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Quality & Safety Recognition

Healthgrades names ChristianaCare one of America’s 50 Best Hospitals — again!

For its extraordinary level of care and innovation, ChristianaCare has for the second consecutive year earned Healthgrades America’s 50 Best Hospitals Award with top distinction in 18 specialty areas, and is again among the top 1% of more than 4,500 hospitals assessed nationwide for consistent, year-over-year superior clinical performance.

ChristianaCare’s Christiana Hospital and Wilmington Hospital are, once again, the only hospitals in Delaware to receive the America’s 50 Best Hospitals recognition.

ChristianaCare also received these distinctions from Healthgrades:

- America’s 50 Best Hospitals for Surgical Care™ in 2022.
- America’s 100 Best Hospitals for Joint Replacement Award™ for 7 years in a row (2016-2022).
- America’s 100 Best Hospitals for Spine Surgery Award™ for 9 years in a row (2014-2022).
- America’s 100 Best Hospitals for Gastrointestinal Care Award™ for 11 years in a row (2012-2022).
- America’s 100 Best Hospitals for Gastrointestinal Surgery Award™ for 11 years in a row (2012-2022).
- America’s 100 Best Hospitals for Cardiac Care™ in 2022.
- America’s 100 Best Hospitals for Pulmonary Care™ for 17 years in a row (2006-2022).
- Five-Star Distinctions in Total Knee Replacement, Total Hip Replacement, Spinal Fusion Surgery, Upper Gastrointestinal Surgeries, Colorectal Surgeries, Treatment of Heart Failure, COPD, Pneumonia, Sepsis, Respiratory Failure and GI Bleed.

From 2018 to 2020, patients treated in hospitals achieving the Healthgrades Top 50 Hospitals recognition on average had a 21.7% lower risk of dying than if they were treated in hospitals that did not receive this award. This was the case as measured across 17 rated conditions and procedures where mortality is the outcome. According to Healthgrades, if all hospitals as a group performed similarly to hospitals achieving the Healthgrades America’s 50 Best Hospitals Award, 157,292 lives could potentially have been saved from 2018 to 2020.

“Hospitals like ChristianaCare are truly leading the nation and setting the standard for care delivery,” said Brad Bowman, M.D., chief medical officer and head of data science at Healthgrades. “We commend ChristianaCare for their dedication to patient care and committing themselves to keeping their communities safe.”

*Statistics are based on Healthgrades analysis of Medicare Provider Analysis & Review (MEDPAR) data for years 2018 through 2020 and represent three-year estimates for Medicare patients only.

“The pandemic required unprecedented adjustments at ChristianaCare, including the first time in history that we have had to enact Crisis Standards of Care. But amid these challenges, our care has gotten better and safer overall. The work of our caregivers has been truly inspiring, as they exemplify our commitment to being exceptional today and even better tomorrow.”

Janice E. Nevin, M.D., MPH
President and Chief Executive Officer
Fiscal Year 2022 Honors

American Association for Respiratory Care second consecutive Apex Recognition Award for excellence in the acute care setting.

American Association of Critical-Care Nurses Beacon Awards for Nursing Excellence
- Medical Intensive Care Unit (gold – five times in a row).
- Cardiovascular Critical Care Complex (gold – three-time winner).
- Transitional Medical Unit (silver).
- Surgical Critical Care Complex (silver).
- Transitional Surgical Unit (silver).

American College of Cardiology 2021 HeartCARE Center National Distinction of Excellence.

American College of Surgeons National Surgical Quality Improvement Program Surgical Quality Awards meritorious hospital for “All Cases” and “High Risk.”

American Heart Association / American Stroke Association Get with the Guidelines®
- 2022 Mission: Lifeline® - STEMI Receiving Center GOLD PLUS.
- 2022 Mission: Lifeline® - NSTEMI – GOLD.
- 2022 Heart Failure Gold Plus with Target Type 2 Diabetes Honor Roll.

American Hospital Association Institute for Diversity and Health Equity 2021 Carolyn Boone Lewis Equity of Care Award.

American Medical Association 2021 Joy in Medicine Health Distinction (one of five to receive gold recognition).

Association of Community Cancer Centers 2022 Innovator Award to the Helen F. Graham Cancer Center & Research Institute for earning the highest National Oncology Conference ranking for implementing a Primary Care Provider in a Cancer Center.

Becker’s Hospital Review named ChristianaCare President and CEO Janice E. Nevin, M.D., MPH among 113 great leaders in health care for championing innovation and building a solid cultural foundation for success in the future.

College of Healthcare Information Management Executives (CHIME) “Most Wired” sixth consecutive year; and Performance Excellence Award for the acute and ambulatory categories.

Forbes Magazine one of the best large health systems to work for in the U.S. for second consecutive year; 29th best health system overall on the 500 best large employers in the United States; No. 1 overall employer for diversity and inclusion in Delaware and No. 14 among U.S. health systems nationwide.


Healthgrades America’s 50 Best Hospitals Award™ — second consecutive year with distinctions (see page 4).

Human Rights Campaign Healthcare Equality Leader — Christiana and Wilmington hospitals

IDG Computerworld Best Places to Work in IT.

Immunization Action Coalition fifth Hepatitis B Birth Dose Honor Roll — Women and Children’s Health.

National Cancer Institute (NCI) top national ranking for outstanding patient participation rate in cancer clinical trials — Helen F. Graham Cancer Center & Research Institute.

National Committee for Quality Assurance (NCQA) accreditation in Case Management and Population Health — CareVio.

Newsweek World’s Best Hospitals (78th best in the U.S.) for superior infection prevention measures – fourth consecutive year.

Society of Thoracic Surgeons highest quality rating — three stars — for patient care and outcomes in isolated coronary artery bypass grafting procedures — Center for Heart & Vascular Health.

State of Delaware 2021 Governor’s Compassionate Champion Award as a trauma-informed provider of health care services.

The Joint Commission National Quality Approval — Cecil County.

US News & World Report Best Hospital sixth year in a row.
Clinical Effectiveness Structure

Clinical Effectiveness structure guides work toward strategic aims

The Quality and Safety Committee of the Health Services Board of Directors monitors and oversees the quality, safety, care standardization and patient experience — collectively, “Clinical Effectiveness.” This committee promotes being exceptional today and even better tomorrow. The four AIMS of the fiscal year 2022 Annual Operating Plan serve as the foundation for delivering the highest quality of care to our community.

The Clinical Effectiveness structure was established with the organization-wide commitment to positively impact the quality and safety of care. The Clinical Effectiveness Committee, which reports directly to the Quality and Safety Committee of the Health Services Board of Directors, serves as the interdisciplinary forum to lead the design, governance and the implementation of initiatives.

Clinical effectiveness continues to evolve and expand. Initially, Zero Harm, Quality, Patient Experience and Care Standardization were the pillars of Clinical Effectiveness. This year, Patient Flow and Health Equity have been added in order to apply system resources and rigorous performance improvement structure to these new areas that require complex solutions.

The supporting committees are organized around the strategic aims and services offered to direct the specific areas of focus for continuous improvement. Campus and Medical Group Clinical Effectiveness committees have accountability for continuous improvement across the strategic aims and at the local level.

“We remain relentless in our commitment to provide expert, high quality, safe care that protects our community and helps our neighbors achieve optimal health. By focusing on continuous improvement, we have built quality and safety into our organizational infrastructure, promoting accountability and care standards among our caregivers. The result is an exceptional experience for our patients and their families.”

— Kert Anzilotti, M.D., MBA
Chief Medical Officer
Optimal Health

Preventable harm rate improvement remains strong

ChristianaCare’s focus on eliminating preventable patient harm places us among top-performing academic medical centers — in 2021, Vizient ranked us 31st among over 100 of our peers. While national rates of hospital-acquired infections (HAI) and other preventable harm were climbing during the pandemic, ChristianaCare maintained strong risk-adjusted performance through consistent application of high reliability concepts.

In fiscal year 2021, the Cecil County campus was added to our tracking of preventable harm. This year, measures of preventable harm in ChristianaCare’s ambulatory practices were added — bringing our count to a total of 22 measures of harm and highlighting our mission to provide quality care to the communities we serve.

Preventable Harm Rate: Annual Trend

The preventable harm rate decreased 4.5% fiscal year 2022 to date, to 1.84 from 1.94.

Progress toward zero harm over the past six years is significant. The increase in the harm rate between fiscal year between fiscal years 2019 and 2020 reflects the additions of the Cecil County campus and ambulatory practices, as well as COVID-19, but was followed by additional declines. Since fiscal year 2017, the preventable harm rate decreased 28%, from 2.54 patients harmed per 1,000 patient days. During this period, 735 fewer patients experienced harm.

Fiscal year 2022 to date through March 2022, the preventable harm rate decreased to 1.84 from 1.94 for the same period in fiscal year 2021—a 4.5% reduction supporting our journey to zero preventable harm. Due to the extremely high patient census and increased risk during the pandemic surges, the overall number of patients experiencing harm during the period unexpectedly increased by 12%, to 605 from 537.
**Interdisciplinary review of hospital-acquired infections drive improvement**

Hospital-acquired infections (HAI) are a focus of our journey to zero harm and account for 25% of harm cases measured by ChristianaCare. HAI increases patients’ risk for mortality and morbidity, and contribute to higher health care costs. Nationally, HAI rates increased over the past year due to hospitalization surges and increased patient risk related to COVID-19.

ChristianaCare experienced an increase of more than 60 HAI cases during fiscal year 2022, but HAI severity-adjusted rates, called Standardized Infection Ratios (SIRs), have remained steady or improved. In fact, our SIRs place us among the top academic medical centers*.

A team of interdisciplinary caregivers — triads that include infection prevention, nursing and physicians — drives improvements in HAI. Cases are reviewed in-depth to identify common factors and opportunities for improvement. Evidence-based practices, changes in equipment or educational needs are identified and pushed to frontline caregivers for implementation. Compliance is monitored regularly and shared through patient care unit and team huddle boards.

Key improvements to prevent HAIs include:

- **Clostridium difficile (C-difficile or C-diff):** embedding the C-difficile risk calculator, which identifies patients appropriate for timely testing, in the PowerChart C-diff Care Plan to improve ease of access of use by providers.
- **Catheter-Associated Urinary Tract Infection (CAUTI):** proactive rounding to support timely Foley catheter removal, investigating new external urinary collection device alternatives, acute care and ChristianaCare HomeHealth caregiver education related to best-practice Foley insertion technique and developing a new Care Management Guideline for Urinary Catheter Management (CATHI prevention (go-live 2022)).
- **Central Line-Associated Bloodstream Infections (CLABSI):** literature review of our current port access practices met national standards and escalation of best-practice chlorhexidine bathing for patients who refuse this prevention measure.
- **Hand Hygiene:** implementing CipherRounds for extensive hand hygiene observation — the first line in HAI prevention — to provide real-time actionable data to managers.

![Hospital-Acquired Infections Annual SIR Trend](chart)

Risk-adjusted performance across all four hospital-acquired infection categories shows improvement from 2018 to 2020. Although the SIRs increased in 2021 due to the COVID-19 pandemic, rates remain well below expected.

* Source: Vizient Annual Quality and Accountability Study.
Multiple sustained efforts reduce Patient Safety Indicator harm by 18%

The Agency for Healthcare Research and Quality (AHRQ) developed Patient Safety Indicators (PSIs) in 2003 to identify potentially avoidable safety events — focusing on in-hospital complications and adverse events following surgeries or other procedures. ChristianaCare includes the PSIs as harm and works to eliminate these events as part of our journey to zero preventable harm.

Cases among the 11 PSIs tracked have decreased significantly — a total of 29 fewer cases fiscal year 2022 through February compared to the same period last fiscal year, yielding a decrease of 18%. The improvement is the result of concerted efforts among numerous teams and caregivers, including nurses, physicians, clinical documentation improvement specialists and patient safety.

Hospital Acquired Pressure Injuries (HAPI) sustained improvement over the past two years (see HAPI story, page 21) and decreased 21 cases this fiscal year. The Clinical Documentation Improvement (CDI) team began pre-billing review of potential PSI cases through automated software in 2021 (see page 79) – improving appropriate and accurate coding. Following this process, a re-invigorated and expanded team of physicians now reviews PSI cases to identify clinical opportunities.

