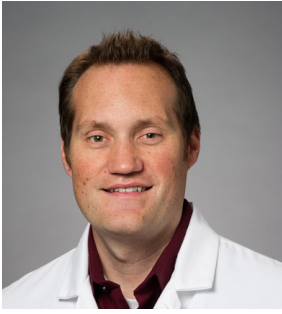




# The UVM Health Network Care Coordination System

Impact Report  
June 2022

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University of Vermont  
HEALTH NETWORK



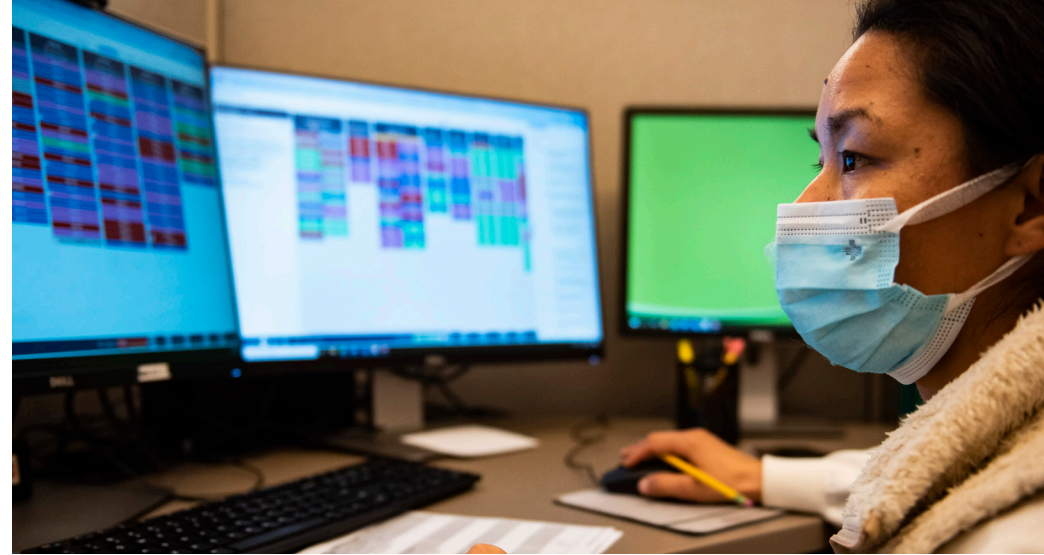
## A Foundation for High Quality Care

Five years ago, the Regional Transport System launched with a core mission: improve collaboration and coordination across our health system to help provide better health care for our patients.

Our activities initially focused on patient transportation and transfers. We have evolved to become what many consider to be one of the foundational elements of our health system: the ability to quickly connect our experts, technology and resources to provide high-quality care to every patient, wherever and whenever they need it.

For instance, if a patient arrives at a UVM Health Network hospital with a suspected stroke, we now facilitate video-enabled consultations between the emergency department physician, the patient and an on-call stroke neurologist. If a patient needs to be transferred to a different hospital for more intensive treatment, but is too sick to travel, we coordinate an airlift with ICU-level providers and equipment. If a patient has surgery at one hospital, but can recover closer to home, we coordinate both their transfer and their transportation.

Over the past two years, local and global challenges inspired us to expand our work even further. When hospital schedules and records were disrupted by the cyberattack, we helped triage patients; when COVID-19 hit, we used our community paramedic and transport team to help provide urgently needed testing and, later, vaccinations to front-line community health workers. Because we know that our care for our communities doesn't stop at our doors, we now collaborate



daily with more than 20 non-Network hospitals and 25 ambulance providers in Vermont and northern New York — a service area of more than 40,000 square miles. These challenges demonstrated the utility of maintaining a centralized team dedicated to understanding our health system's capacity to provide care and adapt to fluctuations in patient needs.

As a result of our expanded mandate, we are changing our name to better reflect our role. We'd like to welcome you to the UVM Health Network Care Coordination System.

We are excited about this name change because all along we've known that by fostering cooperation and improving coordination, we can help strengthen our ability to care for our patients. Our Care Coordination System has made tremendous progress in a very short time and has proven to be a key stakeholder in the success of the UVM Health Network mission — thanks to the dedication and tenacity of our team members and partners.

We're eager to continue growing and refining our work in the years to come. We invite you to learn more about the work we do.

Sincerely,  
Ryan Clouser, DO, FCCM  
Care Coordination System Medical Officer  
UVM Health Network



**Our mission is to provide high-quality, efficient, reliable and consistent provider communication and patient transportation for our Network and region.**

# Better Care Through Collaboration

## What is the Care Coordination System?

The UVM Health Network Care Coordination System is a group of more than 130 health care providers, nurses, EMTs, paramedics, communications specialists and logistics experts working together to coordinate safe, seamless care for our patients. Often from behind the scenes, we provide the services and infrastructure that connect our hospitals into a cohesive health system, one stronger than its individual parts.

In similar fashion, we are the bridge that joins our Network with other hospitals and ambulance providers from across Vermont, New York and New Hampshire. These symbiotic partnerships help us to increase access to care and elevate the level of care to the people of our entire region, including those far beyond our Network's borders.

