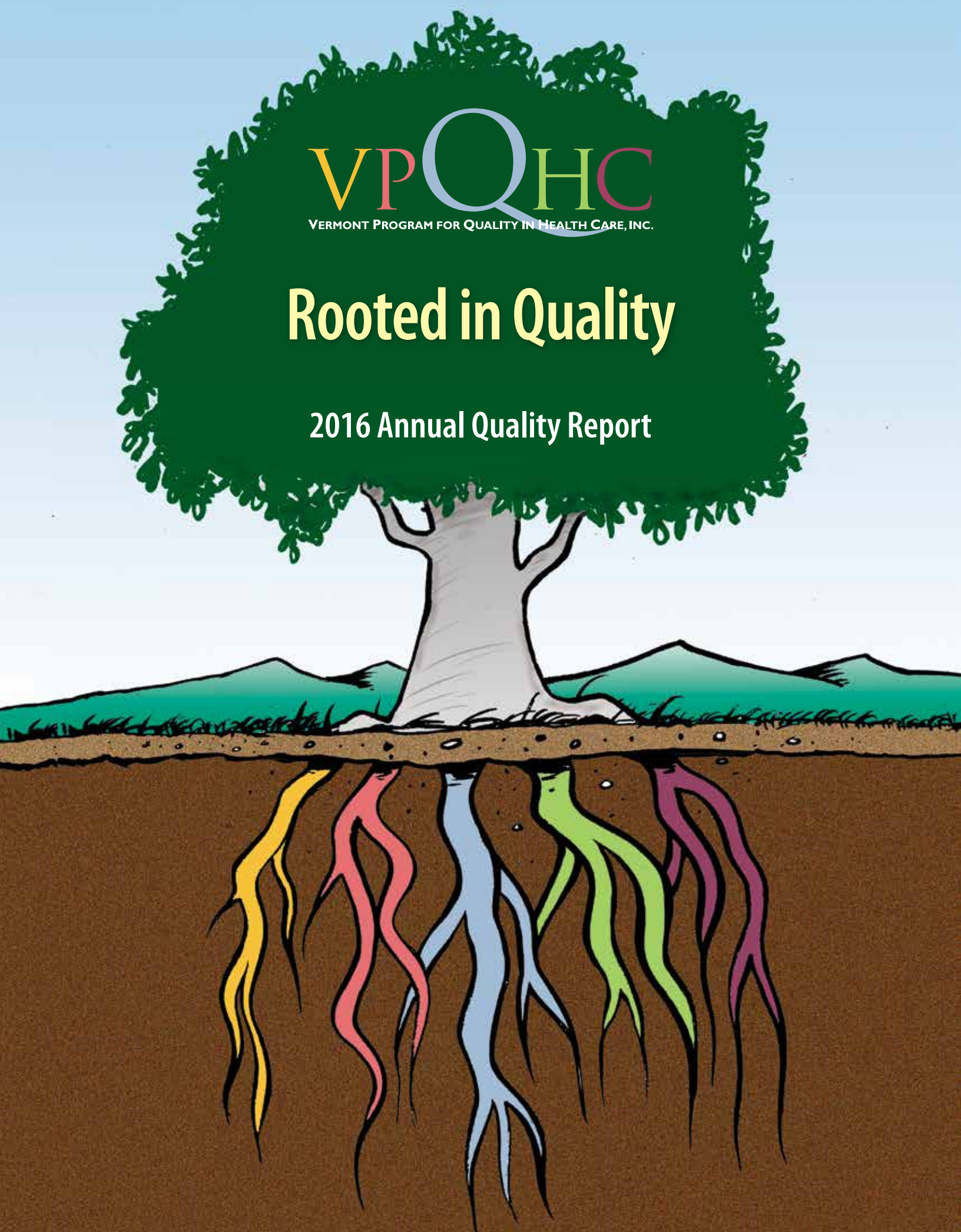
VPQHC

VERMONT PROGRAM FOR QUALITY IN HEALTH CARE, INC.

Rooted in Quality

2016 Annual Quality Report



Mission

We improve health care quality in Vermont by studying the system and making it work better:

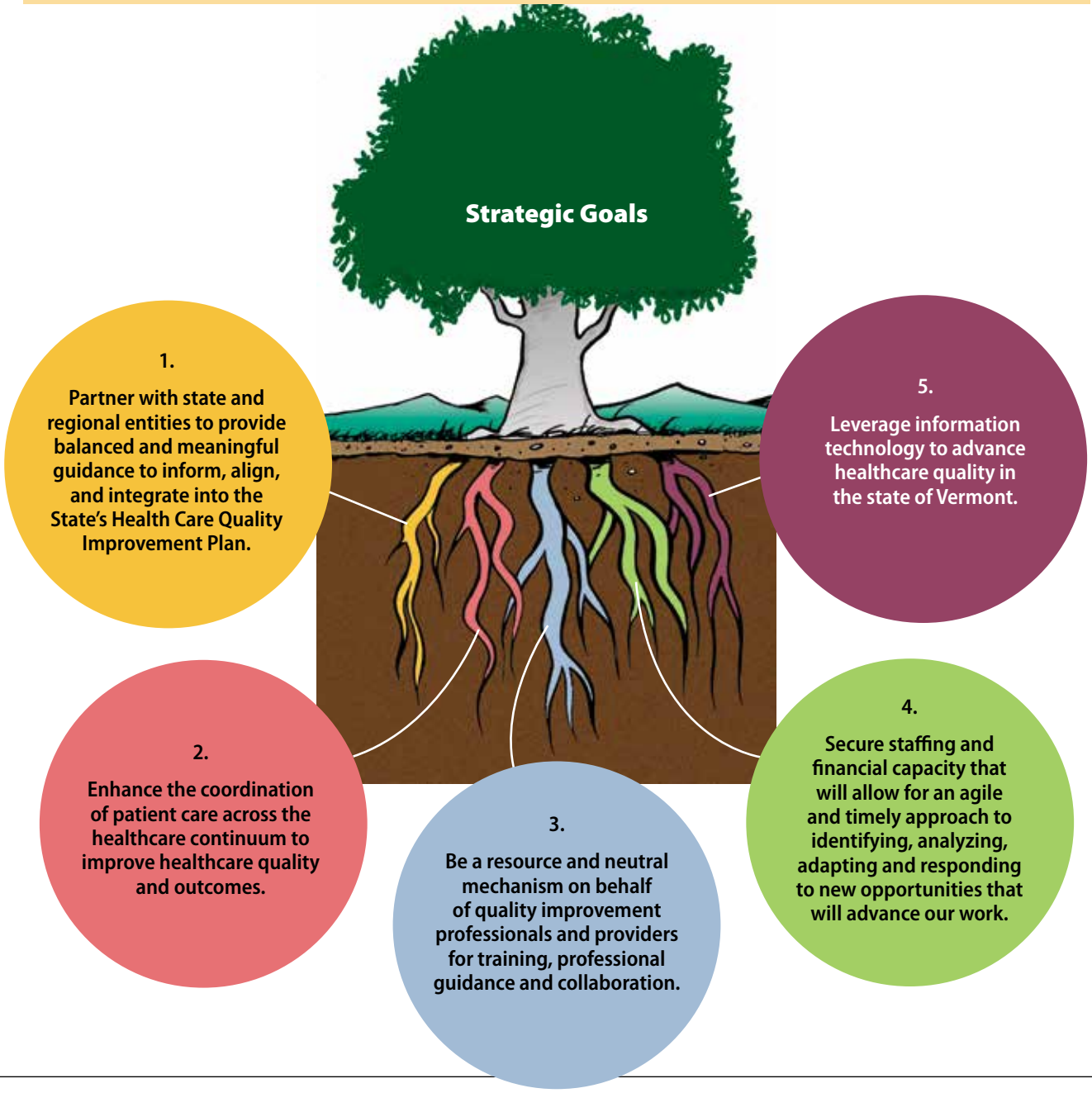
- We *serve* as a reliable source for data collection and analysis on health care quality.
- We *establish* appropriate and effective standards and measurement tools for quality of care.
- We *educate* health care providers on quality improvement.
- We *inform* consumers and *make recommendations* to policymakers on issues of health care quality.

Vision

To improve the health status for all Vermonters

Aims

The Vermont health care system must be safe, patient centered, effective, efficient, timely and equitable.



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(Throughout the report, root colors match our Strategic Goals.)

Message from our Board Chair

John M. Lindley III, CEO
John M. Lindley Insurance Agency, Inc.

As this year's cover illustrates, Vermont Program for Quality in Health Care (VPQHC) has deep roots in performance improvement and change management that extend into the soil of healthcare service delivery in Vermont. In the face of the ever-changing health care delivery landscape, it is with these roots and VPQHC's vast skill set that our organization is able to stabilize and support effective reform efforts. New partnerships and delivery system improvements are the keys to eliminating costly waste accumulated from an ineffective fee-for-service payment system; such waste chokes off innovation and support system re-design efforts that can improve care for all Vermonters. In the pages that follow, you will learn how VPQHC collaborates with statewide partners and connects with current systems of care. In order to support improvement efforts across the state, VPQHC collaborates with hospital, community, and physician leadership to improve the delivery of patient-directed, evidenced-based interventions that enhance health, wellness, and quality of life. Our roots in communities of care feed new growth in systems improvement that enable the provision of efficient, interconnected care to the right person, at the right time, for the right duration, in the right setting. Through its deep roots and reaching limbs, the tree conveys stability and interconnectedness to the environment, two characteristics which are integral to a system that successfully delivers health care.

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Message from our Executive Director

Catherine Fulton, MS, CPHQ

Looking back at the changes that have occurred in the Vermont healthcare system over VPQHC's 28-year tenure, I am reminded of how far and how fast the pendulum swings. In 1988, the State of Vermont saw a need for the creation of an independent organization to "design, promote, and implement a system of quality assurance in health care delivery within the State of Vermont." Those early years of performance improvement and change management initiatives challenged organizations to study their own performance and improve care delivery. Fast forwarding from 1988 to 2016, we have seen the pendulum swing through the various stages of health outcomes measurement. In this period we have seen the fee-for-service payment model in the United States along with significant technological advancements, give rise to the world's most costly health care system. However, increased cost did not go hand in hand with favorable health outcomes. Patients who were able to access this high cost care were not necessarily healthier and a large segment of society was unable to even gain access to care. We are now on the back swing of that pendulum, moving rapidly through improvements in measurement science, data analysis and technology use and most importantly, payment reform. These efforts are driving the re-design of our health care system which continues to struggle with how to achieve three goals: access, cost and quality of care.

Several parallels can be drawn between this year's Quality Report graphic, the tree, and VPQHC. It is because of our deep roots we have been able to weather the fast swings of the pendulum and with our strong trunk and broad base, we have been able to distribute vital sustenance in the form of best practice and performance management. Like the tree, we are also a part of an interconnected system, our branches representing the reach for new opportunity and growth. With the impending centralization of both payment and practice reform into the Accountable Care Organization (ACO) model, the need for an independent organization to "design, promote, and implement a system of quality assurance in health care delivery within the State of Vermont" is as great now as it was in 1988. Over the past 30 years, quality improvement science has become the bedrock of health care best practice and will be a cornerstone of value-driven care for the next 30 years. Healthcare providers, from large business entities like hospitals and ACOs, to small independent practitioners, have incorporated quality improvement into their tool kits. As our book of work clearly demonstrates, VPQHC has been a long-term partner with the State of Vermont, serving as the connective tissue between health care quality improvement policy and best practice.