Action plans implemented to improve care include:

- Postoperative Acute Kidney Injury Requiring Dialysis: management of nephrotoxic agents preoperatively, and management of hemodynamics and fluid status.
- Postoperative Respiratory Failure: utilization of a JD Edwards EnterpriseOne platform for at-risk patients having non-cardiac surgery to guide fluid and pressor management.
- Perioperative Pulmonary Embolism/Deep Vein Thrombosis: revisions to prophylactic power plan, improved documentation and strategies to address patient refusal of prevention processes.

Ongoing opportunities include Death in Surgical Patients with Treatable Complications, which was recently added to the CDI pre-billing review; and Postoperative Sepsis. Actions to address an identified issue related to anastomotic leaks are in development.
Focus on falls reduces major injury rate by 27%

Falls with Major Injury, such as a fracture or bleeding in or around the brain, are considered preventable patient harm. ChristianaCare’s systemwide Fall Prevention and Mobility team has worked to prevent risk for falls with injuries and reduce all patient falls.

In January 2021, the Joint Commission implemented a new standard making Falls with Major Injury a sentinel event requiring root cause analysis. With leadership from Patient Safety and Accreditation, the systemwide Fall Prevention and Mobility team helps identify system opportunities through detailed reviews. Care Planning Process and Patient Assessment are among the top root causes.

Falls with Major Injury: Acute Care

The Falls with Major Injury Rate decreased 27% since fiscal year 2020, from 0.040 to 0.029 falls per 1,000 patient days.

In accordance with ChristianaCare’s journey to zero harm, fall practices to reduce harm are both evidence-based and patient-centered. In addition to keeping abreast of cutting-edge best practices, the team monitors National Database of Nursing Quality Indicators (NDNQI) benchmarks of American Nurses Credentialing Center Magnet®-designated hospitals, and works with areas across the continuum of care to achieve goals.

The Fall Prevention and Mobility team now includes representation from Cecil County, HomeHealth and Ambulatory Practices. Patient falls in physician offices, regardless of injury, were counted as patient harm for the first time in fiscal year 2022.
An evidence-based Fall Care Management Guideline incorporates assessment tools for risk factors to identify high-risk patients. Interventions range from general fall prevention to patient-centered risk specific actions to mandatory interventions for patients at high risk for injury. As noted in the root cause analyses, risk-specific interventions based on assessment are geared to reduce major injuries.

Video monitoring is a key innovative intervention to prevent falls among high-risk patients on acute care units. There are 37 monitors currently available at the Newark and Wilmington campuses. More than 900 patients have been monitored to date — generally for moderate/high risk for falls or injury, or for safety risk related to cognitive impairment.

After a period of decline during Crisis Standards of Care during the omicron surge, the percent of patients meeting their Mobility Goal of the Day across 11 units increased 8%, from 56.3% to 60.6%.

In addition, ChristianaCare is implementing the Johns Hopkins Activity and Mobility Promotion, which determines the patient’s highest level of mobility, sets a daily goal, and monitors achievement to reduce the harm of immobility and length of stay. This program will expand systemwide in fall 2022. After a period of decline during Crisis Standards of Care during the omicron surge, the percent of patients meeting their Mobility Goal of the Day across 11 units increased 8%, to 60.6% from 56.3%.

Focus on falls reduces the major injury rate by 27% (continued)
**HomeHealth’s falls in the home below national average**

A multidisciplinary, systemwide Fall Prevention program has helped ChristianaCare HomeHealth reduce the rate of patient falls in the home below national benchmarks and below the organization’s own rates in fiscal year 2021. The program assesses patients admitted to HomeHealth for fall risk, identifies environmental risk factors for falls and offers evidence-based education on home safety and fall prevention strategies.

The largest number of falls in the home occur in the patient’s bedroom, followed by the living room, bathroom and kitchen. Continuing education helps caregivers identify environmental risk factors, such as cluttered home environments, throw/area rugs and unsafe stairs that increase a patient’s risk of falling in the home, and incorporate fall prevention strategies and safety measures in patient education.

HomeHealth is on target to reduce the number of Falls with Major Injuries to less than 6.1% in fiscal year 2022.

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**Perfect Care Bundle, practice and documentation improvements help reduce HAPI rate, drive cost savings**

By addressing opportunities for improvement from skin assessment at admission through discharge coding, an interprofessional team reduced stage 3, 4 and unstageable hospital-acquired pressure injury (HAPI) rate (Agency for Healthcare Research and Quality Patient Safety Indicator 103) by 44% as of February 2021, well exceeding the initial goal of a 20% reduction. In fiscal year 2021, ChristianaCare’s HAPI AOP measure decreased by 32%, with 24 fewer patients harmed compared to the prior fiscal year, with an estimated cost savings of $537,048. Improvements have continued through fiscal year 2022 — leading to an overall 83% decrease since 2019, to 0.65 from 3.81 HAPI per 1,000 patient days.

The comprehensive approach coupled new practices, documentation processes and use of pressure injury prevention products with a robust focus on caregiver education and interprofessional engagement and consistent use of evidence-based practices. Among the improvements:

- Skin integrity and pressure injury knowledge assessment, education and training for more than 3,000 nurses and patient care technicians with focused pressure injury prevention competency assessment.

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![ChristianaCare HomeHealth Falls](image)

**ChristianaCare HomeHealth Falls**

- Falls Incidence (% of cases)
  - No Injury: 4.8%
  - Non-Major Injury: 3.5%
  - Major Injury: 1.9%

HomeHealth’s falls are below national average in all injury categories.

![Hospital Acquired Pressure Injuries, Stage 3+ (PSI 03) Rate per 1000 cases](image)

**Hospital Acquired Pressure Injuries, Stage 3+ (PSI 03) Rate per 1000 cases**

- PSI Rate (number per 1000 cases)
  - PSI Prevention Team

Systemwide efforts led to sustained improvement in the HAPI rate, which decreased 83% since 2019, to 0.65 from 3.81.
Perfect Care Bundle, practice and documentation improvements help reduce PSI03 HAPI rate, drive cost savings (continued)

- Evidence-based pressure injury prevention processes, practices and documentation, including a Perfect Care Bundle tool and interactive dashboard as well as an accountability toolkit.
- HAPI dashboard with process metrics and targets.
- Prediction model to identify patients at high risk for HAPI.
- New products to decrease pressure injury risk, such as nasogastric tube holders, positioning and sitting devices, and mattresses; as well as camera capture technology for virtual Wound Ostomy Continence (WOC) nurse validation of a pressure injury, staging and present-on-admission status.
- WOC nurse pressure injury preventionist and medical director.

Pressure injury prevention practices have also now been implemented in ancillary areas, such as the Emergency Department and procedure areas, and pressure injury information and education has been added to the Patient and Visitor Guide.

A new process that revised the coding query process and verifies coding requirements has also been implemented for the final validation of all externally reported HAPI.

The Perfect Care Bundle is designed to identify opportunities in practice so that targeted action planning can take place at the unit/practice area level before harm occurs.

Free-floating device reduces nasal pressure injuries by 67.7%

Up to 30% of pressure injuries are medical device-related, and patients with medical devices are 2.4 times more likely to develop a pressure injury. A nurse-led trial of an alternative “free-floating” securement device that allows nurses to more easily inspect the skin beneath a nasogastric (NG) device helped reduce the number of NG tube-related pressure injuries by 67.7% to 4.3% between October 2020 and August 2021, surpassing the goal of a 10% reduction.

OR and ICU use of Dabir mattress system helps reduce pressure injuries

New pressure redistributing air-filled mattresses using micromovement and immersion/envelopment techniques in the operating room (OR) and Cardiovascular Critical Care Complex are reducing HAPIs for patients recovering from cardiac surgery. Since implementation, the number of HAPIs developed by patients within three days of heart surgery decreased by 67% — and the reduction was 100% when the new mattresses replaced standard gel pads in the OR as well as in the intensive care unit. The Dabir system has now expanded to include any at-risk patient in the Surgical Critical Care Complex, Neuro Critical Care Complex and in the Wilmington Intensive Care Unit and may soon prove of value for other high-risk patient populations with extensive operative periods.

HAPI negatively affects a patient’s quality of life, increases pain and discomfort and increases morbidity and mortality. These pressure injuries increase hospital lengths of stay, readmissions and financial burden. The Centers for Medicare and Medicaid Services (CMS) no longer reimburses organizations for HAPI, estimated at $10,708 per patient.

Number of Pressure Injuries within 3 days of Operative Period

Use of Dabir in the cardiovascular operating room eliminated pressure injuries post-surgery; successes continued with expansion to the Cardiovascular Critical Care Complex.
TRANSFUSION SAFETY

Cerner Bridge increases patient safety and uses resources wisely

ChristianaCare completed 28,420 inpatient blood transfusions last year. Each required verification of right patient, right blood product and right blood type for transfusion and patient safety. Best practice includes a second caregiver verification of all three.

Cerner Bridge Medical Transfusion Administration is a web-based solution that supports patient safety through bedside positive patient identification. The solution uses barcode technology to improve productivity and workflow and eliminates the need for a second caregiver bedside verification of patient identification and blood — using resources wisely. Fundamental to the system is electronic capture of data in real time, including vital signs, flowing directly into PowerChart to ensure communication with all providers and caregivers.

Cerner Bridge was implemented in October 2020 for all inpatient blood transfusions excluding massive blood transfusions, such as for trauma, where use of Bridge could impact patient care. Through January 2022, 84% of transfusions — more than 25,000 — were started using Cerner Bridge. In February 2022, Cerner Bridge was implemented in Infusion Services for outpatients – another 2,000 transfusions annually.

Blood Transfusions using Cerner Bridge

Since implementation, 84% of inpatient blood transfusions were started using Cerner Bridge.

Ambulatory Practices reduce preventable harm with a new focus on safety

A key area of concentration of the Ambulatory Safety Council, launched in January 2021, is developing ambulatory-relevant preventable harm metrics, consistent with ChristianaCare’s long-standing journey to zero harm. In the first year, three preventable harm metrics were incorporated in the measurement of Preventable Harm, with a goal to broaden measurement of harm over the next few years.

Unplanned Admissions for Hypertension

Unplanned admissions for hypertension are at target for fiscal year 2022 year to date.

Short-Term Complications of Diabetes

Admissions for short-term complications of diabetes have decreased 3% fiscal year 2022 year to date, to 103 from 106.
Ambulatory Falls, counted as harm regardless of patient injury/non-injury, increased by 16 cases during fiscal year 2022 — expected with increased reporting of events (see Culture of Safety story, page 32) and increased in-person primary care and specialist office visits after the initial COVID-19 surge. The Ambulatory Falls Committee collaborates with the systemwide Falls Committee to implement best practice standards of prevention.

The other two harm measures, Unplanned Admissions for Hypertension and Short-Term Complications of Diabetes, count hospital inpatient and observation admissions that are considered preventable with appropriate ambulatory care. The metrics are modeled on AHRQ patient quality indicators and are aligned with the hypertension and diabetes care standardization and health equity efforts.

In the first year, hypertension admissions increased 4% (two cases) compared to fiscal year 2021, and are at the target level. Admissions for short-term complications of diabetes decreased 3%, to 103 cases from 106.

To gain a better understanding of system factors that may play a role in these harm categories, the council deployed a standardized chart review tool. The goal over the next few years is to broaden these preventable harm metrics to include ambulatory care across all service lines.

Ambulatory Practices reduce preventable harm with a new focus on safety (continued)

Zero Harm Awards highlight 12-consecutive-month blocks without patient harm

ChristianaCare’s Zero Harm Awards recognize patient care units that have maintained zero cases of preventable patient harm in one of eight harm categories for at least 12 consecutive months. From July 2021 through March 2022, 103 awards were earned, including 13 awards for 8 years (96 months) with zero harm. Since January 2017, 806 awards have been given.

In the spirit of continuous improvement, in fiscal year 2023 we will expand the Zero Harm recognition to include Perioperative Services for zero surgical errors or complications, and Ambulatory Practices for zero hypertension or diabetes admissions.