Our team connects physicians with specialists for timely consults; marshals medical and communication resources to meet emergency needs; manages bed planning and placement for patients across the entire UVM Health Network; facilitates patient transfers — essentially anything that helps provide our communities with the safest, most timely, high-quality care possible.



# 5 Ways Our Services Impact Care Across the Region

## 1. Transfers



**7,500+ patient transfers annually**

Staffed by registered nurses, our “one-call-does-it-all” system has made it easier to arrange patient transfers between our hospitals — as well as between other hospitals in the region, including Albany Medical Center and Dartmouth Health. More than 40% of transfers come from hospitals outside of our Network. Typically, these are patients who need access to our specialty care, particularly cardiology, pediatrics, neurology and ICU-level care.

## 2. Capacity and Bed Planning



**950+ beds across our health system**

Building on lessons learned from the pandemic, we lead a daily collaborative effort with hospitals across Vermont and northern New York to understand and address the availability of beds for clinical and acute care across our health system. With our new electronic medical record system, known as Epic, now live at all of our hospitals, we also manage planning, monitor bed placement and facilitate patient movement to leverage capacity across the entire UVM Health Network.

## 5. Consultations



**5,800+ provider consultations annually**

When providers need support, we connect them with specialists, increasingly via telemedicine. Telemedicine and our electronic medical record system allow providers to video chat and share medical information in real time — critical in emergency situations. Our nurses often remain on the line to coordinate a transfer if necessary.

**40,000 Square Miles of Service**

## 4. Transports



**5,000+ ambulance transports this year including 2,000 critical care transports**

Our transportation teams are made up of critical care paramedics and nurses, EMTs, NICU providers and other specialists that have made mobile ICU-level care a reality for our region. Our fleet of specialized air and ground ambulance vehicles — which we have based in Burlington, Elizabethtown and Plattsburgh — enables us to respond to trauma scenes or move critically ill adult and pediatric patients from one hospital to another.

## 3. Communications



**120,000 calls this year, including 25,000 ambulance contacts**

Our licensed EMS providers coordinate all\* ambulance transports for our hospitals, 24/7. For any ambulance that transfers a patient to UVM Medical Center, we also coordinate with the receiving department, sending out pages as necessary so that there is no delay in treatment when a patient arrives.

\*We currently do not coordinate transport from Central Vermont Medical Center.

# Our Growing Capacity



We are proud of our growth and success over the past five years, but we are constantly working to innovate and fully realize our potential as a unified health system. The following initiatives — some well established, some still in their infancy — are part of our growing vision for a centralized Care Coordination System. Our goal is to improve access to care by coordinating everything on the ground and in the air, in Network and out, in order to deliver the right care, in the right place and at the right time for our communities. Some tactics we're using:

## Network and Regional Daily Pulse Check

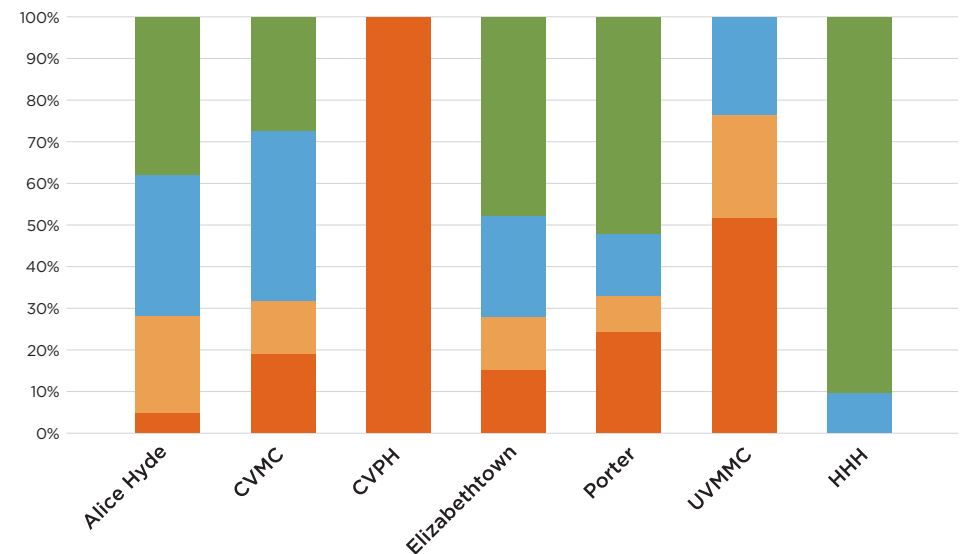
Kicked off in September 2020, the Pulse Check provides a snapshot of hospital capacity across Vermont and northern New York. This brief daily call between Network hospitals and nine other hospitals from around the region provides current census data, situational awareness of potential COVID-19 “hot spots,” active facilities issues and information about pending transfers. Overall, it has improved communication, collaboration and collegiality between participating hospitals in the region.

