# Table of Contents

## INTRODUCTION
- Executive Summary ................................................................. 2
- Demonstrating Value ............................................................... 3
- COVID-19 Impact ....................................................................... 4–5

## INPATIENTS SERVED
- Aggregate Volumes ................................................................. 6
- Clinical Complexity: Traumatic Volume, Complexity, and Severity ..... 7
- Intensive Care Unit ................................................................. 8
- Ventilator Management ......................................................... 9

## REHABILITATION OUTCOMES
- Spinal Cord Injury ................................................................. 10–11
- Brain Injury ........................................................................ 12–13
- Stroke .................................................................................. 14–15

## OUTPATIENTS SERVED
- Shepherd Center Clinics ......................................................... 16–17
- Shepherd Center Day Programs ........................................... 18–19

## PATIENT SAFETY
- Overall Harm Count ............................................................... 20
- Clostridioides Difficile Infection (CDI) ..................................... 22
- Central Line Associated Bloodstream Infection (CLASBI) ........ 23
- Urinary Tract Infection (UTI) .................................................. 24–25
- Falls ..................................................................................... 26–27
- Pressure Injury .................................................................... 28–29
- Rehospitalizations ................................................................. 30–31
- Hospital Survey on Patient Safety ......................................... 32

## PATIENT EXPERIENCE
- Inpatient ............................................................................... 34–35
- Outpatient ............................................................................ 36–37

## APPENDIX
- IRF Functional Measures for Self Care and Mobility ................. 38
Executive Summary

Thank you for taking time to review the Shepherd Center, Fiscal Year (FY) 2021, Quality and Patient Safety Report! The FY 2021 represents care and outcomes between April 1, 2020 through March 31, 2021. This year’s report is certainly unique as it reflects the amazing commitment and talent of the clinicians and staff across Shepherd Center all during the COVID-19 pandemic. Despite the obvious challenges, Shepherd Center continued to excel during this unusual time.

The report starts with a demonstration of how Shepherd Center Quality and Patient Safety efforts continue to demonstrate Value. Specifically, that the highest quality care is offered for the most appropriate cost. Core components within our showcase of value include adaptive staffing, refined patient education, implementation of telehealth, and external demonstrations of excellence.

The report transitions to highlight the Inpatient Settings including the volume of patients served, their clinical complexity, the unique Intensive Care Unit (ICU) services, as well as details related to patients whose care is managed with a ventilator. Following this section, the report illustrates Shepherd Center’s Inpatient Rehabilitation Settings showcasing patient volume, discharge to home, and rehabilitation outcomes specific to three groups of patients served: Traumatic Spinal Cord Injury, Traumatic Brain Injury and Stroke patients. After, you’ll see a shift to the Outpatient Settings, again highlighting the volumes of patients served. Particularly important to this year’s report, during the COVID-19 pandemic, is a focus on Telehealth and virtual Day Programs.

The report shifts next to display Quality Outcome data including Patient Harms, Patient-reported Rehospitalizations, and Staff-reported Survey on Patient Safety. This annual report would be remiss without the heart of Shepherd Center –its patients– so a highlight of Patient Experience is included next.

This report and the Project Management, Process Improvement, and Data Analytics required to achieve these outcomes would not be possible without the core members of the Quality and Outcome Management team at Shepherd Center. Thus, each of their names, pictures, and roles are included here.

Wishing you all another year filled with amazing quality and outcomes!

With kind regards,

Jacqueline Baron-Lee

Shepherd Center Quality & Outcome Management Team

Jacqueline Baron-Lee
PHD, CPHQ, PMP
Director of Quality & Outcome Management

Meredith Missroon, BS
Senior Clinical Improvement Advisor

Anne Murdock, BS
Senior Internal Improvement Advisor

Ali Anderson, BSIE, LSSBB
Senior Internal Improvement Advisor

Kashun Davis, MBA, MSIT, LSSBB
Senior Internal Improvement Advisor

Meena Iyer, BSIE, MSIE, LSSBB, CPHQ
Senior Internal Improvement Advisor

Jane Johnson, BSN, RN, CRRN
Nurse Auditor

Michelle Nemeth, PT
Senior Clinical Improvement Advisor

Not pictured: Jacqueline Baron-Lee
Demonstrating Value

A well-defined demonstration of Value in healthcare is the Quality of care divided by the Cost of care. The goal is to establish the highest quality of care with the lowest appropriate cost. Shepherd Center demonstrated yet another year of value – even during the particularly challenging period of the COVID-19 pandemic. Value during FY 2021 is exemplified with the four examples below.

FY 2021 FOCUS

1. Utilized creative and meaningful strategies for optimizing Outcomes, including Adaptive Staffing, Refined Patient Education, and Implementation of three forms of Telehealth including tele-medicine, tele-psychology, and tele-rehabilitation visits.

2. Continued excellent quality outcomes that garnered external recognition from state, national, and international organizations.

ADAPTIVE STAFFING
While coping with the uncertainty of the COVID-19 pandemic, Shepherd Center demonstrated value by shifting staff from departments impacted by in-person restrictions to other roles, such as employee healthcare access screeners for improved patient safety. Team members from the Beyond Therapy department were particularly instrumental in this strategy.

PATIENT EDUCATION
Despite the challenges of reduced patient volumes facing many outpatient programs due to the impact of the COVID-19 pandemic, the staff promoted quality by developing patient education materials, engaging in process improvement initiatives, and participating in staff education.

TELEHEALTH VISITS
Shepherd Center transitioned to offer Telehealth visits within 35 days after declaration of the COVID-19 pandemic emergency. This maintained patient continuity of care while ensuring safe care delivery. With reduced in-person clinic volume, 37% of outpatient volume was provided via Telehealth in FY 2021. This strongly represents value by maintaining quality of care while reducing and minimizing costs.

DEMONSTRATED EXCELLENCE
Despite the challenges across this year, quality and patient safety continued to demonstrate excellence through recognition of high-quality with low-costs. Organizations such as the Georgia Health Association (GHA), American Congress of Rehabilitation Medicine (ACRM), and the Society for Health Systems (SHS) awarded distinctions for this work during this time.
COVID-19 Impact

SHEPHERD CENTER’S RESPONSE

As we started FY 2021 on April 1, 2020, the world was coming to grips with the COVID-19 pandemic. Shepherd Center took decisive actions in the early days to keep our patients, families, and staff safe. Throughout this difficult year, these efforts continued and many are highlighted below.

Elevated Communication with Staff, Patients, and the General Public
Shepherd Center increased internal communication through daily safety huddles, emails with updates on policies, as well as periodic video updates. We improved external communication with resources on our website, a “hotline” email for questions, and many other enhanced communication resources for staff, patients, families, and the general public.

Coordinated Response to COVID-19 Exposures and Infection at Shepherd Center, for Patients and Staff
Shepherd Center immediately sent non-clinical staff to work from home and began screening everyone entering the building. Before our first COVID-19 positive patient or staff member, we created a process for contact tracing and tracking. As testing became more available, we had a thorough testing strategy to contain any potential outbreaks.

