2022
Report of the Vermont Hospital Quality Framework Workgroup

Vermont Program for Quality in Health Care, Inc.
Montpelier, Vermont

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Author

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The author wishes to thank the many individuals who contributed to this report, including the Vermont Hospital Quality Framework Workgroup membership.

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Executive Summary

In January 2022, the Vermont Program for Quality in Health Care, Inc. (VPQHC) convened the Vermont Hospital Quality Framework Workgroup to design a framework of meaningful metrics that provides relevant information and accurately reflects the hospital system's quality of care within the healthcare reform environment in Vermont.

This report gives a background of the issue being addressed, describes the methods used to garner consensus and select measures of hospital healthcare quality, and shares the workgroup's findings, lessons learned, and recommendations.

During the eight months of workgroup activity (January – August 2022), 56 members representing 25 organizations participated. The group drafted a charter to guide its work and participated in a series of presentations by subject matter experts to gain a shared understanding of quality measurement.

VPQHC inventoried current measures of hospital healthcare quality being reported and monitored in the state. Based on surveys of workgroup membership, the Vermont Hospital Quality Framework was designed, and nineteen measures were selected for inclusion.

The next steps will be to implement the recommendations, such as establishing the web-based reporting site, gathering baseline data, and continuing to improve upon this first iteration of the framework.

Background

The sheer number of measures used to evaluate quality of care delivered at hospitals is more overwhelming than useful. The proliferation of hospital report cards has not achieved their stated goal of helping consumers understand the quality of care offered at hospitals. More work needs to be done to align measures required by regulators.

VT statute tasks at least three organizations with assessing the quality of health care delivered across the system: Green Mountain Care Board (GMCB)[1], Vermont Department of Health (VDH)[2], and VPQHC.[3]

In August 2021, VPQHC published a report entitled *Building a Vermont Hospital Quality Framework: An Overview of the Current State of Hospital Quality Reporting, Measure Recommendations, and Next Steps*[4]. One of the recommendations was to establish a representative, multi-stakeholder committee to: 1) determine the measures to be included under the Vermont Hospital Quality Framework, 2) create a process for ensuring that the Vermont Hospital Quality Framework stays current and value-add, and eventually 3) identify how the data should appear on a public-facing website.

In January 2022, with financial support from the State Office of Rural Health - Vermont Department of Health, VPQHC convened the Vermont Hospital Quality Framework Workgroup. The purpose was to design a framework of meaningful metrics that provides relevant information and accurately reflects the hospital system's quality of care within the healthcare reform environment in Vermont.

Vision

Vermonters use a hospital quality framework that has meaningful, reliable, and representative metrics about Vermont's healthcare delivery system.

See Appendix 1 for a list of workgroup participants and Appendix 2 for the workgroup charter that guided the work.

[1] 18 V.S.A. § 9375 (B)(10) A through G

[2] 18 V.S.A. § 9405a, 18 V.S.A. § 9405b, 2018 Hospital Reporting Rule, Section 9

[3] 18 V.S.A. § 9416

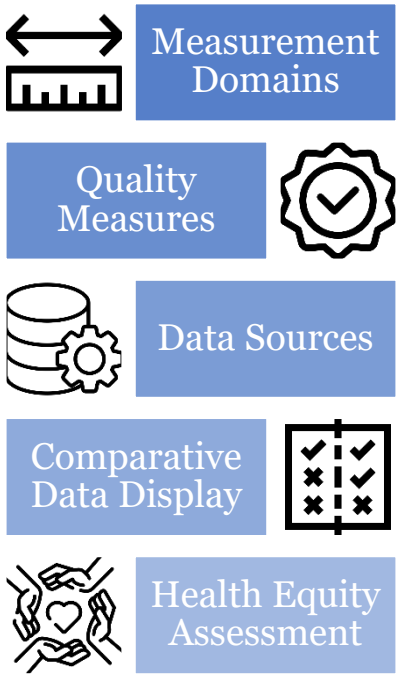
[4] Vermont Hospital Quality Framework portal (password: framework123)

Methods

From January through June 2022, VPQHC convened a multi-stakeholder workgroup representing all key sectors in the state's healthcare system: government, insurers, hospitals, providers, education, research, and consumers to collaborate on this issue. Membership included 55 individuals representing 25 organizations.

VPQHC followed an approach consistent with the National Quality Forum's process for drafting the *2018 Recommendations from the Measure Applications Partnership Rural Health Workgroup*[5].

Figure 1. Components of the Vermont Hospital Quality Framework.



The workgroup carried out several responsibilities:

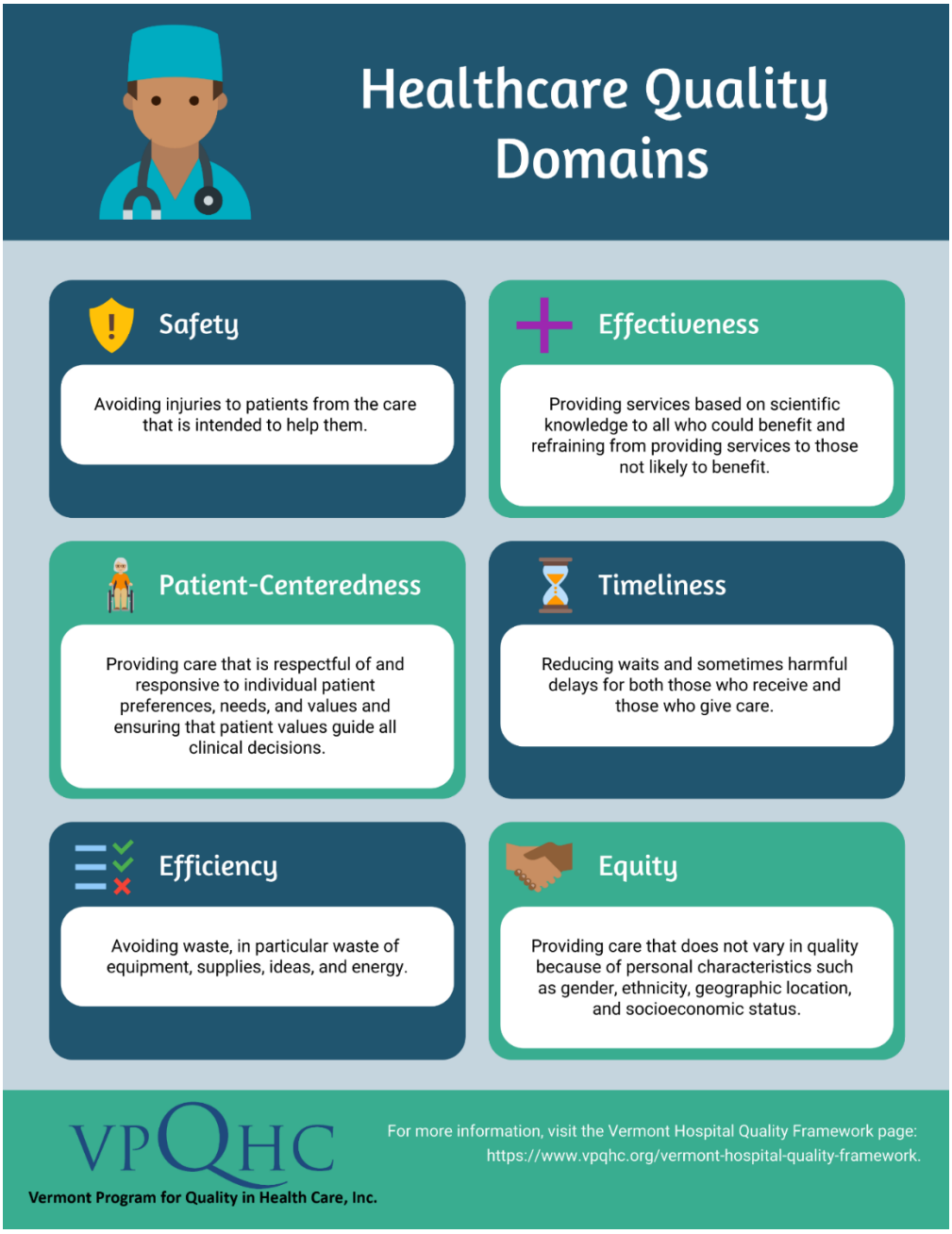
- established a baseline understanding related to using the Institute of Medicine's six aims for healthcare improvement[6] (see Figure 2);
- evaluated the current state of hospital reporting requirements and their relationship to Vermont's reform efforts;
- identified gaps, duplication, and opportunities to align measurement and reporting systems, reduce reporting burden, and improve the accuracy, timeliness and relevance of available data;

[5] *2018 Recommendations from the Measure Applications Partnership Rural Health Workgroup*

[6] Agency for Healthcare Research and Quality

- determined measures to be included under the Vermont Hospital Quality Framework (see Appendix 4);
- drafted a process for ensuring that the framework stays current and valuable
- recommended how data could be analyzed and displayed on a public-facing website to be useful for informed decision making; and
- developed educational resources regarding the Vermont hospital quality reporting landscape.

Figure 1. Design of the Vermont Hospital Quality Framework, showing alignment with Institute of Medicine's six aims for healthcare improvement.