Catheter-Associated Urinary Tract Infections (CAUTI)

12 MONTHS
- New Castle Team 3, HomeHealth
- 6B Medical, Newark
- 5D Medical, Newark
- New Castle Team 7, HomeHealth
- 6E Oncology, Newark
- New Castle Team 5, HomeHealth

24 MONTHS
- Private Duty Nursing, HomeHealth
- 4D Surgery Stepdown, Newark

36 MONTHS
- 4W Medical, Wilmington
- 5E Heart Failure, Newark
- Intensive Care, Wilmington
- Center for Rehabilitation, Wilmington
- Medical Intensive Care, Newark
- Transitional Neuro, Newark
- Neuro Critical Care, Newark
- Intensive Care, Cecil County
- Progressive Care, Cecil County

48 MONTHS
- 3Medical, Wilmington
- 60 MONTHS
- 3A Stroke Treatment and Recovery, Newark
- 65 Medical Stepdown, Wilmington

84 MONTHS
- 2C Ortho/Neuro/Trauma Surgery, Newark
- 7S Center for Advanced Joint Replacement, Wilmington
- 7E Spine/Joint Replacement, Newark

Methicillin-Resistant Staphylococcus Aureus (MRSA)

12 MONTHS
- 5N Medical, Wilmington
- 4W Medical, Wilmington

24 MONTHS
- 5A/4C Medical, Newark
- 6B Medical, Newark
- Surgical Critical Care, Newark

Central Line-Associated Bloodstream Infections (CLABSI)

12 MONTHS
- Medical Intensive Care, Newark
- Neonatal Intensive Care, Newark

24 MONTHS
- Bone Marrow Transplant, Newark
- Transitional Neuro, Newark
- Center for Rehabilitation, Wilmington
- 6B Medical, Newark

36 MONTHS
- New Castle Team 6, HomeHealth
- 5D Medical, Newark

36 MONTHS
- 5A/4C Medical, Newark
- 5D Medical, Newark
- 6B Medical, Newark
- Surgical Critical Care, Newark

84 MONTHS
- 2C Ortho/Neuro/Trauma Surgery, Newark
- 7S Center for Advanced Joint Replacement, Wilmington
- 7E Spine/Joint Replacement, Newark

Methicillin-Resistant Staphylococcus Aureus (MRSA)
<table>
<thead>
<tr>
<th>Period</th>
<th>Location and Dept.</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 MONTHS</td>
<td>Bone Marrow Transplant, Newark</td>
</tr>
<tr>
<td></td>
<td>5C Medical, Newark</td>
</tr>
<tr>
<td></td>
<td>Surgical Services, Cecil County</td>
</tr>
<tr>
<td>48 MONTHS</td>
<td>Transitional Surgical, Newark</td>
</tr>
<tr>
<td></td>
<td>Intensive Care, Wilmington</td>
</tr>
<tr>
<td>60 MONTHS</td>
<td>4D Surgery Stepdown, Newark</td>
</tr>
<tr>
<td></td>
<td>72 MONTHS 4B Surgery/Gynecology, Newark</td>
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<tr>
<td>96 MONTHS</td>
<td>3A Stroke Treatment and Recovery, Newark</td>
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<td></td>
<td>75 Center for Advanced Joint Replacement, Wilmington</td>
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<tr>
<td></td>
<td>Center for Rehabilitation, Wilmington</td>
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**Clostridium difficile (C. difficile)**

<table>
<thead>
<tr>
<th>Period</th>
<th>Location and Dept.</th>
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<tbody>
<tr>
<td>12 MONTHS</td>
<td>5B/3B Medical, Newark</td>
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<tr>
<td></td>
<td>4N/5W Medical, Wilmington</td>
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<tr>
<td></td>
<td>Surgical Critical Care, Newark</td>
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<td>Clinical Decision, Cecil County</td>
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<td>24 MONTHS</td>
<td>7N Behavioral Health, Inpatient, Wilmington</td>
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<td></td>
<td>Medical Intensive Care, Newark</td>
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<td></td>
<td>6B Medical, Newark</td>
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<td>36 MONTHS</td>
<td>Transitional Neuro, Newark</td>
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<td>Intensive Care, Wilmington</td>
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<td>Intensive Care, Cecil County</td>
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<td>60 MONTHS</td>
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<td>96 MONTHS</td>
<td>75 Center for Advanced Joint Replacement, Wilmington</td>
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**Falls with Major Injury**

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<th>Location and Dept.</th>
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<td>12 MONTHS</td>
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<td>7N Behavioral Health, Inpatient, Wilmington</td>
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<td>Camden Team 1, HomeHealth</td>
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<td>3A Medical, Newark</td>
<td></td>
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<tr>
<td>6E Oncology, Newark</td>
<td></td>
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<td>4N/5W Medical, Wilmington</td>
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<tr>
<td>4E Cardiac Stepdown, Newark</td>
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<td>Clinical Decision, Cecil County</td>
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<td>24 MONTHS</td>
<td>Emergency Department, Cecil County</td>
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<td>Center for Rehabilitation, Wilmington</td>
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<td></td>
<td>5E Heart Failure, Newark</td>
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<td>Progressive Care, Cecil County</td>
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<td>Medical Surgical, Cecil County</td>
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<td>36 MONTHS</td>
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<td>Clostridium difficile (C. difficile)</td>
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<td>48 MONTHS</td>
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<td></td>
<td>2C Ortho/Neuro/Trauma Surgery, Newark</td>
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<td></td>
<td>Intensive Care, Cecil County</td>
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<td>Maternity-Infant Care, Cecil County</td>
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<tr>
<td>60 MONTHS</td>
<td>5A/4C Medical, Newark</td>
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<td></td>
<td>4W Medical, Wilmington</td>
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<td></td>
<td>6B Medical, Newark</td>
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<td></td>
<td>Surgical Critical Care, Newark</td>
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<td></td>
<td>3M Medical, Wilmington</td>
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<tr>
<td>96 MONTHS</td>
<td>4D Surgical Stepdown, Newark</td>
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<td>7E Spine/Joint Replacement, Newark</td>
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<td>Cardiac Short Stay, Newark</td>
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<td>Middletown Emergency Department</td>
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<td>Medical Intensive Care, Newark</td>
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<td>Transitional Surgical, Newark</td>
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<td>Intensive Care, Wilmington</td>
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<td>All Falls</td>
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<td>OB Triage, Newark</td>
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<td>24 MONTHS</td>
<td>Transitional Surgical, Newark</td>
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<td>72 MONTHS Neonatal Intensive Care, Newark</td>
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**Zero Hero Award recognizes role of caregivers as harm prevention heroes**

New in 2021, ChristianaCare’s Zero Hero award promotes the importance of a “good catch” in preventing harm and will increase reporting of good catches by caregivers at the point of care. The new caregiver recognition program extends from the Good Catch Program established in 2012.

**A good catch prevents either an unsafe condition or a near miss.**

- **An unsafe condition** is a situation that increases risk to patient or caregiver if not corrected.
- **A near miss** is a patient safety risk caught prior to reaching patient.

Reporting good catches facilitates learning at the system level and allows caregivers to proactively prevent future harm. Reporting and learning are vital components in our journey to zero and in advancing a culture of safety.

Each month, a good catch submission that has led to an important system improvement reducing preventable harm is selected for the Zero Hero Award. The awardee is acknowledged through internal platforms, such as No Harm Intended sessions and the Quality & Safety newsletter, and by Clinical Effectiveness leaders in the System Support and Resolution Huddle. Each monthly winner is eligible for the annual Good Catch Award presented during the ChristianaCare Way Awards.

### Zero Heroes

**April 2021**

**Danielle Coyne, RN, Nursing Professional Development and Philip Scott, RN, Wilmington Intensive Care Unit**

**Good Catch:** An electronic field change in the order entry format impacted IV infusion documentation by populating the incorrect patient weight.

As a result: IT corrected the error for the fall risk score and the accompanying PowerChart text to display accurately.

**May 2021**

**Jacqueline Kreydt, RN, Center for Rehabilitation**

**Good Catch:** Fall Risk for Injury Score and PowerChart text were not aligned.

As a result: IT corrected the error for the fall risk score and the accompanying PowerChart text to display accurately.

**June 2021**

**Valerie Jones, RN, Jennifer Robin Peake, LPN, and Jessica Morales, ChristianaCare Primary Care at Hockessin**

**Good Catch:** Vaccine refrigerator temperature found to be out of range for 40 hours.

As a result: Refrigerator alerts are now assigned to practice managers and staff training and mock system checks have been implemented.
July 2021

**2C Nursing Caregivers**

**Good Catch:** Safety concerns with Nipro 25-guage needles not having a safety mechanism to cover needle after use.

As a result: System communication and education provided increased awareness of the risk and specific safe practices for caregivers when using conventional “non-safety” needles.

**August 2021**

**Diana Pasini-Wojnisz, RN, Preoperative Evaluation Preparation Coordinator**

**Good Catch:** Delay in restarting patient anticoagulation therapy postoperatively.

As a result: A POETS consult process was implemented for pre- and postoperative management of patients on anticoagulant therapy greater than aspirin 81mg to ensure anticoagulants are restarted timely and appropriately.

**September 2021**

**Mike Narasaki, RN, Per Diem Pool, Cynthia Collado, RN, 6E and Samantha Zizza, RN, 6E**

**Good Catch:** Medications not scanning with message on scanner reading “no order for medication” on multiple patients.

As a result: Medication Safety created a job aid, and, in consultation with Cerner, IT implemented a fix. Ongoing monitoring by IT ensures the solution has corrected the issue.

**October 2021**

**Ashling Cook, Pharmacy Resident**

**Good Catch:** Patient ordered gentamicin for 72 hours for open fracture prophylaxis. Ideal body weight instead of adjusted body weight used for dosing.

As a result: The Electronic Medical Record Custom Software Team, Pharmacy and IT developed a rule to prevent this issue.

**November 2021**

**Anita Brown, RN, Postpartum**

**Good Catch:** Flu and Hepatitis B vaccines in same refrigerator bin on Postpartum unit.

As a result: Pharmacy requested Supply Chain evaluation of the stocking location of both vaccines. Pharmacy Supply Chain reviewed all 6M and 7M AcuDose fridges and separated these two medications to prevent vaccine administration errors.

**December 2021**

**Susan Roberto, Supportive & Palliative Care**

**Good Catch:** Delays in communication to the responsible provider and to the patient for follow-up action on a critical test result.

As a result: Lab information technology group was contacted and the phone number for the provider updated to the correct number.

**January 2022**

**Jonah Kauffman-Epstein, Practice Manager, Wilmington Health Center Primary Care**

**Good Catch:** Patient seen in the office and transported to the Emergency Department where it was discovered he had a concealed firearm that had not been noticed in his primary care visit. The patient apologized, stating he had a license to carry a firearm, but did not see any signs regarding a weapons policy.

As a result: New signage regarding the no weapons policy has been posted. Education, including advice for an active shooter situation, was offered to help caregivers protect themselves.

**February 2022**

**Eric Halpern, Holloway Community Center, Georgetown**

**Good Catch:** Although listed as “chronic,” a maintenance medication fell off a patient’s medication list.

As a result: A review identified an issue relating to a “duration” being added to a maintenance medication, causing the medication to “fall off” the home medication list when the medicine was renewed. As this is a rare occurrence, providers and caregivers were educated to avoid entering a duration to any maintenance medicines.

**March 2022**

**Jasmin Orange, Medical Intensive Care Unit**

**Good Catch:** Issue identified with a type of needles connector. When a flush was attached to the cap, there was hub disintegration when connecting a syringe, resulting in connector fragments left in the syringe.

As a result: Defective equipment returned to Supply Chain leadership. A system emergency Safety Alert was issued outlining the specific safety concerns and instructing caregivers to check lot number and dispose of any affected items, and to inspect products with non-affected lot numbers for signs of deterioration prior to and during use.

**April 2022**

**Claire Reiger, 7N Behavioral Health**

**Good Catch:** Mouse cord coming from a computer noted as very long and represented a ligature risk, which could have been used by a patient for self-harm or to harm someone else.

As a result: Mouse cord has been added to the suicide ligature environment risk assessment used for inpatients at risk for self-harm. This item is on the risk assessment in ambulatory setting.
CULTURE OF SAFETY

Culture of Safety surveys identify strengths, areas of opportunity

Hospital and Ambulatory caregivers give Teamwork high marks

Every 24 months, ChristianaCare gauges progress in our safety culture and journey towards achieving high reliability by administering the Hospital Survey on Patient Safety Culture and the Medical Office Survey on Patient Safety Culture, both are AHRQ-validated survey tools. Frequent evaluation allows organizations to concurrently analyze results across the system using internal and national benchmarks, and identify opportunities and solutions that align with organizational priorities.

ChristianaCare’s most recent survey results of Christiana and Wilmington hospitals from 2020 showed strong performance compared to national benchmarks in the domains of Handoffs and Teamwork.

Hospital Survey Results: 2020 Newark & Wilmington Campuses

2020 survey results showed the Handoffs and Teamwork domains were strong performers compared to national benchmarks; top opportunities were Staffing and Management Support for Patient Safety.

