# State Innovation Model Population Health Plan

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

JUNE 2017

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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

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## Special Thanks

The Population Health Plan builds on two years of exploration by the members of the Vermont Health Care Innovation Project (VHCIP) Population Health Work Group. The Population Health Work Group was charged with making recommendations to leverage innovations in health system delivery and payment reforms to enhance population health improvement. The work group was led by Dr. Karen Hein, former member of the Green Mountain Care Board, and Tracy Dolan, Deputy Director of the Vermont Department of Health, and staffed by Heidi Klein (Vermont Department of Health), Sarah Kinsler (Department of Vermont Health Access/ VHCIP) and Georgia Maheras (Agency of Human Services/VHCIP).

We are deeply grateful to the members of the Population Health Work Group, whose time, insight, and expertise greatly enhanced VHCIP and this Population Health Plan. This dedicated group set the vision, challenged assumptions, and ensured that proposed changes would build upon existing strengths to move our state forward in improving and protecting the health of all Vermonters.

BOX 1

## What is Health?

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.[1]

## 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.[2]

## 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...
  Supporting health and well-being for people who live in a geographic area, either local, regional, state, or national

## What are Population Health Strategies?[3]

- **Traditional Clinical Approaches** focus on individual health improvement for patients who use 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 strategic vision for health reform is to achieve better care, better health, and lower costs through the implementation of payment and delivery system reforms based on the accountable care organization (ACO) model. Vermont's Population Health Plan is intended for use in future State policymaking efforts to support this strategic vision. It describes key principles and strategic policy options for integrating population health and community-wide prevention into health reform efforts, with the ultimate goal of improving the health and well-being of Vermonters throughout the lifespan. This document builds on the work of the State Innovation Models (SIM) Population Health Work Group and the activities performed over the life of the SIM Grant in Vermont.

Section II of the Population Health Plan presents a case for integrating population health and prevention into future reform efforts, and describes the many factors which contribute to health and well-being. Section III outlines five principles to guide future State health reform efforts. Section IV outlines policy options by which the State and/or regions and communities could pursue these principles. Section V describes how Vermont can measure successful implementation of the Population Health Plan.

## *The plan:*

- Leverages and builds upon existing priorities, strategies, and interventions included in Vermont's State Health Improvement Plan (SHIP) (see Box 4 on pg. 5) and other state initiatives;
- Addresses the integration of public health and health care delivery;
- Leverages payment and delivery models as part of the existing and planned health care transformation efforts; and
- Includes elements to ensure the long-term sustainability of identified interventions.

BOX 2

We need to shift from focusing on health care to focusing on health. This means looking **longer** (over time), **earlier** (in terms of upstream interventions and the well-being of children and their families), **broader** (in terms of populations and partnerships), and **wider** (in terms of health determinants).

The SIM Grant, also known as the Vermont Health Care Innovation Project, provided Vermont with a unique opportunity to test its ability to transform the health care system in support of the Triple Aim:[4]

**Better Care** **Better Health** **Lower Costs**

In order to achieve this, the SIM grant has:

- Designed value-based payment models for all payers;
- Supported provider readiness for increased accountability; and
- Invested in health data infrastructure to enable timely clinical decision-making and policymaking.

A hallmark of these activities has been collaboration between the public and private sectors. The SIM process has created 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 care is paid for and delivered, and by building critical health data infrastructure to support these changes.

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.

Additionally, federal and state reforms have put new momentum behind actions to address the social determinants of health which shape life expectancy and health status across the lifespan and drive population health outcomes (see Box 6 and Figure 1 on pg. 6, and Figure 2 on pg. 7).

BOX 3

## All-Payer Model

Vermont's All-Payer ACO Model, signed by the State and federal government in 2016, seeks to support Vermont's strategic vision for health reform. The Vermont All-Payer ACO Model builds on existing all-payer alternative payment models to better support and promote a more integrated system of care and a sustainable rate of overall health care cost growth. Value-based payments that shift risk onto health care providers and that are aligned across all payers encourage collaboration across the care continuum and with non-health care system partners that can improve health.

BOX 4

## State Health Improvement Plan – Priorities for Population Health Improvement[5]

Vermont's State Health Improvement Plan (SHIP) is a five-year blueprint that sets the top priorities for population health improvement for 2013-2017. The SHIP includes three broad Healthy Vermonters 2020 goals, thirteen indicators, and recommended evidence-based 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 use or mental illness (e.g., suicide, prescription drug use, and opioid use)
- **GOAL 3:**
  Improve childhood immunization rates (vaccinate against preventable diseases)

The development committee, led by the Vermont Department of Health, utilized the following set of guiding principles to create the SHIP:

- 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.

BOX 5

"Population health initiatives aim to improve the health of populations by focusing the health care system on prevention and wellness rather than illness."[6]

*Crawford, McGinnis, Auerbach, and Golden*

BOX 6

**Social Determinants of Health**[7]

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.

