



# Rising Up

WE SERVE TOGETHER 2021



ChristianaCare®



# WE SERVE TOGETHER 2021

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ChristianaCare is a private, nonprofit regional health care system that relies in part on the generosity of individuals, foundations and corporations to fulfill its mission. To learn more about our mission, please visit [christianacare.org/donors](https://christianacare.org/donors).

# Rising up

The ongoing COVID-19 pandemic continues to expose every crack and fissure in how we deliver health care in America. Looking back, 2021 was another difficult year, especially for the caregivers who continued to meet the health needs of our community amid the most difficult circumstances. At the end of the year, they faced a COVID-19 surge that was greater than any since the pandemic began.

While the challenges of the pandemic have been extreme, they have also demonstrated that we have a tremendous opportunity to emerge from this experience better, not broken.

An artform called “kintsugi” has been practiced in Japan for hundreds of years. When a piece of pottery or ceramic breaks, an artisan will put it back together with beautiful gold seams. A vase is still a vase. A plate is still a plate. But with the visible reminder of being put back together, the piece is made more beautiful, strong and resilient than it was in its original form.

Each lesson that the pandemic has taught us is an opportunity to create a new seam of gold. We will rise up to be better and stronger than we were before.

## Cultivating resilience

A key learning throughout the pandemic has been the importance of supporting our workforce. As our caregivers serve our patients, we acknowledge they need help, too. At ChristianaCare, we founded our nationally recognized Center for WorkLife Wellbeing long before the pandemic, and those investments have proved invaluable over the past two years. Our Center for WorkLife Wellbeing provided critical support to our fatigued caregivers through regular rounds, access to mental and emotional health services and, of course, visits from the Wellbeing wagon, fully stocked with snacks, lotion and more. This work earned us recognition as a national model by the American Medical Association’s Joy in Medicine program, and more importantly, it has helped our caregivers to meet the needs of our patients and community.

## Expanding our reach

Throughout the pandemic we have recognized the need to provide care that goes beyond our hospitals and practices. We have looked for ways to meet people where and when they need us. Through our Center for Virtual Health, we helped other employers in the area by providing daily symptom checks for their employees. Our virtual care program for patients with COVID-19 leveraged technology to provide continuous care and monitoring for patients at home, with the ability to bring them in for in-person or acute care if needed. Innovative therapies, such as monoclonal antibody treatments, brought relief to patients with COVID-19 who were at high risk of hospitalization.

We also continued to expand access to care, bringing our services into central and southern Delaware, Maryland and Pennsylvania and offering innovative primary care to cancer patients at the Helen F. Graham Cancer Center and Research Institute. There are now 11 ChristianaCare-GoHealth Urgent Care centers serving our community in Delaware and Maryland. And our care network continues to grow across the region.

We’ve long believed that an office isn’t the only place care should take place. Building on our care across the lifespan, we launched ChristianaCare-AccentCare Hospice & Palliative Care to expand in-home end-of-life care throughout Delaware. And because we believe in caring for people where it is best for them, we launched ChristianaCare hospital care at home that enables us to provide acute care to patients in their homes.

## Looking to the future

We deepened our commitment to improving health and making health care more affordable through a joint venture with Highmark Health that is creating a new model of value-based care. Over the next 10 years, we will transform the health care experience with a new kind of care that is data- and technology-led, and that is “always on” — never having to pause between appointments.

These ongoing commitments to serving our community make me optimistic for the year to come. It is our job as we move beyond the pandemic to build back a system that is stronger, better and more resilient. We must become not just a health care system, but a system that truly impacts health.

We will rise up, remaining mindful of our past but eager for what the future brings. We are stronger for our struggles and more committed to making a difference.

We are caregivers.

Let me close by saying thank you to all our caregivers and asking you to do the same. As our race against COVID-19 continues, a word of gratitude at the right moment can be a welcome wind at a caregiver’s back. It’s something we can all do For the Love of Health™.



*Janice E. Nevin M.D.*

**JANICE E. NEVIN, M.D., MPH**  
PRESIDENT AND CHIEF EXECUTIVE OFFICER, CHRISTIANACARE



# A SHOT AT HOPE

INNOVATIVE CARE, THERAPIES AND  
IMMUNIZATIONS FIGHT THE TIDE OF  
A GLOBAL PANDEMIC

**In 2021, due to COVID-19 variants, ChristianaCare hospitals operated at over 100 percent capacity for weeks and treated nearly 7,000 inpatients with COVID-19.**

**D**espite the challenges created by the ongoing COVID-19 pandemic, ChristianaCare continues to serve our community while making health care more accessible and affordable for our neighbors. We have focused on the immediate needs of patients infected by the COVID-19 virus, both in our hospitals and through remote monitoring offered by the Center for Virtual Health. We were one of the first health systems in the region to use monoclonal antibodies, administering 2,336 infusions in 2021.

For weeks, we operated at over 100 percent capacity in our hospitals, first with the delta variant in the summer of 2021, followed by the omicron variant in November. We treated nearly 7,000 inpatients with COVID-19 last year.

Our virtual monitoring programs, already robust as a result of the pandemic, grew even more. We sent nearly 3 million COVID-19 related texts in 2021 through the Center for Virtual Health while monitoring nearly 24,000 patients, including over 15,000 people diagnosed with COVID-19. We also partnered with other employers to maintain safety in the workplace through daily employee monitoring and symptom checking. Our virtual COVID-19 practice had more than 4,000 visits from patients.

"COVID-19 has accelerated our ability to deliver care virtually and move care into a patient's home. The capabilities that we have developed during the pandemic will serve us well in the future. We will continue to leverage digital technology to transform the way we deliver care," said Sharon L. Anderson, MS, BSN, RN, FACHE, chief virtual health officer and president of the Center for Virtual Health.

(continued on p. 4)



**6,523**

COVID-19 POSITIVE ADMISSIONS  
NEWARK AND WILMINGTON CAMPUSES

**4,267**

COVID-19 EMERGENCY DEPARTMENT VISITS  
NEWARK AND WILMINGTON CAMPUSES

**415**

COVID-19 POSITIVE ADMISSIONS AND  
EMERGENCY DEPARTMENT VISITS  
CECIL CAMPUS

CENTER FOR VIRTUAL HEALTH

**2,962,909**

TEXT MESSAGES SENT

**23,828**

PATIENTS/EMPLOYEES MONITORED

**15,141**

PATIENTS MONITORED WITH COVID-19

**998,159**

TEXT MESSAGES SENT TO COVID-19 PATIENTS,  
AVERAGING 66 MESSAGES PER PATIENT

**4,026**

VIRTUAL VISITS OF COVID-19 POSITIVE  
PATIENTS AT VIRTUAL COVID-19 PRACTICE



FOR THE THIRD YEAR IN A  
ROW, NEWSWEEK RANKED  
CHRISTIANACARE AMONG THE  
WORLD'S BEST HOSPITALS.

## A SHOT AT HOPE

### Using the playbook to help high-risk patients with COVID-19

From December 2020 through December 2021, ChristianaCare treated more than 1,500 patients who tested positive for COVID-19 and had mild to moderate symptoms — but were at highest risk for requiring hospitalization — with investigational monoclonal antibody (mAb) treatments through the Specialty Infusion Suite on ChristianaCare's Newark campus. Two therapies — etesevimab plus bamlanivimab (Eli Lilly) and the antibody combination casirivimab/ imdevimab (Regeneron) — received Emergency Use Authorization (EUA) from the U.S. Food and Drug Administration (FDA). On December 29, 2021, a third mAb was introduced to the program, sotrovimab. Early data suggest these treatments may reduce the amount of the SARS-CoV-2 virus, or viral load, in a person's system. ChristianaCare's Virtual

COVID-19 Practice created a Monoclonal Antibody Playbook to delineate those at greatest need for mAb therapeutics. A multidisciplinary team reviewed every referral — from clinicians within the ChristianaCare Medical Group, community clinicians statewide and self-referred patients — for compliance with strict FDA eligibility guidelines for the EUA and to ensure equitable allocation and distribution of available doses. ChristianaCare also partnered with Nemours and federally qualified health centers Westside Family Healthcare and Henrietta Johnson Medical Center to reach underrepresented populations. Of the more than 1,500 patients infused with monoclonal antibody therapy at ChristianaCare as of December 31, 2021, only 4 percent required hospitalization for COVID-19-related complications.



# 2,336

MONOCLONAL ANTIBODY INFUSIONS

In 2021

Newark and Wilmington campuses: 2,010  
Cecil campus: 326



*“Many caregivers made sure we could deliver this treatment to our most vulnerable patients. This was teamwork unlike anything I’ve ever experienced.”*

*Megan* FARRAJ, PHARM.D.  
PHARMACY CLINICAL COORDINATOR,  
CRITICAL CARE MEDICINE

17,728

COVID POSITIVE PATIENTS HOSPITALIZED OR TREATED  
IN THE EMERGENCY DEPARTMENT

All campuses in 2021



50,933

INPATIENT AND EMERGENCY  
DEPARTMENT COVID-19 TESTS

All campuses in 2021

### Implementing evidence-based COVID-19 guidelines in real time

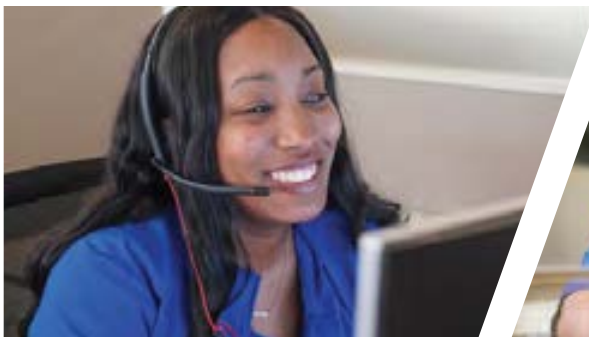
To meet the early surge of the pandemic, ChristianaCare developed evidence-based guidelines and education materials for health care professionals to use with non-intubated COVID-19 patients to show them how to turn themselves with minimal assistance. Called awake self-prone positioning (ASPP), the process was increasingly used with COVID-19 patients showing early signs of respiratory failure. To help caregivers working at the bedside, ChristianaCare developed guidelines and accompanying clinician and patient education materials. Caregivers on the rapid response teams (RRTs) at Christiana Hospital also worked closely with unit charge nurses and intermediate-care nurses to introduce ASPP and help them implement the new process with patients. Nursing professional development specialists and clinical nurse specialists quickly developed standardized clinical education and clear, concise, evidence-based instructions for team members. As a result, the ASPP guideline has become an established part of caring for patients with COVID-19 and is fully integrated into practice in units caring for them.



