

By James Hester

DOI: 10.1377/hlthaff.2017.1237
HEALTH AFFAIRS 37,
NO. 4 (2018): 570-578
©2018 Project HOPE—
The People-to-People Health
Foundation, Inc.

A Balanced Portfolio Model For Improving Health: Concept And Vermont's Experience

James Hester (jimh66vt@gmail.com) is principal at Population Health Systems, in Burlington, Vermont.

ABSTRACT A successful strategy for improving population health requires acting in several sectors by implementing a portfolio of interventions. The mix of interventions should be both tailored to meet the community's needs and balanced in several dimensions—for example, time frame, level of risk, and target population. One obstacle is finding sustainable financing for both the interventions and the community infrastructure needed. This article first summarizes Vermont's experience as a laboratory for health reform. It then presents a conceptual model for a community-based population health strategy, using a balanced portfolio and diversified funding approaches. The article then reviews Vermont's population health initiative, including an example of a balanced portfolio and lessons learned from the state's experience.

The central challenge involved in providing affordable health care for all is controlling the rate of increase of health care costs. However, the intense public debate surrounding the Affordable Care Act (ACA) has focused primarily on its provisions that increase access to insurance, not on costs. Many of the provisions of the ACA were intended to slow cost growth by improving the performance of the health care system.¹ Achieving the Triple Aim²—controlling health care spending, ensuring a high-quality patient experience, and improving the health and well-being of the population—has been widely accepted as an appropriate goal for a high-performing health care system. While none of the three parts of the aim is easy to achieve, realizing the third has been especially challenging.

This article relies upon the definition of *population health* employed by the National Academies of Sciences, Engineering, and Medicine³ and presents a conceptual model for a community-based population health strategy based on a balanced portfolio of interventions.⁴ It then describes how that model is being put into practice

as an element of health care reform in Vermont and summarizes the major lessons learned. I begin by setting the Vermont context, summarizing key building blocks for its population health strategy that have been created by earlier health care reform initiatives. Exhibit 1 presents a timeline of key milestones in health reform both in the state and at the national level since 1989 to help track the sequence of initiatives.

For decades, Vermont has been a unique laboratory for testing health reform payment and care models, often in advance of federal efforts.⁵ The state's size, structure, and culture are conducive to collaborative efforts to test health system changes. For example, the acute hospital system in Vermont consists of thirteen hospitals, all of them sole community providers. Each hospital has its own Health Service Area (HSA) and faces minimal competition for patients. HSAs are a helpful structure for defining the geographic service areas of each of Vermont's communities, and thus their populations.

One major early milestone in Vermont health reform was improved maternal and child health coverage through the Dr. Dynasaur program. Initiated in 1989, it provided health care for preg-

EXHIBIT 1
Timeline of reform initiatives in Vermont and at the national level

Initiative/event	Year	Goals
Dr. Dynasaur program introduced (VT)	1989	Coverage for pregnant women and children 6 years old and younger
Catamount Health introduced (VT)	2007	State-subsidized insurance for adults ineligible for Medicaid
Vermont Blueprint for Health codified into state law	2006	Enhanced primary care medical home model, initially with 3 pilot communities in 2003 (expanded statewide in 2011); all-payer payment model for primary care
Accountable care organization model introduced	2007	Initial paper on the concept published by Elliott Fisher and colleagues ^a
"Triple Aim" concept introduced	2008	Initial paper on the concept published by Don Berwick ^b
Affordable Care Act passed	2010	Major health reform legislation that created the CMMI and started federal payment for ACOs
Green Mountain Care Board created through a provision of Vermont Act 48	2011	Consolidated health care provider and health plan regulation into a single agency, chartered to achieve the Triple Aim
Accountable Health Communities model introduced	2012	Initial paper on the concept published ^c
Accountable care organizations (ACOs) introduced in Vermont	2012	Three ACOs formed statewide
State Innovation Models program introduced by CMMI	2012	Program created by CMS to accelerate health reform at the state level
VT Health Care Innovation Project introduced	2013	Vermont implementation of SIM award
VT Population Health Work Group formed	2013	Population health forum in VHCIP
Vermont Accountable Health Communities	2015	VHCIP learning network for VT AHC's
Vermont Blueprint for Health payment model revised	2016	Added a performance component, including improved population health in practices' service areas
Vermont's all-payer ACO waiver obtained from CMS	2016	Vermont negotiated a waiver from CMS for innovative payment model

SOURCE Author's analysis. **NOTES** ACO is accountable care organization. ^aFisher ES, Staiger DO, Bynum JPW, Gottlieb DJ. Creating accountable care organizations: the extended hospital medical staff. *Health Aff (Millwood)*. 2007;26(1):w44-57. ^bBerwick DM et al. The Triple Aim: care, health, and cost (see note 2 in text). ^cMagnan S, et al. Achieving accountability for health and health care (see note 14 in text).

nant women and for children ages six and younger who did not have health insurance and who did not qualify for Medicaid. This paved the way for coverage for additional Medicaid-ineligible adults under Catamount Health in 2007. However, from the outset, the state recognized the need to improve the performance of the health care system if coverage expansions were to be financially sustainable. I next discuss two highlights of the state's delivery system initiatives.