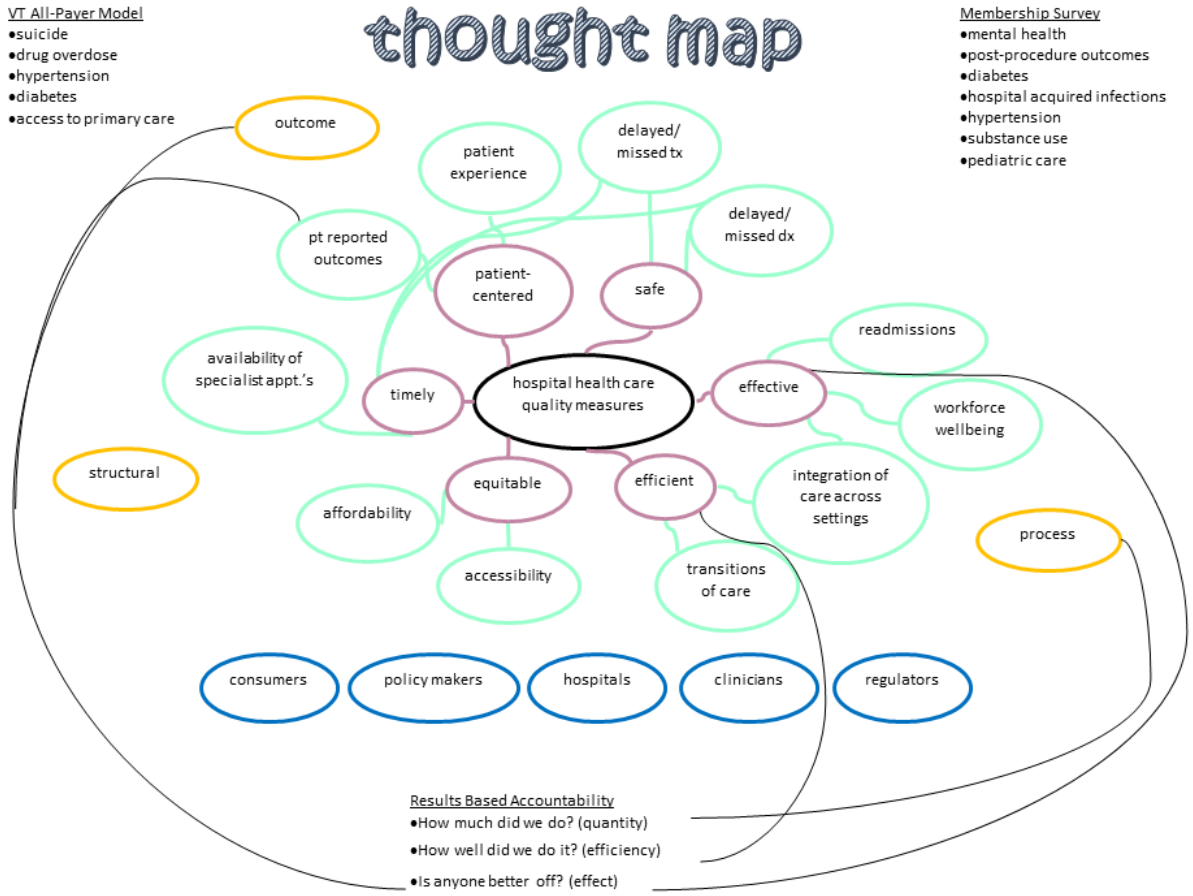
Six invited presentations were given to the workgroup:

- *APM Quality Framework Overview*, Michele Degree, Health Policy Project Director, Green Mountain Care Board, March 24, 2022.
- *Results Based Accountability & HANYS Report on Report Card Measure Overview*, Jason Minor, MS, CHCQM, CLSSMBB, CMQ/OE, CPHQ, CPPS, PMP, Network Director Continuous Systems Improvement, Jeffords Institute for Quality, March 24, 2022.
- *Vermont Hospital Report Card*, Teri Hata, Public Health Analyst, Vermont Department of Health, April 25, 2022.
- *Quality Measures: A Perspective From a Critical Access Hospital*, Thom Goodwin, Director of Quality, Risk & Compliance, North Country Hospital, May 24, 2022.
- *Mental Health Measures*, Kelley Klein, MD, Medical Director, and Steve DeVoe, MPH, MS, Director of Quality and Accountability, Vermont Department of Mental Health, May 24, 2022.
- *Hospital Quality Metrics & Consumer Value: Perspectives from the Office of the Health Care Advocate (HCA)*, Michael Fisher MSW, Chief Health Care Advocate, Eric Schultheis PhD, Esq., Staff Attorney, and Sam Peisch MPH, Health Policy Analyst, Office of the Health Care Advocate, May 24, 2022.

These presentations may be found on the Vermont Hospital Quality Framework portal (password: framework123).

Two census surveys were fielded to invite participation from workgroup members beyond monthly meetings. Survey 1 asked about quality metrics currently being used and recommended qualities for a new framework. The measurement priorities from Survey 1 were incorporated into a thought map (See Figure 2), which was used to search for – and score – individual measures. Survey 2 asked about the intended audience and which specific measures to include in the Vermont Hospital Quality Framework.

Figure 2. Thought map of concepts to incorporate into the final framework.



The workgroup used the following approach to propose framework measures appropriate for the hospital setting:

- Begin with a set of measures that quality reporting programs in Vermont hospitals - large and small - are already engaged in:
  - Act 53 (The Vermont Hospital Report Card, HRC)
  - Medicare Beneficiary Quality Improvement Project (MBQIP)
  - Hospital-level metrics under Vermont's All Payer Model (APM)
- Research individual measure specifications described in:
  - Hospital Report Card Reporting Manuals for the Community Hospitals, March 2022
  - MBQIP Measures Fact Sheets, October 2021
  - MBQIP Quality Reporting Guide, April 2022
  - Vermont All-Payer Accountable Care Organization Model Agreement, October 27, 2016
- For Topics without HRC, MBQIP, or APM Measures, search:
  - National Quality Forum QPS database
  - NQF 2018 Recommendations, Rural Health WG

- CMS Measures Inventory Tool
- Developing Health Equity Measures
- Agency for Healthcare Research and Quality Inpatient Quality Indicators

The workgroup undertook a number of activities to diversify membership and to search for health equity-related measures of hospital healthcare quality. The Office of Racial Equity's *Memo to Government Accountability Committee Regarding BIPOC Indicator Recommendation for Annual Outcomes Report*[7], is one of many health equity-related resources shared with workgroup members.

The workgroup used the *2012 Healthcare Disparities and Cultural Competency Consensus Standards: Disparities-Sensitive Measure Assessment*[8] report by the National Quality Forum (NQF), including their recommended set of 76 "disparities-sensitive" measures to initially consider three measures for the VT framework.

Proposed measures were scored by three VPQHC staff members with hospital healthcare quality improvement experience. Appendix 3 documents the measurement scoring criteria.

Proposed measures, along with their review scores and links to their specifications, were sent in Survey #2 to workgroup members. Within each of the six domains, workgroup members were asked to prioritize measures.

The University of Vermont Larner College of Medicine Health Disparities and Cultural Competence Group advised on health equity measure selection, and that recommendation was relayed to the workgroup.

Measures selected for the draft framework were presented publicly to the Green Mountain Care Board on July 13, 2022. Public comment on these proposed measures was accepted through August 10, 2022. The project lead incorporated feedback from workgroup members and the public. The final list of proposed measures is in Appendix 4.

[7] *Memo to Government Accountability Committee Regarding BIPOC Indicator Recommendation for Annual Outcomes Report*, March 1, 2021.
[8] *2012 Healthcare Disparities and Cultural Competency Consensus Standards*.

Findings

Survey 1

Survey 1 was fielded in January 2022. The purpose was to better understand the quality metrics being used by stakeholders and to guide decisions about which metrics to include in the framework. The response rate was 54% (28 responses of 52 workgroup members).

In the Data Reporting section, over one-third of workgroup members said they did not contribute data to a measurement system. The most commonly cited measurement systems to be participating in were the Vermont All Payer Model and the Vermont Hospital Report Card.

In the Data Use section, one in eight respondents reported not accessing any hospital healthcare quality data. For those accessing quality data, the most common reason by far was to evaluate the quality of care received by patients. The next most often cited reasons were to identify relevant trends and patterns and to drive improvements in patient care. One-fifth of respondents reported not currently accessing any portals or publications related to hospital healthcare quality.

In the Assessment of Current State section, workgroup members were asked, "What do you think about the portals and publications currently being used to report hospital healthcare quality data?" The following themes emerged:

Importance

"extremely valuable from both a health care provider and population health monitoring standpoint"

"consumers and practitioners as well as policy analysts should all be aware of these reports"

Ease of Use

"not been able to find a consumer-friendly data portal with local information"

"too many different ways to slice the data"

"wasn't aware that many of the reports listed previously existed"

"not very useful for hospitals or for driving consumer choice"

Types of Measures

"would be useful to have some measure of the expected year-to-year variation in measures"

"[Patient-reported outcome measures] are certainly good for the patient's idea about their outcome; there are confounders, benchmarks limited"

Small Numbers

"reliability is hampered by small numbers"

"many measures not useful for small hospitals"

A number of national dashboards were recommended as models we might consider.

- CMS Care Compare | CMS Hospital Compare
- Rural Health Potentially Avoidable Utilization (PAU) Dashboard

- American College of Surgeons National Surgical Quality Improvement (ACS NSQIP®) data
- CMS Home Health Quality Reporting Program

In the Designing a Framework section, workgroup members showed strong agreement in limiting the number of measures for our framework to less than 20.

A majority of respondents found three topic areas most important to measure:
- Patient experience of care
- Availability
- Affordability

When asked about the most important health conditions to measure, 87% of respondents chose mental health; post-procedure outcomes came in at second, with 52% of people identifying it as a priority.

Respondents reported that important qualities for measures are:
- Affecting patient health outcomes in a meaningful way
- Based in scientific evidence
- External benchmarks available
- Interpretable

Our results show a strong preference for outcome measures, followed by process, and then structural measures.

For Closing Thoughts, the following themes emerged:

Collaborative Process
"our perspective is very different… and is a critical consideration"
"very tight timeframe for such a large project"

Support for Hospitals
"important to have some way to prioritize this… without being punitive"

Efficiency
"selecting measures that are of minimal burden to collect and report will be a priority"
"draw from [existing] sources wherever possible for equitable comparison across all facilities"
"let's be sure to align reporting whenever we can to reduce administrative burden"
"any process that allows for simplification to improve interpretability and value for both providers and consumers should be supported"

Topic Selection
"please remember behavioral health"
"outcomes of patients seeking care in VT hospitals"

Measure Selection
"ensure that the measurements selected are focused on measuring systemic change so that random variations in the data do not drive process changes"
"concerns about developing measures that will meet the needs of various audiences, e.g., consumers, hospitals, regulators"

Survey 2

Survey 2 was fielded in May and June 2022. This survey asked about…

- the audience we are trying to reach,
- level of support for a hybrid model, and
- individual measures proposed for the Vermont Hospital Quality Framework.

The response rate was 36% (20 responses of 55 workgroup members).