Expanded Support for Staff
Through existing partnerships, we were able to offer additional support for staff members facing difficulty with childcare access. We promoted the use of our Employee Assistance Program, including support from our center-based psychologist and neuropsychologists.

Staff and Patient Morale Initiatives
As our staff and patients moved through the early days of uncertainty and into the continued days of the COVID-19 pandemic, keeping morale high was a priority for leadership. We had special themed days and events, including “Music Mondays” and “Gratitude Fridays”. Patients and staff, both remote and onsite, participated in these events and had fun doing it.

Vaccination Efforts
In October 2020, while we waited on a vaccine for COVID-19, flu vaccination efforts began in earnest. By December 2020, there were two approved COVID-19 vaccines, and on December 28, COVID-19 vaccinations of staff began at Shepherd Center. As more of the general population became eligible and vaccine supply increased, we were able to vaccinate our patients, their caregivers, and even some of our employees’ eligible family members.

Shepherd Center was led in the COVID-19 pandemic response effort by our President and Chief Executive Officer, Sarah Morrison, our Chief Medical officer, Dr. Michael Yochelson, and our Infection Preventionist, Sarah Culberson, with full support of the Board of Directors.
COVID-19 Impact

Launching Telehealth

As we managed our response to the COVID-19 pandemic, it was clear that Shepherd Center needed to offer telehealth to serve the patients who would not be able to participate in our now reduced-capacity outpatient clinics and offer safe alternatives to patients, their caregivers, and staff.

We piloted our first Telehealth appointment on March 27, 2020, and by April 20, 2020, Shepherd Center had completed a full implementation of Telehealth in our outpatient areas, including tele-medicine, -psychology, and -rehabilitation. A few additional day programs were added during the summer of 2020.

Providing Telehealth programs to our patients has allowed them to progress towards their goals during a time when they otherwise might not be able to.

| 36% | OF OUTPATIENT VISITS COMPLETED VIA TELEHEALTH |
| 83% | OF EMPLOYEES “AGREE” TELEHEALTH HAS INCREASED QUALITY OF CARE |
| 85% | OF PATIENTS “AGREE” THAT TELEHEALTH SESSIONS WERE BENEFICIAL |
| 60% | OF PATIENTS PREFERRED TELEHEALTH |

Shepherd Center won the 2021 GHA Quality and Patient Safety Award for Specialty Hospitals for our work to implement Telehealth

As an Award Winner, Marsha Hanson and Ali Anderson presented this project to GHA.

Data Sources: Epic, Survey of Employees Using Telehealth, Survey of Telehealth Patients
**Inpatients Served**

**AGGREGATE VOLUMES**

Shepherd Center is unique in the population of patients that it cares for and its exclusive focus on patients with neurological illness or injury. The volumes of those specific populations served are highlighted here.

In FY 2021, Shepherd Center discharged 743 inpatients. Of these, 260 were treated for Spinal Cord Injury (SCI). We treated 215 Acquired Brain Injury (ABI) patients, 124 patients with Stroke, and 52 patients with Disorders of Consciousness (DOC). These patients often come directly from the acute care setting where they are medically stabilized from their original injury. We help them begin discovering their new normal.

In addition to these spinal cord and brain injury specific patients, Shepherd Center treated 48 patients with a Dual Diagnosis, in which the patient has sustained both a Spinal Cord and a Brain Injury.

Some of our other specialty areas include the 19 patients treated for Neuro-Paralyzing conditions like Transverse Myelitis and Guillain Barre Syndrome, and the 18 patients treated for medical needs including pressure injuries and cranial defects that require specialty surgery and recovery. We also treated 7 additional patients for other neurological conditions.

**INPATIENTS SERVED: FY 2021**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DISCHARGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPINAL CORD INJURY (SCI)</td>
<td>260</td>
</tr>
<tr>
<td>ACQUIRED BRAIN INJURY (ABI)</td>
<td>215</td>
</tr>
<tr>
<td>STROKE</td>
<td>124</td>
</tr>
<tr>
<td>DOC</td>
<td>52</td>
</tr>
<tr>
<td>DUAL DIAGNOSIS</td>
<td>48</td>
</tr>
<tr>
<td>NEURO PARALYZING</td>
<td>19</td>
</tr>
<tr>
<td>MEDICAL/SURGICAL</td>
<td>18</td>
</tr>
<tr>
<td>OTHER</td>
<td>7</td>
</tr>
<tr>
<td>TOTAL PATIENTS</td>
<td>743</td>
</tr>
</tbody>
</table>

72% of inpatients served at Shepherd Center in FY 2021 were from outside the Metro-Atlanta area.

Data Source: Epic
**Inpatients Served**

**CLINICAL COMPLEXITY: TRAUMATIC VOLUME, COMPLEXITY, AND SEVERITY**

While Shepherd Center cares for patients with challenging impairments, we also care for the most medically complex patients among that population.

*What distinguishes Shepherd Center:*

**Traumatic Volume**

At Shepherd Center, 66.4% of rehabilitation patients have traumatic injuries. This is much higher than the nation of Inpatient Rehab Facilities (IRFs) participating in the Uniform Data System for Medical Rehabilitation (UDSMR) resource, a performance-based measurement database. By contrast, in FY 2021, only 10.5% of the patients treated in this national comparison group had traumatic injuries.

**Complexity**

Case-Mix Index (CMI) is a nationally accepted indicator of patient complexity represented by the amount of hospital resources required to care for a patient population. A higher CMI value indicates a patient population that requires more resources with increased complexity. Shepherd Center’s rehabilitation population has an average CMI of 2.06, compared to the UDSMR Nation of IRFs at 1.43.

**Severity**

The Severity of Illness (SOI) classifications refer to the extent of illness as defined by declines or loss of function according to an industry standard, 3M APR DRG™. Patients with an overall SOI of 3 or 4 are characterized by the presence of multiple severe secondary diagnoses versus patients with lower SOI who generally would have few if any secondary diagnoses or more mild primary diagnoses. In FY 2021, 75% of Shepherd Center’s overall patient population had an SOI of 3 or 4.

Understanding the patient populations’ clinical complexity helps better represent the full picture of the patients’ care for both medical conditions and rehabilitation.

---

**PATIENT COMPLEXITY: FY 2021**

<table>
<thead>
<tr>
<th>Proportion of Volume that is Traumatic</th>
<th>Case Mix Index</th>
<th>Severity of Illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shepherd Center</td>
<td>66.4%</td>
<td>FY 2020</td>
</tr>
<tr>
<td>Nation of UDSMR</td>
<td>10.5%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32%</td>
</tr>
<tr>
<td>FY 2021</td>
<td>5%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31%</td>
</tr>
</tbody>
</table>

Data Source: Uniform Data System for Medical Rehabilitation (UDSMR)

Data Source: 3M APR-DRG
**Inpatients Served**

**INTENSIVE CARE UNIT**

Shepherd Center is uniquely suited to care for patients with a high Case Mix Index and Severity of Illness as it contains an on-site Intensive Care Unit (ICU) and an expert critical care team.