The Blueprint for Health enhanced primary care model began as a pilot in 2003, was codified into law in 2006, and expanded statewide in 2011.⁶ The Blueprint created community health teams and provided additional staffing to primary care practices to manage their higher-risk patients. An all-payer model (that is, with all third-party payers using the same payment model) was implemented for primary care to both pay for the teams and reward the practices for achieving certification by the National Committee for Quality Assurance as patient-centered medical homes. By 2016, 85 percent of the 140 primary care practices in Vermont were participating in the Blueprint,⁷ which provided a key foundation for the next wave of delivery system reforms. The community health teams were the starting point for a community-based infrastructure. The Blueprint's all-payer model for primary care estab-

lished a precedent for a more comprehensive all-payer payment model.

In 2011, Vermont's Act 48 consolidated a broad set of regulatory functions into a single agency, the Green Mountain Care Board. The board has the authority to approve hospital budgets, major health care capital investments, health insurer rates, and all-payer rates for all providers.⁸ Act 48 directed the board to move away from a fee-for-service payment system to one based on value and to include all payers in payment reform.

The Centers for Medicare and Medicaid Services (CMS) created the State Innovation Model program in 2012 to support state initiatives promoting multipayer payment models and delivery system reforms. When the Vermont Health Care Innovation Project received one of the program's first grants, the Triple Aim's component of improving the health of the population received increased attention. The health reform initiatives already in place in Vermont positioned the state at the vanguard of efforts to build a community-based population health strategy. I next present a conceptual model for this strategy, and then I examine how Vermont is putting that model into practice.

A Strategy For Improving Population Health

Health and well-being are shaped by a wide range of influences, such as personal safety and nutrition.⁹ These influences can affect the disease process often before it manifests. Upstream in time, they are labeled “determinants of health.” Factors such as the accessibility of health care also affect health, but evidence has shown that health care accounts for only 10–20 percent of the overall determinants of health.⁹ A successful strategy for improving health requires addressing a broad spectrum of policy sectors such as housing, food security, education, and transportation, as well as health care. Each community possesses a unique mix of issues and inventory of assets for addressing needs in these areas.

Improving health in a community requires a combination of interventions tailored to meet its needs and reflect local priorities. This approach is the core of the balanced portfolio model⁴ that is the subject of this article. The five key components of the model are described next.

First is an inventory of evidence-based interventions known to address determinants of health. The Centers for Disease Control and Prevention (CDC) has created starting points for such inventories through its 6|18 Initiative,¹⁰ HI-5 initiative,¹¹ and Community Health Improvement Navigator.¹² The interventions often require investments in non-health care sectors.

Second is a diverse collection of financial sources to fund interventions. In the past, population health programs have primarily been funded by grants that rarely provide long-term stability. Fortunately, increased attention to population health has stimulated an increase in sources of financing that potentially provide more stable support for population health programs.¹³ In addition to funding program operations, some of these sources could support infrastructure costs and capital investments.

Third is a selection process that defines the set of interventions selected to address prioritized community needs for upstream interventions. Exhibit 2 presents a hypothetical example of a balanced portfolio that could be built using interventions that Vermont communities are considering implementing. The selection process should result in a portfolio which, as a whole, reflects a community's needs and priorities. It should be balanced along several dimensions, such as the time frame for achieving the improvement, and risk of failure. These dimensions have proved useful in Vermont, but other options such as equity and scale of intervention could be used. Each intervention should have a financing method that is selected based on considerations such as how well the characteristics of the

intervention match the financing method's desired time horizon for impact and acceptable limits on degree of risk.

Fourth is the capability to capture and share a portion of savings for reinvestment. Long-term simulations of population health models have indicated that this is fundamental for a financially sustainable model.¹⁴ One example is sharing medical expense savings generated under a global budget payment model. A persistent issue is quantifying the savings in other sectors, such as criminal justice. Even if savings are identified—say, in the criminal justice system because better treatment of opiate addiction reduces incarceration—there is still the need to demonstrate value added as a basis for sharing in the savings.

