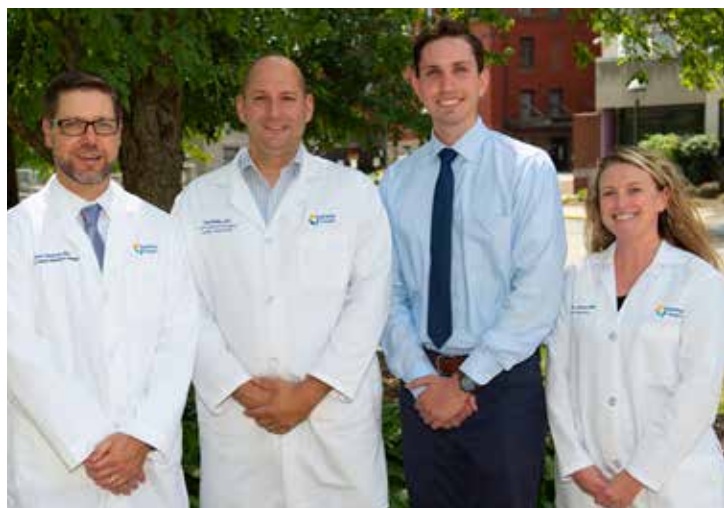


2020 Summa Health

# Quality Report



Some photos taken prior to COVID-19.



[summahealth.org/quality](https://summahealth.org/quality)



# Opening Remarks

The Quality Department at Summa Health would like to welcome you to the 2020 Annual Quality Report. This report will recap the past year's quality highlights, stories and developments that support our values of serving with passion, personalizing care, valuing every person, taking ownership, working collaboratively and partnering with the community.

Looking back at a truly unique year, it would not be a quality report without mention of the many quality efforts put forth to address the COVID-19 pandemic. It is difficult to put into words to show the efforts and work of what the Summa Health team and community went through in 2020. Healthcare looked much different in 2020 than it did in 2019, yet Summa team members throughout the system rose to the occasion to provide

the highest quality and compassionate care to our patients and members and worked in creative ways to contribute to a healthier community.

There were many quality stories and outcomes that are not mentioned in this year's report that had been recognized throughout the 2020 year, but many are captured in this year's report. The Summa Health teams accomplished a lot prior to the pandemic and continued to achieve goals that met our mission, vision and commitments throughout the system and community. We hope that you enjoy reading about the presented quality successes achieved by many members of the Summa team throughout an unprecedented 2020!

## The Summa Health System Quality Team



Back row, left to right: Nancy Reynolds, MSN, RN, CIC, FAPIC; Kathy Cubera, RPh; Sandy Germano, BSN, RN, NE-BC; Renee Brinker, PT, MBA, CPHQ  
Front row, left to right: Connie Slagle, MHA, BSN, RN, CPHQ; Brad Martin, M.D., MHA, FACP, FCCP; Trish Enos, MHL, BS, BSN, RN, CPHQ

# Awards and Accreditations



## The Joint Commission

Summa Health System hospitals are accredited by the Joint Commission, meaning we have met The Joint Commission's strict quality and safety measures.



## Leapfrog Hospital Safety Grade

Summa Health System Barberton and Akron Campuses achieved respective grades of "A" and "B" in the fall 2020 Leapfrog Hospital Safety Grade.



## Outstanding Quality and Safety by The Leapfrog Group

In December 2020, Barberton Campus was named a 2020 Top Hospital for outstanding quality and safety by The Leapfrog Group. This distinction, given to the Barberton Campus in the small teaching hospital category, placed Summa Health as one of only 105 hospitals nationally to receive

this award. To qualify for the Top Hospital distinction, hospitals must rank top among peers in their specific category on the Leapfrog Hospital Survey, which assesses hospital performance on the highest standards for quality and patient safety. More than 2,200 hospitals were considered for the award. The quality of patient care across many areas of hospital performance is considered in establishing the qualifications for the award, including infection rates, practices for safer surgery, maternity care and the hospital's capacity to prevent medication errors. The rigorous standards are defined in each year's Top Hospital Methodology. The Leapfrog Group is an independent national organization driven by employers and other purchasers of health care committed to improving health care quality and safety for consumers and purchasers.



## Healthgrades 2020 250 Best Hospitals Award

Summa Health was ranked among the top five percent of U.S. hospitals in the Healthgrades 2020 250 Best Hospitals Award for clinical performance.

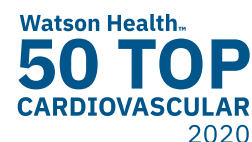
## Healthgrades America's 100 Best Hospitals

Healthgrades also named Summa Health one of Healthgrades America's 100 Best Hospitals in four different specialties for 2021 including Stroke Care (two years in a row); Pulmonary Care (two years in a row); Gastrointestinal Care (three years in a row); and Critical Care (four years in a row).



## Watson Health™ Top 50 Cardiovascular Hospitals

Summa Health System – Akron Campus was named one of the nation's 50 Top Cardiovascular Hospitals by IBM Watson Health™ in 2019, 2020 and again in 2021. IBM Watson Health is a business unit of IBM dedicated to the development and implementation of cognitive and data-driven technologies to advance health. The 50 Top Cardiovascular Hospitals Award studies independent and objective research to analyze hospital and health system performance in key clinical and operational areas for selected cardiovascular procedures and medical care. The program's goal is to deliver unbiased, guiding insights that can help all healthcare organizations focus their improvement initiatives and move toward consistent, sustainable top performance.



## Get With The Guidelines® Stroke Gold Plus Quality Achievement Award

Summa Health Stroke Care Center has been nationally recognized for earning the American Heart Association (AHA) and American Stroke Association's Get With The Guidelines® Stroke Gold Plus Quality Achievement Award. Summa is the only hospital in the Akron area to have received the American Stroke Association Get with the Guidelines Gold Plus Award consecutively since 2010.



## NorthCoast 99 Award

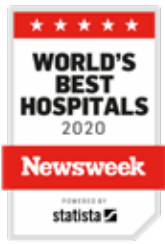
For the 17th consecutive year, in 2020 Summa Health was named one of the best places to work in Northeast Ohio by NorthCoast 99.





**Blue Distinction®  
Centers for Maternity  
Care by Anthem Blue  
Cross and Blue Shield**  
Summa Health  
System- Akron

and Barberton Campuses have been designated Blue Distinction® Centers for Maternity Care by Anthem Blue Cross and Blue Shield. Akron Campus has held this distinction since 2016. Blue Distinction Centers are healthcare facilities with demonstrated expertise and a dedicated commitment to quality care during the delivery episode of care, which includes both vaginal and Cesarean section delivery.



**Newsweek's Best Physical  
Rehabilitation Centers**

Newsweek named Summa Rehab Hospital one of the Best Physical Rehabilitation Centers for 2020. This recognition highlights the nation's top physical rehabilitation facilities based on quality of care, quality of service, quality of follow-up care and accommodations & amenities.

**Transcatheter Valve Program**

In 2020, Summa Health System – Akron Campus became the first hospital in Ohio and the ninth in the nation to be certified by the American College of Cardiologists for transcatheter aortic valve replacement (TAVR). To date, Summa has performed more than 900 TAVR procedures. A minimally invasive, life-saving procedure, TAVR gives options to patients who had none before.



**Summa Health System, Akron &  
Barberton Campus & Ambulatory  
Clinics**

The hospitals and clinics of Summa Health System have earned CHIME HealthCare's 2020 Most Wired recognition, according to the College of Healthcare Information Management Executives (CHIME). The CHIME designation is for achieving Performance Excellence Award Level 8 certification on a scale of one to 10. The Most Wired honor is given to hospitals and health systems that are at the forefront of using healthcare information technology to improve the delivery of care.



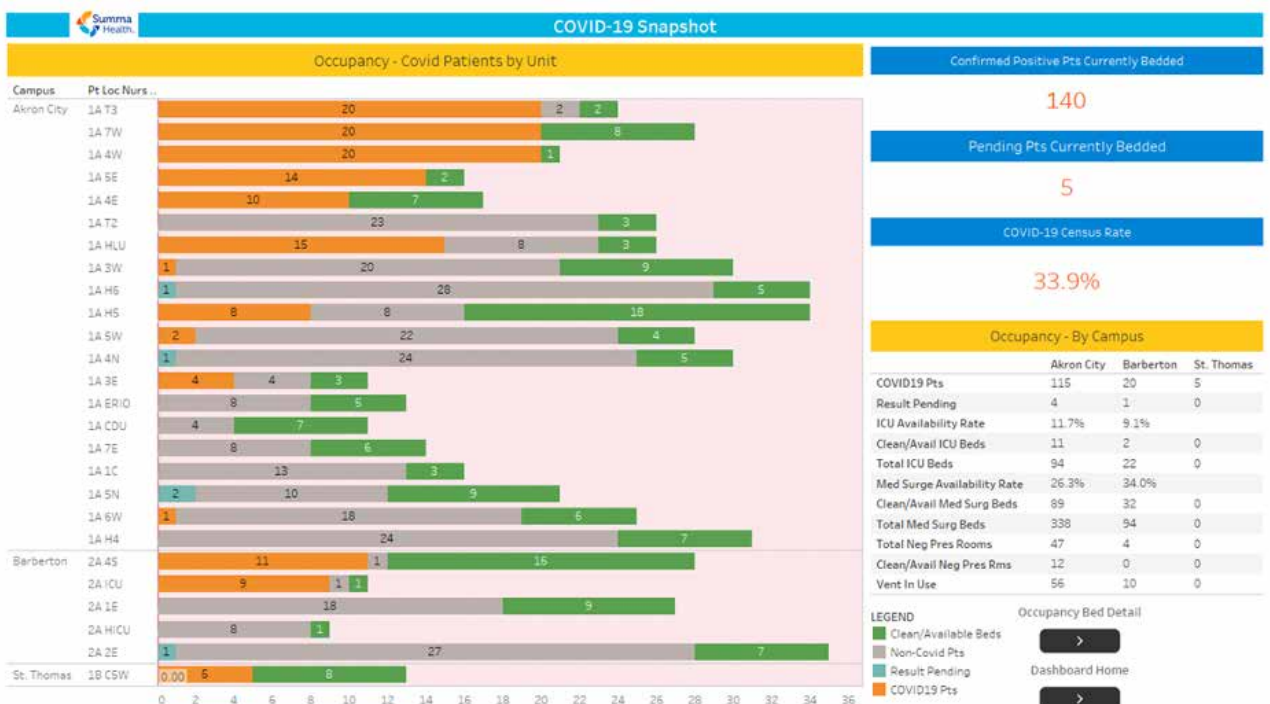
# COVID-19 Response

## Preparation

At the beginning of the pandemic, Ohio was not hit with high numbers of hospitalized patients. Fortunately, this, coupled with a shutdown of ambulatory and elective caseloads, gave Summa Health more time to prepare than harder hit health systems. We were able to learn from others' early successes and failures, and gather best practices as soon as they were presented within the medical community.

Summa Health's leadership team quickly organized under our Hospital Incident Command structure. This response team, still in place in 2021, directed and focused the work of many sub-groups through the rapidly changing needs and concerns of the pandemic. This group collaborated with state and regional governmental agencies and hospital associations to share resources and operational practices as well. Some early wins included:

- PPE Quartermaster program to ensure proper dissemination of equipment to staff
- Coordination of regional COVID patient transfer process by Summa Health
- Allocation of Scarce Resources committee to ensure fair and equitable treatment of all patients without bias or discrimination
- Creation of "COVID Quarterback" role for medical decision-making and triage for patients admitted from the emergency room
- Remodeling of space and construction of freestanding tents to prepare for treatment of patients while decreasing risk of exposure for patients and staff
- Creation of a real-time dashboard to track COVID admissions, testing, equipment and PPE availability and more
- Quick adoption of virtual technologies to keep patients in touch with their care teams and families in touch with their loved ones in the hospital



## Amazing Teamwork from Summa's Staff: We were "All In"

Early on, staff members who were displaced due to shutdowns assisted in the response efforts by working at temperature stations, teaching PPE donning and doffing to care teams, and learning new skills to provide "bench depth" to assist with potential surges and/or staff shortages. These activities set Summa up to be successful later in the year when indeed, hospital capacity and employee illness surged.

Communication and transparency efforts were critical to alleviate fears and misinformation amongst staff. Infection Prevention and Infectious Disease teams rounded daily to assist with questions and rapidly changing guidelines. Blog posts and intranet sites gathered updated information in one place for employees to reference.

Multidisciplinary committees and care teams evolved and matured as the fall/winter surge approached. All members of the Summa family pitched in and took ownership of one of the most important jobs we would ever do: taking care of our patients when they are most vulnerable. From Dietary, Nursing, Environmental Services, Information Technology, Human Resources, Administration, Quality, Facilities Management, Teaching programs/residencies, faculty, and Medical staff: everyone worked tirelessly to care for our patients and each other.

## Caring for Each Other: Employee Health



Summa Health's Employee Health (EH) was quickly called upon to support and protect our employees. Instrumental in Summa's COVID response efforts, key initiatives included:

- Transitioning furloughed employees into new roles
- Rapidly ramping up a COVID-19 hotline
- Setting up COVID-19 testing sites
- Implementing temperature screening stations
- Providing masks
- Administering respirator training and fit tests
- Preparing for vaccination efforts

**EH was worked around the clock to keep our Summa Health System employees safe and protected.** Their first call to action was to provide N95 respirator masks and fit testing to all front-line employees. To combat the PPE shortages, new mask types were purchased. The fit-testing process had to be repeated with each new mask type to ensure employees were properly protected from air-borne transmission. EH recruited staff from other departments, trained them on how to perform fit testing, and had them circulate night and day throughout the hospital to capture as many staff as possible. "Dofficers" were implemented to train staff and provide ongoing feedback on the important donning/doffing process of personal protective equipment.

The next line of business was to develop and implement temperature screening stations at the hospital campuses, the free-standing ED's, SummaCare and Corporate Office. In the beginning, all stations were staffed with furloughed or displaced employees. Scheduling, training and oversight of these stations was an immense responsibility. Without the devotion and hard work of the displaced employees, this would not have been possible, given the extremely short implementation timeline. What started as employee temperature screening stations evolved into a new department to our customers as we opened back up to visitation and outpatient visits. The stations took on more responsibilities such as delivering masks, helping patients/visitors find their way, and providing a calming voice during moments of customers' needs. Enforcing visitor guidelines was a difficult component of this job. Often times, our staff sat quietly with a visitor as they cried or made a phone call. The compassion displayed by this team during difficult times for patients and families was beyond commendable!



Akron Campus Employee Health RNs with respirator fit testing equipment

Inevitably, a portion of Summa’s employees also developed the COVID virus. EH worked collaboratively with Infection Prevention, Infectious Disease and Human Resources to develop policies for when to quarantine, test and return employees to work. EH nurses were trained to triage, assess and answer questions via a COVID-19 hotline. Policies changed rapidly as CDC guidelines were revised, and the team demonstrated superb agility in making these adjustments. In partnership with Quality Analytics, a new data collection system was rapidly developed to provide additional features for charting and reporting employee COVID-19 encounters. EH also worked with IT to develop a COVID-19 email address, to obtain laptop computers for remote working stations, and to set up a COVID-19 hotline room in EH.

As testing for the virus became more readily available, EH developed and immediately implemented testing processes. We trained our staff how to correctly perform COVID-19 nasal swabbing, which PPE to wear, and how to answer questions about testing. For much of 2020, this team performed these tests as a drive up service and worked in all extremes of weather conditions to provide this service in a convenient manner for Summa staff.

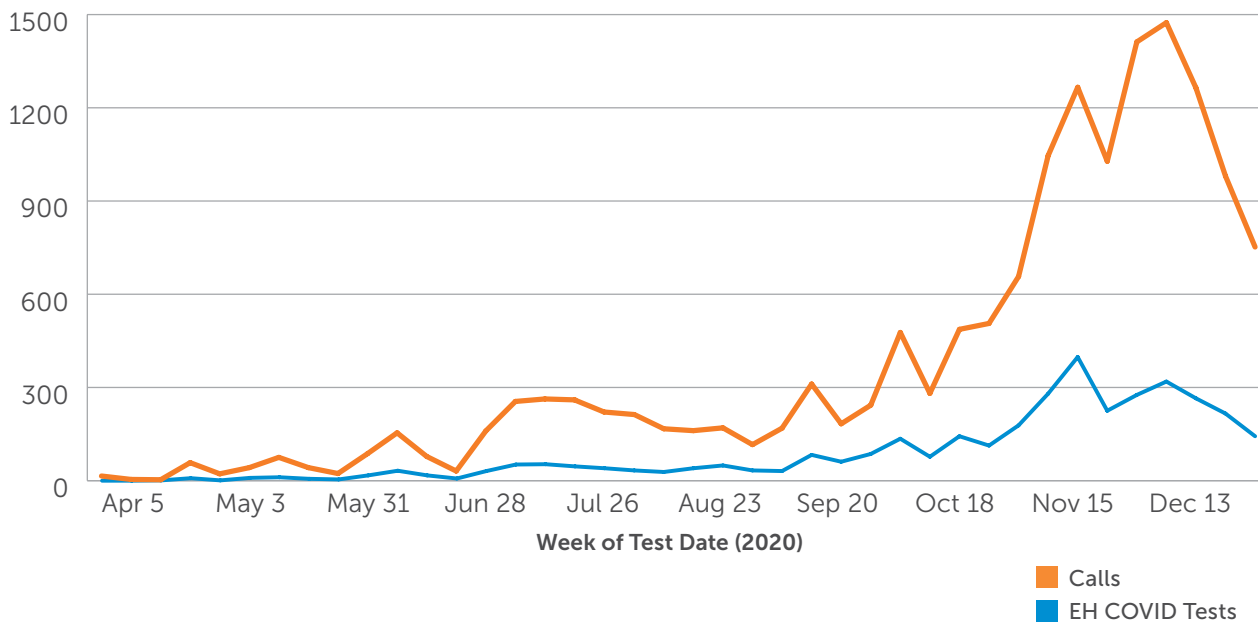
Along with testing came the responsibility of reporting test results to employees. Telling someone they tested positive for COVID-19 many times resulted in a panicked voice on the other end of the phone. “Oh no, I was just with my elderly father last night!” or “I have a baby, how do I stay away from her when I’m breastfeeding”? A ten-minute call would turn into a 30-45 minute conversation to calm employees down and help address their concerns of exposing their families and/or returning to work and exposing patients and co-workers.

During the fall surge, the COVID hotline received hundreds of calls daily. As call volume exploded, RN’s from several other departments stepped in to help. Again, EH worked with Infectious Disease to develop guidelines to enable employees in critical areas to return to work quickly and safely. We also collaborated with HR to implement new crisis hire policies to ensure new hire safety.

October, November and December yielded the highest volume of employee quarantines and positive tests. However, there was light at the end of the tunnel. We received our first COVID-19 vaccines just a few days before Christmas and excitedly administered our first vaccines to front line workers. It was satisfying to see relief flood over their faces and hear words of praise and thankfulness for the vaccine that instilled hope in so many.

We were successful, every step of the way, due to the collaborative efforts of hundreds of Summa employees pulling together to give their best!

### Employee Health COVID Test and Hotline Call Volume



2020	Qty.
Respirator Fit Tests	7,127
COVID-19 Tests	2,402
COVID-19 Hotline Calls	10,253
New Hire Exams	4,236





Dr. Thomas File receives his first dose of the COVID-19 vaccine.

## *"Necessity is the Mother of Invention"*

The physician leadership team of Drs. Eric Espinal, Tom Mark and Phillip Khalil seized an opportunity to work with community resources to build a prototype of an "intubation box" originally described in the New England Journal of Medicine by a Taiwanese doctor. This transparent plexiglass container provided clear visualization of the patient's mouth and throat while providing a barrier to protect the physician from an extremely risky process known to aerosolize viral droplets in an infectious patient. After several design improvements by a collaborative group of emergency, anesthesia and surgical physicians, 100 boxes were manufactured and delivered to regional hospitals and the Ohio National Guard. The Summa team shared this **technology and equipment** in an effort to protect all healthcare workers. Use of the intubation boxes had international research and Summa Health followed guidance from the CDC and the FDA on their use as the pandemic evolved.



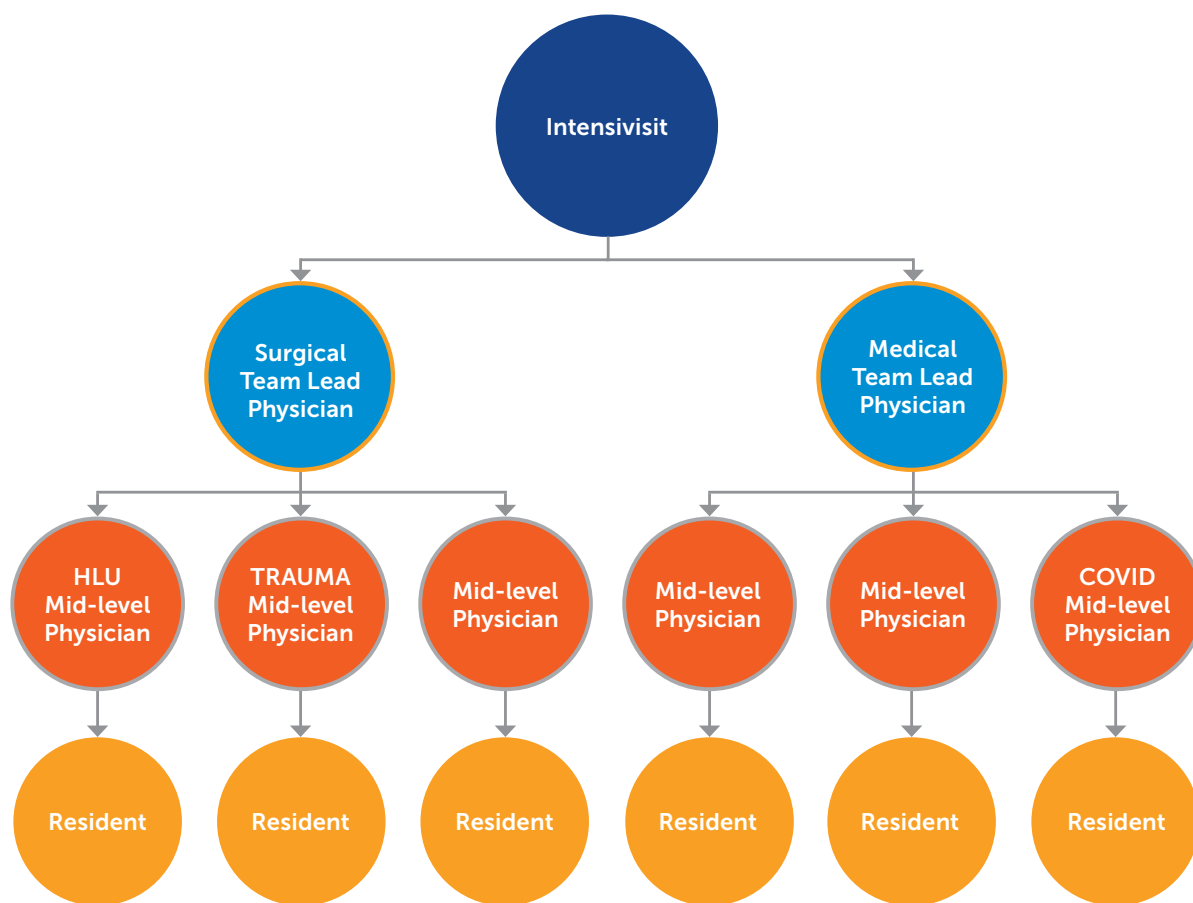
## ICU Incident Command

This subgroup of the organization-wide incident command structure was implemented early on in the pandemic. A multidisciplinary committee of care team and support staff members, this group met daily in the beginning as they solidified their roles and responsibilities. Regular meetings continued throughout the 2020 to discuss barriers to care and throughput as well as equipment and staffing concerns.

### ICU Staffing Pyramid

Like many groups during the pandemic, early successes focused in part on preparing for a potential surge of patients. One such preparation included completely re-designing the care team within the Intensive Care Unit to preserve PPE, care for an expanded case volume, and protect our caregivers and critical care physicians from the extremely high risk of exposure inherent to the ICU. After training and credentialing physicians for additional care duties, this model was trialed in April during our spring surge. The group learned from that process, and was able to improve upon the structure and staffing model prior to the fall surge.

### Summa Health System ICU Pyramid Model



### Testing and Isolation

As patient volumes began to surge in late fall, algorithms and processes were revamped to accommodate quicker and more accurate triage of suspected COVID patients. The ED triage algorithm is just one example of the collaboration of the interdisciplinary team to bring together guideline-directed decision making and operational throughput efficiencies to keep staff and patients protected from risk of viral exposure. In one document we were able to address several questions and provide clarification and standardization for the care team.

- Who gets tested?
- Where do they go?
- What isolation status do they get?



### Evidence-Based Care – Ventilated Patients

The evidence for standardized care protocols were constantly evolving as the pandemic progressed. Summa's physician and educational leaders consumed and disseminated breaking clinical trial data at a rapid pace. We frequently examined our own outcomes and process metrics looking for opportunities to improve upon the care we provided our patients. For example, we examined intubation and ventilation with several lenses. First, we wanted to know what we could do to improve the survival of ventilated patients. Results published in literature suggested that survival rates for ventilated COVID-19 patients is approximately 50%. Through November 2020, Summa's survival to discharge for patient requiring ventilation was 45%. Drilling in further, we found that patients who were intubated sooner in their hospitalization had a much better chance of survival. The care team used this information to improve their decision-making on the timing of ventilation (early vs later strategy).

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**Survival rates increased by 8% overall following the adoption of the early ventilation strategy.**

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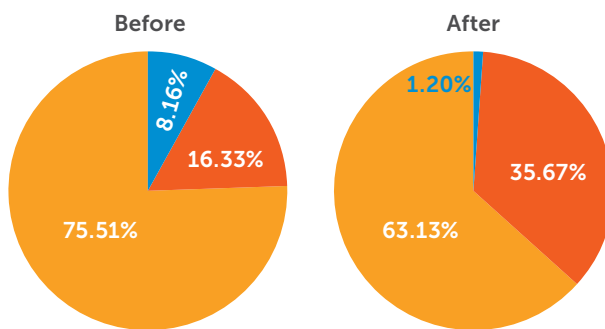
Further, by implementing early ventilation strategies and involving our palliative care team early in the care of our patients, we were able to decrease the ventilation days for patients, which points toward improved patient and family-focused care.

## Patient and Family-Centered Care

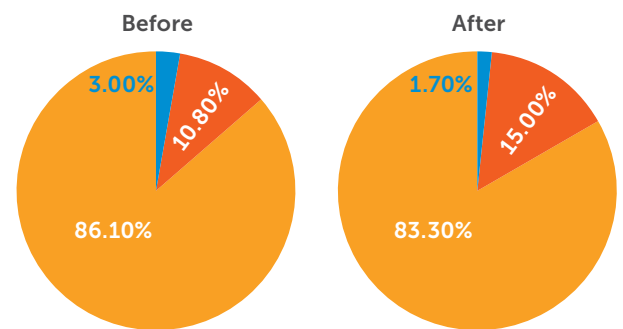
Hospital visitation was strictly limited during the pandemic. This new and unfamiliar scenario brought with it a different set of challenges to the care team. Typically, family members and loved ones can get updates face to face from doctors and nurses caring for a patient, but during the pandemic, many of the typical avenues of communication were disrupted. Summa adopted WebEx technology and purchased “i-Pads on wheels” to facilitate visitation and care team communication. During the fall surge, we developed a system to monitor documented provider family communication on the COVID units, which allowed support staff to ensure that families were getting more timely updates on their loved ones.