**What distinguishes Shepherd Center:**
The Shepherd Center ICU is an on-site 10-bed neuro-intensive care unit designed to manage patients who are medically unstable and require intensive nursing care. By providing this level of care, Shepherd Center can receive patient transfers directly from trauma centers and begin rehabilitation sooner. Every ICU patient is evaluated to determine what level of rehabilitation is appropriate as their medical needs are resolved. In addition, our Code Rapid and Code Blue response team is mainly comprised of staff from the ICU.

**Intensive Care Volume**
About 27% of our patients (202 patients) in FY 2021, were admitted directly to the ICU. Overall, in FY 2021, 347 patients were treated in the ICU either as their medical needs increased or for additional recovery following a surgery.

202 DIRECT ADMITS TO ICU

347 ENCOUNTERS TREATED IN ICU

2,125 ICU PATIENT DAYS

Data Sources: Epic

**DAVID QUINTERO, MD**

Dr. David Quintero is the Medical Director of the ICU and Critical Care Services. Dr. Quintero is double board certified in critical care medicine and pulmonary disease. He joined Shepherd Center in November 2020.

**TAMMY KING, RN, MSN, CRRN, CCM**

Tammy King is the Chief Nursing Officer and the Program Director of Comprehensive Rehabilitation Unit and Intensive Care Unit.
Inpatients Served

VENTILATOR MANAGEMENT

What distinguishes Shepherd Center:
Many patients at Shepherd Center require ventilator management. Shepherd Center’s ventilator services program is led by an experienced team working together to successfully wean patients from ventilator dependence.

Before we recommend ventilator weaning, our staff evaluates each patient’s physical and psychological state. The goal is to wean patients off the ventilator and teach them how to live an active and productive life post-injury.

Many patients with a Spinal Cord Injury (SCI) at the Cervical-3 (C-3) level or below have the potential to be weaned from the ventilator. In FY 2021, over 92% of patients with below C-4 level injuries or acquired brain injuries successfully weaned from the ventilator. Ventilator weaning volumes for FY 2021 are reflected in the below table.

A portion of the patients who successfully wean from their ventilator full-time or part-time do so in part due to an alternative treatment called Diaphragmatic Pacing System (DPS). DPS works to condition the diaphragm muscle which has weakened from lack of use due to their injury. DPS offers an option that can significantly improve the quality of life of patients with high tetraplegia.

OUTCOMES FY 2021

Percentage of Ventilator Weaning by Level of Injury

<table>
<thead>
<tr>
<th>PERCENTAGE WEANED</th>
<th>LEVEL/TYPE OF INJURY</th>
<th>TOTAL VENT PATIENTS</th>
<th>PATIENTS WEANED</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI</td>
<td>C1–C2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>cervical</td>
<td>C3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>C1–C2: 67%</td>
<td>C4</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>C3: 40%</td>
<td>C5–C7</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>C4: 92%</td>
<td>T1–T12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>C5–C7: 100%</td>
<td>Brain Injury</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>thoracic</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Sources: Epic Reporting and Regular Chart Review
*Note: Stroke data is withheld due to a low volume of patients on ventilators and inability to draw statistically significant conclusions from the data.

PHILIP WEXLER, MD

Dr. Philip Wexler is the Medical Director of Pulmonology and Respiratory Therapy. Dr. Wexler is triple board certified in pulmonary disease, critical care medicine and allergy and immunology. He joined Shepherd Center in November 2020.
Rehabilitation Outcomes

SPINAL CORD INJURY

As a national leader in spinal cord injury (SCI) care and research, Shepherd Center examines ways to improve the quality of life for people who have experienced an SCI. Our comprehensive spinal cord injury program is tailored to meet individual needs to optimize recovery and improve independence in patients.

In FY 2021, the SCI team treated 260 patients with SCI. A subset of these patients are included in the Uniform Data System for Medical Rehabilitation (UDSMR) database which is used for outcome assessments in rehabilitation hospitals. The 195 patients included in the UDSMR data represent the patients receiving 3 or more hours of rehabilitation per day for their SCI. The data on this page and the next are focused on this rehabilitation population, and particularly those patients with traumatic SCI.

PATIENT COMPLEXITY: FY 2021

Proportion of SCI Volume that is Traumatic

Case Mix Index (CMI)
Traumatic Spinal Cord Injury

Severity of Illness (SOI)
Traumatic Spinal Cord Injury

- Level 1 (Minor)
- Level 2 (Moderate)
- Level 3 (Major)
- Level 4 (Extreme)

Data Sources: Epic, Uniform Data System for Medical Rehabilitation (UDSMR), and 3M APR-DRG

Dr. John Lin is the Medical Director of the Spinal Cord Injury Program. Dr. Lin is triple board certified in physical medicine and rehabilitation, spinal cord injury medicine, and internal medicine. He joined Shepherd Center in 2005.

JOHN LIN, MD

John Lin, MD
Rehabilitation Outcomes

SPINAL CORD INJURY

Patients receiving rehabilitation for traumatic spinal cord injury (TSCI) at Shepherd were able to return to their community at a rate 17 percentage points higher than the UDSMR nation of inpatient rehabilitation facilities (IRFs). On discharge, TSCI patients perform as well as or better than the nation in meeting or exceeding their individual risk-adjusted discharge expectations for self care and mobility.

What distinguishes Shepherd Center:
Patients with a cervical level injury, especially at the highest levels of C-1 to C-4, have the most complex and severe medical and rehabilitation needs. These needs can include breathing assistance, bowel and bladder management, specialized equipment, and caregiver assistance. Shepherd Center’s High Tetraplegia program specializes in treating patients with these complex injuries.

OUTCOMES FY 2021

Discharge to Community
Traumatic Spinal Cord Injury

90.3% • Shepherd Center 72.9% • Nation of UDSMR

Percent of Patients Meeting or Exceeding Risk Adjusted Expected Value at Discharge
Traumatic Spinal Cord Injury

SELF-CARE
69.9% 59.7%

MOBILITY
64.6% 64.7%

Data Source: Uniform Data System for Medical Rehabilitation (UDSMR)

SHARI McDOWELL, PT, DPT
Shari McDowell is the Program Director for the Spinal Cord Injury Rehabilitation Program.
Rehabilitation Outcomes

**BRAIN INJURY**

In addition to treating patients with Spinal Cord Injuries (SCI), Shepherd Center’s Brain Injury Rehabilitation Program provides a full continuum of services to treat patients who have experienced a traumatic brain injury (TBI) or non-traumatic brain injury. Our Acquired Brain Injury (ABI) inpatient program considers each patient’s unique condition to create a tailored treatment plan and to provide educational training for family members.

In FY 2021, the Brain Injury clinical team treated 391 patients in total. Among these, 215 patients were treated for an ABI, 124 patients were treated for stroke, and 52 patients were treated for Disorders of Consciousness (DOC).