A well-organized system can also be visualized as a tree, able to endure any manner of onslaught from disease, weather, injury and more, even payment reform. In Vermont, the health care system continues to evolve toward a true learning system that includes a spectrum of services that affect our population's health. VPQHC will continue to be present in this evolution, providing ongoing assurance to the quality of healthcare services through validating their delivery and outcomes and offering training and tools to both providers and patients, to ensure the success of our shared journey.

From our Director of Finance, Marianne Bottiglieri

Financial Results for Fiscal Year Ended June 30, 2016

The figures below are not audited

Income		
9416 Bill back	$660,000	49%
Other Grants and Contracts	$666,809	50%
Miscellaneous	$13,484	1%
Total Income	**$1,340,293**	
Expenses		
Personnel	$944,939	74%
Operating	$130,092	10%
Grants to Hospitals for Quality Improvement Projects	$165,973	13%
Other Project Expenses	$33,733	3%
Total Expenses	**$1,274,737**	
Surplus	**.$65,556**	**5%**

Executive Summary

Health Care Reform

The Vermont Program for Quality in Health Care, Inc. (VPQHC) continues to participate in planning discussions to ensure that systems improvement are based in clinical soundness and deliver value to patients and providers alike. The focus of the Centers for Medicare and Medicaid Services (CMS) on the Triple Aim of Healthcare, Better Care, Smarter Spending, Healthier People, sets the tempo for reform efforts undertaken here in Vermont to make substantial system delivery reforms to align with the aspirations of the Triple Aim. Alignment of federal and state efforts will dramatically improve how care is delivered locally to effectively establish and grow a learning health care system.

Integrated Communities Care Management Learning Collaborative (ICCMLC)

To make health care more patient-directed, progressive, and non-episodic, an Integrated Care Management (ICM) model has been implemented in many communities throughout the country. In 2014, the Integrated Communities Care Management Learning Collaborative (ICCMLC) began helping communities implement ICM in Vermont. While the initial pilot involved the Burlington, Rutland, and St. Johnsbury communities, in 2015 the collaborative expanded to include eight additional communities. These initial efforts focused on high-need or high-utilizers of emergency services. As of May 2016, over 200 at risk persons are receiving care and services under the Integrated Care Management protocol. ICM participants receiving care and services report that they feel more involved in their own care; they also report feeling better listened to by their providers. Providers are reporting powerful and effective experiences from engaging care recipients in conversations about "what matters most to them?" instead of "what's the matter with them?" While the ICCMLC is just beginning to look at outcomes in utilization, early results are promising: emergency room visits have decreased for some high risk recipients of care and services.

National Surgical Quality Improvement Program (NSQIP)

In Vermont, between 2012 and 2014 there were approximately 1,092 post-operative complications following surgery. American College of Surgeons (ACS)-NSQIP provides a risk adjusted clinical data collection method that hospitals can use to identify high-quality, actionable data with which to design improvement initiatives. As the statewide agency coordinating the implementation of ACS-NSQIP in Vermont hospitals, VPQHC worked closely with quality health professionals and surgeon champions to educate leadership in nine hospitals across the state. As of April 2016, Brattleboro Memorial Hospital, Mt. Ascutney Hospital, Rutland Regional Medical Center, and Southwestern Vermont Medical Center have enrolled in ACS-NSQIP. These hospitals are now extracting high quality data, which will enable them to design meaningful quality improvement activities as well as share best practices leading to better performance. Under this program, surgeons are better positioned to transition from a fee-for-service to a pay-for-performance payment model. This focus on improving outcomes will result in fewer surgical complications, improve the quality of patient care, and ultimately reduce costs.

Stroke

In Vermont, stroke is the fifth leading cause of death behind cancer, heart disease, chronic lower respiratory diseases, accidents/unintentional injuries, and Alzheimer's. VPQHC has worked closely with physician leaders, the Vermont Department of Health, Emergency Medical Services (EMS), and Emergency Department (ED) Nurse Leadership since 2011 to standardize stroke protocols and tools, with the goal of improving treatment times. We have also implemented an electronic acute stroke chart audit tool to support continued evaluation of acute stroke care across the state. Seven Vermont hospitals reported that a nationally accepted, evidence-based set of guidelines for acute stroke care has been implemented at their facilities. Additional successes include: an expansion of Vermont EMS protocols to include more advanced stroke-specific education modules and care protocols; nine hospitals have processes in place to receive expert neurological consultation 24/7; and nine hospitals support enhanced communication with tertiary care facilities. Enhanced coordination of care beginning with EMS and continuing through the hospital setting, the implementation of standardized stroke assessment and treatment guidelines, and improved communication between transferring and receiving hospitals will enable more Vermont hospitals to provide the best possible stroke care for their patients.

Northern New England Practice Transformation Network (NNE-PTN)

VPQHC is collaborating with Maine Quality Counts and the University of New Hampshire/Citizens Health Initiative in the Northern New England Practice Transformation Network (NNE-PTN). The NNE-PTN was funded to support the Transforming Clinical Practice Initiative (TCPI), which is a new effort from the Centers for Medicare and Medicaid Services

(CMS) to help ensure practices will be ready to participate in the new value-based payment models. The NNE-PTN's recruitment target is 505 practices over four years, which we estimate will include over 1600 clinicians. Within Vermont, we have partnered with a variety of organizations, including the New England Quality Innovation Network-Quality Improvement Organization (QIN-QIO), to help identify eligible and interested practices. As of June 2016, the NNE-PTN began focusing its efforts on assessing practices in order to develop their individualized, tailored transformation initiatives. Practices participating in the NNE-PTN will realize many benefits including: stronger relationships and operating processes with their referral bases, improved communication with primary care (particularly with regard to the referral process), increased efficiency of specialty visits, expanded networking opportunities, avoiding incurring CMS payment penalties, and possibly earning additional funds rewarding value based performance from CMS.

Patient Safety Surveillance and Improvement System (PSSIS)

VPQHC works to improve patient safety across Vermont hospitals by supporting the implementation of the Patient Safety Surveillance and Improvement System (PSSIS). We routinely visit Vermont hospitals to evaluate their patient safety processes. VPQHC reviewed root cause analyses and corrective action plans for 38 patient safety events in Vermont hospitals. Our strong relationships with hospital staff and our knowledge of hospital safety processes across the state enable us to identify common system deficits and barriers and highlight systems that are effective in preventing harm. The successful initiatives are shared with other hospitals in order to continue to build safer environments for patients across the state.

Conditions of Participation (CoPs)

As part of the Medicare Rural Hospital Flexibility Grant Program (Flex), VPQHC visits Vermont's small rural hospitals to review the quality-related regulations established by CMS. VPQHC's work with the CoPs program and mock surveys supports hospital compliance with federal CMS regulations, ensuring its small rural hospitals receive payment for services. Without government and private insurance payments, many organizations would be forced to close, leaving communities without hospitals. Patients benefit from the improvements in safety and care delivery made when hospitals thoroughly review their systems and processes.

The Medicare Beneficiary Quality Improvement Project (MBQIP)

MBQIP is a quality improvement activity under the Medicare Rural Hospital Flexibility (Flex) grant program of the Health Resources and Services Administration's Federal Office of Rural Health Policy. In December 2015, VPQHC and the Office of Rural Health and Primary Care in the Vermont Department of Health, began supporting hospitals to report MBQIP measures. As of May 2015, seven of eight Critical Access Hospitals (CAHs) in Vermont have agreed to participate in the MBQIP program. The MBQIP system will be collecting performance data in four domain areas: Patient Safety, Emergency Department Transfer Communication, Patient Satisfaction and Outpatient. While still in the early phases, this project provides an opportunity for individual hospitals to look at their own data, measure their outcomes against other CAHs, and partner with other hospitals in the state around initiatives to improve outcomes and provide the highest quality patient care. While MBQIP reporting is currently voluntary, progress toward full reporting will allow for an easier transition should reporting become mandatory for CAHs in the future.

Act 53

VPQHC supports the State of Vermont in the annual production of the Hospital Community Reports, also known as the Hospital Report Card. Through our work with individual hospitals and the State, we compile data on healthcare associated infections (HAI) and nurse staffing, ensuring data are accurate and presented in an accessible way to healthcare consumers. The individualized training, technical assistance, and support we provided hospitals enabled hospital staff to utilize National Health Care Safety Network (NHSN) data more effectively for internal monitoring and reporting processes. High quality data empower healthcare consumers to make informed decisions about where to obtain their care in Vermont and encourages hospitals to support quality improvement projects.

Peer Review

The Vermont Program for Quality in Health Care (VPQHC)/ Vermont Association of Hospital and Health Systems (VAHHS) peer review process includes the routine review of patient charts to identify potential quality concerns that can be used to educate and evaluate physician performance. VPQHC, as a state designated peer protected organization, facilitates this process by hosting a statewide peer review portal on its website. This portal enables physician to physician connections and represents 64 different specialties. Hospitals have used the portal to augment their internal peer review processes, to ensure high quality medical care for their patients.

Supporting Health Care Reform:

The Vermont Health Care Innovation Project

2016 Highlights

Vermont Health Care Innovation Project (VHCIP) year two activities focused on new payment methodologies, more integrated clinical data, and strengthening partnerships across providers. In year two, the organizational structure of VHCIP was modified and condensed from the original seven work groups into three main groups: Payment Model Design and Implementation, Health Data Infrastructure, and Practice Transformation. Population Health, Disability and Long Term Services and Supports, and Workforce work group members contributed extensively to ensure comprehensive approaches and inclusion in the new three main groups.

The *Payment Model Design and Implementation* work group continued towards an All-Payer Model, which builds on the current Shared Savings Program. In addition, significant planning took place around the Medicaid Pathway. This payment process focuses on Medicaid services that are not part of the All-Payer Model.

Under *Practice Transformation,* the Integrated Communities Care Management Learning Collaborative (ICCMLC) empowered community providers to focus treatment efforts on medical and social needs in a holistic, patient-directed approach through use of an Integrated Care Plan. Care team members including social workers, nutritionists, community health workers and others, collaborated to establish appropriate service and care support for patients, and prevented unnecessary trips to the Emergency Department.

Vermont's *Health Data Infrastructure* investments supported reform efforts by developing complex interface data feeds that allowed patient data to be accessible across the system. When data moves with the patient, providers are better informed and have the information they need to continue treatment and avoid costly repeat testing.

The year two accomplishments have greatly advanced Vermont's efforts to put patients at the center, enhance delivery system innovation, and improve reimbursement streams that incentivize value and outcomes. While much work remains to be done, significant progress toward the spirit of the Triple Aim has been accomplished.

Project Summary

The Vermont Health Care Innovation Project (VHCIP) activities are funded through a $45 million State Innovation Models (SIM) Testing grant from the federal Center for Medicare and Medicaid Innovation. The VCHIP activities are dedicated to implementing health delivery system reforms in accordance with the Triple Aim: Improved Population Health, Reduced Per Capita Costs, and Improved Patient Experience. Here in Vermont, reform activities focus on:

- **Payment Model Design and Implementation:** Supporting creation and implementation of value-based payments for providers in Vermont across all payers.
- **Practice Transformation:** Enabling provider readiness and encouraging practice transformation to support creation of a more integrated system of care management and care coordination for Vermonters.
- **Health Data Infrastructure:** Supporting provider, payer, and State readiness to participate in alternative payment models by building an interoperable system that allows for sharing of health information to support optimal care delivery and population health management.[1]

Additional VHCIP Evaluation and Program Management systems provide the structural support of the grant activities.

