonlicensed providers cannot currently bill Medicaid for services delivered.<sup>37</sup> While Vermont does allow certain licensed providers to bill for services delivered by nonlicensed practitioners under their supervision, AE-Cs are not included on

the list of nonlicensed providers whose services can receive reimbursement outside of clinical settings.<sup>38</sup> It is unclear whether, or even how many, AE-Cs in the state are licensed healthcare professionals. Depending on the makeup of the AE-C workforce in Vermont, developing a larger workforce could require the state to define AE-Cs specifically and include them on the list of nonlicensed providers whose services can be reimbursed.<sup>39</sup>

### *Billing Codes for Home-Based Asthma Services.*

Currently, Vermont lacks specific self-management codes for home-based asthma services. While there are billing codes for preventive counseling, the codes require reimbursed care to be delivered in a clinical setting.<sup>40</sup> This administrative restriction needs to be addressed so that providers of any kind (licensed or otherwise) can offer services in home settings.

### Future of Medicaid Reimbursement for Home-Based Asthma Services: How Is the State Working to Expand Coverage and Reimbursement?

Despite the fact that there is currently no coverage for home-based asthma services through Medicaid in Vermont, a DVHA official interviewed noted that there are ongoing discussions in the state to expand reimbursement for these services.<sup>41</sup>

While internal discussions about expanding coverage are in the preliminary stages, Vermont does appear to be in the process of formulating a state plan amendment (SPA) for submission to CMS that would include the development of codes for asthma self-management, determine the workforce that would be eligible for reimbursement, and determine the appropriate frequency that providers can deliver and be reimbursed for asthma self-management education using (NHLBI) clinical guidelines.<sup>42</sup> At this time, it is unclear how Vermont’s numerous non-Medicaid asthma initiatives will influence or interact with

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potential expansions in Medicaid coverage for home-based asthma services. Initiatives such as Rutland's In-Home Pediatric Asthma Program could potentially act as models that the DVHA can expand on or mimic.

### Lessons Learned

Vermont is in many ways well poised to explore Medicaid reimbursement for home-based asthma services. The state certainly has a financial incentive to explore non-clinical services designed to reduce the cost of its high burden of asthma. While Vermont does not currently provide home-based asthma services through Medicaid, the fact that the state administers its own MCO also theoretically gives state officials more control over the services offered to beneficiaries. However, whether this control actually streamlines the process of setting up reimbursement is unclear because the decision-making process within the state, as well as the autonomy subagencies have in administering the MCO, is unknown. Nonetheless, it will be informative to examine how Vermont's unique public managed

care delivery system affects possible reimbursement for home-based services.

Absent Medicaid reimbursement, Vermont has successfully spearheaded a number of innovative pilot programs to provide asthma counseling and other services in nonclinical settings. These initiatives clearly demonstrate Vermont's interest in providing comprehensive asthma services for its population, and the fact that there are currently internal discussions about expanding Medicaid coverage for home-based asthma services is promising. However, Vermont must first overcome some structural barriers before it can expand coverage, and the state is only in the most preliminary stages of determining what programs and coverage are feasible. Going forward, Vermont could offer an interesting case study for how a state can transition from implementing innovative pilot programs and initiatives designed to reduce the burden of asthma from using nontraditional providers in nonclinical settings, to Medicaid reimbursing for home-based and other nonclinical asthma services.

Looking for case studies featuring experiences in other states?

Visit:

[www.nchh.org/Program/DemystifyingHealthcareFinancing/CaseStudies.aspx](http://www.nchh.org/Program/DemystifyingHealthcareFinancing/CaseStudies.aspx)

## ACRONYMS

<b>ACA</b>	<b><i>Affordable Care Act</i></b>
<b>AE-C</b>	<b><i>Certified asthma educator</i></b>
<b>AHS</b>	<b><i>State of Vermont Agency for Human Services</i></b>
<b>AMS</b>	<b><i>Asthma Management Service</i></b>
<b>ARC</b>	<b><i>Asthma Regional Council</i></b>
<b>CDC</b>	<b><i>U.S. Centers for Disease Control and Prevention</i></b>
<b>CHW</b>	<b><i>Community health worker</i></b>
<b>CMS</b>	<b><i>Centers for Medicare and Medicaid Services</i></b>
<b>CHIP</b>	<b><i>Children's Health Insurance Program</i></b>
<b>DHVA</b>	<b><i>Department of Vermont Health Access</i></b>
<b>ED</b>	<b><i>Emergency department</i></b>
<b>FFS</b>	<b><i>Fee-for-service</i></b>
<b>FPL</b>	<b><i>Federal poverty level</i></b>
<b>MCO</b>	<b><i>Managed care organization</i></b>
<b>NEAIC</b>	<b><i>New England Asthma Innovations Collaborative</i></b>
<b>NHLBI</b>	<b><i>National Heart, Lung, and Blood Institute</i></b>
<b>SPA</b>	<b><i>State plan amendment</i></b>
<b>VAP</b>	<b><i>Vermont Asthma Program</i></b>
<b>VDH</b>	<b><i>Vermont Department of Health</i></b>

## DEFINITION OF SERVICES

### ***Home-based asthma services***

The original survey that formed the basis for these follow-up case studies used the *Community Guide to Preventive Services* definition of home-based, multitrigger, multicomponent asthma interventions. These interventions typically involve trained personnel making one or more home visits and include a focus on reducing exposures to a range of asthma triggers (allergens and irritants) through environmental assessment, education, and/or remediation. See Appendix A of *Healthcare Financing of Healthy Homes: Findings from a 2014 Nationwide Survey of State Reimbursement Policies*<sup>2</sup> for the full definition.

## About the Project

This multiyear project is working to document and demystify the landscape and opportunities surrounding healthcare financing for healthy homes services. In year one of the project, the National Center for Healthy Housing (NCHH) conducted a nationwide survey to identify states where healthcare financing for lead poisoning follow-up or home-based asthma services was already in place or pending. In year two of the project, NCHH and a project team led by the Milken Institute School of Public Health conducted a series of interviews in key states identified by the survey. An interview guide was developed to ask key informants in each state questions about the extent and nature of Medicaid-supported services within the state, details of services covered, barriers to implementation, next steps for expanding services and increasing access, and lessons learned. In each state, the project team conducted interviews with at least one representative from the state Medicaid agency, a program contact in the state health department, and one to two additional stakeholders (e.g., advocates, local programs, payers, or providers). The interviews were used to develop detailed case studies to distill lessons learned in states with Medicaid reimbursement for healthy homes services, and ultimately to better equip other states in seeking reimbursement for these services.

For more information: [www.nchh.org/Program/DemystifyingHealthcareFinancing.aspx](http://www.nchh.org/Program/DemystifyingHealthcareFinancing.aspx).

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**Asthma Case  
Study #4**  
Healthcare  
Financing for  
Healthy Homes

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For additional resources, including many of the sources cited in this document, visit  
[www.nchh.org/resources/healthcarefinancing.aspx](http://www.nchh.org/resources/healthcarefinancing.aspx)

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