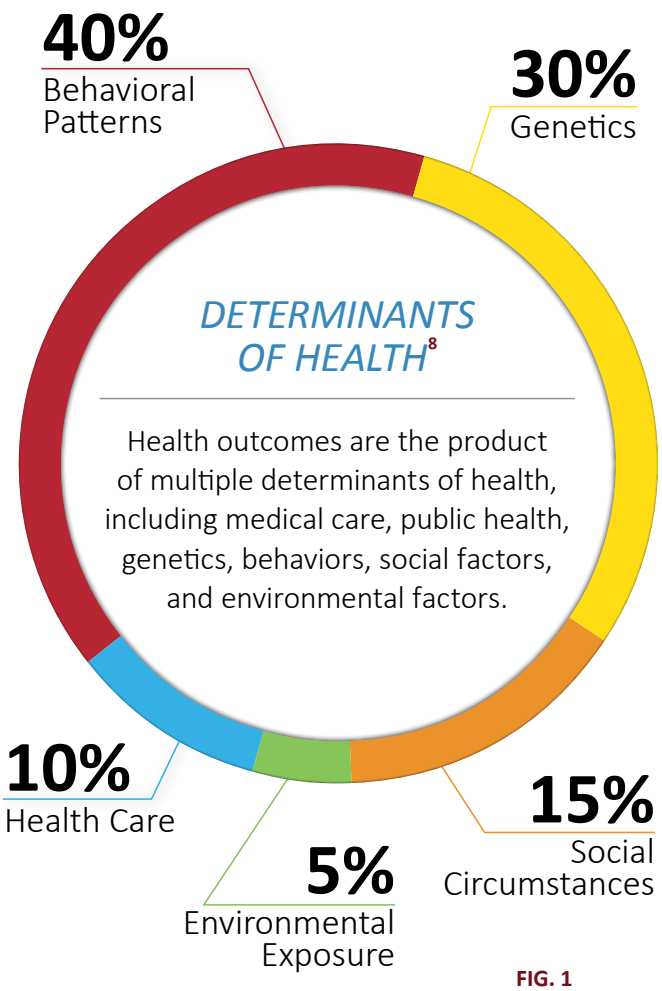



FIG. 1

# II. Background

Statewide health care payment and delivery system reforms focused on individual and clinical solutions have demonstrated their ability to help slow health care cost growth and improve health care quality. However, these reforms alone cannot fully achieve Triple Aim goals and often fall short of creating equal opportunity for health and well-being across all populations and across the lifespan.

Figures 1 and 2 provide two examples of models that consider the impact of an array of factors on health outcomes. While these models are based on different research and attribute slightly different shares of health outcomes to each determinant, they make the same point: to improve population health outcomes, policies and strategies must address the social, economic, and environmental factors that in sum contribute far more to premature death and poor quality of life than access to and quality of health care. Health improvement necessarily involves prevention, early intervention, and working across sectors to ensure that the collective policy environment becomes one that supports health and well-being.

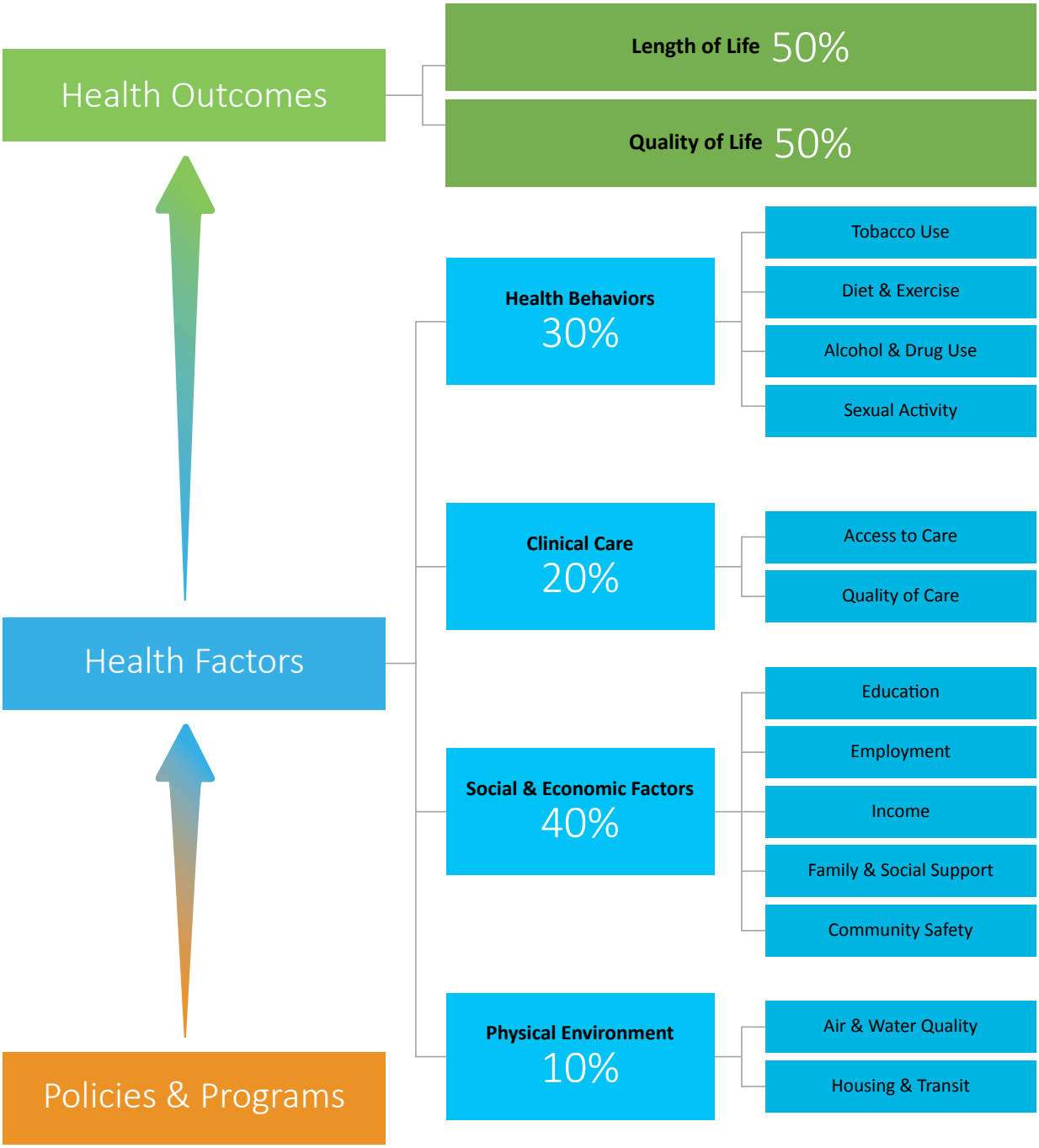
To achieve the Triple Aim, many state and federal health policymakers are partnering with communities to implement population health initiatives that engage new community partners to address both health behaviors and the social factors influencing health such as housing, food, work, and community life.