*As the pandemic spread, the intensive care unit protocol for prone positioning led by Maureen A. Seckel, MSN, APRN, ACNS-BC, CCNS, CCRN-K, FCCM, FCNS and Dannette Mitchell, MSN, APRN, ACNS-BC, CCRN became widely used so more patients could benefit.*



CHRISTIANACARE HAS EARNED HEALTHGRADES 2021 AMERICA'S 50 BEST HOSPITALS AWARD™ AND IS AMONG THE TOP 1 PERCENT OF MORE THAN 4,500 HOSPITALS ASSESSED NATIONWIDE FOR ITS CONSISTENT, YEAR-OVER-YEAR SUPERIOR CLINICAL PERFORMANCE. THIS FOLLOWS FOUR CONSECUTIVE YEARS IN WHICH CHRISTIANACARE WAS NAMED AMONG HEALTHGRADES' AMERICA'S 100 BEST HOSPITALS.



A SHOT AT HOPE

*“By partnering with organizations that primarily serve the Hispanic community, we deliver on our commitment to the community to meet them where they are.”*

*Carla* APONTE JOHNSON  
DIRECTOR, COMMUNITY HEALTH & SOCIAL INTEGRATION

*Above: Carla Aponte with Vanessa Santiago and Johanna Rodriguez*

# VACCINATING OUR COMMUNITY





**A**s COVID-19 vaccines and boosters became more available, we ramped up our efforts to immunize our neighbors and prioritize vaccination opportunities for our caregivers. In the past year, ChristianaCare administered more than 83,000 COVID-19 shots and boosters to our neighbors and caregivers.

In addition to holding mass vaccination community events at the John H. Ammon Medical Education Center, our caregivers have visited churches, farmers markets, festivals and small businesses to provide opportunities for our neighbors to be vaccinated in their own community. Our school-based health centers also made it possible for students to get immunized.

Handling such a volume of vaccination needs required logistical support and coordination on the part of ChristianaCare caregivers in a way never before undertaken. Our IT team created special vaccination software to share data with the state's vaccine registry. Our pharmacy team worked with vaccine event supervisors to ensure supply and delivery were seamless. While handling their regular duties, our caregivers worked across the organization to organize — and staff — vaccination events, some happening with only a few days' notice.

The result: collaborative caregiver teams vaccinating up to 300 people per hour.

"It definitely took a lot of teamwork—it was truly a 'We Serve Together' moment," said Jasmine Patel, MHA, project manager for Operations.



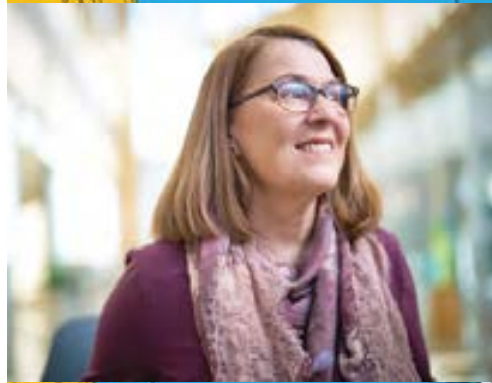
**83,064**

VACCINATIONS GIVEN

All campuses in 2021,  
caregivers and community

**Caregivers across ChristianaCare volunteered to help with immunization events and help allay fears.**

*Below clockwise from top left: Jasmine Patel, Lori Dell'Oso, Nikita Mistry and Natalie Dyke helped to lead ChristianaCare's vaccination efforts.*



# EXPANDING **Care**

CHRISTIANACARE IS ON A MISSION TO HELP OUR NEIGHBORS ACHIEVE THEIR BEST HEALTH BY MEETING THEM WHERE AND WHEN IT'S CONVENIENT FOR THEM, WHETHER IT'S NEW PRIMARY CARE SERVICES OR THE "ALWAYS-ON" ASPECT OF VIRTUAL HEALTH.

## **Center for Virtual Health's Virtual Primary Care Practice always open**

The ChristianaCare Center for Virtual Health goes far beyond video visits. We've turned health care upside-down to truly create a unique and personal experience. Our team includes physicians, nurse practitioners, specialists, nurses, social workers, pharmacists, and patient digital ambassadors who can do virtually about 95 percent of what's done at an office visit. Patient digital ambassadors serve as personal guides. Best of all, this comprehensive care team can be reached anytime via phone, video visits and secure text messaging.

The Center for Virtual Health has supported our COVID-19 efforts through the Virtual COVID Clinic, Virtual COVID Recovery Clinic, Monoclonal Antibody and Antiviral Therapy Management, and COVID Monitoring and Screening Programs for thousands of patients. In-patients are supported by virtual hospitalist rounds and safe transfers to home. The Center for Virtual Health also supports ChristianaCare's hospital care at home program.

## **ChristianaCare Neurology Specialists at Whitehall**

Residents in the Middletown, Delaware, area have convenient access to award-winning, outpatient neurologic care in the growing community of Whitehall. Whitehall is the first town to be founded in Delaware in over a century and is conveniently located so patients need not travel far, pay tolls or cross bridges. ChristianaCare Neurology Specialists at Whitehall is staffed by ChristianaCare's outpatient neurosciences team and offers comprehensive, personalized care by experts trained in the diagnosis, management, treatment and prevention of neurovascular illnesses. Between March 2021, when it opened, and December 31, 2021, the practice cared for over 3,200 patients.

*Through Virtual Health, we are differentiating how we provide care, focusing on a holistic approach while putting more emphasis on prevention and wellness.*

*Vishal* PATEL, M.D., MBA

ASSOCIATE MEDICAL DIRECTOR, CENTER FOR VIRTUAL HEALTH

76°

75.5°

75°

40°

## Hospital care at home offers in-home acute care

In a tireless pursuit of innovation, ChristianaCare has taken the next step in its embrace of virtual technology and is partnering with the Medically Home Group, Inc. to provide hospital-level care to patients in the comfort and convenience of their own homes.

ChristianaCare's hospital care at home program offers in-home services to patients who would otherwise require inpatient hospitalization. The service provides the highest level of in-home acute care in Delaware.

Eligible patients typically suffer from common chronic conditions such as congestive heart failure, respiratory ailments, diabetes complications, and infections like pneumonia and COVID-19. Using a new technology platform, qualifying patients who present at the Emergency Department at Christiana or Wilmington Hospital will have the choice to transition to a home-based setting where they will receive a combination of virtual and in-person care, as well as recovery services.

This unique model of care enables better outcomes for patients, allows patients to be more engaged and empowered with their medical care and frees up much-needed beds in our hospital facilities. Doctors and nurses can see patients who are in the comfort of their own living space, and help evaluate any physical barriers in the house, stay abreast of dietary needs or changes, and monitor emotional health and well-being.



**“ ChristianaCare hospital care at home program is a game changer. ”**

SARAH SCHENCK, M.D., MEDICAL DIRECTOR



## Primary care in a cancer center

Patients undergoing treatment at the Helen F. Graham Cancer Center & Research Institute can receive on-site primary care if they don't already have a provider. An informal survey among cancer patients at the Graham Cancer Center indicated that as many as 30 percent did not have a primary care provider. More than half of the patients diagnosed with cancer have other ongoing health conditions such as heart disease, high blood pressure and diabetes. We are now better able to care for these needs as well.

**“ We are on a mission to deliver the right care, at the right place for everyone — to make a positive impact on the health of every person in every community we serve. ”**

LISA MAXWELL, M.D., PRESIDENT, CHRISTIANACARE MEDICAL GROUP

## New practices in Sussex County

Residents in the Lewes and Rehoboth communities will have convenient access to a traditional primary care practice, specialty services and an innovative new model of care for people aged 65 and over in late summer 2022. The approximately 10,000-square-foot facility is located minutes from the ever-popular Tanger Outlets and Delaware beaches.

ChristianaCare also announced plans to increase access to high-quality primary and specialty care health care services for residents in the Milford, Delaware, area with a new practice site that will also open in late summer 2022.

## Center for Hope and Healing adds a second location

Patients with both medical and behavioral health issues can now receive the care they need at a second location at the Riverside Medical Arts Complex in Wilmington. ChristianaCare Primary Care Center for Hope and Healing at Riverside is an innovative model of care that provides primary care services as well as care for significant behavioral health conditions or social needs. By addressing medical and non-medical needs that can impede good health, the center helps patients achieve better health and prevent unnecessary emergency department visits, hospitalizations and readmissions.