In the Intended Audience section, our results show that there was a mixture of opinions on how to prioritize the audiences (consumers, quality professionals, clinicians, policy makers, regulators, in ranked order). Qualitative analysis identified some themes:

Definitely Consumers

"list should be checked to see if consumers actually care about some of these measures: not regulators or clinicians but patients"

"correct order is pts, pts, pts, pts, clinicians, clinicians, policy makers"

Definitely Not Consumers

"studies suggest [consumers] are unlikely to use healthcare quality measures to inform their healthcare decisions"

"measures selected should be those most likely to improve patient care and experience, recognizing that patients may not be the target audience for the dashboard or measures"

It Depends

"intended audience ranking is dependent on the actual measures and the relevance to those audiences"

Information Must Be Understandable

"measures should be readily understood by a lay audience"

"quality performance information shared publicly should be useful, understandable and accessible to consumers"

"measures may need interpretation to explain the data's application to specific hospitals and the broader health system"

In the Hybrid Model section, we asked workgroup members, "Do you agree that the Vermont Hospital Quality Framework should be a hybrid of core required measures and local optional measures?" Respondents answered Yes (65%), Unsure (25%), and No (10%). Comments for why the hybrid model would be a good idea mentioned flexibility/customization, publicity, and supporting a variety of hospitals. Uncertain respondents said they would need to know more about how the metrics would be used and displayed as well as how comparisons would be made. Concerns raised for why the hybrid model would not be a good idea were related to standardization, benchmarking, and alignment with federally-recognized standards.

Survey participants were asked to select the top two most important measures within each of the six domains. From a possible set of 44 measures, respondents selected 19 measures to be included in the Vermont Hospital Quality Framework. See Figure 3 for a depiction of the measurement selection process and Appendix 4 for the finalized list of measures.

Figure 3. Process for finalizing measures proposed in the Vermont Hospital Quality Framework.

Nineteen measures were selected by the workgroup:

Domain	Measure #	Measure
Safety	1.1	Catheter-Associated Urinary Tract Infection (CAUTI)
	1.2	Central Line-Associated Bloodstream Infection (CLABSI)
	1.3	*Clostridioides difficile* (*C. diff*) Infection
	1.4	Influenza Vaccination Coverage Among Healthcare Personnel (HCP)
Effectiveness	2.1	30-Day Overall Hospital-Wide Readmission Rate
	2.2	Heart Failure 30-Day Readmission Rate
	2.3	Pneumonia 30-Day Readmission Rate
	2.4	Follow-Up After Emergency Department Visit for Substance Use Disorder
	2.5	Follow-Up After Emergency Department Visit for Mental Illness, 7 or 30 Days
	2.6	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment (ED, Outpatient)
Patient-Centeredness	3.1	Recommend the Hospital
	3.2	Care Transition
	3.3	Discharge Information
Timeliness	4.1	Median Time from ED Arrival to ED Departure for Discharged ED Patients
	4.2	Follow-up After Hospitalization for Mental Illness, 7 or 30 Days
	4.3	Initiation and Engagement of Alcohol and Other Drug Dependence (AOD) Treatment
Efficiency	5.1	Median Time to Transfer to Another Facility for Acute Coronary Intervention
	5.2	Emergency Department Transfer Communication All or None Composite Calculation
Equity	6.1	Screening for Preferred Spoken Language for Health Care

Appendix 4 contains the final list of measures proposed by the workgroup. For each measure, the following details are given: federal standard measure number(s), definition, numerator, denominator, related measure reporting program(s), data collection system, data source, eligible reporting facilities, and any caveats.

Lessons Learned

The Vermont Hospital Quality Framework Workgroup attempted to do a great deal of consensus building on a complex topic in a short amount of time. The result was a good first step toward designing a framework of meaningful metrics that provides relevant information and accurately reflects the hospital system's quality of care within the healthcare reform environment in Vermont. Demonstration of alignment between the Vermont Hospital Report Card and the Vermont Hospital Quality Framework may be found in Appendix 5.

The workgroup has not yet reached consensus on the intended audience of the framework. Studies suggest consumers are unlikely to use healthcare quality measures to inform their healthcare decisions[9,10,11]. Nevertheless, the workgroup placed emphasis on consumers. More work is needed to identify the primary audience(s) for the framework.

There is a trade-off between an inclusive level of community engagement and an ability to garner consensus. This process emphasized inclusion (55 workgroup members represented 25 organizations). As a result, the measures selected for the Vermont Hospital Quality Framework were based on majority opinion rather than broad agreement. Moving forward, an iterative process will be needed to continue ensuring that metrics chosen to evaluate hospital health care quality are useful and relevant.

The framework measures were selected from existing quality reporting programs (see pp. 9-10). The workgroup experienced limitations in finding endorsed, standardized measures for two priorities: health equity and post-procedure outcomes. The framework will benefit as more nationally-vetted measures become available.

Dashboards/frameworks cannot fully encompass every dimension of care or quality without compromising conciseness or ease of navigation, but they can provide consumers with enough information to help them advocate and further educate themselves about their care options. This draft framework gives us a good starting point for furthering these efforts.

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[9] Brook, Robert H., Elizabeth A. McGlynn, Paul G. Shekelle, Martin Marshall, Sheila Leatherman, John L. Adams, Jennifer Hicks, and David J. Klein, Report Cards for Health Care: Is Anyone Checking Them?. Santa Monica, CA: RAND Corporation, 2002.

[10] Emmert M, Schlesinger M. Hospital Quality Reporting in the United States: Does Report Card Design and Incorporation of Patient Narrative Comments Affect Hospital Choice? Health Serv Res. 2017 Jun;52(3):933-958. doi: 10.1111/1475-6773.12519. Epub 2016 Jun 20. PMID: 27324087; PMCID: PMC5441500.

[11] Ketelaar NABM, Faber MJ, Flottorp S, Rygh LH, Deane KHO, Eccles MP, Public release of performance data in changing the behaviour of healthcare consumers, professionals or organisations. Cochrane Database of Systematic Reviews, 2011. doi: 10.1002/14651858.CD004538.pub2.

Recommendations

It will be important to continue the work consolidate statewide quality reporting in a way that delivers reliable and high-quality information for as many stakeholders as possible. It will also be important to merge existing frameworks, dashboards, and scorecards to reduce duplicative reporting, create a common understanding of quality and performance, and reduce overall reporting for providers.

1. **Limit the workgroup size to under 20 individuals.** Consider the trade-off between an inclusive level of community engagement and an ability to garner consensus. Seek to optimize inclusion and consensus. Ensure that the multi-stakeholder workgroup is representative of key sectors in the Vermont healthcare system.

2. **Review the literature regarding the primary audience(s).** The framework is useful for a diverse set of stakeholders, including consumers, decision-makers, hospitals, clinicians, and regulators.

3. **Use an iterative process ensure that metrics chosen to evaluate hospital health care quality are useful and relevant.**

4. **Continue to select from nationally-vetted measures.** Since the measures list was finalized, the National Quality Forum has published new guidance[12].

5. **Continue to ensure that measures are aligned** with Vermont Statute[13] and regulation[14] for hospital quality reporting and Green Mountain Care Board's hospital budget review process[15].

6. **Revisit the measurement scoring criteria.** Consider adding or substituting other measure attributes, such as the number of Vermont hospitals currently reporting data on the measure.

7. **Revisit whether the framework should be a hybrid model.** The model would consist of: (1) core measures, required by all hospitals, to evaluate the system as a whole; and (2) optional measures chosen by hospital quality directors to reflect their hospital situation in order to drive improvements. The currently proposed measures (Appendix 4) addresses the first part of this model. If a hybrid is to be pursued, a process for proposing, scoring, and selecting measures will be needed.

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[12] 2022 Key Rural Measures: An Updated List of Measures to Advance Rural Health Priorities, National Quality Forum, August 10, 2022.
[13] 18 V.S.A. § 9405b
[14] 2018 Hospital Reporting Rule, Section 9
[15] Green Mountain Care Board Hospital Budget Review

8 **Establish a way to highlight hospital successes and stories behind the metric** in the web-based reporting site. Hospitals that are performing well compared to their peers on specific measures should be encouraged to share their stories, resources, and tools, to benefit the entire system of hospitals in Vermont. If opportunities for improvement under certain metrics are identified, hospitals should be provided the opportunity to communicate the story behind the metric and provide context to explain the data. As a part of the budget review process, the limitations of any quality framework must be made explicit; hospitals must be able to tell the "story behind the metric."

9 **Identify more measures for the Health Equity domain.** After the measures list was finalized, Centers for Medicare and Medicaid Services (CMS) announced that the FY 2023 IPPS rule[16,17] will carry on CMS health equity efforts by including three health equity-focused measures in hospital quality programs, including the Hospital Inpatient Quality Reporting (IQR) Program. Effective January 2023, The Joint Commission developed a new standard that addresses health care equity as a quality and safety priority[18]. Vermont hospitals will likely need time to integrate new processes and prepare to meet these new standards. The new CMS and Joint Commission measures related to health equity are an excellent opportunity to strengthen future versions of the Vermont Hospital Quality Framework.

10 **Integrate health equity activities of the Vermont Hospital Quality Framework Workgroup with other health equity work being done by VPQHC.** VPQHC has an established health equity provider training program and is working to finalize the Health Disparities Hospital Initiatives Project. One of the components of this project will relate specifically to hospital quality. Hospitals will complete organizational assessments and will then plan and implement QI projects based on findings from their assessment.

11 **Identify more post-surgical outcome measures.** Research the feasibility of using measures from the National Surgical Quality Improvement Program and/or Patient-Reported Outcomes Measurement Information System® (PROMIS®).

12 Consider moving away from readmission and toward excess days in acute care measures. CMS is moving towards "Excess Days in Acute Care Measures" for heart

[16] Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Policy Changes and Fiscal Year 2023 Rates; Quality Programs and Medicare Promoting Interoperability Program Requirements for Eligible Hospitals and Critical Access Hospitals; Costs Incurred for Qualified and Non-Qualified Deferred Compensation Plans; and Changes to Hospital and Critical Access Hospital Conditions of Participation: A Rule by the Centers for Medicare & Medicaid Services on 08/10/2022.

[17] Screening for Social Drivers of Health Measure and the Screen Positive to Social Drivers of Health Measure, QualityNet.

[18] New Requirements to Reduce Health Care Disparities, R[3] Report | Requirement, Rationale, Reference, A complimentary publication of The Joint Commission Issue 36, Date June 20, 2022.

failure, acute myocardial infarction, and pneumonia, as these capture the full range of post-discharge us of care, such as ED visits, observation stays, and unplanned readmissions. These condition-specific measures might offer a better assessment of post-discharge utilization than hospital-wide or heart failure specific 30 day readmissions.