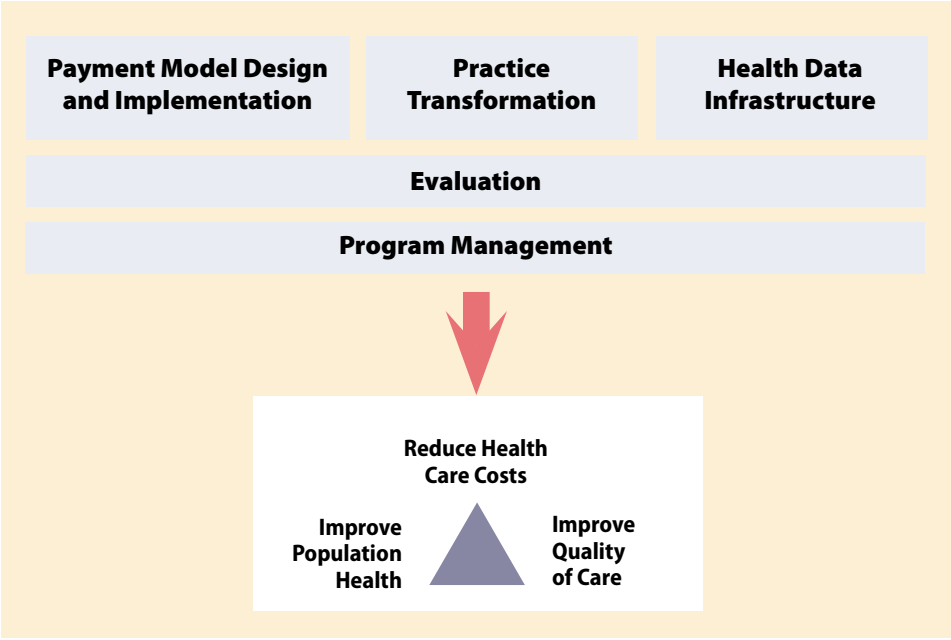
The value of all this health care reform activity is to transform the current health care delivery system from a disparate, siloed, uncoordinated volume-driven, illness based system into an active, listening, patient-centered learning health system focused on health, prevention, and improvement. This transformation is necessary in order to advance the intent of the Triple Aim. Reducing waste in the system lowers cost, but you need reliable data provided from a robust health information exchange to study the system and identify the root causes of waste and misuse. Technology solutions enhance productivity, making real-time event notification a critical communications tool, but embracing technology creates challenges to established culture of practice that is difficult to address and mitigate.

The second year of the VHCIP grant brought a re-basing of the organizational structure of the VHCIP workgroups. Vermont's SIM Core Team and Steering Committee now meet monthly, along with the Payment Model Design and

1 http://legislature.vermont.gov/assets/Legislative-Reports/VHCIP-Report-to-the-Legislature-February-2016.pdf

Implementation, Practice Transformation, and Health Data Infrastructure Work Groups. The Workforce Work Group meets bi-monthly, and two additional groups, the Disability and Long-Term Services and Supports (DLTSS) Work Group and Population Health Work Group, meet quarterly to provide subject matter specific expertise on our milestones. These six work groups report up to the Steering Committee and Core Team, and make policy recommendations and funding recommendations to those groups.

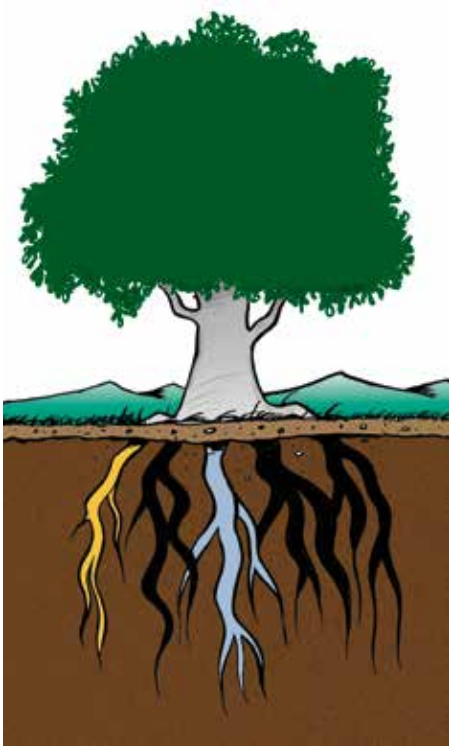
VPQHC's Executive Director, Catherine Fulton, remains Co-Chair for the Payment Model and Design Implementation Work Group along with Andrew Garland of Blue Cross Blue Shield of Vermont (BCBSVT).



Recommendations and Next Steps

As the Vermont Health Care Innovation Project (VHCIP) begins its Year Three activities, multiple efforts continue to be evaluated and implemented in the quest to achieve health care delivery system reforms here in Vermont. Ongoing analyses directed at identifying the specific efforts that led to improvements in care delivery will provide additional information on how the savings were achieved. Additional segmentation of the covered population is required in order to discover "best practices" for broader dissemination and learning across the system. Continuing focus on system opportunities for improvement and spread of best practice will enable additional savings to be garnered as new, specific improvement efforts get underway.

VPQHC will continue to contribute to conversations regarding payment reform efforts, measure review and selection, performance analysis, and dissemination of best practice through continuing participation in payment reform activities.



Partnering to Improve Surgical Care:

Vermont Statewide Surgical Services Collaborative

2016 Highlights

Brattleboro Memorial Hospital, Mt. Ascutney Hospital and Health Center, Porter Medical Center, Rutland Regional Medical Center, and Southwestern Vermont Medical Center have enrolled in the American College of Surgeons-National Surgical Quality Improvement Program (ACS-NSQIP). Four of these five hospitals are extracting high quality data, which will enable them to design meaningful quality improvement activities as well as share best practices leading to better performance. Two Surgical Care Reviewers (SCRs) have passed certification, two are positioned for certification this summer, and the fifth hospital is gearing up for SCR certification and is in the enrollment process. Despite the benefits of a rigorous, proven data collection method, hospitals are challenged to meet the stringent demands of the ACS-NSQIP. Vermont Program for Quality in Health Care (VPQHC) remains steadfast in our goal to facilitate enrollment of all 12 eligible Vermont hospitals into ACS-NSQIP to support the activities of the Vermont Statewide Surgical Services Collaborative (VSSSC). Surgeons employed in ACS-NSQIP hospitals will be better informed to transition from a fee-for-service to a value-based, pay-for-performance payment model. This focus on improving outcomes will result in fewer surgical complications, improve the quality of patient care, and ultimately reduce costs. Through a generous contribution from the MVP insurance company, each participating Vermont hospital will receive additional funds to support their internal surgical improvement programs. VPQHC lauds MVP's contribution and appreciates its partnership in support of the VSSSC.

Project Summary

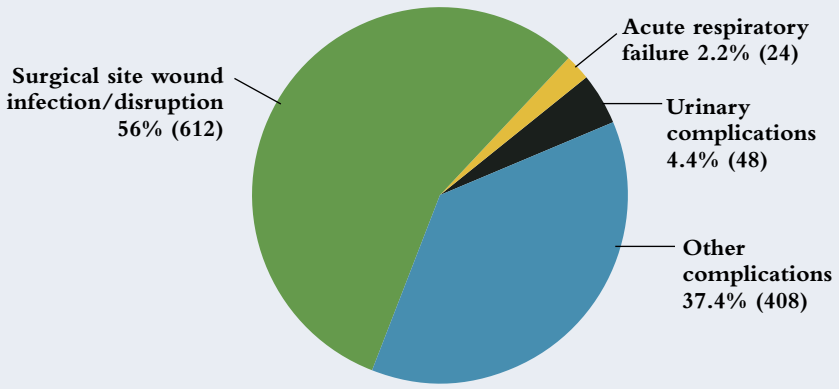
Surgical site infections, pneumonia, and urinary tract infection are examples of a wide range of complications that may occur during and after surgery. These complications often necessitate a longer hospital stay or readmission, are costly, and have a negative impact on patient's health. Impacts from complications are contrary to the aims of health care reform to improve patient outcomes and satisfaction and reduce costs. Much progress has been made since the initial efforts:

- **2013** – Surgeon leaders reached out to the Green Mountain Care Board and VPQHC to establish a statewide collaborative to acquire funding to support adoption of the American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP) throughout Vermont hospitals.
- **2014** – VPQHC applied for and secured funding for the VSSSC through the Vermont Health Care Innovation Project (VHCIP) Provider Sub-grant program. Start-up funds were awarded to facilitate hospital enrollment, training, and certification of Surgical Care

Patients undergoing surgery at ACS-NSQIP participating hospitals have seen:

- Increased satisfaction
- Decreased complications
- Less time lost from work
- Less pain and discomfort
- Shorter hospital stays

Number and Type of Post-Operative Complications Following Surgery in Vermont, 2012-2014



2 Includes complications following procedures targeted by ACS-NSQIP program. Does not include complications that are identified at a subsequent hospital visit. Vermont Uniform Hospital Discharge Data Set.

Clinical vs. Administrative Data

Clinical data tends to tell us more…

	NSQIP	Admin	% Missed by Admin
Total Complications	28%	11%	61%
SSI	13%	1%	97%
Wound Disruption	6%	1%	83%
UTI	6%	0%	100%
Mortality	3%	3%	0%

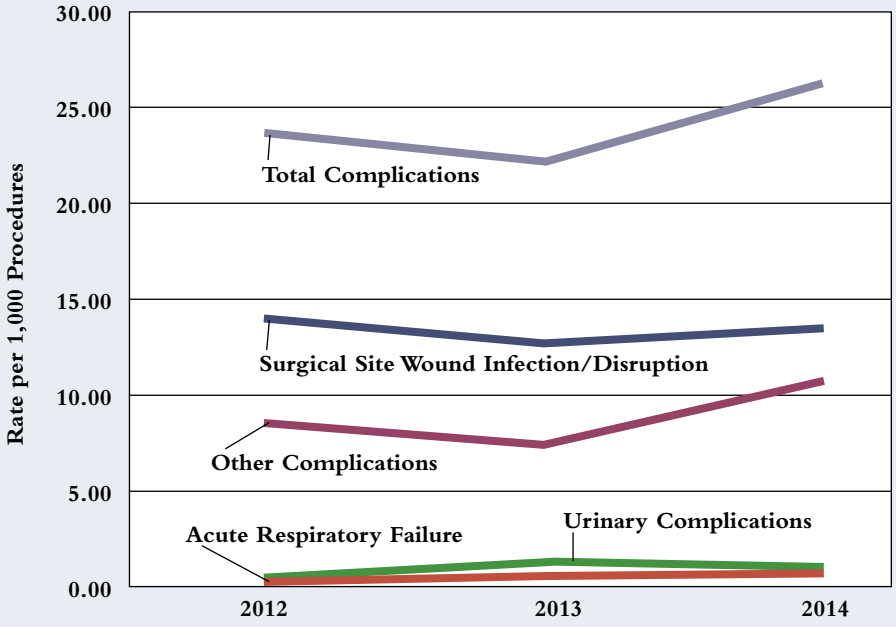
Reviewers (SCRs).

- **2015** – Five Vermont hospitals are currently enrolled with four actively submitting surgical clinical data; SCRs have been trained in the rigors of ACS-NSQIP data collection; Surgeon Champions and SCRs meet regularly to share lessons learned and improvement strategies.
- **2016 and beyond** – Hospitals will continue to be recruited and educated in the benefits of ACS-NSQIP program enrollment to identify areas of opportunity for improvement in the delivery of surgical care; collaborative data will become available to provide performance information across the state and comparatively with regional and national participants.