## ChristianaCare-GoHealth Urgent Care expands

There are now 11 ChristianaCare-GoHealth Urgent Care centers serving our community in Delaware and Maryland. ChristianaCare-GoHealth Urgent Care patients who require follow-up or specialty care now have access to the broader ChristianaCare system. Electronic health records are shared across the network for a more connected experience.

Together, these resources do more than help us better connect to our patients. They allow us to provide care built around the person—rather than a building or provider. It's more than just delivering health care in a convenient way. It's transformative, making optimal health the standard, rather than the exception.

# In Our Community

## Caregivers join expanded New Castle County Police Behavioral Health Unit

The New Castle County Police Behavioral Health Unit includes a team of ChristianaCare caregivers who are working with officers to aid mental health and substance abuse disorder issues in the county. Caregivers assist officers responding to a call involving a psychiatric crisis or substance abuse disorder, providing support and community resources to help individuals connect with needed treatment. New Castle County Police have seen an increase in mental health and substance abuse calls during the COVID-19 pandemic, and the goal of this team is get the right help to people quickly.

***We have fundamentally changed the way we respond to mental health crises. We connect individuals experiencing a crisis to appropriate treatment and resources.***

*Adam* SMILEY, LCSW, CAADC  
MENTAL HEALTH UNIT SUPERVISOR

## Food as medicine

Poor nutrition is often an underlying cause of poor health and a risk factor for many health conditions. To tackle health disparities through food, ChristianaCare partnered with Lutheran Community Services to launch the Delaware Food Farmacy. The program, available to Medicaid members suffering from poorly controlled diabetes, hypertension and/or heart failure, combines health care, food delivery and nutrition education to create health and help people to thrive. Participants use a monthly order form to select among fresh fruits and vegetables, fish, lean meats, low-fat dairy, beans, whole grains and other healthy foods. Along with weekly food deliveries, participating members also receive extensive clinical care, ongoing disease management, nutritional education and personalized social care. From February 2021 through December 2021, this pilot program enrolled 43 patients and their families, feeding 115 community members, 78 percent of which were food insecure. The program has provided enough food for nearly 10,000 meals and by the end of the pilot phase expects to deliver enough food for over 40,000 meals.



## eBrightHealth ACO continues to improve care, reduce costs

The eBrightHealth Accountable Care Organization (ACO) reduced health care spending by \$19.4 million in 2020 for more than 40,000 Medicare beneficiaries in Delaware, Pennsylvania and Maryland, according to the U.S. Centers for Medicare and Medicaid Services (CMS). This is the fifth consecutive year that the ACO has reduced costs, bringing the cumulative savings to more than \$37.5 million. CMS also highlighted eBrightHealth ACO's performance for increasing the number of beneficiaries who received preventive care and screenings, especially for colorectal cancer and depression. The eBrightHealth ACO is supported by CareVio®, ChristianaCare's care management program that harnesses real-time data and predictive analytics to identify opportunities to help Medicare beneficiaries better manage their health and avoid complications.



CAREVIO EARNED ACCREDITATION IN CASE MANAGEMENT AND POPULATION HEALTH FROM THE **NATIONAL COMMITTEE FOR QUALITY ASSURANCE (NCQA)**, A PRIVATE, NONPROFIT ORGANIZATION DEDICATED TO IMPROVING HEALTH CARE QUALITY. CAREVIO IS THE FIRST NON-HEALTH-PLAN POPULATION HEALTH MANAGEMENT ORGANIZATION IN DELAWARE TO RECEIVE NCOA ACCREDITATION.

## Uniting service providers through Delaware 211

In collaboration with United Way of Delaware and ChristianaCare, Delaware 211 is now part of Unite Delaware, offering Delawareans a robust suite of community-based social service providers statewide. Through Unite Delaware, once a care provider identifies a person's social service needs, the care provider sends a secure electronic referral to the most appropriate social service provider in the Unite Delaware network. More than 140 community-based organizations are currently registered on the Unite Delaware platform. ChristianaCare partnered with Unite Us to launch Unite Delaware in 2019 as a way to connect health and social care providers in a collaborative ecosystem. Since its launch, nearly 500 Delawareans have been connected to critical social services for over 1,400 identified needs.



## Care in the neighborhood at Kingswood Community Center

At the Coker Family Resource Center inside Kingswood Community Center, residents of Wilmington's Riverside neighborhood get care at their convenience right in their community. Patients can connect to ChristianaCare Virtual Health for a virtual appointment with a primary care provider or a member of their care team and receive access to medical services such as vaccines, blood pressure checks and in-person exams.



## Medical school on demand — without the tests or grades

The 2021 Mini Medical School program offered nearly 300 participants the opportunity to gain a deeper understanding of the world of medicine, along with trusted information from some of the region's top medical experts. Held virtually over six consecutive Thursdays, the 2021 Mini Medical School offered valuable insight into the role of health care professionals in diagnosing and treating illness, as well as general health topics. The free series is co-sponsored by ChristianaCare and the Delaware Academy of Medicine/Delaware Public Health Association.

# supporting our caregivers

CHRISTIANACARE CELEBRATES THE UNIQUENESS OF ITS CAREGIVERS AND THEIR BACKGROUNDS, CULTURE AND PERSONAL EXPERIENCES. BY HONORING THE INDIVIDUAL PERSPECTIVES OF OUR CAREGIVERS, ENCOURAGING THEM TO BRING THEIR AUTHENTIC SELVES TO WORK AND PRIORITIZING THEIR PERSONAL AND COLLECTIVE WELLNESS, OUR ORGANIZATION BETTER SERVES OUR NEIGHBORS WITH EMPATHY, UNDERSTANDING AND RESPECT.

## Center for WorkLife Wellbeing puts focus on caregivers and their needs

The ongoing COVID-19 pandemic has placed extraordinary stress on health care professionals over the past two years. Caregivers at ChristianaCare are no different in feeling the effects of a heavy workload, exhaustion and anxiety as infections have ebbed and surged. But they don't have to struggle alone.

For the past six years, ChristianaCare's Center for WorkLife Wellbeing has focused on the physical, emotional and mental well-being of caregivers by offering resources, services and training to support our

health care professionals as they work to provide safe, effective care to our patients. As the pandemic continues to impact our community, it's even more important for caregivers to have access to ongoing emotional and peer support, through programs such as the Care for the Caregiver program, which provides confidential, individual peer support and group support to caregivers when they experience stress related to patient care or the workplace.

The Center for WorkLife Wellbeing has trained more than 70 volunteer peer supporters as well as offering psychological first aid training to 260 leaders to help them recognize early signs of distress and employ effective support strategies for their teams. In addition, the center offers regular rounding, support groups and promotion of 24/7 mental health services.

For its efforts to help caregivers, ChristianaCare was one of 44 health systems nationwide to receive the American Medical Association's Joy in Medicine™ Health System Recognition in 2021. The program recognizes health systems that demonstrate a commitment to combating work-related stress and burnout. ChristianaCare was one of only five health systems to achieve a "Gold Recognition," the highest level within the program.



CHRISTIANACARE IS PART OF THE AMERICAN MEDICAL ASSOCIATION'S LIST OF 44 HEALTH CARE ORGANIZATIONS RECEIVING THE 2021 JOY IN MEDICINE HEALTH DISTINCTION AND ONE OF ONLY FIVE TO RECEIVE THE GOLD RECOGNITION. ITS HIGHEST DESIGNATION.



**“When caregivers feel supported and fulfilled in their work, the quality of both their experience and their patient's experience improves.”**

HEATHER FARLEY, M.D., MHCDS, CHIEF WELLNESS OFFICER AND  
HEAD, CENTER FOR WORKLIFE WELLBEING





THE GLOBAL ERG NETWORK RANKED CHRISTIANACARE AMONG THE TOP 10 IN THE ENTERPRISE-WIDE 2021 DIVERSITY IMPACT AWARDS, SHARING THIS RECOGNITION WITH ORGANIZATIONS INCLUDING KOHL'S, RICOH USA, BANK OF AMERICA, MOUNT SINAI HEALTH SYSTEM AND UNIVERSITY OF TEXAS MD ANDERSON CANCER CENTER.



### ERGs create opportunities for caregivers to unleash their workplace potential

ChristianaCare better serves our neighbors with empathy, understanding and respect when we honor the individual perspectives of our caregivers.

Our award-winning employee resource groups (ERGs) play a vital role in helping ChristianaCare foster a more diverse and inclusive workforce. Led by caregivers uniting around a shared characteristic or experience — such as gender, ethnicity, religious affiliation, sexual orientation, disability or military service — ERGs provide support, professional development and a safe space for our caregivers to fully and authentically celebrate their whole selves.

“ERGs help build workplace support through a nurturing and inclusive environment, and when caregivers feel connected to their employers, they are more likely to

stay in their roles and encourage others to join them,” said Kristen Isaac, who leads the ERGs as an inclusion and diversity specialist.

*Forbes* magazine ranked ChristianaCare as one of its Best Employers for Diversity 2021. In addition, ChristianaCare’s ERG program received 10th place in the national 2021 Diversity Impact Awards, and the organization placed fifth in the Top 10 Diversity Action Awards for Leading with Love.

“Becoming a more diverse and inclusive environment requires us to constantly challenge ourselves to be better and to become advocates in action,” said Natalie Torres, director for Inclusion and Diversity for ChristianaCare.

“ERGs provide a nurturing and safe environment for caregivers to share their unique perspectives and embrace inclusion.”