13 **Select an application to host the web-based reporting site ("dashboard") and finalize the design.** The dashboard must be easy to find and easy to use. Good explanations and contextual information should be obvious to the audience. Include appropriate benchmarks. Display observed vs. expected values and trends over time. Consider selecting from the following styles of interactive reports:

- Green Mountain Care Board (GMCB) Health Resource Allocation Plan (HRAP) Primary Care Access Measures
- Vermont Department of Health (VDH) Environmental Public Health Tracking (EPHT) Portal
- VDH Healthy Vermonters 2020 Data Explorer
- Agency of Human Services Scorecards
- CMS Care Compare | CMS Hospital Compare
- Rural Health Potentially Avoidable Utilization (PAU) Dashboard
- American College of Surgeons National Surgical Quality Improvement (ACS NSQIP®) data
- CMS Home Health Quality Reporting Program
- Wisconsin Collaborative for Healthcare Quality Reports

14 **Continue to consider the relationship between the Vermont Hospital Quality Framework and health care reform.** Consider meaningful measures that are not already reported or available. Look into feasibility of pilot and/or as part of a waiver of existing CMS measure requirements. New measures need to be carefully selected and prioritized in order to not increase administrative burden. Evaluate small numbers impacts on volumes and outcomes (hospital AND surgeon/provider level). Thinking about appropriate procedure volumes based on literature, is there a benefit to combining years to show data for smaller volumes? Explore and consider different measure sets for different hospital types based on services offered/reported – CAH vs. PPS, etc. Consider/explore quality measures that are a good fit for multi-payer global payment model and/or global budget process.

Appendices

Appendix 1. Workgroup Participants

Name	Job Title	Organization
Justin Kenney	Director of Continuous Improvement and Planning	Agency of Administration
Ena Backus	Director of Health Care Reform	Agency of Human Services
Wendy Trafton	Deputy Director of Health Care Reform	Agency of Human Services
Mary Kate Mohlman	Director of Vermont Public Policy	Bi-State Primary Care Association
Grace Gilbert-Davis	Corporate Director of Healthcare Reform	Blue Cross and Blue Shield of Vermont
Josh Plavin	Vice President and Chief Medical Officer	Blue Cross and Blue Shield of Vermont
Bonnie MacGregor	Director of Quality, Regulatory Affairs and IP	Brattleboro Retreat
Donald Dupuis	Senior General Surgeon & Chief Medical Officer	Copley Hospital
John Macy	Chief of Orthopedics	Copley Hospital
Sebastian Arduengo	Assistant General Counsel	Department of Financial Regulation
Kelley-Anne Klein	Medical Director	Department of Mental Health
Steve DeVoe	Director of Quality and Accountability	Department of Mental Health
Erin Carmichael	Director of Quality Management	Department of Vermont Health Access
Laura Wresching	Data Analytics and Information Administrator, Vermont Blueprint for Health	Department of Vermont Health Access
Pat Jones	Deputy Director of Payment Reform	Department of Vermont Health Access
Sandi Hoffman	Deputy Commissioner	Department of Vermont Health Access
Lindsey Owen	Executive Director	Disability Rights Vermont
Jessica Mendizabal	Director of Data Management Analysis and Data Integrity	Green Mountain Care Board
Michele Degree	Health Policy Project Director	Green Mountain Care Board
Susan Barrett	Executive Director	Green Mountain Care Board
Thom Walsh	Board Member	Green Mountain Care Board
Kisha Ali	PhD Candidate, Health Services Research & Policy	Johns Hopkins University

Name	Job Title	Organization
Otelah Perry	Director of Quality, Patient Safety, and Compliance	Mt. Ascutney Hospital and Health Center
Adam Kunin	Medical Director for Vermont Programs	MVP Health Care
Katie Brennan	Sr. Leader, Innovation High Value Health	MVP Health Care
Amy Kimball	Manager of Quality and Infection Prevention	North Country Hospital
Thom Goodwin	Director of Quality, Risk & Compliance	North Country Hospital
Shawntel Burke	Quality Measurement Program Coordinator	OneCare Vermont
Allen Repp	UVM Department of Medicine Vice Chair for Quality	UVM Health Network
Carol Muzzy	Director Accreditation & Regulatory Affairs	UVM Health Network
Jason Minor	Network Director Continuous Systems Improvement, Jeffords Institute for Quality	UVM Health Network
Jason Williams	Network Director of Government and Community Relations	UVM Health Network
Patricia Harmeyer	RN Clinical Analyst	UVM Health Network
Devon Green	Vice President of Government Relations	Vermont Association of Hospitals and Health Systems
Emma Harrigan	Director of Policy Analysis & Development	Vermont Association of Hospitals and Health Systems
John Olson	Chief, Office of Rural Health and Primary Care	Vermont Department of Health
Kelly Dougherty	Deputy Commissioner for Alcohol and Drug Abuse Programs	Vermont Department of Health
Natalie Weill	Public Health Policy Advisor	Vermont Department of Health
Peggy Brozicevic	Research and Statistics Chief	Vermont Department of Health
Teri Hata	Public Health Analyst	Vermont Department of Health
Eric Schultheis	Staff Attorney, Office of the Health Care Advocate	Vermont Legal Aid
Michael Fisher	Chief Health Care Advocate	Vermont Legal Aid
Sam Peisch	Policy Analyst	Vermont Legal Aid

Name	Job Title	Organization
Ali Johnson	Quality Improvement Specialist	Vermont Program for Quality in Health Care, Inc.
Catherine Fulton	Executive Director	Vermont Program for Quality in Health Care, Inc.
Hillary Wolfley	Associate Director	Vermont Program for Quality in Health Care, Inc.
Lyndsay Sykes	Quality Improvement Specialist	Vermont Program for Quality in Health Care, Inc.
Mary McQuiggan	Senior Program Manager	Vermont Program for Quality in Health Care, Inc.
Patrice Knapp	Strategic Quality Improvement Consultant	Vermont Program for Quality in Health Care, Inc.
Leslie Goldman	Representative, District Windham-3	VT State Legislature
Meg Oakes	Consumer Representative	
Gina Carrera	Consumer Representative	
Keith Tarr-Whelan	Consumer Representative	
Linda Tarr-Whelan	Consumer Representative	
Victor Morrison	Consumer Representative	

Appendix 2. Workgroup Charter

Vermont Hospital Quality Framework
Project Charter
January 1, 2022 – August 31, 2022

Purpose: To design a framework of meaningful metrics that provides relevant information and accurately reflects the hospital system's quality of care within the healthcare reform environment in Vermont.

Business Case

Problem Statement	• The sheer number of measures used to evaluate quality of care delivered at hospitals is more overwhelming than useful. • The proliferation of hospital report cards has not achieved their stated goal of helping consumers understand the quality of care offered at hospitals. • More work needs to be done to align measures required by regulators.
Outcomes/Project Success Criteria	• The multi-stakeholder workgroup is representative of key sectors in the Vermont healthcare system. • Measures within the Vermont Hospital Quality Framework are aligned with the Act53 and Green Mountain Care Board's hospital budget review process. • Measures included in the framework are able to withstand small volumes and are rural relevant. • The framework will be a hybrid of: (1) core measures, required by all hospitals, to evaluate the system as a whole; and (2) optional measures chosen by hospital quality directors to reflect their hospital situation in order to drive improvements.
Strategic Goals	The Framework would help assess the healthcare quality in AHS' healthcare reform goal [19]to, "Assure that all Vermonters have access to and coverage for high-quality health care (health care includes mental and physical health and substance abuse treatment)."
Vision	Vermonters use a hospital quality framework that has meaningful, reliable, and representative metrics about Vermont's healthcare delivery system.

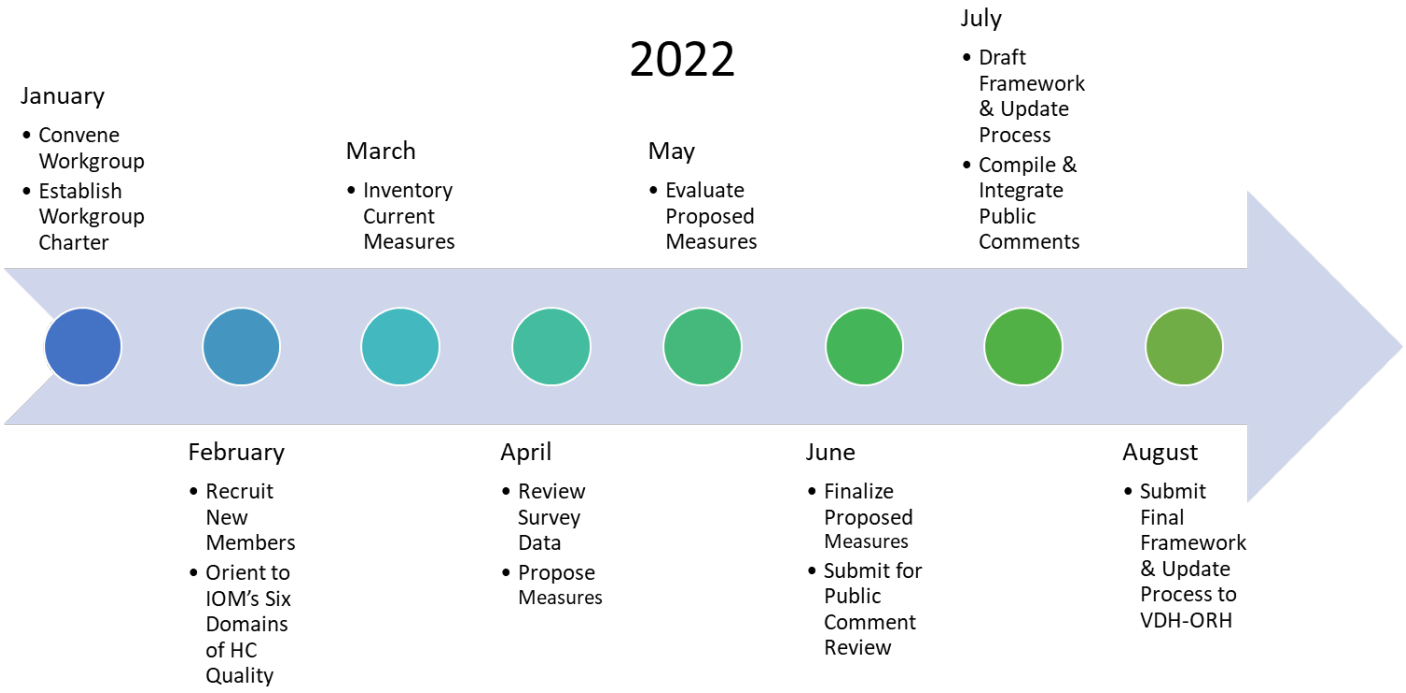
[19] Vermont Agency of Human Services Health Care Reform, Health Care Reform Goals, https://hcr.vermont.gov/goals.

