

# State Innovation Model Population Health Plan

Prepared by the State of Vermont for the Centers for Medicare and Medicaid Services

DRAFT FOR PUBLIC COMMENT

SEPTEMBER 27, 2016



# Table of Contents

---

<b>I. INTRODUCTION</b> .....	4
<b>II. BACKGROUND</b> .....	6
<b>III. FIVE PRINCIPLES FOR IMPROVING POPULATION HEALTH</b> .....	9
<b>IV. RECOMMENDATIONS</b> .....	10
Policy Levers and Strategies to Improve Population Health.....	10
Policy Levers: Governance Requirements.....	12
Policy Levers: Care Delivery Requirements and Incentives.....	14
Policy Levers: Metrics and Data.....	17
Policy Levers: Payment and Financing Methodologies.....	18
<b>V. REFERENCES</b> .....	20

---

## Appendices

APPENDIX A: Resources.....	21
APPENDIX B: Glossary.....	22
APPENDIX C: Acronyms.....	23
APPENDIX D: End Notes.....	24

Funding for this report was provided by  
the State of Vermont, Vermont Health Care Innovation  
Project, under Vermont's State Innovation Model (SIM)  
grant, awarded by the Center for Medicare and Medicaid  
Services Innovation Center (CMMI)

CDFA Number 93.624  
Federal Grant Number 1G1CMS 3311811-03-01

---

SPECIAL THANKS TBD

## What is Health?

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.<sup>1</sup>

## What is Population Health?

The health outcomes (morbidity, mortality, quality of life) of a group of individuals, including the distribution of such outcomes within the group.<sup>2</sup>

## Defining Population

“Population” is often defined differently by different groups

- **For Health Care Providers...**  
Managing the health outcomes of the patients in their practice
- **For Payers...**  
Managing the clinical outcomes of enrolled patients and attributed lives
- **For Community Members...**  
People who live in a geographic area, either local, regional, state, or national

## What are Population Health Strategies?<sup>10</sup>

- **Traditional Clinical Approaches** focus on individual health improvement for patients who use their provider-based services;
- **Innovative Patient Centered Care and/or Community Linkages** include community services for individual patients; and
- **Community-Wide Strategies** focus on improving health of the overall population or subpopulations.

# I. Introduction

Vermont’s Population Health Plan describes Vermont’s plans to expand on our State Innovation Model (SIM) population health efforts. This document builds on the work of the SIM Population Health Work Group and the activities performed over the life of the SIM Grant in Vermont. This Population Health Plan outlines the state’s strategies to improve the health and well-being of all Vermonters.

## The plan:

- » Leverages and builds upon existing priorities, strategies, and interventions included in Vermont’s State Health Improvement Plan (SHIP) and other state initiatives;
- » Addresses the integration of public health and health care delivery;
- » Leverages payment and delivery models as part of existing health care transformation efforts;
- » Includes a data-driven implementation plan that identifies measurable goals, objectives, and interventions that will enable the state to improve the health of the entire state population; and
- » Includes elements to ensure the long-term sustainability of identified interventions.

"We need to shift from focusing on health care to focusing on health."

*Karen Hein, MD*

The graphic below illustrates how the Population Health Plan, other SIM initiatives, and the SHIP fit together.

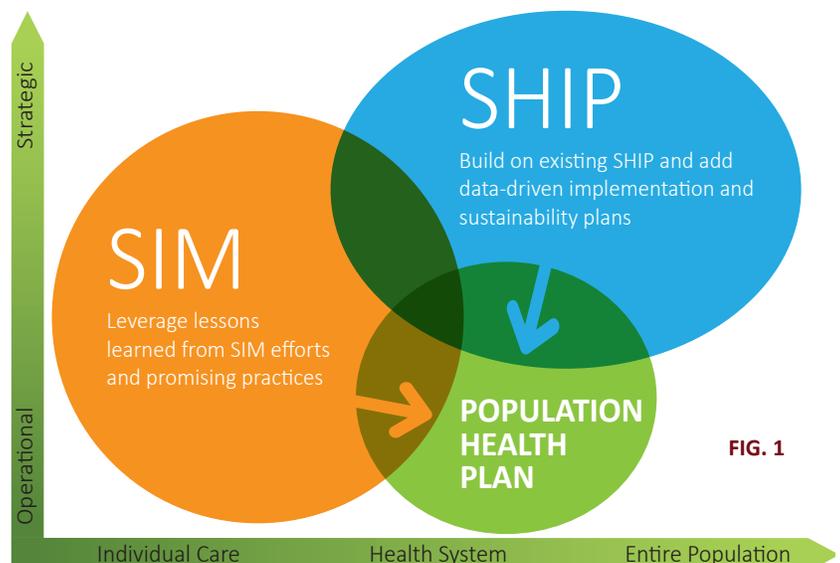


FIG. 1

*Vermont's SIM Grant, also known as the Vermont Health Care Innovation Project, provided the State with a unique opportunity to test the State's ability to transform the health care system in support of the Triple Aim:*

---

- ✓ Better care;
- ✓ Better health; and
- ✓ Lower costs.

*In order to achieve this we are working to:*

---

- » Design value-based payment models for all payers;
- » Support provider readiness for increased accountability; and
- » Improve our health data infrastructure to enable all to use timely information for clinical decision-making and policy-making.

A hallmark of our activities is collaboration between the public and private sectors. We are creating commitment to change and synergy between public and private cultures, policies, and behaviors. Vermont's SIM activities have invested significant resources in transforming our health care system by changing the way we pay for and deliver care, and by building critical health data infrastructure to support these changes. These efforts seek to achieve payment and delivery system reform goals found in Act 48, Vermont's landmark health reform legislation enacted in 2011.

Vermont's payment and delivery system efforts are occurring within the context of significant federal reforms. Since the passage of the Affordable Care Act in 2010, there have been major shifts across the country not only in the way providers think about health care, but in efforts to improve quality and moderate system costs. The Affordable Care Act sets expectations for key federal and state reforms and includes new requirements regarding the social determinants of health.

**Population health initiatives aim to improve the health of populations by focusing the health care system on prevention and wellness rather than illness.<sup>3</sup>**

---

*Maia Crawford, Tricia McGinnis, John Auerbach, and Kristin Golden*

## **State Health Improvement Plan (SHIP)**

---

In 2013, the Vermont Department of Health led a statewide engagement process to develop Vermont's State Health Improvement Plan. The development committee utilized a set of guiding principles to direct its work while developing the plan. These principles called for a focus on:

- Determination of priority areas based on available data;
- Prevention as the highest priority for improving population health;
- Addressing conditions that impact social determinants of health;
- Achieving health equity among population groups;
- Choosing evidence-based interventions that incorporate policy and environmental approaches; and
- Monitoring progress of interventions through a strong performance management system.