ACS-NSQIP provides a risk adjusted clinical data collection method that hospitals can use to identify high quality, actionable data with which to design improvement initiatives. ACS-NSQIP has shown to improve the quality of care and reduce costs in every setting (large and small, urban and rural, teaching and non-teaching) in which it has been applied. Nationally, hospitals participating in ACS-NSQIP have seen average savings of about $3 million per year, reductions in readmissions and length of stay, better performance on publicly reported measures, and better performance under pay-for-performance programs. Here in Vermont, the system cost of surgical site complications is valued at approximately $836,000 which represents three quarters of the cost of the VSSSC effort.

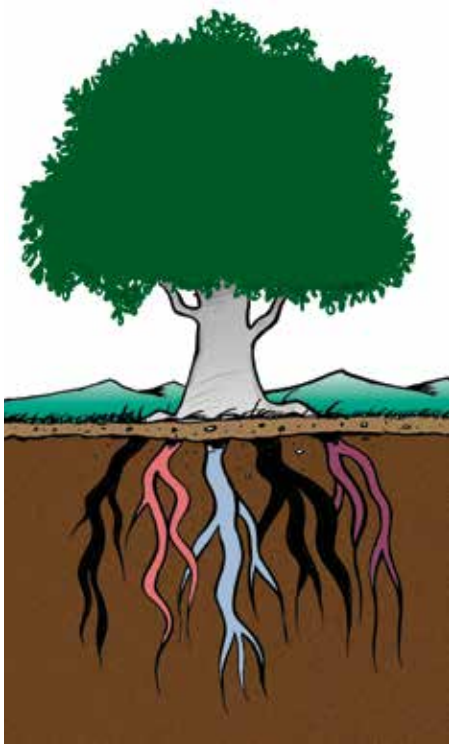
Complications Following Surgeries in Vermont Hospitals

2012 - 2014



Recommendations and Next Steps

The VSSSC has strategized to expand partnerships and identify additional sources of funding. VPQHC has recently partnered with MVP in this vein, a partnership which is representative of collaborative models that currently operate around the country. OneCare Vermont has expressed its appreciation of the value and cost savings reducing complications brings to the delivery system. Efforts to share achievements with other captive payers, and potentially the insurance industry, will continue with the aim of eliciting other sustained mechanisms of financial support.



Improving Care for Patients Experiencing Stroke Symptoms:

Standardized Tools and Protocols Across Vermont Hospitals

2016 Highlights

The Vermont Program for Quality in Health Care (VPQHC) has been working with hospitals since 2013 to help them facilitate the development of systems for implementing the Emergency Department Acute Stroke Assessment and Treatment guidelines developed by the Vermont Stroke work group. Seven Vermont hospitals reported implementing a nationally accepted, evidence-based set of guidelines for acute stroke care at their facilities. Additional successes included expansion of Vermont EMS protocols to include more advanced stroke-specific education modules and care protocols; nine hospitals reported having processes in place to receive expert neurological consultation 24/7; and nine hospitals reported enhanced communication with tertiary care facilities.

VPQHC also began phasing in the evaluation of the Transient Ischemic Attack (TIA) clinical pathway with those facilities who have well implemented Emergency Department (ED) guidelines in place. Over the past year, the work group expanded its focus to providing education on TIA guidelines to hospitals across the state. The symptoms of a TIA and a stroke are very similar, and nearly half of all strokes occur within the first few days after a TIA. Timely, effective, and coordinated evaluation and care of the TIA patient is an important stroke-prevention opportunity for Vermonters. The work group is developing a chart audit/care evaluation tool for hospitals, and has conducted hospital site visits to discuss implementation of TIA guidelines.

The improved coordination of care, beginning with EMS and continuing through the hospital setting, the implementation of standardized stroke assessment and treatment guidelines, and improved communication between transferring and receiving hospitals will enable more Vermont hospitals to provide the best possible stroke care for their patients.

Project Summary

Stroke kills approximately 129,000 Americans every year, making it the fifth leading cause of death in the nation. Stroke is also the fifth leading cause of death in Vermont, behind cancer, heart disease, chronic lower respiratory diseases, accidents/unintentional injuries, and Alzheimer's. Early identification of stroke symptoms, rapid evaluation by medical professionals, effective communication between the care providers at the first sign of a stroke along with high quality, consistent treatment of these patients provide the strongest means for reducing the effects of stroke.

In 2009, Act 61 charged the Vermont Association of Hospitals and Health Systems with convening a work group of neurologists, emergency department physicians, and representatives of the American Heart Association (AHA) with developing recommendations to improve acute stroke care in our state. One key recommendation was to incorporate the standardized tools and materials developed by the work group into hospitals throughout Vermont. These tools and materials are designed to ensure patients receive timely and appropriate stroke care, and emphasize:

- quick recognition of stroke symptoms by the patient, family member and/or care provider
- correct identification of stroke symptoms with appropriate treatment provided by Emergency Medical Services (EMS)
- critical, accurate and efficient communication between EMS and the ED staff
- rapid patient assessment by hospital staff
- implementation of the standardized stroke treatment protocol

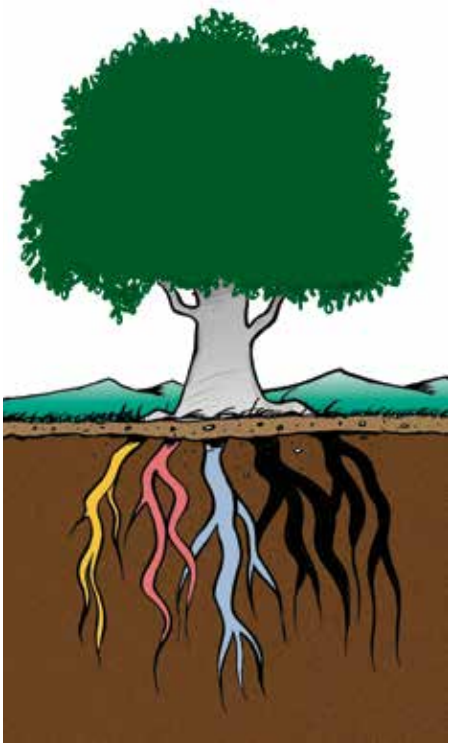
In 2015, Vermont hospitals were asked to review similar medical records for a specific six-month period to demonstrate the progress made with acute stroke care and with addressing barriers to meeting the AHA/ASA treatment time criteria. 212 patients were identified with stroke symptoms during the designated review period. Of those,

- 43% had their CT scan completed within the recommended 25 minutes after arrival to the ED
- 41% had their CT scan read by the radiologist and reported to the ED provider within 45 minutes of arrival to the ED
- 61% of patients had their definitive treatment plan determined by the ED provider within the one-hour goal

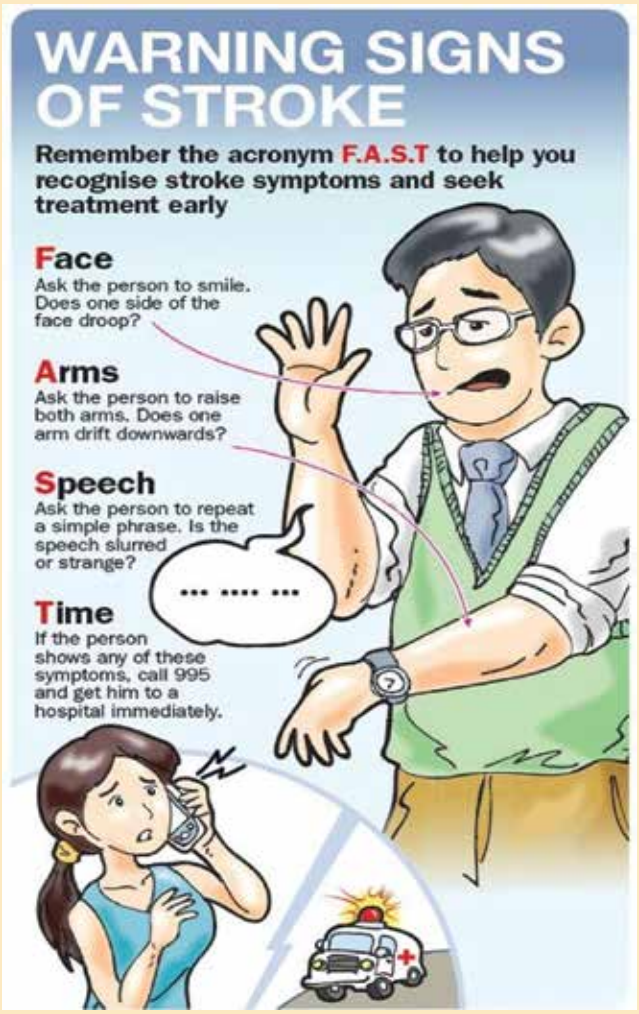
To carry out the recommendations from the work group, the state of Vermont contracted with VPQHC. Since 2011, we have worked closely with physician leaders, the Vermont Department of Health, EMS, and ED Nurse Leadership to standardize stroke protocols and tools, with the goal of improving treatment time. VPQHC has also implemented an electronic acute stroke chart audit tool to support continued evaluation of acute stroke care across the state.

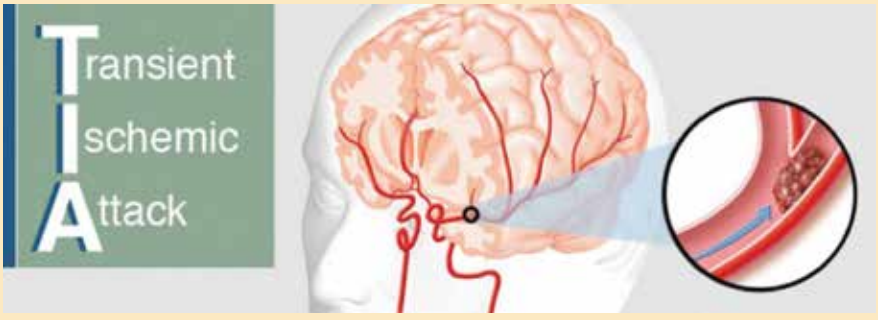
Recommendations and Next Steps

VPQHC and the stroke work group will continue to collaborate with providers to aid in the implementation of stroke and TIA standardized tools and guidelines. These tools and guidelines will serve to support high quality patient care across Vermont hospitals. VPQHC will also continue to evaluate acute stroke care processes through its electronic chart audit tool, which will provide essential feedback for hospitals to guide improvements.



The American Stroke Association found that 37% of all Americans could not recall even one stroke symptom.





While Transient Ischemic Attack (TIA) is often labeled a "mini-stroke," it is more accurately characterized as a "warning stroke," and a warning that should be taken seriously.

TIA is caused by a clot; the only difference between a stroke and TIA is that with TIA the blockage is transient (temporary). TIA symptoms occur rapidly and last a relatively short time. Most TIAs last less than five minutes. The average TIA lasts about one minute. When a TIA is over, it usually causes no permanent injury to the brain.