Scope of Work

Primary Responsibilities	(1) Establish a baseline understanding related to using the Institute of Medicine's Six Domains of Health Care Quality. (2) Evaluate the current state of hospital reporting requirements and their relationship to Vermont's reform efforts; survey measures currently being used by stakeholders. (3) Identify gaps, duplication, and opportunities to align measurement and reporting systems, reduce reporting burden, and improve the accuracy, timeliness and relevance of available data. (4) Determine measures to be included under the Vermont Hospital Quality Framework. (5) Draft a process for ensuring that the Vermont Hospital Quality Framework stays current and valuable. (6) Recommend how data could be analyzed and displayed on a public-facing website to be useful for informed decision making. (7) Develop educational resources re. the Vermont hospital quality reporting landscape (e.g., compendium of Vermont quality reporting programs, updated VPQHC Vermont Hospital Quality Metrics spreadsheet). (8) Submit final report to Vermont Department of Health Office of Rural Health and Primary Care.
Critical Success Factors	• A reliable tool is available for assessing the quality of care being delivered across Vermont hospitals. • The tool is useful for a diverse set of stakeholders, including regulators, decision-makers, hospitals, clinicians, and consumers. • The Framework will highlight hospital successes and best practices; hospitals that are performing well compared to their peers on specific measures should be encouraged to share their stories, resources, and tools, to benefit the entire system of hospitals in VT. • If opportunities for improvement under certain metrics are identified, hospitals will be provided the opportunity to communicate the story behind the metric, and provide context, which isn't captured in the data.

Benefit to Stakeholders	• Drive continuous improvement through comparative performance assessment. • Identify centers of excellence and opportunities to disseminate best practices. • Demonstrate accountability and recognition for outcomes. • Support consumers with decision making.

Timeline



Workgroup Processes

1. The workgroup will meet monthly from January to June 2022.
2. The Workgroup Facilitator plans the meeting agenda.
3. Related materials are to be received by workgroup members prior to the meeting time.
4. Workgroup members are encouraged to call/email in advance of the meeting if they have any questions related to the materials.
5. Minutes will be recorded at each meeting by the Workgroup Facilitator.
6. Documents will be accessible in a shared location – the Vermont Hospital Quality Framework portal (password: framework123).
7. The workgroup's progress is reported on a monthly basis.

Resources: Available on the document portal: https://www.vpqhc.org/vermont-hospital-quality-framework.

Appendix 3. Measurement Scoring Criteria

Domain

Check to see if the measure is correctly categorized into one of the six aims as defined in Chapter 2, Institute of Medicine (US) Committee on Quality of Health Care in America. (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*. National Academies Press (US).

If the domain should be corrected, indicate this in the Notes.

Numeric Value

For each criterion for each measure, score as follows:

1 = meets criterion (defined below)
0 = does not meet criterion
(blank) – criterion could not be assessed

Criteria Definitions

CAH Required	Critical Access Hospitals are currently required to report the measure under a State, Federal, or other regulatory requirement.
PPS Required	Prospective Payment System hospitals are currently required to report the measure under a State, Federal, or other regulatory requirement.
important to collect	Aligns with identified workgroup priorities (see Figure 2); or aligns with Act 53, MBQIP, or hosp-level APM measures (see above).
meets NQF endorsement criteria	Meets National Quality Foundation (NQF) endorsement criteria; or has NQF endorsement (per NQF QPS database, linked above).
rural-relevant	As described in *A Core Set of Rural Relevant Measures and Measuring and Improving Access to Care: 2018 Recommendations from the Measure Applications Partnership Rural Health Workgroup*, National Quality Forum, August 31, 2018.
resistant to low case volume	Measure applies to most rural providers with respect to having a large enough patient population for reliable and valid measurement. For reference, may use the annual case reports from VDH's *Pricing of Common Services at Community Hospitals* (see HRC website).

Appendix 4. Proposed Framework Measures

Vermont Hospital Quality Framework

Proposed Measures

September 15, 2022

Public Comment

Measures selected for the draft framework were presented publicly to the Green Mountain Care Board on July 13, 2022.

Public comment on these proposed measures was accepted through August 10, 2022.

Measure Overview

Individual measure specifications are documented in:

- Hospital Report Card Reporting Manuals for the Community Hospitals, March 2022
- MBQIP Measures Fact Sheets, October 2021
- MBQIP Quality Reporting Guide, April 2022
- Vermont All-Payer Accountable Care Organization Model Agreement, October 27, 2016
- National Quality Forum QPS database
- NQF 2018 Recommendations, Rural Health WG
- CMS Measures Inventory Tool
- Developing Health Equity Measures
- Hospital Consumer Assessment of Healthcare Providers and Systems Survey

Domain 1. Safety

Avoiding injuries to patients from the care that is intended to help them.

Measure 1.1. Catheter-Associated Urinary Tract Infection (CAUTI)

Federal Standard Measure Number(s)	MBQIP CAUTI; CMS HAI-2; NQF 0138
Definition	Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (UTI) will be calculated among patients in bedded inpatient care locations, except level II or level III neonatal intensive care units (NICU). This includes acute care general hospitals, long-term acute care hospitals, rehabilitation hospitals, oncology hospitals, and behavior health hospitals.
Numerator	Total number of observed healthcare-associated CAUTI among patients in bedded inpatient care locations (excluding patients in Level II or III neonatal ICUs).
Denominator	Total number of predicted healthcare-associated CAUTI among inpatient care locations under surveillance for CAUTI during the data period, based on the national CAUTI baseline Data is calculated using the facility's number of catheter days and the following significant risk factors: • Acute Care Hospitals: CDC Location, Facility bed size, Medical school affiliation, and Facility type • Critical Access Hospitals: Medical school affiliation • Long-Term Acute Hospitals: Average length of stay, Setting type, and Location type • Inpatient Rehabilitation Facilities: Setting type, Proportion of admissions with traumatic and non-traumatic spinal cord dysfunction, Proportion of admissions with stroke
Measure Reporting Program(s)	VT Hospital Report Card, Medicare Beneficiary Quality Improvement Project (MBQIP) Additional
Data Collection System	National Healthcare Safety Network
Data Source	CMS Care Compare
Eligible Reporting Facilities	Brattleboro Memorial Hospital, Central Vermont Medical Center, Copley Hospital, Mt. Ascutney Hospital, Northeastern Vermont Regional Hospital, Northwestern Medical Center, Porter Hospital, Rutland Regional Medical Center, Southwestern Vermont Medical Center, University of Vermont Medical Center
Caveat(s)	1. SIR's generally cannot be calculated for Brattleboro Memorial Hospital, Copley Hospital, Mt. Ascutney Hospital, Northeastern Vermont Regional Hospital, Northwestern Medical Center, and Porter Hospital. 2. The number of infections is not generally available for Gifford Medical Center, Grace Cottage Family Health & Hospital, North Country Hospital, and Springfield Hospital. 3. Per 18 VSA §9405b, VA Medical Center is exempt from the reporting requirement.

Measure 1.2. Central Line-Associated Bloodstream Infection (CLABSI)

Federal Standard Measure Number(s)	CMS HAI-1; MBQIP CLABSI; NQF 0139
Definition	Standardized Infection Ratio (SIR) and Adjusted Ranking Metric (ARM) of healthcare-associated, central line-associated bloodstream infections (CLABSI) will be calculated among patients in bedded inpatient care locations.
Numerator	Total number of observed healthcare-associated CLABSI among patients in bedded inpatient care locations.
Denominator	Total number of predicted healthcare-associated CLABSI among patients in bedded inpatient care locations, calculated using the facility's number of central line days and the following significant risk factors: • Acute Care Hospitals: CDC location, facility bed size, medical school affiliation, facility type, birthweight category (NICU locations only) • Critical Access Hospitals: no significant risk factors, calculation based intercept only model • Inpatient Rehabilitation Facilities: Proportion of admissions with stroke, proportion of admissions in other non-specific diagnostic categories • Long Term Acute Care Hospitals: CDC location type , facility bed size, average length of stay, proportion of admissions on a ventilator, proportion of admissions on hemodialysis
Measure Reporting Program(s)	VT Hospital Report Card, MBQIP Additional
Data Collection System	CMS IPPS National Healthcare Safety Network
Data Source	CMS Care Compare
Eligible Reporting Facilities	All (report number of infections)
Caveat(s)	1. SIR's generally cannot be calculated for Brattleboro Memorial Hospital, Central Vermont Medical Center, Copley Hospital, Gifford Medical Center, Grace Cottage Family Health & Hospital, Mt. Ascutney Hospital, North Country Hospital, Northeastern Vermont Regional Hospital, Northwestern Medical Center, Porter Hospital, Southwestern Vermont Medical Center, and Springfield Hospital. 2. Per 18 VSA §9405b, VA Medical Center is exempt from the reporting requirement.

Measure 1.3. *Clostridioides difficile* (*C. diff*) Infection

Federal Standard Measure Number(s)	CMS HAI-6; MBQIP CDI; NQF 1717
Definition	Standardized infection ratio (SIR) and Adjusted Ranking Metric (ARM) of hospital-onset CDI Laboratory-identified events (LabID events) among all inpatients in the facility, excluding well-baby nurseries and neonatal intensive care units (NICUs).
Numerator	Total number of observed hospital-onset incident CDI LabID events among all inpatients in the facility, excluding NICU, Special Care Nursery, babies in LDRP, well-baby nurseries, or well-baby clinics.
Denominator	Total number of predicted hospital-onset CDI LabID events, calculated using the facility´s number of inpatient days, facility type, CDI event reporting from Emergency Department and 24 hour observation units, bed size, ICU bed size, affiliation with medical school, microbiological test method used to identify C. difficile, and community-onset CDI admission prevalence rate.
Measure Reporting Program(s)	VT Hospital Report Card, MBQIP Additional
Data Collection System	CMS IPPS National Healthcare Safety Network
Data Source	CMS Care Compare
Eligible Reporting Facilities	All (report number of infections)
Caveat(s)	1. SIR's generally cannot be calculated for Brattleboro Memorial Hospital, Copley Hospital, and Grace Cottage Family Health & Hospital. 2. Per 18 VSA §9405b, VA Medical Center is exempt from the reporting requirement.