To facilitate patient-centered care, our Palliative Care specialists worked with external nursing home facilities as well as internal care teams to improve the documentation of code (DNR) status on incoming hospital patients. Collaborating with these facilities, we were able to improve the known status on all patients, but especially those coming to us from nursing homes and extended care facilities.

**Code Status on Admission for Patients Admitted from a Facility**



**First Code Status All Inpatients**

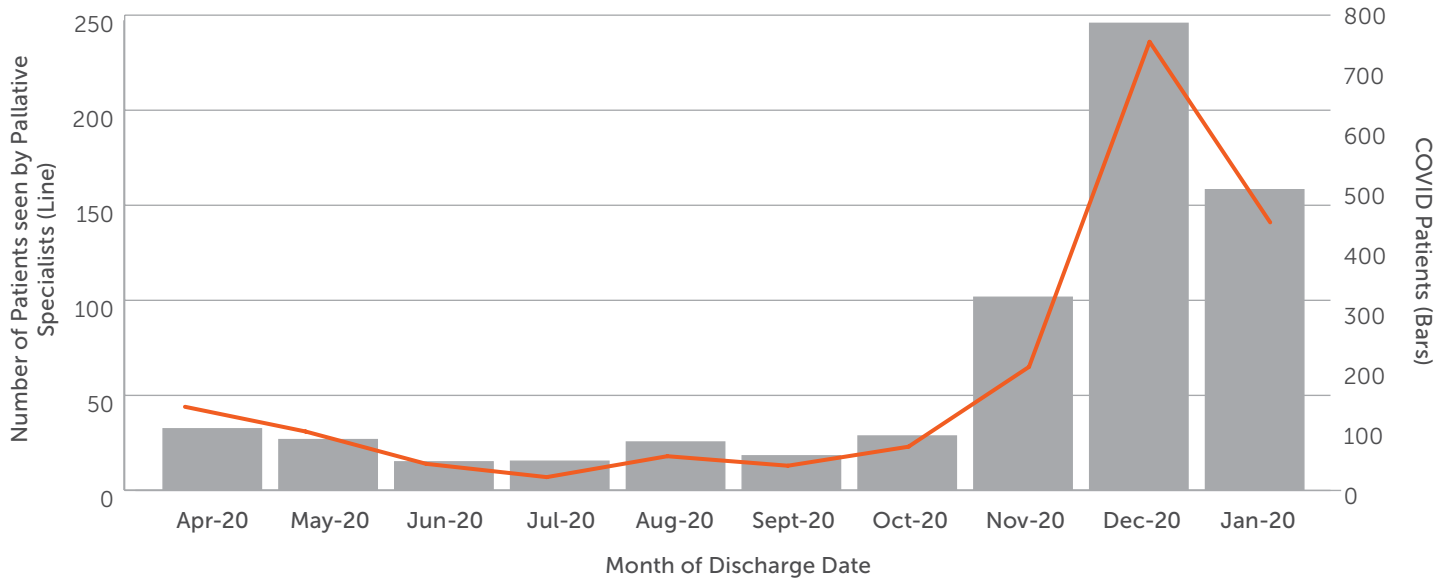


Blank	4	6	16	52
Full Code	37	315	453	2,574
Limited Code	8	178	57	464

The Palliative care team doubled down their commitment to helping our patients and their families through this very difficult journey during the fall surge. While the group of palliative specialists did not change in number, they increased their COVID caseload by 800% to assist in family communication, symptom management, and end of life goals of care discussions and decision-making.

**This service was extremely valuable to our patients, families and care teams, and made a difference in our ability to continue high quality care during periods of extreme volume.**

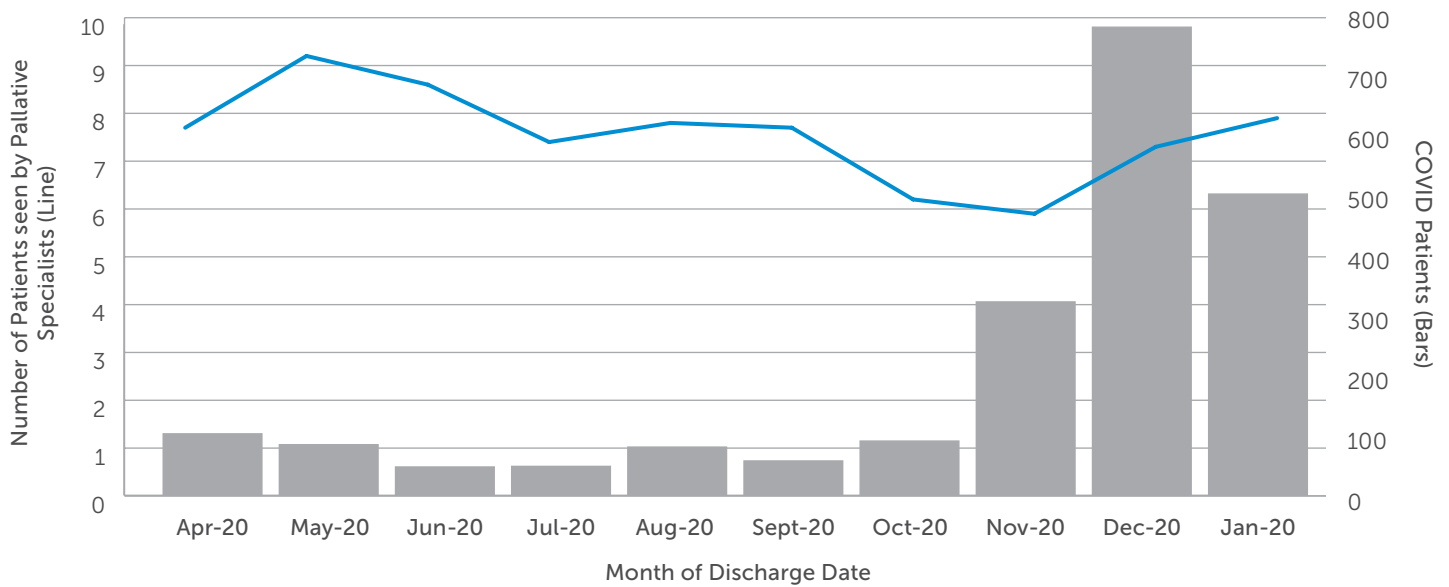
### COVID-19 Palliative Consults vs COVID Volume



### Holding steady during the surge

Early preparation and interdisciplinary team building paid off during the fall surge. Established teams were well-oiled and demonstrated unprecedented levels of agility as volumes and patient acuity spiked. Application of lessons learned earlier in the year, along with utilization of sharpened IT and analytics structures supported our care delivery models and facilitated outcomes of which Summa can be proud. Despite significant spikes in volumes, length of stay, total ventilation hours and mortality rates did not rise, and in fact, at time were lower than during earlier months.

### COVID Length of Stay vs COVID Volume



## Nursing

### COVID-19 Response

Before we knew there would be a global pandemic, the World Health Organization (WHO) had already declared 2020 the **Year of the Nurse** with the intention to highlight nursing's immense contributions to healthcare and the challenges they face. No one could have predicted how much truth that declaration would hold. To say 2020 was a challenging year would be an extreme understatement. But our nurses at Summa Health rose to the challenge and, in accordance with Summa Health's mission, continued to provide high quality, compassionate care, even while facing uncertainty about what the future would hold.

As the COVID-19 pandemic unfolded, it became clear that the need for nurses was never greater. Some worked on designated COVID floors, some were re-deployed to other areas when their home department closed or reduced capacity, and some took on patient populations that they did not typically see. No matter what role they played, there is no question that every nurse at Summa was critical to our disaster response. They became the lifeline between frightened patients and family members when visitation was restricted or prohibited, and they graciously took on the role of surrogate family since they were often the only ones present to hold a patient's hand and provide comfort when they were scared, lonely, or even dying.

When faced with challenges, nurses are historically well known for their ability to think outside the box and develop innovative solutions. One of their core roles is creating interdisciplinary bridges and effective teamwork. As frontline professionals, nurses were key stakeholders in developing and implementing policies and standards of care during our response to the COVID-19 pandemic at Summa. Their involvement within Summa teams was integral to identifying and redesigning processes to address this new population of patients and their quality issues, as well as protect the caregivers.

### Prone Positioning

To improve ventilation and increase chances of survival, rotating beds have been successfully used for prone positioning in our patients with acute respiratory distress syndrome. With the influx of critically ill COVID-19 patients in need of prone positioning, there were not enough of those beds available. A new process to accomplish manual prone positioning in our COVID-19 population had to be developed quickly. A task force was formed and best practices were examined by nurses from critical care areas. With both staff and patient safety at the forefront, a new method to manually accomplish prone positioning was developed and disseminated through live demonstration as well as a video that was created. In the absence of the safeguards afforded by rotating beds, this task force also incorporated skin protection into the new process. Various offloading aids were utilized to eliminate or minimize pressure injuries from endotracheal tubes, indwelling catheters, and at bony prominences.



Linda Kremer, Liz Protain, Cindy Towne, Rebekah DeVore, Kyle Anderson, Kyle Leskosky and Kylene Mesaros help with just-in-time training for manual proning by developing a video of the process.

## IV Pumps Outside of Patient Rooms

To preserve scarce personal protective equipment (PPE) and limit staff exposure, extension tubing was used to externalize IV pumps into the hallway. This allowed nursing to titrate sedatives and vasopressors without having to enter the patient room. This also reduced alarm issues since they were able to hear the alarms easily, and respond quickly without having to go into the room. Nursing staff innovatively used securement devices to keep the tubing off of the floor, mitigating infection risk.



IV pump externalized to hallway

## Code Blue Backpacks

Code team personnel sometimes respond to areas of the hospital where PPE is not readily available, and where the infection status of the patient or visitor may not be known. To ensure the safety of the caregivers in these situations, backpacks containing critical PPE were assembled. Each backpack contained several sets of gowns/coveralls, gloves, and goggles. A designated team responder was responsible for bringing the backpack with them to the location of the team.



## iPads to Facilitate Communication

To support patients and families during times of restricted visitation, iPads were deployed to all nursing units. The deployment also included just-in-time training on the workflow so that nursing could help coordinate video visits between patients, families, and care providers. This also helped to preserve PPE since some consultations were able to take place virtually, eliminating the need for the consultant to don gowns and goggles.

## Skin Care Kits

When caregivers began to suffer pressure ulcers from donning multiple layers of protective gear for hours at a time, skin care kits were assembled and distributed. The kits included barrier film wipes and moisturizing barrier cream, with an attached card highlighting skin care tips during extended N-95 mask use. Also included was a small bottle of anti-fog solution since fogging of glasses and goggles was a frequent problem. Unit directors were provided with foam dressings to use for staff who had already developed breakdown.



Other initiatives for combatting COVID-19 included multifaceted training to ensure safe donning and doffing practices, clear intubation enclosures for staff safety during intubation, and intubation supply and medication bags for COVID-19 intubations to prevent waste. These, and many other innovative approaches to patient care during the pandemic ensured we were able to uphold our commitment to provide high quality, compassionate care, while also positively impacting our nurse-sensitive quality indicators. Going forward, our teams will continue evaluating these care standards based on the knowledge we gain about the virus as we continue to care for patients.

There is no doubt that nursing, and healthcare in general, will come out on the other side of this pandemic stronger and more prepared to handle future challenges. Many of our successes during this unparalleled health crisis were due to our excellent clinical nursing workforce at Summa Health. Through their interventions each of our patients was ensured the best possible care experience.

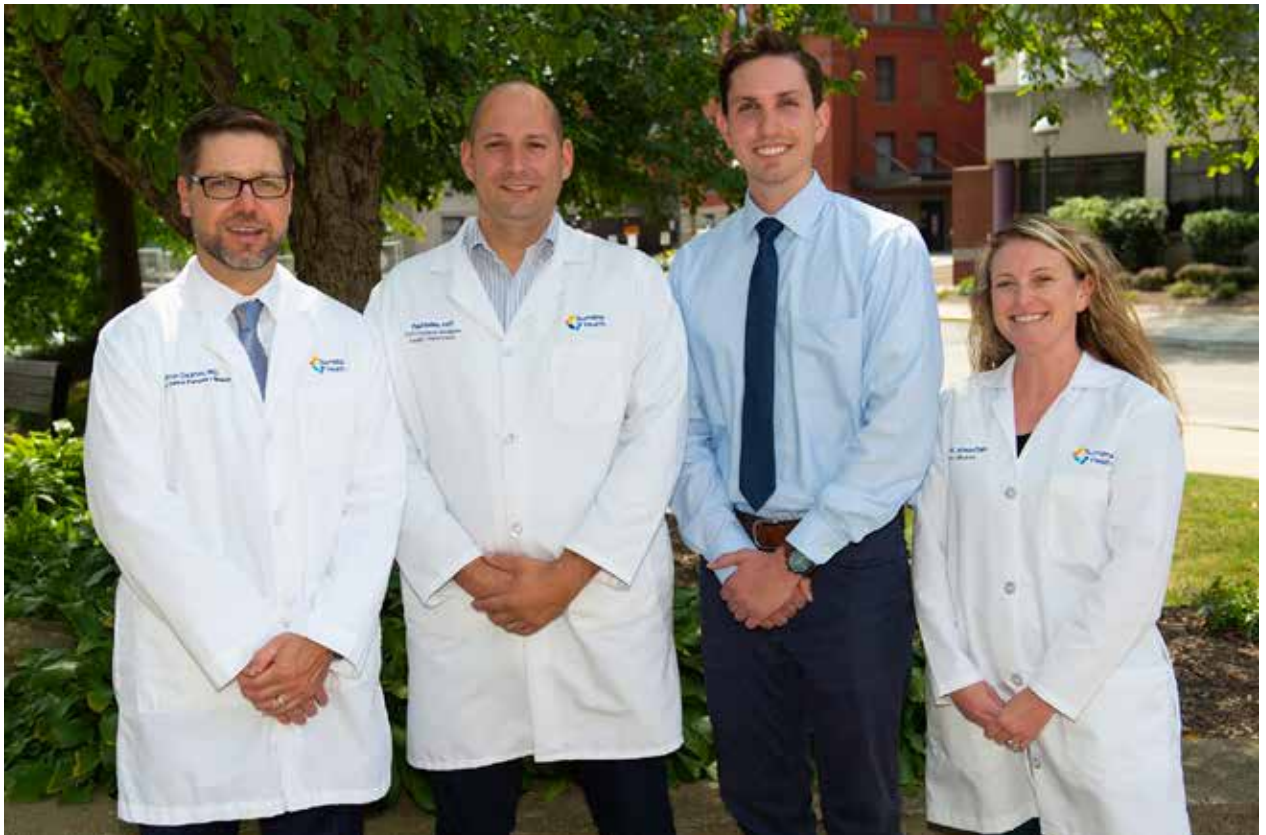
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**We want to thank each and every nurse at Summa Health for their hard work and tireless efforts during these challenging months. You are appreciated more than you know!**

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# Summa Health System Hospitals

## COPD Disease Management



**Brian Bauman, M.D.; Paul Bailey, RRT, COPD/Asthma Navigator; Timothy Johnson, BSHIM, Data Analyst; Sarah Serb, APP, Pulmonary Program Coordinator**

Chronic Obstructive Pulmonary Disease (COPD), which includes chronic bronchitis and emphysema, is a progressive lung disease that leads to airway obstruction and difficulty breathing. Most commonly it is caused by smoking. Those 40 years or older with a 20 pack year smoking history have a 1 in 5 chance of developing COPD. It is the third leading cause of death in the United States. Due to its chronicity, progressiveness and effects on other disease states, such as heart disease, it remains a burden to the community and health system as patients require long-term disease management and at times hospitalizations for acute exacerbations of the disease. There is no cure for COPD, however, it can be controlled and progression can be slowed by developing and following a plan of care with a pulmonary provider.

Despite the challenges encountered throughout the pandemic in 2020, Summa Health remained focused on providing the highest level of quality and compassionate care to those patients with COPD. In 2020, care coordination continued to be the primary focus of our patient-centered program. Building on previous years' work and initiatives, including the COPD Home Intervention Program (CHIP) and implementation of the COPD Care Pathway, a new multidisciplinary team of healthcare professionals has emerged to take the lead of COPD Care at Summa Health.



A dedicated team of experts including a COPD Clinic Coordinator, COPD Navigator, Pulmonologists and Advanced Practice Providers (APPs) collaborate to diagnose, treat and manage ongoing care related to COPD across Summa Health’s care continuum. In particular, we have focused on transitions of care between the hospital and outpatient settings. Care for these patients continuing into 2021 can be centralized to a developing COPD Clinic which is an outpatient based clinic focused on new or ongoing care of patients with COPD. Here, patients can meet with a provider to discuss disease management, develop an individualized plan of care, and be provided with access to resources such as virtual smoking cessation courses, pulmonary rehab and home care services with CHIP. They will also be provided with contact information for our Clinical Access Center if they have questions or concerns after office hours which can be directed to the appropriate provider for review.

The COPD Care team continues to work collaboratively across the health system in order to promote positive clinical outcomes for patients with COPD. Our goal is to improve the quality and access to care provided to our patients through a hospital to home approach, which positively impacts patients’ outcomes and decreases hospital admissions and readmissions.

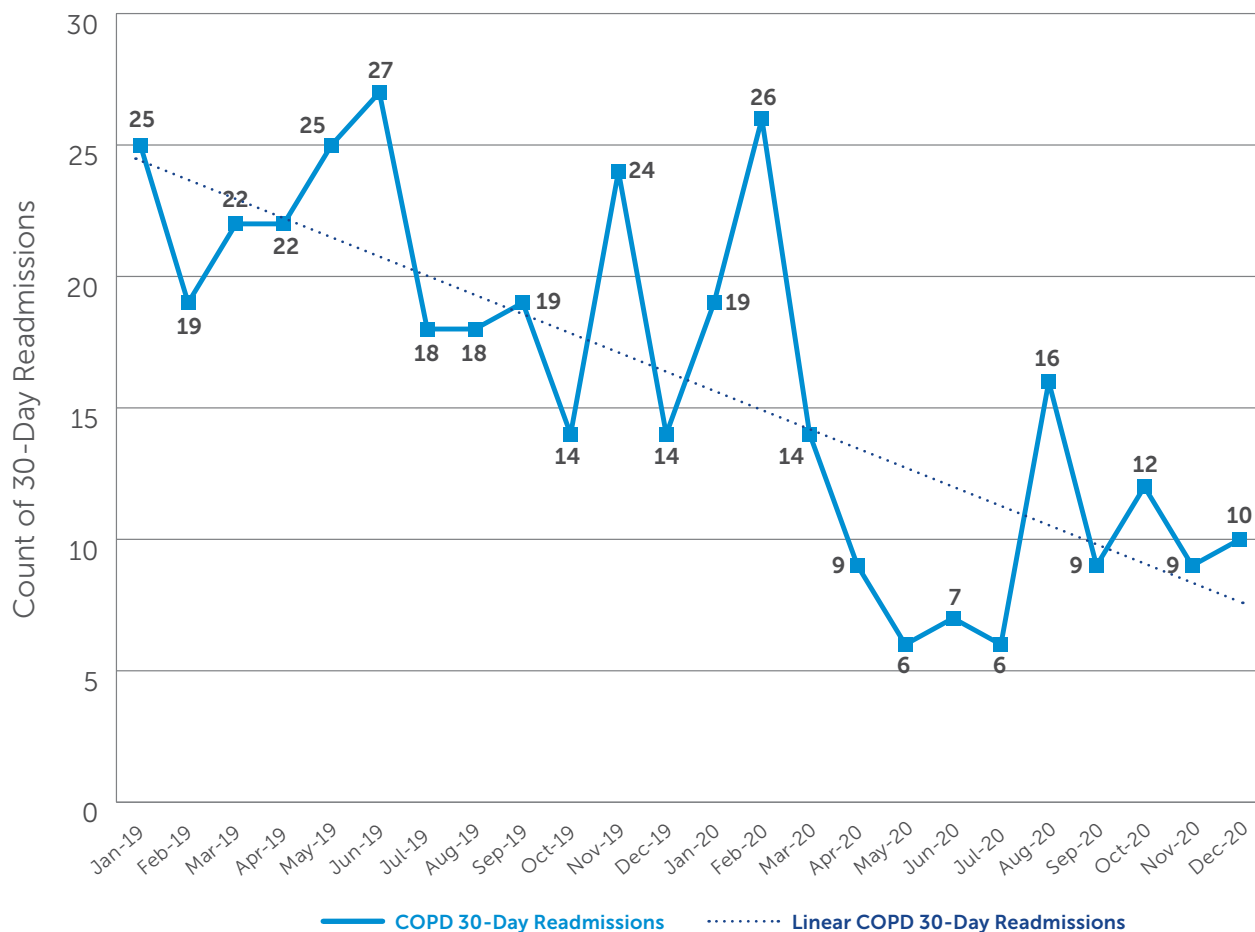
To achieve these goals, the quality team has been and remains an integral part of our efforts by providing us with data and tools to highlight the specific needs of our at risk patients. Data includes a developing COPD dashboard to identify high risk patients. The role of the COPD Navigator has become important specifically in the inpatient setting to intervene, educate, encourage consultant involvement, and arrange outpatient follow-up for these patients. With the addition of these ongoing initiatives, the team has expanded opportunities to provide more timely interventions and avoid hospitalizations.

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**Through our efforts in 2020, COPD readmissions have trended downward and solidified our standing as a Healthgrades “100 Best” hospitals in Pulmonary Care and Five-Star award for treatment of COPD.**

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**Summa Health System COPD 30-Day Readmissions**



## Department of Surgery, Division of Trauma



### Quality Moment

By Eric A. Espinal, M.D., FACC, FACS  
Vice President, Surgical Affairs  
Chair of Surgery

In December 2020, a young couple from Green brought home twin newborns. Breastfeeding two babies, caring for their other two children (ages 4 and 7), and the rest of life made for a very busy household!

On a Sunday night, five days after coming home from the hospital, disaster struck. Mom collapsed — pulseless. Her husband found her and immediately called 911 and started CPR. When paramedics arrived, CPR continued as the patient was rushed to Summa Health. Upon arrival to our ED, the patient was revived by an incredibly seasoned and talented team. She was diagnosed with an ST-elevation myocardial infarction (STEMI), or heart attack. A “Code STEMI” was called, which activated the on-call team of staff and physicians from the Cardiac Catheterization Lab to come in from home for an emergent diagnostic heart catheterization and likely stenting procedure. The emergency physician simultaneously resuscitated a patient who had received CPR for 45 minutes and mobilized the interventional cardiology team. The critical care medicine team responded and worked feverishly to achieve some semblance of stability, which is extremely difficult when the initial blood pH is 6.8.



The cardiology team performed a heart catheterization and made the diagnosis: postpartum spontaneous coronary artery dissection involving the left main coronary artery and affecting all of the vessels supplying the left ventricle. In the meantime, massive amounts of blood-tinged pulmonary edema foam (from fluid in the lungs) filled the artificial breathing tube and all of the ventilator tubing, which made getting oxygen to the patient’s lungs extremely difficult.

We mobilized our operative team and rushed her straight to the operating room for emergency bypass surgery to stabilize the coronary artery dissections and restore blood flow to the heart. Our anesthesiology team worked with our critical care medicine team in the OR. Our cardiovascular perfusion team helped me get her on bypass quickly. My teammates, the nurses, technicians and first assistant worked with a level of professionalism that still inspires me after 28 years in surgery. Even after a technically successful triple bypass surgery, we had to implement ECMO (extracorporeal membrane oxygenation) to support her lungs, which were barely functional due to pulmonary edema.



Grace Ayafor, M.D.

After surgery, the arrival to the ICU was intense. The nurses, respiratory therapists, pharmacists, doctors, technicians and many others flew into action. Over the next week, our patient improved. She woke up. She did not have a stroke. Her lungs normalized. Her heart muscle was recovering. She went home and continued to improve.

We all witnessed a miracle. I also witnessed selflessness, intelligence, compassion, stamina, love and collaboration. I was able to see Summa Health at its very best.

The care that we all witnessed can happen best when our teams are inspired, happy and unencumbered. There are no protocols for caring. There are no requirements for undue sacrifice. This care happened because individuals pooled together collectively when times were difficult. We have all seen the same selflessness during the pandemic.

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**When the situation becomes difficult, we can come together to achieve amazing things.**

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## 24/7 STEMI Coverage

Summa Health provides treatment for patients suffering from heart attacks 24 hours a day, seven days a week on both the Akron and Barberton Campuses. In 2020, we provided this emergent care to more than 230 patients. Summa provides this life-saving treatment 37 minutes faster than the goal set by the American College of Cardiology of 90 minutes. When every second counts, Summa's cardiology team is ready!

In 2020, we also expanded our treatment of patients with pulmonary embolisms (PE) to include those that are classified as "massive PE" as well as "sub-massive PE". Per Interventional Cardiologist Dr. Mark Rea, "There is increasing evidence that anticoagulation alone is inadequate for the management of large pulmonary emboli, especially those with right ventricular strain and hemodynamic instability. There is also growing evidence supporting the use of interventional techniques to rapidly reduce the pulmonary thrombus burden and right heart strain, resulting in more rapid stabilization of unstable PE patients. We are working on strategies to more effectively identify and risk-stratify these patients to improve the management of this life-threatening condition."



**Mark Rea, M.D.**

Summa is currently on pace to double the number of patients receiving this minimally invasive treatment in 2021.

Finally, we also added a third Cath Lab on the Akron Campus this past year. This new procedure room adds additional space for us to provide minimally invasive treatment for patients suffering from peripheral vascular disease (PVD).

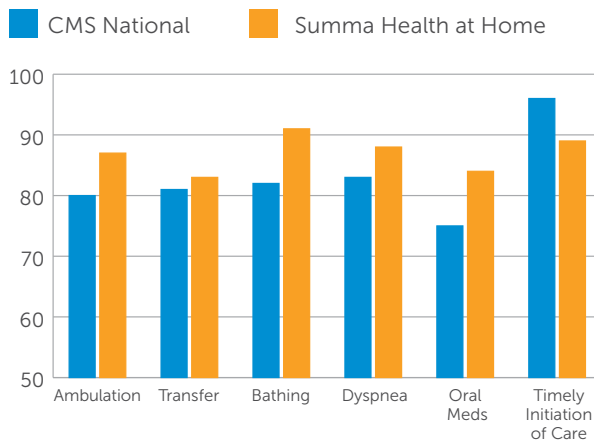
These procedures include peripheral angiography, venous thrombectomy for deep vein thrombosis, stenting and catheter directed thrombolysis.