Assisting Communities in Providing Better Coordinated Care:

The Integrated Communities Care Management Learning Collaborative

2016 Highlights

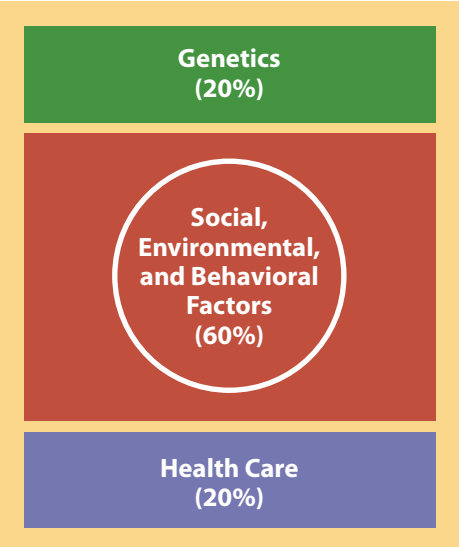
The Quality Improvement Facilitator for the Vermont Program for Quality in Health Care (VPQHC) has worked closely with each community, helping with goal setting, preparing meeting agendas, problem solving, and providing trainings in tools and processes to support Integrated Care Management (ICM) interventions. Some of the trainings we have provided to communities include:

- how to identify at risk populations within communities
- how to use "Camden cards" to help identify the person's priorities
- how to conduct a root cause analysis, including chart review, guided by the person's self-identified goals
- how to conduct eco-mapping, which helps identify important personal relationships, as well as which agencies are currently working with the person for his or her care

As of May 2016, over 200 at risk persons are receiving care and services under the ICM protocol in eleven communities. ICM participants receiving care and services report they feel more involved in their own care and feel better listened to by their providers.. Providers are reporting powerful and effective experiences from engaging care recipients in conversations about "what matters most to them?" instead of "what's the matter with them?" While the ICCMLC is just beginning to look at outcomes in utilization, early results are promising: emergency room visits have decreased for some high risk recipients of care and services.

Project Summary

Persons with complex health conditions and psycho-social needs may benefit from a wide variety of medical and social services from many different providers. It is essential that the care provided to these persons is not "fragmented," with different agencies providing care in multiple locations without communicating adequately with each other about that person's history and plan of care. Fragmentation of care can cause confusion and challenges in following care plans; over-treatment and uncontrolled costs through unnecessary tests or duplication of services; or under-treatment and poor outcomes based on incomplete information or misidentification of the person's primary health determinants.



In many communities throughout the country an Integrated Care Management (ICM) model has been implemented to make health care more person-directed, progressive, and non-episodic. The ICM model supports joint care planning with the person and his or her diverse providers across multiple organizations, with the goal of identifying and preventing the underlying reasons for poor health outcomes. Integral to ICM is the recognition that, in the majority of cases, a person's primary health determinants are related to social, environmental, and behavioral factors. In fact, recent data suggest that only 20% of health outcomes are determined by clinical health care.[3]

Once a person's underlying reasons for poor health outcomes have been identified, a Lead Care Coordinator (LCC) guides joint care planning and helps the person define and work towards personal, social, emotional, and health-related goals. In addition to clinical support, the LCC helps coordinate essential community services based on identified needs, which may include housing, food insecurity, substance abuse, mental health, violence, economic issues, and/or transportation, among others.

The ICM model should produce these positive effects:

- care is less fragmented
- persons can access timely, appropriate, high-quality care
- persons can engage more fully in their own care
- communication between providers is better coordinated, improving continuity of care and lowering cost

3 Bradley EH, Taylor LA, Rogan E. American Health Care: Spending More, Getting Less. Vermont Blueprint Annual Meeting, South Burlington, VT. 12 April 2016. Keynote Address.

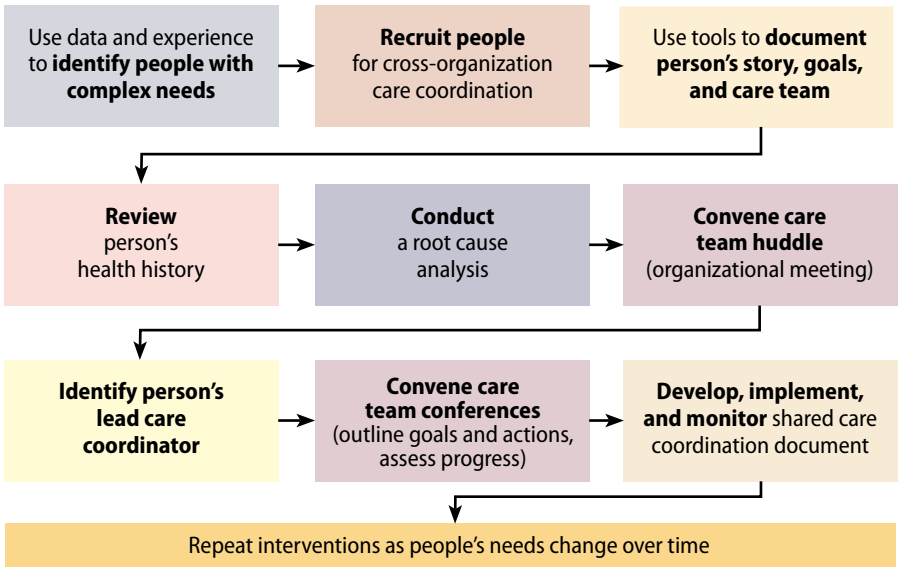
- systems and tools efficiently share and apply information about a person's care among their providers

In 2014, the Integrated Communities Care Management Learning Collaborative (ICCMLC) began helping communities implement ICM in Vermont. The work is funded through a $45 million State Innovation Models (SIM) Testing grant from the federal Center for Medicare and Medicaid Innovation and implemented through a collaborative effort of Vermont Program for Quality in Health Care (VPQHC), the Green Mountain Care Board, the Department of Vermont Health Access including the Vermont Blueprint for Health. Since the inception of the Learning Collaborative, the program has increased from 3 initial volunteer communities to 11 communities across the state. Significant connections have been established among a broad group of stakeholders including, but not limited to, hospitals, community health teams, social services, mental health services, home health services, primary care practices, housing agencies, peer and advocacy organizations, and agencies on aging, with the goal of better coordinating care for identified persons with complex health conditions. This truly integrated community approach will provide lasting benefits to these communities.

The ICCMLC supports participating communities to improve cross-organizational care management by providing opportunities to share ideas with national experts, community leaders, front-line care management staff, state policymakers, and quality improvement facilitators. Some of the excellent presentations available to learning collaborative participants over the past year included:

Key Interventions in Vermont's Integrated Communities Care Management Learning Collaborative

(Order of interventions may vary)



"Identifying and Engaging Individuals in Cross-Organizational Care"

Kelly Craig, MSW, Program Director for Care Management Initiatives with the Camden Coalition of Healthcare Providers guided participants in how to use data to identify high utilizers. She also advised the group in effective ways of conducting initial outreach to encourage participation. The Camden Coalition of Healthcare Providers is a coalition of hospitals, primary care providers, and community representatives that has been a leader in the targeted use of data and focus on human-centered, coordinated care to improve patient care and reduce costs.

"Preparing to Deliver Integrated Care Management Across Organizations"

Lauran Hardin MSN, RN-BC, CNL, Director of Complex Care at Mercy Health provided training in completing a Root Cause Analysis (RCA), including a focused chart review guided in part by the enrollees' self-identified areas of greatest

Camden Cards, such as the ones below, are used to help individuals identify areas of greatest concern. For example, transportation to appointments may be a significant limiting factor for one person, while needing a safe place to live may be of highest concern for another person.

- Find ways to get to and from medical appointments
- Not have to rely on others to get places

- Have a safe place to live
- Make improvements to where I stay
- Find housing I qualify for

importance. The goal of doing the RCA is to find patterns (systematic, behavioral, medical, or social) in the clinical record that may be contributing to the enrollees' high utilization, and that might not have been considered adequately by the team before.

"Implementing Integrated Care Management Across Organizations: Using Shared Care Plans and Cross-Organizational Care Conferences"

Jeanne W. McAllister, BSN, MS, MHA, Associate Research Professor of Pediatrics, Indiana University School of Medicine and Jill S. Rinehart, MD, FAAP, of Hagan, Rinehart & Connolly Pediatrics, PLLC provided training in forming inter-agency teams around people with a risk of high utilization. They also discussed the development and use of Shared Care Plans and how using care conferences promoted the goals agreed upon by each member of the team.

Recommendations and Next Steps

With SIM funding ending in 2016, the ICCMLC leadership's focus is on ensuring the long-term sustainability of the ICM model in Vermont. While VPQHC and the ICCMLC will continue to support new providers and communities in implementing ICM in Vermont, there is a strong focus on skill development within existing communities, to ensure they have the internal supports needed to maintain and expand their collaborative work. VPQHC will also assist in the overall evaluation of the success of the ICCMLC, by continuing to track patient and provider experience, as well as health outcomes.

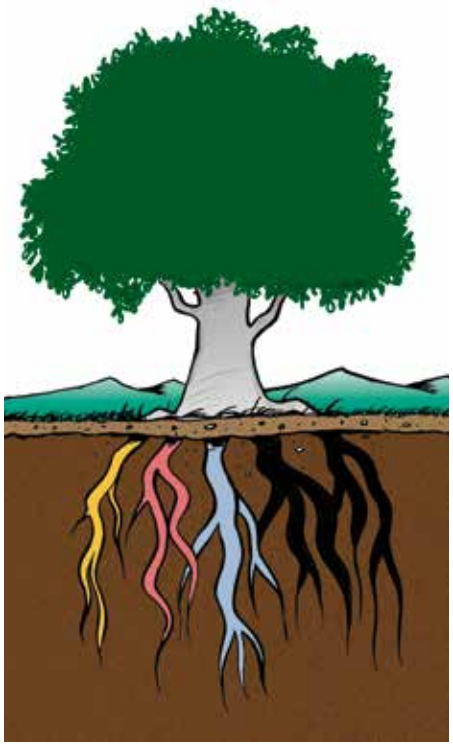
Core Competency Trainings offered through the ICCMLC

In conjunction with the ICCMLC, SIM funds also provided core competency trainings for front line care coordinators to support skill development and disability awareness. These high demand, statewide core competency training sessions established clear standards for behaviors of staff to integrate into daily practice routines that will effectively address communications, expectations, and continuing management of special needs populations. Content included:

Disability Core Competencies
Introduction to Disability Competencies
Understanding Disability & the Intersection with Wellness
Person and Family Centered Care, Planning, and Thinking
Cultural Competency/Humility
Universal Design and Accommodations
Communication and Interaction

General Core Competencies
Care Coordination and Care Management
Patient Engagement and Health Literacy
Helping Patients Cope with Chronic Disease
Care Coordination is a Team Sport

Values and Bias
Person-Centered Care
Person-Centered Assessment and Care Planning
SMART Goals
Stages of Change Theory
Motivational Interviewing
Health Coaching



Transformation! Helping Healthcare Practitioners Recapture the Joy of Their Work:

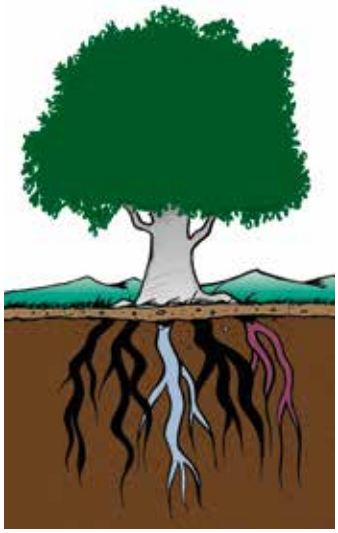
The Northern New England Practice Transformation Network

2016 Highlights

Vermont Program for Quality in Health Care (VPQHC) has begun working to identify practices eligible to participate in the Northern New England-Practice Transformation Network (NNE-PTN). Providers currently participating in a Medicare alternative payment model are excluded from participating in a PTN so VPQHC developed a Vermont-wide provider database that will enable us to target eligible participants more effectively. This unified database includes clinicians from 28 separate data sources encompassing around 8,000 providers.