## Bed Planning and Placement

With the recent New York rollout of our electronic medical record system, our team now supports bed planning and placement for all Network hospitals. As part of this effort, we provide relevant real-time data dashboards that assist in planning, care coordination and decision making. By facilitating patient movement and monitoring our hospitals' census, capacity and staffing from a central vantage point, we are discovering new efficiencies in where and how our patients receive care, while relieving pressure on our busiest hospitals.



## Capacity by Site in April 2022



### Census Level Projections

Over Census > 100%   Moderate Census = 91%-97%  
High Census = 98%-100%   Normal Census ≥ 90%

## “Transfer Backs”

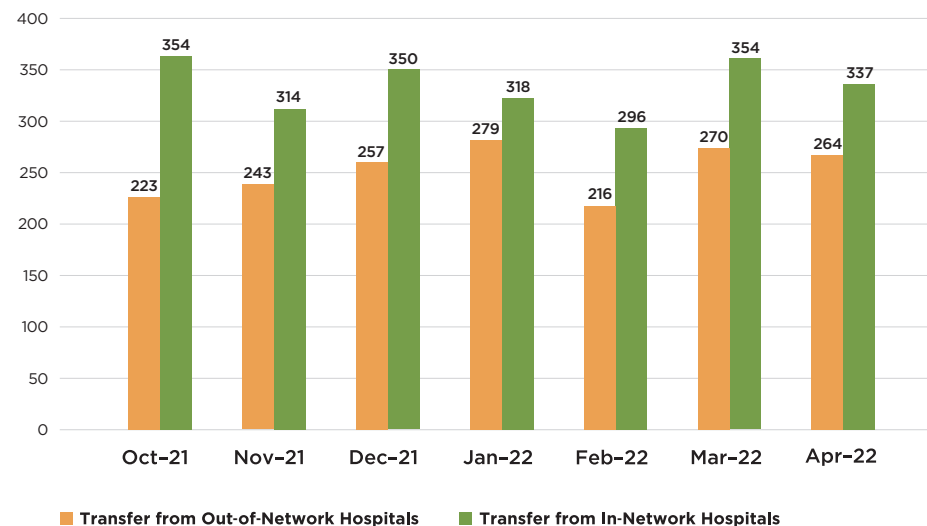
When patients no longer require highly specialized treatment, our goal is to help them return closer to home where their care can be continued, including at non-Network hospitals and health facilities. By emphasizing “transfer backs,” we are also helping to ensure adequate hospital bed capacity at the highest level of care.

To expedite our progress, we are working closely with Network strategy teams, chief medical officers and other key stakeholders from patient and family advocacy, ethics and care management to define best practices and create updated transfer-back guidelines.

## Quality Assurance

Our Quality Committee evaluates the care and coordination of all our providers and monitors patient transfers and transports to promote consistent quality care across the system. The Committee identifies systems or processes that result in improved quality outcomes and takes steps to reinforce these practices.

## Transfers to Network Hospitals



## Mobile Integrated Health Program

To better care for frequent utilizers of our emergency departments or patients at high risk for readmission, we collaborate with UVM Health Network – Home Health & Hospice and care management. We deploy community paramedics to act as a point of contact with patients and help them stay up to date on medications, discharge instructions, follow-up with primary care and home safety.

## Strengthening Ambulance Service in Northern New York

Resource and staffing limitations have impacted the availability of transport throughout New York’s North Country, leaving many communities underserved.

The Care Coordination System is working to enhance recruitment and retention of emergency medical service providers throughout the UVM Health Network to ensure that our entire service area, including northern New York, has basic life-support and critical-care-level transportation available.



## Service in Times of Crisis

During the pandemic, the Care Coordination System pivoted, providing urgently needed community health services as well as operational planning.

We launched a COVID-19 testing site at the Champlain Valley Exposition fairgrounds in Essex, Vermont, and administered more than 14,000 COVID-19 tests in 2020. Later, we transformed this site to administer vaccines to more than 3,500 community health workers. We also collaborated with Network leadership and departments to prepare for ongoing COVID-19 surges.



## In response to COVID-19, the Care Coordination System:

- Monitored the number of negative pressure rooms and ventilators available at each Network hospital in order to manage COVID-19 ICU patients.
- Collaborated with our Medical Group to develop a surge pool of providers.
- Established a pop-up Tele-ICU system to support both in- and out-of-Network providers.
- Worked closely with the Vermont Department of Health and Dartmouth Health to develop a regional COVID-19 surge plan to coordinate logistics and the distribution of respiratory devices.
- Partnered with the New York State Department of Health and Elizabethtown Community Hospital to place patients and coordinate with FEMA to transport patients.



## As we look to the future

We do not forget where we came from. The UVM Health Network Care Coordination System was forged during times of crisis, and the lessons we have learned, the trust we continue to earn and the structure that we are constantly improving will support and serve our region well into the future. We will continue to build on our strong foundation and work with our colleagues to find new ways to serve our health system and the people who rely on it. In particular, we look forward to developing new insight and tools to make the most of our Network's capacity, helping our communities receive consistent, high-quality care wherever they are.

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