# Summa Health at Home

## Star Rating ★★★★★

The Home Health Star Rating is a unique tool that consumers, providers, and other stakeholders are using to summarize current measures of home health providers' performance. Summa Health at Home has maintained a 4 Star rating. Our continued commitment for improvements in the Star Rating and patient outcomes are highlighted in ongoing initiatives:

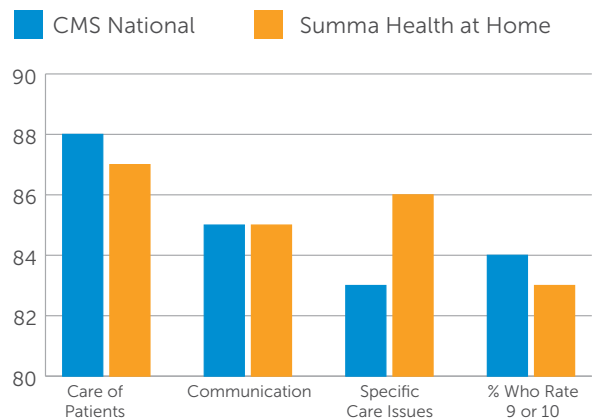
### Quality of Patient Care Star Measure



## Patient Experience ★★★★★

Summa Home Health is committed to exceeding the national average for patient satisfaction scores. Quality improvement initiatives are currently focusing on increasing our star rating to the maximum five-star rating and increasing the number of patients who would rate us a 9 or 10.

### Patient Satisfaction Survey Results



## Patient Care Navigation Program

Summa Health at Home proudly offers a Patient Care Navigation Program (PCN) to patients requiring extra support for their long-term or complex health conditions. Our specially trained PCN nurses work closely with our home care patients and their care teams to help manage their health conditions and work to achieve their personal health goals. The program is customized for each patient based on their learning preferences, health history, and lifestyle needs.

### Our PCN nurses help:

- Provide education on illnesses
- Identify resources to best manage care
- Give helpful tips and tools for your health care needs
- Provide over-the-phone assessments between your nursing visits
- Assist with making follow up appointments
- Manage health conditions and address changes in symptoms
- Assist patients in avoiding unnecessary hospitalizations

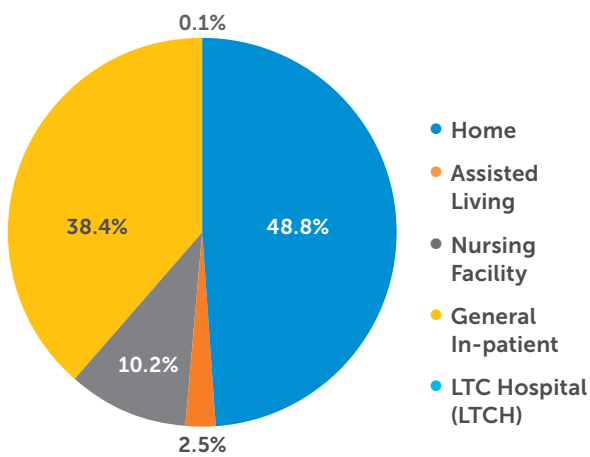
## Hospice

The first step in getting started on Hospice Services is receiving an order from the patient's doctor. Then, our dedicated team of hospice experts completes an evaluation to determine eligibility of the hospice benefit.

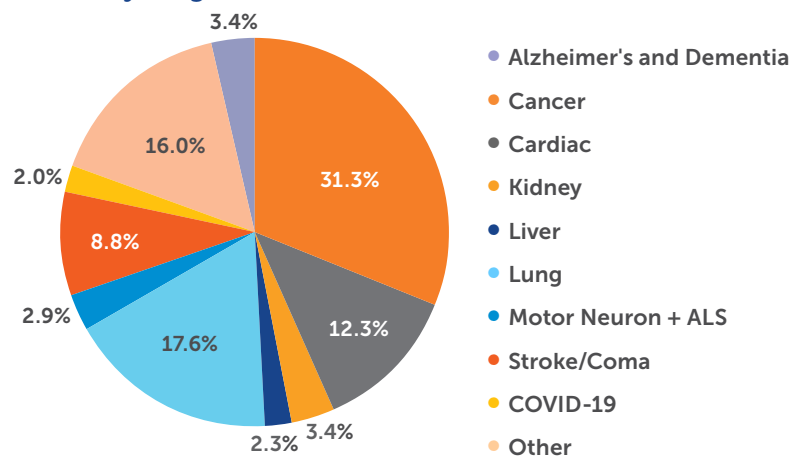
To be eligible, patients must have a terminal diagnosis and a life expectancy of six months or less. When a patient is determined to be eligible for hospice and elect to enroll, they are acknowledging that they'll be treated for comfort and quality of life, no longer seeking a curative approach.

Hospice provides care at many sites. Oftentimes, it's where you live like in your home, an apartment, assisted living, nursing home, or at a specialized site such as an inpatient facility in a hospital.

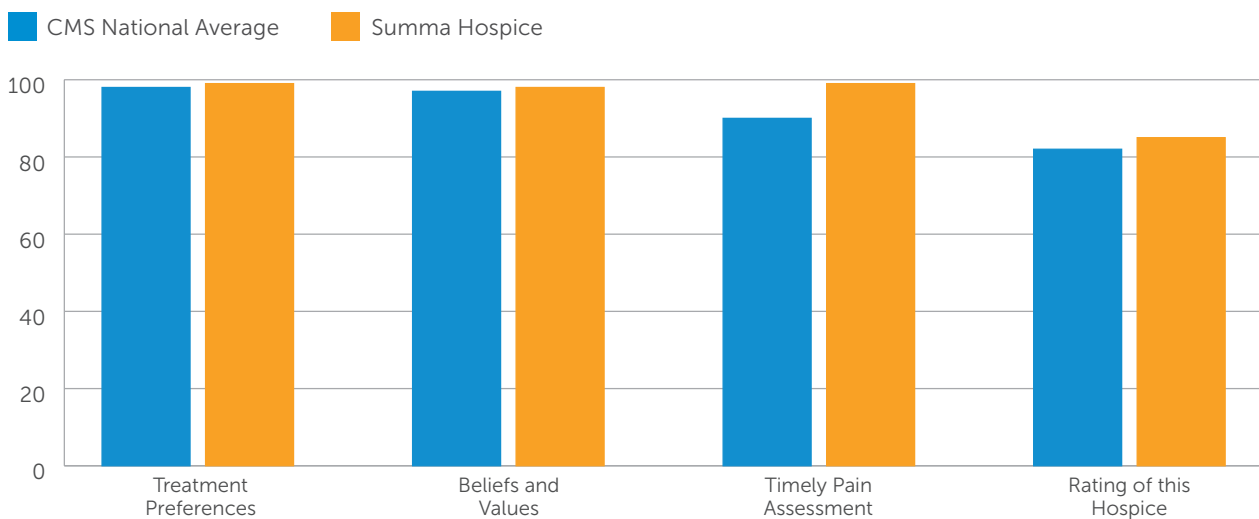
### Where Our Care Took Place



### Primary Diagnosis of the Patients We Served



### Summa Hospice, Quality Measures, 2020



# Summa Health Medical Group

In 2020, despite the COVID pandemic and the change to our lives as we knew it, Summa Health Medical Group (SHMG) innovated, navigated and worked through the challenges that not only healthcare faced, but our nation as a whole. SHMG continued to make significant progress towards our vision of building a high-performing, quality focused multi-specialty group. SHMG added 81 new providers and continued to expand numerous service lines and opened a variety of new facilities.

## Growth and Development

SHMG saw growth and development in multiple specialty areas as well as new buildings and suites.

- ENT, plastics, cardiology expansion of AFIB ablations, neuro-psych testing, orthopedics and sports medicine
- Podiatric care services were stood up at the IMC/FMC Residency Clinics
- OBGYN added pelvic health
- Expansion at Medina
- New medical services building in Tallmadge

## Neuroscience Growth in 2020

- Opened outpatient offices for general neurology located in Portage Lakes, West Market Street and 95 Arch Street
- Hired four outpatient neurologists and one Advance Practice Provider
- Hired one general neuro hospitalist and two inpatient practice providers

## Virtual Care

Early in the year SHMG expanded patient and provider care pathways in the virtual space. In second quarter, virtual visits via video and audio were established via Doxy.me and in October SHMG transitioned to the Epic Video Client, within MyChart, for scheduled video visits with patients.



## MyChart Activation

- 2020 saw an increase in the activation rates for the system and ambulatory in 2020 due to strategic plans and efforts as well as the MyChart video visit implementation in September.
- System activation rate increased from 30.7% in January to 41.3% in December
- Ambulatory activation rate increased from 40.2% in January to 52% in December

## Patient Experience

Summa Health Medical Group's goal is patient-centered care and working collaboratively with the patient to create a plan of care that meets their needs. Our team of providers and staff strive each day to meet the needs of our patients' and their families. In 2020, Summa Health Medical Group achieved its highest patient experience score in three years. The patients rated us above 92% that they would recommend the providers to others.

## Care Coordination

Care Coordination activities continued during COVID-19 with a focus on chronic disease management and social factors affecting health. Partnering with patients to make sure they took their medications as prescribed, follow-up phone calls to check home blood pressure readings or home glucose results and address concerns in a timely manner. SHMG primary care continued to add RN care managers for each office, and LPN support for calling patients after an ED visit or medication concerns. LISW and behavioral health teams followed up via telehealth with patients who had increased anxiety, depression or isolation during this time. These teams coordinate with community agencies and home health agencies to support physical and mental health of patients over the past year. A deliberate focus by teams to support patients in their homes and to identify community partners for additional resources needed like food assistance, ongoing transportation needs or housing.



## Medicare Annual Wellness Visits

Summa Health Medical Group continues to focus on preventive care for our populations. Medicare annual wellness visits (MAWV) are a vital component to overall wellness. In 2020, the group made MAWV available and conducted these visits via video on MyChart. Conducting these visits virtually allowed the group to reach patients in their homes for this preventive care visit. In total, 7,751 Medicare AWVs were completed.

## COVID-19

Testing for the COVID-19 virus was organized for the community via SHMG Urgent Care Centers. 3,275 COVID tests were administered at the SHMG Urgent Cares from November 23 through December 31, 2020.

SHMG behavioral health provided support and assistance for employees and caregivers across the system during the COVID-19 pandemic. The specialists and support staff in this specialty provided appointments, sessions and virtual options, covering a wide range of needs, throughout the pandemic.

The Long Haulers Clinic was quickly deployed and available to care for patients who contracted the COVID-19 virus and hospitalists assisted with caring for patients on the COVID Floors.

## Letter to Summa – COVID Impact Story “Quality Moment”

*I wanted to share some experiences that occurred during the COVID pandemic. I worked from my office at New Seasons with my providers and staff every day. I had a list of positive COVID patients to call and follow up on. The list would update three times a week and continued to grow for many months. I talked to patients how to stay safe at home and in the community to prevent the spread of COVID, and how to manage symptoms daily. Many times we discussed how risky it was for them due to their underlying chronic disease like hypertension, diabetes and obesity. Many people live in intergenerational living and we discussed staying safe across lifestyle and age continuum. I continued to call them till they felt better. I was always trying to give them the most updated information on COVID. It was very challenging since information from the CDC changed weekly. Many of my patients were hospitalized and I would follow them also after hospitalization. Our practice also participated in mass COVID testing in our area for patients too. Community health care workers for New Seasons helped patients find community resources for food or transportation during limited access. People were isolated and lonely. I learned a lot about people how tough and resilient they are, especially my coworkers.*

**Diane Galbraith, RN**



SummaCare received a rating of 4 stars (out of 5) by the Centers for Medicare and Medicaid Services (CMS). The annual star ratings help beneficiaries determine how well a health plan is performing in areas such as:

- How satisfied members are with the health plan
- How well the health plan detects and prevents illnesses
- How quickly and how well the plan handles member appeals.

Using Lean Six Sigma tools to implement process improvements across SummaCare, teams were able to deliver results leading to valuable, lasting change. Some of the areas of improvement include:

Data Source	Measure Name	2020 Star Rating	2021 Star Rating
CMS PDE	Medication Adherence for Hypertension	★★★★★	★★★★
HEDIS	Diabetes Care – Poor HbA1c Control	★★★★★	★★★★★
HEDIS	Colorectal Cancer Screening	★★★	★★★
HOS	Monitoring Physical Activity	★★★	★★★
HOS	Improving or maintaining mental health	★★★★★	★★★★★
CAHPS	Overall Rating of Health Care Quality	★★★★★	★★★★★
CAHPS	Getting Appointments and Care Quickly	★★★★★	★★★★★
CAHPS	Getting Care Needed	★★★★★	★★★★★
Appeals Data	Health Plan makes timely decisions about Appeals	★★★★	★★★★★

SummaCare’s Quality Improvement and 5 Star Committee continued to execute existing clinical campaigns that have demonstrated success and increased member outreach. By beginning campaigns early in the year, members had ample time to schedule appointments, screenings or tests. The exchange of information from high volume labs and EMR’s was improved to allow Condition Management teams to engage health plan members earlier to establish healthy lifestyle and behavior changes. Member satisfaction surveys were analyzed and action plans were implemented to improve member experience. Primary Care engagement has increased through regular communication and sharing member care gaps. These steps led to more members receiving appropriate screenings, vaccinations and interventions.



## Vendor Partner Spotlight: Medtronic — Healthy Home Monitoring

Deloise has multiple chronic conditions and needed help controlling them. She was able to stabilize her blood sugar and blood pressure with the additional support she received from being in the Health Home Monitoring program from Medtronic Care Management Services (MCMS), provided by SummaCare.

### How it works:

- Participants receive a tablet and monitoring devices
- Conduct routine health checks and answer a few questions
- Nurses support health checks and are alerted for concerns
- Nurses contact the patient and escalate issues to their care team as needed
- Routine well-checks from nurses

Says Deloise, “I get up every morning and check my blood sugar, then I go in and I do my health check. It takes about ten minutes.” She explains, “I put in my blood sugar numbers, and then I put on my blood pressure cuff. It tells me what my heart rate is, and I get on a scale and it tells me whether I’ve gained weight.”

### Deloise's Experience

In 2019, nurse Sara Wheeler reviewed Deloise’s data and noticed her blood pressure was dropping to ranges below those set by her doctor. Sara informed Deloise’s cardiologist, who then made a medication change that resolved the issue.

Another time, Sara saw that Deloise’s blood glucose was not under control. “She was having a terrible time monitoring her blood sugars because her fingers were calloused from finger sticks,” explains Sara. “I spoke with Deloise’s doctor about alternate approaches to monitoring blood glucose levels based on her treatment plan. Her doctor prescribed a continuous glucose monitoring (CGM) device that would monitor her blood glucose throughout the day without her having to prick her fingers.”

The CGM “[has] been a game-changer for her,” says Sara. “Both her blood pressure and her blood glucose have been within the ranges set by her doctor, but we still check in on her with courtesy calls to let her know we’re here to support her,” says her nurse.

Sara worked with Deloise on her eating habits to help stabilize her blood sugar and Deloise qualified for meal delivery services from Canton Akron Area Agency on Aging and Disabilities.

“Sara explained the importance of making sure I do the right thing for my health; she’s very helpful in answering my questions. She educates me about my symptoms when I feel dizzy; she encourages me.”





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The program helped stabilize her health and also brings her peace of mind during the COVID-19 pandemic. “Knowing that if something is not looking right, the nurse is going to call me. If needed, she is going to send it to my doctor’s office. This is comforting.”

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Deloise says working with Sara, and now Heather, has been so helpful. “They’re good listeners. It feels good to have someone there for me. I’ve always been the type of person who’s been there for other people. You don’t find too many people who have compassion and are willing to look at your needs.”

Healthy Home Monitoring is a voluntary program and you may opt out at any time by calling 866.581.3897 (TTY: 800.750.0750). Chronic conditions managed include: COPD, coronary artery disease, diabetes, heart failure, and hypertension.

*Medtronic Care Management Services is not intended as a substitute for, or alternative to, the medical care provided by a physician. Medical guidance and treatment decisions should always be determined by treating physicians or other properly licensed healthcare professionals.*



## Vendor Partner Spotlight: Papa — Health and Companionship with Papa

SummaCare is proud to be the only health plan in Ohio to offer an exclusive benefit with their Medicare Advantage Plans: Family On-Demand with Papa.

**Papa pairs older adults and families with Papa Pals for companionship and assistance with everyday tasks.**

"If you need a service like this you'd be wise to take advantage of it." -Deborah

SummaCare Member, Deborah joined the Papa Pals program to help with tasks limited by her physical mobility.



Pal Kandice has been a great support with everyday tasks. She and Deborah have even become great friends.

### Why do 96% of members Join and Stay?

\$0 Monthly Premium and Primary Care Copay	✓
Dental, Vision and Hearing Aid Coverage	✓
Over-the-Counter (OTC) Allowance*	✓
<b>NEW!</b> Travel Coverage	✓
<b>NEW!</b> Family On-Demand with Papa	✓

\*Available with most plans.



**Companionship:** You can have meaningful conversations by phone, virtually or in person.



**Technology:** You can learn how to use computers, smart phones, telehealth and how to access virtual care from your doctor and share on social media.



**House Tasks & Grocery Shopping:** A Pal can perform light housekeeping, shop for your groceries and deliver them to your door.



**Healthy Living:** Your Pal can schedule doctor appointments and preventive screenings and get prescription refills.

**Connect with us to learn how to get your own Pal or to enroll in this benefit at no cost today.**

 **800.801.2516 (TTY 800.750.0750)**

 **[summacare.com/shopmedicare](https://summacare.com/shopmedicare)**

SummaCare is an HMO and HMO-POS plan with a Medicare contract. Enrollment in SummaCare depends on contract renewal. H3660\_21\_251\_M Accepted 05162021

# NewHealth Collaborative

NewHealth Collaborative (NHC), Summa's Accountable Care Organization, was founded in 2012 with the simple premise of delivering the right care at the right time in the right place for the right cost. Strategically, this was achieved by focusing on two things.

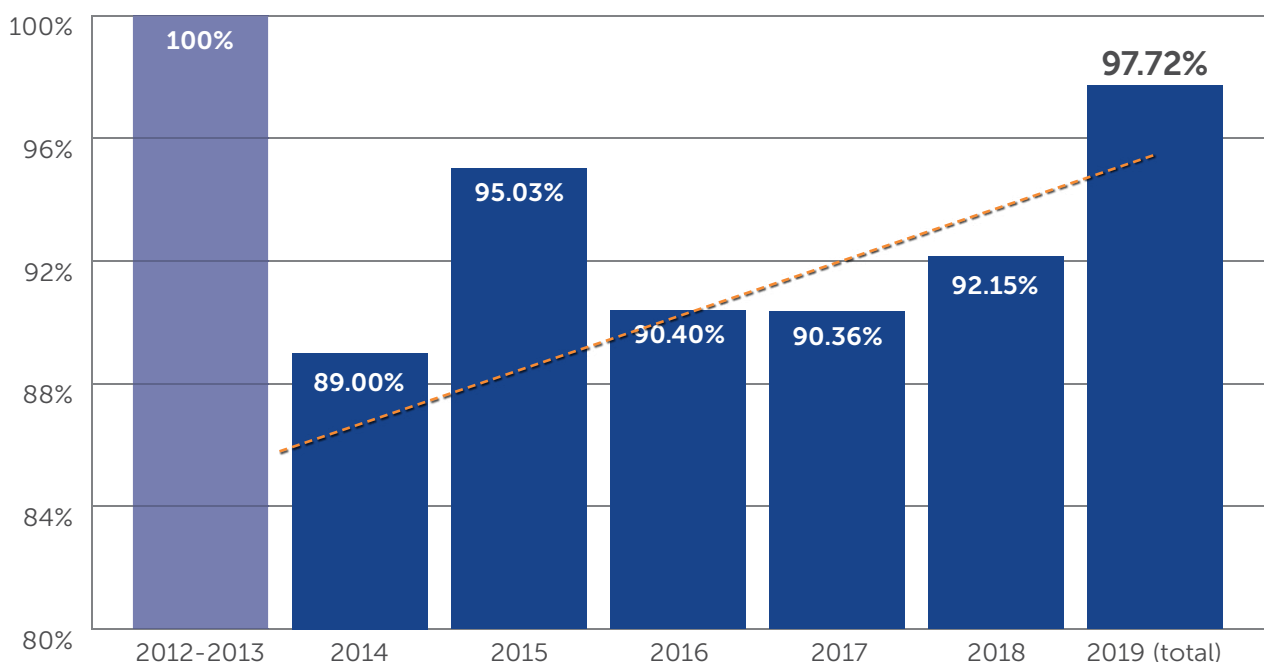
The first: transforming primary care practices into Advanced Primary Practices, where proactive, team-based care is the norm. Second: leveraging the power of embedded, highly engaged nurse care managers at the site of care.

All of this sits on top of a culture of shared care, where our providers work hard to share data and information about our patients. The result has been seven straight years of savings for CMS – we are one of only 33 ACOs in the country to have achieved this level of success. CMS Medicare Shared Savings (MSSP) results are reported in the following year. The 2019 program year results were received in 2020. As of this writing, the 2020 CMS Medicare Shared Savings (MSSP) results are not available.

## NewHealth COLLABORATIVE

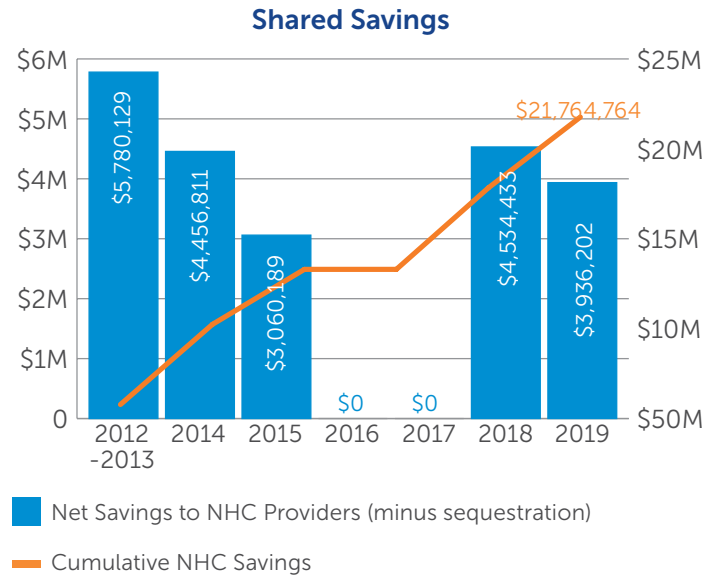
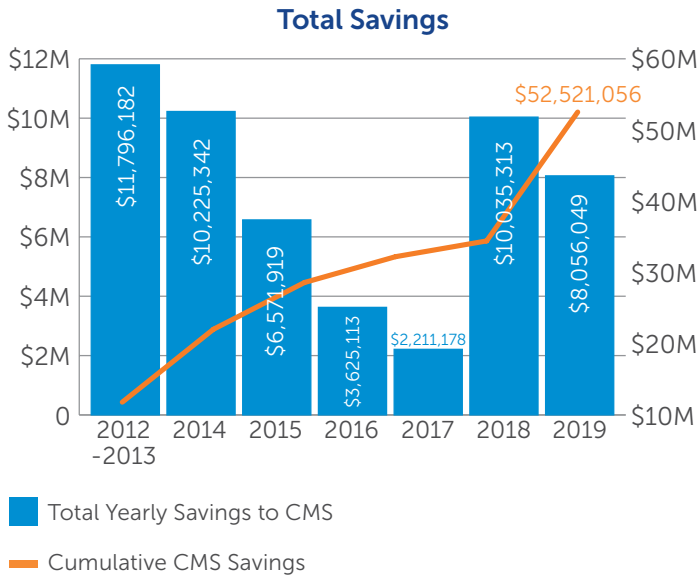


MSSP Quality Score by Year



Note: Data from data.cms.gov; 2012-2013 quality score was for reporting only, not for performance

## MSSP Financial Performance



## Disruption in 2020

The 2020 coronavirus pandemic presented numerous challenges for care delivery. Change management skills were put to test with rapidly changing workflows in order to provide care in a manner which was safe for patients and for staff. In the early months of the coronavirus pandemic, many practices transitioned quickly from in-person to telehealth and telephonic visits. This created challenges, in particular for patients with chronic conditions. The patient-centered medical home (PCMH) model, centered on the relationship between the care team and patient, provided a solid framework for practices to identify high risk patients and maintain patient outreach to care for those needing ongoing follow-up and care coordination. NHC nurse care managers also assisted practices in contacting patients to assess needs and connect them to needed care and resources.

## Examples of How NHC Supported Practices and Patients in 2020

In early 2020, NHC surveyed practices to assess understand priority needs and the types of support that would be most needed as the pandemic was impacting practice operations.

### Education and Resources

- Multiple network communications were shared from James Dom Dera, M.D., FAAFP, NHC Population Health Medical Director on a variety of topics including virtual visit (telehealth) implementation, NHC contract payer guidance for virtual visits, COVID guidance and workflows for ambulatory care, system updates on services such as outpatient testing, elective procedures as well as clinical guidelines.

- Helped to connect community practices to access PPE resources.
- Network Advocates facilitated community practice staff to receive COVID-19 vaccinations at Summa.

### Primary Care Transformation

- The Transformation Team aligned NCQA PCMH requirements with care delivery priorities during the pandemic, for example:
  - Access:** Assessment of patient preferences and satisfaction with telehealth; review of in-basket management workflows and triage to provide timely clinical advice; re-assessing supply and demand for same day appointments (either virtual or in-person).
  - Quality Improvement and care gaps:** Identifying actionable opportunities to improve quality metrics; modifying pre-visit planning and team communication workflows for telehealth. Examples of quality metric improvement projects include: diabetes metrics (addressing deferred care) and colorectal cancer screening (including tactics for shared decisions considering home screening options, when appropriate), breast cancer screening (outreach addressing deferred care).
  - Care Coordination:** Reviewed/enhanced workflows including referral management, and lab and imaging follow-up, proactive transition of care identification and follow-up following emergency room and inpatient stay as well as outreach to address deferred care.

### Value Based Contract Care Gap Closure

- NHC analyst assessed value-based contract performance for care gap opportunities and researched evidence of care gap closure and forwarded documentation to NHC payers to improve accuracy of quality performance measure reports.

## Care Management

Although removed from the practice and home settings, our care management teams quickly changed their workflow and engaged with patients in a different manner during COVID. Collaborating with community-based organizations surrounding new methods for care delivery became the new focus to continue to trouble shoot and manage patients. Patients still needed support and guidance in understanding their disease state and learning to adopt new habits to promote self-management.