We are also working closely with our colleagues in Maine and New Hampshire to refine recruitment tools and share techniques and success stories. Within Vermont, we have partnered with a variety of organizations, including the New England QIN-QIO, to help identify eligible and interested practices. As of June 2016, we have recruited and assessed two practices and are actively reaching out to many more across the state.

Project Summary



Clinicians strive to provide the best possible care for their patients while running practices that are operationally and financially effective, and fulfilling for staff. However, increasing expectations around costs, value, and provision of service can result in uncertainty, frustrations, and stress. To thrive in this changing healthcare landscape, clinicians need support to configure their practices effectively while navigating the many new federal requirements.

The Transforming Clinical Practice Initiative (TCPI) is a new effort from the Centers for Medicare and Medicaid Services (CMS) to help ensure practices will be ready to participate in the new value-based payment models defined in the Medicare Access and Chip Reauthorization Act of 2015 (MACRA). The initiative, funded nationally at $840 million over four years, supports both primary care and specialty practices, with a focus on those serving small, rural, or underserved populations.

The work of TCPI is conducted by Practice Transformation Networks (PTNs) and Support and Alignment Networks (SANs). PTNs work directly with practices to support their transformation and SANs are formed by professional associations that work to support both the PTNs and practices directly.

VPQHC is working with Maine Quality Counts and the University of New Hampshire/ Citizens Health Initiative in the NNE-PTN. The NNE-PTN's recruitment target is 505 practices over four years, which will include over 1,600 clinicians. In order to participate, a practice must:

- participate in a baseline practice assessment
- participate in the PTN Learning Collaborative
- network with peers, share learnings, and best practices
- work with PTN staff to submit clinical quality measures through Physician's Quality Reporting System (PQRS) solutions
- work with PTN staff to identify and submit other data as required by CMS

Practices participating in the NNE-PTN will realize many benefits including: stronger relationships and operating processes with their referral bases, improved communication with primary care (particularly with regard to the referral process), improved efficiency of specialty visits, expanded networking opportunities, avoidance of upcoming CMS payment penalties, and possibly earning additional funds rewarding value based performance under the new Merit based Incentive Payment System (MIPS) from CMS.

Impact of our Joint Efforts

Transformation work has commenced with two specialty practices in Vermont. An initial Practice Assessment has been conducted, and transformation action plans drafted to guide the work for the next four years. We have contributed significantly to the NNE-PTN in all sub committees responsible for design and execution of program elements, helping to form a cohesive team. We have contributed expertise and experience to these teams allowing them to establish working protocols for transformation work across all three states.

Recommendations and Next Steps:

VPQHC will continue to recruit eligible providers for participation in the NNE-PTN. We are also exploring opportunities identified in the unified clinician database, including targeting specific vertical markets such as Dentists, Chiropractors, Clinical Psychologists, and many other specialty practices. We will continue to take a leadership role in the NNE-PTN and contribute significantly to the success of the TCPI program.

Supporting Rural Hospitals to Report Indicators of Quality:

The Medicare Beneficiary Quality Improvement Project

2016 Highlights

In December 2015, the Vermont Program for Quality in Health Care (VPQHC), along with the Vermont Department of Health's Office of Rural Health and Primary Care, began supporting hospitals to report Medicare Beneficiary Quality Improvement Project (MBQIP) measures by:

- educating hospitals on the implications of participation in the Medicare Beneficiary Quality Improvement Project (MBQIP)
- creating a Readiness Assessment for each hospital
- assisting in the development of hospital-specific work plans with the goal of publically reporting certain rural-relevant measures
- assisting hospitals with internal implementation and troubleshooting related to publically reporting

As of May 2016, seven of Vermont's eight Critical Access Hospitals (CAHs) agreed to participate in MBQIP. All participating hospitals are currently publically reporting patient experience measures, and working to publically report from the remaining three categories (patient safety, outpatient, and care transitions). While still in the early phases, this project provides an opportunity for individual hospitals to look at their own data, measure their outcomes against other CAHs, and partner with other hospitals in the state around initiatives to improve outcomes and provide the highest quality patient care. The current proposed rule for CAH standards specifically mentions MBQIP as a focus area for reporting quality improvement activities.

Project Summary

Over the past decade, there has been a dramatic increase in the measurement and reporting of quality indicators by health care providers. Reporting of hospital performance helps patients seeking the highest quality of care and identifies opportunities that drive improvements within hospitals.

Vermont has eight small rural hospitals, classified as as Critical Access hospitals (CAHs). These CAHs are located in rural areas, have fewer than 25 inpatient beds, maintain a low annual average length of stay for acute inpatient care, and offer 24/7 emergency care. CAHs can be challenged in reporting certain quality indicators due to their small number of visiting patients, limited number of procedures offered, and/or challenges with internal technological systems.

The MBQIP is a quality improvement activity under the Medicare Rural Hospital Flexibility (Flex) grant program of the Health Resources and Services Administration's Federal Office of Rural Health Policy. Program measures are "rural relevant", designed to be collected and reported by CAHs across the country. The goal of MBQIP is to improve the quality of care provided in CAHs by increasing quality data reporting and driving quality improvement activities based on the data.[4] Measures are organized into four categories, currently including the following:

- Patient Safety measures, which include influenza vaccination coverage among healthcare personnel and influenza immunizations provided to applicable patients.
- Patient Engagement measures, collected through the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, which assess patient perspectives of care received.
- Care Transitions measures, which assess the transfer of patient information when patients have been discharged from the hospital to their next point of care.
- Outpatient measures, which encompass a range of services provided in the Emergency Department (ED).[5]

"In 2003, an expert panel convened by the University of Minnesota Rural Health Research Center and Stratis Health identified ED care as an important quality assessment measurement category for rural hospitals. While emergency care is important in all hospitals, it is particularly critical in rural hospitals where the size of the hospital and geographic realities make organizing triage, stabilization, and transfer of patient more important. Communication between providers promotes continuity of care and may lead to improved patient outcomes."
(Stratis Health)

4 https://www.ruralcenter.org/tasc/mbqip

5 Includes fibrinolysis/fibrinolytic therapy, time to patient transfer for acute coronary, patients receiving aspirin at arrival, time to ECG, time to diagnostic evaluation, time to departure for discharged patients, time to pain management for long bone fracture, and captures those patients who left the ED without being seen.

Hospital/Measure Spotlight – Gifford Medical Center's Staff Influenza Vaccination Rates

One of the MBQIP measures looks at the percentage of healthcare workers that receive a yearly influenza vaccination. Influenza, or the "flu", contributes to over 200,000 hospitalizations on average every year. Hospital staff and healthcare workers infected with the flu virus can transmit it to coworkers and patients, including those at higher risk of getting very sick from contraction. Vaccinating healthcare workers reduces the risk of flu illness, medical visits, antibiotic use, and flu-related deaths. It is recommended that all healthcare facilities provide the flu vaccine to their healthcare workers.[6]

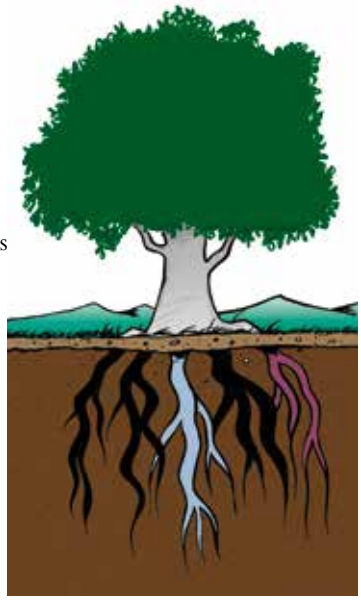
At Gifford Medical Center in Randolph, Vermont, 94% of the healthcare workers have received the flu vaccination. This is in contrast to the statewide vaccination rate in Vermont of 75%, and national rate of 84%. Gifford's success in this measure is likely due to several factors:

1. The hospital offers influenza vaccinations to all staff and volunteers;
2. Hospital policy requires staff who are not immunized to wear a mask during flu season when within six feet of a patient; and
3. Rates are tracked by hospital departments/units so managers and senior managers can provide feedback to respective staff.

Congratulations Gifford Medical Center on your outstanding work!

The Medicare Rural Hospital Flexibility Grant Program

The Balanced Budget Act of 1997 established the Medicare Rural Hospital Flexibility Grant Program (Flex) to assist rural hospitals improve access through Critical Access Hospital (CAH) designation. A CAH is a hospital certified under a set of Medicare Conditions of Participation (CoPs), which are structured differently than acute care hospital CoPs. Flex has evolved into a program that assists CAHs by providing funding to state governments to spur quality and performance improvement activities, stabilize rural hospital finance, and integrate emergency medical services (EMS) into their health care systems. Flex funding encourages the development of cooperative systems of care in rural areas, joining CAHs, EMS providers, clinics, and health practitioners to increase efficiency and quality of care.



Recommendations and Next Steps

As we enter our second year of the Medicare Beneficiary Quality Improvement Project, VPQHC will continue to support hospitals develop the infrastructure and capacity to report MBQIP measures. For hospitals that are already reporting measures, we will begin working with quality improvement leaders to improve systems and processes identified through MBQIP reporting.

6 https://www.medicare.gov/hospitalcompare/about/timely-effective-care.html - Accessed 5/18/16

Making Hospitals Safer:

The Patient Safety Surveillance and Improvement System

2016 Highlights

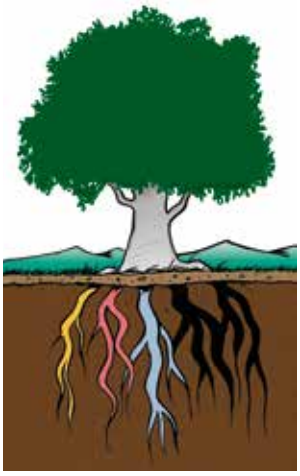
The Vermont Program for Quality in Health Care (VPQHC) has become an important resource to patient safety staff in Vermont hospitals. In addition to reviewing root cause analyses and corrective action plans for 38 patient safety events in Vermont hospitals, we frequently received requests to review National Quality Forum (NQF) Serious Reportable Event (SRE) criteria or Patient Safety Surveillance and Improvement System (PSSIS) Rule Information to ensure accurate reporting of events. Our strong relationships with hospital staff and our knowledge of hospital safety processes across the state enable us to identify common system deficits and barriers and also highlight systems that are effective in preventing harm. Successful initiatives have been shared with other hospitals to continue to build safer environments for patients across Vermont.

Project Summary

We all hope the hospital is a safe environment for patients. Unfortunately, there are instances when patients and staff are harmed because of system or process issues. In 2006, the Vermont Department of Health (VDH) began the Patient Safety Surveillance and Improvement System (PSSIS) with the goal of improving hospital patient safety and reducing adverse events.

The PSSIS requires that Vermont hospitals report patient and staff harm based on the National Quality Forum (NQF) Serious Reportable Event (SRE) criteria. These events are considered significant and largely preventable, and must be reported within seven days of their discovery by the hospital.