“Viewing community health as a long-term, capital-investment venture will be essential to realize population health improvement.”

Centers for Disease Control and Prevention

## II. Background

In order to improve the health of Vermonters, we need to widen the lens of our definition of health, its determinants, and the systems and actors that can influence it. The World Health Organization definition of health—which encompasses physical, mental, and social well-being—lays the groundwork for understanding that the improvement of health necessarily involves early intervention and working across sectors to ensure that the collective policy environment becomes one that supports health and well-being. Statewide health care payment and delivery system reforms have demonstrated their ability to help slow the growth of health care expenditures and improve methods for delivering health care. However, taken alone, they are not enough to fully attain Triple Aim goals and often fall short of improving all of the health goals of the population.

### Social Determinants of Health

The social determinants of health are the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.

Improved population health relies on improvements in those factors that determine health—behaviors, social and economic factors, clinical care, and the physical environment. To achieve the Triple Aim, many state and federal health policymakers are partnering with communities to implement population health initiatives that engage new community partners to address both health behaviors and the social factors influencing health such as housing, food, work, and community life. Improvements in the determinants rely on structural and systemic adjustments to our health system and an expanded sense of accountability for health. Further, policy makers and payers should incentivize partnerships that align goals and strategies across clinical care and population health improvement efforts and increase broad accountability for the health of a community. Importantly,

[p]ublic health practitioners can assist clinical providers in assuring that newly-insured people receive services that promote health and do not simply treat illness. They can help insurers identify the quality measures and incentives that yield better health outcomes and control costs. They can provide evidence of effective interventions that were previously funded by public health grants but can now be brought to scale if paid for by the health care sector. And they can even point to ways to complement traditional healthcare treatment with community-oriented population health measures.<sup>4</sup>

With the passing of the Affordable Care Act in 2010, new attention has been focused on moving the social determinants of Health<sup>5</sup> that play a larger role than health care in shaping life expectancy and health status over the life course. Health outcomes are the product of multiple determinants of health, including medical care, public health, genetics, behaviors, social factors, and environmental factors.<sup>6</sup>

Figures 2 and 3 illustrate two models often used to illustrate this concept. While these models are based on different research and attribute slightly different percentages of health outcomes to each category, they make the same point: access to health care and the quality of medical care account for a small percentage of the factors that contribute to premature death and poor quality of life.