This Population Health Plan offers policymakers and payers options to more fully engage the health care sector in prevention; to incentivize partnerships that align goals and strategies across clinical care, social services, and population health improvement efforts; and to increase broad accountability for the health of a community.

## *County Health Rankings*[9]

The County Health Rankings Model of population health emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play.

**FIG. 2**



BOX 7

## 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

In many Vermont communities, ACHs are explicitly building on the governance structures and partnerships developed by the Community Collaboratives (see Box 10, pg. 12), bringing in partners to integrate population health and prevention (including VDH, public health and community prevention coalitions, ACOs, 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 (see Figure 3, pg. 13). ACHs are one way to embody the principles for improving population health described in this Population Health Plan in Vermont's regions.

## *Accountable Communities for Health*[10]

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 promote health and wellness and reduce disparities. For more information, see Box 7 at left.

## *Prevention Strategies Framework: The 3 Buckets*[11]

The Centers for Disease Control and Prevention (CDC) has developed a framework which identifies opportunities to incorporate prevention activities to improve population health outcomes through simultaneous action in three different domains:

- **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 and other public venues (i.e., State offices, public schools) and in all meetings, whomever the host.

The Prevention Change Packets, developed by the Vermont Department Health in partnership with Vermont's ACOs, use this CDC framework. The Packets are intended to provide users with suggested evidence-based and best practices to include prevention in addressing health issues through simultaneous action in the three domains.

# III. Five Principles for Improving Population Health

Vermont's Population Health Plan seeks to integrate population health and community prevention into the reforms that will shape Vermont's future health system. The five principles below are intended to guide State efforts to meet this goal, and should act as a framework by which to assess State policy options and efforts.

These principles are based on efforts by the SIM Population Health Work Group, a public-private partnership of health care, public health, community, and consumer leaders which met from 2014 to 2016.

## 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. Select state priorities given burden of illness, known preventable diseases, and evidence-based actions that have proven successful in changing health outcomes.

## 2. Support 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, long-term services and supports, and childhood health and wellness. Prevention can be woven into all levels of the health system to improve health outcomes.

## 3. Address Social Determinants of Health and Support Health Equity.

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 race, class, gender, economics, and social policies. Consider risk factors that lower the likelihood of positive outcomes, as well as protective factors that enhance the likelihood of positive outcomes while lessening the likelihood of negative consequences from exposure to risk.

## 4. Engage Community Partners 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 use.

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

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

BOX 8

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

*Centers for Disease Control and Prevention*[12]

BOX 9

## Health in All Policies[13]

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. Policy Options

Vermont has historically been on the leading edge of health reform relative to other states. The State has supported policy development, implementation, funding, and regulation, which sets the necessary foundation for statewide reforms. Many of these reforms include changes that must be adopted by partners both at the state and regional levels. 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. Flexibility to allow for local innovation and community leadership have been a key thread running through many reforms implemented over the past decade.

There are four strategic levers that enable the State to continue to support local innovation and flexibility in health reform: governance, care delivery requirements and incentives, measurement, and payment and financing methodologies. It also offers policy options for each lever to support integration of population health and prevention, in line with the five principles described in Section III of the Population Health Plan.

- **Governance:** Who participates in decision-making? Governance can include: setting strategic vision and direction; formulating high-level goals and policies; overseeing management and organizational performance; and ensuring that an organization or project is achieving the desired outcomes while acting prudently, ethically, and legally.

- **Care Delivery Requirements and Incentives:** How is care delivered? Care delivery requirements and incentives can push health care providers and organizations to change their behavior to better support population health improvement goals.

- **Measurement:** What is the impact? 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. Additionally, measuring population health outcomes can allow for payment incentives or penalties tied to population health goals.

- **Payment and Financing Methodologies:** How are population health and prevention activities funded? Payment and financing methodologies can encourage providers and the system as a whole to increase their focus on population health goals and social determinants of health.