Ambulatory Practices Survey Results: 2020

Top areas of strength in the 2020 survey were Teamwork and Overall Perception of Patient Safety & Quality; top opportunities were Work Pressure & Pace and Office Processes & Standardization.

To address areas identified in the hospital survey for improvement — Staffing and Management Support for Patient Safety — key actions include:

- Multifaceted organizational approach to staffing with increased transparency around aggressive recruitment and retention efforts.
- A standardized process at the system and campus level with a mechanism for escalating supply and/or resource concerns and assigning a leader accountable for follow-up actions.
- Monthly Town Halls (CEO/executive leader, all-caregiver and campus) with opportunity for transparent communication to share information and respond to caregiver questions.
- Leader Rounding for Safety provides the opportunity for regular engagement of frontline caregivers to share local level safety concerns, input in the action planning process, and receive follow up to their safety concerns.
- Organizational strategy for Just Culture with ongoing education and training in support of our Culture of Safety and non-punitive response to error.
- Increased caregiver recognition of Good Catch reporting with monthly Zero Hero Award.
Culture of Safety surveys identify strengths, areas of opportunity (continued)

- Manager/leader tools to support caregiver psychological safety.
- Optimization of Report2Learn (R2L) event reporting system for improved submitter experience.

Teamwork also measured as a strong domain on the 2020 Medical Office survey, as did Overall Perception of Patient Safety & Quality. These strategies help drive improvement in the domains of Work Pressure and Office Processes & Standardization include:

- Creating quick reference manuals with checklists for each practice for floating or new staff.
- Creating “buddy system” for each practice.
- Increasing staff awareness of the BRAVO program for recognition and positive feedback.
- Developing an interim survey tool to monitor progress and recognize need for improvement.

Engaged ambulatory caregivers make safety a daily conversation

The Ambulatory Clinical Effectiveness Council launched the Ambulatory Safety Council (ASC) in January 2021 to provide focus and leadership on relevant safety topics in ambulatory care. ASC members, who represent both primary care and specialty practices, identified three areas of initial concentration: creating data-driven opportunities to improve ambulatory patient safety; developing ambulatory-relevant preventable harm metrics; and improve the reporting culture within the ambulatory care.

Based upon a review of the ambulatory safety literature, existing Report2Learn (R2L) event submissions, and other internal ChristianaCare data, the ASC is focused on falls, office-based universal protocol, vaccine safety and workplace safety. For each, a subcommittee of the ASC takes the lead to learn and to develop proactive improvement strategies.

Common themes emerge across these topics. Standardized assessment and data tools deployed in the acute-care space are adapted to the ambulatory environment enabling appropriate learning and risk identification. Ambulatory leaders are also integrated in the acute care/system committees to provide crucial learning and essential organizational alignment for the ambulatory environment. Support of this work in the ambulatory space requires partnership between the clinical and operational teams across ambulatory care.

Relationship-building in the spirit of “We Serve Together” provides a path forward to advance these efforts.

Safety has become a daily conversation among caregivers in the Medical Group’s Ambulatory Medical Practice Huddle, including sharing lessons learned from R2L reporting, providing situational awareness of potential risks to safety in the ambulatory environment (e.g. falls from scales, unlabeled specimens, etc.) or managing safety-related escalations voiced during the huddle.

![Medical Group & Medical Office Practice R2L Event Reports](chart.png)

*The number of safety events reported to R2L more than doubled between 2019 and 2022 (to date).*
**Cecil County caregivers surveyed in 2021**

In their first survey as part of the ChristianaCare family, Cecil County campus hospital-based caregivers most positively rated Communication about Error and Reporting Patient Safety Events as enhancing a Culture of Safety. They identified Staffing & Work Pace and Organizational Learning as top opportunities for improvement. Cecil County ambulatory-based caregivers noted top performing domains to be Patient Care Tracking/Follow up, Overall Perception of Patient Safety & Quality, and Teamwork.

*Moving forward, beginning in fall 2022, all ChristianaCare caregivers, including those from Cecil County, will participate in one systemwide hospital survey and one systemwide medical office safety culture survey administered every two years.*

**CAREGIVER SAFETY**

Unprecedented census, staffing challenges contribute to uptick in total recordable injury rate

ChristianaCare’s total recordable injury rate for the most recent 12 months ending March 2022 increased 15% compared to the prior year, to 4.1 from 3.5 injuries per 200,000 worked hours. Cecil County events were included in these rates as of October 2021.

![Recordable Injury Rate Chart]

Recordable injury rates increased 15% in the 12 months ending March 2022

*Rates include Cecil County campus as of October 2021

Unprecedented census, staffing challenges and use of temporary caregivers (e.g., travel nurses) due to COVID-19 variant surges, are all believed to be contributing factors.

Monthly systemwide huddle communications related to caregiver safety initiated this fiscal year have now expanded to the Ambulatory and HomeHealth huddles, as well. There has been increased focus for Occupational Safety follow-up on lost-time injuries (excluding patient assaults on caregivers).
Unprecedented census, staffing challenges contribute to uptick in total recordable injuries rate (continued)

**ChristianaCare Recordable Caregiver Injuries FY2021 - FY 2022**

On the positive side, patient-handling injuries decreased 6% this year to 31 from 33. Contributing factors to this improvement include increased caregiver training through Critical Skills and New Employee Orientation; implementation of an online module for outpatient and ancillary caregivers; purchase of additional slings, collaborative committee work with the Johns Hopkins Activity and Mobility Promotion Initiative (see page 19) and systemwide communications and alerts.

Needlesticks were up by 42%, to 199 from 140 the previous year. The increase is due, in part, to supply chain issues impacting availability of safety needles. Prevention initiatives related to safe sharps handling and proper use of personal protective equipment are a continued focus.

Slip, trip and fall injuries were up 40%, to 60 from 43 one year ago. New spill stations continue to be installed, and a Slip, Trip and Fall committee now meets every other month to review data and identify opportunities for improvement. Slips, trips and falls have been the subject of two systemwide huddle communications.

HomeHealth caregivers face different challenges due to less control over their work environment. Risk of motor vehicle accidents and physical demands/patient handling injuries are some examples. While no HomeHealth caregiver has experienced a dog bite in two years, they remain an area of focus. Slip, Trip and Fall injuries are most reported and are often related to inclement weather or uneven flooring within or while entering a patient home. HomeHealth recordable injuries decreased 33% fiscal year 2022 to date, to 14 from 21.

To address a rise in patient assaults on caregivers (up 17.4% to 27 from 23 a year ago), ChristianaCare piloted a staff duress call system that is now being expanded systemwide. Other efforts include zero tolerance signage and patient risk assessment screening and appropriate flags in the medical record. New Joint Commission standards require ongoing caregiver education, training and reporting of workplace violence to the board. (See Workplace Civility Steer, page 40.)

HomeHealth caregiver injuries have decreased 33% fiscal year 2022 to date to 14 from 21. Slip/Trip/Falls account for 21% of injuries.

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Total recordable injuries, excluding COVID-19, increased 30% in the most recent 12 months, to 423 from 325.

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**HomeHealth Recordable Caregiver Injuries**

- Needlesticks
- Patient Handling
- Slips, Trips, Falls
- Struck By/Against, Caught Between
- Physical Demands
- Patient Assaults

**Apr 2020-Mar 2021**
**Apr 2021-Mar 2022**

Number of Injuries

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Workplace Civility Steer works to improve safety, promote violence-free environment

ChristianaCare is committed to giving and receiving respect from patients, visitors and one another. A Nursing–led interprofessional steer, including stakeholders from inpatient, ambulatory and HomeHealth, now provides strategic direction to reduce workplace violence, aggression, discrimination and harassment and improve workplace civility for caregivers and visitors.

An average of 72 workplace violence events were reported by ChristianaCare caregivers over the last 12 months. The majority (60%) by nurses and patient care technicians/safety companions (20%). Workplace violence was the reason cited for more than 100 Care for the Caregiver support requests, including 65 for workplace violence/assault and 34 for workplace injury. (See Care for the Caregiver, page 56)

According to the Occupational Safety and Health Administration (OSHA), 21% of registered nurses and nursing students reported being physically assaulted and more than 50% were verbally abused or bullied in a 12-month period. Bullying includes verbal abuse; threatening, intimidating or humiliating behaviors; and work interference — sabotage — which prevents work from getting done.

Workplace Violence Event Type

- Assault - Verbal: 23%
- Assault - Physical: 58%
- Threat - Verbal: 17%
- Threat - Written: 1%

Through partnership with the member-owned health care services company Vizient Inc., ChristianaCare has joined an improvement collaborative with organizations across the country to access subject matter experts and information sessions focused on leading practices in workplace violence.

Strategies include signage, increased reporting, data transparency, debriefing and counseling, and caregiver education on de-escalation skills. Questions gauging caregiver perception of workplace civility will be incorporated in upcoming Culture of Safety surveys.

In compliance with new Joint Commission Workplace Violence Standards, ChristianaCare completed a standards assessment by January 2022 and will be implementing annual workplace violence education for all caregivers. A proactive workplace violence prevention risk assessment will also be conducted.
Cecil County now integrated in CANDOR process

In its first five years of following the Communication and Optimal Resolution (CANDOR) toolkit to respond to unexpected events that cause patient harm, ChristianaCare saw an increased reporting of medical events, improved patient safety, mitigated medico-legal risks and improved caregiver experience. This past year saw CANDOR activations increase 68% compared to the first year, more than 1,600 supportive encounters with Care for the Caregiver (see page 56), and a 37-day reduction in average time from alert to review team.

The Cecil County campus is now fully integrated into ChristianaCare’s CANDOR process. Leadership, Medical-Dental Staff and caregivers are now educated on CANDOR practices including disclosure and family meeting guidelines, as well as use of Vocera for CANDOR activation, and have received Just Culture training. Cecil County representatives now serve on the Patient Family Advisory Council.

CANDOR Event Activations

Since September 2015, 411 CANDOR alerts were activated. Initial disclosure was made in 89%.
ChristianaCare joins PACT collaborative

ChristianaCare has now joined more than 20 hospital systems including Yale, Dartmouth and University of Washington in the Pathway to Accountability, Compassion and Transparency (PACT) collaborative. A joint project by the Collaborative for Accountability and Improvement (University of Washington), the Institute for Healthcare Improvement and Ariadne Labs (Harvard University), PACT’s goal is to make Communication and Resolution Programs, such as CANDOR at ChristianaCare, more highly reliable. PACT members benefit from documents, articles, videos, webinars, tools and resources, including virtual learning experiences in the areas of patient safety, event review, patient relations and risk management.

Highlights of ChristianaCare’s CANDOR success were documented in an article by Stephen Pearlman, M.D., MSHQS, clinical effectiveness officer, Acute Care; Peter Lodato, MPH, senior project manager, Patient Safety; and Michele Campbell, MS, RN, vice president of Patient Safety (retired) published in the Medical Research Archives (vol 9, issue 10) and shared in an Institute for Healthcare Improvement presentation.

POPULATION HEALTH

Value-based contracts, downside risk among key Population Health priorities

Many commercial payers are adopting more value-payment arrangements, sharing risk with providers and aligning with high-quality, high-performance providers via Clinically Integrated Networks. ChristianaCare has added to its five-year strategic plan goals to increase the number of value-based contracts and programs, as well as to take on downside risk contracts within its payor contracting portfolio while expanding value-based care into neighboring states of Maryland, Pennsylvania and New Jersey. As ChristianaCare’s population health infrastructure matures, the focus will be on essential domains as building blocks to overall success:

1. Deliver interpreted data to help clinicians develop best practices and determine where to drive change.
2. Re-envision care coordination and care management support to assist providers in successful management of the sickest individuals.
3. Create a new contracting vehicle.

ChristianaCare’s current Population Health priorities include:

- Growing Medicare Advantage enrollment and expansion of participation in risk-based agreements.
- Providing Hierarchical Condition Category /Risk Adjustment Factor (HCC/RAF) education and implementing quality dashboards to ensure success.
- Establishing a clinical integrated network to grow contracting opportunities.
- Instituting performance optimization tactics for value-based contracts.
- Transitioning the eBrightHealth ACO to higher levels of risk and Advanced Alternative Payment Model (AAPM) status.
- Delivering enhanced data analytics and insights to providers at the point of care.
- Implementing a unified primary care and population health integrated approach.
- Establishing and reaching key metrics and measures for population health initiatives.
- Key strategies for creating a unified approach include clinical and operational standardization, proactive patient identification and stratification, monthly primary care team meetings and monthly population health time.
eBrightHealth ACO drives better care, reduces Medicare costs by $19.4M

eBrightHealth ACO, an accountable care organization, reduced health care spending by $19.4 million in 2020* for more than 40,000 Medicare beneficiaries in Delaware, Pennsylvania and Maryland. This is the fifth consecutive year that the ACO has reduced costs, bringing the cumulative savings to more than $37.5 million. The Centers for Medicare and Medicaid Services (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. Performance on six of the nine quality measures exceeds the 90th percentile or is the highest level achieved over the six years.

