

CASE STUDY

# How Three Providers Expanded Hospital-at-Home Amid Covid-19

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Expanding eligibility and staffing to deliver acute care in the home

Published - June 4, 2020 • 15-min read



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# Overview

## The challenge

Hospital efforts to create capacity for managing Covid-19 patients by decongesting inpatient beds have focused on delivering care to low-acuity patients in the home or quickly discharging patients to post-acute care. Yet certain subsets of patients could benefit from receiving acute care in the home, avoiding the risk of exposure to the coronavirus and freeing up inpatient beds.

## The organizations

The Mount Sinai Health System is an integrated health care system encompassing the Icahn School of Medicine at Mount Sinai and eight hospital campuses in the New York metropolitan area. Contessa Health operates a risk based model that combines all the essential elements of inpatient hospital care in patients' homes. The company brings together evidenced-based, home recovery care models for acute care, post-acute care, and surgical procedures with administrative support services and a proprietary, health informatics platform. The Visiting Nurse Service of New York (VNSNY) is a non-profit healthcare organization that provides in-home nursing, rehabilitation therapy, post-acute care, hospice and palliative services, headquartered in New York, NY.

## The approach

Under the states of emergency declarations and waivers, Mount Sinai, Contessa Health, and VNSNY expanded their hospitalization-at-home (HaH) program to free up beds for critically ill Covid-19 patients and provide hospital-level acute care to non-Covid patients in their homes. In addition to expanding those eligible who present in the ED for acute care, patients eligible for the program now include those who are already admitted and are stable but still need acute-level services and Covid-19 patients stable enough to remain at home.

## The result

Within two months, more payer contracts have been established and VNSNY has trained more staff to deliver care to the increasing number of HaH patients.

# Approach

## How Mount Sinai, Contessa Health, and VNSNY expanded hospitalization-at-home to meet Covid-19 surge

Mount Sinai, Contessa Health, and VNSNY expanded their hospitalization-at-home program to free up beds for critically ill Covid-19 patients and provide hospital-level care to non-Covid patients in their homes. In addition to those presenting in the ED for acute care, patients eligible for the program now include those who already admitted to the hospital and are stable but still need acute-level services like intravenous antibiotics, including Covid-19 patients stable enough to be transitioned home to complete their hospitalization.

### The three elements of the hospitalization-at-home program

Within a few weeks, the organizations followed three key steps to expand their HaH program:

**01** Define patient population for eligibility expansion

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**02** Negotiate reimbursement and amend payer contracts

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**03** Intensive training to prepare RNs for in-home care

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# 01 Define patient population for eligibility expansion

Mount Sinai launched Hospitalization at Home (HaH) in 2014 as part of a three-year CMS Innovation Center grant. Since then, Mount Sinai, Contessa and VNSNY partnered to create scale to free up beds across Mount Sinai's hospitals.

Most patients enrolled in HaH arrive in the emergency room for treatment of an acute condition. In general, patients eligible for care in a HaH program require hospitalization, but also meet other medical and social criteria to ensure that the program is safe and appropriate for them.

To care for more patients, Mount Sinai, Contessa Health, and VNSNY expanded the HaH program to manage the care of patients transferred from the hospital during their hospitalization including Covid-19 patients who are stable enough to be managed at home. Selecting the subgroup of patients eligible for the program is an essential step and helps ensure that patients can be safely managed at home.

## Expanded eligibility extends to HaH to care for Covid-19 related surge

	Pre-pandemic patient eligibility	Expanded eligibility during Covid-19 pandemic
<b>Inclusion Criteria</b>	<p>Presenting in the ED and requiring treatment for:</p> <ul style="list-style-type: none"> <li>• Acute exacerbations of asthma</li> <li>• Chronic obstructive pulmonary disease</li> <li>• Decompensated congestive heart failure</li> <li>• Urinary tract infection</li> <li>• Community-acquired pneumonia</li> <li>• Cellulitis of the lower extremities</li> <li>• Deep venous thrombosis or pulmonary embolism</li> <li>• Over time, the number of eligible conditions expanded to any condition that could be safely managed at home</li> </ul>	<ul style="list-style-type: none"> <li>• Patients transferred during their hospitalization to complete their hospitalization at home</li> <li>• Including Covid-19 patients who are stable enough to be managed at home</li> </ul>
<b>Exclusion Criteria</b>	<ul style="list-style-type: none"> <li>• Clinically unstable</li> <li>• Requiring cardiac monitoring or intensive care</li> <li>• Lives in unsafe home environment</li> <li>• Resides outside of the service area</li> </ul>	

## 02 Negotiate reimbursement and amend payer contracts

Mount Sinai's hospitalization-at-home program began with a three-year, \$9.6 million grant from CMMI in 2014. Since the CMMI grant concluded in 2017, the HaH program has operated by contracting with various payers, including MA plans. The health system formed a joint venture with Contessa Health, a company with expertise in home recovery care, to facilitate the development of contracts with health plans and other payers while helping with certain aspects of care coordination.


To reach more patients amid the pandemic, the Mount Sinai worked with payers and providers in the market to expand. The HaH program now contracts with most high membership payers in the market.