*Keysha* FERGUSON

CO-LEAD, GOALS EMPLOYEE RESOURCE GROUP  
PRACTICE MANAGER, PRIMARY CARE AT SMYRNA & MIDDLETOWN EAST



# Optimal Health

## Transforming health care through unique collaboration

Marking the first time a health care provider and a payer have joined together to improve health and make health care more affordable, ChristianaCare and Highmark Health have embarked on a game-changing collaboration that makes smarter use of data. Building on an existing, long-term relationship, the two national health care leaders have created a joint venture company that aims to disrupt the traditional tug of war between providers and payers with the goal of a healthier Delaware — and beyond.

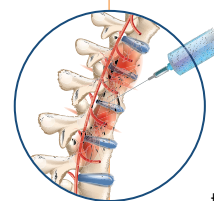
This new model of value-based care – developed as a 10-year venture project split evenly between the two companies – uses technology tools to give providers round-the-clock access to data that can help improve a patient's health without having to pause between appointments. As a result, providers can intervene sooner and communicate in multiple ways, such as using secure text messaging and video visits.

ChristianaCare has been at the forefront of data-powered care management since the launch of its award-winning CareVio® platform in 2013.

This new model of care relies on two engines: the Solution Design Center, which studies solutions to reduce the cost of care and improve health outcomes, efficiency and experience for consumers and providers; and the Center for Virtual Health, which develops and deploys virtual capabilities for primary and specialty care to improve patient access. These telehealth, wearable technology and other data-driven, tech-focused solutions are designed to help people manage their health and ensure the right care and resources at the right time for each person.

**“ We are rethinking the way care is delivered and the way it's paid for by creating a new health care ecosystem. ”**

KEN L. SILVERSTEIN, M.D., MBA, CHIEF PHYSICIAN EXECUTIVE



## State-of-the-art outpatient spinal surgery

ChristianaCare and Delaware Neurosurgical Group, PA announced a joint venture partnership to develop a comprehensive, state-of-the-art spine surgery center called The Center for Spine Surgery, LLC, at the Roxana Cannon Arsht Surgicenter on ChristianaCare's Wilmington Hospital campus. Establishing The Center for Spine Surgery is reflective of the national industry shift from inpatient surgeries to outpatient surgeries to improve patient access and reduce health care costs. During the first year of operation, the center expects to achieve approximately \$13.6 million cost savings in Delaware. The center will perform a full range of spine procedures, including injections, laminectomies and more complex procedures such as, but not limited to, multilevel cervical, posterior cervical, thoracic and lumbar fusions.



## Life-changing care for men with enlarged prostate

ChristianaCare is the only health provider in Delaware to offer prostate embolization, a minimally invasive outpatient procedure to help men over 50 who suffer from benign prostatic hyperplasia (BPH), also known as enlarged prostate. Vascular interventional radiologists from ChristianaCare's Center for Heart & Vascular Health perform the procedure, which involves going through a blood vessel in the wrist or groin to selectively block the blood vessels that feed the prostate. As a result, the prostate shrinks and symptoms, including a frequent and urgent need to urinate, greatly lessen. BPH affects about 50 percent of men between the ages of 51 and 60 and up to 90 percent of men older than 80. Those who undergo the procedure go home the same day and describe the improvement as life-changing.



### Care across the lifespan

ChristianaCare can fully provide care across the lifespan, from birth to end of life with the addition of ChristianaCare-AccentCare Hospice & Palliative Care, a joint venture partnership that is expected to expand in-home hospice and palliative care services throughout Delaware, a need only expected to grow in the coming years. ChristianaCare-AccentCare Hospice & Palliative Care will focus on delivering affordable, high-quality end-of-life care for patients and families. The joint venture builds on a long-term, successful relationship between ChristianaCare and Seasons Hospice, which recently rebranded its name to AccentCare.

*One of the most important things to me is that I may be the last soft voice they hear and the last soft touch they may feel. That's why I love what I do.*

*Yolanda* MEADOWCROFT, RNCHPN  
CERTIFIED HOSPICE AND PALLIATIVE NURSE,  
CHRISTIANACARE-ACCENTCARE HOSPICE & PALLIATIVE CARE

# Optimal Health

## CritiTrac® app standardizes Code Blue response

ChristianaCare's nationally recognized CritiTrac iOS application has moved beyond intensive and transitional care units and is now standard equipment on resuscitation carts on all stepdown, medical and surgical units on both the Wilmington and Newark campuses, and in the Virtual Education & Simulation Training Center for residents, nurses and other providers. Developed through ChristianaCare's Health & Technology Innovation Center, the app reduces variability, better coordinates care delivery and improves data collection during Code Blue events. It gives responders an edge by leveraging technology in a critical situation to guide the team through American Heart Association evidence-based, accepted guidelines. ChristianaCare earned a 2020 FutureEdge 50 Award for CritiTrac from the International Data Group's CIO.com, which recognizes organizations pushing the edge with new technologies.



FOR THE SECOND YEAR IN A ROW, CHRISTIANACARE EARNED THE HEARTCARE CENTER NATIONAL DISTINCTION OF EXCELLENCE AWARD FROM THE AMERICAN COLLEGE OF CARDIOLOGY. WE ARE THE ONLY HEALTH SYSTEM IN DELAWARE AND ONE OF 41 ELITE CENTERS TO BE RECOGNIZED IN THE U.S.

## Getting a stroke diagnosis faster

Thanks to the implementation of the RapidAI™ software platform at the Cecil County campus, clinicians can use their phones to access images of patients with suspected large-vessel occlusion (LVO) stroke, saving critical time that helps get patients transferred in a timely manner to a higher level of care. In addition to the software implementation, 15 imaging technicians were trained in a special skills lab and extra vital sign monitoring equipment was installed for continuous monitoring of patients receiving alteplase infusions during scans. In the six months after Union Hospital began using RapidAI, the average time for testing decreased by 30 minutes, a 63 percent reduction.



## Cardiac care unit reduces hospital transfers

Before the Wilmington Cardiac Care Unit (WCCU) opened in 2019, patients requiring cardiology services at the Wilmington campus were transferred to the Newark campus for admission to the specialized cardiac units. As a result of opening the WCCU, a hybrid inpatient/observation unit in Wilmington where patients admitted with acute cardiac diagnoses now receive guideline-directed intermediate cardiac care, patient transfers for cardiac care dropped 88 percent between FY 2018 and FY 2020. The length of stay for observation of patients with chest pain has decreased more than half from FY 2019.



FOR THE SIXTH YEAR IN A ROW, WE EARNED THE "MOST WIRED" DESIGNATION FROM THE COLLEGE OF HEALTHCARE INFORMATION MANAGEMENT EXECUTIVES FOR OUR INNOVATIVE USE OF TECHNOLOGY TO IMPROVE PATIENT CARE AND EXPERIENCES.



*The CritiTrac app reduces variability in care, coordinates care delivery and improves data collection for Code Blue events.*

## ChristianaCare researchers first to report alcohol withdrawal rates during pandemic

ChristianaCare researchers were the first to publish a study showing the impact of the COVID-19 pandemic on alcohol withdrawal rates. The groundbreaking research, published in the *Journal of the American Medical Association*, showed there was a 34 percent increase in alcohol withdrawal rates among hospitalized patients at ChristianaCare from March 25 to Sept. 22, 2020, compared to the same period in 2019, with the largest incidence 84 percent occurring in the last two weeks of the stay-at-home order.



There was a 34 percent increase in alcohol withdrawal rates among hospitalized patients at ChristianaCare in 2020.

The retrospective study, adjusted for seasonal variations, found that the rate of alcohol withdrawal in hospitalized patients was consistently higher in 2020 compared to both 2019 and the average of 2019 and 2018. The highest rates were seen in middle-aged white men.

## New Medicare Advantage plans for seniors

In a first of its kind association in the first state, Highmark Blue Cross Blue Shield Delaware, ChristianaCare and Bayhealth have teamed up to create two new Medicare Advantage plans to keep Delaware seniors healthy and well. More than 2,700 participants are enrolled in the plans. The plans, Freedom Blue PPO Signature and Freedom Blue PPO Distinct, were developed with the assistance of ChristianaCare physicians, who shared their expertise with Highmark. CareVio®, ChristianaCare's award-winning care management platform, manages the chronic health conditions of plan participants. This unique collaboration between an insurer and two health systems offers an enhanced experience for Medicare beneficiaries, better care coordination, rich benefits and low costs.



## Disparity in postpartum readmissions for hypertension drops 62.5 percent

Up to 10 percent of all pregnancies in the U.S. can be complicated by hypertensive disorders in pregnancy, and Black women have higher incidence and are at greater risk for severe complications. At ChristianaCare, 45 percent of postpartum readmissions in 2018 were related to hypertension, with Black women disproportionately readmitted at twice the rate as white women.

A collaborative effort by OB/GYN, Quality & Safety and the Health Equity Cultural Competency team to educate clinicians, simplify guidelines, standardize care protocols and maximize clinical resources to support care led to a 30.4 percent

decrease in the readmission rate for postpartum hypertension between 2018 and 2020 and decreased the disparity ratio in hypertension readmissions between Black and white women by 62.5 percent. Strategies included care standardization of elevated blood pressure using guidelines for more aggressive antihypertensive therapy and expanded patient enrollment in the Twistle app for blood pressure monitoring and medication management. Women's ability to monitor their blood pressure at home allowed the team to identify issues and initiate treatment before blood pressure levels became critical.