Reduced Medicare Spending

Performance on six of the nine quality measures exceeds the 90th percentile or is the highest level achieved over the six years.

Delaware Medicaid Partners ACO launch addresses unmet medical and social needs

Launched in January 2021, Delaware Medicaid Partners Accountable Care Organization (ACO) allows ChristianaCare to address the unmet medical and often overwhelming social needs facing Medicaid patients through innovative care delivery systems and deepened clinical community partnerships. As one of the first Medicaid ACOs authorized by the Delaware Department of Health and Social Services, ChristianaCare is now financially accountable for the quality of care, health outcomes and cost for more than 18,000 Delawareans insured by Medicaid. Four in 10 of the new ACO members have one or more chronic conditions requiring proactive lifestyle and medical management to prevent complications that may lead to emergency department visits or hospitalizations. Nearly half have not seen a primary care provider within the last 12 months.

ACOs are a key component in the broader concept of population health management, which is intended to improve patient engagement and clinical care while simultaneously reducing the cost of that care. Delaware Medicaid Partners ACO builds on ChristianaCare’s value-based payment agreements through both state Medicaid Managed Care Organizations (MCOs): AmeriHealth Caritas Delaware and Highmark Health Options. Beyond clinical care, the ACO also focuses on health equity and improving social determinants of health.

In its first performance year, Delaware Medicaid Partners ACO met the quality performance requirements for both payers. Specifically, the ACO met five of eight quality metrics for Highmark Health Options members, and three of six quality metrics were met for AmeriHealth Caritas Delaware. In terms of costs, the ACO achieved approximately $1.7 million in savings for Highmark Health Options and a $1.7 million loss for AmeriHealth Caritas Delaware, achieving an overall net savings of $0.

Since 2016, eBrightHealth ACO has reduced Medicare spending by $37.5 million.

Diabetes-Poor Control:

- Inverse measure, lower numbers are better.

Fall Risk Screening

- 2020: 29.7%
- 2021 (preliminary): 92.4%

Breast Cancer Screening

- 2020: 86.5%
- 2021 (preliminary): 84.1%

Colorectal Cancer Screening

- 2020: 93.2%
- 2021 (preliminary): 89.0%

Tobacco Screening/ Cessation

- 2020: 68.0%
- 2021 (preliminary): 80.6%

Influenza Immunization

- 2020: 92.2%
- 2021 (preliminary): 92.2%

Statin Therapy: CV Disease Prev & Txt

- 2020: 17.5%
- 2021 (preliminary): 17.5%

Depression Remission at 12 months

- 2020: 0%
- 2021 (preliminary): 0%

*Most recently reported in September 2021

** Diabetes-Poor Control: Inverse measure, lower numbers are better.
Since ChristianaCare entered into value-based contracts with both Medicaid MCOs in 2019, there has been an overall net savings of approximately $3 million across both payer contracts to date.

There was a slight upward trend over time in emergency department (ED) utilization among patients assigned or attributed to Delaware Medicaid Partners, likely due in some part to limited primary and urgent care access during the pandemic.

There was a significant overall decrease in inpatient utilization since 2020. However, the trend began to increase in February 2021 likely from re-engagement in care as pandemic restrictions loosened.

**Delaware Medicaid Partners ACO launch addresses unmet medical and social needs (continued)**

Three quality measures, including 30-day readmissions, were better than target, meeting the quality gate threshold.

**Quality Measures: AmeriHealth Caritas**

*ED utilization decreased in March-April 2020 with the first COVID-19 surge; visits have increased since February 2021.*

*Inpatient utilization decreased through 2020; small increases in 2021 may be due to re-engagement in care.*
CareVio enrollment, participation, member satisfaction increase

Behavioral health services smooth transition from inpatient back to community

CareVio is focused on four core service domains: acute care surveillance and targeted care coordination; post-acute/skilled nursing facility management; comprehensive care management and advanced disease case management and special populations.

Three COVID-19 spikes challenged CareVio operations throughout 2021. Severity of illness caused by the delta and omicron variants contributed to increased hospitalization volumes, exacerbated by delayed care for chronic conditions and other health needs.

Still, participation rates by CareVio members increased in 2021 for Comprehensive Care Management (to 76.9% from 55.2% in 2020) and enrollment in the High-Risk Diabetes program also rose to 76.3% from 55.2%.

Major Depressive Disorder and COVID-19-related social isolation, a social determinant of health (SDOH), was prevalent among elderly members. CareVio adopted a universal SDOH screening tool, added a psychiatrist to the medical director team to serve as the clinical lead/consultant for high-risk patients with behavioral health needs, and added a behavioral health case manager to assist with most medically complex behavioral health needs and ensure a successful transition from inpatient back to the community. CareVio has also increased collaboration with ChristianaCare community health workers.

Overall member satisfaction with CareVio increased almost six points in 2021, to 94.5% from 88.7%.
CARE STANDARDIZATION

AOP goal addresses disparity in hypertension

While more than half of all Delawareans over the age of 55 are impacted by hypertension, or high blood pressure, the prevalence is higher among Black or African American patients. Targeted efforts, such as primary care or cardiology visits within best-practice timing and repeat blood pressure monitoring, are making a difference toward the goals of improving controlled hypertension and standardized treatment for severe hypertension. Yet the percentage of white hypertensive patients with controlled blood pressure (less than 140/90) improved by 1% during fiscal year 2022, while control among Black or African American patients decreased slightly.

Reducing the disparities that exist between white and Black or African American populations with uncontrolled blood pressure continues to be a key focus for the health system and, for the first time, a disparity goal is now included in ChristianaCare’s annual operating plan.

As part of a learning journey, the Hypertension AOP workgroup engaged industry expert Olugbenga G. Ogedegbe, M.D., MPH, director of the Institute for Excellence in Health Equity at New York University Langone Health to share proven strategies and approaches for addressing disparities. Recommended approaches included clinicians going to patients instead of waiting for patients to come to practice offices, Food Farmacy-type programs (see page 74) and robust remote monitoring tactics.

Workgroups now focus on data/analytics for dashboard tracking of targeted interventions, such as increasing the number of patients on remote blood pressure monitoring and in chronic disease self-management programs, engagement with Community Health Workers and digital health education.

Lessons learned through metrics captured by the Wilmington Practice Focus Care Team will help drive action plans to be shared with practices systemwide to reduce disparity and improve patient outcomes among both white and Black or African American patients.

Standardization of health care processes using evidence-based practices promotes a culture of safety and high reliability, leads to improved patient outcomes and reduces waste.

Hypertension Control (< 140/90) by Race

The percentage of white hypertensive patients with controlled blood pressure (less than 140/90) improved by 1% during fiscal year 2022, while control among Black or African American patients decreased slightly (-0.3%), leading to increased disparity.
QUALITY

With graft failures down, survival rates up, Kidney Transplant Program now strives for Center of Excellence status

For more than a decade, ChristianaCare’s Kidney Transplant Program has served our community as the only kidney transplant center in Delaware. Annually, the program supports more than 1,000 patients through transplant and living donor evaluation, waitlist management, and post-donation and transplant care.

The kidney transplant process begins with referrals to the program – either from nephrologists, dialysis centers or self-referral. In 2021, over 420 patients with end-stage renal or advanced chronic kidney disease were referred. After evaluation, eligible patients are put on the waitlist for transplant. There are currently 145 patients on the waitlist, with 52% in active status – ready to receive a kidney.

Since 2017, the program has completed 121 transplants – 78% from deceased donors, 22% from living donors.

Transplant volumes, patient survival and additional outcome and process are tracked as part of the program’s quality assurance program and are required as part of program approval by the Centers for Medicare and Medicaid Services (CMS) and the United Network for Organ Sharing (UNOS). In November 2020, an opportunity related to one-year graft survival was identified by UNOS.

To address the identified opportunity, the Kidney Transplant program has focused on:

- Expanding the patient population.
- Increasing organ offer acceptance.
- Optimizing waitlist and transplant readiness.
- Improving pre-transplant patient flow.
- Integrating Cerner Ambulatory to optimize clinical workflows and the electronic medical record.
- Benchmarking quality metrics.

There have been no graft failures since January 2020, and program survival is better than expected. The program aims to meet Center of Excellence standards this year.
Exceptional Caregiver Experience

Increase in Care for the Caregiver self-referrals speaks to culture of well-being

For the second year of the pandemic, peer support through Care for the Caregiver continued to be a highly utilized resource offered by the Center for WorkLife Wellbeing to support caregivers after stressful events at work. Overall, peer support saw a slight uptick in encounters in 2021 relative to 2020, whereas group support encounters declined. The percentage of referrals related to COVID-19 declined somewhat in 2021, but peer support referrals related to workplace violence increased.

2,300 Care for the Caregiver peer and group support encounters have been provided since the program’s inception.

Reasons for Referral to Care for the Caregiver

Among the goals of the Center for WorkLife Wellbeing and Care for the Caregiver are increasing the number of caregivers reaching out for support resources and reducing barriers to seeking help. To that end, there was a substantial increase in self-referrals in 2021 (32% of referrals) compared to 2020 (18%), suggesting that efforts to improve the culture of well-being and reduce barriers to asking for support are making an impact.

Self-referrals to Care for the Caregiver increased 55% in 2021 and accounted for 32% of all referrals.
The Center for WorkLife Wellbeing has trained more than 128 volunteer peer supporters (57 currently active) and has offered psychological first aid (PFA) training to 260 leaders to help recognize early signs of distress and employ effective support strategies for their teams. PFA is an evidence-informed approach built on the concept of human resilience.

FY 2022 Highlights:

- VITAL WorkLife coaching, counseling and concierge service expanded to 164 Medical-Dental Staff at Cecil County campus beginning July 1, 2021.
- Delivered Well-being and Resilience training to 65 leaders during Leading at ChristianaCare 2.0.
- Co-archived the new international "Collaborative for Human Factors, Cognitive Load and Wellbeing in Healthcare" with chief wellness officers from select health systems, AMA leaders, NASA engineers, IHI leadership, HFE and cognitive load international experts.
- Launched systemwide Caregiver Voice survey to 14,000 caregivers.
- Expanding COMPASS (Clinician Organized Meetings to Promote & Sustain Satisfaction) to nurse leaders, nursing professional development specialists and resident families to encourage clinician collegiality, shared experience, mutual support and meaning in work to decrease burnout and promote well-being.
- Hosted six pop-up rejuvenation stations featuring chair massage, dog therapy, coffee and chocolate, well-being resources and other restorative activities for more than 800 caregivers across three campuses.
- Co-archived development of the 2022 Healthcare Workforce Rescue Package in collaboration with a National Academy of Medicine network to identify the top five evidence-based actions leaders should take to support team members in crisis.
- Launched a six-month pilot of on-demand wellbeing tools with the virtual support group platform Cabana to more than 1,000 nurses and clinicians in the Emergency Department, intensive care units, 4E Cardiac Stepdown, 5E Heart Failure, Doctors for Emergency Services and ChristianaCare Hospitalist Partners.
- Hosted COVID-19 two-year anniversary Reflective Room remembrance events across all three campuses.

Making Tomorrow Happen engages caregivers in continuous improvement

ChristianaCare’s transformative continuous improvement framework Making Tomorrow Happen is a portal for fresh ideas and new ways of thinking from industries and disciplines both within and outside of health care. The program engages caregivers to prioritize a continuous improvement mindset across all levels and job functions, and advances love leadership through skills such as humble inquiry and psychological safety to address priorities of waste elimination, problem-solving and employee engagement.

Caregivers not only drive continuous improvement, they report better than target Exceptional Caregiver Experiences and speak the truth with courage and empathy through regular caregiver surveys.

Voice of the Caregiver

Over 6200 caregivers responded to the 2nd quarter FY 2022 survey. Scores for two key questions: Proud to Work for this Organization and Feel Safe Voicing Work-Related Ideas, exceeded fiscal year targets.