### HaH pilot program results paved way for payer expansions

Key to successful contract negotiation, are results from the pilot program that showed better outcomes, fewer complications, more satisfied patients and reduced costs, for patients enrolled in HaH.

An analysis of the clinical data of 295 patients in 2017, found that the program led to improved patient outcomes. Specifically, hospitalization-at-home patients had a 8.6% 30-day readmission rate, which was lower than the 15.6% readmission rate for the control group of acute-care hospital patients. Additionally, hospitalization-at-home patients had an 5.8% 30-day emergency department revisit rate versus an 11.7% ED revisit rate among the control group. Hospitalization-at-home patients were also more likely to report the highest overall rating for overall hospital care in the HCHAPS survey than the control group.

**295**   
Patients in program  
from 2014-2017

**7%**   
Reduction in  
readmissions

**6%**   
Reduction in ED  
admissions

# 03 Intensive training to prepare RNs for in-home care

Hospitalization-at-home models need strong home health partners to ensure delivery of quality care and scalability. Mount Sinai and Contessa partner with VNSNY to deliver home care services.

## Intensive training prepares RNs for in-home acute care delivery

VNSNY realized that HaH nurses needed to have the experience and skills that make them comfortable delivering care in both the acute care and home setting. As such, nurses hired into the program are RNs and must have a minimum of five years experience delivering care in the hospital acute setting. Additionally, nurses undergo two to four week training program that includes Contessa's training programs and Mount Sinai's support in addition to providing hands-on practice on the most common procedures they have to deliver outside the hospital environment including IV infusion, phlebotomy and wound care skills.

Fully trained nurses may spend up to two hours with patients twice a day to administer infusions and medications, perform blood draws, conduct virtual visit with the physician, and educate patients and their families. Lastly, patients can also receive rehabilitation services from VNSNY rehab therapists as needed. VNSNY is supported virtually by Mount Sinai's and Contessa's providers that render virtual visits and provide care coordination and oversight using Contessa's platform, Care Convergence.

Amid the pandemic, VNSNY has had to hire several more nurses and fast track their training and onboarding to support the surge in demand. 30 more nurses are being trained to provide program support.

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# 30

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Nurses in training and 15 have been hired during the three months of the Covid-19 pandemic.

# Results

## How we know it's working

The expanded eligibility and staffing have enabled the program to create capacity to handle the surge in demand:

- Within 2 months of expanding eligibility, program volumes increased significantly.
- Patients did not experience any falls with injury, acquired pressures ulcers or infections.
- All patients had medication reconciliations in their homes to gain greater visibility into what medications patients may be taking at home.
- Mount Sinai expects that the HaH will continue to create capacity in the hospital by delivering acute care in the patients homes.
- Mount Sinai, Contessa Health, and VNSNY will continue to track patient satisfaction and health outcomes over time but expect that results will continue to show better outcomes, fewer complications, more satisfied patients and reduced costs, for patients enrolled in HaH.



# Supporting artifact(s)

**Team of physicians, NPs, home health nurses, and other professionals deliver care 24/7**



## **Mount Sinai medical team**

- Daily visits (virtual or in-person), or more often if needed, from a doctor or nurse practitioner either in-person or by video visit. (At least 1 NP or physician visit a day)
- Address important medical and social needs upon patients leaving the hospital



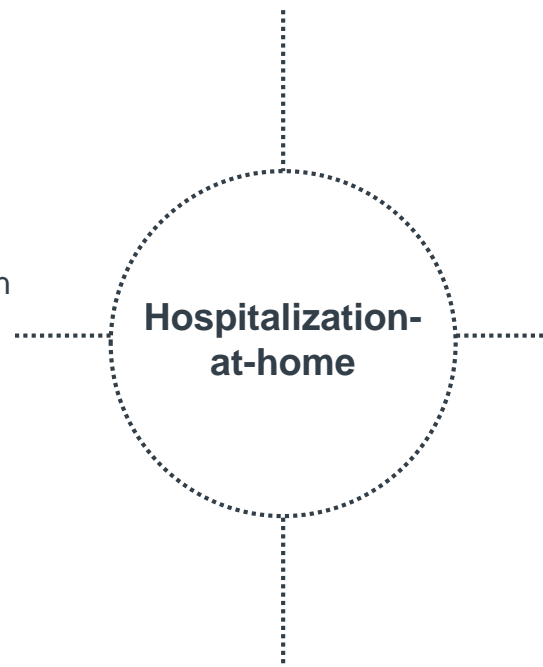
## **Contessa Health Recovery Care Coordinators (RN)**

- Manage all logistics of care in patients' homes
- Daily visits with VNSNY, Mount Sinai medical team
- Using Contessa's platform, monitor patients, answer patient questions and address social needs
- Schedule all follow-up care



## **VNSNY: 24/7 Home health services from skilled nursing, home health aides, and rehab team**

- Regular visits from VNSNY home care nurses to check vital signs, administer IV medications and perform lab draws
- Twice daily visits
- Follow-up visits to deliver rehabilitation services



**IV medications, and other equipment**  
or therapy brought directly to the home

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# Post-Acute Care Collaborative

## Project director

Aliki Karnavas

KarnavaA@advisory.com

## Program leadership

Monica Westhead

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