Fifth is the Accountable Health Community, a community infrastructure that can build and maintain a balanced portfolio. Accountable Health Communities, a relatively new concept,¹⁵ are local entities that take responsibility for improving the health and well-being of the total population in a defined area. They convene a broad group of stakeholders, assess the population's health needs, build a balanced portfolio that addresses those needs, monitor the impact of the portfolio, and adjusting it as conditions change. Building the portfolio involves first selecting an intervention and then engaging an implementation partner with the skills to operate the program. The Accountable Health Community then matches a financial partner based on tolerance for risk and time frame for achieving returns and closes the transaction by linking the financier to the implementation partner.

The balanced portfolio must be sustained over years, if not decades. The mix of projects in it evolves over time as the Accountable Health Community matures. The initial composition of the project mix is driven by the need to build credibility and emphasizes short-term results with a high likelihood of success. One of the most troubling obstacles has been finding sustainable financing. That financing must not only pay for the interventions but must also support the local community infrastructure that manages the balanced portfolio.

Trends Supporting The Development Of A Balanced Portfolio Model

Five national trends emerged in the past decade that provided a more supportive context for building a balanced portfolio in Vermont and elsewhere.

SHIFTING PAYMENT MODELS First, insurers, following the example of CMS, accelerated the shift in payment models for health care services.¹⁶ The old models rewarded volume of care

EXHIBIT 2

Hypothetical balanced portfolio of interventions for a Vermont Accountable Health Community (AHC), by determinant of health

Intervention	Target population	Implementation partners	Time frame	Risk of failure	Financing vehicle
MEDICAL CARE					
Blueprint for Health Women's Health Initiative	Women ages 14–44 on Medicaid	Community health team, community social services	Short	Low	All-payer global budget
OBESITY					
RiseVT obesity prevention program	Total population	Employers, schools, lifestyle medicine	Medium	Medium	Hospital, ACO, grants
MENTAL HEALTH					
Early Childhood Supports	Preschool children at risk for ACEs	Education system, investment banker	Medium	High	Social impact bond
HOUSING SECURITY					
Housing for the homeless	Chronically ill homeless people	Housing corporation, University of Vermont Medical Center	Medium	Medium	Hospitals' community investment portfolios
MOBILITY					
Improved public transportation	Low-income people	Green Mountain Transit Authority	Long	Medium	Transportation bonds, capital budget
FOOD SECURITY					
Health Care Share (providing garden-fresh vegetables)	Residents of food deserts	Community Development Financial Institution	Long	Medium	Community investment
Screening for food insecurity	Pediatric patients, people older than age 65	Primary care practices, community health teams	Medium	Low	All-payer global budget
ECONOMIC SECURITY					
Incubator for start-up companies	Residents with no job or minimum wage	Community Development Financial Institution, economic development agency, University of Vermont	Medium	Medium	Community investment
INFRASTRUCTURE					
AHC backbone structure accountable for population health	Community population	Structure for managing the portfolio	Long	Medium	Hospital community benefit, employer subscriptions

SOURCE Author's analysis of Vermont Accountable Health Community learning network documents and hospitals' 2018 budget submissions to the Green Mountain Care Board. **NOTES** ACO is accountable care organization. ACE is adverse childhood experiences.

and created perverse incentives for care providers. For example, reducing hospital readmissions is a desirable outcome, but under the old payment models, hospitals would receive less money if they achieved it. The Center for Medicare and Medicaid Innovation (CMMI) was created by the ACA to design large-scale tests of new delivery system designs and payment models that would achieve the Triple Aim's objectives. For example, Its Partnership for Patients program explicitly focused on improving patients' transition from the hospital to home with the goal of reducing readmissions by 12 percent in three years.¹⁷ In only six years after it began operating in 2010, CMMI had engaged 207,000 providers in large-scale tests involving eighteen million Medicare and Medicaid patients.¹⁸

MORE DIVERSE STAKEHOLDERS Second, the types of stakeholders engaged in improving health have become more diverse. The adoption

of the Triple Aim expands a health system's responsibility to the total population in its service area, not just the people who walk through its doors as patients. Adoption also demands that the system collaborate with public and private sponsors who manage other sectors such as housing, transportation, and education.

Health care systems are moving well beyond legal requirements for maintaining their non-profit status. Under federal tax law, not-for-profit hospitals have long been required to provide benefits for the community they serve. Provisions in the ACA further required that each non-profit hospital and health system explicitly and publicly demonstrate community benefit by conducting a community health needs assessment and implementing a strategy to meet the needs identified in that assessment. Some early adopters of the Triple Aim are going beyond statutory community benefit requirements and are dedi-

cating a portion of their reserves for investments in the community to address upstream determinants of health. In the process, new partnerships are developing. For example, the Reinvestment Fund (a community development financial institution) is partnering with the Public Health Institute in the Alignment for Health Equity and Development program. This program is working in five pilot communities to support local stakeholder analyses of opportunities for alignment and focus of health-sector (for example, hospitals, public health, community health centers) programs and activities and community development investments by financial institutions and business stakeholders.¹⁹

ACCELERATED DIFFUSION OF EVIDENCE-BASED INTERVENTIONS Third, the inventory of evidence-based interventions that improve population health continues to expand. The CDC's inventory of efforts described above has identified interventions for which strong evidence of effectiveness exists but which have not been adopted very widely.¹²⁻¹⁴ The CDC is working to partner with a broader set of stakeholders to increase awareness and use of these interventions.