Key advancements of the program in FY 2022:

- Campus-level huddles to manage capacity surge-related issues at a local level.
- Making Tomorrow Happen Discovery Session Improving Caregiver Experience in Times of Uncertainty for leaders to share lessons learned on improving caregiver engagement.
- "I Am a Caregiver" campaign highlighting caregiver success stories to increase engagement and pride in the organization.
- LeadershipDNA leadership development education focused on diverse caregivers.
- Learning to Thrive education for experienced leaders.
- New 3-step problem solving app deployed systemwide to engage and enable caregivers to raise issues in real time from their mobile device. (see Model Areas story in Org Vitality, page 81)
Employee Health gets COVID-19 positive caregivers back to work sooner

An innovative and robust Employee Health effort to monitor trends, triage and care for caregivers exposed to, showing symptoms of or testing positive for COVID-19 was instrumental in addressing staffing levels to meet surging patient demand for hospital services throughout the omicron variant surge in January 2022.

Between January 2 and 15, 2022, 1,738 caregivers tested positive and were placed on a 10-day quarantine before returning to work.

When the Centers for Disease Control announced new guidelines for shorter isolation times on January 4, Employee Health immediately ramped up testing to identify 587 caregivers — about 33% of those initially placed in the 10-day quarantined caregiver group — eligible to more expediently safely return to work after just five days of quarantine.

Employee Health continues to monitor trend reports and is prepared to scale up efforts in the event of a future surge.

98% of ChristianaCare caregivers are vaccinated against COVID-19. Of the 2% approved for accommodations from vaccination, 100% are compliant with required testing.

97% of caregivers have at least their first vaccination dose. The 1% difference includes the nearly 2,000 caregivers newly hired since January 2022 who had 30 days to get their second dose.
Exceptional Patient Experience

Composite patient experience scores rise, opportunities exist

An Exceptional Experience fiscal year 2022 Annual Operating Plan goal was to increase the composite patient experience percentile rank in at least four of the five care settings: Emergency, Inpatient, Outpatient, Ambulatory Practices, and HomeHealth. Four questions on trust, listened carefully, worked together and likelihood to recommend comprise the composite score. As of March, four of the five care settings had met their FY 2022 targets, with marked improvement from their fiscal year 2021 scores.

Ambulatory Practices have shown particular growth over the course of the fiscal year as displayed below.

Ambulatory Practices: Composite Percentile Rank

The composite percentile rank for Ambulatory Practices reached 43 fiscal year to date, exceeding the target of 38.

NRC partnership continues to yield high survey responses, deeper understanding of patient experience

ChristianaCare’s patient survey partner NRC Health continues to provide high return rates with actionable feedback from patients in the Inpatient, Outpatient, Emergency Department, and Ambulatory Practice settings. In FY 2022 through April, there was a 35% response rate, with more than 225,000 patient responses.

Response Rate

Surveys are provided through interactive voice response (IVR), email, and short messaging service (SMS). More than 60% of responses are received through IVR. Through April, 65,000 comments have been received, allowing caregivers to hear about the patient experience in a patient’s own words. The vast majority of comments are devoted to positive sentiments, such as caregiver recognition.

Responses by Survey Mode

61% of responses were through Interactive Voice Response.

61% of responses were through Interactive Voice Response.
Feedback Management

ChristianaCare employs real-time service recovery when a patient leaves a comment about a particularly challenging experience. NRC Health’s Natural Language Processing tool flags these comments as service alerts; the Patient Experience team then assigns them to the appropriate local leader. NRC Health’s research shows that patients who have a negative health care experience expect follow-up within two days of giving feedback. At the one week mark, more than half of patients say the situation becomes irreparable if it hasn’t been addressed. ChristianaCare’s internal guidelines for feedback management and service recovery reflect this research. Opportunities exist with adherence to these guidelines. In April, 80% of alerts were closed within one week as advised, and 86% were closed with attempted service recovery.

Feedback Management & Service Recovery

<table>
<thead>
<tr>
<th>Alerts closed within 1 week</th>
<th>80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed with attempted service recovery</td>
<td>86%</td>
</tr>
</tbody>
</table>

In April 2022, 80% of alerts were closed within one week; 86% were closed with attempted service recovery.

Trust Toolkit

The Patient Experience Team developed a Trust Toolkit that contains information, recommendations and resources that caregivers at ChristianaCare can use to build and maintain the trust of our patients and their loved ones. The toolkit was designed to apply to all care settings, and can be implemented by caregivers in all different roles. The Patient Experience team developed customized versions for nurses and providers that provide some recommendations specific to their roles.

To date, 268 caregivers across ChristianaCare have accessed the Trust Toolkit for evidence-based best practices designed to improve trust between patients and their care teams. This content is also being distributed via various channels such as Caregiver Connect posts, screensavers and web lessons for our Nursing educators and leaders.

Community Insights

In September 2021, ChristianaCare began leveraging the Community Insights solution offered by NRC Health. Community Insights allows ChristianaCare to form a virtual community of patients who provide ongoing feedback about their care experiences. At the end of every survey, patients are asked if they would be willing to join an online patient community and provide periodic feedback that will help ChristianaCare continue to improve care. To date, more than 11,000 patients — representing more than 26% of patients asked — have opted into the virtual community.

Patients are currently being engaged to provide feedback about their experiences with the Access Center, Outpatient Imaging and the Cancer Center. Community Insights offers the ability to target patients based on the nature and location of their recent experiences, ZIP code and demographic information. This unique partnership allows ChristianaCare to receive timely targeted advice about new initiatives, foster active engagement, assess the health of our brand, and gain insight into ways to personalize the patient experience.

Demographics

<table>
<thead>
<tr>
<th>Gender</th>
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<th>Female</th>
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</thead>
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<td>Race</td>
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<td>White</td>
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<tr>
<td>Age</td>
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<td>13-18</td>
</tr>
<tr>
<td>Payor Name</td>
<td>Aetna PPO POS</td>
<td>UHC UHC Medicare Advantage</td>
</tr>
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Community Insights demographic information supports targeted engagement.
HomeHealth launches Alexa to help homebound patients

The nation’s first interactive HIPAA-compliant Alexa voice technology tool is helping to more deeply and equitably engage homebound patients in their plans of care, meet personal health goals and stay safely in their homes for as long as possible. The innovative use of technology — a collaboration between ChristianaCare HomeHealth and the Innovation Center — also helped to reduce Emergency Department and urgent care visits by 60% and 30-day rehospitalizations by 58%, and improved adherence to prescribed medications by 31% for 118 ChristianaCare HomeHealth patients during a six-month proof of concept period.

The patent-pending program known as Home Care Coach™ allows clinicians to “rename” exercises using language most familiar to individual patients (e.g. “gas pedal exercise”). Information is shared both by voice and as text on a touch screen. Seventy-five percent of participating patients found the program helpful for care plan information. There was a 6% increase in the number of patients who reported better understanding what their medications are and what they do, and a 24% reduction in the number of times HomeHealth patients called a clinician.

Create Exceptional Experiences

- Home Care Coach™ was helpful for care plan information
- Home Care Coach™ helped achieve care plan goals
- Willing to interact and engage with care plan using new technology
- Reduced calls to a clinician

75% of participants felt the Alexa app was helpful for care plan information; 73% felt it helped them achieve their goals.

Home Care Coach™ is nationally recognized, including a 2021 US FutureEdge 50 Award from IDG’s CIO, which recognizes organizations pushing the edge with new technologies.

The Alexa tool is proving particularly helpful as HomeHealth experiences high patient demand with challenging staffing supplies stemming from the COVID-19 pandemic. Studies show that just one home visit after a hospital discharge can reduce hospital readmission by 50% reduction, and this program is designed to both increase the number of patients who feel prepared for their HomeHealth visits and increase the number who follow through with their home-based care plan treatments.
Virtual Nurse Visits offer creative solution for maintaining continuity of care for homebound patients

Use of Zoom technology for virtual visits offered patients being treated in their homes for congestive heart failure a heightened sense of safety during the pandemic when the fear of exposure led to hundreds of cancelled in-home nursing appointments and services. A program, which initially focused on those with heart failure due to the criticality of post-hospital care and high re-hospitalization rates, allowed HomeHealth nurses to maintain continuity of care for this at-risk, elderly population.

Remote patient monitoring via telehealth was already standard of care for this patient population pre-pandemic. The question was whether older adults would use and willingly adapt to virtual technology to receive nursing care to help reduce the risk of COVID exposures.

Usability Score

53% of patients found the Virtual Nurse Visit usable with scores of 68 or higher.

Patient Satisfaction Score

88% of respondents strongly agreed that they would recommend virtual nurse visits to like patients

While there was a learning curve for older participants to comfortably learn how to use the Zoom technology, of the 34 participants who enrolled into a study (mean age 75 years), 88% said they would recommend a virtual nurse visit. Eighty-nine percent appreciated the ability to see and talk to their nurse 78% were pleased with the education they received on how to use Zoom technology for virtual visits and 71% said they would like to see virtual nurse visits used more often. Another advantage: Participants appreciated the convenience of not having to tidy up their homes or present themselves for an in-person visit.
Health Equity

ChristianaCare’s Office of Health Equity has developed innovative and effective models of care delivery in the home and community to improve the health and well-being of vulnerable patient populations. This includes the robust Community Health Worker project, which is embedded in primary care, women’s health, school-based health centers and the Emergency Department. In addition, there are a number of wrap-around programs which address and reduce the impacts of social barriers to health in vulnerable populations through partnerships that increase responsiveness in culturally and linguistically appropriate formats.

ChristianaCare builds healthier connections through Unite Delaware shared technology platform

Through an innovative statewide Unite Delaware* partnership with the United Way of Delaware’s 211 Network and Beebe Healthcare, ChristianaCare is now able to more efficiently connect patients electronically with more than 140 community service organizations statewide to address social needs, improve health and create a more equitable community.

Now the preferred way of making referrals for social needs, the Unite Delaware electronic referral platform allows clinicians and health ambassadors to track when recommended services are completed and assess outcomes.

Of the 782 clients served, 78% of the referrals were accepted and 65% of cases resolved.

Unite Delaware’s robust digital infrastructure allows ChristianaCare to:

- Securely send and receive referrals.
- Improve workflows.
- Track accurate and structured outcome data.
- Make informed decisions to address gaps in service.

*Unite Delaware is HIPAA compliant, HTRUST certified and fully aligns with the strictest federal privacy regulations, including 42 CFR Part 2 and FERPA.

Unite Delaware Social Needs Referrals

Since launch, Unite Delaware has served 782 clients. 78% of referrals were accepted and 65% of cases were resolved. The top reason for referral is Housing & Shelter.
Roundtrip booking platform reduces travel barriers to needed care

ChristianaCare is now using the online booking platform Roundtrip to reduce the transportation barrier to needed health care services for patients without access to reliable transportation or who have a known history of missed appointments.

The program is helping to reduce the number of health care appointment no-shows and cancellations, and cut down on time spent booking transportation for patients with a history of missed appointments. Since the program’s launch in March 2020, 3,490 rides have been provided to 458 patients via Lyft, medical sedans or wheelchair-accessible vans. During the pandemic, 98 patients were transported via ambulance to the Infusion Center for monoclonal antibody treatment.

Roundtrip Bookings: 2021-2022

Over 1,300 Roundtrip bookings for transportation have been provided since 2021; 40% from primary care.

Delaware Medical Legal Partnership addresses civil-legal issues impacting health, well-being

Through partnership with the Community Legal Aid Society, Inc., ChristianaCare is working to address civil-legal issues and promote the health and well-being of low-income patients. The Delaware Medical Legal Partnership (MLP) program is helping to reduce unnecessary hospital utilization.

Of 405 patients identified to have civil-legal issues impacting health and well-being between December 2017 and March 2021, 25% had multiple legal needs. Through March 2022, 126 patients with 144 legal needs enrolled with the partnership.

Multivariate modeling showed a 0.5 visit greater decrease in ED use among patients served by the Medical Legal Partnership v. a comparison group at three months after participation; the difference was maintained at 12 months. Results are statistically significant.

Impact of MLP on ED Utilization

Patient Reported Legal Needs

FY 2022 to date (through March) 126 patients reported 144 legal needs; 40% were related to housing and utilities.
Delaware Food Farmacy offers nutrition-based care intervention for chronic conditions

ChristianaCare is partnering with Lutheran Community Services to tackle food-related health disparities with the launch of the Delaware Food Farmacy. The program is available to Medicaid members suffering from poorly controlled diabetes, hypertension or heart failure. Along with weekly food deliveries — enough food for 10 meals per week for each member of the household for six months — participating patients also receive extensive clinical care, ongoing disease management, nutritional education and personalized social care.