Once an event is reported, the PSSIS requires that hospitals conduct a thorough investigation of the event to determine its root cause. This detailed investigation, or Root Cause Analysis (RCA), evaluates specific factors that contributed to the event, which are then integrated into a Corrective Action Plan (CAP). The CAP must identify the specific steps needed to mitigate the root cause(s). Both the RCA and CAP are reviewed by VPQHC before being submitted to the Patient Safety Division of the Vermont Department of Health.



The VPQHC Patient Safety program staff also routinely visit each hospital to evaluate their patient safety processes and review the progress of their CAPs. The goal of the visits is to ensure that every item in the PSSIS Rule is not only incorporated into the hospital's policies and processes, but is integrated into daily practices.

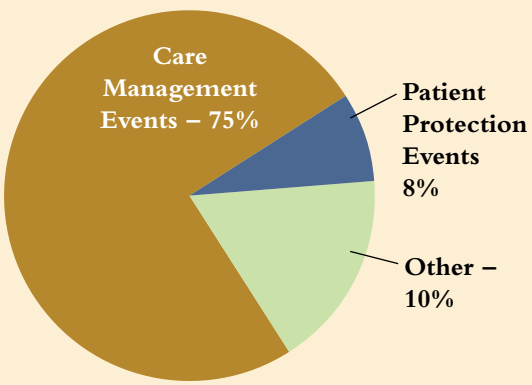
Recommendations and Next Steps

Supporting the hospitals' patient safety systems and processes is a priority for VPQHC. In the upcoming year, VPQHC will continue reviewing SREs, RCAs, and CAPs, and plans to visit six additional hospitals to assess their policies and processes related to patient safety. Through our work with the PSSIS, we will also promote best practice models, provide education, increase awareness, and support the collaboration between hospitals.

Serious Reportable Events, Vermont Hospitals, 2014-2015

Between 2014 and 2015, Vermont hospitals reported 76 events based on the NQF SRE criteria. The bulk of these events (75%) fell under the Care Management Event criteria, which includes patient harm following medication errors, falls, loss of test results, labor in a low-risk pregnancy, or acquisition of a stage 3 or 4 pressure ulcer.

Patient protection events comprised 8% of the reports. This type of event, according to the NQF, includes patient death or serious injury associated with patient elopement, patient suicide, attempted suicide, or self-harm that results in serious injury while being cared for in a healthcare setting. The remaining 17% of the events included intentional unsafe acts, potential criminal events, product or device events, environmental events, and surgical or procedural events.



Working with Our Smallest Hospitals to Provide Quality Care:

Conditions of Participation Surveys

2016 Highlights

The Vermont Program for Quality in Health Care (VPQHC) visited seven of Vermont's small rural hospitals and conducted Conditions of Participation (CoPs) surveys. These mock surveys are opportunities to identify assets and deficits in the organization, and together, agree on recommendations to support improved compliance with CMS standards and ensure receipt of payment for services. Without government and private insurance payments, many organizations would be forced to close, leaving communities without hospitals. Patients benefit from these mock surveys through improvements in safety and care delivery that result when hospitals thoroughly review their systems and processes.

Project Summary

Federal and state agencies, including the Centers for Medicare and Medicaid Services (CMS), have established health and safety standards for health care facilities. These federal requirements in the Medicare Conditions of Participation (CoP) provide facilities with written guidance to improve the quality of care, and to protect the health and safety of their patients. Compliance with these regulations and standards is tied to payment for services rendered to Medicare and Medicaid beneficiaries, as well as, in some cases, patients covered by private insurers.

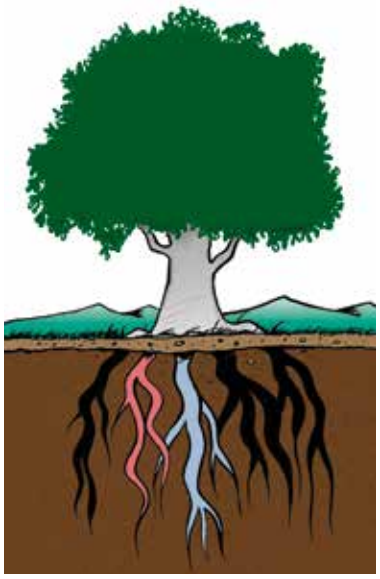
As part of routine evaluations or complaints, representatives from CMS evaluate health care organization compliance with CMS regulations through unannounced site visits. In Vermont, these visits are conducted by the Department of Disabilities, Aging & Independent Living (DAIL), Division of Licensing and Protection (DLP). Deficiencies identified in these surveys by DLP can lead to significant mandatory remedial actions for the hospital.

As part of the Medicare Rural Hospital Flexibility Grant Program (Flex), VPQHC visits Vermont's small rural hospitals to review the quality-related regulations established by CMS. While the VPQHC site visits and mock surveys incorporate many of the same processes that DLP includes in their surveys, (such as regulatory compliance, policy compliance, medical record reviews, environmental evaluations, and staff interviews), the process is non-punitive. Hospitals receive a thorough report from VPQHC, detailing the findings and recommendations from the site visit and mock survey.

Recommendations and Next Steps

In the changing health care environment, compliance with regulatory standards is challenging for hospitals, regardless of size. Continuing support for the smaller hospitals in identifying areas of opportunity and areas to focus their limited resources on will help the hospitals meet their goal of providing high quality, safe patient care.

North Country Hospital



Reporting the Quality of Care in Hospitals:

The Hospital Community Report

2016 Highlights

The Vermont Program for Quality in Health Care (VPQHC) has worked with individual hospitals and the State of Vermont to ensure data are accurate and presented in an accessible way to health care consumers. The individualized training, technical assistance, and support we have provided hospitals has also enabled hospital staff to utilize the National Healthcare Safety Network (NHSN) more effectively for internal monitoring and reporting processes. High quality data enable healthcare consumers to make better informed decisions about where to obtain care in Vermont and encourage hospitals to support projects aimed at quality improvement.

Project Summary

Service, cost, and quality of care vary widely between hospitals. Publically available data can help healthcare consumers choose where to seek care and encourage quality improvement by allowing hospitals and providers to see how they compare to other facilities in the state and the nation.

Vermont law requires hospitals to publish annual reports containing information on a variety of measures which assess quality and costs of care. VPQHC supports the State of Vermont in the annual production of the Hospital Community Reports, also known as the Hospital Report Card, by compiling data on healthcare associated infections (HAI) and nurse staffing.

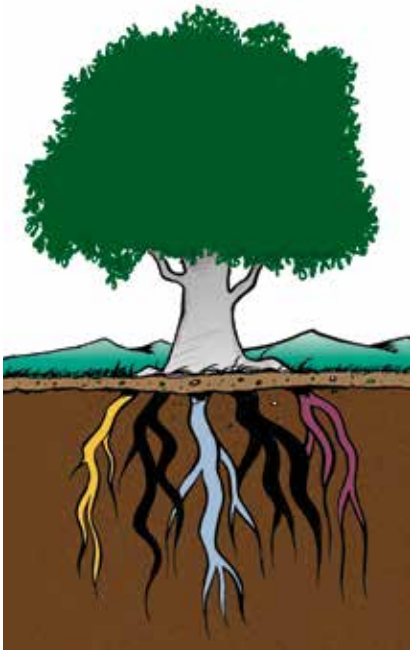
Nurse Staffing - We work with hospital staff to compile reports showing total nursing care hours per patient day, broken down between care provided by Registered Nurses and care provided by other nursing staff. These data can help inform potential patients on the amount of care they can expect to receive while in the hospital.

In early 2016, the Vermont Legislature passed Bill S.255 which requires hospitals to provide information to the public about their community health needs and to allow for public participation in the community health needs assessment process. The Bill included some changes to the existing Hospital Report Card requirements. Most notably:

- Annual updates to each hospital's Community Needs Assessment
- Updates to Board Member information posted on each hospital's websites
- Removal of a dedicated hospital report card page on each hospital's website

HAI - A surgical site infection (SSI) is a type of HAI that takes place after a patient undergoes surgery. Central line associated blood stream infections (CLABSIs) are another type of HAI that occur in patients who have had a central line within 48-hours prior to the onset of symptoms. VPQHC works extensively with designated Vermont hospital Infection Preventionists (IPs) to validate reported CLABSI and SSI associated with three types of surgical procedures: hip replacements, knee replacements, and abdominal hysterectomies. High rates of SSIs and CLABSI may reflect poor quality care.

Using the Centers for Disease Control and Prevention National Healthcare Safety Network (NHSN) online reporting platform, VPQHC is able to provide standardized infection ratios (SIRs) for each type of infection. The SIR is a summary measure that enables hospitals to track progress over time and compare their rates with the national baseline. Table # shows the number of CLABSIs between October 2014 and September 2015. Due to low procedure counts in many Vermont hospitals, SIRs can only be calculated for Rutland Regional Medical Center and



Central Line-Associated Bloodstream Infections October 1, 2014 through September 30, 2015

Hospital	Number of Central Line Days	Number of Infections	Standardized Infection Ratio (SIR)[9]	95% Confidence Interval (CI) for SIR[10]	Hospital Performance Compared to NHSN National Data
Brattleboro Memorial Hospital	141	0	NA		
Central Vermont Medical Center	333	0	NA		
North Country Hospital	43	0	NA		
Northeastern Vermont Regional Hospital	106	0	NA		
Rutland Regional Medical Center	828	0	0	2.412[11]	No different
Southwestern Vermont Medical Center	272	0	NA		
University of Vermont Medical Center	7,096[12]	9	0.517	0.252, 0.948	Better
Vermont Total	**8,819**	**9**	**0.450**	**0.219, 0.826**	**Better**

NA (not applicable): ICU patients had too few central line days to calculate a reliable SIR. When the SIR cannot be calculated, a comparison to national data is not possible.

8 The following hospitals do not have ICUs that meet the CDC definition for reporting central line-associated bloodstream infections and therefore are excluded from this report: Copley Hospital, Gifford Medical Center, Grace Cottage Hospital, Mount Ascutney Hospital and Health Center, Northwestern Medical Center, Porter Hospital, and Springfield Medical Center.

9 A SIR equal to 1.0 means the observed number of infections is equal to the number of infections one would predict based on national experience; A SIR higher than 1.0 means that the infection rate is higher (worse) than one would predict based on national experience; A SIR less than 1.0 means the infection rate is lower (better) than one would predict based on the national experience.

10 To assess whether the difference between the observed number of infections is significantly different from the predicted number of infections, a 95% confidence interval for the SIR is calculated. The confidence interval for a hospital's SIR is the range of possible SIRs within which there is 95% confidence that the real SIR for that hospital lies, given the number of infections and procedures that were observed for that hospital.
- If the 95% confidence interval contains the value of 1.0, the observed number of infections will be considered "similar" (not significantly different) from the expected.
- If the SIR is less than 1.0 and the 95% confidence interval does not include 1.0, the hospital's infections are significantly "lower" than expected.
- If the SIR is greater than 1.0 and the 95% confidence interval does not include 1.0, the hospital's infections are significantly "higher" than expected.

11 Lower bound of 95% Confidence Interval is only calculated if the infection count is greater than 0.

12 Surgical, medical, neo-natal, and pediatric ICU units are included.

the University of Vermont Medical Center. Statewide rates of CLABSI are better than the national baseline.

Both the nurse staffing and HAI reports are publicly accessible on the Vermont Department of Health's website.

Recommendations and Next Steps

VPQHC, along with the State of Vermont, will continue to work with hospitals to ensure the hospital community reports incorporate new metrics of health care reform and provide meaningful and accessible data to the consumer. Beginning in Fall 2016, we will be working with hospitals to validate a new measure – Clostridium difficile infections – that will be included in the 2017 Vermont Hospital Community Reports.