As with SCI, a subset of these ABI patients are included in the Uniform Data System for Medical Rehabilitation (UDSMR) database which is used for outcome assessments in rehabilitation hospitals. The 175 ABI patients included in the UDSMR data represent the patients receiving 3 or more hours per day of rehabilitation for their brain injury. The information on this and the next page are focused on this rehabilitation population, and specifically those with TBI.

**PATIENT COMPLEXITY: FY 2021**

**Proportion of ABI Volume that is Traumatic**

- **Shepherd Center**: 81.7%
- **Nation of UDSMR**: 31.2%

**Severity of Illness (SOI)**

- **Level 1 (Minor)**: 12%
- **Level 2 (Moderate)**: 25%
- **Level 3 (Major)**: 32%
- **Level 4 (Extreme)**: 32%

Data Sources: Uniform Data System for Medical Rehabilitation (UDSMR), and 3M APR-DRG

ANDREW DENNISON, MD

Dr. Andrew Dennison is the Medical Director of the Brain Injury Program. Dr. Dennison is double board certified in physical medicine and rehabilitation and brain injury medicine. He joined Shepherd Center in 2011.
Rehabilitation Outcomes

**BRAIN INJURY**

Patients receiving rehabilitation for Traumatic Brain Injury (TBI) at Shepherd Center were able to return to their community at a rate **20** percentage points higher than the UDSMR nation of Inpatient Rehabilitation Facilities (IRFs). On discharge, TBI patients performed better than the nation in meeting or exceeding their individual risk-adjusted discharge expectations for self-care and mobility.

**What distinguishes Shepherd Center:**
Shepherd Center offers hope to many patients through our Disorders of Consciousness (DOC) program. The program began in 2000 and is one of only a few dedicated programs nationwide providing specialized services for people in low-level states of consciousness caused by brain injury. In FY 2021, Shepherd Center treated 52 patients who were a part of the DOC program.

**OUTCOMES FY 2021**

**Discharge to Community**
Traumatic Brain Injury

- **Shepherd Center**: 88.8%
- **Nation of UDSMR**: 68.1%

**Percent of Patients Meeting or Exceeding Risk Adjusted Expected Value at Discharge**
Traumatic Brain Injury

- **Self-care**: 81.3%
  - Shepherd Center: 61.2%
  - Nation of UDSMR: 59.1%
- **Mobility**: 78.7%
  - Shepherd Center: 59.1%
  - Nation of UDSMR: 59.1%

Data Source: Uniform Data System for Medical Rehabilitation (UDSMR)
Rehabilitation Outcomes

STROKE

As a part of the larger Acquired Brain Injury (ABI) Rehabilitation Program, Shepherd Center also specializes in treating patients who have had a stroke. Specifically, our medical professionals specialize in stroke rehabilitation for young adults – those in high school or college – or people raising a family or amid their career.

In FY 2021, the Stroke Program treated 124 patients. A subset of these patients are included in the UDSMR database for outcome assessments in rehabilitation hospitals. The 110 patients included in the UDSMR data represent the patients receiving 3 or more hours per day of rehabilitation in their recovery from a stroke. The information on this and the next page are focused on this rehabilitation population.

24% of the Shepherd Center stroke rehab population is under the age of 45, compared to 6% of the national stroke rehabilitation population.

PATIENT COMPLEXITY: FY 2021

Case Mix Index (CMI)

<table>
<thead>
<tr>
<th>Stroke</th>
<th>Shepherd Center</th>
<th>Nation of UDSMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.96</td>
<td>1.64</td>
<td></td>
</tr>
</tbody>
</table>

Severity of Illness (SOI)

<table>
<thead>
<tr>
<th>Stroke</th>
<th>FY 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 (Minor)</td>
<td>6%</td>
</tr>
<tr>
<td>Level 2 (Moderate)</td>
<td>26%</td>
</tr>
<tr>
<td>Level 3 (Major)</td>
<td>43%</td>
</tr>
<tr>
<td>Level 4 (Extreme)</td>
<td>25%</td>
</tr>
</tbody>
</table>

Data Sources: Epic, Uniform Data System for Medical Rehabilitation (UDSMR), and 3M APR-DRG
Rehabilitation Outcomes

STROKE

Patients receiving rehabilitation for stroke at Shepherd Center were able to return to their community at a rate of almost 25 percentage points higher than the UDSMR nation of inpatient rehab facilities.

On discharge, stroke patients from Shepherd Center are achieving excellent rehabilitation outcomes. When comparing actual performance to the risk-adjusted expected discharge values, 57% of patients are meeting or exceeding those expectations for self-care, and similarly 51% for mobility.

Patient Stories: Stroke Program
SCAN OR CLICK QR CODES BELOW

| Read Maggie’s Story | Watch Roger’s Experience |

OUTCOMES FY 2021

Discharge to Community

Stroke

- Shepherd Center: 90.9%
- Nation of UDSMR: 66.1%

Percent of Patients Meeting or Exceeding Risk Adjusted Expected Value at Discharge

- Stroke

  - Self-Care: Shepherd Center 57.1%, Nation of UDSMR 50.6%
  - Mobility: Shepherd Center 55.1%, Nation of UDSMR 50.6%

Data Source: Uniform Data System for Medical Rehabilitation (UDSMR)
Outpatients Served

SHEPHERD CENTER CLINICS

In addition to the Spinal Cord Injury (SCI) and Acquired Brain Injury (ABI) inpatient programs, Shepherd Center also includes a diverse representation of outpatient services. The total number of outpatient visits for FY 2021 was more than 33,000 as shown on this page, separated by clinic and in order by volume.

As mentioned previously, Telehealth began in FY 2021, and 36% of outpatient visits were completed via Telehealth.

These clinics provide services that meet the unique needs of our patient population, including pain management for neurological injuries and illnesses as well as a seating clinic for patients in need of mobility via wheelchair.

Data Source: Epic

<table>
<thead>
<tr>
<th>Clinic Name</th>
<th>Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANDREW C. CARLOS MULTIPLE SCLEROSIS (MS) INSTITUTE</td>
<td>11,064</td>
</tr>
<tr>
<td>DEAN STROUD SPINE AND PAIN INSTITUTE</td>
<td>7,037</td>
</tr>
<tr>
<td>MULTI-SPECIALTY CLINIC</td>
<td>4,205</td>
</tr>
<tr>
<td>SEATING CLINIC</td>
<td>2,548</td>
</tr>
<tr>
<td>ASSISTIVE TECHNOLOGY CENTER</td>
<td>1,597</td>
</tr>
<tr>
<td>BEYOND THERAPY</td>
<td>1,491</td>
</tr>
<tr>
<td>UROLOGY CLINIC</td>
<td>1,378</td>
</tr>
<tr>
<td>ADAPTIVE DRIVING CLINIC</td>
<td>511</td>
</tr>
<tr>
<td>WOUND CLINIC</td>
<td>383</td>
</tr>
<tr>
<td>VISION CLINIC</td>
<td>189</td>
</tr>
<tr>
<td>UPPER EXTREMITY CLINIC</td>
<td>88</td>
</tr>
</tbody>
</table>

FY 2021 TOTAL VISITS

33,099

Marsha Hanson is the Director of Outpatient Services.
Outpatients Served

SHEPHERD CENTER CLINICS

What distinguishes Shepherd Center:
Shepherd Center not only provides quality and safe care for patients specifically from the inpatient and outpatient settings. We also serve patients who are eligible for consultation for adaptive driving services. Ben Elstad is just one of those eligible patients. A U.S. Army veteran who sustained a C-4 incomplete spinal cord injury in a car crash in 1989, Ben was able to work closely with the interdisciplinary team within the Adaptive Driving Clinic. The Adaptive Driving Clinic consists of certified driver rehabilitation specialists, including a certified driving educator, and two occupational therapists. This interdisciplinary team helps clients evaluate, understand, and use available transportation options while also addressing safety and accessibility issues after experiencing a loss in mobility.