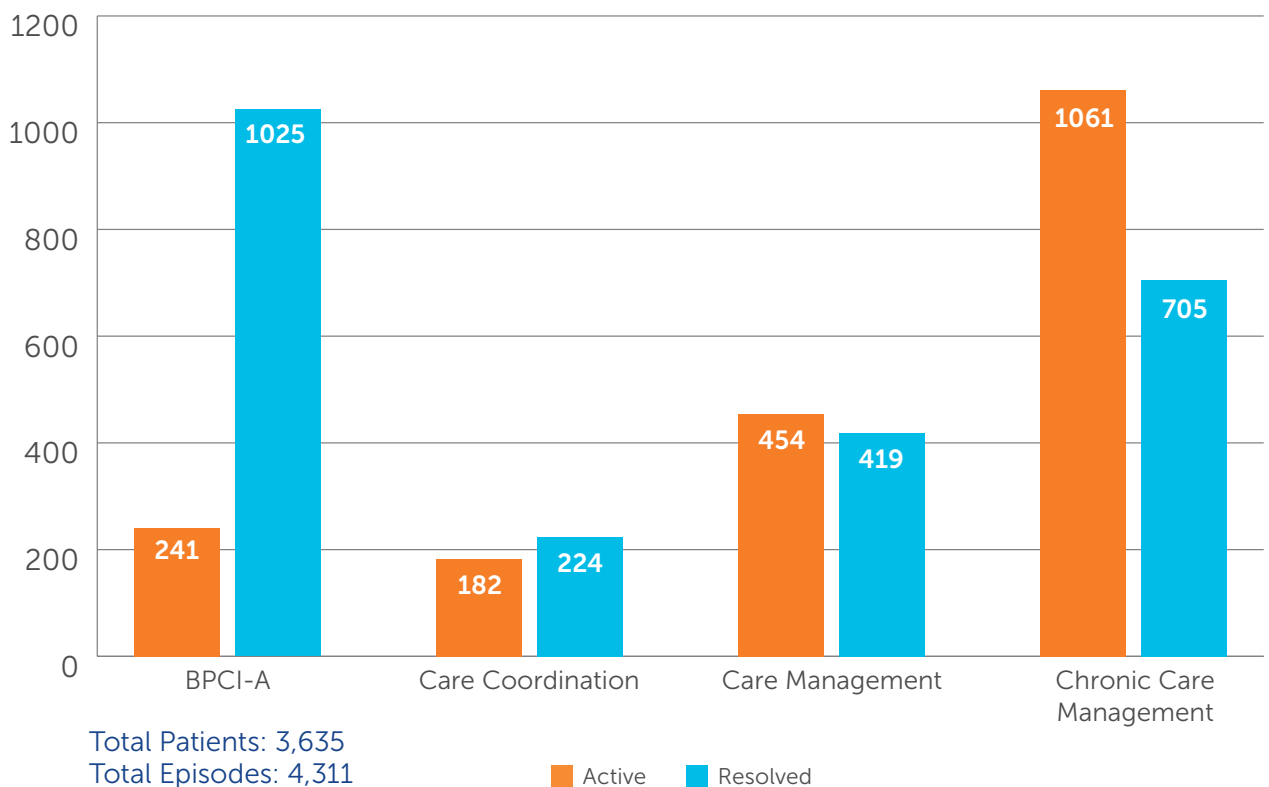
### Care Management Areas of Focus

- COVID Assessment and Follow Up
  - Identify patients following discharge from the hospital to ensure a safe transition home or to their next level of care.
  - Work with our NHC payers to identify patients with a recent diagnosis for monitoring and tracking purposes.
  - Identify ongoing SDOH needs for patients with limited support systems during the pandemic and connect them with community-based organizations.

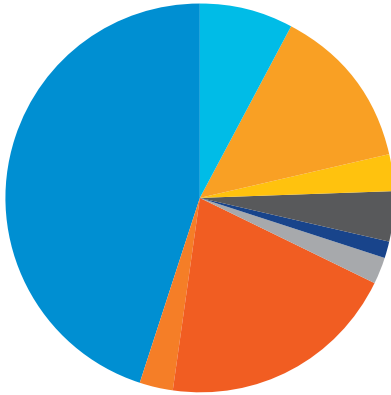
- Care Management/Chronic Care Management
  - Continue to outreach to high-risk patients to assess social, emotional and physical care needs
  - Provide telephonic and virtual care management support.
  - Provide care navigation for health system and community resources
  - Establish Care Plan and monitor patient stated goals working towards disease management.
- Bundle Payments
  - Monitor patients for a 90-day period following discharge from the hospital.
  - Ensure follow up with PCP or Specialist both internally and externally from Summa.

Care Coordination, navigation and addressing SDOH needs continue to be on the rise for patients in Care Management. We must address the situations that get in the way from allowing patients to focus on disease management. The following provides an overview of these activities during 2020.

**Episodes of Care Management 2020 (As of 12/13/20)**



## Care Coordination/SDOH Activities 2020



- Transportation - 40
- Medication - 71
- Financial - 16
- Access - 21
- D/C Error - 7
- Advanced Care Planning - 12
- Establish Follow-up Care - 102
- Home Health Care Visit - 15
- Follow-up Activity - 230

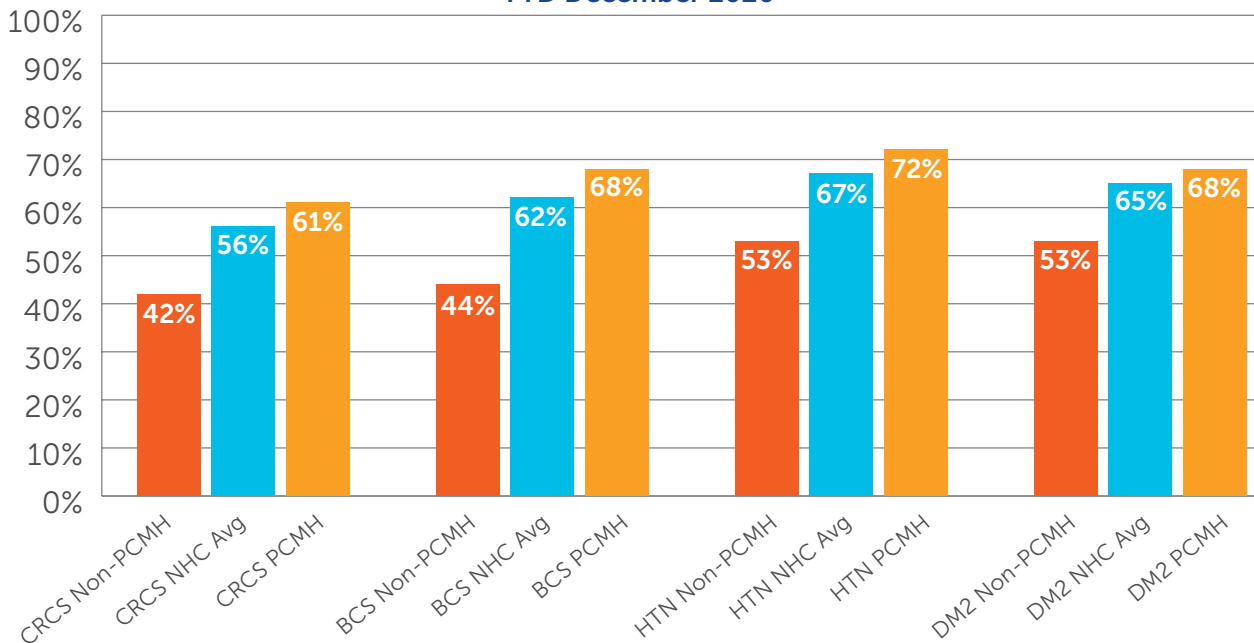
## 2020 Quality Performance

Our strategy to consistently improve both the cost of care and the quality of care through primary care transformation and care management helped practices providing continuity of care as well as maintain processes to engage and support patients during the pandemic. In 2020, 40 of the 64 primary care locations in our network have sustained national recognition from the National Committee on Quality Assurance (NCQA) as Patient Centered Medical Homes (PCMH). And, 3,635 patients have been engaged with our care managers in some way during 2020.

Though quality metrics were impacted during the pandemic, patients in PCMH practices have higher rates of care gap closure when compared to non-PCMH practices. For example, in spite of deferred care and other challenges, this year PCMH practices compared to non-PCMH practices had:

- 19% higher rate of colorectal cancer screenings
- 25% higher rate of breast cancer screenings
- 19% higher rate of controlled high blood pressure
- 15% higher rate of diabetes HbA1c control

## PCMH Effect on NHC Quality YTD December 2020



Source Data: Independent Practices, MDinsight, SHMG Healthy Planet

### Legend:

- CRCs:** Colorectal Cancer Screening
- BCS:** Breast Cancer Screening
- HTN:** Controlling High Blood Pressure
- DM2:** Controlling Diabetes Hb A1c <9
- Non-PCMH:** Primary care practices without PCMH recognition
- NHC Avg:** Average rate for all NHC practices with data
- PCMH:** Primary care practices with PCMH recognition

# Environmental Services

## Who is Environmental Services?

Our Environmental Service (EVS) team are the gatekeepers on the front line who work hard every day to stop the spread of hospital acquired infections. By cleaning and disinfecting not only patient rooms daily and at discharge, EVS cleans public spaces, OR, labs, clinical areas and time permitting, office spaces.

Through research and collaboration, we work with our vendors and Infection Prevention to provide the latest technology to disinfect and provide a clean, safe environment for our patients to heal, for our visitors and fellow coworkers.

## Discharge Team

Our EVS discharge team works hard to complete patient discharges. For the first six months of the year we have averaged 120 discharges/transfers at Summa Health Akron Campus per day. To accommodate cleaning so many beds, we regularly pull our area scheduled cleaners two to three discharges a night on top of their area assignment. While the majority of the discharges occur on second shift, it is definitely the job of all three shifts to work with the RCC to prioritize and turnaround beds as quickly as possible.

When a patient is discharged from their room, it is EVS's responsibility to clean and disinfect every surface in the room in preparation for the next patient. We consider ourselves "Safety Professionals." It is our responsibility to kill the germs that can lead to hospital-associated infections. EVS technicians also ensure that patients feel safe during a time when they are vulnerable.

How fast a room can be prepared for the next patient is critical for a hospital. It means the next patient can start receiving specialized care from the team—nurses, physicians, aides, therapists and pharmacists.

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**Our EVS team ensures the inpatient stay starts safely by thoroughly cleaning every patient room after a discharge or transfer.**

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Yvonne Zahniser and Caleb Moy



Discharge Team



# Human Resources

## NorthCoast 99 Award



In 2020, for the 17th consecutive year, Summa Health was named one of the best places to work in Northeast Ohio by NorthCoast 99. NorthCoast 99 is an annual recognition program that honors 99 Northeast Ohio companies that excel in providing environments where top performers can flourish. It celebrates the “best of the best” for their ability to maintain workplaces that support the attraction, retention and motivation of top performers. Employers are evaluated based on their policies and practices, as well as data collected from employee surveys.

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**The very best people do work at Summa Health, and it is because of you that Summa is a great place in which to work and a leader in providing healthcare to our community.**

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## Neighborhood Workforce Strategy

In 2019, Summa Health pioneered the creation and implementation of a neighborhood workforce strategy to address the employment and economic challenges facing the residents of the Greater Akron area living in the Middlebury community. The following highlights the tenets and import of this initiative.

### What is the Neighborhood Workforce Strategy?

- Poverty and unemployment are concentrated in urban neighborhoods resulting in greater income inequality and economic immobility
- Partnering with organizations within neighborhoods builds on trusted relationships with their residents
- Employers come into neighborhoods with information about their industry, occupations and career opportunities so residents can have greater access to good jobs and rewarding careers; information on education and training opportunities to build relevant skills and credentials is also made available
- Neighborhoods are identified based on high concentration of unemployed/underemployed and black populations

## Summa Health Partners with The Well CDC on the Middlebury Neighborhood Workforce Initiative

Committed to serving the residents of our community, in the fall of 2019 representatives from Summa’s Talent Acquisition team along with leaders from The Well CDC, a community development corporation devoted to the prosperity of residents through housing, economic development and placemaking initiatives, created a workforce - community initiative with the goal of connecting employment opportunities at Summa Health with the residents of the Middlebury community. The cornerstone of this initiative was an employment awareness and recruitment event held on November 7. Keys to success included:

The Well CDC asked organizations within the Middlebury community to promote an opportunity for their clients and families to learn about career opportunities at Summa Health.

Collateral materials were created and posted on social media, placed in grocery stores and other businesses in the community, and in book bags of students at Mason Elementary School.

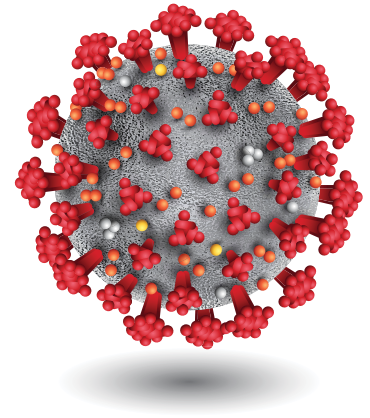
Summa Health selected five employees living in the Middlebury community to serve as Ambassadors for the event. These employees held jobs ranging from support services, to patient care and protective services. Their role was integral to that evening’s panel discussion where they share their “Summa Story” and answered questions from the residents related to their job, skills needed, what they liked about their job and Summa Health.

To remove barriers, free childcare, dinner and transportation were provided.

### Results - Scale Up/Scale Out

- Thirty-five residents attended the event.
- Through December 2019, four of those in attendance had been hired by Summa.
- The Middlebury Workforce Coalition supported by The Well CDC was launched in December 2019 that brings together local organizations in Middlebury to support residents so they can pursue good paying jobs that lead to upward economic mobility.
- Phase 2 of the Summa and Middlebury initiative is underway with the plan to continue identifying Middlebury residents interested in securing meaningful work at Summa and providing wraparound services to remove barriers to employment and promote economic prosperity.
- The Summa Health and Middlebury initiative informed several other key efforts in the Greater Akron area including the RAISE initiative (supported by ConxusNEO and funded by Huntington Bank) in March 2020 in the Kenmore cluster where employers in healthcare, manufacturing and IT shared about their industry — 40 organizations participated of which six were healthcare employers.

# Infection Prevention and Control



## Coronavirus (COVID-19)

Coronavirus, aka COVID-19, a name that will go down in history. Although Summa Health has been preparing and practicing for a “pandemic” for years, never would we have imagined the impact of this virus.

### Timeline of Events

- December 19, 2019: Novel Coronavirus (2019-nCoV) caused by the virus SARS-CoV-2 begins in Wuhan, Hubei Province.
- February 19, 2020: WHO names the virus COVID-19.
- The outbreak has spread throughout China and other countries and territories, including the United States.
- As of March 8, 2020, there were 105,586 cases reported globally with 3,584 deaths.
- The first U.S. case of 2019 Novel Coronavirus (2019-nCoV) was confirmed January 21 by the CDC.
- As of March 8, 2020, there were a total of 164 cases within the United States affecting 19 states.
- March 13, 2020: First COVID patient presents to Summa Health System— Akron Campus.
- And the rest is history...

Recognizing persons at risk for COVID-19 is a critical component of identifying cases and preventing further transmission. With expanding spread of COVID-19, additional risks to our patient and staff population are constantly being identified with actions and educations shared with our staff and with the public.

On March 2, 2020, the Summa Health Incident Command opened. Summa leaders, front-line staff, every entity in the organization, public leaders, CDC and local health departments collaborated in order to provide safe and effective care to our population and staff with the resources we had.

Precautions were immediately put into effect. Patients were identified with an algorithm developed by key stakeholders with patients immediately placed into COVID-19 isolation. Personal protective equipment was monitored daily with supply chain diligently working to secure additional products to ensure staff and patient safety.



## Airborne & Contact Precautions



**Prior to entering the room, EVERYONE MUST:**

- Perform hand hygiene.
- Wear gloves.
- Wear isolation gown.
- Wear **fit-tested N95** mask and full face protection.

**Note:** Staff who have failed all N95 masks may wear a PAPR/CAPR.

**Patient Placement**  
Place patient in Negative Pressure Isolation Room with door closed.  
**Contact Infection Prevention & Control if there are no negative pressure isolation rooms available.**

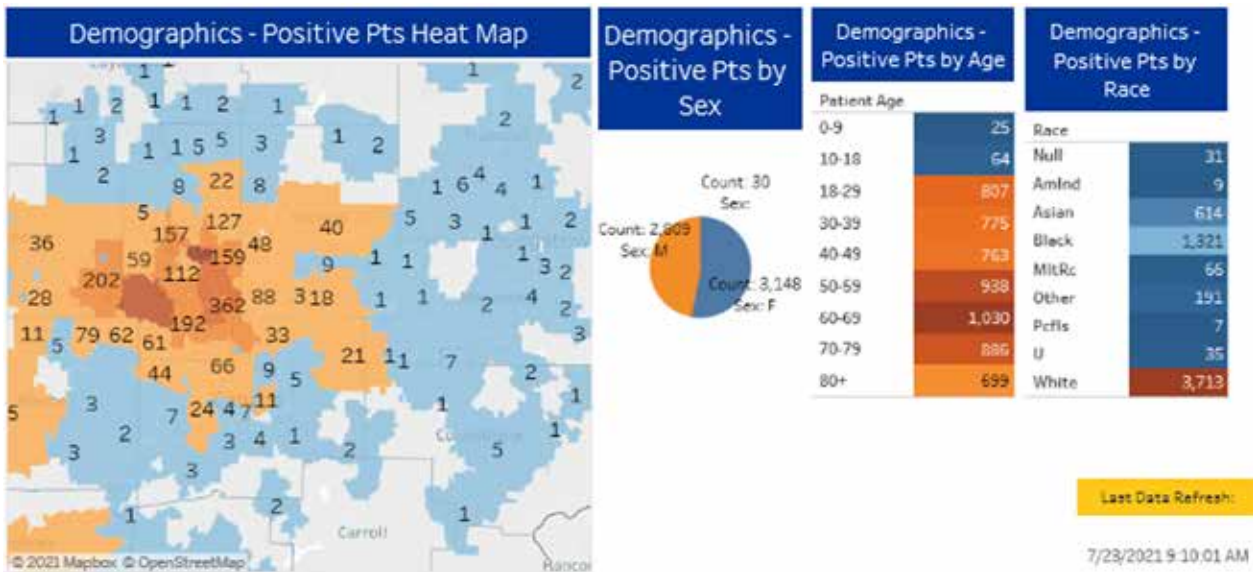
**Patient Transport**  
Limit transport and movement of patients for medically necessary purposes. If transport is necessary, **instruct the patient to wear a mask and place a clean sheet on the patient.**

**Patient Care Equipment and Room Cleaning**

- When possible, dedicate the use of non-critical patient care equipment to a single patient.
- If using common equipment, adequately clean and disinfect before using with another patient.

NUM-20-48762/COVID-19-20

## Example of Track Board



### Communication

Summa Health Call Center was established as a 24/7 resource for the community providing guidance and resources. Summa leaders, infectious disease (ID) physicians and infection preventionists rounded on the inpatient units answering questions concerning COVID-19. Town Hall Meetings were held with our ID physicians answering questions. Lastly, the COVID-19 Knowledge Center was made available on Summa@Work. The COVID-19 knowledge center served as a means to communicate day to day activity, statistics and other important information.

### Training

Key stakeholders in collaboration with front-line staff joined to provide written protocols with simple instructions and pictures to educate staff on the use of personal protective equipment (PPE). The priority of minimizing contamination to oneself by safely wearing and removing PPE inspired the concept of a "D'Officer". This person was stationed on units to ensure good practices and provide recommendations with donning and doffing protocols.

### Actions

Measures to decrease the spread of the virus during the pandemic included visitor restrictions, installing thermal temperature monitors and temperature screening stations to screen all persons entering Summa for signs and symptoms of COVID. Additional measures included limiting various elective procedures with relocation of staff and resources to better serve our COVID patient population. Typically, a public health measure, contact tracing was started early on during the pandemic which involved identifying individuals who have contracted the disease as well as the people they've come into contact with. This was a new process for the infection preventionists and still in effect.

Numerous clinical interventions were implemented per the frontline staff as a way to safely care for our COVID patient population, IV tubing extension to allow for the IV pumps to remain outside of the room in order to limit PPE usage and intubation supply and medication bags with only essential supplies and meds used for intubation in COVID-19 rooms to prevent the need to take fully supplied boxes into rooms thereby wasting remaining supplies.

Medical interventions included the use of Remdesivir, a medication with in vitro activity against COVID, Convalescent plasma, a transfusion from a patient who has recovered from COVID and given to a patient with active infection, and Monoclonal Antibodies, an intravenous infusion for those patients immediately diagnosed with COVID but able to recover at home.

With the arrival of various COVID vaccines at the end of 2020, Summa Health is committed to providing accessible care for the community. Beginning with providing vaccines in various Summa locations, Summa has expanded to Vax and Go which is the mobile vaccine clinic that travels to surrounding neighborhoods and locations.

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**Lastly, there were so many individuals involved with Summa's COVID response with not enough space to mention each and every person, department or intervention. Suffice to say, 2020 was the year of Healthcare Heroes and we thank everyone at Summa Health for their dedication and commitment.**

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# Integrated Care Management

“Every small step that we take in the right direction is the beginning of something amazing.”

## Looking Back

Over the last three years we have taken many steps in improving our Care Management and Care Transition strategy within our organization. Using lean principles allowed our teams to evaluate wastes, overlap and gaps in our program. Key takeaways were a focus on care transitions, standardization of processes, EMR improvements and allowing our team to function at the top of their licensure. We have created standardized workflows and methods of documentation to not only provide line of sight on patient(s) and care manager(s) activities but provide a tracking mechanism to evaluate productivity and volumes within care management (i.e., volumes, referrals, time spent in care management, visit types, programs, episodes of care management, lengths of stay etc.).

## 2020 Year in Review

### Ambulatory Care Management / Navigation

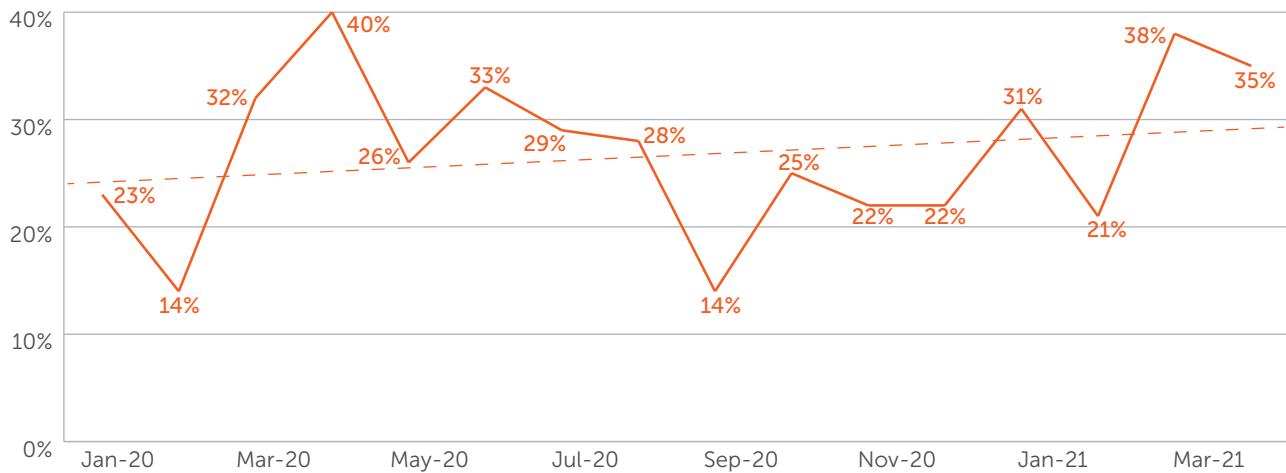
This year our focus shifted to creating ways to have line of sight on patient participation in various programs or opportunities of care management across the continuum, instilling the idea for end users that an appropriate handoff and team collaboration drives positive outcomes while capturing their documented interventions and actions associated with care management. Some actions include creation of care plans, providing education, interventions, addressing SDOH needs, bundle activities and patient follow up. Workflows were implemented and we were successful in standardizing workflows during 2020 despite the many challenges associated with a global pandemic. In addition, disease specific assessments for various chronic diseases were embedded in to the electronic medical record allowing the care management team to have standardized assessment questions for use in managing the needs of the most complex patients. Today our teams can quickly identify patients appropriate for care management based on risk scores or admit and discharge activities.

### Home First Pilot

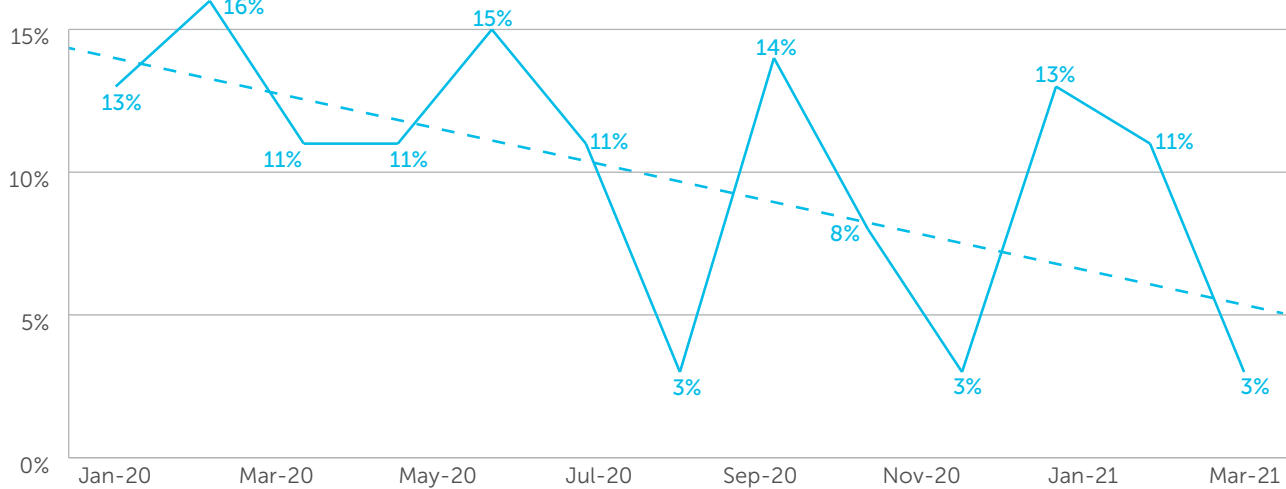
The Home First philosophy puts the needs of the patient at the center of care, to proactively consider options for post-acute care, focusing on providing the right care at the right time in the right place. We embarked on a pilot to advance a Home First Initiative with Summa at Home starting with one of our inpatient units. It begins with a functional and mobility assessment of the patient by the staff utilizing the John-Hopkins Mobility Assessment Tool. The tool provides a scoring methodology to assess the patient's current mobility needs. Based on the score, the tool provides a recommended next level of care based on the current mobility strengths or weaknesses of the patient. Once a patient is deemed appropriate for Home First based on function and mobility, the team then explores any additional resources needed to support a patient at home. Once discharged the frequency of physical therapy and nursing visits are greater in number during the first four weeks and then taper off as patient progresses.

During 2020, the pilot resulted in more patients going home with home health over SNF and a correlating reduction in hospital readmissions for these patients. We look forward to advancing this Initiative on a larger scale in 2021.