Table 1 summarizes these four levers and identifies Vermont-specific policy options which are described in the remainder of Section IV.[14]

## Table 1:
## Levers and Policy Options to Promote Integration of Population Health and Prevention into Health Reform

| Lever | Descriptions and Examples of Potential Levers | Vermont-Specific Policy Options |
|---|---|---|
| **Governance** | » Require public health representatives on regional and statewide governance or advisory structures.<br>» Require or encourage partnerships across sectors, including criminal justice, transportation, recreation, food system, and education. | » Ensure public health and prevention representation in state-level payment & delivery system reforms like the Blueprint for Health, Medicaid Pathway, All-Payer Model oversight and monitoring.<br>» Ensure public health representation in regional governance like the Community Collaboratives.<br>» Maintain a statewide stakeholder group that makes recommendations to State health policy leadership to encourage population health integration and coordination.<br>» Expand partnerships like the Governor's Health in All Policies Task Force and sponsor local Health in All Policies efforts (see Box 9, pg. 10). |
| **Care Delivery Requirements and Incentives** | » Create opportunities for integration of primary care, mental health services, substance use disorder treatment, and long-term services and supports (as described in the Vermont Model of Care, see Box 11, pg. 14).<br>» Increase referrals to specific public health improvement programs, such as tobacco cessation.<br>» Offer comprehensive preventive and social services.<br>» Include non-medical services that can improve health, such as housing, in total cost of care calculations.<br>» Support programs that bridge medical care with efforts to impact social determinants of health. | » Embed integration requirements into regulation, contracting, and evaluation and monitoring activities for all state-level payment and delivery system reforms.<br>» Utilize Prevention Change Packets to incorporate prevention strategies into clinical care settings.<br>» Incentivize regional efforts to support population health improvement goals. Examples include: Accountable Communities for Health, Community Collaboratives, and Learning Collaboratives. |
| **Measurement** | » Begin the development process by identifying the most significant contributors to the health outcomes that drive morbidity and mortality in the state or in a region or community (e.g., physical activity, tobacco use, and diet lead to diabetes, heart disease, respiratory disease, and cancer).<br>» Develop population health metrics that incorporate both short-term actions/processes and longer-term outcomes.<br>» Develop and require metrics that capture population health interventions.<br>» Leverage existing data sources to identify population health needs and support collaborations. | » Include statewide measures of population health to measure success of major reforms, and to drive priority-setting for improvement initiatives.<br>» Include screening measures for key conditions in payment and reporting measure sets for payment reforms.<br>» Use local data to assess community health needs within each Hospital Service Area.<br>» Provide region-specific data like Blueprint Profiles and Vermont Department of Health Community Assessments to each region. |
| **Payment and Financing Methodologies** | » Use financing to help provider groups address social determinants of health and initiatives that impact future health status.<br>» 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. | » Utilize existing regulatory oversight mechanisms — like Certificate of Need, Health Resource Allocation Planning, Insurance Rate Review, and Hospital Budget Review — to support investment in population health and prevention activities.<br>» Embed public health accountability requirements into payment, monitoring, and evaluation activities for all state-level payment and delivery system reforms.<br>» Encourage alternative, region-specific financing and funding activities. Examples include recent investments in Chittenden County to provide support for the homeless population. |

BOX 10

## Community Collaboratives

Community Collaboratives are local structures within each of Vermont's 14 Hospital Service Areas[15], 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 build an integrated health system including: care for individuals 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 include representatives from the public health and prevention sector, which has been promoted by participation in the Accountable Communities for Health Peer Learning Laboratory, and are increasingly engaging in strategic planning for community-based prevention activities as a result of Peer Learning Laboratory participation. A visual model showing the relationship between ACHs and Community Collaboratives is shown in Figure 3.

# *Governance*

Governance dictates which partners are included in decision-making for projects and organizations through formal boards or through informal advisory structures. State regulation or other actions can outline expectations for governance of entities utilizing government funding or requiring governmental licensing and approval. Increased public health and prevention participation in governance structures can add meaningful authority and can ensure integration of data and community-wide strategies to impact the factors that contribute to positive health and well-being.

## *Policy Options: Governance Requirements*

- Require organizations or projects to have public health and social services organization representatives on their boards. Embed governance requirements in Medicaid contracts with ACOs and other providers, and require ACOs, through Act 113 of 2016, to include public health and prevention leaders in their governing entities.
- Encourage continued engagement of public health and prevention partners in the Community Collaboratives (see Box 9 at left) to support regional priority-setting and foster relationships between public health, clinical care, and social services.
- Maintain a statewide public/private stakeholder group that recommends activities that improve health to State health policy leadership and encourages coordination and alignment across population health efforts throughout the state.
- Expand 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 (see Box 9, pg. 10).
- Encourage organizations or projects to meaningfully engage community members in their work, including governance structures.

FIG. 3


Statewide
Accountable Care Organizations
Agency of Human Services/Office of Health Care Reform
Blueprint for Health
Green Mountain Care Board
Vermont Department of Health
Regional / Local
Hospitals
Primary Care & Specialty Providers
Designated Mental Health Agencies
Area Agencies on Aging
Social Service & Community Organizations
Public Health & Community Prevention
Housing Providers
SASH (Support And Services at Home)
Hub & Spoke
Home Health Agencies
Mission
Multi-Sectoral Partnership
Integrator Organization
Governance
Data and Indicators
Strategy & Implementation
Community-Member Engagement
Communications
Sustainable Financing
Community Collaboratives
9 Core Elements
Community Priorities & Project Examples
Accountable Communities for Health Peer Learning Laboratory
Opioid Prevention and Treatment Projects
Integrated Communities Care Management Learning Collaborative
Clinical Quality Improvement Projects
Primary Prevention
Health Care Delivery

BOX 11

## The Vermont Model of Care[16]

The Vermont Model of Care is the foundation for care delivery transformation in Vermont. It was developed and endorsed by a broad, multi-sectoral group of stakeholders.