Measure 1.4. Influenza Vaccination Coverage Among Healthcare Personnel (HCP)

Federal Standard Measure Number(s)	MBQIP HCP/IMM-3; NQF 0431
Definition	Percentage of healthcare personnel (HCP) who receive the influenza vaccination.
Numerator	HCP in the denominator population who during the time from October 1 (or when the vaccine became available) through March 31 of the following year: (a) received an influenza vaccination administered at the healthcare facility, or reported in writing (paper or electronic) or provided documentation that influenza vaccination was received elsewhere; or (b) were determined to have a medical contraindication/condition of severe allergic reaction to eggs or to other component(s) of the vaccine, or history of Guillain-Barré Syndrome within 6 weeks after a previous influenza vaccination; or (c) declined influenza vaccination
Denominator	Number of HCP in groups (a)-(c) below who are working in the healthcare facility for at least 1 working day between October 1 and March 31 of the following year, regardless of clinical responsibility or patient contact. (a) Employees: all persons who receive a direct paycheck from the reporting facility (i.e., on the facility's payroll). (b) Licensed independent practitioners: include physicians (MD, DO), advanced practice nurses, and physician assistants only who are affiliated with the reporting facility who do not receive a direct paycheck from the reporting facility. (c) Adult students/trainees and volunteers: include all students/trainees and volunteers aged 18 or over who do not receive a direct paycheck from the reporting facility.
Measure Reporting Program(s)	MBQIP Core, CMS Hospital Inpatient Quality Reporting (IQR) Program, CMS Outpatient Quality Reporting (OQR) Program
Data Collection System	Healthcare Personnel Safety Component of National Healthcare Safety Network
Data Source	CMS Care Compare
Eligible Reporting Facilities	Brattleboro Memorial Hospital, Central Vermont Medical Center, Gifford Medical Center, Grace Cottage Hospital, Northwestern Medical Center, Rutland Regional Medical Center, Southwestern Vermont Medical Center, Springfield Hospital, University of Vermont Medical Center
Caveat(s)	1. Data are not available for Copley Hospital, Mt. Ascutney Hospital, North Country Hospital, Northeastern Vermont Regional Hospital, or Porter Hospital.

Domain 2. Effectiveness

Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit.

Measure 2.1. 30-Day Overall Hospital-Wide Readmission Rate

Federal Standard Measure Number(s)	CMS READM-30-HOSP-WIDE (HWR); NQF 1789
Definition	This measure estimates a hospital-level, 30-day risk-standardized readmission rate (RSRR) for patients discharged from the hospital after an admission for any eligible condition. Readmission is defined as unplanned readmission for any cause within 30 days of the discharge date for the index admission. Readmissions are classified as planned and unplanned by applying the planned readmission algorithm. The Centers for Medicare & Medicaid Services (CMS) annually reports this measure for patients who are 65 years or older and are either Medicare fee-for-service (FFS) beneficiaries hospitalized in non-federal short-term acute care hospitals and critical access hospitals or VA beneficiaries hospitalized in VA facilities. This measure reports a single summary RSRR, derived from the volume-weighted results of five different models, one for each of the following specialty cohorts based on groups of discharge condition categories or procedure categories: surgery/gynecology; general medicine; cardiorespiratory; cardiovascular; and neurology. The measure also calculates the hospital-level standardized risk ratios (SRR) for each of these five specialty cohorts. The index admission is the eligible hospitalization to which the readmission outcome is attributed.
Numerator	The outcome is 30-day readmission. We define readmission as an inpatient admission for any cause, except for certain planned readmissions, within 30 days from the date of discharge from an eligible index admission. If a patient has more than one unplanned admission (for any reason) within 30 days after discharge from the index admission, only one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each admitted patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, any subsequent unplanned readmission is not counted as an outcome for that index admission because the unplanned readmission could be related to care provided during the intervening planned readmission rather than during the index admission.
Denominator	The measure includes admissions for Medicare beneficiaries who are 65 years and older and are discharged from all non-federal, acute care inpatient US hospitals (including territories) with a complete claims history for the 12 months prior to admission.
Measure Reporting	VT Hospital Report Card
Data Collection	CMS Acute Inpatient PPS
Data Source	CMS Care Compare
Reporting Facilities	All
Caveat(s)	1. Per 18 VSA §9405b, VA Medical Center is exempt from reporting.

Measure 2.2. Heart Failure 30-Day Readmission Rate

Federal Standard Measure Number(s)	CMS READM-30-HF; NQF 0330
Definition	This measure estimates a hospital-level, 30-day risk-standardized readmission rate (RSRR) for patients discharged from the hospital with a principal discharge diagnosis of heart failure (HF). Readmission is defined as unplanned readmission for any cause within 30 days of the discharge date for the index admission. Readmissions are classified as planned and unplanned by applying the planned readmission algorithm. The Centers for Medicare & Medicaid Services (CMS) annually reports this measure for patients who are 65 years or older and are either Medicare fee-for-service (FFS) beneficiaries hospitalized in non-federal short-term acute care hospitals and critical access hospitals or VA beneficiaries hospitalized in VA facilities. The index admission is the eligible hospitalization to which the readmission outcome is attributed.
Numerator	The outcome for this measure is 30-day all-cause readmissions. We define readmission as an inpatient acute care admission for any cause, with the exception of certain planned readmissions, within 30 days from the date of discharge from the index for patients 65 and older discharged from the hospital with a principal discharge diagnosis of AMI. If a patient has more than one unplanned admission (for any reason) within 30 days after discharge from the index admission, only the first one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each admitted patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, any subsequent unplanned readmission is not counted as an outcome for that index admission because the unplanned readmission could be related to care provided during the intervening planned readmission rather than during the index admission.
Denominator	The cohort includes admissions for patients aged 65 years and older discharged from the hospital with a principal diagnosis of AMI; and with a complete claims history for the 12 months prior to admission.
Measure Reporting Program(s)	VT Hospital Report Card

Data Collection System	CMS Acute Inpatient PPS
Data Source	CMS Care Compare
Eligible Reporting Facilities	Brattleboro Memorial Hospital, Central Vermont Medical Center, Copley Hospital, Gifford Medical Center, Mt. Ascutney Hospital, North Country Hospital, Northeastern Vermont Regional Hospital, Northwestern Medical Center, Porter Hospital, Rutland Regional Medical Center, Southwestern Vermont Medical Center, Springfield Hospital, University of Vermont Medical Center
Caveat(s)	1. The number of cases/patients for Grace Cottage Family Health & Hospital is generally too small to report. 2. CMS is moving towards NQF 2880 (CMIT Ref No: 00078-C-HC) Excess Days in Acute Care (EDAC) After Hospitalization for Heart Failure (HF), as this captures the full range of post-discharge use of care, such as ED visits, observation stays, and unplanned readmissions. This condition-specific measure might offer a better assessment of post-discharge utilization than hospital-wide or heart failure specific 30 day readmissions. 3. Per 18 VSA §9405b, VA Medical Center is exempt from the reporting requirement.

Measure 2.3. Pneumonia 30-Day Readmission Rate

Federal Standard Measure Number(s)	CMS READM-3-PN; NQF 0506
Definition	This measure estimates a hospital-level, 30-day risk-standardized readmission rate (RSRR) for patients discharged from the hospital with diagnosis coding that meets one of the two following requirements: 1. Principal discharge diagnosis of pneumonia; or, 2. a. Principal discharge diagnosis of sepsis (that is not severe); and b. A secondary diagnosis of pneumonia coded as present on admission (POA); and c. No secondary diagnosis of sepsis that is both severe and coded as POA. Readmission is defined as unplanned readmission for any cause within 30 days of the discharge date for the index admission. Readmissions are classified as planned and unplanned by applying the planned readmission algorithm. The Centers for Medicare & Medicaid Services (CMS) annually reports this measure for patients who are 65 years or older and are either Medicare fee-for-service (FFS) beneficiaries hospitalized in non-federal short-term acute care hospitals and critical access hospitals or VA beneficiaries hospitalized in VA facilities. The index admission is the eligible hospitalization to which the readmission outcome is attributed.
Numerator	The outcome for this measure is 30-day readmissions. We define readmission as an inpatient acute care admission for any cause, with the exception of certain planned readmissions, within 30 days from the date of discharge from the index admission for patients 65 and older discharged from the hospital with a principal diagnosis of pneumonia, including aspiration pneumonia or a principal diagnosis of sepsis (not severe sepsis) with a secondary diagnosis of pneumonia (including aspiration pneumonia) coded as POA and no secondary diagnosis of severe sepsis. If a patient has more than one unplanned admission (for any reason) within 30 days after discharge from the index admission, only the first one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each admitted patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, any subsequent unplanned readmission is not counted as an outcome for that index admission because the unplanned

	readmission could be related to care provided during the intervening planned readmission rather than during the index admission.
Denominator	The cohort includes admissions for patients aged 65 years and older discharged from the hospital with a principal discharge diagnosis of pneumonia, including aspiration pneumonia or a principal discharge diagnosis of sepsis (not severe sepsis) with a secondary discharge diagnosis of pneumonia (including aspiration pneumonia) coded as POA and no secondary discharge diagnosis of severe sepsis; and with a complete claims history for the 12 months prior to admission. The measure is publicly reported by CMS for those patients 65 years and older who are Medicare FFS or VA beneficiaries admitted to non-federal or VA hospitals, respectively.
Measure Reporting Program(s)	VT Hospital Report Card
Data Collection System	CMS Acute Inpatient PPS
Data Source	CMS Care Compare
Eligible Reporting Facilities	All
Caveat(s)	1. The 2022 Hospital Report Card (publishing July 2017 – December 2019 data) excluded results for this measure for various reasons, like data inaccuracies. 2. CMS is moving towards NQF 2882 (CMIT Ref No: 02852-C-HC) Excess Days in Acute Care (EDAC) After Hospitalization for Pneumonia, as this captures the full range of post-discharge use of care, such as ED visits, observation stays, and unplanned readmissions. This condition-specific measure might offer a better assessment of post-discharge utilization than pneumonia 30 day readmissions. 3. Per 18 VSA §9405b, VA Medical Center is exempt from the reporting requirement.