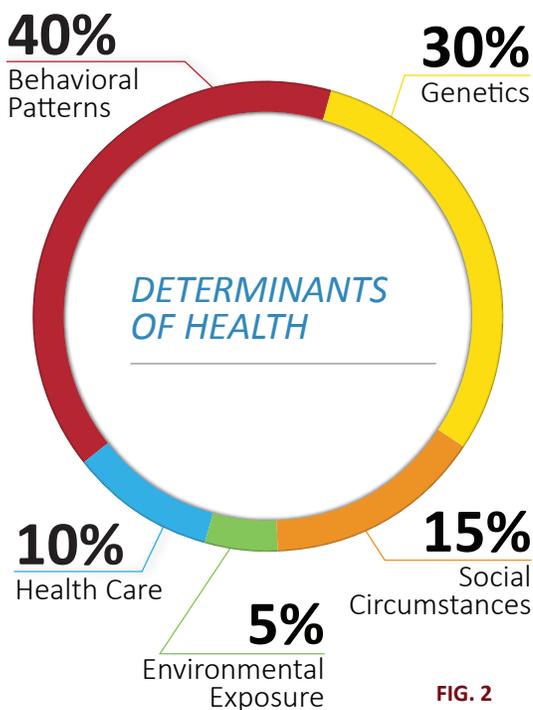


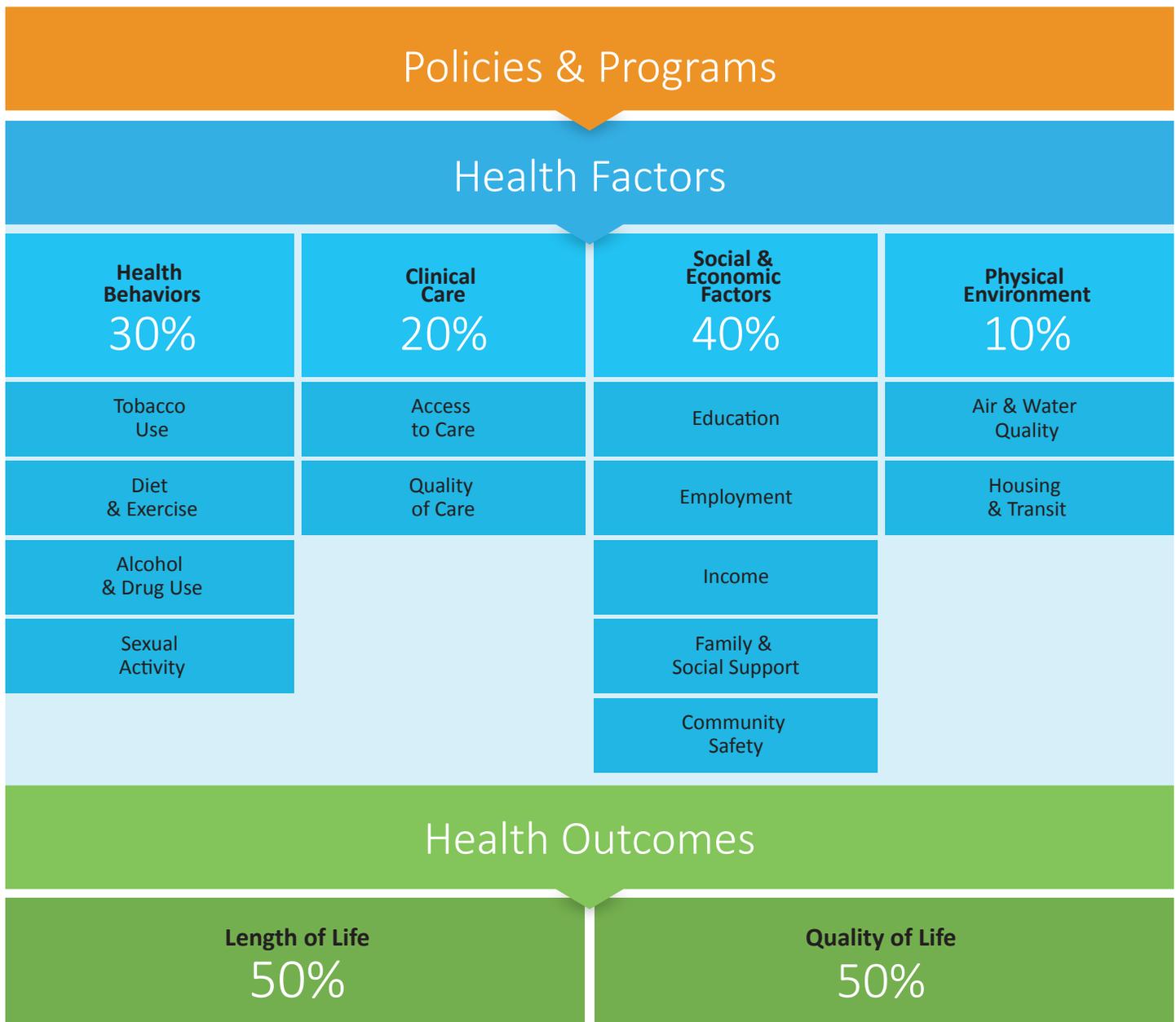
FIG. 2

As John Auerbach, the Centers for Disease Control’s Associate Director for Policy set, forth in the introduction to his three-part framework for national health policy reform:

The US healthcare system is in a time of unprecedented change. The expansion of insurance coverage, redesign of the reimbursements systems, and growing influence of patient-centered medical homes and accountable care organizations all bring opportunities for those interested in the prevention of disease, injury, and premature death for entire communities as well as individual patients.<sup>9</sup> It is, in short, a time when public health can come to the fore.<sup>10</sup>

## Improving Health Outcomes: The County Health Rankings Model

FIG. 3



# III. Five Principles for Improving Population Health

---

Vermont's Population Health Plan seeks to integrate population health and prevention into the reforms that will shape Vermont's future health system. Over the past two years, [Vermont's Population Health Work Group](#), which is comprised of health care, clinical, community, and consumer leaders and led by Dr. Karen Hein and Tracy Dolan, worked to develop these key principles.

## 1. Use Population-Level Data on Health Trends and Burden of Illness to Identify Priorities and Target Action.

Consider the health outcomes of a group of individuals, including the distribution of such outcomes within the group, in order to develop priorities and target action. Focus on identified state priorities given burden of illness, known preventable diseases, and evidence-based actions that have proven successful in changing health outcomes.

## 2. Focus on Prevention, Wellness, and Well-Being at All Levels – Individual, Health Care System, and Community.

Focus on actions taken to maintain wellness rather than solely on identifying and treating disease and illness. Particular focus should be on strategies to address mental health issues, substance use disorder, and long-term services and supports. Prevention can be woven into all levels of the health system to improve health outcomes.

## 3. Address the Multiple Contributors to Health Outcomes.

Identify the circumstances in which people are born, grow up, live, work, and age. These circumstances are in turn shaped by a wider set of forces, or root causes, including economics, social policies, and politics. Consider risk factors that lower the likelihood of positive outcomes while creating a higher likelihood of negative or socially undesirable outcomes. Consider protective factors that enhance the likelihood of positive outcomes while lessening the likelihood of negative consequences from exposure to risk.

## 4. Community Partners Engaged in Integrating Clinical Care and Service Delivery with Community-Wide Prevention Activities.

Build upon existing infrastructure (Community Collaboratives, Accountable Care Organizations, and public health programs), to connect a broad range of community-based resources, and to address the interrelationships among physical health, mental health, and substance abuse.

## 5. Create Sustainable Funding Models Which Support and Reward Improvements in Population Health, including Primary Prevention and Wellness.

Direct savings, incentives, and investments in efforts aimed at primary prevention, self-care, and maintaining wellness. Ensure funding priorities explicitly demonstrate spending and/or investments in prevention and wellness activities.

## Accountable Communities for Health

---

The **Accountable Community for Health (ACH)** is an aspirational model where the ACH is accountable for the health and well-being of the entire population in its defined geographic area, and not limited to a defined group of patients. An ACH supports the integration of high-quality medical care, mental health services, substance use disorder treatment, and long-term services and supports, and incorporates social services (governmental and non-governmental) for those in need of care. It also supports community-wide primary and secondary prevention efforts across its defined geographic area to reduce disparities in the distribution of health and wellness.

### The 9 Core Elements of an ACH are:

---

1. Mission
2. Multi-Sectoral Partnership
3. Integrator Organization
4. Governance
5. Data and Indicators
6. Strategy and Implementation
7. Community Member Engagement
8. Communications
9. Sustainable Financing

ACHs explicitly build on the governance structures and partnerships developed by the Community Collaboratives (see sidebar on pg. 12), bringing in a new set of partners to integrate population health and prevention (including VDH, public health and community prevention coalitions, and additional partners from the social and community services sector) as well as a new framework and set of tools to help Community Collaboratives develop and meet population health goals. A visual model showing the relationship between ACHs and Community Collaboratives is shown in Figure 4 (see pg. 13).

## The State Health Improvement Plan

The State Health Improvement Plan is a five-year blueprint that sets three broad [Healthy Vermonters 2020](#) goals and thirteen indicators as the top public health priorities for 2013-2017, with recommended evidence-based prevention strategies and interventions.

- **GOAL 1:**  
Reduce the prevalence of chronic disease (e.g., heart disease, diabetes, cancer, and respiratory diseases)
- **GOAL 2:**  
Reduce the prevalence of individuals with or at risk of substance abuse or mental illness (e.g., suicide, substance use, prescription drug abuse, and opioid abuse)
- **GOAL 3:**  
Improve childhood immunization rates (vaccinate against preventable diseases)

## Health in All Policies

Health in All Policies approaches seek to more fully integrate health considerations into all programs and policies, and promote better health outcomes through cross-sector collaboration and partnership. Health in All Policies considers potential impacts of every policy on health and well-being, and utilizes all available authorities, policies, budgets, and programs to improve health.

## IV. Recommendations

This section of the Population Health Plan identifies recommendations for integrating population health strategies and goals into future health reform activities through four categories of policy levers: governance requirements, care delivery requirements and incentives, metrics and data, and payment and financing methodologies.