THE AMERICAN HOSPITAL ASSOCIATION'S INSTITUTE FOR DIVERSITY AND HEALTH EQUITY NAMED CHRISTIANACARE A 2021 CAROLYN BOONE LEWIS EQUITY OF CARE AWARD HONOREE. THE AWARD, NAMED FOR THE FIRST AFRICAN AMERICAN AND FIRST HOSPITAL TRUSTEE TO CHAIR THE AHA BOARD, IS AN ANNUAL RECOGNITION OF OUTSTANDING EFFORTS AMONG HOSPITALS AND HEALTH CARE SYSTEMS TO ADVANCE EQUITY OF CARE TO ALL PATIENTS AND TO SPREAD LESSONS LEARNED AND PROGRESS TOWARD DIVERSITY, INCLUSION AND HEALTH EQUITY.

# Exceptional Experience



## Making it official

Union Hospital unveiled the familiar peach blossom logo atop its building exterior in July 2021 to officially celebrate the integration of the Cecil campus with ChristianaCare. But for many Cecil caregivers it has felt like one big family for a while. Dozens of caregivers turned out to watch the sign's big reveal at the main entrance to the hospital. Affinity Health Alliance and its subsidiaries, including Union Hospital, officially joined ChristianaCare on January 1, 2020.

## Ensuring transparency in health care costs

ChristianaCare is committed to helping our patients understand the cost of the health care services we provide. We launched our price transparency website in 2018, exceeding the requirements set forth by the Centers for Medicare and Medicaid Services at that time. Since then, we've continually enhanced the price transparency information on our website to ensure that we are providing clear, accurate information about health care pricing to consumers so they can make informed decisions. People who want to learn about the costs of their care in advance can visit the website. There they can view ChristianaCare's pricing information, including the pricing by insurance provider and self-pay pricing for the services we provide.



## Responding to feedback

ChristianaCare's patient survey platform, NRC Health Real Time, provides comments from patients in the inpatient, outpatient, emergency department and Medical Group settings that can be used for valuable feedback and improvement opportunities. In FY 2021 through April, 39.6 percent of patients completed a survey, with more than 200,000 total responses. The feedback management feature of the platform provides an alert if a patient has a particularly challenging experience requiring immediate follow-up.

## 200,000 patient survey responses

NRC Feedback Management is now used systemwide, an integration that saves time and resources, enhances outreach to patients and deepens our commitment to responding to patient feedback.

## Keeping caregivers in the know

To keep caregivers engaged in the happenings of the organization and build upon the sense of community and belonging that exists across the campuses, in the summer of 2021 ChristianaCare launched CaregiverConnect, an online communication tool. Good communication is essential to help our caregivers perform at their best, and CaregiverConnect helps make this possible by keeping the latest updates and news about ChristianaCare only a few clicks away. Whether it's accessed on a computer, tablet or smartphone, CaregiverConnect helps our caregivers share news that matters. The more we know, the better we serve together.





CHRISTIANACARE RANKED AS THE FIFTH BEST HEALTH SYSTEM TO WORK FOR IN THE U.S., ACCORDING TO FORBES MAGAZINE'S LIST OF AMERICA'S BEST LARGE EMPLOYERS 2021. THIS IS THE THIRD HONOR IN THREE YEARS FROM FORBES.



FORBES MAGAZINE RANKED CHRISTIANACARE AS ONE OF THE BEST EMPLOYERS FOR DIVERSITY AND INCLUSION IN THE UNITED STATES IN ITS 2021 LIST. CHRISTIANACARE ALSO RANKS AS THE TOP OVERALL EMPLOYER FOR DIVERSITY AND INCLUSION IN DELAWARE AND 14TH AMONG U.S. HEALTH SYSTEMS.

**“ We know that when our caregivers are supported and able to find joy in their work, they are able to deliver the very best care to the people we serve. We strive every day to create an exceptional caregiver experience and continue to make ChristianaCare a great place to work. ”**

NEIL JASANI, M.D., MBA, FACEP, CHIEF PEOPLE OFFICER

### Innovative home care coach

To help patients better manage their health at home, the Health & Technology Innovation Center, in partnership with ChristianaCare HomeHealth, created an innovative, voice-driven home health experience to assist patients. This is an Alexa skill — similar to an app — that can be accessed using Alexa-enabled smart speakers and devices. This health “coach” provides an interactive and accessible option for HomeHealth patients to engage with their personalized plans of care, ongoing health goals and general safety considerations. This novel approach revolutionizes how traditional care is provided to patients in the home and contributes to improving patient-centered outcomes, such as medication compliance, achieving health goals, and reducing 30-day hospital readmissions. In addition, the experience is one of the first HIPAA-eligible home health Alexa skills, and initial pilot results have demonstrated a meaningful trend toward improved patient activation and engagement with their care plan.



**“ ChristianaCare’s values of love and excellence were easy to get my head around. We have that personal touch with everybody we work with and they are encouraging us to keep that. ”**

Susan DEWITT, MSN, RN, CBPN-IC  
CERTIFIED BREAST PATIENT NAVIGATOR IN IMAGING  
AND CANCER, UNION HOSPITAL

# Innovation & Research

## Investigating sickle cell disease

Researchers from ChristianaCare are part of a multidisciplinary team that received \$10.5 million from the National Institutes of Health (NIH) to support the Delaware Comprehensive Sickle Cell Research Program. The five-year award from the NIH Center of Biomedical Research Excellence (COBRE) will support clinical, translational and psychosocial research in sickle cell disease, one of the most common inherited conditions in Black populations and prevalent in Afro-Caribbean and Middle Eastern populations. The work will be led by a diverse team of clinician-scientists from ChristianaCare, Nemours, University of Delaware, and Delaware State University. The program will primarily focus on pediatric, adolescent and young adult patients with sickle cell disease. The grant will support a comprehensive sickle cell disease program made up of four research projects aimed at reducing barriers to care, including racism and stigma, innovative eye exams to identify stroke risk, and improved awareness and counseling on sickle cell inheritance.

*“Sickle cell disease is a part of my family’s story. Every day, I look forward to bringing my patients hopeful, compassionate care I know they deserve.”*

*Charmaine* SMITH WRIGHT, M.D., MSHP  
MEDICAL DIRECTOR, CENTER FOR SPECIAL HEALTH CARE NEEDS



APPLE HEALTH APP

## Apple Health every day keeps the provider connected

The adage about apples and doctors has been turned upside down. ChristianaCare is one of the first health systems to offer its patients the option to share important everyday health information stored in the Apple Health app directly with their provider. Patients can now select categories of this information to share with

their provider within the Apple Health app, including data like activity, heart rate, cycle tracking, sleep, irregular rhythm notifications, falls and more, as well as certain health records categories like labs and immunizations. Providers can review trends and changes in summary charts and choose to incorporate relevant information into the patient medical record. This opens an entirely new potential for the patient and care team to engage in conversation and learning that can ultimately improve health. This feature is designed to meet the privacy and security requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

When viewing health data the patient has shared, providers can review trends and changes over time in easy-to-read summary charts, and choose to incorporate relevant information into the patient medical record.



## Strengthening the NFL's core

A trailblazing treatment developed by ChristianaCare physical therapists to prevent muscle strains caught the attention of numerous sports teams, including the Los Angeles Rams and Baltimore Ravens. The treatment involves using a screening tool called the "core sling screen" to test the strength of trunk muscles, also known as core muscles, and is combined with a specialized exercise program to strengthen those muscles. Weakness in those muscles can lead to common athletic injuries such as strains in the abdomen, groin, quadriceps and lower back. ChristianaCare physical therapists Brian Catania, MPT, SCS, ATC, and Travis Ross, DPT, PT, who spearheaded the treatment, presented it to the NFL's Professional Football Athletic Trainer Symposium. Athletic trainers with the Rams and Ravens reviewed the treatment directly with Catania and Ross, who care for patients at ChristianaCare Rehabilitation Services at Glasgow, in Newark.

**“ We reasoned that if we could identify ways to improve the strength of the core muscles, common lower extremity injuries would be less likely to occur. We developed a reliable screening tool to examine the core muscles and came up with a targeted exercise program to strengthen those muscles. ”**

BRIAN CATANIA, MPT, SCS, ATC



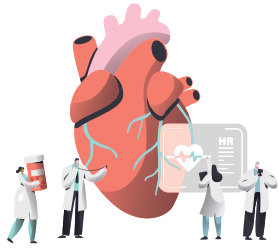
ChristianaCare physical therapists visited the Baltimore Ravens' facility in Owings Mills, Maryland, to personally instruct their athletic trainers and physical therapists.



## Preserving memories with Mindsora™

Mindsora supports people experiencing cognitive decline to live safer and longer in their homes by providing personalized recognition therapies and a real-time recognition aid. Mindsora, the winning idea from the 2020 Innovation Challenge, provides personalized memory therapies and a real-time recognition aid. James Ellison, M.D., MPH, the Swank Foundation Endowed Chair in Memory Care and Geriatrics, partnered with the Health & Technology Innovation Center to build and launch Mindsora, which uses cutting-edge facial recognition technology to help people identify select loved ones to help patients relive cherished memories and learn new facts about family and friends. The personalized, enriching therapies and activities challenge the memory with a focus on building trust and preserving recognition of a familial caregiver by a person with a neurocognitive impairment.

# Innovation and Research



## Getting the story of heart failure patients

ChristianaCare's partnership with Story Health, an at-home heart failure monitoring program, helps patients optimize their medications through SMS text messages and phone calls. Managing heart failure requires drug titration, a process of regularly adjusting the dose of a medication for the maximum benefit without adverse effects. Story Health coaches work closely with patients to monitor their medications and blood pressure, and keep patients connected with their care team.