GROWING FINANCING OPTIONS Fourth, a broader range of financing options exist that could be used to fund population health interventions. Recent overviews by the Institute of Medicine²⁰ and the Georgia Health Policy Center¹³ provide excellent summaries of the range of methods and tools available. Many of these vehicles tap new sources of public and private capital. One particularly promising approach is for health care or public health organizations to partner with community development financing institutions. These institutions control investments in community and economic development that total \$13 billion annually.²¹

SPREADING THE ACCOUNTABLE HEALTH COMMUNITIES MODEL Finally, the Accountable Health Communities model has spread rapidly since it was introduced in 2012. Six states included it as part of the population health plans they developed for CMMI's State Innovation Models program. Also, CMS is fielding a demonstration program to test the effectiveness of certain aspects of the model in thirty-four sites.²²

Collectively, these trends support translating the balanced portfolio model from concept into reality. How has Vermont responded to these opportunities?

The Vermont Experience

With the receipt of the State Innovation Models grant that helped establish the Vermont Health Care Innovation Project in 2013, health reform in Vermont sharpened its focus on improving the

health of the population. The Population Health Work Group was created by the grant as a resource for other teams in Vermont working on payment models, care design, and so forth. However, the group also initiated its own projects, such as spreading the Accountable Health Communities concept.

In Vermont, the continuing evolution of broader health reform supported the development of the population health program. Areas of emphasis were as follows.

PRIMARY CARE In 2016 the payment model of the Blueprint for Health was modified to incorporate measures tied to the health of whole populations in practices' service areas, such as the percentage of patients whose diabetes is under poor control.⁷ The dollar amounts involved were small but important symbolically. The shift from accountability for only patients who used a practice to accountability for the total population in the area served by a practice is one of the key indicators that a health care system is moving from coordinated care to community health.

AN ALL-PAYER VALUE-BASED PAYMENT MODEL The Green Mountain Care Board took the lead in negotiating an innovative payment model with CMS that would be used by all payers in the state, including public programs and private insurers. This payment model used a population-based global budget that paid for a broad set of services. The all-payer waiver from CMS was signed in late 2016 for implementation in 2018.²³ The waiver agreement links payment to meeting explicit goals for the health of both the total population of the state and the attributed patient population in the One Care ACO.²⁴ (The attributed population is made up of the patients who use health care providers that are part of Vermont's One Care ACO for the majority of their care.) For example, the percentage of the state's population with one or more of three conditions—diabetes, high blood pressure, and chronic obstructive pulmonary disease—cannot increase by more than 1 percent over the five-year waiver.

HOSPITAL BUDGET REVIEW The guidance letter for 2018 budgets from the Green Mountain Care Board to Vermont hospitals explicitly supported the financing of population health. It granted increases in hospitals' budgets to pay for new programs that would achieve the population health goals defined described above in the description of the CMS waiver for an all-payer model. The shift in payment models has definitely captured hospitals' attention. The University of Vermont Medical Center's budget narrative documented this: "The [fiscal year] 2018 budget that we are proposing is unique in our history: it is the first to begin to bridge the gap between our current fee-for-service volume-driven system to

the value-based system that Vermont's health care reform efforts have been laying the groundwork for over the past several years.... Vermont's move to a value-based payment and delivery system, as embodied in the [all-payer model], is nothing short of disruptive innovation: it completely changes the business model that has driven health care providers for decades."²⁵

LOCAL COMMUNITY INFRASTRUCTURE The Vermont Health Care Innovation Project's Population Health Work Group created a statewide network of Accountable Health Communities in 2015. This work built on the local community infrastructure created by the Blueprint for Health.

The formation of three statewide ACOs in the state in 2012, each of which managed care in overlapping service areas, had caused confusion among both patients and community organizations. To reduce this confusion, the Blueprint for Health created a community collaborative in each health service area. These collaboratives brought together the care coordination staff and key social service providers in each HSA to reduce duplication, clarify roles, and identify gaps in supporting services. Thus, every HSA had a local structure and working relationships that could serve as a starting point for its Accountable Health Community. Funding for the collaboratives is built into the Blueprint for Health budget. The plan is to include this funding as a component of the global budget being implemented under the all-payer ACO waiver.