When patients first come to Shepherd Center Adaptive Driving Clinic, they undergo an in-center evaluation, typically lasting three hours. The first hour-and-a-half is a clinical assessment of the patient’s arms, legs, vision, cognition, and balance for driving. The last hour-and-a-half is an on-road assessment. The on-road assessment allows for review of awareness of traffic, street signs, and intersections as well as how turns and hills are negotiated. The interdisciplinary team within the Adaptive Driving Clinic partners to determine what can be done to help patient’s drive independently or to show them when driving is not a safe option.

If the interdisciplinary team determines a patient can continue moving forward with driving, training can begin with one of Shepherd Center’s driver specialists. Members of the interdisciplinary team participate in obtaining a driver’s license, purchasing modified vehicles, and using adaptive equipment. The interdisciplinary team partnership within the Adaptive Driving Clinic, as well as its extension into the community, is yet another example of the person-centered quality care provided at Shepherd Center.

36% of outpatient visits were completed via Telehealth in FY 2021

SCAN OR CLICK QR CODE TO LEARN MORE ABOUT BEN’S STORY
Outpatients Served

SHEPHERD CENTER DAY PROGRAMS

Extending the Continuum of Care with Day Programs
In addition to providing traditional outpatient clinics, Shepherd Center bridges the gap between inpatient admissions and outpatient visits through our Day Programs.

Many patients with complex injuries need to continue their recovery and rehabilitation, but no longer require the around-the-clock care of an inpatient hospital setting. Shepherd Center’s Day Programs enable these patients to continue progressing toward their goals.

In FY 2021, despite the impacts of the COVID-19 pandemic, we were able to offer these programs virtually. This required some creative thinking to design a patient-centered process, but many patients benefited from this innovative solution.

Providing Single-Service Outpatient Therapies and Treatments
These four departments also provide additional outpatient services to patients who are not participating in the full Day Programs. This may include services like targeted physical or occupational therapy sessions, or visits with our psychologists or vocational specialists.

<table>
<thead>
<tr>
<th></th>
<th>Day Program Patients Served</th>
<th>Additional Outpatient Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABI - Pathways</td>
<td>159</td>
<td>5,936</td>
</tr>
<tr>
<td>SCI</td>
<td>90</td>
<td>5,094</td>
</tr>
<tr>
<td>ABI - SHARE Military Initiative</td>
<td>29</td>
<td>369</td>
</tr>
<tr>
<td>Multiple Sclerosis</td>
<td>2</td>
<td>2,824</td>
</tr>
<tr>
<td>TOTAL</td>
<td>277</td>
<td>14,177</td>
</tr>
</tbody>
</table>

Data Source: Epic

“I was so grateful for being able to experience the Day Program. I feel that it has helped me improve in my day to day. To start off not knowing what I would be able to do. To being able to do more than I even thought. I will never forget the time I had there, it forever changed me.”

- DAY PROGRAM PATIENT FEEDBACK
What distinguishes Shepherd Center:
Shepherd Center not only focuses on improving patient safety, outcomes, and the patient experience but also focuses on the whole person. This approach is particularly true in the success of the treatment of Sergeant Matt Gulick, who joined Shepherd Center’s SHARE (Shaping Hope and Recovery Excellence) Military Initiative.

After three tours of duty in Iraq as a combat engineer with Marine Wing Support Detachment 273, Matt’s collective experiences with explosive sweeping, landmine defusing, and warfare navigating led to a traumatic brain injury due to repeated concussive damage. Matt’s symptoms had worsened to include personality changes, dizziness, memory challenges, and chronic pain. Deteriorating mental health including violent outbursts, confusion, and steady frustration created a substance abuse issue and difficultly maintaining employment.

Thankfully, through the care and support of Shepherd Center’s SHARE program, Matt received whole-person care by promoting anxiety-coping techniques. In August 2020, Matt overcame an insurmountable challenge. He pitched and successfully landed investment from the CEO of the Don Ryan Center for Innovation for his innovative pet food bag which allows customers to easily pour and reseal the bags. Through Shepherd Center’s Day Programs, including the SHARE Military Initiative, patients like Matt can regain their lives and live fully to the best extent possible.

More About Matt’s Story
SCAN OR CLICK QR CODE TO WATCH A VIDEO
Patients who receive care at Shepherd Center do not expect to be harmed while at the hospital, but there are patients who acquire infections or other harms during the course of their journey. Shepherd Center has a robust Quality and Outcome Management program to measure, evaluate, and reduce these harms. This structure is primarily managed through three of our clinical workgroups: Infection Prevention Workgroup, Fall Prevention and Restraints Workgroup, and Wound Prevention Workgroup.

In FY 2021, there were a total of 217 harms impacting 1 out of every 6 inpatients treated.

### FY 2021 Number of Harms by Type

**Infection Prevention Workgroup** focuses on:

- **CDI**: 6 (↓)
- **CLABSI**: 1 (↑)
- **CAUTI**: 34 (↑)
- **MRSA BACTEREMIA**: 1 (↑)

**Fall Prevention and Restraints Workgroup** focuses on:

- **FALLS WITH INJURY**: 15 (↓)

**Wound Prevention Workgroup** focuses on:

- **PRESSURE INJURY** (all stages): 160 (↓)

**Comparison to FY 2020 Results:**

- **DECREASE** (better)
- **NO CHANGE**
- **INCREASE** (worse)

Data Sources: Review by Infection Prevention, Falls Prevention and Restraints, and Wound Prevention Workgroups.
**Patient Safety**

**CLOSTRIDIODES DIFFICILE INFECTION (CDI)**

The *Infection Prevention Workgroup* works to reduce the transmission of the *Clostridioides difficile* infections (CDI). Additionally, the *Antimicrobial Stewardship Program (ASP)* aims to prevent the overuse of antibiotics that might lead to an increased risk of CDI.

Through the excellent work of these two groups and dedication of our clinical teams, Shepherd Center has seen a 75% reduction in the number of CDI over the past four years.