**Key elements of the Vermont Model of Care are:**

1. Person/Family Centered and/or Directed Services and Supports
2. Access to Independent Options Counseling & Peer Support
3. Involved Primary Care Provider (PCP)
4. Single Point of Contact (Case Manager)
5. Medical Assessments and Disability and Long-Term Services and Support Screening by PCPs, Medical Specialists
6. Disability and Long-Term Services and Support Specific Assessments
7. Comprehensive Care Plan
8. Individual Care Team
9. Support During Care Transitions
10. Use of Technology for Information-Sharing

# *Care Delivery Requirements and Incentives*

Care delivery requirements and incentives can push health care providers and organizations to change their behavior to better support population health goals. For over a decade, Vermont has been working to shift from a fragmented care delivery system to one that provides more coordinated care. These policy options could support efforts to build on that foundation by developing a health system that further integrates social services, public health, and community-wide prevention.

## *Policy Options: Care Delivery Requirements and Incentives*

» Create expectations within regulatory processes and contract vehicles that require entities to demonstrate how they will support achieving the components of Healthy Vermonters 2020, the All-Payer Model population health measures, and the Vermont Model of Care (see Box 11 at left).

» Utilize the strategies in the Prevention Change Packets – developed by VDH in collaboration with Vermont's ACOs for the main ACO measures using the Prevention Strategies Framework (see pg. 8) – 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 and well-being.

» Incentivize Community Collaboratives to fully develop into Accountable Communities for Health, resulting in an expanded focus that includes community-wide primary and secondary prevention efforts which affect broad policy changes and key community infrastructure, and which promote inclusion a broader set of partners (see Governance).

# *Measurement*

By integrating measurement of population health outcomes and well-being, Vermont can increase provider, policymaker, and community attention to priority community health concerns and the factors that drive them.

## *Policy Options: Measurement*

» Use statewide measures of population health to measure success of major reforms, as Vermont will do through the All-Payer Model.

» Use statewide measures of population health to assess health equity, identify priority issues and populations, and target interventions.

» Use population health measures to drive statewide priority setting for improvement initiatives.

» Continue to include screening measures for key conditions like obesity, tobacco use, and cancer in the measure sets for payment reforms, using data already collected for other purposes wherever possible. 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.

» Assess needs and resources at the community and regional levels through tools like Community Health Needs Assessments (CHNAs) (see Box 13, pg. 15).

» Provide region-specific data, like that through the Blueprint Profiles and the Health Department Community Assessments, to each hospital service area and Community Collaborative.

BOX 12

## Key Data Sources

Vermont uses a variety of key data resources to inform State and regional planning and priority-setting for public health, prevention, and health care reform activities. These include Healthy Vermonters 2020, the VDH Data Encyclopedia, Blueprint for Health Hospital Service Area (HSA) Health Care Data Profiles, and the Health Care Expenditure Analysis. These reports build on multiple datasets, including the Behavioral Risk Factor Surveillance Survey (BRFSS), the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES, Vermont's all-payer claims database), the Vermont Health Information Exchange (VHIE, operated by Vermont Information Technology Leaders), and the Vermont Uniform Hospital Discharge Data Set. (For more information on health datasets, see the Vermont Health Data Inventory Report).

### 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. This report presents more than 100 public health indicators and goals for 2020 in 21 focus areas organized into five thematic chapters. 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.

### 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, 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.

### Health Care Expenditure Analysis

This report provides the history of Vermont health care spending by year, payer, and provider since 1992, including both spending on behalf of Vermont residents and spending by Vermont providers for both residents and non-residents. It allows comparisons of Vermont spending to the federal National Health Expenditures analysis.

BOX 13

## Community Health Needs Assessments (CHNAs)

Federal law requires non-profit hospitals to conduct CHNAs every three years, and to develop an implementation strategy to meet identified needs. 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, provide much of data used by Vermont hospitals and can assist in developing community-wide strategies to address identified needs.[17]

## *Payment and Financing Methodologies*

Lack of a sustainable financial model which supports and rewards improvements in population health is a major barrier to improving the health of Vermont's population. 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. 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 support population health goals by creating alternative paths to funding sustainability.

Some actions to support investment in population health activities (including non-clinical services) that maximize health outcomes include pursuing alternative payment models such as all-inclusive population-based payments, medical home payments and other pay-for-performance arrangements, Community Health Team payments, and bundled or episodic payments.

In addition to value- and population-based models currently being pursued, Vermont could explore alternative financing models for population health. A conceptual model for sustainable population health financing includes the following elements:[18]

1. **Diverse financing vehicles:**
   A more diverse set of financing vehicles to support population health interventions so that interventions are not overly dependent on grants.

2. **Balanced portfolio of interventions:**
   Meeting community needs requires a balanced portfolio of interventions: a combination of programs and initiatives which are balanced in terms of length (short-term interventions with immediate results vs. long-term interventions with results decades in the future), risk of failure, scale (total funds and staff commitment), and 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 shifting a greater proportion of overall spending to activities that will improve community health and decrease the overall illness burden, for example by capturing a portion of the savings from health system activities and returning them to the community for reinvestment in primary prevention activities. A community wellness fund is a useful repository for these captured savings.

## *Policy Options: Payment and Financing Methodologies*

» Include accountability for the health of populations in payment, monitoring, and evaluation activities for state-level payment and delivery system reforms.