Supporting Hospital and Physician Peer Review:

The Peer Review Portal

2016 Highlights

Hospitals have used the Vermont Program for Quality in Health Care (VPQHC) Peer Review Portal to augment their internal peer review process and assure high quality medical care for the patients they serve. In addition to administering the portal, VPQHC has connected with hospital Quality Directors across the state to share best practices for physician peer review.

Project Summary

Peer review includes the routine review of patient charts to identify potential quality concerns that can be used to educate and evaluate physician performance. The evaluation is done confidentially, and can be performed by a peer, practicing either within the same, or an external hospital. The American Medical Association "supports the medical peer review process and recommends that peer review evaluations be based upon appropriateness, medical necessity, and efficiency of services in order to assure quality medical care."

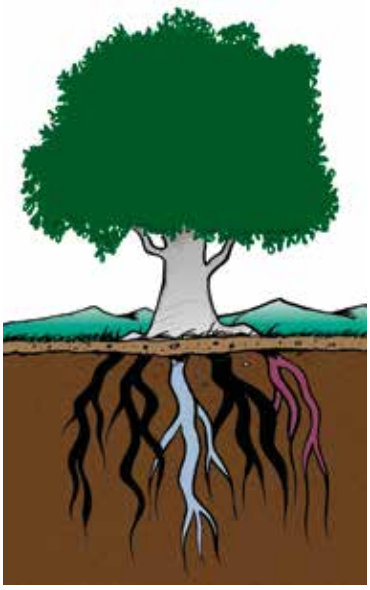
In Vermont, many of our hospital peer review committees have difficulty finding qualified, informed associates to review the quality of services provided by their medical staff. Smaller Vermont hospitals may only have one or two physicians within a particular specialty on their staff, and sometimes physician "peers" are in the same practice, which may constitute a conflict of interest.

The Vermont Program for Quality in Health Care, as a state designated peer protected organization, facilitates the peer review process by hosting a statewide peer review portal on our website. This portal enables physician to physician connection and represents 64 different specialties. VPQHC provides this peer review protection for hospitals and physicians under Act 26 V.S.A. §1443 of the Vermont Statutes.

VPQHC updates the panel of reviewers every two years. In preparation for these updates, it connects with all Vermont hospitals and with the Dartmouth Hitchcock Medical Center and asks them to review their panel. When all hospitals have responded with their information, VPQHC staff updates the portal.

Recommendations and Next Steps

VPQHC continues to encourage hospital leaders to contribute to and use the Peer Review Portal in order to ensure that physician peer reviews are accessible to hospitals throughout the state.



Summary of Recommendations and Next Steps

Supporting Health Care Reform:

The Vermont Health Care Innovation Project

As the Vermont Health Care Innovation Project (VHCIP) begins its Year Three activities, multiple efforts continue to be evaluated and implemented in the quest to achieve health care delivery system reforms here in Vermont. Ongoing analyses directed at identifying the specific efforts that led to improvements in care delivery will efforts get underway. VPQHC will continue to contribute to conversations regarding payment reform efforts, measure review and selection, performance analysis and dissemination of best practice through continuing participation in payment reform activities. Payment Model Design and Implementation Practice Transformation Health Data Infrastructure Evaluation Program Management Improve Population Health Reduce Health Care Costs Improve Quality of Care provide additional information on how the savings were achieved. Additional segmentation of the covered population is required in order to discover "best practices" for broader dissemination and learning across the system. Continuing focus on system opportunities for improvement and spread of best practice will enable additional savings to be garnered as new, specific improvement efforts get underway. VPQHC will continue to contribute to conversations regarding payment reform efforts, measure review and selection, performance analysis and dissemination of best practice through continuing participation in payment reform activities.

Partnering to Improve Surgical Care:

Vermont Statewide Surgical Services Collaborative

The VSSSC has strategized to expand partnerships and identify additional sources of funding. VPQHC has recently partnered with MVP in this vein, a partnership which is representative of collaborative models that currently operate around the country. OneCare Vermont has expressed its appreciation of the value and cost savings reducing complications brings to the delivery system. Efforts to share achievements with other captive payers, and potentially the insurance industry, will continue with the aim of eliciting other sustained mechanisms of financial support.

Improving Care for Patients Experiencing Stroke Symptoms:

Standardized Tools and Protocols Across Vermont Hospitals

VPQHC and the stroke workgroup will continue to collaborate with providers to aid in the implementation of stroke and TIA standardized tools and guidelines. These tools and guidelines will serve to support high quality patient care across Vermont hospitals. VPQHC will also continue to evaluate acute stroke care processes through its electronic chart audit tool, which will provide essential feedback for hospitals to guide improvements.

Assisting Communities in Providing Better Coordinated Care:

The Integrated Communities Care Management Learning Collaborative

With SIM funding ending in 2016, the ICCMLC leadership's focus is on ensuring the long-term sustainability of the ICM model in Vermont. While VPQHC and the ICCMLC will continue to support new providers and communities in implementing ICM in Vermont, there is a strong focus on skill development within existing communities, to ensure they have the internal supports needed to maintain and expand their collaborative work. VPQHC will also assist in the overall evaluation of the success of the ICCMLC, by continuing to track patient and provider experience, as well as health outcomes.

Transformation! Helping Healthcare Practitioners Recapture the Joy of Their Work:

The Northern New England Practice Transformation Network

VPQHC will continue to recruit eligible providers for participation in the NNE-PTN. We are also exploring opportunities identified in the unified clinician database, including targeting specific vertical markets such as Dentists, Chiropractors, Clinical Psychologists, and many other specialty practices. We will continue to take a leadership role in the NNE-PTN and contribute significantly to the success of the TCPI program.

Supporting Rural Hospitals to Report Indicators of Quality:

The Medicare Beneficiary Quality Improvement Project

As we enter our second year of the Medicare Beneficiary Quality Improvement Project, VPQHC will continue to support hospitals develop the infrastructure and capacity to report MBQIP measures. For hospitals that are already reporting measures, we will begin working with quality improvement leaders to improve systems and processes identified through MBQIP reporting.

Making Hospitals Safer:

The Patient Safety Surveillance and Improvement System

Supporting the hospitals' patient safety systems and processes is a priority for VPQHC. In the upcoming year, VPQHC will continue reviewing SREs, RCAs, and CAPs, and plans to visit six additional hospitals to assess their policies and processes related to patient safety. Through our work with the PSSIS, we will also promote best practice models, provide education, increase awareness, and support the collaboration between hospitals.

Working with Our Smallest Hospitals to Provide Quality Care:

Conditions of Participation Surveys

In the changing health care environment, compliance with regulatory standards is challenging for hospitals, regardless of size. Continuing support for the smaller hospitals in identifying areas of opportunity and areas to focus their limited resources on will help the hospitals meet their goal of providing high quality, safe patient care.

Reporting the Quality of Care in Hospitals:

The Hospital Community Report

VPQHC, along with the State of Vermont, will continue to work with hospitals to ensure the hospital community reports incorporate new metrics of health care reform and provide meaningful and accessible data to the consumer. Beginning in Fall 2016, we will be working with hospitals to validate a new measure – Clostridium difficile infections – that will be included in the 2017 Vermont Hospital Community Reports.

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Continuous Improvement and Continuous Learning:

VPQHC's Integrated Approach to Healthcare Redesign – Infinite Opportunities for Change

Changing to a Population-Based Healthcare System

In 2001, the Institute of Medicine (IOM) released their landmark study called "Crossing the Quality Chasm", which detailed the deficiencies in the US healthcare system and proposed strategies for radical improvement. It showed the healthcare delivery system was disjointed, inefficient, and full of waste at all points, which contributed significantly to the cost increases experienced year upon year. It proposed a 6-point aim statement encompassing Safety, Effectiveness, Patient Centered-ness, Timeliness, Efficiency, and Equitableness. These six aim statements were adopted as Vermont Program for Quality in Health Care's guiding aims as well.

Sixteen years later, and many of the strategies proposed in that report have been implemented or started, and slowly the US healthcare system is changing from fee-for-service to a population-based system. Along the way, the Institute for Healthcare Improvement (IHI) coined their "triple aim" of Improving the Health of Populations, Improving the Patient Experience of Care, and Reducing the Per Capita Cost. This has been widely adopted by organizations who continue to improve and change their structure and operations to provide service in the new population-based environment.

Recently, three senior IHI executives produced an article that took the work of the IOM and IHI, and brought it up to date in their "10 New Rules to Accelerate Healthcare Redesign". It was a set of "bold aspirations to guide healthcare organizations during an era of reform". In an era where changing from fee-for-service to population- based health, medical professionals and their organizations often feel like they have "one foot on the dock, and the other in the canoe". In order to combat this, they propose organizations need to:

1. **Change the balance of power** – Co-produce health and well-being in partnership with patients, families and communities
2. **Standardize what makes sense** – Standardize what is possible to reduce unnecessary variation and increase the time available for individualize care.
3. **Customize to the individual** – Contextualize care to an individual's needs, values and preferences, guided by an understanding of what matters to the person in addition to "What's the matter?"
4. **Promote well-being** – Focus on outcomes that matter the most to people, appreciating that their health and happiness may not require healthcare.
5. **Create joy in work** – Cultivate and mobilize the pride and joy of the healthcare workforce.
6. **Make it easy** – Continually reduce waste and all nonvalue-added requirements and activities for patients, families, and clinicians.
7. **Move knowledge, not people** – Exploit all helpful capacities of modern digital care and continually substitute better alternatives for visits and institutional stays. Meet people where they are – literally.
8. **Collaborate and cooperate** – Recognize that the healthcare system is embedded in a network that extends beyond traditional walls. Eliminate silos and tear down self-protective institutional or professional boundaries that impede flow and responsiveness.
9. **Assume abundance** – Use all the assets that can help to optimize the social, economic, and physical environment, especially those brought by patients, families, and communities.
10. **Return the Money** – Give the money from healthcare savings to other public and private purposes.

VPQHC and the 10 New Rules

VPQHC is incorporating the "10 new rules" into our own work, and can share our expertise in expanding the integration of these vital concepts of change acceleration across the system of care. Through systematic assessment of current operations, organizations can actualize the 10 New Rules in a comprehensive, integrated radical redesign process which addresses Systems Improvement (#s 2, 3, 5, 6, and 8), the Role of Leadership in leading this change (#s 1, 4, 5, 9, and 10) and Integration with the wider social environment (#s 4, 7, 8, 9, and 10). This integrated evaluation reveals a truly holistic view of the organization, puts the patient front and center in all the focal points in the system and guides redesign using state of the art thinking and methodologies rooted in the Toyota Production System, Organizational Lifecycle Analysis, Systems Thinking, and Advanced Change Management.

As the IHI report states, "Surfacing, testing and then spreading comprehensive, radical redesign is not for the timid". We have been in the trenches with hospitals, primary and specialty care practices, and many other non-healthcare organizations undergoing radical change. There is no more effective way of guiding the redesign process, and implementing the changes it requires until the organization is truly transformed. Over-hauling systems to place patients and family's needs squarely in the center of a supportive and caring delivery team requires coaching, experience leading change, and expertise to evaluate delivery systems.

If your organization seeks to grow on a change improvement pathway, VPQHC would be excited to share our vision, talents, and leadership with Vermont healthcare organizations that are committed to accelerating the change from fee-for-service to population-based healthcare.

Ready to find out more? Call or email us at (802) 229-2152 or leeb@vpqhc.org

VPQHC

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