Vermont has historically been on the leading edge of health reform across the nation. The State has a strong role in policy development, implementation, funding, and regulation which sets the necessary foundation for statewide reforms. Many of the reforms require layers of change that must be adopted by partners at the regional level. Local innovation and community leadership have been a key thread running through many reforms implemented over the past decade. The State recognizes the need for reform efforts to be responsive to the needs of each community or region's unique population, noting that success depends on building upon local resources and partnerships. One successful example of this is the Community Collaboratives, supported by the Blueprint for Health, ACOs, and the Vermont Health Care Innovation Project. They have developed regional governance from across health care, social services, and community organizations to identify priorities for regional improvement based on local needs and to pursue performance and quality improvement projects that integrate care and coordinate services which take advantage of local resources and relationships.

### *Policy Levers and Strategies to Improve Population Health*

Table 1 outlines four broad categories of policy levers to support integration of population health into health-reform activities, particularly payment and delivery system reforms.<sup>11</sup> These categories and Vermont-specific policy levers are intended to support advancement of the population health goals described in the Introduction of this report.

**Table 1: Summary of Policy Levers that Promote the Adoption of Population Health Interventions<sup>11</sup>**

Category	Descriptions and Examples of Potential Levers	Vermont-Specific Policy Levers	
		State	Community/Regional
Governance Requirements	<ul style="list-style-type: none"> <li>» Require public health representatives on regional and statewide governance or advisory structures.</li> <li>» Require or encourage partnerships across sectors, including criminal justice, transportation, recreation, food system and education.</li> </ul>	<p>Ensure VDH representation in state-level payment &amp; delivery system Reforms like the Blueprint for Health, Medicaid Pathway, All-Payer Model oversight and monitoring.</p> <p>Expanding partnerships like the Governor’s Health in All Policies Task Force.</p>	<p>Ensure public health representation in regional governance like the Community Collaboratives.</p> <p>Sponsor local Health in All Policies efforts.</p>
Care Delivery Requirements and Incentives	<ul style="list-style-type: none"> <li>» Create opportunities for integration of primary care, mental health, substance use disorder treatment, and long-term services and supports (as described in the Vermont Model of Care).</li> <li>» Increase referrals to specific public health programs, such as tobacco cessation.</li> <li>» Offer comprehensive preventive and social services.</li> <li>» Include non-medical services that can improve health, such as housing, in total cost of care calculations.</li> <li>» Support programs that bridge medical care with efforts to impact social determinants.</li> </ul>	<p>Utilize existing regulatory oversight mechanisms — like Certificate of Need, Health Resource Allocation Planning, Insurance Rate Review, and Hospital Budget Review — to support the tasks identified.</p> <p>Embed integration requirements into evaluation and monitoring activities for all state-level payment and delivery system reforms.</p>	<p>Incentivize regional efforts to support these requirements. Examples include: Accountable Communities for Health, Community Collaboratives, and Learning Collaboratives.</p>
Metrics and Data	<ul style="list-style-type: none"> <li>» Begin the measure development process by identifying the most significant contributors to the health outcomes that drive morbidity and mortality — (physical activity, tobacco use, and diet lead to diabetes, heart disease, respiratory disease and cancer).</li> <li>» Develop population health metrics that incorporate both short-term actions/ processes and longer-term outcomes.</li> <li>» Develop and require metrics that capture population health interventions.</li> <li>» Leverage existing data sources to identify population health needs and support collaborations.</li> </ul>	<p>Utilize existing data sources like: claims data, Behavioral Risk Factor Surveillance Survey, and the Blueprint Clinical Registry to identify health outcomes and its contributors.</p> <p>Engage in review and design of metrics that support health outcome improvement, including in specific payment and delivery system reform frameworks like those in the Medicaid Pathway and All-Payer Model.</p>	<p>Use local data to assess community health needs within each Hospital Service Area.</p> <p>Provide regional specific data, like the Blueprint Profiles, for each hospital service area.</p>
Payment and Financing Methodologies	<ul style="list-style-type: none"> <li>» Use financing to help provider groups address social determinants of health and initiatives that impact future health status.</li> <li>» Employ value-based payment mechanisms that hold providers financially accountable for community-level performance to encourage partnerships across provider organizations and with prevention and public health.</li> </ul>	<p>Utilize existing regulatory oversight mechanisms — like Certificate of Need, Health Resource Allocation Planning, Insurance Rate Review, and Hospital Budget Review — to support the tasks identified.</p> <p>Embed public health accountability requirements into payment, evaluation, and monitoring activities for all state-level payment and delivery system reforms.</p>	<p>Encourage alternative, region-specific financing and funding activities. Examples include recent investments in Chittenden County to provide support for the homeless population.</p>

## Community Collaboratives

Community Collaboratives are local structures within each of the fourteen Hospital Service areas,<sup>13</sup> which support provider collaboration and alignment between Blueprint and ACO quality measurement, data analysis, clinical priorities, and improvement efforts.

They convene leaders from the health care provider community, as well as social service and community organizations. These collaboratives seek to ensure integrated health including: care for those with substance use disorders, mental health needs, and/or those who are in need of long-term services and supports. Integrated care would provide necessary programs, services, and infrastructure to address the circumstances in individuals' lives which contribute to health.

Many Community Collaboratives now include representatives from the public health and prevention sector, which has been promoted by participation in the Accountable Communities for Health Peer Learning Laboratory (see sidebar on pg. 9). A visual model showing the relationship between ACHs and Community Collaboratives is shown in Figure 4.

## Policy Levers: Governance Requirements

Governance requirements include regulatory or other actions intended to include entities that have the authority, data/information, and strategies to impact the multiple factors that contribute to positive health outcomes. This action includes appointing public health and prevention (or other sectors not traditionally included in health care decision-making) on governing bodies, including boards or advisory structures, to encourage cross-sector partnership and collaboration.<sup>12</sup>

### Levers at the State Level:

There are a number of possible ways to add public health/prevention and other sector representatives to state-level payment and delivery system reforms. Some examples include: requiring entities to have public health and social services organization representatives on their boards; providing guidance about how entities should define clinical policies, revenue-sharing structures, and patient attribution to enhance population health; and/or incenting or requiring partnerships with public health, social services, and community agencies.

#### Specific activities in this area could include:

- » Embedding governance requirements in Medicaid contracts with ACOs and other providers.
- » Requiring ACOs, through Act 113 of 2016, to include public health and prevention leaders in their governing entities.
- » Expanding partnerships to other sectors that impact health. Build upon the efforts of the Governor's Health in All Policies Task Force—which brings together nine core state agencies charged with considering potential impacts to health and well-being, and with utilizing available authorities, policies, budgets, and programs to improve health.
- » Providing educational materials about statewide public health and prevention efforts to regional organizations.
- » Creating a statewide public/private stakeholder group, similar to the Population Health Work Group, that recommends activities that improve health to State health policy leadership.