*New dad Joshua Yearwood, with wife Jessica and son Caleb, benefits from Story Health and is back at work feeling "great."*

## Breathing easier without surgery

Trincia was the first of about 20 patients now in Delaware who are breathing easier and enjoying more active lifestyles following a new nonsurgical valve placement called endobronchial lung volume reduction. It's an "easy" procedure, she said — no surgery and no pain. Just a whole new level of energy, and the feeling of finally being able to breathe again.

This breakthrough procedure — available in Delaware only at ChristianaCare — involves the placement of tiny, one-way valves to block off diseased parts of the lung and allow healthier lung tissue to expand and take in more air.

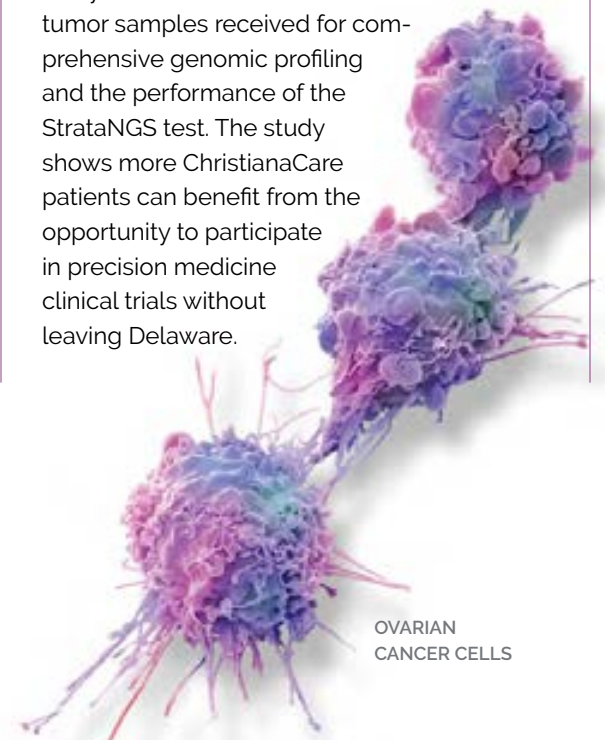
Clinical studies show that almost immediately patients are able to breathe easier, be more active and energetic, experience less shortness of breath and enjoy a significantly improved quality of life compared to untreated patients.



*"When I woke up from the procedure, all I wanted to do was jump and dance," said Trincia. "I felt amazing."*

## Increasing patient access to cutting-edge care

More patients with advanced or rare tumors may benefit from genomic profiling via the StrataNGS test because it requires a smaller tissue sample for sequencing, according to a study co-authored by ChristianaCare medical oncologists Michael Guarino, M.D., and Jamil Khatri, M.D., of the Helen F. Graham Cancer Center & Research Institute in *JCO Precision Oncology*. The study found the technology can successfully analyze the genome of more tumor tissue samples, enabling patients to be matched for the best available clinical trials or therapies. Investigators at the Graham Cancer Center and at 27 other U.S. health systems analyzed more than 30,000 real-world tumor samples received for comprehensive genomic profiling and the performance of the StrataNGS test. The study shows more ChristianaCare patients can benefit from the opportunity to participate in precision medicine clinical trials without leaving Delaware.



OVARIAN  
CANCER CELLS



# Accelerating discovery

SINCE ITS FOUNDING IN 2015, CHRISTIANACARE'S GENE EDITING INSTITUTE HAS BEEN A WORLDWIDE LEADER IN CRISPR-DIRECTED GENE EDITING TECHNOLOGY, AN IMPRESSIVE ACCOMPLISHMENT FOR THE ONLY INSTITUTE OF ITS KIND BASED IN A COMMUNITY HEALTH SYSTEM.

*We need to make a space for future scientists to realize the kind of options available to them.*

*Brett* SANSBURY, Ph.D.

PRINCIPAL INVESTIGATOR,  
LEADER OF DISCOVERY RESEARCH  
GENE EDITING INSTITUTE



Woven into the fabric of the institute, directed by Eric Kmiec, Ph.D. with a staff of more than 20, are two ambitious goals — accelerating innovation and making the technology more accessible to all. In the past year, our Gene Editing Institute has made substantial progress in both areas.

The team is gearing up for a clinical trial using CRISPR in lung cancer patients, which would be one of the first uses of the technology to attack solid tumors.

## Targeting cancer and offering new hope for defeating solid tumors

In December 2020, the Gene Editing Institute received a \$1 million grant from the Lisa Dean Moseley Foundation to explore novel uses of gene editing. The goal, using a model based on the sickle cell genetic mutation, is to better understand CRISPR's mechanism of action and the potential for off-target mutagenesis. The big question is what happens inside the cell after we make an edit with CRISPR? For any gene therapy to be successful, it must not harm patients in any way. Our work will be crucial to applying gene therapy in humans.



The Gene Editing Institute has prioritized work in diseases that impact minority populations, particularly those that have been medically underserved in the past.

In November 2021, the Lisa Dean Moseley Foundation also awarded the Gene Editing Institute and the Cawley Center for Translational Cancer Research (CTCR) at the Helen F. Graham Cancer Center & Research Institute a \$1.7 million grant to research the first in-human use of CRISPR gene editing technology for esophageal solid tumors and cancer stem cells. The research builds on the scientific work underway at the Gene Editing Institute that addresses lung cancer and other solid tumors demonstrating similar genomic mutations. The Gene Editing Institute's team will work closely with Senior Research Scientist Bruce Boman, M.D., Ph.D., at the Cawley CTCR.

**“ You can't understand how to treat a disease without understanding the world outside your lab. ”**

ERIC KMIEC, Ph.D.



THE HELEN F. GRAHAM CANCER CENTER AND RESEARCH INSTITUTE RECEIVED TOP NATIONAL RANKINGS FROM SEVERAL ORGANIZATIONS OF THE NATIONAL CANCER INSTITUTE (NCI) FOR OUTSTANDING PATIENT PARTICIPATION RATE IN CANCER CLINICAL TRIALS. NEARLY 30% OF CHRISTIANACARE CANCER PATIENTS PARTICIPATE IN CLINICAL TRIALS, MORE THAN SEVEN TIMES THE NATIONAL AVERAGE OF 4%.



### Using video to inspire students

The Gene Editing Institute partnered with DETV to create an educational video series to inspire high school students to consider a career in gene editing.

Called “CRISPR in the Classroom,” the video series is available to schools across the United States and serves as a supplemental resource alongside the Gene Editing Institute’s CRISPR in a Box™ Educational Toolkit.

The video series focuses on sickle cell disease as an example of a disease that could someday be cured with gene editing technology. Through “CRISPR in the Classroom,” students learn from patients, medical professionals and scientists talking about the challenge and the hope for a cure.

One of the main purposes of the videos is to allow for deeper conversations about inequity in access to science education and medical treatments for people of color and to discuss the realities of the need for more scientists of color.

### Bringing technology to the classroom

If gene editing is the future of medicine, students at St. Georges Technical High School in southern New Castle County are getting a pretty good glimpse of what’s to come. St. Georges is the first high school in the United States to use CRISPR in a Box™ during a science class, thanks to a partnership with the Delaware Department of Education. Other Delaware high schools are incorporating the toolkit in gene editing courses. And last summer, Drexel University used the toolkit in its Drexel Biomed Summer Academy where high school students — including ten Bristol Myers Squibb Biomed Summer Academy Scholars — interested in a future in biomedical higher education experimented with it.



The tools in CRISPR in a Box were designed based on the pioneering discoveries of the Gene Editing Institute that are currently being used to explore next-generation medical therapies and diagnostics for diseases, including lung cancer and sickle cell disease. Component items in the toolkit include the CRISPR/Cas complex, a target DNA molecule, a mammalian cell free extract and a synthetic DNA molecule. The kit is made with safe, synthetic materials.

### Looking for mistakes? There’s an app for that

Gene Editing Institute researchers developed DECODR™, an affordable, downloadable app that scans for potential, unintended mistakes when the gene editing tool CRISPR (clustered regularly interspaced short palindromic repeats) is used to repair mutations that cause disease. DECODR (deconvolution of complex DNA repair) was written with open-source software, which makes it easy to update, and it processes data in less time and more affordably than other lab methods.

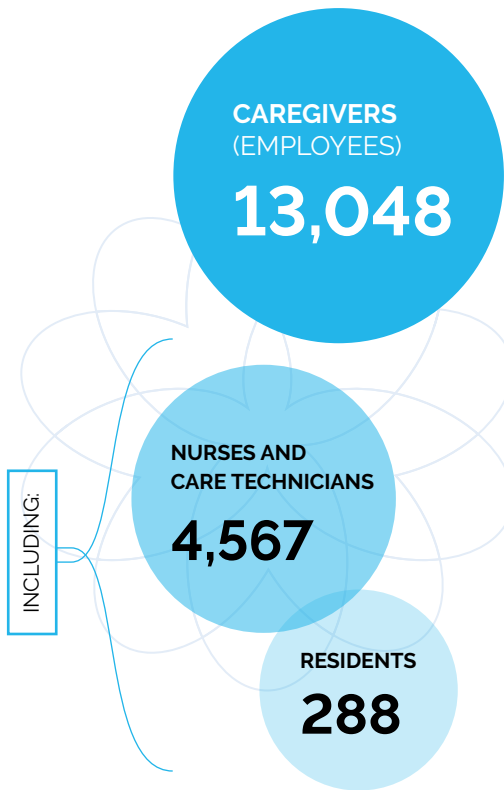
DECODR reveals potentially risky DNA alterations that could impede efforts to safely use CRISPR to correct mutations in conditions like sickle cell disease and cystic fibrosis. DECODR was developed to accelerate the development of CRISPR gene therapies by providing a way to rapidly detect changes to determine whether they pose a risk to patients.