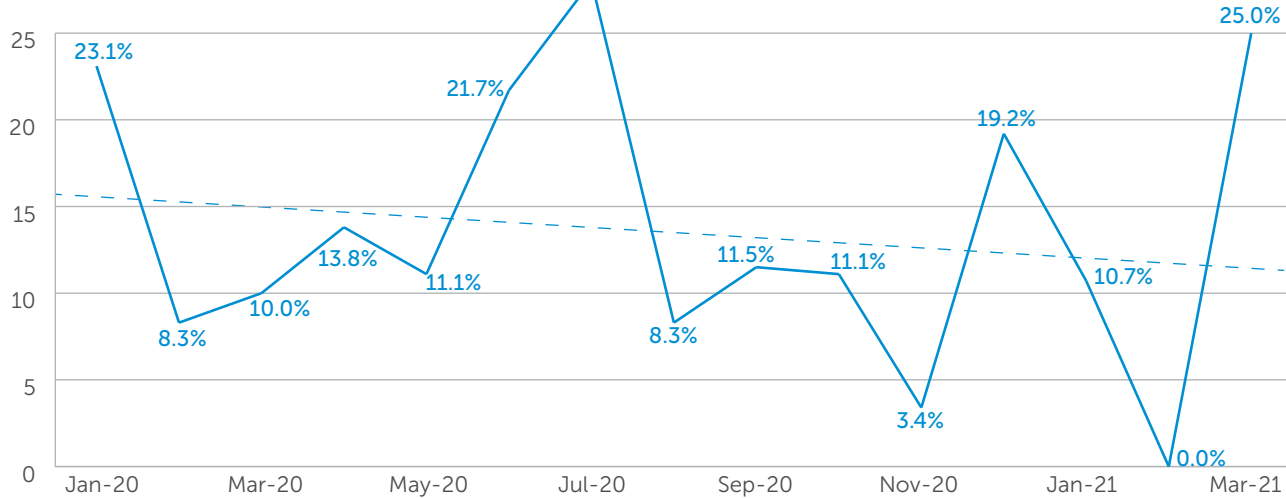
### % Discharge to Home Health



### % Discharge to SNF



### Readmission Rate





## Telehealth Video Visits

During the initial reaction to the COVID-19 pandemic in March 2020, outpatient physician offices stopped or severely limited in-office patient visits. Summa Health formed a multidisciplinary team to implement a telehealth platform. More than 500 providers were set up and trained for video-based patient visits leading to over 120,000 completed telehealth patient appointments in 2020.

## Inpatient Video Access to Family and Caregivers

Due to COVID-19 risk, family visitation was temporarily suspended in 2020. To allow patients to interact with family members, Summa Health IT&S established a virtual visitation platform. This same technology was also used for patient to nurse, nurse to ancillary department and patient to doctor interactions to minimize the need to change personal protective equipment (PPE) that was in short supply during this time. A total of 120 iPads were acquired and deployed to nursing units throughout Summa Health and over 3,000 video sessions took place in 2020.

## Ohio TechCred

Summa Health IT&S was awarded the Ohio TechCred grant for Technical Education in 2020. These dollars are being applied to upskill existing IT&S staff. Seven IT&S employees were awarded a total of \$23,000 in training grants in 2020.



## Work at Home

In March 2020, the CDC as well as the State of Ohio recommended work-at-home options for job duties that could be performed remotely. Summa Health IT&S configured more than 800 previously on-site only workers for work-at-home capability.

## Hospital COVID-19 Dashboard

As the pandemic began, leadership and our HICS (Hospital Incident Command System) were in need of large amounts of data related to COVID-19 to provide visibility into our current situation and ability to respond to the many challenges COVID-19 created. We worked closely with our business partners to understand their needs and created a near real-time dashboard that contains data related to hospital capacity, laboratory testing, ventilator availability, PPE supplies, and many other relevant clinical and operational areas. The dashboard has been widely adopted and has received tens of thousands of views to date.



In addition to the dashboard, there was a need to assist with the data submission requirements for HHS, OHA and Summit County Public Health. Hundreds of data points had to be submitted to the organizations each day representing countless hours of manual work for our business partners. In response, we created automated processes to calculate all data points and deliver files that eliminated the need for manual intervention. Helping to meet these regulatory requirements assisted in securing millions of dollars in federal aid, preventing payer reimbursement penalties, and, most importantly, gave precious time back to our business partners to focus on caring for our community. As our COVID-19 data needs grow, the dashboard continues to expand to include information on vaccinations, therapeutics, outbreak hotspots, and our Post-COVID-19 clinic.



## HIMSS EMRAM

Summa Health System celebrated the HIMSS EMRAM Stage 6 inpatient setting dated November 2020, presented by the Healthcare Information and Management Systems Society (HIMSS) who recognizes hospitals that have improved the healthcare and patient experience by using advanced information technology and electronic management systems. This certificate stand as a recognition for Summa's commitment to improve the quality of patient care, ensure safe environment, continually work to reduce risks, and achieve the highest standards of medical care.

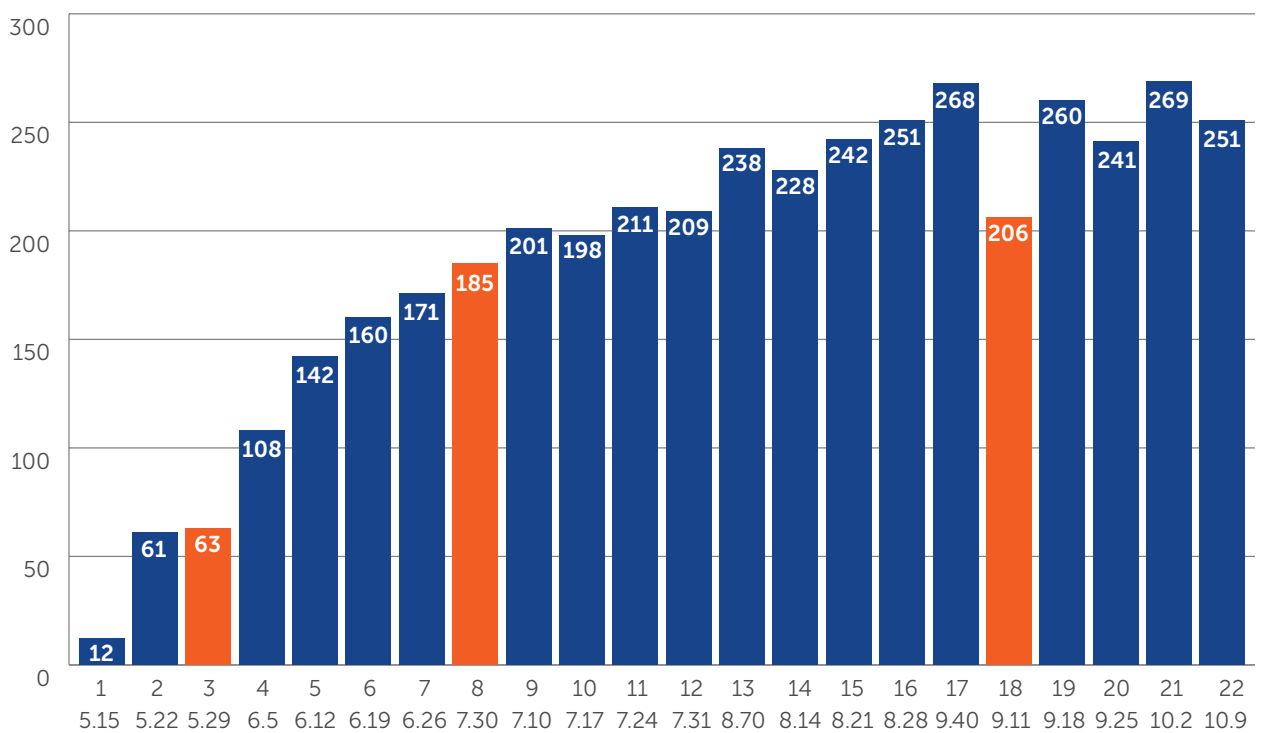
# Performance Solutions

We, Summa Health, believe in the value of patient-centered care which supports our overall vision of population health. This is a major change from traditional care delivery and thus requires much change management, improvement and process redesign. Performance Solutions' goal is to harness this change. Moreover, we aim to integrate proactive quality improvements in the workplace by providing employees with Lean Six Sigma (LSS) knowledge, tools and support to engage in continuous improvement. Despite the pandemic, our employees have completed 21 LSS Green Belt Projects and attended various LSS training classes in 2020. Below reflects multiple selected LSS Green Belt Projects' synopses.

## Green Belt Project: Improve Cardiac and Pulmonary Rehab Capacity

The Cardiac and Pulmonary Program, Akron Campus, made significant patient capacity improvements. Eliminating non-value added activities coupled with safety measures during the pandemic resulted in clinical and support staff having timely contact with patients, adequate prep and office time to complete paperwork and more time to educate patients. The project resulted in increasing the average number of weekly visits by more than 20% from 204.8 to 249.8 per week while maintaining patient satisfaction scores.

HLVRF Weekly Visits May 11 - Oct 9, 2020



■ Holiday Weeks    
 ■ Cardiopulmonary Rehab Since Re-opening During COVID-19 Pandemic

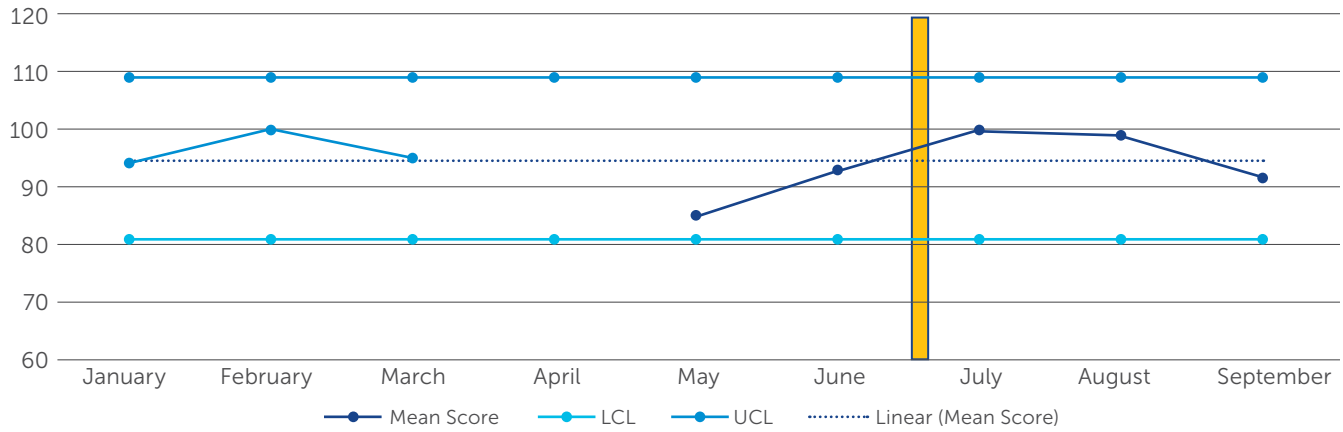
Baseline Mean: 204.8     "Improved Mean: 249.8\*  
 Baseline Median: 205     "Improved" Median: 251\*

\*Excludes week of Labor Day



## Patient Satisfaction

### Cardiac Pulm Rehab: Std Your Care



Baseline Std Your Care: 95.6  
 "Improve" Std Your Care: 98.1

## Green Belt Project: Invasive Cardiology Supply Room Compliance

The Performance Solution team collaborated with the clinical quality department to complete a proactive readiness project. The goal was for the cardiology supply room to be in 100% compliance for the environment of care standards set by the Ohio Department of Health and The Joint Commission as it pertains to infection control and life safety. Because of this project:

- Sterile supplies were separated from non-sterile supplies
- Additional storage was added to accommodate space constraints
- 5S+1 concept was implemented to create space off the floor
- Items were removed from ceiling height and clear line (visual aid) established
- Staff education to monitor temperature and room daily was established

### Before Infection Prevention



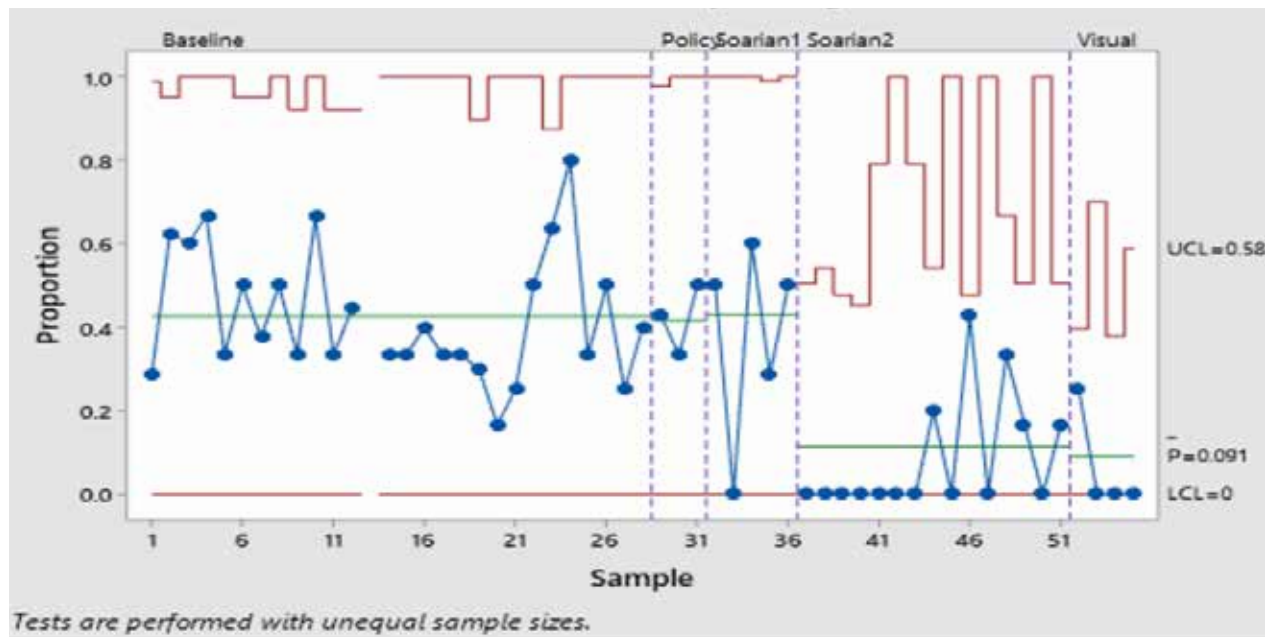
### After Infection Prevention



## Green Belt Project: Visitor Injury Risk Adjustment

The Summa Lean Six Sigma Project Team showed a significant improvement around visitor injury (VI) coding errors by implementing various LSS tools and concepts. Visitor injuries (VI) registered through the Summa Health System Emergency Departments (EDs) were inappropriately coded 42.7% (70 /164) of the time. The VIs incorrectly deemed Summa Health as being responsible for medical evaluations due to environmental hazards. After addressing multiple root causes, the team was successfully able to decrease inappropriate coding to 9.09% (2/22). This was a 33% decrease in coding errors.

### P Chart of No by Change



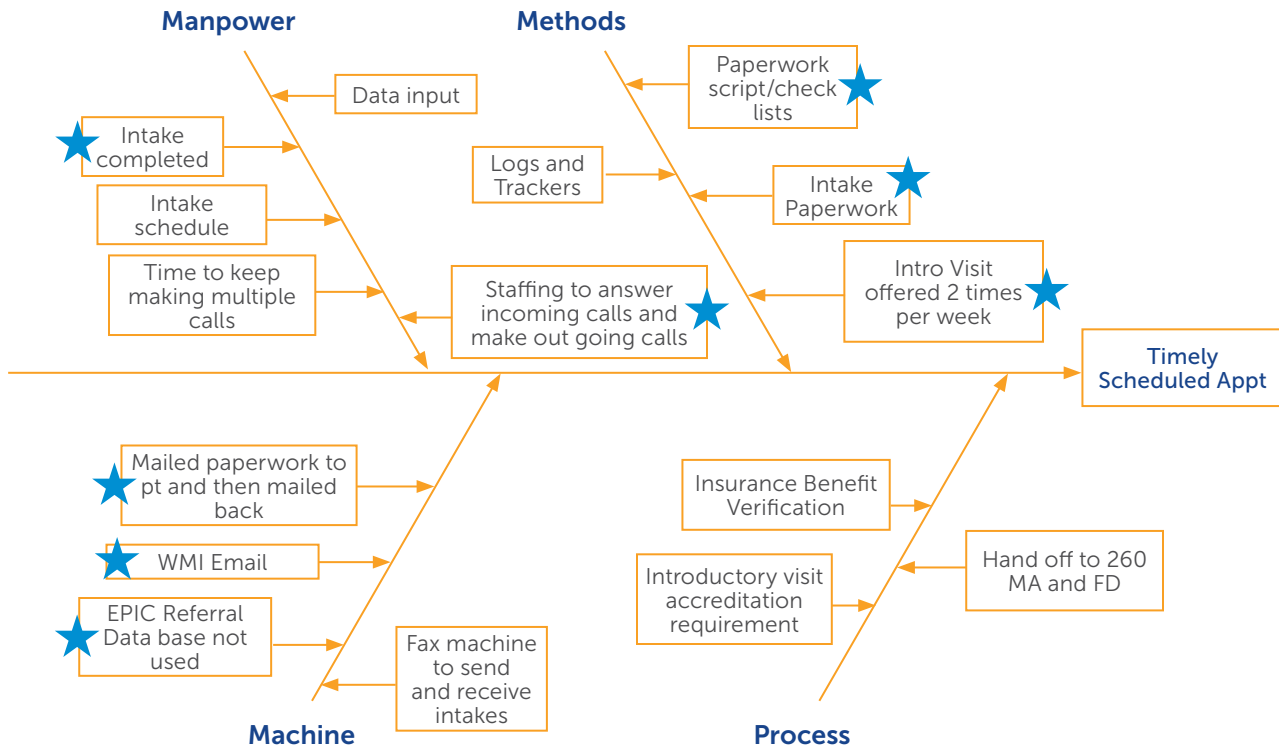
## Green Belt Project: Physician In basket Management at Family Medicine Center

Within the National Committee for Quality Assurance Patient-Centered Medical Home Standards and Guidelines, ineffective management of laboratory and imaging test results can lead to less than optimal care, excess costs and may compromise patient safety. Moreover, inefficient test result in basket management increases physician burnout. A LSS Project at Summa Health Family Medicine Center resulted in decreasing the average time it takes to address a test result from 3.5 days to 2.9 days by standard workflow implementation and visual aids. The team also successfully reduced variability among providers in addressing results and decreasing the median time to address results from 21 hours to 17 hours.

## Green Belt Project: New Surgical Consult Timeliness from Referral to Consult Visit

A cross-functional team at the Weight Management Institute successfully improve efficiency and access to the new patient intake process. Prior to the project, the process was complex and had many inefficient steps involved for a patient to be scheduled for a "new patient surgical" consult. The team streamlined paper work, processes, eliminated delays, and batching of work. As a result, the time from referral to scheduling an appointment with a surgeon decreased from an average of 67 days to 17 days.

## Ishikawa Diagram - and Multi-Voting



★ Multi-voting priority

## Paper Documentation & Workflow Improvement Root Cause Problem Solving Results

Current State	Number of Pages
• Previous Intake Form	6
• Previous Check List	1 (20 Steps)
• Previous New Patient Paperwork	17
Improved Process	Number of Pages
• New Intake Form	2
• New Check List	1 (5 steps)
• New Patient Paperwork Updated	Eliminated

## Improve Operational Outcomes

Data	Benchmark	Improved
1. Call/Referral to appointment date interval	Average 66.7 Days Median 28 Days	16.9 Days 15 Days
2. Call/Referral to appointment conversation percentage	45%	66%

# Summa Health Pride Clinic



The LGBTQ+ community often face many barriers, including concerns about confidentiality, fear of discrimination and negative attitudes toward treatment. Because of this, it is estimated that anywhere from 50-75 percent of the LGBTQ+ population does not share their gender identity, gender expressions or sexual orientation to their healthcare provider.

Coming out to your healthcare provider is an important step to being healthy. Many people are not aware that lesbian, gay, bisexual and transgender (LGBT) people face unique health risks, such as higher smoking rates, a greater risk of suicide attempts, and a higher chance of getting certain sexually transmitted diseases. It is important that patients can be open with their provider and can help them overcome these issues and access the care they need most. Being open about your sexual orientation, sexual behavior, and gender identity not only helps they provider, it helps the patient.

Summa Health's Pride Clinic supports the system's patient-centered population health mission. It provides care to the underserved LGBTQ+ population, as well as others members of the community. It is an inclusive of all members of the community specializing in the LGBTQ+ community's needs. Since it opened in September 2019, it has grown substantially and is a beacon of hope and pride for the community.

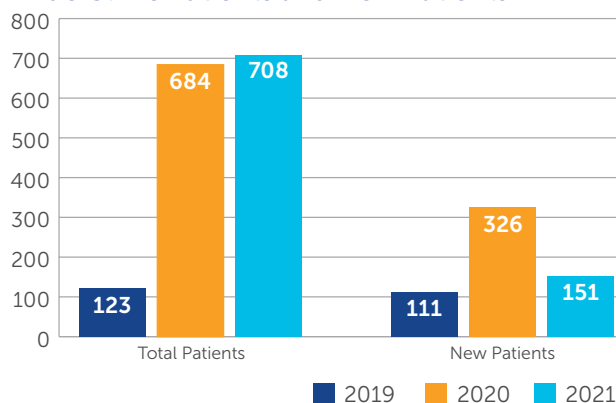
Services continue to grow. During the past year, we added a full-time nurse practitioner, expanded our physician availability, gynecology services and added a Licensed Independent Social Worker (LISW) to the team. We have received grants to support our LISW, women's health services and the First Annual LGBTQ+ Healthcare Summit in 2021.



Summa Health is committed to providing inclusive and equitable healthcare for everyone including LGBTQ+ patients, visitors and employees.

Summa is proud to receive the coveted designation "LGBTQ Healthcare Equality Top Performer" in Human Rights Campaign Foundation's Healthcare Equality Index again in 2020.

**Pride Clinic Patients and New Patients**



# Volunteer Services

Sewing for Summa was a large undertaking for Volunteer Services during 2020 and the COVID-19 pandemic. Volunteer Services was awarded the 2020 DOVIA Outstanding Volunteer Program of the Year award for our work on this program.

As part of the COVID-19 response, Summa Health recognized the local and national shortage of Personal Protective Equipment (PPE) and the Volunteer Services Department created Sewing for Summa. At the onset of the program, we utilized volunteers to sew cloth masks for our healthcare workers. This soon grew to include masking all visitors and patients, as well.

Our Sewing for Summa volunteers included local and nationwide volunteers; individuals, church and social groups, and corporations. The program also benefitted from individual and local business donations of materials needed for the cloth masks. Our volunteers could request mask kits, which included fabric, elastic, thread and patterns from Summa Health or use material of their own.

Initially, volunteers were only sewing cloth masks, however, it quickly grew to include surgical wrap masks and eventually protective gowns, as well. To date volunteers have donated 37,624 cloth masks; 7,354 surgical wrap masks; and 27,854 protective gowns. This is the equivalent of 45,349 service hours that volunteers were able to give remotely during the pandemic.

At a time when Summa's volunteer program had to be suspended, our Sewing for Summa program has been a great opportunity for our volunteer to continue to volunteer their time to the organization. It has allowed Summa to stay in touch with volunteers, volunteers to remotely interact with one another and still feel a connection to the organization.



**THANK YOU**  
for Sewing for Summa

Dear Community Member,

On behalf of all of the employees and volunteers at Summa Health, we cannot thank you enough for sewing masks for our healthcare workers! It is such an incredible gift during this challenging time. Our employees and volunteers appreciate receiving these masks, and these masks help them feel safe and secure.

We wish you and your family health and wellness during this time.

Thank you so much!

Sincerely,  
*Angela Smith*  
Angela Smith  
System Director, Volunteer Services

Summa Health is still accepting donations of cloth masks. Please contact [volunteers@summahealth.org](mailto:volunteers@summahealth.org) if you would like information about donating.

# Institutes and Service Lines

## Summa Health Behavioral Health Institute

First Step began offering its continuum of services at the Akron Campus Emergency Department in September 2019 and the expanded program wasted no time in demonstrating its value to the community throughout 2020. Individuals suffering from substance-use issues now have unparalleled 24/7 access to specialized addiction treatment and can seek help when they need it most. Buprenorphine-waivered clinicians are available to provide on-site medication-assisted treatment (MAT) and Addiction Care Coordinators are staffed during critical hours to synchronize the delivery of care. Additionally, First Step offers patients an opportunity to connect with certified peer recovery coaches, whose life experiences and focused training provide the foundation of their non-clinical assistance. These certified peer-support specialists, many in recovery themselves, support and guide patients to resources throughout the community and help remove barriers to sobriety such as transportation, child care and sober housing. Services may vary with each case, from accompanying patients to appointments to reaching out to family members.

Because First Step is based on a community model of care, any discussion pertaining to the program would remain incomplete without a brief overview of its population health focus. For far too long, folks with substance abuse issues have encountered a staggering number of seemingly insurmountable obstacles to treatment, many of which are compounded by the fragmentation of service delivery. In an effort to mitigate these barriers, First Step has successfully established an addiction collaborative with multiple organizations throughout Summit County, proving competitors can indeed become allies when a common goal is shared.

Throughout its storied history, Summa Health has always been at the vanguard of healthcare innovation and First Step is representative of this tradition of advancement. That being said, we still have many more goals to strive for if First Step is to assume a place as a national leader in addiction treatment, a healthcare service that is arguably more important now than at any other point in modern history. Because the pandemic precipitated a massive disruption of addiction services and given rise to widespread isolation, individuals struggling with chemical dependency are even more susceptible to the potentially deleterious outcomes inherent to addiction. While the world around us continues to chart its uncertain course, First Step resolutely commits to seek out uncharted avenues for improvement and pledges to serve as an unwavering source of support for those who need it most.

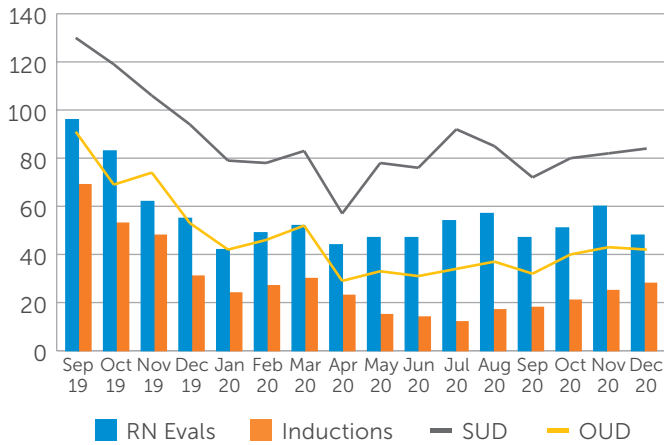
In 2021, First Step will expand even further, and will be available at both the Summa Health Green ED as well as Summa's Wadsworth ED. These locations will offer virtual solutions, with providers consulting with specialists at Akron and Barberton Campuses virtually to provide care.