Phase 1 of the Vermont Accountable Health Communities initiative (also known as Accountable Communities for Health) defined the key functions of such communities and identified national exemplars of the model. Work in this phase included surveying the Vermont community landscape and identifying six health service areas that already had a local structure that could be the starting point for an Accountable Health Community.²⁶ Phase 2 created a learning network of communities that wanted to accelerate the development of their Accountable Health Community.²⁷ It included not only the six HSAs identified in phase 1, but also the state's seven remaining HSAs.

These efforts have created a supportive environment for the development of Accountable Health Communities to manage balanced portfolios in Vermont. A comprehensive network of such communities covering the entire state has been put in place. However, the communities vary widely in their capabilities. They range from well-established entities that are already seeing positive initial results to communities just starting to get organized.

The more mature Accountable Health Commu-

nities have a solid start in creating balanced portfolios. As one example, exhibit 3 summarizes the current portfolio of the Caledonia and South Essex Accountable Health Community (CAHC). Initiatives in this portfolio are organized by five community population goals and include collaborative efforts with public schools, a local food bank, and housing agencies. The CAHC's financing for both its interventions and the Accountable Health Communities infrastructure thus far has relied heavily on traditional sources of grants and matching donations from a community's hospital and other members of the CAHC leadership. However, the CAHC has begun to tap more innovative sources and is exploring other alternatives. Some core support for the CAHC has come through the Blueprint for Health and is built into the proposed global budget. The CAHC was also able to obtain a portion of ACOs' shared savings for its core support and for paying to include a mental health worker in this hospital's emergency department.

The CAHC was recently selected as one of the eight Accountable Health Communities across the US to participate in the Bridging for Health: Improving Community Health through Innovations in Financing project funded by the Robert Wood Johnson Foundation.²⁸ This greatly expanded the set of financial institutions involved with the CAHC, and it offers the prospect of adding some of the innovative financing methods discussed above. The new financial players now meeting with the CAHC include two local banks, the Vermont Housing Financing Authority, the Vermont Community Loan Fund (a community development financing institution), and the Northern Counties Investment Corporation (a nonprofit corporation that provides capital to strengthen businesses and communities).

Results And Lessons Learned

Vermont has made great progress in creating a statewide network of Accountable Health Communities. However, these communities are still in the early stages of establishing balanced portfolios and tapping the potential of innovative financing vehicles. Even with supportive developments in payment reform and strong technical assistance, progress comes slowly.

The results of Vermont's health reform efforts are being monitored in a variety of ways. The impacts of care coordination on reducing total per capita health spending and improving the patient experience have been documented by the Blueprint.⁷ The population whose care is now under the Blueprint umbrella has significantly lower total annual per capita spending (\$482 or 7.0 percent) compared to a matched

EXHIBIT 3

Portfolio of the Caledonia and South Essex Accountable Health Community (CAHC), by community population goal

Intervention	Target population	Time frame	Outcome	Risk	Financing vehicle
FINANCIALLY SECURE					
Bridging for Health ^a	Local financial institutions	Intermediate	Aligned investments	Moderate	Grants
PHYSICALLY HEALTHY					
Community health teams	Total population	Short	County health ranking	Low	All-payer global budget
Local rail trail	Total population	Intermediate	County health ranking	Low	Vermont Parks, NVRH community benefit
MENTALLY HEALTHY					
Resilience Collaborative	Families with young children	Long-term	Reduced ACEs	Moderate	In-kind
2 community health workers in school	Families with young children	Intermediate	Meeting social needs of families	Low	Promise Grant, NVRH community benefit
Embed mental health worker in emergency department	Patients with mental health comorbidity	Short	Integrated care	Low	ACO shared savings
WELL NOURISHED					
Regional Food System Plan ^b	Key stakeholders	Intermediate	Improved nutrition	Moderate	Core AHC funding
Small-scale place-based initiatives	High-risk and at-risk populations	Short	Improved nutrition	Low	In-kind
WELL HOUSED					
Seasonal warming shelter	Homeless population	Short	Housing security	Low	Vermont Agency of Human Services, Northeast Kingdom Human Services, Northeast Kingdom Community Action operations

SOURCE Author’s analysis of Caledonia and South Essex Accountable Health Community documents and email from Laura Ruggles, vice president for population health, Northeastern Vermont Regional Hospital (NVRH). **NOTES** Core funding for the Accountable Health Community comes from the state’s all-payer global budget and grants and matching donations from the hospital and other members of the CAHC leadership. ACE is adverse childhood experiences. ACO is accountable care organization. ^aThe Bridging for Health: Improving Community Health through Innovations in Financing project funded by Robert Wood Johnson Foundation. ^bRegional Food System Plan for Vermont’s Northeast Kingdom.