The FY 2021 focus for CDI was sustained implementation of best practices and monitoring for issues related to CDI detection and prevention. Some of the key work included:

- Continued effort to evaluate every test for adherence to testing guidelines for CDI
- Assessed positive CDI patients for prior antibiotic use
- Presented trends for overall antibiotic usage in ASP

---

**OUTCOMES FY 2021**

*Inpatient CDI Count and Rate per 1,000 Patient Days*

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2018</td>
<td>24</td>
<td>0.51</td>
</tr>
<tr>
<td>FY 2019</td>
<td>12</td>
<td>0.25</td>
</tr>
<tr>
<td>FY 2020</td>
<td>9</td>
<td>0.18</td>
</tr>
<tr>
<td>FY 2021</td>
<td>6</td>
<td>0.13</td>
</tr>
</tbody>
</table>

---

Data Source: Review by Infection Preventionist and Infection Prevention Workgroup.
**Patient Safety**

**CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTION (CLABSI)**

Industry wide, Central Line Associated Bloodstream Infections (CLABSI) continue to be one of the most dangerous hospital-associated infections. Preventing CLABSI and maintaining a high standard of care for our central lines has been another focus of the Infection Prevention Workgroup. In FY 2021, there was only one patient who developed a CLABSI.

To achieve our low rates and incident count, Shepherd Center has implemented many of the industry best practices to prevent CLABSI, found in the Institute for Healthcare Improvement (IHI) Central Line Bundle. We continue to problem solve around each individual CLABSI to improve our process.

**OUTCOMES FY 2021**

*Count of CLABSI by Year*

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2017</td>
<td>4</td>
<td>0.55</td>
</tr>
<tr>
<td>FY 2018</td>
<td>1</td>
<td>0.18</td>
</tr>
<tr>
<td>FY 2019</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>FY 2020</td>
<td>1</td>
<td>0.12</td>
</tr>
<tr>
<td>FY 2021</td>
<td>1</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Data Source: Review by Infection Preventionist and Infection Prevention Workgroup.
One of the more common harms is Catheter Associated Urinary Tract Infections (CAUTI). Reducing CAUTI has been a key focus for the Infection Prevention Workgroup since 2012. Recently, we’ve expanded the scope of this work to reduce all Urinary Tract Infections (UTI) in our patient population.

The FY 2021 focus of this work was to maintain established best practices while considering bladder program specific interventions. Some of the key work included:

- Evaluating the impact of the COVID-19 pandemic on UTI prevention and outcomes
- Exploring the Suprapubic Tube (SPT) infections to identify population specific interventions
- Analyzing trends in patients who have multiple UTIs during their inpatient stay

### OUTCOMES FY 2021

#### UTI Rate Across Bladder Programs

<table>
<thead>
<tr>
<th>BLADDER PROGRAM TYPE</th>
<th>COUNT</th>
<th>RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTI – Indwelling Catheter</td>
<td>34 Infections</td>
<td>3.33 /1,000 Foley Days</td>
</tr>
<tr>
<td>Symptomatic UTI – Suprapubic Catheter</td>
<td>16 Infections</td>
<td>2.50 /1,000 SPT Days</td>
</tr>
<tr>
<td>Symptomatic UTI – All Other Bladder Programs</td>
<td>107 Infections</td>
<td>3.69 /1,000 Other Patient Days</td>
</tr>
</tbody>
</table>

**Definition:** Non-CAUTI Symptomatic UTI is a urinary tract infection in a patient without a foley catheter, who has symptoms that align with the CDC definition for a CAUTI.

#### CAUTI Rate per 1,000 Foley Days

Data Source: Review by Infection Preventionist and Infection Prevention Workgroup.
Patient Safety

URINARY TRACT INFECTION (UTI)

FY 2021 Milestones: Driving Down UTI

2020

- April
  Confirmed 100% compliance to guidelines when reflexing a Urinalysis to Urine Culture

- May

- June
  Discontinued practice of switching between leg bags and bedside bags for Foley patients, to maintain a closed, sterile system

- August
  Presented an analysis of Recurrent UTI to Antimicrobial Stewardship Program

- September
  Discussions began around standardizing practices for care of SPTs

- October
  Established a Suprapubic Tube (SPT) Subgroup to problem solve around increase in SPT UTI's

- November
  Completed a thorough chart review for SPT patients with UTI to identify common risk factors

- December

2021

- January
  Updated culture sensitivity report in Epic to include Ertapenem to provide better information to physicians when choosing an antibiotic

- February

- May
  Provided in-services for Nurses and PCTs about care of Foley catheters, including proper use of Theraworx
Patient Safety

FALLS

Falls among the Shepherd Center patient population can occur due to the nature of their injury or illness. The Fall Prevention and Restraints Workgroup focuses on preventing falls by using a multidisciplinary approach to generate safe and effective practices for fall reduction. Through these efforts, we have maintained a fall rate per 1,000 patient days below 3.0 for the past 7 years.

In FY 2021, the fall rate was 2.13 per 1,000 patient days, including a total of 97 falls. Due to the support of Board of Directors in procuring new patient appropriate beds, there were ZERO falls associated with patients sliding out of beds.

Of note, external organizations, including CARF International, have offered praise including anecdotal comments that our center has the lowest rates of falls they have seen.

While the workgroup focused on maintaining gains from previous interventions, it also worked on the below new practices in FY 2021:

• Initiated strategy of narrowing down long-term trends to create effective fall prevention actions
• Extended the practice of applying Seat Belt Alarm throughout the entire stay for brain injury and stroke patients on CRU & SCI units

OUTCOMES FY 2021

Fall Rate per 1,000 Patient Days (all falls with & without injury)

Severity of Falls with Injury (per CMS Definition)

<table>
<thead>
<tr>
<th></th>
<th>FY 2020</th>
<th>FY 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Injury</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>(Includes bone fractures, joint dislocations, closed head injuries with altered consciousness, subdural hematoma)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injury (Except Major)</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>(Includes skin tears, abrasions, lacerations, superficial bruises, hematomas, and sprains; or any fall-related injury that causes the patient to complain of pain)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Source: Falls Prevention and Restraint Workgroup
Patient Safety

FALLS

FY 2021 Milestones: Driving Down Falls

2020

April

Piloted post-fall huddle process in ABI setting

May

Improved fall-risk identification and assessment in Epic

June

Made several modifications in Epic for easy and correct identification of patients with fall risk

July

Continued equipment checks and robust partnership with various departments including central supply, nursing, and therapy to prevent bathroom-related falls

September

Presented Shepherd Center’s efforts on “Telemonitoring Strategies for Fall Prevention” for 2020 GHA Award Winner “Power Hour” series

October

Created new documentation and communication methods in Epic for restraints after discharge, and educated nursing, therapy, and transition support staff

November

Spread of post-fall huddle practice to other units with area-specific modifications

2021

January

Installed emergency pull cord for bathroom at MS Rehab

February

March
Patient Safety

PRESSURE INJURY

Many Shepherd Center patients have a high risk of developing pressure injuries due to motor and sensory impairments, immobility, and changes in skin composition due to their injury. The Wound Prevention Workgroup strives to create effective and safe skin care practices to reduce the occurrence of these injuries.

We succeeded in maintaining the same level of skin care and wound prevention quality in FY 2021, despite the absence of patient’s family to provide skin care monitoring and support due to the COVID-19 pandemic.