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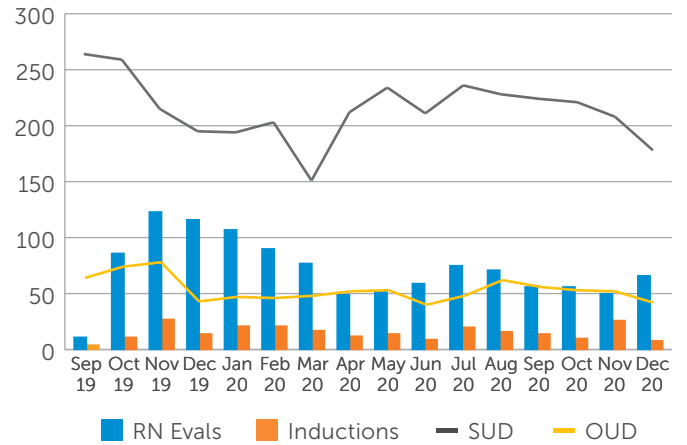
**In a single visit, we can treat symptoms and ease cravings, as well as provide onsite care coordination to ensure that a patient doesn't leave our hospital without the next treatment option in place.**

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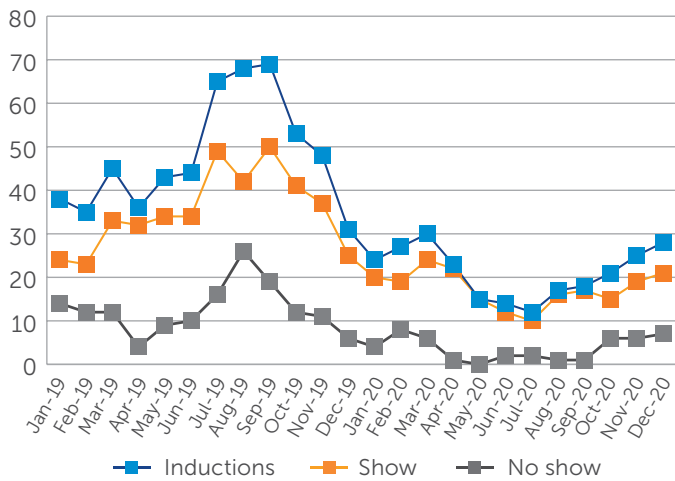
### Summa Health Barberton Campus ED Volumes September 2019 – December 2020



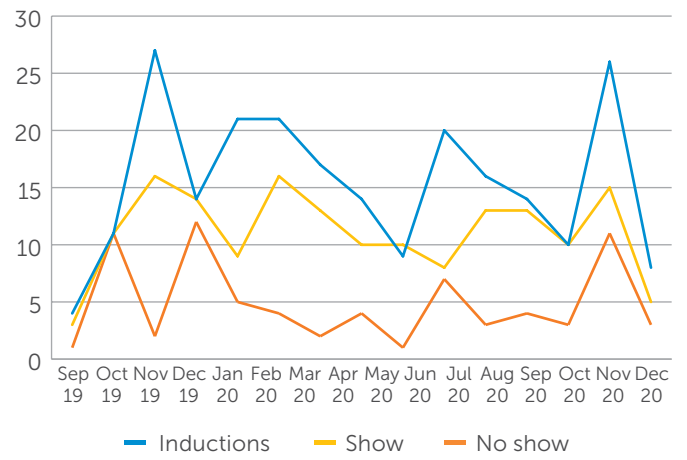
### Summa Health Akron Campus ED Volumes September 2019 – December 2020



### Summa Health Barberton Campus Trends – Induction and Follow-up



### Summa Health Akron Campus Trends – Induction and Follow-up



### 2020 Grants Awarded for Addiction Treatment

PRINCIPAL INVESTIGATOR	FUND TYPE (I.E. Fed,State)	SPONSOR	PROJECT TITLE	START DATE	END DATE	TOTAL AWARD AMT
Jaimie McKinnon	Private	UWSC	SUD ED Care Coordination	4/1/2020	3/31/2022	\$250,000.00
Jaimie McKinnon	Private	UWSC	Transportation	4/1/2020	3/31/2022	\$200,000.00
Jaimie McKinnon	Federal	OhioMHAS/SAMHSA	MAT ED - Multisite	6/15/2020	9/29/2020	\$58,813.17
Jaimie McKinnon	Federal	OhioMHAS/SAMHSA	SOR ED - Multisite	9/29/2020	9/28/2021	\$58,113.17
Nicole Labor	Federal	HRSA	Addiction Fellowship	7/1/2020	6/30/2025	\$1,103,080.00

# Summa Health Cancer Institute

## Breast Care

The Gary B. and Pamela S. Williams Center for Breast Health is committed to ongoing improvement and providing well-coordinated, easily accessible and comprehensive breast care throughout our entire Summa Health community. The Breast Program is accredited by the National Accreditation Program for Breast Centers (NAPBC), a program administered by the American College of Surgeons. In March 2020, the American College of Surgeons renewed the 3 year, full accreditation designation for both the Akron and Barberton Campuses. The accreditation shows an unwavering commitment to the highest level of quality breast care.

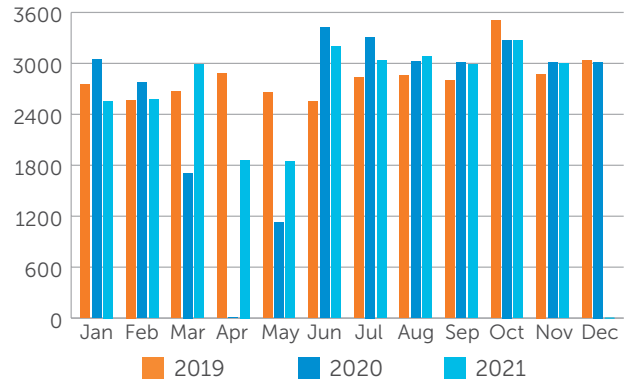


## Navigation

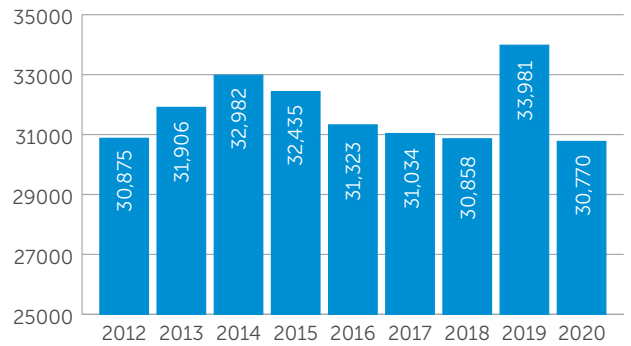
Due to the COVID-19 pandemic, screening mammograms were halted from April 2020 to mid-June 2020. The Breast Imaging Center and Williams Center for Breast Health were still open for patients with abnormal breast findings and need for diagnostic evaluation. During this time, we continued to make progress on access to care largely due to our robust navigational process. The average number of days from a patient's abnormal diagnostic mammogram and surgical consult was three days. However, in order to decrease exposure of COVID-19 to patients and staff members, we streamlined coordination of care to provide same day surgical consults in the majority of cases. We also attempted to have same day biopsies when possible. We expanded Virtual Visits to accommodate our survivorship patients without acute concerns.

## COVID-19 Impact on Screening Mammograms

### Screening Mammograms by Month

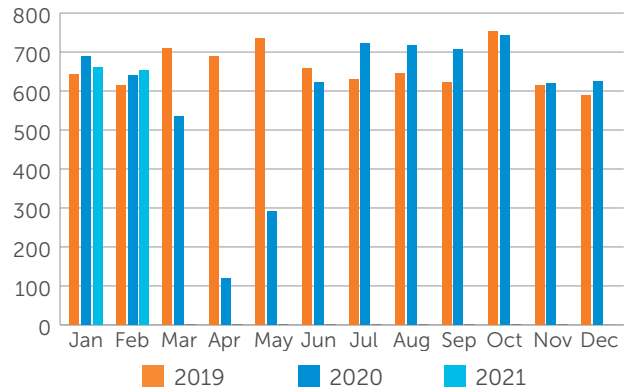


## Screening Mammograms by Year

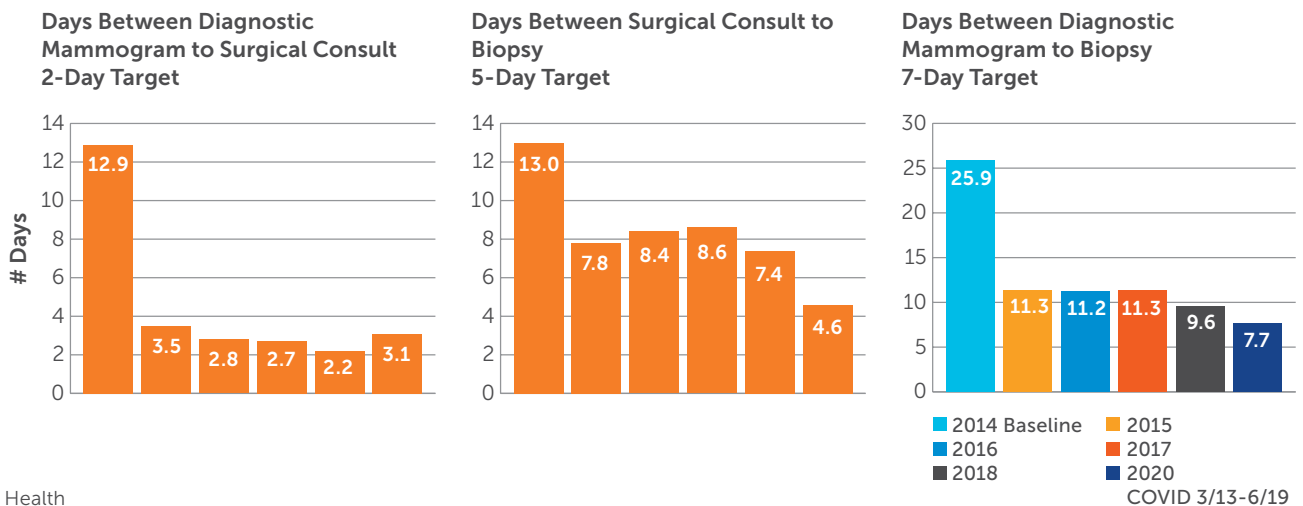


## COVID-19 Impact on Diagnostic Mammograms

### Diagnostic Mammograms by Month



## Breast ACCESS Project: 2020 COVID Period Results Timeline to Care - Improvements Sustained





## New Screening Mammography Report Features



### New presentation of Lifetime Risk score

- Less than 20% risk will present with the text "Low risk".
- Risk => 20% will include the risk model that produced the score: **TC8 23.24%**

We implemented Cancer Risk Assessments on all screening and diagnostic mammograms. Summa Health System has identified more than 3,000 patients at high risk for breast cancer among over 30,000 assessments completed. Patients and their providers are issued notification letters of high risk status: Either high lifetime risk ( $\geq 20\%$ ) or at risk for Hereditary Breast and Ovarian Cancer (HBOC).

The Summa Health High-Risk Breast Clinic opened in November 2018 and we have continued to see an increase in number of high risk referrals – 795 in 2020. From January to June 2021 we have already had 581 referrals. We follow National Comprehensive Cancer Network (NCCN) Guidelines for high risk follow-up and individualized patient care management. In addition to genetic mutations or family history, other risk factors for breast cancer include history of an atypical breast biopsy, dense breasts, high body mass index (BMI) and increasing age.

The High Risk Breast Clinic is staffed with experienced high risk healthcare providers including nurse navigators and nurse practitioners and physicians who deliver comprehensive coordinated services to patients who might benefit from high risk screening, genetic counseling and testing and risk reduction. Risk management facilitates earlier cancer detection, reduction in mortality and significantly curtails the incidence of breast and other cancers. Our Certified Nurse Practitioners have completed City of Hope Training and offer on-site expanded panel genetic testing thru Ambry Genetics at both the Akron Campus and Medina Medical Center. In 2020, we had 285 patients receive genetic testing at our center. We are likely to double that number for 2021.

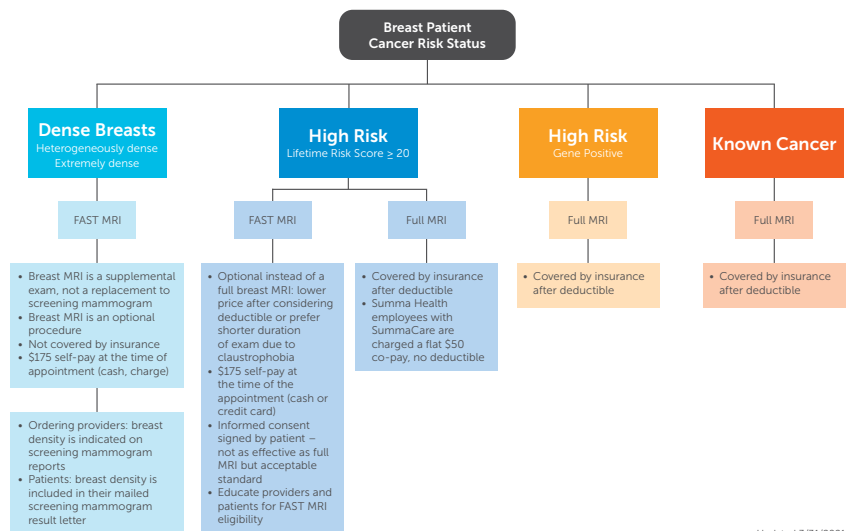
### FAST MRI

Our navigational process also has expanded to include patients with abnormal High Risk MRIs. We offer both full (traditional MRI) as well as newly implemented FAST MRI.

FAST MRI is intended for hereditary gene negative patients who have an elevated Lifetime Breast Cancer Risk or who have heterogeneously or extremely dense breast tissue on mammography (Category C or D- which can lower the sensitivity of screening mammograms). Screening Breast MRI volume has increased 60% since March 2021.



## Breast MRI – Procedure Options



Updated 3/31/2021

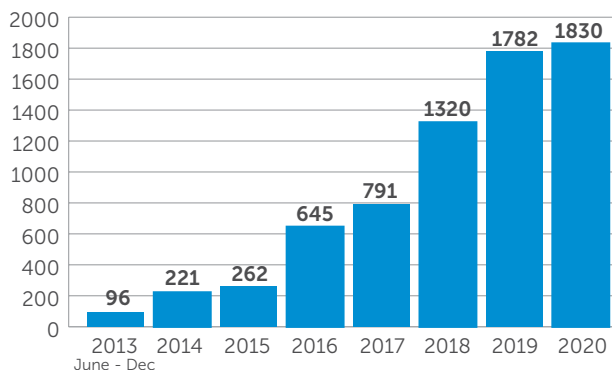
## Summa Health Lung Nodule Program

2020 and the COVID-19 pandemic certainly posed challenges throughout healthcare, and the Lung Nodule Program adapted to meet the many obstacles. With thousands of lung nodule patients in various stages of follow-up for abnormal lung findings, the Lung Nodule Program “triated” patients to ensure that all actionable nodules were promptly evaluated and patients received the urgent follow up needed. Those with less urgent findings were evaluated and recommended to postpone follow up until the pandemic slowed.

Recognizing the importance of early diagnosis and treatment for lung cancer, the Lung Nodule Program began to take additional precautions when proceeding with diagnostic follow up. All patients undergoing invasive testing received COVID testing 72 hours before, and additional precautions were taken during endoscopy and surgical procedures to ensure safety for patients and healthcare workers. This limited any delays in lung cancer treatment during the pandemic.

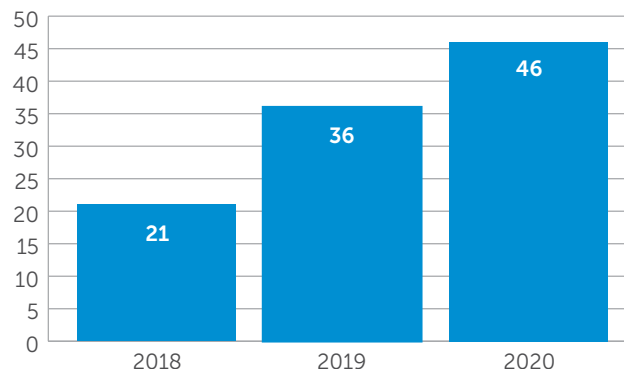
The Lung Nodule Program also implemented the use of virtual health appointments with great success. Providers were able to review results and plans for follow up in a timely manner while minimizing any potential COVID exposures. Patients welcomed the telehealth visits and received care coordination through virtual discussions. The rapid development of “virtual health” was an unforeseen benefit of the pandemic and will continue in the future to improve care coordination and limit barriers to care such as transportation for patients.

## Lung Screening Program # Lung Screenings/Year 2013 Launch to 2020



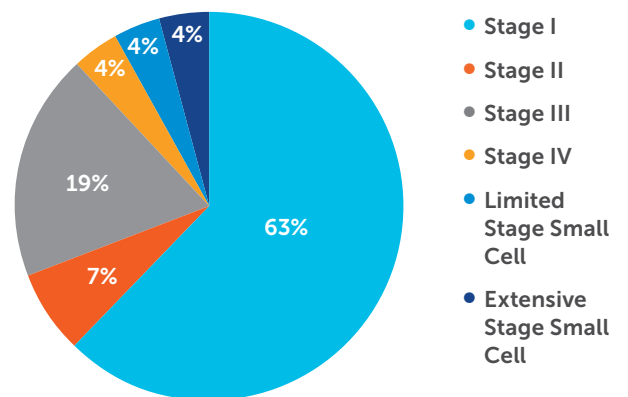
In March of 2020, like facilities across the country, Summa Health was forced to close to lung screening CTs for 10 weeks. After re-opening in June 2020, the lung team realized the effects of delayed screenings and delayed follow-up for abnormal findings. The team began outreach to patients to reschedule any missed follow-up scans. In June 2020, through the efforts of our outstanding navigation team, Summa Health had the highest number of lung screenings in our history. Despite the 10-week closure, the Lung Screening Program had a 3% increase in screenings in 2020.

## Lung Cancers Diagnosed



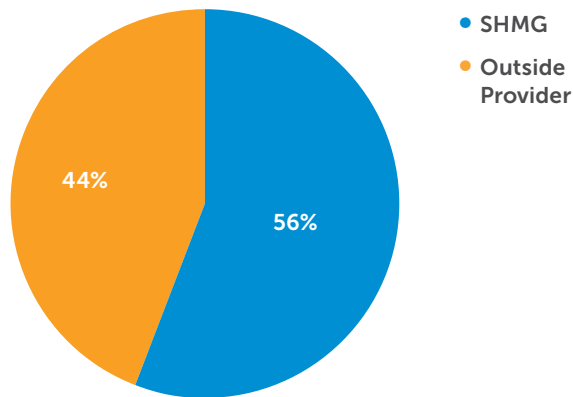
In addition to an increase in lung screening volumes, Summa Health also had a 28% increase in lung cancers diagnosed through screening compared to 2019.

## Lung Cancer by Stage



The greatest benefit of annual screening is identifying lung cancer at an earlier, more curable stage. Summa Health’s Lung Screening program is doing just that. Of the 1,832 lung screenings performed in 2020, there were 46 lung cancers identified. Nineteen of these cancers were found on initial lung screening and 27 were found on an annual follow-up lung screening. Most importantly, 70% of these new lung cancers identified on annual screenings were diagnosed at Stage I or Stage II which have the greatest hope for curative treatment. This data stresses the importance of adherence to annual lung screening.

## Referring Primary Care Provider



Primary care providers across the region have recognized the quality lung screening program at Summa Health, and this outstanding quality continues to drive referrals to our system. There were 297 unique primary care providers referring patients for lung screenings in 2020, including 44% of these referrals coming from outside of our hospital system. This broad base of support from providers outside of Summa Health will continue to promote the growth of Summa's cancer program and will help ensure many high risk patients have access to timely screenings.

Summa continues to work closely with the Go2Foundation for lung cancer. Summa Health celebrated the fifth year as a Lung Cancer Screening Center of Excellence. This designation is awarded to facilities who meet high quality standards including effective shared decision making efforts, compliance with best practices for screening quality and radiation dosing, review of all abnormal findings with a lung cancer multidisciplinary team, highly coordinated care for follow up testing, a comprehensive smoking cessation program, and clear communication of results with patients and referring providers.

In 2021, we look forward to continued outreach to expand screenings for privately insured patients under the new U.S. Preventative Task Force (USPSTF) guidelines, which expand the guidelines to 50-80 years of age and reduce the smoking history to 20 pack years. The USPSTF predicts that this will reduce racial and gender related lung screening disparities.

Despite the challenges of the 2020 COVID 19 pandemic, Summa's highly recognized Lung Nodule Program continued to thrive, and experienced additional growth in screening volumes, new patient referrals, and early lung cancer diagnoses. Adherence to national standards of care for lung cancer screening and lung nodule management, outstanding patient navigation to ensure seamless care, and comprehensive multidisciplinary team of providers continued to place Summa's Lung Nodule Program among the best in the nation.


## Implementation of Immunotherapy Wallet Cards in the Outpatient Infusion Center



Immunotherapy is a broad term to describe cancer treatments that increases the body's own natural defenses to help fight cancer. However, immunotherapy adverse side effects differ greatly from traditional chemotherapy and require early detection and proper management to avoid permanent discontinuation of the treatment.

It was noted that many non-oncology clinical professionals were not knowledgeable that immunotherapy differed from chemotherapy and were unaware of how to manage side effects differently from chemotherapy. In addition, the majority of patients could not recall the names of the immunotherapy drugs that they were taking. This reflected a need for education for both non-oncology providers and patients receiving immunotherapy drugs.

To fill this educational need, infusion nurse Elizabeth Hoover, BSN, RN, OCN implemented a clinical ladder project to provide immunotherapy wallet cards to outpatient infusion patients receiving immunotherapy. The wallet card records the name of the immunotherapy that the patient is receiving. In addition, it communicates to non-oncology providers potential immune-related side effects and the name and contact information of the patient's oncologist.



### Immunotherapy Wallet Card

Name: \_\_\_\_\_

Cancer Diagnosis: \_\_\_\_\_

Immunotherapy drug name(s) receiving & start date: \_\_\_\_\_

\_\_\_\_\_

Past immunologic agents received: \_\_\_\_\_

\_\_\_\_\_

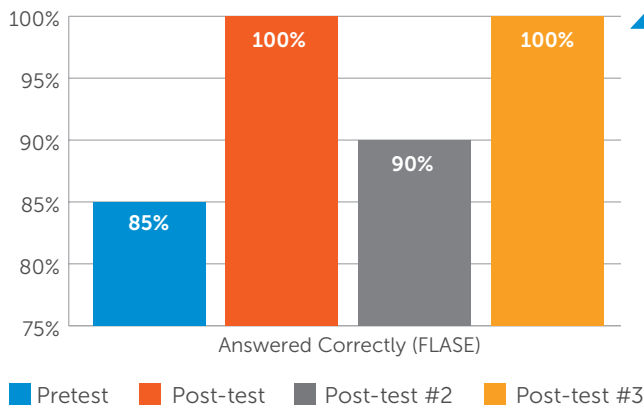
Note: immunotherapy agents are NOT chemotherapy and side effects must be managed differently. (See back)

Immunotherapy wallet cards are presented to each patient at their first immunotherapy infusion appointment. The infusion RN educates the patient on immunotherapy side effects and to show the wallet card to non-oncology providers, such as their primary care physician and providers in the emergency department. Furthermore, the wallet card is scanned into Carepath as part of the patient's medical record.

In addition, immunotherapy education was provided to select emergency department staff via Healthstream and post tests were administered at monthly intervals to determine if the education was successful. The tests validated that the knowledge deficit improved overall.

The immunotherapy wallet card process has been implemented at all three Summa Health outpatient infusion centers and has become an integral part of the immunotherapy patient's treatment plan.

### Question: Side Effects of Immunotherapy are Treated the Same as Chemotherapy

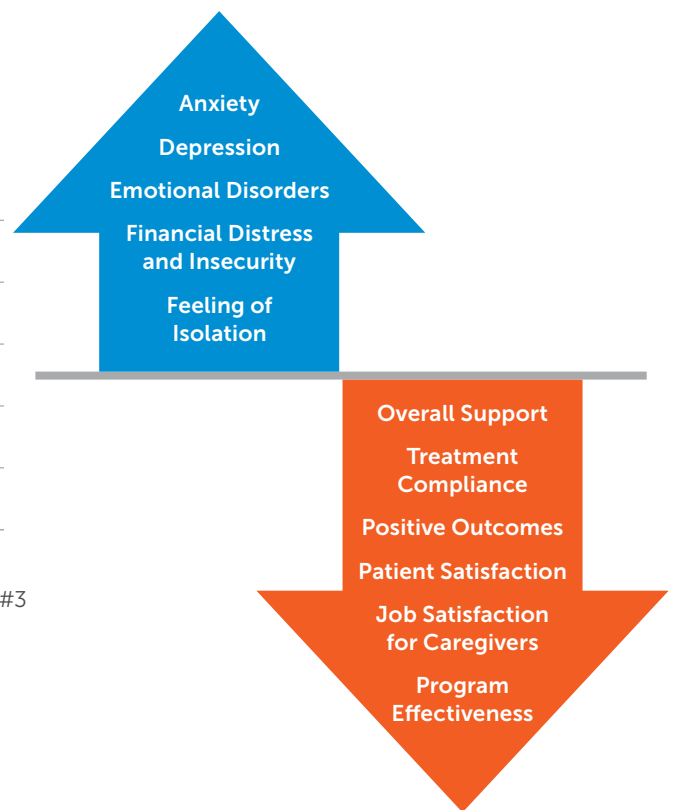


### The COVID-19 Effect

The COVID-19 pandemic had an immediate and dramatic impact on cancer patients in 2020. Because of the nature of the disease and its treatment, patients with cancer are required to visit healthcare facilities more frequently than patients with other diseases. With COVID-19 came a myriad of fears and anxieties for this patient population with an already weakened immune system; fear of COVID, fear of the unknown, fear of dying, stress, anxiety, isolation, interruption in care, etc.

The Summa Health Cancer Institute had to quickly adjust and decide what services were considered "essential" for the oncology patients that were frequently coming to our centers to survive a cancer diagnosis. Besides the medical providers prescribing and administering treatment, such as chemotherapy and radiation, patients with cancer need support from many other disciplines on an ongoing basis. These supportive services consist of social work, financial navigation, nurse navigation, nutrition counseling, education, integrative therapy and a host of other supportive services. Many centers across the country were forced to limit or suspend these services in order to minimize the exposure risk of COVID-19 to their patients, which negatively affected patient care and outcomes.

### Effects of Suspending Support Services



The Summa Health Cancer Institute acknowledged that the supportive services team was "virtually" irreplaceable for the patients and made the decision to move services to a virtual platform. WebEx accounts were created for all of the supportive services team and iPad workstations were deployed in Infusion, Radiation and the Breast Centers at our centers in Akron, Barberton and Medina resulting in 180 virtual encounters.

*"It is so comforting that you guys are doing so much to keep us safe. It makes me feel better about having to come in for treatment."*  
 - Anonymous Patient Quote



**Rella Rotondo, RD, LD – Outpatient Oncology Dietitian on an iPad cart in Infusion**

At the beginning of the pandemic, when we were still learning and adapting, our supportive services team was providing support strictly through telephone encounters. Face-to-face consultations with a Financial Support Navigator are needed to build trust, allowing the Financial Support Navigator to provide appropriate financial literacy and resources. This will lead to decreased out of pocket costs for the patient, decreased financial distress, decreased need for charity care to be provided by Summa Health, decreased bad debt, etc. What we discovered during our virtual journey in 2020 was that distrust was a barrier to care for our patients, as it pertains to receiving services that were not face-to-face, specifically financial support. This distrust prevents patients from openly communicating their needs to their providers.