control group. These savings have been driven by lower inpatient use and pharmacy costs.⁶

The Accountable Health Communities are focused on the Triple Aim’s component of improving the health of the population, so their success should primarily be measured on that dimension. Under the new all-payer payment model being implemented in 2018 through the CMS waiver, the Green Mountain Care Board will monitor the total cost of care, patient experience, and specific population health objectives for both the total population of the state and the attributed patient populations of the One Care ACOs.²⁵ The state’s approach to monitoring changes in population health at the state and community levels is detailed in the Vermont Population Health Improvement Plan.²⁹ In addition, the Vermont Department of Health will be monitoring changes in a common set of key population health measures at the state and community levels, as detailed in the state’s five-year Population Health Plan.³⁰ One measure of success for the Accountable Health Communities will be their ability to achieve the population health objectives detailed in the appendix to the all-payer

ACO waiver, but it will be several years before we see those results. Finally, each Accountable Health Community will have customized objectives and measures for local priorities. Each will need internal mechanisms for tracking its overall results and the commitments of its members.

While Vermont has some unique characteristics, parts of its experience can be applicable to other states or counties interested in a community-based approach. The following are some lessons learned that should be generalizable to other sites.

ACCELERATE THE TRANSITION TO ALL-PAYER VALUE-BASED PAYMENT MODELS A prolonged transition to a new payment model greatly complicates making the operational changes required for success. When a health care provider has its revenue split between two payment systems with conflicting incentives, it has to act more cautiously to avoid financial disaster.³¹

INCORPORATE EXPLICIT POPULATION HEALTH GOALS IN THE PAYMENT MODEL Value-based models should incorporate explicit goals, incentives, and financing for improving the health and well-being of the total population in a geograph-

ic area. If the objective is to achieve the Triple Aim, then the payment model must be designed to reward all three goals.

BASE THE ACCOUNTABLE HEALTH COMMUNITY ON CARE COORDINATION In Vermont, the community health teams and community collaboratives created by the Blueprint for Health provided a solid foundation for building local Accountable Care Communities. Care coordination involves many of the same stakeholders, can demonstrate value more rapidly, and provides a path for building trust. Building on a care coordination structure also reinforces the case for having payment models finance the Accountable Health Communities infrastructure by including some costs such as staff, data analysis, and meeting facilitation in the payment model's financial targets. Just as the backbone organizations of Accountable Health Communities in other states have been built on a variety of foundations such as health care systems or United Way, the care coordination structure in other states could take a number of different forms. For example, one of the regional care coordination organizations for the Medicaid population in Oregon is exploring how it could evolve into an Accountable Health Community that served a broader population.³²

USE LEARNING NETWORKS Learning networks are an effective tool to use in spreading the network of Accountable Health Communities geographically. The opportunity to share experiences and compare notes has been invaluable at each stage of the development of the communities.

IMPLEMENT A FIRST WAVE OF TARGETED INTERVENTIONS PROMPTLY It is very easy to get stuck in the complex process of assessing needs and setting priorities, thus delaying the progression from planning to action. If an Accountable Health Community is going to prove its value, it must act sooner rather than later. The balanced portfolio will be built one intervention at a time. The experience of implementing those initial interventions to improve population health is certain to shape the portfolio. The balanced portfolio is a living document, and its composition

will evolve over time.

EXPLORE INNOVATIVE FINANCING SOURCES AND TOOLS Innovative vehicles for financing population health are promising but still experimental. Key relationships are being built, and the processes for committing funds for specific transactions often need to be invented. Obtaining more innovative financing is an issue for all of Vermont's Accountable Health Communities. Most of the interventions they have implemented have used traditional, limited-term funding. Communities in Vermont are still learning how to create a sustainable balanced portfolio by drawing on a more diverse set of sources.

ENGAGE THE STATE GOVERNMENT AS AN ENABLER Vermont's government played a key role in enabling a statewide network of Accountable Health Communities. No community has yet implemented the full balanced portfolio model, but several have made an impressive start. Vermont has shown how a state government can play a critical role in accelerating the implementation of a community-based strategy.

Conclusion

It is very hard to implement a community-based balanced portfolio strategy for population health anywhere, even in Vermont. The state is once again serving as a laboratory for testing change. There is no guarantee that the learning network will work as intended, but communities can learn more from trying than from just talking and planning. Concrete examples of how states approach the task of executing a population health strategy are valuable, especially at this early stage of learning. While each state must craft an approach based on its own assets and barriers, the community is clearly the focal point for improving the health of the population. Achieving our goals will require an effective, sustainable balanced portfolio that is built and managed by some form of Accountable Health Community structure. ■

Funding was provided by Vermont Health Care Innovation Project, contract, and the Office of the Associate Director for Policy at the Centers for Disease

Control and Prevention (CDC), contract. The author acknowledges the contributions of Paul Stange (CDC), Laura Steef (CDC), and Laura Ruggles

(Northeastern Vermont Regional Hospital).