A new Silicon Valley start-up, Latch Bio, is adding DECODR to its cloud-based platform that offers no-code bioinformatics to CRISPR researchers seeking to store, transform and visualize their data.



# Economic Impact

AS THE LARGEST PRIVATE EMPLOYER IN DELAWARE, AND ONE OF THE LARGEST IN THE REGION WITH SERVICES IN DELAWARE, MARYLAND, PENNSYLVANIA AND NEW JERSEY, CHRISTIANACARE IS A MAJOR DRIVER OF ECONOMIC VIABILITY IN THE COMMUNITIES WE SERVE BY PROVIDING FINANCIAL ACTIVITY, STABILITY AND JOB GROWTH.



## CHRISTIANACARE'S 13,048 CAREGIVERS SUPPORT

### LOCAL JOBS

**26,000**

JOBS THROUGHOUT OUR COMMUNITY\*

### LOCAL ECONOMY

**\$146,200**

AVERAGE EACH CAREGIVER RETURNS TO THE COMMUNITY

**\$1.9B**

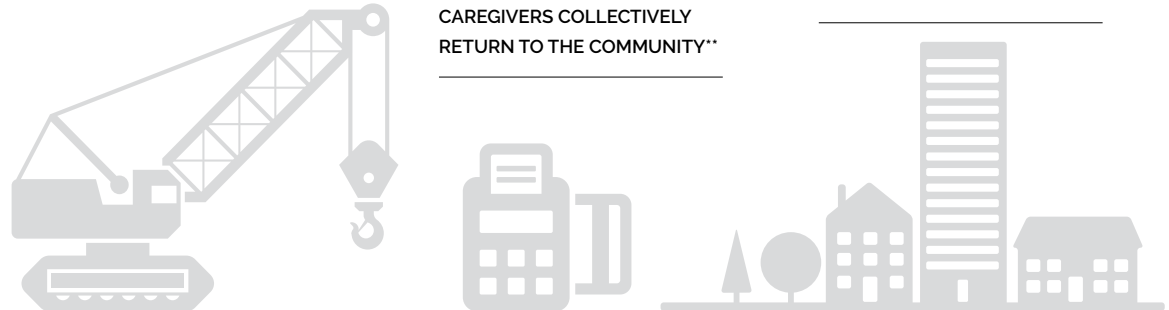
CAREGIVERS COLLECTIVELY RETURN TO THE COMMUNITY\*\*

### TAXES PAID

**\$47.2M** DELAWARE

**\$2.6M** WILMINGTON

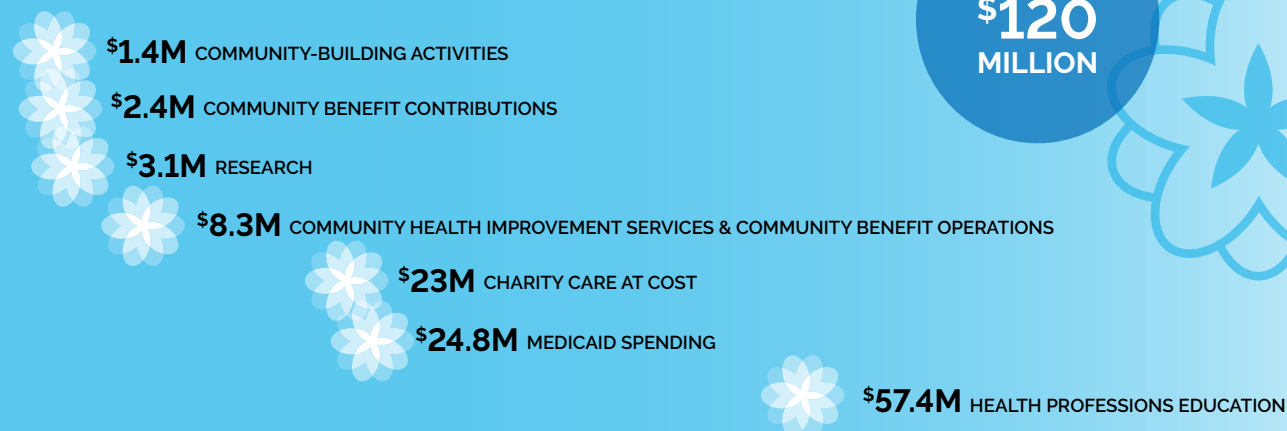
**\$4.6M** MARYLAND



\*Source: AHA analysis using BEA RIMS-II (1997/2006) multipliers, released in 2008.

\*\*Source: AHA analysis using BEA RIMS-II (2007/2016) multipliers for hospital NAICS Code 622000, released 2018.

## COMMUNITY BENEFIT SPENDING (FISCAL YEAR 2020)



## VOLUNTEERS

**576**

**11,167**  
SERVICE HOURS

**\$303,770**  
FINANCIAL IMPACT

## UNCOMPENSATED CARE

**\$45.1M**

A COMBINATION OF CHARITY CARE AND OTHER CARE FOR WHICH PAYMENT WAS EXPECTED BUT NOT RECEIVED.

CHRISTIANACARE IS A LEADING PROVIDER IN THE REGION WITH A NETWORK OF PRIMARY CARE PHYSICIANS, URGENT CARE CENTERS, MEDICAL AND SURGICAL SPECIALISTS, RESEARCH AND CLINICAL TRIALS, HOME HEALTH CARE, IMAGING, LABORATORY AND REHABILITATION SERVICES.

**VOLUME**



ADMISSIONS  
**57,046**

BIRTHS  
**6,118**

SURGICAL PROCEDURES  
**38,577**

HOSPITAL-BASED LAB TESTS  
**4,005,729**

OUTPATIENT VISITS  
**691,339**

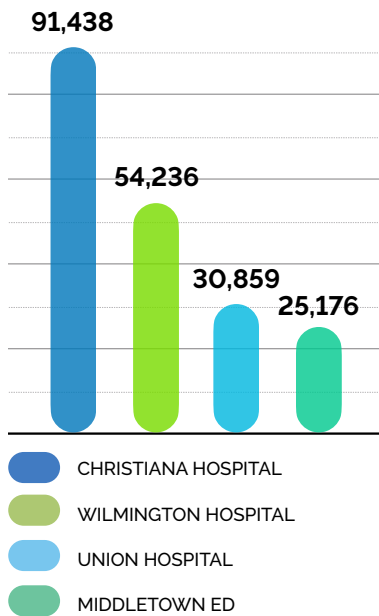
RADIOLOGY PROCEDURES  
**502,858**

HOME HEALTH VISITS  
**254,763**

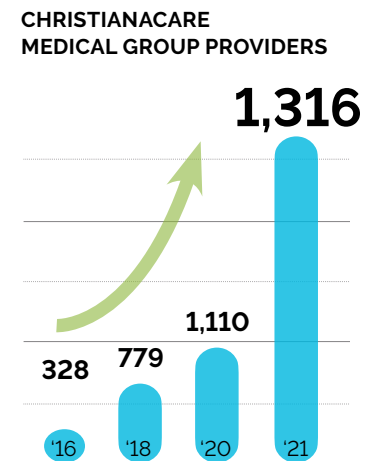
URGENT CARE CENTER VISITS  
**93,338**



EMERGENCY DEPARTMENT VISITS  
**201,754**

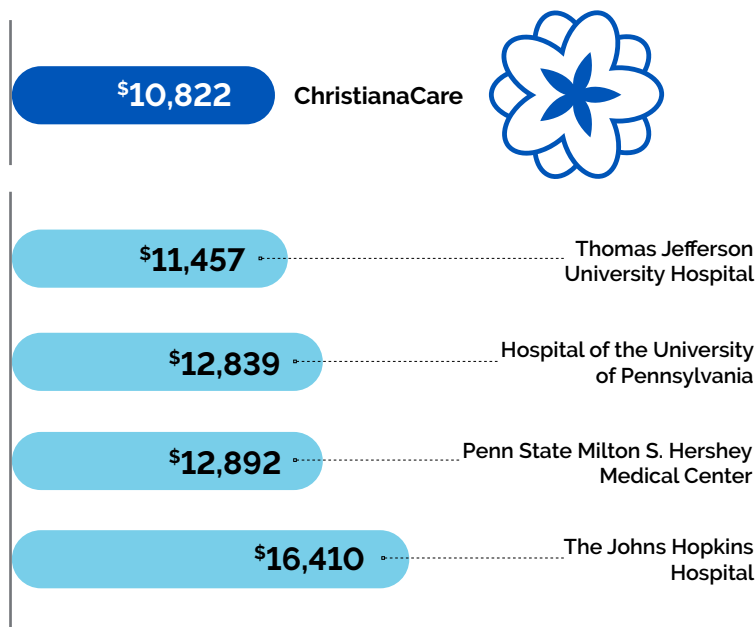


PRIMARY CARE  
OFFICE VISITS  
**312,996**  
VIRTUAL VISITS  
**50,615**



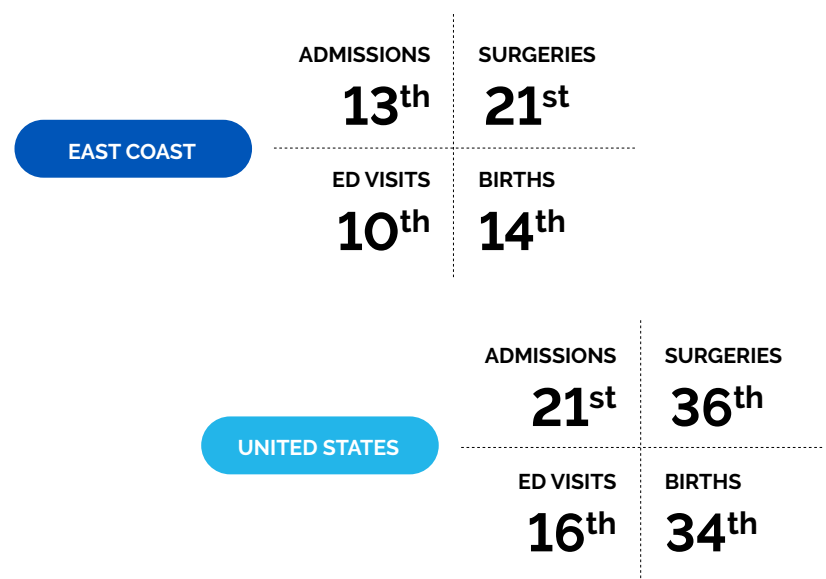
**COMPARATIVE COST OF HOSPITALIZATION**

Source: COTH Annual Survey, 2019. Wage and CMI Adjusted.



