# Introductions
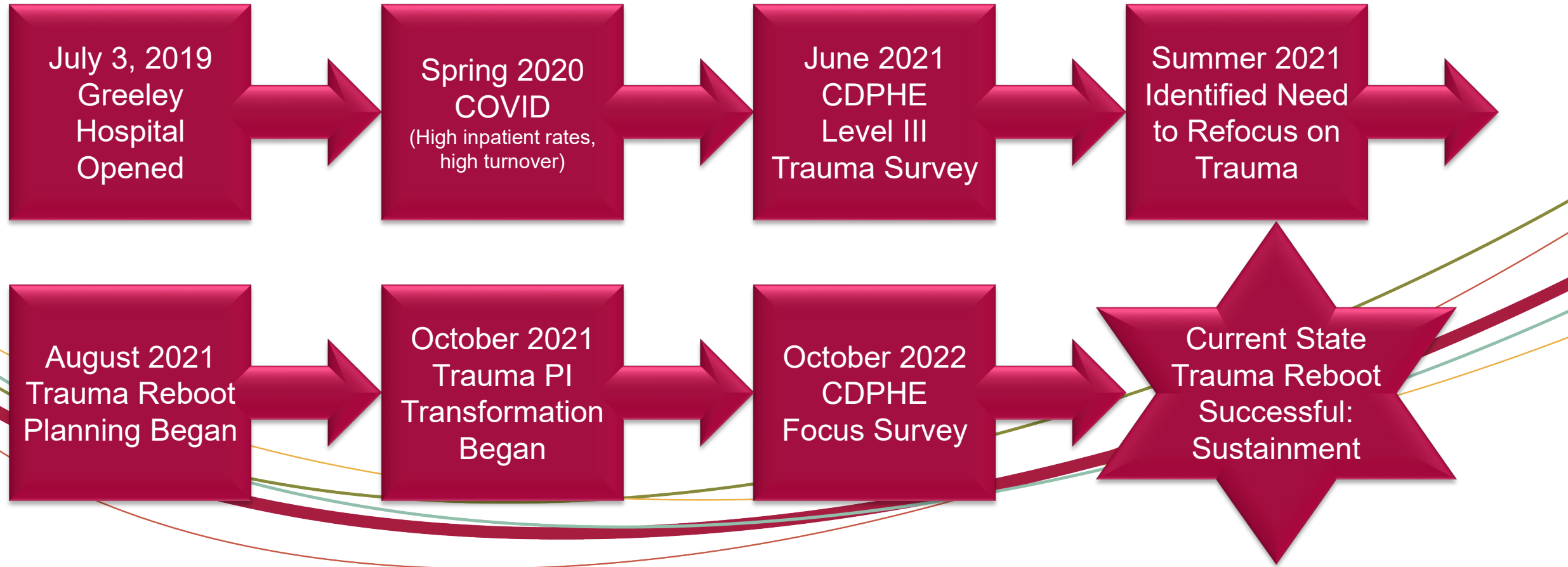
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Manager of Trauma Services

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Trauma Nurse Clinician

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# Greeley Hospital's Journey

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┌────────────────┐      ┌────────────────┐      ┌────────────────┐      ┌────────────────┐
│ July 3, 2019   │      │ Spring 2020    │      │ June 2021      │      │ Summer 2021    │
│ Greeley        │ ───▶ │ COVID          │ ───▶ │ CDPHE          │ ───▶ │ Identified Need│ ───▶
│ Hospital       │      │ (High inpatient│      │ Level III      │      │ to Refocus on  │
│ Opened         │      │ rates,         │      │ Trauma Survey  │      │ Trauma         │
│                │      │ high turnover) │      │                │      │                │
└────────────────┘      └────────────────┘      └────────────────┘      └────────────────┘

┌────────────────┐      ┌────────────────┐      ┌────────────────┐
│ August 2021    │      │ October 2021   │      │ October 2022   │      ✦ Current State
│ Trauma Reboot  │ ───▶ │ Trauma PI      │ ───▶ │ CDPHE          │ ───▶   Trauma Reboot
│ Planning Began │      │ Transformation │      │ Focus Survey   │        Successful:
│                │      │ Began          │      │                │        Sustainment
└────────────────┘      └────────────────┘      └────────────────┘
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# Trauma Patient Growth