Measure 2.4. Follow-Up After Emergency Department Visit for Substance Use Disorder, 7 or 30 Days

Federal Standard Measure Number(s)	NQF 3488
Definition	The percentage of emergency department (ED) visits for members 13 years of age and older with a principal diagnosis of alcohol or other drug (AOD) abuse or dependence, who had a follow up visit for AOD.
Numerator	The numerator consists of two rates: - 30-day follow-up: A follow-up visit with any practitioner, with a principal diagnosis of AOD within 30 days after the ED visit (31 total days). Include visits that occur on the date of the ED visit. - 7-day follow-up: A follow-up visit with any practitioner, with a principal diagnosis of AOD within 7 days after the ED visit (8 total days). Include visits that occur on the date of the ED visit.
Denominator	Emergency department (ED) visits with a primary diagnosis of alcohol or other drug abuse or dependence on or between January 1 and December 1 of the measurement year where the member was 13 years or older on the date of the visit.
Measure Reporting Program(s)	VT All-Payer Model, 2022 Core Set of Adult Health Care Quality Measures for Medicaid
Data Collection System	NCQA HEDIS
Data Source	Claims
Eligible Reporting Facilities	All See Vermont Medicaid Scorecard for 7-day and 30-day rates.
Caveat(s)	1. Involves non-hospital entities. 2. This is a systems measure and will only be reported statewide. 3. Need to determine how HEDIS data can be accessed for beneficiaries of more insurers. 4. DVHA's rates only include Medicaid Primary beneficiaries aged 18+. 5. Need to research feasibility of using Vermont Uniform Hospital Discharge Data System (VUHDDS) for all Vermonters (not limited to insurance status).

Measure 2.5. Follow-Up After Emergency Department Visit for Mental Illness, 7 or 30 Days

Federal Standard Measure Number(s)	NQF 3489
Definition	The percentage of emergency department (ED) visits for members 6 years of age and older with a principal diagnosis of mental illness or intentional self-harm, who had a follow-up visit for mental illness.
Numerator	The numerator consists of two rates: - 30-day follow-up: The percentage of ED visits for which the member received follow-up within 30 days of the ED visit (31 total days). - 7-day follow-up: The percentage of ED visits for which the member received follow-up within 7 days of the ED visit (8 total days).
Denominator	Emergency department (ED) visits for members 6 years of age and older with a principal diagnosis of mental illness or intentional self-harm on or between January 1 and December 1 of the measurement year.
Measure Reporting Program(s)	VT All-Payer Model, 2022 Core Set of Adult Health Care Quality Measures for Medicaid
Data Collection System	NCQA HEDIS
Data Source	Claims
Eligible Reporting Facilities	All See Vermont Medicaid Scorecard for 7-day and 30-day rates.
Caveat(s)	1. Involves non-hospital entities. 2. This is a systems measure and will only be reported statewide. 3. Need to determine how HEDIS data can be accessed for beneficiaries of more insurers. 4. DVHA's rates only include Medicaid Primary beneficiaries aged 18+. 5. Need to research feasibility of using Vermont Uniform Hospital Discharge Data System (VUHDDS) for all Vermonters (not limited to insurance status).

Measure 2.6. Adult Major Depressive Disorder (MDD): Suicide Risk Assessment (ED, Outpatient)

Federal Standard Measure Number(s)	NQF 0104e
Definition	Percentage of patients aged 18 years and older with a diagnosis of major depressive disorder (MDD) with a suicide risk assessment completed during the visit in which a new diagnosis or recurrent episode was identified.
Numerator	Patients with a suicide risk assessment completed during the visit in which a new diagnosis or recurrent episode was identified.
Denominator	All patients aged 18 years and older with a diagnosis of major depressive disorder (MDD).
Measure Reporting Program(s)	See SAMHSA's Governor's and Mayor's Challenges to Prevent Suicide Among Service Members, Veterans, and their Families.
Data Collection System	TBD
Data Source	Electronic Health Records; Hospital Discharge Dataset
Eligible Reporting Facilities	TBD Joint Commission Requirement NPSG 15.01.01, EP 3 expects all Joint Commission-accredited hospitals, behavioral health care organizations, and critical access hospitals to use an evidence-based process to conduct a suicide risk assessment of patients who have screened positive for suicidal ideation. According to Quality Check, The Joint Commission accredits Central Vermont Medical Center, Northwestern Medical Center, Rutland Regional Medical Center, Southwestern Vermont Medical Center, The Brattleboro Retreat, The University of Vermont Medical Center, Vermont Psychiatric Care Hospital, and White River Junction VA Medical Center.
Caveat(s)	1. Need to determine whether VDH, VAHHS, or GMCB can access the data and perform the analysis. 2. Need to assess the level of effort that would be needed for non-Joint Commission accredited facilities to report this measure. 3. If the measure only includes anyone coded with a major depressive disorder (and no complication from the "new diagnosis or recurrent episode" was identified), then the analysis would be straightforward; there would need to be a claim for suicide risk assessment. 4. Suicide risk assessment is a Joint Commission requirement, but there is no requirement as to the method used. Need to research how we would overcome this lack of standardization.

Domain 3. Patient-Centeredness

Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

Measure 3.1. Recommend the Hospital

Federal Standard Measure Number(s)	HCAHPS Q19; NQF 0166
Definition	CMS employs all survey responses in the construction of the HCAHPS Star Rating. The responses to the survey item "Would you recommend this hospital to your friends and family?" are scored linearly, adjusted, rescaled, averaged across quarters, and rounded to produce a 0-100 linear-scaled score ("Linear Score"). Next, CMS assigns 1, 2, 3, 4, or 5 whole stars (only whole stars are assigned; partial stars are not used) for each HCAHPS measure by applying statistical methods that utilize relative distribution and clustering. Hospitals must have at least 100 completed HCAHPS surveys over a given four-quarter period in order to receive HCAHPS Star Ratings. In addition, hospitals must be eligible for public reporting of HCAHPS measures. Hospitals with fewer than 100 completed HCAHPS surveys do not receive Star Ratings; however, their HCAHPS measure scores are publicly reported on Hospital Compare.
Numerator	The HCAHPS Survey asks recently discharged patients about aspects of their hospital experience that they are uniquely suited to address. For full details, see the current HCAHPS Quality Assurance Guidelines, https://hcahpsonline.org/en/quality-assurance/.
Denominator	The target population for HCAHPS measures include eligible adult inpatients of all payer types who completed a survey. HCAHPS patient eligibility and exclusions are defined in detail in the sections that follow. A survey is defined as completed if the patient responded to at least 50% of questions applicable to all patients.
Measure Reporting Program(s)	VT Hospital Report Card
Data Collection System	Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey
Data Source	CMS Care Compare
Eligible Reporting Facilities	Brattleboro Memorial Hospital, Central Vermont Medical Center, Copley Hospital, Gifford Medical Center, Mt. Ascutney Hospital, North Country Hospital, Northeastern Vermont Regional Hospital, Northwestern Medical Center, Porter Hospital, Rutland Regional Medical Center, Southwestern Vermont Medical Center, Springfield Hospital, University of Vermont Medical Center
Caveat(s)	1. The number of cases/patients for Grace Cottage Family Health & Hospital is generally too small to report. 2. Per 18 VSA §9405b, VA Medical Center is exempt from the reporting requirement.

Measure 3.2. Care Transition

Measure Number(s)	HCAHPS Q20, Q21, Q22; NQF 0166
Definition	CMS employs all survey responses in the construction of the HCAHPS Star Rating. The responses to the survey items: "During this hospital stay, staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left;" "When I left the hospital, I had a good understanding of the things I was responsible for in managing my health;" and "When I left the hospital, I clearly understood the purpose for taking each of my medications" are scored linearly, adjusted, rescaled, averaged across quarters, and rounded to produce a 0-100 linear-scaled score ("Linear Score"). Next, CMS assigns 1, 2, 3, 4, or 5 whole stars (only whole stars are assigned; partial stars are not used) for each HCAHPS measure by applying statistical methods that utilize relative distribution and clustering. Hospitals must have at least 100 completed HCAHPS surveys over a given four-quarter period in order to receive HCAHPS Star Ratings. In addition, hospitals must be eligible for public reporting of HCAHPS measures. Hospitals with fewer than 100 completed HCAHPS surveys do not receive Star Ratings; however, their HCAHPS measure scores are publicly reported on Hospital Compare.
Numerator	The HCAHPS Survey asks recently discharged patients about aspects of their hospital experience that they are uniquely suited to address. For full details, see the current HCAHPS Quality Assurance Guidelines, https://hcahpsonline.org/en/quality-assurance/.
Denominator	The target population for HCAHPS measures include eligible adult inpatients of all payer types who completed a survey. HCAHPS patient eligibility and exclusions are defined in detail in the sections that follow. A survey is defined as completed if the patient responded to at least 50% of questions applicable to all patients.
Measure Reporting	VT Hospital Report Card
Data Collection System	Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey
Data Source	CMS Care Compare
Eligible Reporting Facilities	Brattleboro Memorial Hospital, Central Vermont Medical Center, Copley Hospital, Gifford Medical Center, Mt. Ascutney Hospital, North Country Hospital, Northeastern Vermont Regional Hospital, Northwestern Medical Center, Porter Hospital, Rutland Regional Medical Center, Southwestern Vermont Medical Center, Springfield Hospital, University of Vermont Medical Center
Caveat(s)	1. The number of cases/patients for Grace Cottage Family Health & Hospital is generally too small to report. 2. Per 18 VSA §9405b, VA Medical Center is exempt from reporting.

Measure 3.3. Discharge Information

Federal Standard Measure Number(s)	HCAHPS Q16, Q17; NQF 0166
Definition	CMS employs all survey responses in the construction of the HCAHPS Star Rating. The responses to the survey items: "During this hospital stay, did doctors, nurses or other hospital staff talk with you about whether you would have the help you needed when you left the hospital;" and "During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital" are scored linearly, adjusted, rescaled, averaged across quarters, and rounded to produce a 0-100 linear-scaled score ("Linear Score"). Next, CMS assigns 1, 2, 3, 4, or 5 whole stars (only whole stars are assigned; partial stars are not used) for each HCAHPS measure by applying statistical methods that utilize relative distribution and clustering. Hospitals must have at least 100 completed HCAHPS surveys over a given four-quarter period in order to receive HCAHPS Star Ratings. In addition, hospitals must be eligible for public reporting of HCAHPS measures. Hospitals with fewer than 100 completed HCAHPS surveys do not receive Star Ratings; however, their HCAHPS measure scores are publicly reported on Hospital Compare.
Numerator	The HCAHPS Survey asks recently discharged patients about aspects of their hospital experience that they are uniquely suited to address. For full details, see the current HCAHPS Quality Assurance Guidelines, https://hcahpsonline.org/en/quality-assurance/.
Denominator	The target population for HCAHPS measures include eligible adult inpatients of all payer types who completed a survey. HCAHPS patient eligibility and exclusions are defined in detail in the sections that follow. A survey is defined as completed if the patient responded to at least 50% of questions applicable to all patients.
Measure Reporting	VT Hospital Report Card
Data Collection System	Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey
Data Source	CMS Care Compare
Eligible Reporting Facilities	Brattleboro Memorial Hospital, Central Vermont Medical Center, Copley Hospital, Gifford Medical Center, Mt. Ascutney Hospital, North Country Hospital, Northeastern Vermont Regional Hospital, Northwestern Medical Center, Porter Hospital, Rutland Regional Medical Center, Southwestern Vermont Medical Center, Springfield Hospital, University of Vermont Medical Center
Caveat(s)	1. The number of cases/patients for Grace Cottage Family Health & Hospital is generally too small to report. 2. Per 18 VSA §9405b, VA Medical Center is exempt from reporting.