**COMPARATIVE RANKING** AMONG HOSPITALS/HEALTH SYSTEMS

Source: AHA Annual Survey Database for Fiscal Year 2019



**THE HELEN F. GRAHAM CANCER CENTER & RESEARCH INSTITUTE** is one of the most advanced cancer centers in the country. A multidisciplinary care team of specialists including a surgeon, a medical oncologist or hematologist and a radiation oncologist provide the best treatment options. We provide the most advanced cancer-fighting technology and participate in the National Cancer Institute's NCI Community Oncology Research Program.

PATIENT VISITS

**148,917**

NEW PATIENTS

**2,876**

EXTERNAL RADIATION  
BEAM TREATMENTS

**29,267**

PATIENTS ENROLLED IN CLINICAL TRIALS

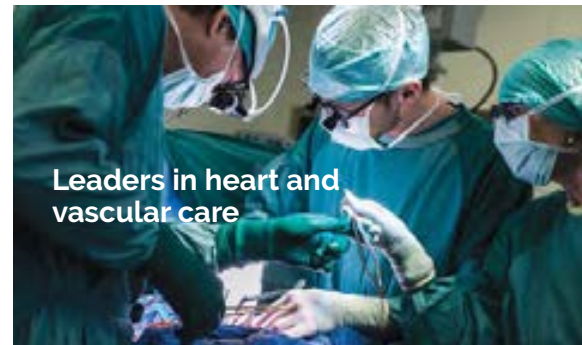
**814**

CLINICAL TRIAL PATIENT PARTICIPATION RATE

**28.3%**



Advanced center  
for cancer care



Leaders in heart and  
vascular care

**THE CENTER FOR HEART & VASCULAR HEALTH** is among the largest, most capable regional heart centers on the East Coast. It is the only center in the region that integrates cardiac surgery, vascular surgery, vascular interventional radiology, cardiology and interventional nephrology in a single location.

PATIENT VISITS

**12,305**

CARDIAC REHAB INPATIENT/OUTPATIENT VISITS

**17,469**

NEW PATIENTS

**8,592**

OPEN HEART SURGERIES

**882**

PROCEDURES

**221,622**

PATIENTS ENROLLED IN CLINICAL TRIALS

**119**

## OUR EXPERTISE

PATIENT VISITS

**65,698**

NEW PATIENTS

**14,446**

STROKE PATIENT CASES

**1,682**

PATIENTS ENROLLED IN  
CLINICAL TRIALS

**431**



Excellence in  
neurologic care

**OUR MULTIDISCIPLINARY NEUROSCIENCES TEAM** provides comprehensive and advanced care for neurologic illnesses across the acute and ambulatory settings. As the largest and most comprehensive neurology practice in Delaware, subspecialties include stroke, epilepsy, multiple sclerosis, movement disorders, neuromuscular disorders, headaches/migraines, sleep and pediatric neurology. The team also provides neurodiagnostic services (EEG/EMG/Sleep), pain management, and physical medicine and rehabilitation care for patients across the entire health system.

PATIENT VISITS

**121,569**

NEW PATIENTS

**3,370**

BIRTHS

**6,118**

CLINICAL TRIALS

**30**



Transformative care for  
women and children

**THE CENTER FOR WOMEN'S & CHILDREN'S HEALTH**, which opened in a new \$260 million state-of-the-art facility in 2020, represents a new standard of care for our community. It is the region's only National Community Center of Excellence in Women's Health and offers innovative, patient-centered care for mothers, babies and families. The center provides private rooms for mothers and families after delivery and is one of the only hospitals in the United States to provide couplet care in the NICU, keeping mother and baby together even if they both require medical care.

Headquartered in Wilmington, Delaware, ChristianaCare is one of the country's most dynamic health care organizations, centered on improving health outcomes, making high-quality care more accessible and lowering health care costs. ChristianaCare includes an extensive network of primary care and outpatient services, home health care, urgent care centers, three hospitals (1,299 beds), a freestanding emergency department, a Level I trauma center and a Level III neonatal intensive care unit, a comprehensive stroke center and regional centers of excellence in heart and vascular care, cancer care and women's health. It also includes the pioneering Gene Editing Institute.

ChristianaCare is nationally recognized as a great place to work, rated by *Forbes* as one of the best health systems to work for in the United States and by *IDG Computerworld* as one of the nation's Best Places to Work in IT. ChristianaCare is rated by HealthGrades as one of America's 50 Best Hospitals and continually ranked among the nation's best by *Newsweek* and other national quality ratings. ChristianaCare is a nonprofit teaching health system with more than 260 residents and fellows. With its groundbreaking Center for Virtual Health and a focus on population health and value-based care, ChristianaCare is shaping the future of health care.



WITH MORE THAN 30,000 RESPONDENTS SURVEYED, CHRISTIANACARE'S BRAND PERCEPTION IMPROVED THE MOST IN 2020, ACCORDING TO RESEARCH BY BRANDING AGENCY MONIGLE IN PARTNERSHIP WITH THE AMERICAN HOSPITAL ASSOCIATION.

## HOSPITAL CAMPUSES AND SERVICES

### WILMINGTON CAMPUS

- **Wilmington Hospital (321 beds)**
- Center for Advanced Joint Replacement
- Center for Rehabilitation
- First State School
- Health & Technology Innovation Center
- Psychiatric Services
- Rocco A. Abessinio Family Wilmington Health Center
- Roxana Cannon Arsht Surgicenter
- Swank Memory Care Center
- William J. Holloway, M.D., Community Program
- Wilmington Hospital Gateway Building

### NEWARK CAMPUS

- **Christiana Hospital (906 beds)**
- Center for Heart & Vascular Health
- Center for Translational Cancer Research
- Center for Women's & Children's Health
- ChristianaCare Surgicenter
- Helen F. Graham Cancer Center & Research Institute
- John H. Ammon Medical Education Center
- Medical Arts Pavilion
- Virtual Education & Simulation Training Center

### CECIL COUNTY CAMPUS

- **Union Hospital (72 beds)**
- Cancer Services
- Medical Pavilion

## REGIONAL CAMPUSES AND SERVICES

### GREENVILLE CAMPUS

- Eugene du Pont Preventive Medicine & Rehabilitation Institute
- Camp FRESH
- Cardiology
- Cardiac Rehabilitation
- Lab Services
- Obstetrics and Gynecology
- Primary Care
- Pulmonary Rehabilitation
- Rehabilitation Services

### SMYRNA CAMPUS

- Smyrna Health & Wellness Center
- Cardiology
- Endocrinology
- Family Medicine
- Lab Services
- Medical Imaging, including noninvasive cardiovascular imaging and nuclear medicine
- Obstetrics and Gynecology
- Rehabilitation Services
- Weight Management

### CONCORD CAMPUS

- Breast Care
- Cardiology
- Endocrinology
- Imaging Services
- Laboratory Services
- Primary Care
- Radiation Therapy
- Rehabilitation Services
- Sports Medicine
- Women's Health

### MIDDLETOWN

- Middletown Emergency Department
- Middletown Health & Wellness Center
- Middletown East Women's Health
- Diabetes & Metabolic Diseases Program
- Family Medicine
- Imaging Services
- Rehabilitation Services

### DELAWARE TECHNOLOGY PARK

- Gene Editing Institute

### URGENT CARE CENTERS

ChristianaCare-GoHealth Urgent Care Centers:

- Bear
- Christiana
- Dover
- Elkton
- Fairfax
- Glasgow
- Middletown
- North East
- Pike Creek
- Smyrna
- STAR Campus

### ADDITIONAL LOCATIONS AND SERVICES

- Alzheimer's and Dementia Day Programs
- ChristianaCare HomeHealth
- HealthCare Center at Christiana
- Imaging Services
- Primary Care Centers
- Rehabilitation Services
- School-Based Health Centers
- Specialty Practices
- Springside Plaza

# WE SERVE TOGETHER

## WITH EXCELLENCE AND LOVE

We commit to being exceptional today and even better tomorrow.

We seek new knowledge, ask for feedback and are open to change.

We use resources wisely and effectively.

We are curious and continuously look for ways to innovate.

We are true to our word and follow through on our commitments.

We anticipate the needs of others and help with compassion and generosity.

We embrace diversity and show respect to everyone.

We listen actively, seek to understand and assume good intentions.

We tell the truth with courage and empathy.

We accept responsibility for our attitudes and actions.



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[christianacare.org](http://christianacare.org)