We added an additional Wound Ostomy Continence Nurse (WOCN) to the Skin Department, and also incorporated physician representation in the Wound Prevention Workgroup.

In FY 2021, our actions focused mainly on skin program education for Patient Care Technicians (PCTs), skin champions, as well as education for patients and their families. Some key initiatives were:

• Ostomy education class developed and started for patients and families
• Skin champion program revamped with emphasis on clinical application
• Enhanced education initiatives by PCT educators for skin and wound education among new hires

OUTCOMES FY 2021

Hospital-Acquired Pressure Injuries (Rate per 1,000 Patient Days)

<table>
<thead>
<tr>
<th></th>
<th>FY 2020</th>
<th>FY 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3.35</td>
<td>3.51</td>
<td></td>
</tr>
</tbody>
</table>

77% OF WOUNDS THAT WERE PRESENT ON ADMISSION WERE HEALED BY DISCHARGE

160 HOSPITAL ACQUIRED PRESSURE INJURIES (HAPI)

Data Definition: Hospital Acquired Pressure Injury (HAPI) count is defined as number of all new or worsened pressure injury stage 1,2,3,4, deep tissue injury and unstageable during the entire length of inpatient stay

Data Sources: Epic and Review by WOCN and Wound Prevention Workgroup
Patient Safety

PRESSURE INJURY

FY 2021 Milestones: Driving Down Pressure Injury

2020

- Conducted E-Stim education for wound healing as an adjunct to increase wound healing times
- June
- Completed PDSA for “No ziptie no shoes” initiative and disseminated practices to all inpatient units, resulting in ZERO pressure injuries due to shoes after implementation
- July
- Replaced mattresses with 34 new specialty Air Immersion Mattresses for patients at high risk for skin breakdown
- Aug
- Introduced new bathing system (Easi Cleanse) for overall skin health, with positive response from staff and patients
- Sept
- Oct
- Nov
- Dec
- Completed education for night shift nurses and PCTs on positioning and turning in bed to prevent pressure injuries
- 2021
- Jan
- Feb
- Mar
- Increased frequency of wound prevention workgroup meeting to monthly from quarterly to enhance staff engagement and improve more timely review of harms
**Patient Safety**

**REHOSPITALIZATIONS**

In addition to infections and harms, another outcome that indicates quality of care is rehospitalizations. Shepherd Center captures patient rehospitalizations within 30 days of discharge through patient phone survey response data. This self-reporting method for collecting the data allows us to capture all patients who discharge to a community setting, not just the typical readmission metric which pertains exclusively to the Medicare and Medicaid population. This allows us to identify the cause of each rehospitalization and better prepare our patients to return home without requiring additional inpatient care.

In FY 2021, only 4.6% of our inpatients who were discharged to the community were admitted to a hospital within 30 days of their discharge from Shepherd Center.

**What distinguishes Shepherd Center:**
The Transition Support Program (TSP) is an integral part of our strategy to reduce rehospitalizations. TSP follows clients after discharge from Shepherd Center to support the patients as they transition home.

**Program Highlight: Life Skills Therapy**
Many survivors of brain and spinal cord injury need training and support in their own homes and communities to reach their maximum level of functioning. Shepherd’s Life Skills Training Program is designed to maximize an individual’s ability to function independently. Our goal is to help people with brain and spinal cord injuries achieve greater responsibility over many aspects of their lives.

---

**30-Day Rehospitalization Rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2020</td>
<td>5.1%</td>
</tr>
<tr>
<td>FY 2021</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

**Inpatient, Day Program, or Outpatient discharges followed by TSP**

**588 Clients Served by TSP in FY 2021**

**98% Client Satisfaction for “Would you recommend TSP”**

Data Sources: Patient Reported Outcomes via Phone Survey, Epic, TSP Customer Experience Survey
Patient Safety

REHOSPITALIZATIONS

FY 2021 Milestones: Driving Down Rehospitalizations

2020

Offered TSP to nearly 100% of inpatient discharges to ease the transition home during the COVID-19 pandemic (through September 2020)

Met with Nurse Educators and Case Managers to emphasize importance of bladder management supplies and urology consults upon discharge

Developed TSP scripts to target potential issues that commonly result in ER visits and hospitalizations

Identified and advocated for patients at highest risk for rehospitalization due to limited home health and respiratory resources (as a result of COVID-19 burdens)

Partnered with suppliers to ensure patients are receiving all needed home supplies

Redesigned the bladder class from Peer Support to educate patients on their expected needs at home

Provided telehealth appointments with providers in our Multi-Specialty clinic after discharge to patients without a neurologist or physiatrist near their home

2021

Improved method for assessing and recording patient’s preparation for care at home

Partnered with a Mobile Urgent Care provider to understand and provide care for our specialized patient population
Patient Safety

HOSPITAL SURVEY ON PATIENT SAFETY (HSOPS)

In October 2019, the Agency for Healthcare Research and Quality (AHRQ) released a revised version of the Hospital Survey on Patient Safety (HSOPS) after 15 years of widespread use.

AHRQ Comparative Databases have included over 2 million survey respondents across the United States. Internationally, the survey has been used across 93 countries in 40 different languages.

Based on feedback from participating hospitals and researchers, AHRQ revised the survey to be more concise and easier to understand, reducing the number of items to 40 questions comprised of 10 groupings among items. In addition, a “Not Applicable” or “Do Not Know” response was added to each question.

This new 2.0 version of the HSOPS survey was deployed to the Shepherd Center staff in July of 2020.

Overall, 587 staff members participated in the survey in FY 2021, exceeding our goal of 500 participants by 17%. Additionally, responses increased by 40% from 2018 when 351 staff members participated.

10 of 10 groupings scored above the AHRQ National HSOPS Benchmark ranging from 1.4% to 15.0% above.

Due to the changes in questions and groupings, no internal benchmark is available from previous year’s surveys.

FY 2021 Hospital Survey on Patient Safety (HSOPS) – Version 2.0
Percent Positive Responses Versus Overall Benchmark By 10 Groupings

<table>
<thead>
<tr>
<th>GROUPINGS</th>
<th>Shepherd Center % Positive Responses</th>
<th>National Benchmark % Positive Response</th>
<th>% Above National Overall Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Manager Support for Patient Safety</td>
<td>88.4%</td>
<td>81.0%</td>
<td>7.4%</td>
</tr>
<tr>
<td>2. Teamwork</td>
<td>86.1%</td>
<td>81.0%</td>
<td>5.1%</td>
</tr>
<tr>
<td>3. Management Support for Patient Safety</td>
<td>83.0%</td>
<td>68.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>4. Org Learning/Improvement</td>
<td>82.9%</td>
<td>72.0%</td>
<td>10.9%</td>
</tr>
<tr>
<td>5. Communication Openness</td>
<td>81.1%</td>
<td>76.0%</td>
<td>5.1%</td>
</tr>
<tr>
<td>6. Communication About Error</td>
<td>79.1%</td>
<td>68.0%</td>
<td>11.1%</td>
</tr>
<tr>
<td>7. Reporting Patient Safety Events</td>
<td>75.4%</td>
<td>74.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>8. Response to Error</td>
<td>72.6%</td>
<td>61.0%</td>
<td>11.6%</td>
</tr>
<tr>
<td>9. Staffing and Work Pace</td>
<td>70.1%</td>
<td>56.0%</td>
<td>14.1%</td>
</tr>
<tr>
<td>10. Handoffs and Information Exchange</td>
<td>64.5%</td>
<td>58.0%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Data Source: Hospital Survey on Patient Safety (HSOPS) Version 2.0 administered by Beterra, Inc. in July 2020
Patient Experience

INPATIENT

Patient Experience is another quality outcome assessed at Shepherd Center. These results come from a survey provided to patients and their families who received care as inpatients at Shepherd Center. The survey includes 20 questions covering 8 areas.