» Continue to support hospital investment in community health improvement priorities through the Green Mountain Care Board's policy on Community Health Needs Assessments.

» Increase payments and funding for referrals to activities that support population health improvement (e.g., by allowing physician payment for smoking cessation classes or medications).

» Incorporate mechanisms that encourage or require accountability for the health of populations in value-based contracts from the Agency of Human Services and its Departments.

» Pool resources within regions or communities to support specific initiatives like food security or ending homelessness.

» Utilize additional state regulatory and procurement activities to support population health goals:
- Certificate of Need;
- Health Resource Allocation Plan;
- Insurance Rate Review;
- Hospital Budget Review;
- Professional Licensure; and
- Contracting.

» Utilize existing State resources, through the State budget process, to support optimal population health investments across State government.

BOX 14

Community Spotlight:

## Mt. Ascutney Hospital and Health Center

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.

Overarching community goals:

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.

BOX 15

"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 nonmedical 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 nonmedical interventions that improve health."[19]

*Crawford, McGinnis, Auerbach, and Golden*

BOX 16

Community Spotlight:

## The University of Vermont Medical Center Housing for the Homeless

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, the 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, the 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

**BOX 17**

To achieve the Triple Aim – better care, better health, and lower cost – Vermont must use multiple policy levers guided by the principles of population health improvement 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 are tied to 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 underlying societal factors and determinants of health.
- Payment and financing mechanisms are in place to: support use of prevention strategies in the clinical setting; increase clinical/community partnerships; and invest in 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, and others who affect health through their work on housing, education, early childhood, economic development, transportation, and more.
- Action is taken to address the underlying social determinants of health which influence the opportunities for health and wellness for all Vermonters.

# Appendix A: RESOURCES

In addition to the references cited directly in this plan (see Appendix D: References), three key frameworks for policymakers and communities are included below.

## *National Prevention Strategy*

The Surgeon General's National Prevention Strategy outlines a unified set of goals, priorities, and strategies for the nation and communities.

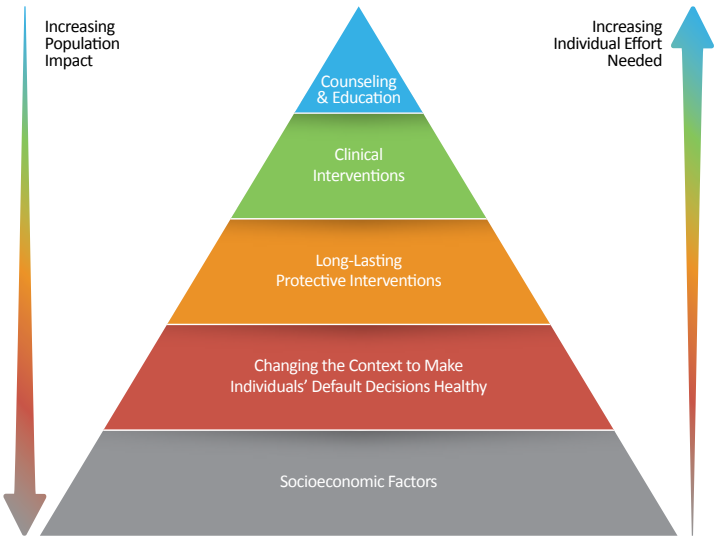
National Prevention Council. "National Prevention Strategy." 2011. Available at https://www.surgeongeneral.gov/priorities/prevention/strategy/.

## *Health Impact Pyramid*

The Health Impact Pyramid, developed by former CDC Director Thomas R. Frieden, visualizes the impact of different types of public health interventions.

T.R. Frieden. "A framework for public health action: the health impact pyramid." American Journal of Public Health 100.4 (2010): 590-595.

**FIG. 4: Health Impact Pyramid**

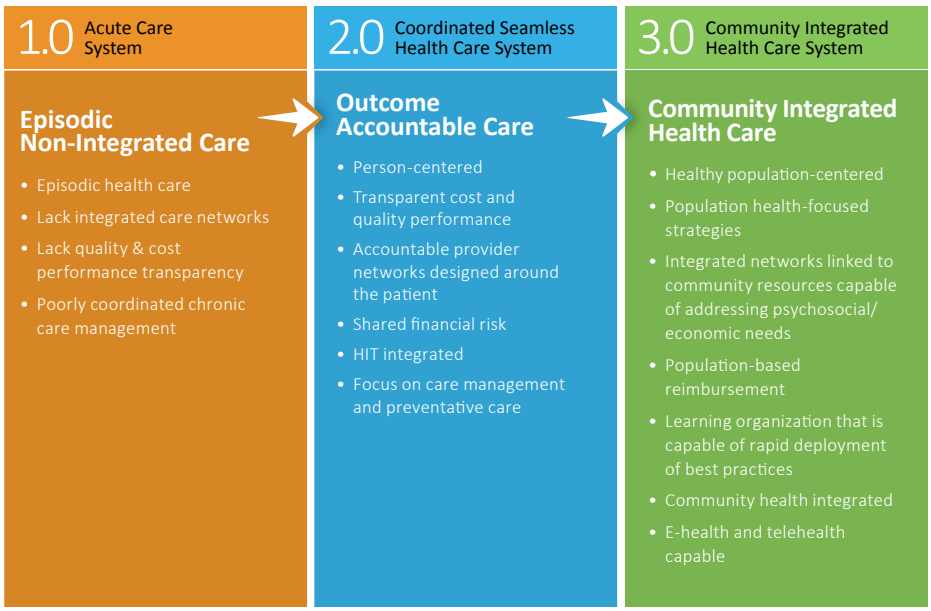



## *Health System Transformation Framework: 1.0, 2.0, 3.0*

Vermont has effectively utilized state policy levers to create the foundation for payment and delivery system reforms that shift from fragmented care to more integrated care. In Figure 5 at right, Vermont is actively working to move from a coordinated health care system (2.0) to a community integrated health care system (3.0), building on previous work to coordinate care across clinical and social services.