### Levers at the Community or Regional Level:

Similarly, there are numerous ways to add public health/prevention and other sector representatives to community or regional level payment and delivery reforms. There are some current, significant efforts in this area including, Community Collaboratives. The Community Collaboratives include population health and prevention partners who participate in regional priority setting and selection of local improvement projects. This collaboration also fosters strong relationships between the public health sector and clinical care and social services sectors.

#### Specific activities in this area could include:

- » Expansion of efforts to broaden partnerships with other sectors that impact health at the community or regional levels including housing, business, city and town planners, among others.
- » Expand existing Community Collaboratives so they are able to meet all of the components of Accountable Communities for Health. (For more information on ACHs, see sidebar on pg. 9.)

FIG. 4



## Policy Levers: Care Delivery Requirements and Incentives

Care delivery requirements and incentives can demand or support health care providers and organizations in changing their behavior to support population health goals, either through specific changes or more broadly.<sup>14</sup>

Vermont has effectively utilized state policy levers to create the foundation for payment and delivery system reforms that shift from fragmented to more integrated care. A key next step is to expand upon the regional integration started with the Community Collaboratives. In the graphic below, Vermont is actively moving from 2.0 to 3.0 as each region defines its unique integration needs.

### US Health Care Delivery System Evolution

FIG. 5

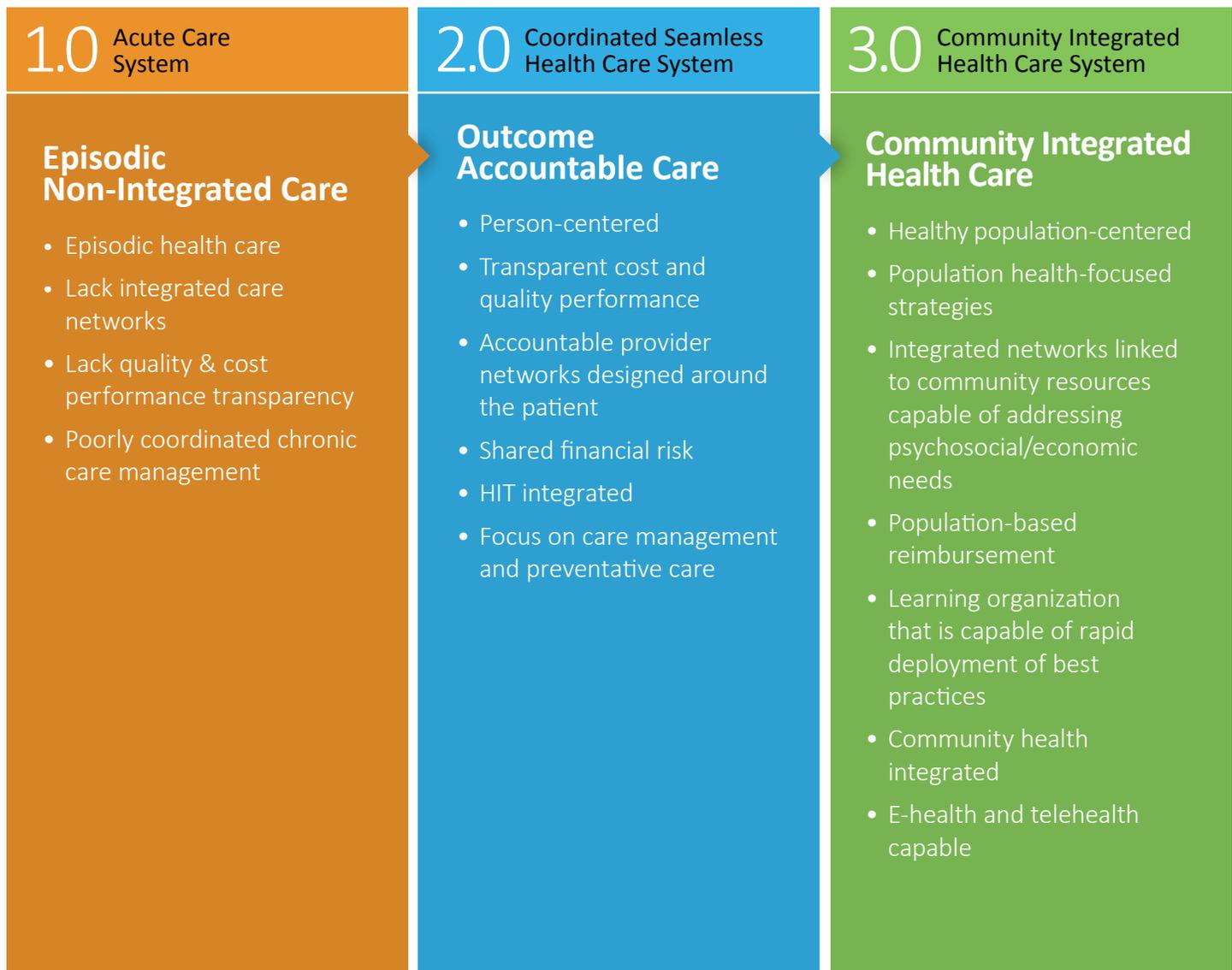


Figure 6, adapted from a National Quality Forum tool kit, offers suggestions on community processes for assessing community health, identifying population health goals and determining strategies.



## Prevention Strategies: Framework<sup>10</sup>

---

### Traditional Clinical Approaches

This category includes increasing the use of prevention and screening activities routinely conducted by clinical providers. Examples include: annual influenza vaccination, use of aspirin for those at increased risk of a cardiovascular event, screening for tobacco use, screening for substance use, and screening for domestic or other violence.

### Innovative Patient-Centered Care and/or Community Linkages

This category includes innovative, evidence-based strategies offered within the community that are not typically leveraged by health care systems under fee-for-service payment models. Examples include: community-based preventive services, health education to promote health literacy and individual self-management, and routine use of community health teams, medication assistance treatment teams, and community health workers.

### Community-Wide Strategies

This category includes specific system-wide action steps demonstrating investment in total population health. Examples include: funding for smoking-cessation groups and chronic disease self-management groups in the larger community, supporting legislation that addresses public health issues (i.e., smoking bans in bars and restaurants), and providing healthier food options at State-operated venues (i.e., public schools) and in all meetings, whomever the host.