Between June 2020 and July 2021, the Delaware Food Farmacy provided medically tailored food boxes packed with fresh fruits and vegetables to 135 patients affiliated with a ChristianaCare primary care practice. Recipients were connected with a community health worker and also offered optional clinical services from a registered dietitian, behavioral health consultant and/or pharmacist.

In its pilot phase, the Delaware Food Farmacy delivered more than 50,000 meals.

Delaware Food Farmacy goals:

- Increase access to healthy foods.
- Address social determinants of health.
- Improve chronic conditions.
- Reduce hospital utilization.

90% of food box recipients reported being very satisfied or satisfied with the program and 95% felt they ate healthier foods because of the program. 65% reported that they would not have had enough food to eat each week without this program.

Half of the food box recipients were not enrolled in federal food assistance (SNAP). Of them, 82% were food insecure. 83% were obese or overweight. 48% had hypertension. 38% had diabetes. 11% had heart disease. 42% had additional chronic conditions. Only 5% met the undefined recommended number of servings of fruits and vegetables at the time of enrollment.

Food insecurity is positively associated with hypertension, diabetes, obesity, as well as total fruit and vegetable intake (p<0.05). ChristianaCare community health workers were able to help each of the 81% of participants who requested assistance enrolling in SNAP.
Clinical Effectiveness Flow pillar formalizes work to improve efficiency of care

**Increased census, staffing challenges, patient severity and seamless transitions of care impact patient flow**

ChristianaCare has implemented several key actions to improve the efficiency of patient flow, or the timely, efficient and effective patient assessment, treatment and transition beginning in the Emergency Department (ED) and continuing through acute-care admission to discharge:

- Identifying system-wide barriers and exploring root causes.
- Sponsoring work to intervene on common barriers.
- Focusing on local and aggregate data to prioritize opportunities and drive accountability.

The goal is to identify and optimize processes that improve flow-related metrics without compromising quality, safety or patient experience.

The surge of patients during the omicron variant of COVID-19 from December 2021 through February 2022 pushed hospital capacities past 99% for extended periods of time. Additionally, the surge impacted caregivers both within ChristianaCare, as well as our post-acute partners, causing patients to stay within our hospitals for extended periods of time and significantly driving length of stay. Extensive efforts to address capacity and length of stay in real time included reallocating spaces to increase bed availability, redeploying nurses, providers and other staff in non-direct care roles to help support frontline caregivers; implementing Crisis Standards of Care; and utilizing HomeHealth to care for more acutely ill patients than in the past.

In the ED, key flow metrics include Left Without Treatment rates, which increased last year largely due to increased door-to-doctor times impacted by high numbers of inpatient boarders consuming treatment spaces; and Length of Stay for patients who are treated and released from the ED, which was largely unchanged.

**Observed to risk-adjusted length of stay increased almost 4% during FY 2022, to 1.16 from 1.12, and is above expected.**

**Average length of stay for patients treated and released from the ED increased over fiscal year 2021, but is showing a return to prior levels in recent months.**

**Time from ED arrival to seen by a health care provider increased with increasing census in FY 2022 to 110 minutes from 84 average minutes in FY 2021.**

**After increasing with the COVID-19 surges, boarding hours have returned to historic levels in recent months.**
CLINICAL DOCUMENTATION IMPROVEMENT

CDI drives a 26% reduction in the PSI-90 Composite Rate, reducing our risk for HAC program penalty

The Centers for Medicare and Medicaid Services (CMS) Hospital-Acquired Conditions (HAC) program penalizes the lowest performing 25% of hospitals nationally in six domains, including hospital-acquired infections and the Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicator 90 Patient Safety and Adverse Events Composite (PSI-90). ChristianaCare’s poor performance on the PSI-90 composite measure led to a $3.4 million penalty from CMS for federal fiscal year 2020.

Systemwide efforts to reduce a key driver of the high rates – hospital-acquired pressure injuries, or HAPI – helped improve the PSI-90 rate in 2020 (see HAPI story, page 21), yet opportunity remained.

Clinical Documentation Improvement (CDI) involves reviewing medical record documentation for completeness and accuracy – focusing on disease process, diagnostic findings and what may be absent from the documentation. In conjunction with Health Information Management, ChristianaCare’s CDI team implemented Dolbey Computer-Assisted Coding software to comb through patient diagnosis and procedure coding to concurrently identify possible PSI cases and ensure accurate coding. Dolbey flagging enabled the CDI team to move from a retrospective review of cases and bill edits to concurrent, pre-bill review.

PSI cases require confirmation by CDI, the CDI physician advisor and clinical subject matter experts. Expert review identifies opportunities for clinical improvement and supports learning through interdisciplinary discussion of complex cases (see PSI harm story page 14).

On average, about 55 potential PSI cases are flagged for CDI review each month. Of these, 50% are excluded after CDI review.

On the inpatient side, efficient patient flow requires seamless transitions of care – between the Emergency Department and the patient care unit, between the unit and diagnostic testing departments or the operating room, and between the unit and transitions at discharge to home or post-acute facilities. Throughout the process, multidisciplinary teams, including physicians, nurses, case managers, social workers, pharmacists and many others, must communicate plans of care and patient needs to ensure seamless delivery of quality care.

Length of Stay Index, the observed to risk-adjusted expected days patients are in the hospital, is the primary metric used to monitor patient flow. This fiscal year, the Length of Stay Index increased almost 4%, from 1.16 to 1.12.

Because of its relevance to quality and safety of care, efficient patient flow is now a pillar of the Clinical Effectiveness structure (see page 8). The Flow pillar identifies three key action items for opportunities to be addressed in the coming fiscal year:

Emergency Department front end re-design
- Noting the increase in Left without Treatment rates were correlated to Door-to-Provider times, the ED is redesigning its front-end process to decrease Door-to-Provider times and accelerate care processes to patients.

Multidisciplinary rounds
- Steer finalized recommendations for standardized key rounding elements, participants and metrics.
- Recommend optimization of care transitions and addressing discharge barriers as primary rounds focus.
- Actions based on deviations from geometric mean length of stay and high readmission risk scores.

Transitions of care
- Timely primary care provider/specialist follow-up (appointments within 14 days).
- Room turnover / bed management.

Efficient patient flow — timely, efficient and effective patient assessment, treatment and transition beginning in the Emergency Department and continuing through admission to discharge — is now recognized as a pillar of the Clinical Effectiveness structure for its impact on quality and safety of care.
Making Tomorrow Happen Model Areas reduce costs, improve efficiencies and increase caregiver satisfaction

Making Tomorrow Happen incorporates concepts of Lean and Plan-Do-Check-Act improvement science methodologies into a simplified nomenclature to support all caregivers to identify opportunities within their work environments and drive improvements. Two new model areas used the 3-Step Problem Solving Methodology, which includes See It (8 Wise Ways), Size It (Prioritization Tool) and Solve It (ExCEL framework), to drive improvements this year. (see page 83).

Accounts Payable caregivers created a more efficient process to increase the number of invoices processed per caregiver per day by 43% to 105 from 73 and reduce caregiver interruptions by approximately 50% per day.

Caregivers in the Accounts Payable model area report significant involvement in decisions affecting their work, to 67% from 43%.

CDI Process Results

Half of all potential PSI cases were excluded through CDI; another 9% were excluded after clinical expert review.

PSI-90 Composite

The PSI-90 Composite Rate decreased a statistically significant 26% after CDI implementation, to 0.96 through Feb 2022 from 1.31 in 2020.

CDI drives a 26% reduction in the PSI-90 Composite Rate, reducing our risk for HAC program penalty (continued)
Caregivers in the **Newark Equipment Room** successfully leveraged their department huddle board to improve performance and consistently meet demand while identifying $100K in savings based on conversion to disposable pillows for targeted units.

Huddle participation scores increased to 79% from 42% for caregivers in the Newark Equipment Room.

The **Wilmington Environmental Services (EVS)** team identified a recurring issue with broken linen cart latches and developed a simple magnetic system solution that reduced risk of caregiver injury and saved $30,000 in cart replacement costs.

### 3-Step Method

**The problem:** Recurring issue of door latches breaking on linen carts, impacting both caregiver safety and workflow.

**Model Area: Newark Equipment Room**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Current</th>
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</thead>
<tbody>
<tr>
<td>42%</td>
<td>73%</td>
</tr>
<tr>
<td>39%</td>
<td>65%</td>
</tr>
<tr>
<td>42%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Percent Positive Responses

- Feel safe voicing work-related ideas
- Involved in decisions that affect my work
- Participating in my team’s huddles helps me with my work

**Making Tomorrow Happen: 3-Step Problem-Solving Method in Action**

1. **Examine the problem**: During a go-see inspection, a service assistant discovered that 43% of linen carts in use on the Wilmington campus were broken. The primary root cause, it was determined, was an ineffective latching mechanism unable to withstand frequency and weight of use. Broken carts are difficult to fit through narrow doorways and cause damage to walls and doorways; they increase the risk of caregiver injury, and they impact workflow: both the time it takes to maneuver the broken carts, and the time required for Maintenance to repeatedly repair broken hinges.

2. **Consider solutions**: The team employed the power of multi-disciplinary brainstorming, evaluated the pros and cons of each idea, prioritized solutions and determined that the best option to fix the doors was to use strong magnets.

3. **Execute and evaluate**: By replacing mechanical latches with a simple magnetic system that seamlessly held cart doors closed, the team’s solution helped realize an immediate savings of $30,000 by eliminating constant repairs to the carts or the need to completely replace carts no longer fixable.

Learn, share and sustain — 17 carts were initially retrofitted and fixed at a total cost of $2,432 — just $143 per cart. The fix is now being expanded to the Newark campus.

“Our Making Tomorrow Happen journey continues to positively impact caregivers to continuously look for ways to innovate, remove barriers and improve our ways of working.”

— Nancy Mburu, Operations Manager, Wilmington
ChristianaCare Way Awards

EXCEPTIONAL TODAY, AND EVEN BETTER TOMORROW

ChristianaCare Way Awards highlight caregivers’ commitment to continuing performance improvement and innovative learning

Hundreds of physicians, nurses, clinical and non-clinical caregivers gathered for a virtual recognition fittingly held during National Patient Safety Week in March 2022 to celebrate their colleagues’ work in designing and advancing data-driven, evidence-based programs that best demonstrate excellence in performance improvement. In the midst of unprecedented pandemic-related challenges throughout 2021, 57 teams supported by 22 volunteers who provided education, reviewed drafts and worked with project teams submitted innovative projects for consideration by 67 volunteer judges.

The winning entries highlighted here — and in fact, each of the submitted projects — embody to our caregivers’ commitment to safety and equity and our shared commitment to be exceptional today, and even better tomorrow.

President’s Award

Streamlining the Structural Heart Team to Enhance Efficiency and Patient Experience

ChristianaCare’s Structural Heart Disease program — the first in Delaware to provide innovative and minimally invasive treatment options, including Transcatheter Aortic Valve Replacement (TAVR) to complex cardiovascular patients — implemented a streamlined cardiology admission process, minimized care transitions and cross-trained technical staff for a hybrid lab to maximized patient experience and clinical outcomes for patients electing innovative minimally invasive treatment options.

In her keynote address at the virtual ceremony, Tejal Gandhi, M.D., MPH, CPPS, Chief Safety and Transformation Officer for Press Ganey Associates LLC, shared how safety and equity are inextricably linked in the pursuit of delivering the optimal care experience and creating engaged, resilient care teams. While traditionally the focus on safety improvement has been on physical harms, she said that emotional, psychological and socio-behavioral harm are equally prevalent in health care. In fact, a 2017 survey found that “disrespect” was the fourth most frequent patient-perceived medical error. Said Dr. Gandhi, “There is no such thing as high-quality, safe care that is inequitable.”

With the streamline, turnaround time from consult to procedure decreased to 33 days from 49 days; use of minimalist approach increased to almost 94% from 40%; length of stay decreased to 2 days from 4 days; readmission rates decreased to less than 1% from 7.6%; mortality decreased to 0 from 3.7% and complications decreased to 3% from 6%.
Value Award
No Pressure! A Systemwide Initiative to Reduce HAPI
Extensive efforts to address opportunity in clinical practice, documentation, caregiver education and interprofessional collaboration helped significantly reduce ChristianaCare’s rate for hospital-acquired pressure injuries (HAPI) to 2.17% from 3.89% in just three years. The work is also credited with achieving an estimated $537,000 in cost savings, and led to $4.17 million in additional appropriate payment through accurate assessment and improved documentation.