### Financial Navigation 2020 Timeline

- April-June** Supportive Services are working remotely.  
All contact with patients is through telephone encounters.
- June** Supportive Services are back in the office and seeing patients in person
- Jan-July** We report a **38% increase in charity care** – compared to 2019
- Nov-Mar** Supportive Services are working remotely with an emphasis on virtual connection with patients via WebEx
- Dec** We report a **15% decrease in charity care** for the year – compared to 2019

In addition to being able to connect virtually with the supportive services team, we launched a series of virtual support offerings for our oncology patients. We launched a monthly virtual support group, with a focus on mindfulness and integrative healing to provide patients with, not only support, but tools to help them cope with feelings of stress, anxiety and isolation in between support group sessions.

**"These groups have been so helpful to me. I don't feel alone anymore."  
- Anonymous Patient Quote**

Looking outside the box, we also developed virtual artistic healing workshops for patients to connect and share their artistic side. Art has long been known to have healing effects. Artistic healing uses creative techniques such as drawing, painting, coloring or sculpting to help people express themselves artistically and examine the psychological and emotional undertones in their art. You don't have to be an artist or even like art to benefit from it. For people living with cancer, this activity may be helpful in many ways.

Cancer Institute

## Virtual Oncology Support Group Sessions

### The Importance of Inner & Outer Connection

In this support group session, we will focus on the importance of social connection and how we can find ways to connect. The session will focus on simple sensing and grounding practices for a deeper awareness of the present moment.

Every 3rd Monday at 11:00 a.m. and 7:00 p.m.

Pre-registration required for all programs. Call **330.375.6365** to register for an upcoming class. Video capabilities strongly encouraged, but not required for these virtual classes.

CAN-20-9859CCL-0005-21

## Virtual Support – Employees

### Meeting in the Moment – Mindfulness and Bodyfulness Workshops – Monthly

"I felt like 30 minutes was a good amount of time even though I could listen to you both speak for hours- you both have such calming, soothing voices. You have good bed time reading voices! And to be completely vulnerable, you made me cry. When thinking about letting go- that's hard to swallow. Like where do you even begin? But you validated that it's ok to let it go.... I really hope you were able to touch others today like you did me in a positive way!"

- Employee quote



## Summa Health Dental Clinic

Summa Health's Dental Center located on the third floor at 75 Arch Street houses Summa's Dental Residency program and offers a wide variety of dental care to the surrounding community. Summa Health is located within a Dental Health Provider Shortage Area (HPSA). A large portion of the patient population is under-insured, self-pay or on a Medicaid product insurance. As many private dental practices do not accept Medicaid products or offer accommodating payment options, many patients in our community do not have access to dental care outside of Summa's Dental Center.

In 2020, the Dental Center made exciting changes to enhance both clinical and administrative procedures. Adding an Expanded Function Dental Auxiliary (EFDA) to our team has allowed more restorative procedures to be completed and provided an opportunity for the dental residents to prepare for a private practice setting by working with a wider variety of clinical personnel. Creating a Credentialing/Billing Analyst position has helped streamline the flow of the revenue cycle and allowed for a revision of the Patient Account Representative position. This allows the Patient Account Representative to focus more on patient concerns and better serve the needs of our patients.



Another tremendous improvement in quality for the Dental Center in 2020 was the award of a \$10,000 grant from the Delta Dental Foundation from their Covid-19 Emergency Assistance Fund. The grant monies were used to purchase aerosol-reducing equipment for use during dental procedures enabling a safer working environment for clinicians and protecting patients through heightened infection control measures. The Dental Center served as a vital resource for the community and the surrounding area by remaining open for emergent care and keeping patients out of the Emergency Department during the pandemic. The Delta Dental Foundation also provided the Dental Center with 288 adult toothbrushes, 144 youth toothbrushes, and 150 educational rack cards.

# Summa Health Heart & Vascular Institute



## Structural Heart

Summa Health's Structural Heart Team, pictured below, was the first in Ohio and ninth in the nation to attain Transcatheter Aortic Valve Replacement (TAVR) Certification by the American College of Cardiology. The certification recognizes programs that implement evidence-based practice and track key performance metrics to identify opportunities for ongoing improvement.

### Interventional Cardiologists



**Peter M. Bittenbender, M.D.**



**Justin M. Dunn, M.D.**



**Meggan Dunn, CNP**



**Michelle Michel, CNP**

### Valve Coordinators

### Cardiothoracic Surgeons



**Nkem Aziken, M.D.**



**Eric A. Espinal, M.D.**



**Kevin L. Mayor, M.D.**



**Audra Krebs, M.D.**

### Geriatrician

## Vascular Surgery

Vascular Surgery results remained excellent, even while volumes were down in 2020 due to COVID-19. For abdominal aortic aneurysm (AAA) cases in 2020, 93% of the patients were treated by Endovascular AAA Repair (EVAR). Summa Health vascular surgeons performed 27 EVAR cases and two open AAA cases.

Endovascular repair is less invasive, decreases Length of Stay (LOS), mortality, complications and infections. It provides the patients an accelerated return to work and allows them to resume daily activities shortly after surgery.

Summa Health participates in the Society for Vascular Surgery (SVS)/Vascular Quality Initiative (VQI) registry which contains demographic, clinical and procedural and outcomes data from more than 800,000 vascular procedures performed nationwide and in Canada. Summa Health ranks in the top 25th percentile for the following EVAR metrics:

### VQI Best Practices Dashboard

**Procedure Timeframe: April 1, 2020 - March 31, 2021**

**Includes Endovascular AAA Repair (EVAR) procedures only. Excludes any procedure with ruptured aneurysm.**

**Legend: Blue = "Top" 25th percentile Coral = "Bottom" 25th percentile**

Category	Outcome/Complication	Year Center	Year Region	VQI Overall
Case Data	Number of Cases Reviewed	24	431	4038
	Median Postop LOS (days)	1	1	1 (0 1 10)
	Median Total LOS (days)	1	1	1 (0 1 10)
Postop Events	Any Stroke	0%	0.7%	0.3% (0 0 0)
	New Dialysis	0%	0.2%	0.3% (0 0 0)
	Access Site Occlusion	0%	0.7%	0.4% (0 0 0)
	Surgical Site Infection	0%	0.2%	0.1% (0 0 0)
	MI	0%	0.5%	0.8% (0 0 1.1)
Reintervention (during admission)	Any Reintervention	0%	1.4%	2% (0 0 2.7)
	Related to Procedure	0%	1.2%	1.5% (0 0 3.1)
Reintervention Indication (for related reinterventions)	Aorta/Branch Related	No cases	0%	46.1% (0 0 100)
	Graft Related	No cases	0%	14% (0 0 30)
	Other Related	No cases	0%	40.4% (0 0 100)
Discharge Destination	Dead	0%	0.8%	0.8% (0 0 2.1)

## Meet the Vascular Team



**Joseph R. McShannic, M.D.**



**John A. Moawad, M.D.**



**Drazen Petrinec, M.D.**

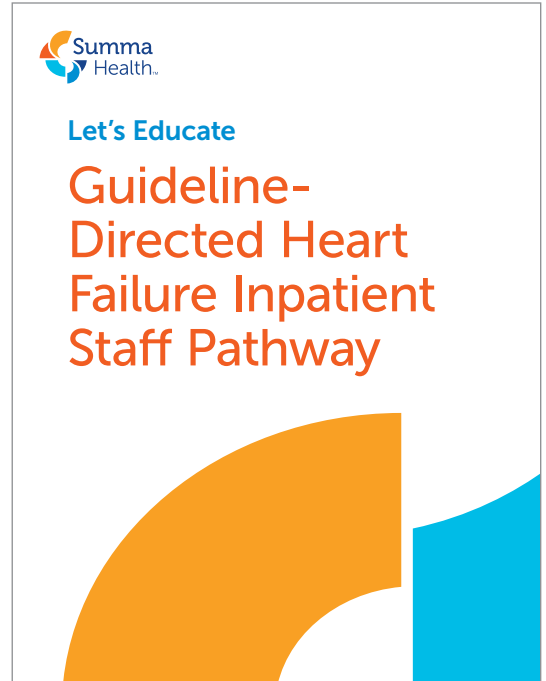


**Eric Turney, M.D.**

## Guideline-Directed Heart Failure Inpatient Staff Pathway

Mirroring the Patient Education Care Pathway tool for Heart Failure presented in 2019's Quality Report, the Heart Failure (HF) team at Summa Health Akron Campus developed a Guideline Directed HF Inpatient Staff Pathway mapping patient care for Summa Health's clinical providers, nursing staff, transitional care coordinators and new staff members. This pathway tool was designed to give care providers a framework for how the care of a HF patient should progress, for a successful discharge to the next level of care. The hope with Guideline Directed Management future hospitalizations can be prevented.

Developed by: G.Orasanu, M.D., C.Tanayan, M.D., R.Brinker, B.Hilker, RN HF Navigator 3.2020



Length of Stay:	Day 1	Day 2	Day 3	Day 4
<b>Provider:</b>	<ul style="list-style-type: none"> <li>Heart Failure Admission Order Set</li> <li>Consult Heart Failure Service</li> <li>Baseline Pro-BNP. Order daily BMP, Mg levels x5 days</li> <li>EKG, CXR, Echo-If indicated</li> <li>ICD/PPM Interrogation PRN</li> <li>IV Loop Diuretics (2x-2.5x home dose)</li> <li>GDMT (ACE/ARB/ARNI) Initiation or up-titration as tolerated</li> <li>Consider compression stockings for peripheral edema</li> <li>Consult to HF Navigator for Heart Failure Education</li> <li>Consult Dietician</li> <li>Consider Palliative Care (readmissions &gt;1 in 6 mos)</li> <li>Discharge planning with TCC/SW</li> <li>PT/OT</li> </ul>	<ul style="list-style-type: none"> <li>Assess response to diuretics:</li> <li>If euvolemic: Consider Switch to PO</li> <li>If hypervolemic: Consider Higher dose of IV Loop diuretic</li> <li>Or</li> <li>Add 2nd diuretic (thiazide)</li> <li>Titrate up GDMT if tolerated</li> <li>EP referral for Life Vest if indicated (LVEF &lt;35%)</li> <li>Discharge planning with TCC/SW</li> <li>HF education, Dietician, DM education if applicable, PT/OT</li> </ul>	<ul style="list-style-type: none"> <li>Assess response to diuretics:</li> <li>If euvolemic: Consider Switch to PO</li> <li>If hypervolemic: Consider Higher dose of IV Loop diuretic</li> <li>Or</li> <li>Add 2nd diuretic (thiazide)</li> <li>Titrate up GDMT if tolerated</li> <li>Discharge planning with TCC/SW</li> <li>HF education, dietician, DM education if applicable, PT/OT</li> <li>Make follow-up appointment within 7 days after discharge</li> </ul>	<ul style="list-style-type: none"> <li>Assess discharge readiness</li> <li>Document dry weight, NT Pro-BNP</li> <li>Update discharge med rec</li> <li>Make follow-up appointment within 7 days after discharge if not already made</li> <li>HF Education, Dietician, DM education if applicable</li> <li>Endorse and reinforce importance of flu with provider within 7 days</li> </ul>
<b>Nursing:</b>	<p><b>Utilize Inpatient Pathway posters in room</b></p> <p><b>Document:</b></p> <ul style="list-style-type: none"> <li>Weight-Standing Scale</li> <li>I/O every 12 hours and net balance +/-</li> <li>Activity level with +/- symptoms</li> <li>Attempt daily to decrease supplemental oxygen to baseline per protocol</li> </ul> <p><b>Patient goals:</b></p> <ul style="list-style-type: none"> <li>Up to chair at least once</li> <li>Low salt &lt;2G/day</li> <li>Restrict fluid intake (&lt;1.8L or 64oz)</li> </ul> <p><b>Review and Educate patient:</b></p> <ul style="list-style-type: none"> <li>Initiate CHF plan of care in Care Path and CHF Education</li> <li>Introduce Living with Heart Failure Education booklet and Heart Failure Zone teaching</li> </ul>	<p><b>Utilize Inpatient Pathway posters in room</b></p> <p><b>Document:</b></p> <ul style="list-style-type: none"> <li>Weight-Standing Scale</li> <li>I/O every 12 hours and net balance +/-</li> <li>Activity level with +/- symptoms</li> <li>Attempt daily to decrease supplemental oxygen to baseline per protocol</li> </ul> <p><b>Patient goals:</b></p> <ul style="list-style-type: none"> <li>Up to chair with meals</li> <li>Walk to bathroom (with assistance if needed)</li> <li>Low salt &lt;2G/day</li> <li>Restrict fluid intake (&lt;1.8L or 64oz)</li> </ul> <p><b>Continue CHF Education/ Document Daily</b></p> <ul style="list-style-type: none"> <li>Document in CHF plan of care and CHF Education in Care Path</li> <li>Review Living with Heart Failure Education booklet and HF Zone teaching</li> </ul>	<p><b>Utilize Inpatient Pathway posters in room</b></p> <p><b>Document:</b></p> <ul style="list-style-type: none"> <li>Weight-Standing Scale</li> <li>I/O every 12 hours and net balance +/-</li> <li>Activity level with +/- symptoms</li> <li>Attempt daily to decrease supplemental oxygen to baseline per protocol</li> </ul> <p><b>Patient goals:</b></p> <ul style="list-style-type: none"> <li>Ambulate patient in hallway</li> <li>Encourage returning ADLs</li> <li>Low salt &lt;2G/day</li> <li>Restrict fluid intake (&lt;1.8L or 64oz)</li> </ul> <p><b>Continue CHF Education/Document Daily</b></p> <ul style="list-style-type: none"> <li>Document in CHF plan of care and CHF Education in Care Path</li> <li>Review Living with Heart Failure Education booklet and HF Zone teaching</li> <li>Verify follow-up appointment is within 7 days-document in BPA/on AVS/COC. "Click Go to" enter date and time</li> <li>Endorse and reinforce importance of flu with provider within 7 days</li> </ul>	<p><b>Utilize Inpatient Pathway posters in room</b></p> <p><b>Document:</b></p> <ul style="list-style-type: none"> <li>Weight-Standing Scale</li> <li>I/O every 12 hours and net balance +/-</li> <li>Activity level with +/- symptoms</li> <li>Attempt daily to decrease supplemental oxygen per protocol</li> </ul> <p><b>Patient goals:</b></p> <ul style="list-style-type: none"> <li>Back to baseline activity at home</li> <li>Verify patient understands discharge medications and are available for use</li> <li>Low salt &lt;2G/day</li> <li>Restrict fluid intake (&lt;1.8L or 64oz)</li> </ul> <p><b>Discharge Education</b></p> <ul style="list-style-type: none"> <li>Review AVS with patient, assess for knowledge gaps/barriers</li> <li>Provide any additional references for diagnosis education</li> <li>Endorse and reinforce importance of flu with provider within 7 days</li> <li>Verify follow-up appointment is within 7 days-document in BPA/on AVS/COC. "Click Go to" enter date</li> </ul>
<b>Transitional Care Coordinator:</b>	<ul style="list-style-type: none"> <li>Assess for discharge planning needs-DME/O2/medication needs.</li> <li>Consult SCRIP if qualify for HHC with SHAH (Summa Health at Home)</li> <li>Identify and assess for readmission risk and discharge barriers</li> </ul>	<ul style="list-style-type: none"> <li>Continue to assess for discharge planning needs-DME/O2/ medication/PT/OT recommendations</li> <li>Reassess SCRIP qualifications</li> <li>Identify and assess for readmission risk and discharge barriers</li> </ul>	<ul style="list-style-type: none"> <li>Assess Cardiology consult plan of care</li> <li>Continue to assess for discharge planning needs-DME/O2/ medication/PT/OT recommendations</li> <li>Reassess SCRIP qualifications/verify HHC/rehab needs in place.</li> <li>Identify and assess for readmission risk and discharge barriers</li> <li>Endorse and reinforce importance of flu within 7 days of discharge</li> </ul>	<ul style="list-style-type: none"> <li>Verify discharge plan of care and discharge disposition</li> <li>Finalize discharge needs-DME/O2/medication/PT/OT recommendations</li> <li>Reassess SCRIP qualifications/verify HHC/rehab needs in place</li> <li>Ensure transfer of discharge information to next site of care</li> <li>Endorse and reinforce importance of flu within 7 days of discharge</li> </ul>

Created by: G.Orasanu, MD, C.Tanayan, MD, B.Hilker, RN 10.2020



## Heart Failure



### Left to Right:

**Front row:** Gabriela Orasanu, M.D.; Megan Groot, RN SHMG; Umair Ahmad, M.D.; Amy Fleming-Radca, NP

**Middle:** Michelle Myers, PA; Amy Smith, MA; Tiffany Stauffer, NP; Nadine Cuenot, RN SHMG; Shauna Laney, RN SHMG; Amanda Hunter, Referral Coordinator

**Top row:** Jane Russell, NP; Kenneth Varian, M.D.; Leann Simons, RN SHMG; Bridget Hilker, RN HF Navigator; Jonathan Buggey, M.D.; Suzanne Jenkins, Referral Coordinator

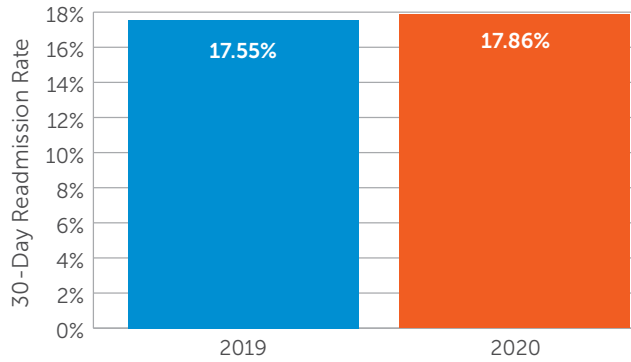
The COVID-19 pandemic has resulted in marked shifts in care delivery globally. While the direct effects of COVID-19 infection have led to devastating loss of life and significant morbidity among survivors, the pandemic's effects may be longstanding and extend far beyond those who contract infection with SARS-CoV-2. The pandemic had important implications for access and desire to seek care for patients with chronic high-risk illness, including heart failure (HF).

During COVID-19 pandemic, the heart failure team at Summa Health Akron Campus including nurses, nurse navigator, medical assistants, nurse practitioners, heart failure physicians and administration staff (Fig. 1) continued to focus on patients with HF admissions to improve patient care, patient adherence, and clinical outcomes. The number of total HF admissions were lower in 2020 compared to 2019 (1,271 vs. 1,430). The 30-Day HF readmission rate at Summa Health Akron Campus was similar in 2020 around 17.8% (Fig. 2a), with an observed/expected ratio (O/E ratio) of 1.04 (Fig. 2b). Despite all the challenges, clinical outcomes were similar among HF patients admitted during 2020 as compared with 2019. Among patients who were

hospitalized with heart failure, the inpatient mortality was as low as 2.5% with an O/E ratio of 0.93. In-hospital mortality rates in previously published studies investigating hospitalized HF populations range from 4.0–8.0%.

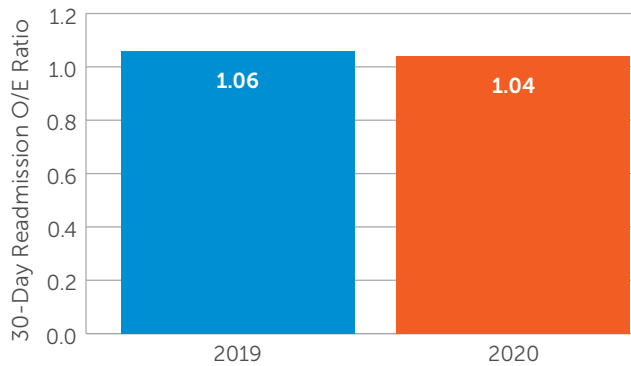
Quickly adopting the new virtual health platforms, innovative implementation efforts, and broad clinical commitment to maintaining care delivery helped to maintain excellent outcomes in the heart failure patients. The 2020 has been a remarkable year for therapeutic discovery in heart failure. Incremental progress has expanded the number of therapeutic options available specifically for patients with heart failure with reduced ejection fraction. Large, international randomized clinical trials evaluating sodium–glucose co-transporter 2 inhibitors have demonstrated consistent findings of improved morbidity and mortality. Summa providers adopted the new scientific discoveries making them available for all HF patients (inpatient and outpatient). We look forward to continued improvement in our HF care with the implementation of an updated system-wide HF Care Pathways in 2021.

### Heart Failure 30-Day Readmission Rate



HF Readmissions	251	227
Denominator (Cases)	1,430	1,271
30-Day Readmission Rate	17.55%	17.86%

### Heart Failure 30-Day Readmission Observed/Expected Ratio



HF Readmissions	251	227
Denominator (Cases)	1,430	1,271
30-Day Readmission O/E Ratio	1.06	1.04

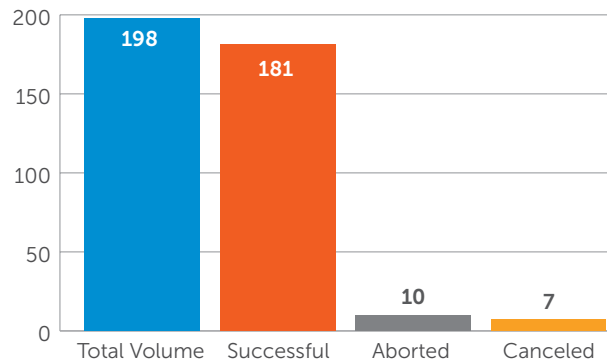
### Electrophysiology

The Summa Health Heart and Vascular Institute Electrophysiology division consists of four experienced, board certified electrophysiologists. They provide a full spectrum of clinical electrophysiology procedures, including large volumes of pacemakers, defibrillators and implantable loop recorders. They also offer ablative procedures for all complex supraventricular and ventricular tachy-arrhythmias. Complication rates are at or below national averages.

We are particularly proud of our atrial fibrillation program. We offer ablation procedures for atrial fibrillation with both available techniques, cryo-ablation and radiofrequency energy. In addition, we perform endocardial/epicardial hybrid procedures in conjunction with our cardiothoracic surgeons.

Finally, we have been one of the first centers in Northeast Ohio to perform left atrial appendage closure procedures with the Watchman device to protect patients from the risk of stroke when they cannot take oral anticoagulation. As such, we have participated in many, pivotal, national, multicenter clinical trials and we are part of a national registry. Our number of successful procedures compare favorably with the national averages.

### Watchman Procedures 2015-2020



## Summa Health Internal Medicine/Family Medicine

### Contamination Rates

Dr. Daniel Gonzalez, 3rd year resident and Chief Resident at Barberton Family Practice, noticed an increase in the contamination rates of blood cultures collected on inpatients at Summa Health System— Barberton Campus, specifically in the Emergency Department. As part of his senior project, Dr. Gonzalez delved into the background and causes of the increased contamination rates. As part of his data collection, he began by meeting with hospital leadership, lab managers, Emergency Department supervisors, and emergency department staff. He compared the contamination rates at Barberton Campus to the rates at Summa Health System— Akron Campus.

According to the Clinical and Laboratory Standards Institute, as well as various institutes throughout the world, the accepted international standard for hospital contamination rates is 3%. The Summa Health System as a whole follows the same standard of 3%. Barberton Campus previously had a rate <3% with the use of a phlebotomy team, but with a change in staffing plans and personnel, the contamination rate increased above 3%.

Dr. Gonzalez worked with lab managers and nursing to try to re-educate staff on proper blood culture collection processes. Dr. Gonzalez attended numerous emergency department staff meetings to speak with staff about the proper blood culture collection technique. The staff that collected blood cultures were also given real-time feedback of their blood culture collection process.

Here is what ensued from his senior project research:

The nursing staff are following multiple process improvement interventions; however, blood culture contamination rates were not able to match the international standard of 3%.

This project and research highlighted importance and increased discussions of current blood culture contamination rates across the hospital system.

Results were shared with nursing and hospital leadership, which ultimately led to a pilot program for a blood draw diversion device to address identified process concerns.

Dr. Gonzalez was awarded his green belt for this work.



Dr. Daniel Gonzalez

## Family Medicine Center

The Family Medicine Center is a primary care outpatient clinic for a family medicine residency program at Summa Health Akron Campus. The providers at this clinic provide healthcare services to patients from pregnancy through the end stages of life care and with many complexities. At the Family Medicine Center, our goal is to provide high quality comprehensive, compassionate, patient – centered, culturally sensitive care across the lifespan. We have a multidisciplinary team of providers which includes physicians, advanced practice providers such as nurse practitioners and physician assistants, nurses, medical assistants, social workers, behavioral health consultants and pharmacists.

In 2020, like many in the healthcare setting both organizationally and nationwide, the Family Medicine Center during the COVID-19 pandemic was challenged with how to continuously coordinate the care of our patients while adjusting to the new safety guidelines in place. The question became what provisions could we make to continue care safely at Family Medicine? The leadership team quickly planned for workflow changes and the opportunity to change our registration process was discussed.

In May 2020, we were able to procure two registration Workstations on Wheels or WOW's, and started a pilot utilizing them with our registration staff. This allowed the registration team to screen the patient, as they arrive, for COVID symptoms and take their temperature then escort the patient directly to an exam room. Once in the exam room the registrar and the WOW cart arrived to begin the registration process. The patient was asked to complete any necessary paperwork, their insurance card and photo ID were scanned in on the portable scanner and their signature was captured on the portable signature pad. Once the registration process was completed, the WOW was sanitized and the patient was made ready for the medical assistant staff to complete their part.

This process improved the combined time in the reception and waiting area decreasing it from an average of 14 minutes in pre-registration time to an average of < 2 minutes after implementation of the WOW carts. The process eliminated any idle gaps since patients were walked back to a room from arrival thereby eliminating any human delays.

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**The change of process decreased patient contact in the reception area which improved patient safety and became a patient satisfier in the surge of COVID-19.**

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The overall improvement in total time the patient is at the office prior to seeing their provider is between 6-8 minutes over the year.

Patient satisfaction improvement was also noted in our narrative feedback for the Patient Centered Medical Home access survey. Patients provided feedback reporting that we cared about them and their safety. They expressed they liked the no contact exposure with not having to sit in the reception area with other patients during the pandemic when anxiety and fear was already high. They felt service was faster and wait times had decreased, and they were able to be seen by their provider faster.

As we move forward, future considerations are to increase the number of WOW registration carts in use to four, further improving the ability to register more patients simultaneously as our face to face patient care post pandemic increases.

Please reference below graph which shows the month over month average times from arrival in the reception/ waiting area space to ready to be seen by provider. This reflects the overall eight-minute difference seen during this time. Then with some staffing gaps that occurred latter in the year the timing began to be impacted and workflows reassessed. This is where the need for future considerations of increasing the number of WOW's would be helpful.

Month	Avg Minutes Arrived to Ready to be Seen		
JAN	24	JUN	15
FEB	25	JUL*	18
MAR	24	AUG*	19
Total	25	Total	17
*Staffing shortages		Diff	-8
		% Chg	-31%

# Summa Health Neuroscience Institute

## Stroke Care

Stroke is the leading cause of adult disability. While two million neurons die every minute during an acute stroke, Summa Health continues to administer life-saving treatments faster, year after year. Akron Campus continues to maintain the American Heart Association/American Stroke Association Gold Plus award for timely clot buster drug treatment administration for the 11th year in a row. Summa Health is proud to be recognized by Healthgrades as one of America's 100 Best Hospitals for Stroke Care in 2020, naming us among the Top 2% of the nation, as well as a recipient of the following additional awards for 2020: Neurosciences Excellence, Stroke Care Excellence and Cranial Neurosurgery Excellence.