Adapted from N Halfon, P Long, D Chang, et al (November 2014). "Applying A 3.0 Transformation Framework to Guide Large-Scale Health System Reform." Health Affairs (Millwood) 33(11):2003-2011. Available at: http://content.healthaffairs.org/content/33/11/2003.abstract.

**FIG. 5: Vermont Health Care Delivery System Evolution**

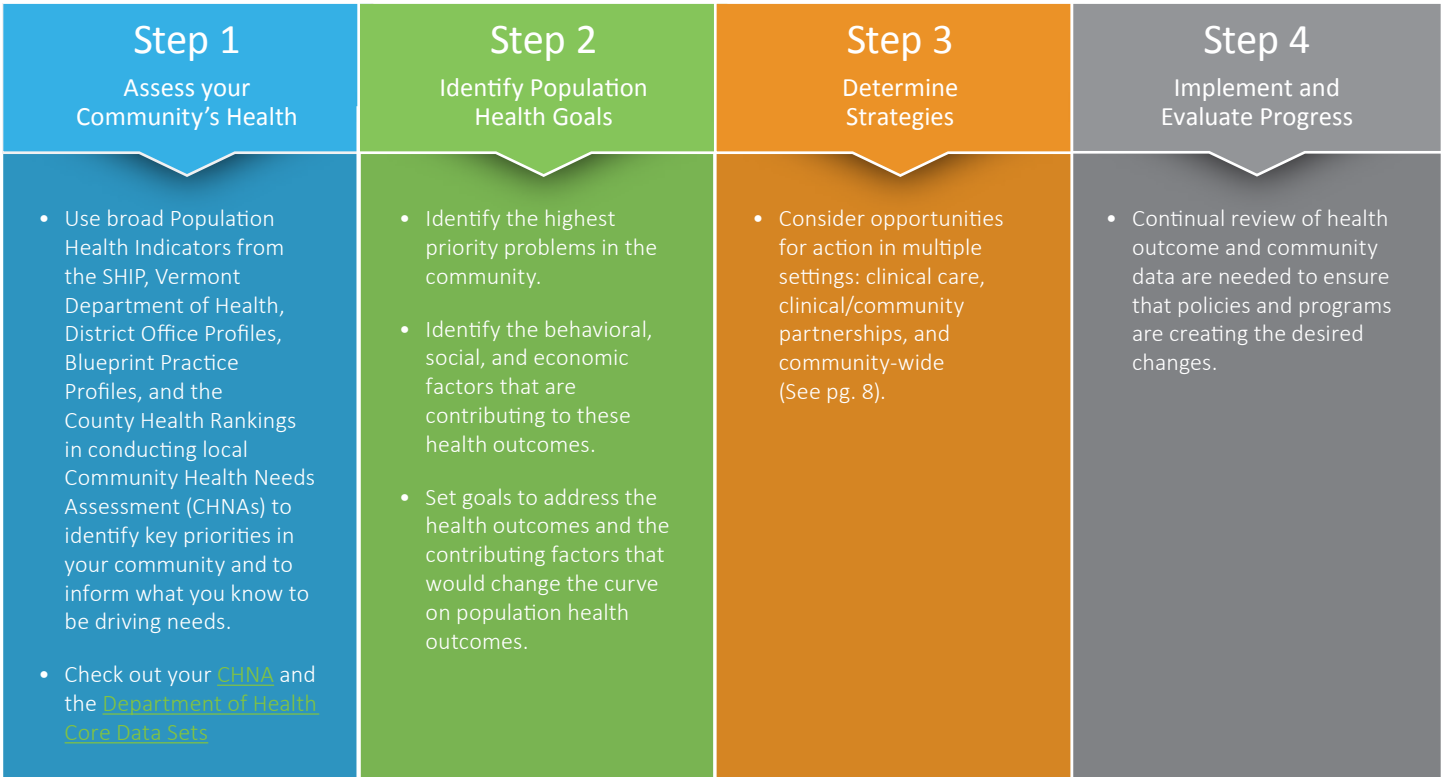


# Appendix A: RESOURCES cont.

## *Action Steps for Improving Population Health*

These action steps, adapted from a National Quality Forum Action Guide, can guide communities pursuing population health improvement.

**FIG. 6**




Adapted from National Quality Forum (2016). Improving Population Health by Working with Communities: Action Guide 3.0.
Available at: http://www.qualityforum.org/Publications/2016/08/Improving_Population_Health_by_Working_with_Communities__Action_Guide_3_0.aspx.