Domain 4. Timeliness

Reducing waits and sometimes harmful delays for both those who receive and those who give care.

Measure 4.1. Median Time from ED Arrival to ED Departure for Discharged ED Patients

Federal Standard Measure Number(s)	MBPIP OP-18b; CMS OP-18b; NQF 0496
Definition	Calculates the median time from emergency department arrival to time of departure from the emergency room for patients discharged from the emergency department (ED).
Numerator	Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.
Denominator	(n/a)
Measure Reporting Program(s)	MBQIP Core, CMS Hospital Inpatient Quality Reporting (IQR) Program, CMS Outpatient Quality Reporting (OQR) Program
Data Collection System	The measure is calculated using chart-abstracted data, on a rolling quarterly basis, and is publically reported in aggregate for one calendar year.
Data Source	CMS Care Compare
Eligible Reporting Facilities	Brattleboro Memorial Hospital, Central Vermont Medical Center, Copley Hospital, Grace Cottage Hospital, Northwestern Medical Center, Porter Hospital, Rutland Regional Medical Center, Southwestern Vermont Medical Center, University of Vermont Medical Center
Caveat(s)	1. Data are not available for Gifford Medical Center, Mt. Ascutney Hospital, North Country Hospital, Northeastern Vermont Regional Hospital, or Springfield Hospital. 2. ED wait times are heavily contingent on outpatient resources being available for discharge to and/or referral. 3. There is an opportunity for syndromic surveillance data to capture this for VT to reduce dependency on chart abstraction.

Measure 4.2. Follow-up After Hospitalization for Mental Illness, 7 or 30 Days

Federal Standard Measure Number(s)	CMS FUH, NQF 0576
Definition	The percentage of discharges for patients 6 years of age and older who were hospitalized for treatment of selected mental illness diagnoses and who had a follow-up visit with a mental health practitioner. Two rates are reported: - The percentage of discharges for which the patient received follow-up within 30 days of discharge. - The percentage of discharges for which the patient received follow-up within 7 days of discharge.
Numerator	30-Day Follow-Up: A follow-up visit with a mental health provider within 30 days after discharge. 7-Day Follow-Up: A follow-up visit with a mental health provider within 7 days after discharge.
Denominator	Discharges from an acute inpatient setting with a principal diagnosis of mental illness or intentional self-harm on the discharge claim during the first 11 months of the measurement year (i.e. January 1 to December 1) for members 6 years and older.
Measure Reporting Program(s)	VT Hospital Report Card – Psychiatric, 2022 Core Set of Adult Health Care Quality Measures for Medicaid
Data Collection System	CMS Inpatient Psychiatric Facility Quality Reporting (IPFQR)
Data Source	CMS Care Compare
Eligible Reporting Facilities	All See Vermont Medicaid Scorecard for 7-day and 30-day rates. Data for Brattleboro Retreat, Springfield Hospital, and VT Psychiatric Care Hospital are published in the VDH *Psychiatric Hospital Quality of Care Report*.
Caveat(s)	1. Involves non-hospital entities. 2. This is a systems measure and will only be reported statewide. 3. Need to determine how HEDIS data can be accessed for beneficiaries of more insurers. 4. DVHA's rates only include Medicaid Primary beneficiaries aged 18+. 5. Need to research feasibility of using Vermont Uniform Hospital Discharge Data System (VUHDDS) for all Vermonters (not limited to insurance status).

Measure 4.3. Initiation and Engagement of Alcohol and Other Drug Dependence (AOD) Treatment

Federal Standard Measure Number(s)	NQF 0004
Definition	This measure assesses the degree to which the organization initiates and engages members identified with a need for alcohol and other drug (AOD) abuse and dependence services and the degree to which members initiate and continue treatment once the need has been identified. Two rates are reported: - Initiation of AOD Treatment. The percentage of adolescent and adult members with a new episode of AOD abuse or dependence who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, partial hospitalization, telehealth or medication assisted treatment (MAT) within 14 days of the diagnosis. - Engagement of AOD Treatment. The percentage of adolescent and adult members with a new episode of AOD abuse or dependence who initiated treatment and who had two or more additional AOD services or MAT within 34 days of the initiation visit.
Numerator	Initiation of AOD Treatment: Initiation of treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth or medication treatment within 14 days of the diagnosis. Engagement of AOD Treatment: Initiation of AOD treatment and two or more additional AOD services or medication treatment within 34 days of the initiation visit.
Denominator	Patients age 13 years of age and older as of December 31 of the measurement year who were diagnosed with a new episode of alcohol or other drug dependency (AOD) during the first 10 and ½ months of the measurement year (e.g., January 1-November 15).
Measure Reporting Program(s)	VT All-Payer Model
Data Collection System	2022 Core Set of Adult Health Care Quality Measures for Medicaid; NCQA HEDIS
Data Source	Claims
Eligible Reporting Facilities	All See Vermont Medicaid Scorecard.

Caveat(s)	1. Involves non-hospital entities. 2. This is a systems measure and will only be reported statewide. 3. Cannot be measured with the Vermont Uniform Hospital Discharge Data System. 3. DVHA's rates only include Medicaid Primary beneficiaries aged 18+. 4. Need to determine how HEDIS data can be accessed for beneficiaries of more insurers. 4. Bias could be introduced by hospitals' differing in referral patterns. 5. This measure is for new episodes of treatment, and the accuracy of claims is uncertain. Unique identifiers would be required across hospital and outpatient settings.

Domain 5. Efficiency

Avoiding waste, in particular waste of equipment, supplies, ideas, and energy.

Measure 5.1. Median Time to Transfer to Another Facility for Acute Coronary Intervention

Federal Standard Measure Number(s)	MBQIP OP-3; CMS OP-3; NQF 0290
Definition	This measure calculates the median time from emergency department arrival to time of transfer to another facility for acute coronary intervention.
Numerator	Time (in minutes) from emergency department arrival to transfer to another facility for acute coronary intervention.
Denominator	(n/a)
Measure Reporting Program(s)	MBQIP Core, CMS Hospital Inpatient Quality Reporting (IQR) Program, CMS Outpatient Quality Reporting (OQR) Program
Data Collection System	Hospital Quality Reporting (HQR) via Outpatient CART/Vendor
Data Source	CMS Care Compare
Eligible Reporting Facilities	Southwestern Vermont Medical Center
Caveat(s)	1. Data are not available for Copley Hospital, Gifford Medical Center, Grace Cottage Hospital, Mt. Ascutney Hospital, North Country Hospital, Northeaster Vermont Regional Hospital, Porter Hospital, Rutland Regional Medical Center, Springfield Hospital or University of Vermont Medical Center. 2. Central Vermont Medical Center and Northwestern Medical Center had too few cases to report. 3. Brattleboro Memorial Hospital reported that no cases met the criteria for the measure. 3. ED wait times are heavily contingent on outpatient resources being available for discharge to and/or referral. 4. Need to research the feasibility of using syndromic surveillance data to reduce dependency on chart abstraction.

Measure 5.2. Emergency Department Transfer Communication All or None Composite Calculation

Federal Standard Measure Number(s)	MBQIP EDTC, NQF 0291
Definition	Percentage of patients who are transferred from an ED to another health care facility that have all necessary communication made available to the receiving facility in a timely manner.
Numerator	Number of patients transferred from an ED to another healthcare facility whose medical record documentation indicated that all of the following relevant elements were documented and communicated to the receiving hospital in a timely manner: • Home Medications • Allergies and Reactions • Medications Administered in ED • ED Provider Note • Mental Status and Orientation Assessment • Reason for Transfer and Plan of Care • Tests and/or Procedures Performed • Tests and/or Procedures Results
Denominator	Transfers from an ED to another healthcare facility.
Measure Reporting Program(s)	MBQIP Core
Data Collection System	State Flex Office
Data Source	MBQIP Data Reports
Eligible Reporting Facilities	Varies; Limited to Critical Access Hospitals
Caveat(s)	1. Need to request permission from participating hospitals to publish data. 2. Limited to critical access hospitals. 3. This is a system measure and therefore hard to attribute to one facility. 4. ED wait times are heavily contingent on outpatient resources being available for discharge to and/or referral. 5. There is an opportunity for syndromic surveillance data to capture this for VT to reduce dependency on chart abstraction.

Domain 6. Equity

Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

Measure 6.1. Screening for Preferred Spoken Language for Health Care

Federal Standard Measure Number(s)	NQF 1824
Definition	This measure is used to assess the percent of patient visits and admissions where preferred spoken language for health care is screened and recorded. Hospitals cannot provide adequate and appropriate language services to their patients if they do not create mechanisms to screen for limited English-proficient patients and record patients´ preferred spoken language for health care. Standard practices of collecting preferred spoken language for health care would assist hospitals in planning for demand. Access to and availability of patient language preference is critical for providers in planning care. This measure provides information on the extent to which patients are asked about the language they prefer to receive care in and the extent to which this information is recorded.
Numerator	The number of hospital admissions, visits to the emergency department, and outpatient visits where preferred spoken language for health care is screened and recorded.
Denominator	The total number of hospital admissions, visits to the emergency department, and outpatient visits.
Measure Reporting Program(s)	None
Data Collection System	None
Data Source	Claims, Other, TBD
Eligible Reporting Facilities	TBD
Caveat(s)	1. This measure is based on an emerging area of data collection. It is included in the set of proposed measures because of its importance. More work is needed to identify a reliable, consistent data source. 2. Need to assess the level of effort that would be needed for this additional measurement and reporting burden.

Appendix 5. Hospital Report Card Comparison

A spreadsheet comparing the following hospital report cards:

- Vermont Hospital Quality Framework Draft Measures July 15, 2022
- Review and Compare Hospitals Using Hospital Report Cards (2022)
- Review and Compare Hospitals Using Hospital Report Cards (2022)
- 2022 Hospital Report Card Reporting Manual for Community Hospitals
- 2022 Hospital Report Card Reporting Manual for Psychiatric Hospitals

may be found here: https://www.vpqhc.org/s/Appendix-5-Hospital-Report-Card-Comparison-3xew.xlsx.