NOTES

1 Zuckerman S, Holahan J. Despite criticism, the Affordable Care Act does much to contain health care costs [Internet]. Washington (DC): Urban Institute; 2012 Oct [cited 2018 Feb 1]. Available from: [https://www.urban.org/sites/default/files/publication/25856/412665-Despite-](https://www.urban.org/sites/default/files/publication/25856/412665-Despite)

[Criticism-The-Affordable-Care-Act-Does-Much-to-Contain-Health-Care-Costs.PDF](#)

2 Berwick DM, Nolan TW, Whittington J. The Triple Aim: care, health, and cost. *Health Aff (Millwood)*. 2008; 27(3):759-69.

3 National Academies of Science, En-

gineering, and Medicine. Roundtable on Population Health Improvement [Internet]. Washington (DC): The Academies; [last updated 2018 Jan 18; cited 2018 Feb 1]. Available from: <http://nationalacademies.org/hmd/activities/publichealth/populationhealthimprovement>

- .aspx
- 4 Hester JA, Stange PV, Seeff LC, Davis JB, Craft CA. Towards sustainable improvements in population health: overview of community integration structures and emerging innovations in financing [Internet]. Atlanta (GA): Centers for Disease Control and Prevention; 2015 [cited 2018 Feb 1]. (CDC Health Policy Series No. 2). Available from: <https://www.cdc.gov/policy/docs/financepaper.pdf>
 - 5 Carbee J. History of Vermont health care reform efforts [Internet]. Montpelier (VT): Vermont General Assembly; 2011 Jan 7 [cited 2018 Feb 1]. Available from: www.leg.state.vt.us/jfo/healthcare/Vermont_HCR_timeline_for_Senate_briefing.pdf
 - 6 Jones C, Finison K, McGraves-Lloyd K, Tremblay T, Mohlman MK, Tanzman B, et al. Vermont's community-oriented all-payer medical home model reduces expenditures and utilization while delivering high-quality care. *Popul Health Manag.* 2016;19(3):196–205.
 - 7 Department of Vermont Health Access. Vermont Blueprint for Health 2016 annual report [Internet]. Montpelier (VT): The Department; 2016 Dec 29 [cited 2018 Feb 1]. Available from: <http://blueprintforhealth.vermont.gov/sites/bfh/files/Vermont%20Blueprint%20for%20Health%202016%20Annual%20Report.pdf>
 - 8 Green Mountain Care Board. The board's role [Internet]. Montpelier (VT): State of Vermont; [cited 2018 Feb 1]. Available from: <http://gmcbboard.vermont.gov/board/role>
 - 9 McGovern L, Miller G, Hughes-Cromwick P. Health Policy Brief: the relative contribution of multiple determinants to health outcomes. *Health Affairs* [serial on the Internet]. 2014 Aug 21 [cited 2018 Feb 1]. Available from: <https://www.healthaffairs.org/doi/10.1377/hpb20140821.404487/full>
 - 10 Hester J, Auerbach J, Seeff L, Wheaton J, Brusuelas K, Singleton C. CDC's 618 Initiative: accelerating evidence into action [Internet]. Washington (DC): National Academy of Medicine; 2016 Feb 8 [cited 2018 Feb 1]. (Discussion Paper). Available from: <https://nam.edu/wp-content/uploads/2016/05/CDCs-618-Initiative-Accelerating-Evidence-into-Action.pdf>
 - 11 Centers for Disease Control and Prevention, Office of the Associate Director for Policy. HI-5: Health Impact in 5 Years [Internet]. Atlanta (GA): CDC; 2016 Aug [cited 2018 Feb 13]. Available from: <https://www.cdc.gov/policy/hst/hi5/index.html>
 - 12 Centers for Disease Control and Prevention, Office of the Associate Director for Policy. Community Health Improvement Navigator [home page on the Internet]. Atlanta (GA): CDC; 2015 May [cited 2018 Feb 13]. Available from: <https://www.cdc.gov/chinav/>
 - 13 Georgia Health Policy Center. Financing population health. Atlanta (GA): Georgia State University; 2016 Oct. (Working Paper).
 - 14 Homer J, Milstein B, Hirsch GB, Fisher ES. Combined regional investments could substantially enhance health system performance and be financially affordable. *Health Aff (Millwood)*. 2016;35(8):1435–43.
 - 15 Magnan S, Fisher E, Kindig D, Isham G, Wood D, Eustis M, et al. Achieving accountability for health and health care. *Minn Med*. 2012;95(11):37–9.
 - 16 Burwell SM. Setting value-based payment goals—HHS efforts to improve U.S. health care. *N Engl J Med*. 2015;372(10):897–9.