# Appendix B: GLOSSARY[20]

**Determinants of Health**
Factors affecting the health of individuals in a population or subpopulation, such as the social and physical environment, behaviors, and healthcare.[21]

**Health**
A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.[22]

**Health Disparities**
Differences in health status or health outcomes within a population.[23]

**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.[24]

**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).[25]

**Population (also, Total Population)**
All individuals in a specified geopolitical area.[26]

**Population Health**
The health of a population, including the distribution of health outcomes and disparities in the population.[27]

**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.[28]

# Appendix C: ACRONYMS

**ACA**
Affordable Care Act

**ACH**
Accountable Community for Health

**ACO**
Accountable Care Organization

**AHS**
Agency of Human Services (VT)

**CAHPS**
Consumer Assessment of Healthcare Providers and Systems

**CHNA**
Community Health Needs Assessment

**CMMI**
Center for Medicare and Medicaid Innovation (federal)

**CMS**
Centers for Medicare & Medicaid Services (federal)

**DMH**
Department of Mental Health (VT)

**DVHA**
Department of Vermont Health Access

**FFS**
Fee-for-Service

**SIM**
State Innovation Models

**SHIP**
State Health Improvement Plan

**VDH**
Vermont Department of Health

**VHCIP**
Vermont Health Care Innovation Project

**VHCURES**
Vermont Healthcare Claims Uniform Reporting and Evaluation System

# Appendix D: REFERENCES


[1] Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, June 19-22, 1946; signed on July 22, 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on April 7, 1948. For more information, see: http://www.who.int/about/mission/en/.

[2] Definition from: D Kindig and G Stoddart (March 2003). "What is Population Health?" American Journal of Public Health 93(3):380-383.

[3] J Auerbach (May/June 2016). "The Three Buckets of Prevention." Journal of Public Health Management & Practice 22(3):215–218.

[4] For more information about Vermont's State Innovation Models (SIM) Testing Grant, visit the project's website at healthcareinnovation.vermont.gov.

[5] To learn more about Vermont's State Health Improvement Plan, visit the Vermont Department of Health website: http://healthvermont.gov/hv2020/ship.aspx.

[6] M Crawford, T McGinnis, J Auerbach, and K Golden. Population Health in Medicaid Delivery System Reforms. New York, NY: Milbank Memorial Fund (March 2015). Available at: http://www.milbank.org/publications/population-health-in-medicaid-delivery-system-reforms/.

[7] Definition adapted from the Centers for Disease Control & Prevention. For more information, visit: http://www.cdc.gov/socialdeterminants/.

[8] SA Schroeder (September 2007). "We Can Do Better — Improving the Health of the American People." New England Journal of Medicine 357(12):1221-1228. Adapted from: JM McGinnis, P Williams-Russo, and JR Knickman (2002). "The Case for More Active Policy Attention to Health Promotion." Health Affairs (Millwood) 21(2):78-93.

[9] Graphic adapted from the Robert Wood Johnson Foundation's County Health Rankings: http://www.countyhealthrankings.org/our-approach.

[10] L Mikkelsen and W Haar (2015). Accountable Communities for Health: Opportunities and Recommendations. Oakland, CA: Prevention Institute. 2015. Available at: http://healthcareinnovation.vermont.gov/sites/hcinnovation/files/Pop_Health/VT%20ACH%20Opportunities%20and%20Recommendations.pdf.

[11] J Auerbach, "The Three Buckets of Prevention."

[12] JA Hester, PV Stange, LC Seeff, JB Davis, and CA Craft (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. Available at: https://www.cdc.gov/policy/docs/financepaper.pdf.

[13] To learn more about Vermont's Health in All Policies effort, visit the Vermont Department of Health website: http://healthvermont.gov/about/vision/health-all-policies.

[14] This framework is adapted from a technical assistance memo developed by Katherine Heflin and Tricia McGinnis of the Center for Health Care Strategies. ("Population Health Integration Framework" [memorandum], 2015). Some examples have been adapted from a technical assistance document developed by Manatt, Phelps & Phillips ("Policy Levers Template," 2015).

[15] Hospital Service Area definitions can be found here: http://www.healthvermont.gov/GIS/.

[16] More information on the Vermont Model of Care can be found here: http://healthcareinnovation.vermont.gov/content/vt-integrated-model-care-overview-may-2016.

[17] For more information, visit the Green Mountain Care Board's website for hospital Community Health Needs Assessment reports: http://gmcboard.vermont.gov/hospital-budget/health-needs.

[18] Adapted from JA Hester, PV Stange, LC Seeff, JB Davis, and CA Craft (2015). Towards Sustainable Improvements in Population Health: Overview of Community Integration Structures and Emerging Innovations in Financing.

[19] M Crawford, T McGinnis, J Auerbach, and K Golden. Population Health in Medicaid Delivery System Reforms.

[20] All definitions are drawn from National Quality Forum (2015). Multistakeholder Input on a National Priority: Improving Population Health by Working with Communities— Action Guide 2.0. Available at: http://www.rchnfoundation.org/wp-content/uploads/2015/08/Multistakeholder-Input-Population-Health-Action-Guide-2.pdf. Definitions are cited below according to their original sources.

[21] Adapted from 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.

[22] Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference. New York, NY: June 19-22, 1946.

[23] Institute of Medicine (IOM). Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: National Academies Press; 2002.

[24] Adapted from Braveman P (2006). Health disparities and health equity: concepts and measurement. Annu Rev Public Health 27:167-194.

[25] National Quality Forum (2015). Multistakeholder Input on a National Priority: Improving Population Health by Working with Communities— Action Guide 2.0.

[26] 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.

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[28] 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.


Vermont Health Care Innovation Project