Health Equity Award
An Initiative to Optimize 2020-21 Influenza Vaccination Rates in People with HIV
By implementing a bundle of interventions focused on process, virtual and physical environment, staff and patients as part of an Advanced Quality & Safety Improvement Science Program, a team from ChristianaCare's Holloway Community Program helped increase the seasonal flu vaccination rate for people at increased risk for complications due to HIV by 32% during the COVID-19 pandemic (to 86% from just 65% in recent flu seasons).

Transformation Award
Right Place, Right Patient, Right Time. Managing Mild TBI in a Level 3 Trauma Center
In the five years since Wilmington Hospital earned initial certification as a Level 3 Trauma Center, 61% of patients presenting at the Wilmington campus with mild-to-moderate traumatic brain injury (TBI) were able to be admitted and managed on the Wilmington campus, and only 30% required transfer to the Christiana campus. The Wilmington team also managed 172 trauma codes, leading to a potential cost savings of $602,000 and reducing the burden of managing patients with lower-risk on the Christiana campus.

Population Health Award
Control BP: Multi-Component Strategy for Improving Hypertension Control
An operational dashboard, shared opportunity reports, Cerner alerts and implementation of a digital workflow allowing patients to report home monitored blood pressures helped increase the percentage of risk-contract patients with controlled hypertension attributed to ChristianaCare primary care or cardiology practices to 77%, exceeding a stretch Annual Operating Plan Goal. The team also met its target goal of improving the percentage of receiving standardized treatment for hypertension — two or more classes of antihypertensive medications — by 11%.

Optimal Health Safety Award
Accountable Audits Make Chemotherapy Safer
Changing the frequency of the audit process for accuracy and completeness of high-alert chemotherapy agents from biannually to monthly, and subsequently providing more timely feedback to providers, significantly reduced clarification rates to 2.8% in 2021 from 12.7% in 2019. Estimated cost savings are $567,000.

Optimal Health Quality – Gold Award
Improving Depression Screening During the Pandemic: Maximizing Connections
Screening is the first step in treating individuals with depression and related disorders, particularly during a critically stressful pandemic period. By daily reviewing the charts of scheduled patients, making phone calls to patients without scheduled appointments and sharing data through huddles, The Foulk Road Family Medicine Center increased the number of patients identified as eligible for screening by 40% (to 77% from 55%).

Optimal Health Quality – Silver Award
Improving the Diagnostic Accuracy of Urine Drug Screen Through Confirmatory Testing
Accurate and timely urine drug screening tests for illicit drug or narcotic prescription use are vital for treatment of mothers and their newborns. Confirmatory testing of positive screening tests can avoid false-positive results, as well as the medical and legal consequences to patients, but takes almost four days so was not being done for obstetrics (OB) patients. To improve care for mothers. An OB Drug Screen Panel with automatic reflex testing of positive results was implemented with a STAT reference lab. 100% of positive screens were sent for confirmatory testing, with an average turnaround time of 19 hours. Only 20% of those tests yielded discordant results and treatment was improved for moms and babies.

Optimal Health Quality – Bronze Award
Home is Heaven – Stopping the Merry-Go-Round of Readmissions
A systemwide readmission reduction group standardized the process of readmission reviews, identified causal factors and enabled best practice solutions to positively impact readmission rates and reduce risk of both financial penalty and adversely impacted star ratings from the Centers for Medicare and Medicaid Services (CMS). Of the 187 reviews completed in the first 9 months, 393 identified causal factors, including goals of care, post-discharge follow-up and clarity of discharge instructions that lead to excess readmissions. The group collaborated with the Palliative Care team, the Better Outcomes by Optimizing Safe Transitions (BOOST) team and Patient Experience to implement solutions.
**Exceptional Experience Award**

*Expediting Patient Care by Decreasing Lab Result Time*

Implementation of the electronic positive patient tracking system SOFTID to select, print, collect and label specimens at the point of service in the Emergency Department shortened turnaround time from specimen collection to results in the medical record by more than 13 minutes (to 47.1 minutes from 60.6 minutes). Implementation of the new software process has also helped to eliminate mislabeled specimens — previously there were an average of three mislabeled specimens each month. The positive patient identification process has improved ED patient throughput, patient experience and patient safety.

**Organizational Vitality Award**

*Primum Non Nocere – Avoiding Harm Through Clinical Documentation Improvement*

Using computer-assisted coding software to concurrently identify possible Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicator (PSI) cases, perform pre-bill review of clinical documentation for accuracy, and support clinical learning. Of 247 flagged potential PSI cases in fiscal year 2021, 50% were excluded by expert review. The revised process improved the PSI-90 rate by 11%, significantly reducing the risk for penalties from the Centers for Medicare & Medicaid Services ($3.4M in fiscal year 2020) and improving external ratings.

**Strategic Partnerships – Gold Award**

*De-labeling Penicillin Allergies in Patients Undergoing Spine Surgery*

Preoperative assessment using a penicillin allergy algorithm identified 68% of patients preparing for spine surgery as high risk for severe penicillin allergy, precluding the use of the preferred preoperative antibiotic prophylaxis cefazolin. Alternative antibiotics place patients at higher risk for adverse outcomes, such as surgical site infections. High-risk patients are now referred for a penicillin skin test and oral challenge and, if negative, the allergy is "de-labeled" in PowerChart. Of the 31 patients tested (45% of those referred), 90% were de-labeled and 87% received cefazolin. None had a surgical site infection.

**Strategic Partnerships – Silver Award**

*Collaborative Implementation of Outpatient Monoclonal Antibody Therapy for COVID-19*

Monoclonal antibody therapies (mAb) are shown to reduce hospitalization in high-risk COVID-19-positive patients with mild-to-moderate symptoms. In less than two weeks back in December 2020, a team from the Center for Virtual Health, Nursing, Pharmacy, Research, Infection Prevention, Information Technology and Data Analytics operationalized a comprehensive mAb therapy program for the community. Of the 1,379 patients who received mAb, only 3% were hospitalized, and fewer than 0.4% died.

**Extraordinary People Award**

*Call for One and One for Call*

An Achieving Competency Today (ACT) team selected Vocera as a tool to more efficiently and securely notify on-call and weekend staff about posted cases at ChristianaCare Union Hospital. During a two-week pilot, phone calls decreased by at least 50%. Based on the efficiency of the process and caregiver satisfaction, Vocera is now the standard of care for the Surgical Services team and its use is being expanded.

**Innovative Tools – Gold Award**

*Standardized Image Retention and Documentation*

Although point-of-care ultrasound procedures performed at bedside help answer immediate clinical questions, the absence of archived images and official reports in PowerChart resulted in lack of accessibility and transparency of clinical information for follow-up or consultation. Piloted interventions with 375 cases archived per month in the Emergency Department included interfaces to connect disparate information systems (point-of-care units, Soarian and PowerChart), competency processes, procedure-driven templates and a quality control evaluation process. The improved process has now expanded to three additional areas and generates about $1.2 million annually in new revenue.

**Innovative Tools – Silver Award**

*Alexa, Can You Help Me Take Better Care of Myself at Home?*

In this time of low caregiver staffing levels, one of the biggest challenges for older, homebound patients is timely accessibility to care, particularly following a hospitalization. ChristianaCare HomeHealth partnered with the Innovation Center to design and build voice-based software that allows patients to ask Amazon’s Alexa questions and receive answers about their own specific care plan. 118 patients participated in a six-month proof of concept. Overall, adherence to prescribed medications improved 31% and emergency department and urgent care use decreased 60%.

**Resident’s Award**

*Proactive Pediatrics: Examining a Model of Panel Pediatric Chart Review*

Using a checklist of pediatric quality metrics, Family Medicine residents in the Wilmington and Foulk Road Family Medicine practices implemented a standardized chart-review process to identify multiple factors leading to gaps in pediatric patients’ preventive health. After six months of reviews to examine potential near-misses and identify areas for improvement, nine of 14 quality measures in the two practices improved by more than 5%.
Magnet Structural Empowerment Award

**Bending and Blending: An Innovative Approach to Training During a Pandemic**

Replacing the obsolete hand-held barcode medication administration scanners required training of more than 2,300 acute care caregivers. Confounding factors related to the COVID-19 pandemic impacted education and training plans. Historically, the process would have involved four hours of hands-on classroom training at a cost of almost $400,000. Training was modified to a two-part self-paced eLearning program and learning practice activity with super-user assistance. Net promoter scores indicated satisfaction with the blended approach, and the new method saved almost $300,000 (a 75% reduction).

Magnet Exemplary Professional Practice – Gold Award

**Nasogastric Tube Securement Device Pilot: Back to Basics**

To address a high incidence of device-related hospital-acquired pressure injuries (HAPI) caused by nasogastric tubes (NGT) in the Medical Intensive Care Unit, a comprehensive unit-based safety program (CUSP) team developed a “back to basics” staff education strategy on NGT indication, size and type with skin assessment and tape dressing application. Six months after implementation, there were 0 NG tube-related HAPIs, and cost savings were more estimated at more than $60,000.

Magnet Exemplary Professional Practice – Silver Award

**Floating the Tube: Taking the Pressure Off of the Nares**

Nasogastric (NG) tubes have been identified as one of the top devices causing pressure injuries — 24 cases, accounting for 13% of all hospital-acquired pressure injuries (HAPI) in one review of prevalence data. A new NG securement device was trialed and implemented — including caregiver education on correct placement and removal. Post-implementation, there were 4 NG tube-related HAPIs, and cost savings were more estimated at more than $60,000.

Magnet Transformational Leadership Award

**Implementing Dabir to Reduce Surgical Related HAPI in the CVOR and CVCCC**

In FY 2020 and FY 2021, patients in the Cardiovascular Critical Care Complex (CVCCC) following cardiac surgery had a higher incidence of posterior pressure injuries than on other acute care units. Analysis of injury data identified long procedure times and cardiopulmonary instability as risk factors. In the 200 days after implementation of Dabir pressure-reducing mattresses in the cardiovascular operating room (CVOR), there were no HAPIs within three days of surgery. Use of Dabir mattresses has since expanded to the CVICU and other ICUs systemwide.

Magnet New Knowledge, Innovations & Improvements – Gold Award

**Morphine-ng Towards a New Standard in Neonates and Pediatrics**

Oral morphine tapered based on response is first-line treatment for neonatal opioid withdrawal syndrome caused by opioid exposure during pregnancy. The neonatal intensive care and pediatric units AcuDose was stocked with 700 oral morphine syringes in five different volumes weekly. At baseline, there were 20 R2L reports related to incorrect dose, expired doses or unavailable doses, and 270 wasted syringes each week. The team developed one standard-dose syringe with longer stability as well as a concentration list, and educated caregivers. Post go-live, R2L reports decreased 85% to three; there were zero wasted syringes, and pharmacist syringe prep time decreased by eight hours weekly.

Magnet New Knowledge, Innovations & Improvements – Silver Award

**Home and Heart – Virtual Nurse Visits are Where It Starts**

After hundreds of in-home nursing services were cancelled due to fear of exposure to COVID-19, HomeHealth developed nurse-led virtual home care visits focusing on patients with heart failure following hospital discharge. Thirty-four participants enrolled in a study supported by ACCEL and IDeA to inform the delivery of remote nursing care using Zoom technology. Patients felt safer with the virtual visits, but did not want virtual to completely replace in-home visits. Patients and families liked the continuity of care. System usability scores slightly below benchmark identified a learning curve with using the technology.

People’s Choice Award

**High School Senior Transition: A Collaborative School-Based Health Care Initiative**

Aligned with the Healthy People 2030 goal to increase the proportion of adolescents with an annual preventive health care visit, ChristianaCare school-based health centers provide holistic, comprehensive care for adolescents during high school. However, this care ends at graduation. High School Senior Transitions now coaches seniors on comprehensive wellness so they have tools to find the path to success after graduation. The team met with 486 seniors (17%) from January – June 2021, exceeding their 10% goal. Another eight students participated in a five-week virtual group “chat & chew” series, and referrals to community health workers increased.
The ChristianaCare Way

We serve our neighbors as respectful, expert, caring partners in their health. We do this by creating innovative, effective, affordable, equitable systems of care that our neighbors value.

We Serve Together Guided by Our Values

Love

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.

Excellence

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.

About ChristianaCare

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 the 2nd best health system for diversity and inclusion, and the 29th best health system 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.


Locations in the state of Delaware, ChristianaCare is one of the country’s largest health care providers.

RANKED AMONG LEADERS

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OUR PEOPLE

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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.

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