 - 17 Centers for Medicare and Medicaid Services. Partnership for Patients [home page on the Internet]. Baltimore (MD): CMS; [cited 2018 Feb 26]. Available from: <https://partnershipforpatients.cms.gov>
 - 18 Centers for Medicare and Medicaid Services, Center for Medicare and Medicaid Innovation. Report to Congress [Internet]. Baltimore (MD): CMS; 2016 Dec [cited 2018 Feb 1]. Available from: <https://innovation.cms.gov/Files/reports/rtc-2016.pdf>
 - 19 Reinvestment Fund, Public Health Institute. AHEAD: Alignment for Health Equity and Development [Internet]. Oakland (CA): The Institute; [cited 2018 Feb 1]. Available from: <https://phi.org/uploads/files/AHEAD%20-%20Opportunity.pdf>
 - 20 Institute of Medicine. Financing population health improvement: workshop summary. Washington (DC): National Academies Press; 2015.
 - 21 Erickson D, Andrews N. Partnerships among community development, public health, and health care could improve the well-being of low-income people. *Health Aff (Millwood)*. 2011;30(11):2056–63.
 - 22 CMS.gov [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Service; 2017. Press release, CMS' Accountable Health Communities Model selects 32 participants to serve as local "hubs" linking clinical and community services; 2017 Apr 6 [cited 2018 Feb 1]. Available from: <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Press-releases/2017-Press-releases-items/2017-04-06.html>
 - 23 Backus E, Gobeille A, Hogan C, Holmes J, Rambur B. The all-payer accountable care organization model: an opportunity for Vermont and an exemplar for the nation. *Health Affairs Blog* [blog on the Internet]. 2016 Nov 22 [cited 2018 Feb 1]. Available from: <https://www.healthaffairs.org/doi/10.1377/hlthaff.2016.11.22>
 - 24 Green Mountain Care Board. Vermont all-payer ACO model agreement, Appendix 1 [Internet]. Montpelier (VT): State of Vermont; 2016 [cited 2018 Feb 26]. Available from: <http://gmcbboard.vermont.gov/sites/gmcb/files/files/payment-reform/All%20Payer%20Model%20ACO%20Agreement.pdf>
 - 25 Green Mountain Care Board. FY18 individual hospital budget information: University of Vermont Medical Center [Internet]. Montpelier (VT): State of Vermont; c 2018 [cited 2018 Feb 1]. Available from: <http://gmcbboard.vermont.gov/content/fy18-individual-hospital-budget-information>
 - 26 Mikkelsen L, Haar WL. Accountable Communities for Health: opportunities and recommendations [Internet]. Oakland (CA): Prevention Institute; 2015 Jul [cited 2018 Feb 1]. Available from: <https://www.preventioninstitute.org/sites/default/files/publications/Accountable%20Communities%20for%20Health%20Opportunities%20and%20Recommendations.pdf>
 - 27 Grinnell S, Pearlman D. Vermont Accountable Communities for Health (ACH) Peer Learning Lab report [Internet]. Oakland (CA): Public Health Institute; 2017 Mar [cited 2018 Feb 1]. Available from: http://healthcareinnovation.vermont.gov/sites/vhchip/files/documents/ACH%20FINAL%20REPORT%203.25.17_0.pdf
 - 28 Georgia Health Policy Center. Bridging for Health [Internet]. Atlanta (GA): Georgia State University; [cited 2018 Feb 1]. Available from: <http://ghpc.gsu.edu/project/bridging-for-health/>
 - 29 Department of Health. SIM Population Health Improvement Plan Final June 2017 [Internet]. Burlington (VT): State of Vermont; 2017 [cited 2018 Feb 26]. Available from: <http://healthcareinnovation.vermont.gov/content/sim-population-health-plan-final-june-2017>
 - 30 Department of Health. Healthy Vermonters 2020 [Internet]. Burlington (VT): State of Vermont; 2013 Jan [cited 2018 Feb 26]. Available from: <http://www.healthvermont.gov/sites/default/files/documents/2016/11/Healthy%20Vermonters%202020%20Report.pdf>
 - 31 Kilfeather-Mackey RF, Cochran D, Lynch R. Health care's Catch 22. Lebanon (NH): Dartmouth Hitchcock Medical Center; 2013 Sep. (Working Paper).
 - 32 Based on the author's Bridging for Health site visit to Yamhill County, Oregon, July 11, 2016.