---

Prevention Change Packets developed by the Vermont Department of Health are intended to provide users with suggested evidence-based and best practices to include prevention in addressing health issues across the three domains.

## Levers at the State Level

---

Regulatory oversight through processes like the State's Certificate of Need program, Health Resource Allocation Plan, Insurance Rate Review, Hospital Budget Review, Professional Licensure, and contracting can help the State direct the overall flow and distribution of health resources within the State.

### Specific activities in this area could include:

- » Expectations within regulatory processes and contract vehicles that require entities to demonstrate how they will meet the components of Healthy Vermonters 2020, the All-Payer Model population health measures, and the Vermont Model of Care.<sup>15</sup>
- » Utilization of Prevention Change Packets<sup>FN</sup> — developed by VDH in collaboration with OneCare Vermont for the main ACO measures using the Prevention Strategies Framework (see box)— to assist clinical and community providers, Community Collaborative leaders, and public health partners in working across systems to incorporate prevention strategies to improve population health.

## Levers at the Community or Regional Level:

---

There are numerous community or regional levers that can support care delivery changes at the local level. The Community Collaboratives are a main vehicle through which local care improvement efforts can occur.

### Specific activities in this area could include:

- » Incentivizing Community Collaboratives to develop into Accountable Communities for Health, resulting in an expanded the focus that includes community-wide primary and secondary prevention efforts which affect broad policy changes, key community infrastructure, and which require partnerships with a broader set of partners.

## Policy Levers: Metrics and Data

---

By integrating measurement of population health outcomes, Vermont can increase provider, policymaker, and community attention to priority community health concerns and the factors that drive them.<sup>16</sup> In addition, Vermont can:

- » Requiring the collection of specific population health metrics;
- » Providing a list of metrics to choose from; and
- » Setting guidelines around the need to move away from only using clinical, claims, and encounter-based metrics.

### Levers at the State Level

---

Inclusion of population health measures in state-level payment and delivery system reform activities brings provider and policymaker attention to opportunities for increased prevention activities to improve population health outcomes. One example of this is in the population health measures that are tracked through the All-Payer Model framework.

#### Specific activities in this area could include:

- » Inclusion of screening measures for obesity, tobacco use, cancer into the payment and reporting quality measures for payment reforms. This practice, as part of the Medicaid and commercial Shared Savings Program, has driven priority setting by Vermont's ACOs, Blueprint practices, and Community Collaboratives.
- » Use of population health measures to drive statewide priority setting for improvement initiatives.

## Key Data Sources

---

### Healthy Vermonters 2020

This is the state health assessment plan published in 2012 by the Vermont Department of Health that documents the health status of Vermonters and will guide the work of public health through 2020. In addition to the plan, there is a Data Explorer web page that allows for the user to search the 21 focus areas by County, Health District Offices, and Hospital Service Areas from 2001 thru 2009. This report presents more than 100 public health indicators and goals for 2020 in 21 focus areas organized into five thematic chapters.

### Data Encyclopedia: A Review of Data Sources and Resources Available at The Vermont Department of Health

This publication provides an overview of the commonly used data sources to assess and track population health outcomes as well as contributors to disease in Vermont. The data sources include surveys, registries (birth, death, disease, and immunization), health care claims data, discharge data, and licensing data. Public use data sets have been developed for many of these sources. This Encyclopedia includes the Behavioral Risk Factor Surveillance Survey, Immunization Registry, Vital Records for Birth and Death, Vital Records for Marriage/Divorce/Civil Unions/Dissolutions/ITDPS, and the Youth Risk Behavior Survey.

### Blueprint Hospital Service Area (HSA) Health Care Data Profiles

The Vermont Blueprint for Health's Hospital Service Area (HSA) Profiles, found here, provide policymakers, health care providers, and other stakeholders with information on health care expenditures, utilization, and care quality measures at the HSA level. These Profiles are created using claims data and clinical data from the Blueprint Clinical Registry.

### Vermont Uniform Hospital Discharge Data Set

The Public Use Files are derived from the Vermont Uniform Hospital Discharge Data Set (VUHDDS). With the Public Use Files, data users can generate their own reports about the use of the Vermont hospitals by residents and non-residents.

### Household Health Insurance Survey

The state conducts periodic household surveys of Vermont residents to measure the uninsured rate and coverage sources for insured residents and also collects information on relevant demographic, income, and employment characteristics.

### Expenditure Analysis

This is an analytical data source and provides the history of spending by year, payer, and provider since 1992. It is a combination of two separate reports: 1) health care spending for services delivered in Vermont; and 2) health care spending for services provided to Vermont residents within Vermont and in other states.

## Community Spotlight:

### Mt. Ascutney Mission, Vision, and Goals from the Community Health Needs Assessment

#### MISSION:

To improve the lives of those we serve.

#### VISION:

Development of programs based on community need and sustainability. The overarching community goals are:

1. Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death;
2. Achieve health equity, eliminate disparities, and improve the health of all groups;
3. Create social and physical environments that promote good health for all; and
4. Promote quality of life, healthy development, and healthy behaviors across all life stages.

## Levers at the Community or Regional Level:

At the community and regional levels, needs and resources can be assessed through tools like Community Health Needs Assessments and sharing of region-specific data to support quality improvement initiative.

#### Specific activities in this area could include:

- » Federal law requires non-profit hospitals to conduct CHNAs and to develop an implementation strategy to meet those needs, every three years. The Green Mountain Care Board has instructed Vermont's hospitals to submit their CHNAs as part of the budget review process, and has established a Policy on Community Health Needs Assessments to guide their use in the budget review process. They are used by hospitals to identify areas of focus and are an integral resource for a community-benefit plan. Public health agencies are critical partners in the CHNA community engagement process and provide much of data used by Vermont hospitals.
- » Provide regional specific data, like that through the Blueprint Profiles to each hospital service area.

## Policy Levers: Payment and Financing Methodologies

The biggest single barrier to improving the health of Vermont's population is the lack of a sustainable financial model which supports and rewards improvements in population health. Payment methodologies (how health care providers and other organizations are paid for their work) and financing methodologies (how funds move through the health system) can incentivize particular behaviors by providers and the system as a whole—including increased attention to population health goals or social determinants of health.

Some actions to support investment in population health services (including non-clinical services) that maximize health outcomes include pursuing alternative payment models<sup>17</sup> such as:

- » Shared Savings ACO-based approaches;
- » Bundled/Episodic payments; and
- » Population-based payments across all payers.