Even with challenges of the pandemic, both Summa Akron and Barberton Campuses' Emergency Departments managed to further decrease the average door to clot buster drug administration times by an additional two minutes at each facility in 2020. This equates to an additional savings of 4 million brain neurons per patient. Our Akron Campus treatment time for 2020 was 24 minutes faster than the national goal of 60 minutes.

While Akron Campus continues to run more than 500 stroke teams per year, Barberton Campus stroke team volume has consistently increased, to running 80 stroke teams in 2020. Additionally, Barberton Campus administered eight more clot busting drug treatments, for a total of 21 in 2020.

In July 2020, Akron Campus initiated a Multidisciplinary Door to Reperfusion Committee with the goal of decreasing door to clot retrieval treatment times for acute stroke patients with a clot in a large vessel of the brain, causing stroke. After evaluating the process and implementing several changes to expedite our Interventional Stroke team process, the median door to treatment time decreased by 11 minutes at the end of 2020, with 23% more cases meeting the national goal of less than 90 minutes.

The Neuroendovascular program continues to show significant growth again in 2020, increasing the number of aneurysm patients treated from 14 in 2019 to 26 in 2020. Despite limitations from the pandemic, overall endovascular procedures, in addition to aneurysm coiling and embolization treatments, also including diagnostic cerebral angiograms and carotid stenting, increased by 12% (24 surgical procedures).

**With the addition of the Stroke Navigator role at Akron Campus at the end of 2018 to enhance transitions of care, the Stroke Care Center scheduled 79% of patients discharged to home in 2020, with a primary care follow up appointment prior to leaving the hospital.**

Summa outpatient neurology support for the community began quite aggressively in 2020 with the addition of four outpatient neurologists and one outpatient advanced practice provider. Outpatient neurology access to care became available at Portage Lakes, Barberton, Fairlawn and Akron Campus. In a matter of months, specialized clinics were created for spasticity, complex headache treatment, neuromuscular disorders and stroke, as well as a post-COVID clinic.

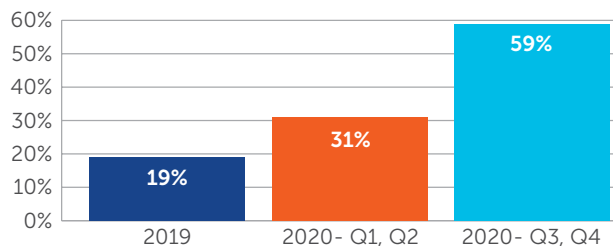
With this Neuroscience Institute growth in 2020, the consistency of two NeuroCritical Care Advanced Practice Providers resulted in optimal throughput and communication with family during COVID. Additionally, by the stroke navigator role obtaining direct access to outpatient neurology scheduling, the percentage of patients discharged with outpatient neurology follow up increased from 19% in 2019, to 31% in the first half of 2020, and up to 59% for the second half of 2020.

Based on literature and risk for readmission, the Stroke Center goal was to schedule timely outpatient neurology appointments within two weeks of discharge with the intention of decreasing ischemic stroke readmission rates. After the significant increase in scheduling outpatient neurology follow-up, ischemic stroke readmission rate decreased by 4.52%, down to 6.02% by the end of 2020.

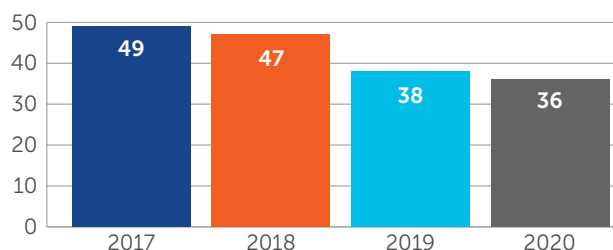
With the opening of outpatient neurology, as well as the strengthening of our inpatient neuroscience team, not only patients discharged from the hospital, but also referred patients with all types of neurological symptoms can now receive specialized care in our neuroscience clinics. We look forward to continued growth, already in progress for 2021.



### Neurology Follow-Up Scheduled Prior to Discharge for Patients Going Home



### Door to Clot Buster Treatment Administration Time in Minutes



**National Goal is less than 60 minutes.**

## Summa Health Orthopedic Institute

To meet the growing demand for specialized orthopedic care in 2020, Summa Health Medical Group – Orthopedics and Sports Medicine expanded to a team of 25 providers, including 12 fellowship-trained surgeons, five fellowship-trained primary care sports medicine physicians and eight advanced practice providers (APPs) with further recruitment expected in 2021. The new additions included **Dr. Ryan Urchek**, orthopedic sports medicine surgery; **Dr. Jacqueline Tulodzieski-Ahlstrom**, podiatry/podiatric surgery; **Dr. Zachary Vallandingham**, sports medicine; and **Michele Fabian, PA-C**, podiatry. The program also has 19 orthopedic residents and two sports medicine fellows, many of which have been involved in providing input for quality improvement initiatives throughout the system.

By adding podiatry as a new service offering, the program now has specialists in every area of orthopedics – foot and ankle, hand and plastics, knee and hip, total joint, shoulder, neck and back, sports medicine, orthopedic fracture care and orthopedic oncology. This growth also has helped to enhance patient access. For example, Summa Health Medical Group – Orthopedics and Sports Medicine was able to offer same-day/next-day appointments and walk-ins at two of nine regional office sites during the heart of the pandemic, which helped keep patients out of the emergency department.

Summa Health Medical Group – Orthopedics and Sports Medicine also collaborated with Summa Health Therapy Services to enhance support of orthopedic and sports medicine patients. The orthopedic group worked with therapy locations to improve access and coordination of care with physicians, surgeons and APPs. What's more, Summa orthopedics helped to support several orthopedic nurses as they pursued orthopedic nurse certification, as well as assisted in efforts to obtain magnet status. The orthopedic department also participated in quality projects with Level One trauma service certification.

Throughout 2020, plans continued for the Orthopedic Joint Center of Excellence. The program identified Summa Health System – Barberton Campus as its future location and set January 2022 as the target opening. Other 2020 planning involved the program's expansion into Portage County at the new Summa Health Rootstown location, to open in September 2021.

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**Summa Health System is proud to be a 3-star Healthgrade hospital for total knee replacement, hip replacement, hip fracture treatment and spinal fusion.**

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Four new providers joined the Summa Health Medical Group – Orthopedics and Sports Medicine team in 2020: (left to right) Ryan J Urchek, M.D., Jacqueline M Tulodzieski-Ahlstrom, DPM, Zachary D Vallandingham, D.O., and Michele Fabian, PA-C.



# Summa Health Seniors Institute

## Geriatric Emergency Department Accreditation (GEDA) – A Population Health Initiative

The Summa Health Akron Campus Emergency Department has achieved the bronze standard— Level 3 GEDA accreditation from the American College of Emergency Physicians (ACEP) on Sept 14, 2020. The voluntary GEDA program, which includes three levels similar to trauma center designations, provides specific criteria and goals for emergency clinicians and administrators to target. The accreditation process provides more than two dozen best practices for geriatric care and the level of GEDA accreditation achieved depends upon how many of these best practices an emergency department is able to meet. A Level 3 emergency department must incorporate many of these best practices, along with providing interdisciplinary geriatric education, and having geriatric appropriate equipment and supplies available. In addition, the Emergency Department has implemented a Geriatric Triage Screening Tool for older adults to ensure appropriate patients are evaluated and needed resources are wrapped around this patient population.

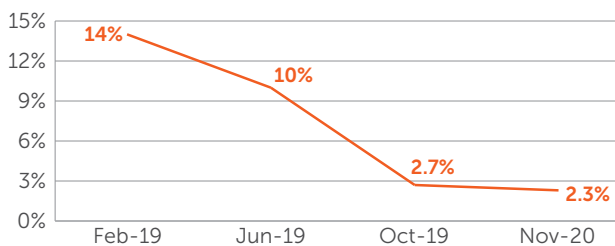


## Decrease New Delirium

Delirium is a decrease in cognition, awareness and attention that occurs over hours to days. It most commonly occurs in hospitalized older patients. It has many causes, but can be brought on by serious illness, some medications, pain, electrolyte abnormalities, dehydration, lack of sleep, as well as many other medical situations. It is sometimes, but not always reversible, and is preventable about 40% of the time. Delirium can be a devastating outcome for patients and families.

Summa's Interprofessional Encephalopathy Quality Improvement Committee developed and implemented a quality improvement plan to decrease new delirium in our hospitalized patients. This plan included education of all hospital employees through screen saver slides, education programs targeted to nurses, physicians and pharmacists, modification of the encephalopathy and insomnia order sets, and development of a badge backers as a nursing delirium resource. Audits for new delirium indicated a decreased prevalence from 14% to 2.3%.

## New Delirium Prevalence



## Geriatric Workforce Enhancement Program (GWEP)

Summa Health is a primary partner with Northeast Ohio Medical University on the Geriatric Workforce Enhancement Program (GWEP) grant for the State of Ohio. This is a Health Services and Resources Administration funded program. The purpose of the project is to integrate geriatrics and primary care, train a workforce prepared to practice in such settings, and empower patients and their caregivers towards better self-management through improved knowledge.

The Geriatric Workforce Enhancement Grant (GWEP) was in its second year in 2020 and provided many programs to improve knowledge on the care of older adults. The primary goals of the grant are to: provide online, in-person, and simulation based education to primary care and community-based providers, faculty, students, patients and families; to implement a 40-hour Geriatric Resource Certificate program; to provide mentoring through expansion of a community-based Care Management Interprofessional Team in partnership with the Area Agencies on Aging; and to implement Dementia Friendly Community initiatives. **Some of the achievements of this team in 2020 included the following:**

Dementia Friends training provided to Portage and Summit County first responders, Middlebury neighborhood residents, and University of Akron students.

Additional funding was awarded to allow for monthly webinars to specifically address the effects of COVID-19 on the aging population.

Partnered with Habit for Humanity on a grant that supports home modifications for individuals living with dementia in the Akron and Barberton communities.

Supported 12 simulation activities that provided practice for interprofessional students and providers to handle complex older adult needs.

Supported four weekly interprofessional rounds for most complicated patients serviced by Direction Home, Akron Canton Area Agency on Aging and Western Reserve Area Agency on Aging.

## Summa House Calls

### Age Friendly Designation

The Summa House Calls Program has achieved the Institute for Healthcare Improvement (IHI) designation for Age-Friendly. This designation is part of a national effort to improve care for older adults. The designation of Age Friendly reflects a commitment to addressing the "4Ms" which ensure that mentation, medications, mobility and what matters most to patients are addressed at all patient encounters. Achieving this designation supports Summa's commitment to optimize outcomes for older adults and Population Health. The House Calls Program joins the Senior Health Center, 6 West at Akron Campus, 4 South at Barberton Campus, and the Outpatient Therapy Department who received Age Friendly Designation in 2019.



# Summa Health Weight Management Institute

## Standardized Surgical Site Infection Prevention Techniques

The surgical team in the Summa Health Weight Management Institute took on evidenced based practice updates and implemented standardized SSI (Surgical Site Infection) prevention techniques.

	Gastric Sleeve		Roux-en-Y Gastric Bypass	
	1/1/19 - 12/31/19	1/1/20 - 12/31/20	1/1/19 - 12/31/19	1/1/20 - 12/31/20
Morbidity	6.50%	2.73%	9.24%	7.18%
All Occurrence Morbidity	8.13%	4.55%	16.24%	9.23%
Leak	0.00%	0.00%	0.96%	0.00%
SSI	0.81%	0.00%	3.82%	2.05%
Related Readmission	4.88%	1.82%	7.96%	2.05%
Serious Event	4.88%	4.55%	6.69%	4.10%
All cause intervention	0.00%	0.00%	6.37%	1.54%

## Surgical Process – 2nd Green Belt

A cross-functional team at the Weight Management Institute successfully improve efficiency and access to the new surgical patient timeliness to surgery process. Prior to the project, the process was complex and had many inefficient steps involved for a patient present for non-clinical visits. The team streamlined patient appointments, processes/paper work, eliminated delays, and batching of work. As a result, the time from referral to scheduling an appointment with a surgeon decreased from 16 steps to 7 steps, eliminated multiple patient trips to the office and decreased the average process time from 143 days to 85 days.

## COVID-19 Response – Ensuring Access and Continued Journey to Metabolic Weight Loss Surgery

Due to the COVID-19 pandemic, the Summa Health Weight Management Institute had to have a quick adoption to Virtual Visits. This included Summa Health’s first psychologist to conduct virtual visits.

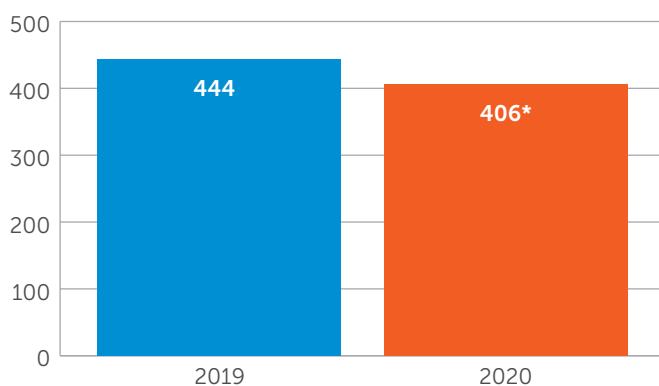
By pivoting to a virtual model, patients were able to continue their journey to metabolic weight loss surgery which usually takes 6-9 months.

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**Patients continued their journeys to surgery and surgical volumes remain strong in 2021.**

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## Results: Completed Primary Weight Loss Surgeries



\*Note: Surgeries canceled in December 2020 due to COVID-19 were rescheduled and completed early 2021.



## Summa Health Women's Institute

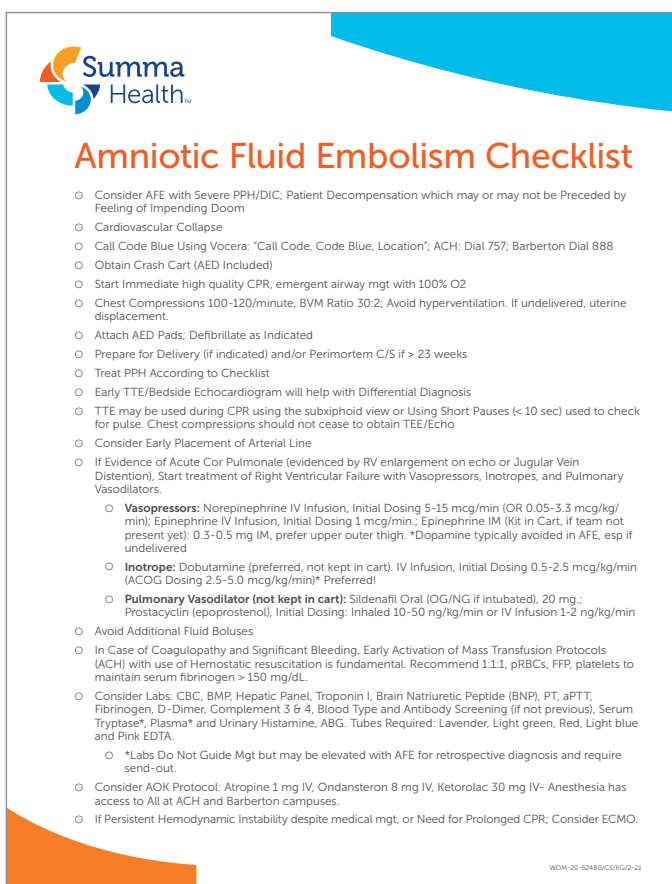
2020 was an unprecedented year, full of challenges throughout Summa Health, the Women's Health Institute, and healthcare in general. Summa Health's Women's Health Institute team consistently meets challenges head on, viewing such circumstances as an opportunity for growth, innovation and excellence. As such, this story will highlight three processes that were created and implemented in the past year in an effort to optimize team performance and maximize patient safety. The three processes include: 1) development of a COVID HUB, 2) creation of an amniotic fluid embolism (AFE) checklist with simulation and 3) formation of a "condition O" process, checklist, simulation and education rollout to a multidisciplinary audience.

### Development of COVID-19 HUB

In early 2020, the COVID-19 pandemic created an urgent need for a healthcare-based response that was rapid, albeit fluid, in the environment of a novel virus with incomplete data and ever-changing recommendations. While some divisions within Summa Health were appropriately running simulations related to COVID care and patient and staff workflow, the constant evolution of recommendations and practices made this standard methodology of implementation seem to be suboptimal from the perspective of the Women's Health leadership team. To meet this clinical quandary, Jennifer Doyle, CNP teamed up with Dr. Derek Ballas to create an online HUB, in which the latest updates and guidelines could be viewed and shared with providers and staff. With the input and help of a multidisciplinary team, nursing managers within women's health, lactation consultants, Maternal-Fetal-Medicine, and ongoing published data, checklists were developed for every point of care for the obstetric dyad. From prenatal and antepartum testing considerations, through triage, intra-and-postpartum periods; for mom, baby and family- all of the way through discharge. In April 2020 at a webinar sponsored by the Ohio Perinatal Quality Collaborative, Doyle presented 'COVID, the pregnant patient and preparation' to a national audience of over 500 attendees. Highlighted in the presentation was the development of the innovative HUB, and was positively received with much acclaim. Regularly updated with clear dating and color-coded delineation of updates, the HUB can currently be accessed at <https://dab43210.wixsite.com/summawhscovidwebsite> and was last revised in October 2020. Obviously, the impact of COVID in the obstetric and neonatal realm did not prove as taxing on our division as others, and was one part of the entire team's ongoing efforts to combat maternal morbidity and mortality.

### Amniotic Fluid Embolism Checklist

The Women's Health Institute's award-winning OB Emergency Simulation program continued on throughout 2020 at both Akron and Barberton Campuses. During one such simulation at the Barberton Campus, the debriefing included a discussion about various OB emergencies. When Amniotic Fluid Embolism (AFE) was mentioned by Dr. Peter Sutter (OB/GYN), it was clear that our department was missing an AFE Checklist from our current library. In examining the literature, no current AFE checklists actually existed, although response recommendations have been published in summary. A multidisciplinary team led by Jennifer Doyle, CNP and consisting of Dr. John Hutzler (OB/GYN), Dr. Derek Ballas (OB/GYN and Simulation), Dr. Michael Smith (Anesthesia), Connie Becht (Nursing Director, OB) and with consultation from Dr. Roger Chaffee (Cardiology), Glenn Huth, R.Ph, Director of Pharmacy operations and Laboratory professionals Tina Kather, BSMT (ASCP) and Dr. Vikram Palamalai, a checklist was created. This checklist was shared with staff and providers through e-blast as well as incorporation of an AFE scenario into the 2020 and 2021 OB simulations at both Akron and Barberton Campuses.



The image shows the cover of a checklist document. At the top left is the Summa Health logo, which consists of a stylized 'S' made of three overlapping shapes in orange, blue, and green, followed by the text 'Summa Health'. The title 'Amniotic Fluid Embolism Checklist' is centered in a large, bold, orange font. Below the title is a list of 20 items, each preceded by a small circle. The items are organized into several sections, including 'Consider AFE with Severe PPH/DIC', 'Cardiovascular Collapse', 'Treat PPH According to Checklist', 'Vasopressors', 'Inotropes', 'Pulmonary Vasodilator', 'Avoid Additional Fluid Boluses', 'Consider Labs', and 'Consider AOK Protocol'. The document has a white background with a blue header and footer area. The footer contains the text 'WOM-20-52480/CS/NG/2-21'.

**Summa Health**

## Amniotic Fluid Embolism Checklist

- Consider AFE with Severe PPH/DIC; Patient Decompensation which may or may not be Preceded by Feeling of Impending Doom
- Cardiovascular Collapse
- Call Code Blue Using Vocera: "Call Code, Code Blue, Location"; ACH: Dial 757; Barberton Dial 888
- Obtain Crash Cart (AED Included)
- Start Immediate high quality CPR, emergent airway mgt with 100% O2
- Chest Compressions 100-120/minute, BVM Ratio 30:2; Avoid hyperventilation. If undelivered, uterine displacement.
- Attach AED Pads; Defibrillate as Indicated
- Prepare for Delivery (if indicated) and/or Perimortem C/S if > 23 weeks
- Treat PPH According to Checklist
- Early TTE/Bedside Echocardiogram will help with Differential Diagnosis
- TTE may be used during CPR using the subphoid view or Using Short Pauses (< 10 sec) used to check for pulse. Chest compressions should not cease to obtain TEE/Echo
- Consider Early Placement of Arterial Line
- If Evidence of Acute Cor Pulmonale (evidenced by RV enlargement on echo or Jugular Vein Distention), Start treatment of Right Ventricular Failure with Vasopressors, Inotropes, and Pulmonary Vasodilators.
  - **Vasopressors:** Norepinephrine IV Infusion, Initial Dosing 5-15 mcg/min (OR 0.05-3.3 mcg/kg/min); Epinephrine IV Infusion, Initial Dosing 1 mcg/min.; Epinephrine IM (Kit in Cart, if team not present yet): 0.3-0.5 mg IM, prefer upper outer thigh. \*Dopamine typically avoided in AFE, esp if undelivered
  - **Inotropes:** Dobutamine (preferred, not kept in cart), IV Infusion, Initial Dosing 0.5-2.5 mcg/kg/min (ACOG Dosing 2.5-5.0 mcg/kg/min)\* Preferred!
  - **Pulmonary Vasodilator (not kept in cart):** Sildenafil Oral (OG/NG if intubated), 20 mg.; Prostacyclin (epoprostenol), Initial Dosing: Inhaled 10-50 ng/kg/min or IV Infusion 1-2 ng/kg/min
- Avoid Additional Fluid Boluses
- In Case of Coagulopathy and Significant Bleeding, Early Activation of Mass Transfusion Protocols (ACH) with use of Hemostatic resuscitation is fundamental. Recommend 1:1:1, pRBCs, FFP, platelets to maintain serum fibrinogen > 150 mg/dL
- Consider Labs: CBC, BMP, Hepatic Panel, Troponin I, Brain Natriuretic Peptide (BNP), PT, aPTT, Fibrinogen, D-Dimer, Complement 3 & 4, Blood Type and Antibody Screening (if not previous), Serum Tryptase\*, Plasma\* and Urinary Histamine, ABG. Tubes Required: Lavender, Light green, Red, Light blue and Pink EDTA.
  - \*Labs Do Not Guide Mgt but may be elevated with AFE for retrospective diagnosis and require send-out.
- Consider AOK Protocol: Atropine 1 mg IV, Ondasteron 8 mg IV, Ketorolac 30 mg IV- Anesthesia has access to All at ACH and Barberton campuses.
- If Persistent Hemodynamic Instability despite medical mgt, or Need for Prolonged CPR; Consider ECMO.

WOM-20-52480/CS/NG/2-21

## “Condition O”



Like the AFE, which is a very rare and catastrophic event, the women’s health and neonatal teams must be prepared for other similar clinical scenarios. As the Summa Health, Akron Campus is the highest level possible (IV), caring for the most complex of maternal, fetal and neonatal cases, we have encountered several potentially devastating and deadly circumstances which require response from others typically beyond our division, such as trauma, cardiology and others. In an effort to be prepared for an immediate emergency that requires an extreme rapid response from multiple specialties, “Condition O” was developed. Led through collaboration between Dr. Dante Roulette (OB/GYN) and Dr. Jocelyn Davis, DNP, CNM, a multispecialty, multidisciplinary team was assembled to create the “Condition O” protocol and policy, to establish the code through the telecommunications department, and culminated with the development of a Condition O checklist. The checklist was then demonstrated and videotaped via a multidisciplinary, multispecialty team simulation. This video and all pertinent policy, protocol and checklist forms are being disseminated in 2021.

A special thank you to the Simulation Center leaders Dr. Derek Ballas and Alma Benner, RRT, CHSE, as well as Jocelyn Davis, DNP, CNM, Dr. Richard George (trauma), Dr. Dante Roulette (OB/GYN), and the entire team who participated in the simulation-based education to highlight pertinent points.



**Alma Benner, RRT, CHSE; Manikin Noelle;  
Rear: Jen Doyle**

Finally, while there were many stories of success for our division in 2020, it is notable to mention just a few other projects and protocols that have been, or are undergoing implementation, with credit to the leaders. These include the establishment of preeclampsia bracelets that are being worn by pregnant and postpartum women with this diagnosis, as a way of highlighting awareness of this complex condition in the event the women presents for care. Diane Greer, BSN, RNC (H2 L&D), in consultation with Jocelyn Davis, DNP, CNM, led this program in an effort to combat maternal morbidity and mortality.

Standardized education and processes for obstetric hypertension evaluation were rolled out to Summa Health Women's Health Institute and Emergency Departments, with data collection and outcomes assessed.

Also, Marilyn Nibling, DNP, NNP has been working with Summa Health's Obstetric Simulation implementation team to incorporate her "RING" Tool into daily practice in an effort to streamline neonatology notification for delivery attendance. RING is an acronym that stands for R- Room (where should they go?) I- Indication (Why are they needed?), N- Nursery personnel or is an NNP required? and G- Gestational Age of the neonate to whom they will be attending. When shared, these basic but critical pieces of information assist the obstetric and neonatal teams to ensure that maximum preparation is achieved

with minimal interruption or confusion. This focus has been especially important since the entire scope of caring for our moms and babies has moved into the H Tower. Finally, our department has been a participant site for a national quality improvement project through the Premier Perinatal Collaborative in which we have tackled the bundles of care related to obstetric hemorrhage and hypertension. Currently, we have met all of The Joint Commission's required bundle element criteria for both critical topics.

Despite the challenges of 2020 into 2021, Summa Health's Women's Health Institute leadership, staff and providers continue to strive to innovate in an effort to maximize outcomes for our moms, babies and families, whom we are honored to serve.

## Maternal-fetal Opiate Medical Home



Left to right: Teri Mitchell, Social Worker; Karen Frantz DeSeptis, RN Case Manager, Samantha Booth, D.O.; Stephanie Krueger, Coleman Counselor; Ashley Thomas, MA/Medical Office Coordinator; Suman Vellanki, M.D. Addiction Medicine

Abuse of opiate drugs has been called a national public health crisis. The number of pregnant women addicted to opiates served by our healthcare system has increased 492% since 2011, compounding the already urgent problem of high infant mortality and preterm labor rate in Ohio.

Pregnancy complicated by addiction is a treatable condition. To help with this, Summa Health developed the Maternal-fetal Opiate Medical Home (MOMH), a specialized, innovative and highly coordinated care pathway for opiated addicted mothers. The MOMH program identified the benefits of CenteringPregnancy® which are group prenatal visits instead of traditional prenatal visits. Group prenatal care brings women together into a comfortable group setting. The moms are better prepared for labor, delivery and to care for their infant, by providing group discussions on various topics such as stages of labor, breastfeeding and care of a newborn.

Implemented in 2014, MOMH participants routinely joined our CenteringPregnancy group for pregnant women battling addiction after completing the Women's Health Center's prenatal centering program.

During the COVID pandemic, the Women's Health Center still supported our opiate centering program by having individual group sessions with education, addiction medicine, behavioral health and social services available on site, and still meeting once a week and maintaining social distancing within the practice.

**Our mothers feel they have formed lasting friendships from this program and gained important information for themselves and their babies.**



**Summa Health**

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[summahealth.org/quality](http://summahealth.org/quality)