Results show respondents within the inpatient setting provide an Overall Rating of Care mean score that exceeds the National mean score.

Respondents from Shepherd Center also showed a higher mean score for the Likelihood of Recommending Facility compared to the National mean score.

Beyond these two high-level items within the Patient Experience survey, Shepherd Center has been focused on improving two additional key drivers during this time, respondent’s perception of Courtesy and Respect as well as Working as Team. Results show that these two areas have the highest potential to improve overall satisfaction with care.

Open-ended responses are also captured in the Patient Experience Survey. These comments, one shown here, can give the staff both encouragement and valuable feedback to further improve.

OUTCOMES FY 2021

Overall Rating of Care

<table>
<thead>
<tr>
<th>Shepherd Mean Score</th>
<th>Nation Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.4</td>
<td>96.3</td>
</tr>
</tbody>
</table>

Percentile Rank

92nd

Likelihood of Recommending Facility

<table>
<thead>
<tr>
<th>Shepherd Mean Score</th>
<th>Nation Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.3</td>
<td>97.6</td>
</tr>
</tbody>
</table>

Percentile Rank

96th

Note: Nation reflects Press Ganey’s “All Hospital Custom” benchmark for like facilities using the rehabilitation survey in FY 2021
Data Source: Press Ganey Inpatient Rehabilitation Hospital Survey

"Wonderful experience. My time at Shepherd Center elevated my recovery and prepared me well for the return to home. My entire team was wonderful and very skilled. Thank you!"

- SHEPHERD CENTER

INPATIENT PATIENT FEEDBACK

Wilma Bunch is the Vice President of Patient Experience

WILMA BUNCH

SHEPHERD CENTER QUALITY AND PATIENT SAFETY REPORT | FY 2021
PATIENT STORY

What distinguishes Shepherd Center:
A unique feature of Shepherd Center is its Intensive Care Unit (ICU) and ability to accept patients who are ventilator dependent. Reagan Martin is just one of the many patients who benefited from this aspect of the center’s uniqueness.

Born to be in water, Reagan loved swimming, even competitively. It wasn’t until she sustained a cervical fracture that her life changed forever. Initially, Regan was completely dependent on the ventilator and was not a candidate for the Diaphragm Pacing System (DPS) that is placed for patients to aid them in breathing on their own.

With closely integrated care from the Pulmonology team, improvements were made which eventually allowed for DPS placement and ultimately weaning from the ventilator. Reagan experienced the benefits of the multidisciplinary care team at Shepherd Center – not only focusing on her medical needs but also participating in necessary physical and occupational therapy including practicing slide board transfers in and out of bed and pushing longer distances in a manual wheelchair.

Near the end of her care at Shepherd Center, her team helped her realize another goal - being able to be in the water again. Thanks to the in-center pool, her therapists are assisted her from ‘I can’t to I can’.

More About Reagan’s Story
SCAN OR CLICK QR CODE BELOW
Patient Experience

OUTPATIENT

In addition to assessing Patient Experience outcomes in the inpatient setting, Patient Experience is also evaluated in the outpatient setting. While this survey is internal to Shepherd Center, the questions and groupings mirror the national survey utilized in the inpatient setting.

All outpatient settings assess the Likelihood of Recommending Facility, which shows favorable results across clinical outpatient areas. Our FY 2021 goal for all areas is to have a mean score of 95 or above.

Beyond Likelihood of Recommending Facility, each area uses the other questions in these surveys to assess performance and make improvements.

OUTCOMES FY 2021

“Everyone is always so kind; informative; and supportive! Thank you for your care!”

- SHEPHERD CENTER
OUTPATIENT PATIENT FEEDBACK

Data Source: Internally Administered Outpatient Customer Experience Surveys
Note: All Clinics/Outpatient Areas includes Transition Support Program shown on page 30
Patient Experience

PATIENT STORY

What distinguishes Shepherd Center:
Specialized areas within the outpatient setting, like the Complex Concussion Clinic (CCC), demonstrate the amazing quality offered to patients at Shepherd Center. Take the case of Jordyn Sak, 23, who experienced two mild concussions while competitive diving in college. After two and a half months of physical and occupational therapy, twice per week, Jordyn was another success story from Shepherd Center.

After patients sustain a concussion, it sometimes becomes difficult for patients to receive treatment through primary care avenues. That’s where the CCC comes in! Thanks to the specialized efforts and facilities within the CCC, Jordyn received unique treatment and therapies to cope with her symptoms of nausea, light and sound sensitivity, concentration difficulty, hearing challenges, headaches, and balancing problems.

Providing Jordyn the results from her tests really empowered her to understand the science behind her symptoms. She was able to understand and learn about her symptoms so she could reduce serious harm, like falls. Additionally, Jordyn has been able to take from her personal patient experiences and share her experiences with others both within Shepherd Center, through the SUCCESS program, and through other outside projects from her studies in Biomedical Engineering.

Her clinical outcome improvements, as well as her tremendous patient experience, highlight just one of many similar quality and safety success stories at Shepherd Center.

More About Jordyn’s Story
SCAN OR CLICK QR CODE BELOW TO READ THE SUMMER 2021 EDITION OF SPINAL COLUMN

Dr. Russell Gore, shown here evaluating a patient, is the Medical Director of the Complex Concussion Clinic.
Appendix

IRF FUNCTIONAL MEASURES FOR SELF CARE AND MOBILITY

In FY 2021, Shepherd Center began collecting functional data to align with the new functional measures from CMS. There are two Inpatient Rehabilitation Facility (IRF) Functional Measures presented in this document:

- Discharge Self Care
- Discharge Mobility

These measures represent the percent of patients who meet or exceed the risk adjusted expectation for discharge performance for either Self-Care or Mobility. The risk-adjustment model takes into consideration risk factors such as age, admission scores, diagnosis, level of functioning prior to injury or illness, comorbidities and more.

Exclusion Factors:
Patients are excluded from these measures if they are younger than 21 years old at admission, if they have complete tetraplegia, if they have an incomplete stay (<3 days, or discharged with a disposition of AMA, short-term general hospital, LTCH, inpatient psychiatric facility, or critical access hospital), or if the patient is discharged to hospice. For the mobility measures, if the patient was independent on all mobility measures at admission, they are also excluded.