In addition to value-based payment models, Vermont should explore alternative financing models for population health. In the past, population health interventions have been financed primarily by grants and limited-term awards, which resulted in the termination of successful programs when their funding ended. A conceptual model for sustainable financing includes the following elements:

1. **Diverse financing vehicles:** There has been the emergence of a diverse set of financing vehicles and sources of funds for population health interventions.
2. **Balanced portfolio of interventions:** Meeting the needs of a community requires implementing a combination of different programs, which are balanced in terms of their time horizon for producing results, their risk of failure, their scale, and their financing vehicle.
3. **Integrator or backbone organization:** The integrator brings together key community stakeholders to assess needs and build a consensus of priorities. It then builds the balanced portfolio over time, matching each intervention with an appropriate financing vehicle and an implementer organization.
4. **Reinvestment of savings:** One of the basic principles of long-term sustainability is capturing a portion of the savings of each intervention and returning it to the community for reinvestment. A community wellness fund is a useful repository for these captured savings.<sup>18</sup>

## Levers at the State Level

---

The State can use its various regulatory oversight mechanisms to require or encourage health care entities to provide financing for efforts that meet population health goals. The State can also include public health accountability requirements in the payment, monitoring, and evaluation activities for all state-level payment and delivery system reforms.

### Specific activities in this area could include:

- » The Green Mountain Care Board can continue to support hospital investment in population health initiatives through its Community Health Needs Assessment Policy.
- » The Department of Health and Department of Vermont Health Access can continue to work together to identify opportunities to increase referral to population health management activities such as smoking-cessation classes and medications by allowing utilization of certain codes by clinicians for payment.
- » The Agency of Human Services, and its Departments, can incorporate mechanisms that encourage or require public health accountability in value-based contracts.
- » Tracking of population health measures through the All-Payer Model.

## Levers at the Community or Regional Level:

---

Regional or community-specific initiatives that foster financing of public health initiatives at the local level can be encouraged through local collaborations and prioritization of public health initiatives.

### Specific activities in this area could include:

- » Pooling resources within a region to support a target a specific initiative like food security or ending homelessness.

“There is growing recognition among state policymakers that improving health outcomes is as much about addressing the social determinants of poor health as it is about providing high-quality medical care. ... [T]he traditional fee-for-service (FFS) payment system does not support the kinds of reforms that would enable states to focus on the non-medical factors influencing health. A number of states are...finding ways to use payment models that reward good outcomes over greater volume and allow providers to invest in non-medical interventions that improve health.”<sup>19</sup>

*Maia Crawford, Tricia McGinnis, John Auerbach, and Kristin Golden*

## Community Spotlight:

**The University of Vermont Medical Center (UVM Medical Center)** has forged partnerships with community organizations across Vermont to develop efficient and creative solutions for long-term, sustainable housing options. Starting in the fall of 2013, UVM Medical Center granted funds to Harbor Place, a motel that offers temporary, emergency housing and connects guests to case management and health care services to community members who lack stable housing. Since then, they have also paid for over 600 bed nights for patients. Through partnerships and collaborations with community organizations, they developed upstream approaches to combat the effects of poverty in Vermont. Over the past two years, they have supported an emergency warming shelter in Burlington through direct funding and a daily linen service. In the spring of 2015, UVM Medical Center collaborated with the Champlain Housing Trust, Burlington Housing Authority, Safe Harbor Health Center's Homeless Healthcare Program and others to support Beacon Apartments, a permanent housing site that will provide apartments for chronically homeless adults. The result has been significant savings in health care services, as individuals are better-connected to services to keep them well and stable.

## V. Measuring Successful Plan Implementation

---

If we are serious about achieving the Triple Aim — better care, better health, and lower cost — we must use the principles and strategies of population health and prevention.

### **We will know we are on the path to success when:**

- » Health system actions are primarily driven by data about population health outcomes; goals and targets should be tied to these statewide data and priorities identified in the State Health Improvement Plan.
- » The health system creates health and wellness opportunity across the care and age continuum and utilizes approaches that recognize the interconnection between physical health, mental health and substance use, and the underlying societal factors.
- » Payment and financing mechanisms are in place for prevention strategies in the clinical setting, through clinical/community partnerships, and for community wide infrastructure and action.
- » An expanded number of entities are accountable for the health of the community including health care providers, public health, community providers. The accountability is expanded to include others who affect health through their work on housing, economic development, transportation, and more, resulting in true influences on the social determinants of health.

# Appendix A: RESOURCES

---

# Appendix B: GLOSSARY

---

## **Determinants of Health**

Factors affecting the health of individuals in a population or subpopulation, such as the social and physical environment, behaviors, and healthcare.<sup>20</sup>

## **Health**

A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.<sup>1</sup>

## **Health Disparities**

Differences in health status or health outcomes within a population.<sup>22</sup>

## **Health Equity**

The absence of systematic disparities in health or major social determinants of health between groups with different underlying social or economic advantages/disadvantages.<sup>23</sup>

## **Health Inequity**

Differences in health status between groups with varying social and economic advantage/disadvantage (e.g., socioeconomic status, gender, age, physical disability, sexual orientation and gender identity, race and ethnicity) that are caused by inequitable, systemic differences in social conditions (i.e., policies and circumstances that contribute to health determinants).

## **Population (also, Total Population)**

All individuals in a specified geopolitical area.<sup>24</sup>

## **Population Health**

The health of a population, including the distribution of health outcomes and disparities in the population.<sup>2</sup>

## **Subpopulation**

A group of individuals that is a smaller part of a population. Subpopulations can be defined by geographic proximity, age, race, ethnicity, occupations, schools, health conditions, disabilities, interests, or other shared characteristics.<sup>26</sup>

# Appendix C: ACRONYMS

---

<b>ACA</b> Affordable Care Act	<b>CON</b> Certificate of need	<b>SIM</b> State Innovation Models
<b>ACH</b> Accountable Community for Health	<b>DMH</b> Department of Mental Health (VT)	<b>SHIP</b> State Health Improvement Plan
<b>ACO</b> Accountable Care Organization	<b>DVHA</b> Department of Vermont Health Access	<b>VDH</b> Vermont Department of Health
<b>AHS</b> Agency of Human Services (VT)	<b>FFS</b> Fee-for-Service	<b>VHCIP</b> Vermont Health Care Innovation Project
<b>APHA</b> American Public Health Associations	<b>HDI</b> Health Data Infrastructure	<b>VHCURES</b> Vermont Healthcare Claims Uniform Reporting and Evaluation System
<b>CAHPS</b> Consumer assessment of health plans	<b>HEDIS</b> Health Plan Employer Data and Information Set	
<b>CHNA</b> Community Health Needs Assessment	<b>HIT</b> Health Information Technology	
<b>CHW</b> Community Health Worker	<b>HST</b> ???	
<b>CMMI</b> Center for Medicare and Medicaid Innovation (federal)	<b>OCV</b> OneCare Vermont	
<b>CMS</b> Centers for Medicare and Medicaid Services (federal)	<b>PHWG</b> Population Health Work Group	

# Appendix D: REFERENCES (Note: In Draft Form)

- <sup>1</sup>Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.
- <sup>2</sup>Adapted from definition of population health in Kindig D, Stoddart G. What is population health? *Am J Public Health.* 2003;93(3):380-383.
- <sup>3</sup>Maia Crawford, Tricia McGinnis, John Auerbach, and Kristin Golden (March 2015). "Population Health in Medicaid Delivery System Reforms." Milbank Memorial Fund. Available at [http://www.milbank.org/uploads/documents/papers/CHCS\\_PopulationHealth\\_IssueBrief.pdf](http://www.milbank.org/uploads/documents/papers/CHCS_PopulationHealth_IssueBrief.pdf).  
T.R. Frieden. "A framework for public health action: the health impact pyramid." *American Journal of Public Health* 100.4 (2010): 590-595. AND National Prevention Council. "National Prevention Strategy." 2011. Available at <http://www.surgeongeneral.gov/initiatives/prevention/strategy/index.html> (accessed February 11, 2015). As cited in Population Health in Medicaid Delivery System Reforms (Crawford).
- <sup>4</sup>Auerbach, J. (2016). The 3 Buckets of Prevention. *Journal of Public Health Management and Practice*, 22(3), 215-218. doi:10.1097/phh.0000000000000381.
- <sup>5</sup>The social determinants of health are the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics <http://www.cdc.gov/socialdeterminants/>.
- <sup>6</sup>Institute of Medicine, Roundtable on Population Health Improvement. For more information, see: <http://iom.nationalacademies.org/Activities/PublicHealth/PopulationHealthImprovementRT/VisionMission>.
- <sup>7</sup>Schroeder, S. A. (2007). We Can Do Better — Improving the Health of the American People. *New England Journal of Medicine N Engl J Med*, 357(12), 1221-1228. doi:10.1056/nejmsa073350  
Adapted from: McGinnis JM, et.al. The Case for More Active Policy Attention to Health Promotion. *Health Aff (Millwood)* 2002;21(2):78-93.
- <sup>8</sup>Schroeder, S. A. (2007). We Can Do Better — Improving the Health of the American People. *New England Journal of Medicine N Engl J Med*, 357(12), 1221-1228. doi:10.1056/nejmsa073350  
Adapted from: McGinnis JM, et.al. The Case for More Active Policy Attention to Health Promotion. *Health Aff (Millwood)* 2002;21(2):78-93.
- <sup>9</sup>Koh H, Tavenner M. Connecting Care through the clinic and community for a healthier America. *Am J Public Health.* 2012;102(suppl 3):S305-S307.doi:10.2015/AJPH.2012.300760.  
AND Halfon N, Long P, Chang D, Hester J, Inkelas M, Rodgers A. Applying A 3.0 transformation framework to guide large scale health reform. *Health Aff.* 2014;33(11):2003-2011. doi:10.1377/lthaff.2014.0485. As cited in Auerbach, J. (2016). The 3 Buckets of Prevention. *Journal of Public Health Management and Practice*, 22(3), 215-218. doi:10.1097/phh.0000000000000381.
- <sup>10</sup>Auerbach, J. (2016). The 3 Buckets of Prevention. *Journal of Public Health Management and Practice*, 22(3), 215-218. doi:10.1097/phh.0000000000000381.
- <sup>11</sup>This table is adapted from Center for Health Care Strategies, Inc. (2015).Population Health Integraton Framework. Burlington, VT: Heflin, Katherine and McGinnis, Tricia Some examples have been adapted from: Manatt, Phelps & Phillips (2015). "Policy Levers Template."
- <sup>12</sup>Center for Health Care Strategies, Inc. (2015).Population Health Integration Framework. Burlington, VT: Heflin, Katherine and McGinnis, Tricia.
- <sup>13</sup>Health Service Area definitions can be found here: <http://www.healthvermont.gov/GIS/>.
- <sup>14</sup>Ibid.
- <sup>15</sup>The Vermont Model of Care can be found here: <http://healthcareinnovation.vermont.gov/content/vt-integrated-model-care-overview-may-2016>.
- <sup>16</sup>Center for Health Care Strategies, Inc. (2015).Population Health Integration Framework. Burlington, VT: Heflin, Katherine and McGinnis, Tricia.

- <sup>17</sup>The Learning and Action Network White Paper provides more information on alternative payment models: The Health Care Payment and Learning & Action Network (HCP LAN). Accelerating and Aligning Population-based Payment Models: Financial Benchmarking. 2016. <https://hcp-lan.org/groups/pbp/fb-final-whitepaper/>.
- <sup>18</sup>Hester, J. A., Stange, P. V., Seeff, L. C., Davis, J. B., & Craft, C. A. (2015). Towards sustainable improvements in population health overview of community integration structures and emerging innovations in financing. Atlanta: United States, Centers for Disease Control and Prevention.
- <sup>19</sup>World Health Organization (WHO). Health impact assessment: the determinants of health website. Available at <http://www.who.int/hia/evidence/doh/en/>. Last accessed July 2016.
- <sup>20</sup>Institute of Medicine (IOM). Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: National Academies Press; 2002.
- <sup>21</sup>Adapted from Braveman P. Health disparities and health equity: concepts and measurement. *Annu Rev Public Health*. 2006;27:167-194.
- <sup>22</sup>Adapted from Recommendation #1 in: Jacobson DM, Teutsch S. An Environmental Scan of Integrated Approaches for Defining and Measuring Total Population Health by the Clinical Care System, the Government Public Health System, and Stakeholder Organizations. Washington, DC: NQF; 2012.
- <sup>23</sup>Adapted from definition of population health in Kindig D, Stoddart G. What is population health? *Am J Public Health*. 2003;93(3):380-383.
- <sup>24</sup>Drawn from the definition of “community” in Turnock BJ. *Public Health: What It Is and How It Works* Fourth Edition. Burlington, MA: Jones and Bartlett, 2008.