## Trauma Volume by Fiscal Year
### (July - June)

**Up 41%**

| | FY20 | FY21 | FY22 |
|---|---|---|---|
| Total | 349 | 422 | 492 |

■FY20  ■FY21  ■FY22

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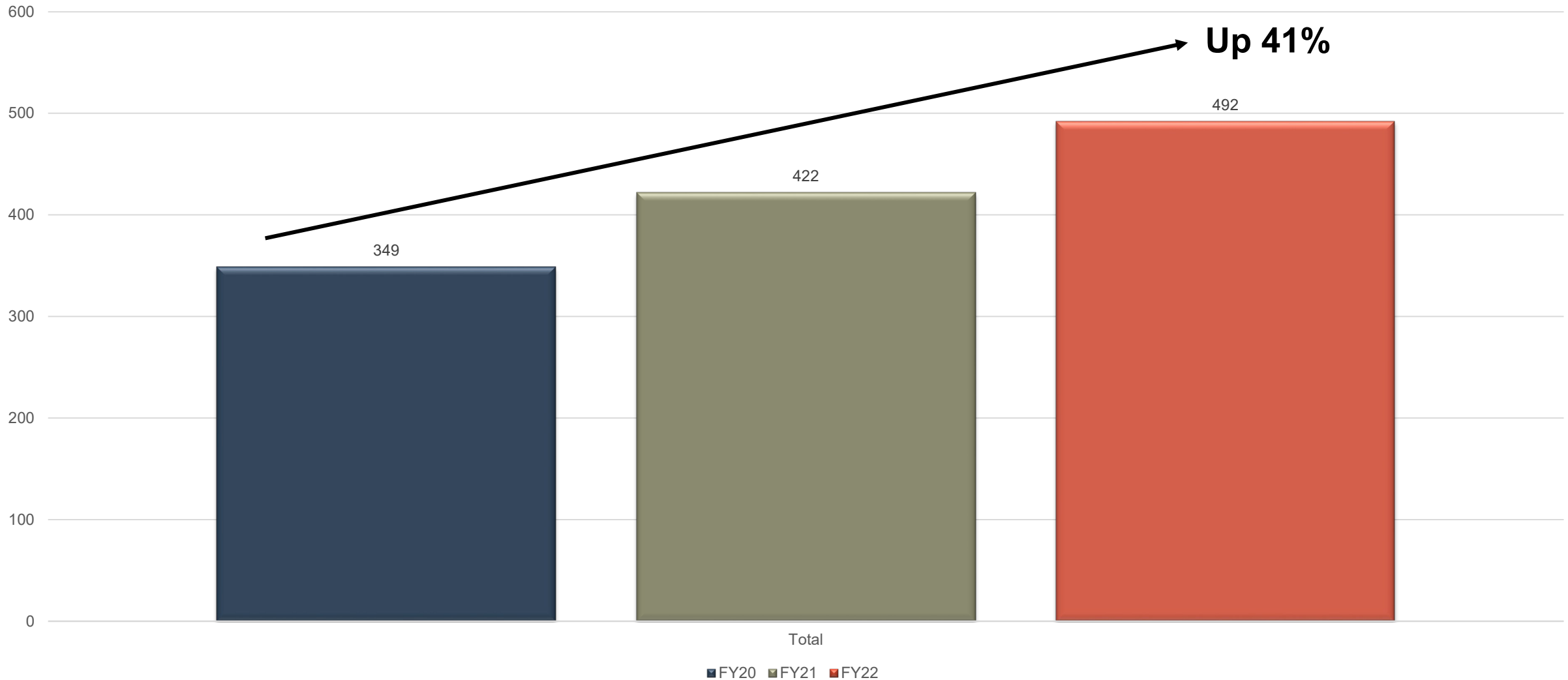
# Problem Statement:

The current trauma activation and response processes lack adherence to current protocols and standard work.

- Understanding roles & responsibilities

- Adherence to protocols & workflows

- Confidence

- Role confusion

- Patient safety

- Differing priorities

- Culture

- Foundational processes

Desired State:
Create a Culture of Trauma Excellence



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# The Plan

## Define roles, responsibilities and processes

- Process Mapping
- Education Plan
- Executive Coordination: Setting expectations

## Education

- Roll Out
- Microburst training
- Tier 1 Roles, responsibilities and room orientation
- Tier 2 Pre-huddle, room readiness and equipment
- Tier 3 First 5 minutes of trauma
- Tier 4 Mock trauma simulations and debriefing
- Ongoing Education Plan: Sustainment

## Data Collection

- Pre-survey
- Post-survey
- Post mock survey assessment

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# Trauma Bay Update

Before:

After:



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# Education Pearls

| | | |
|---|---|---|
| Leaders First; Walk the Walk! | Dynamic Role Changes | Equipment Gaps |
| Physician Partners | Culture of Trauma | Culture of Safety |
| Team Approach | Educational Components | Staff Incentives |

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# Knowledge Assessment Pre and Post Education



Before | After

PI Improvements

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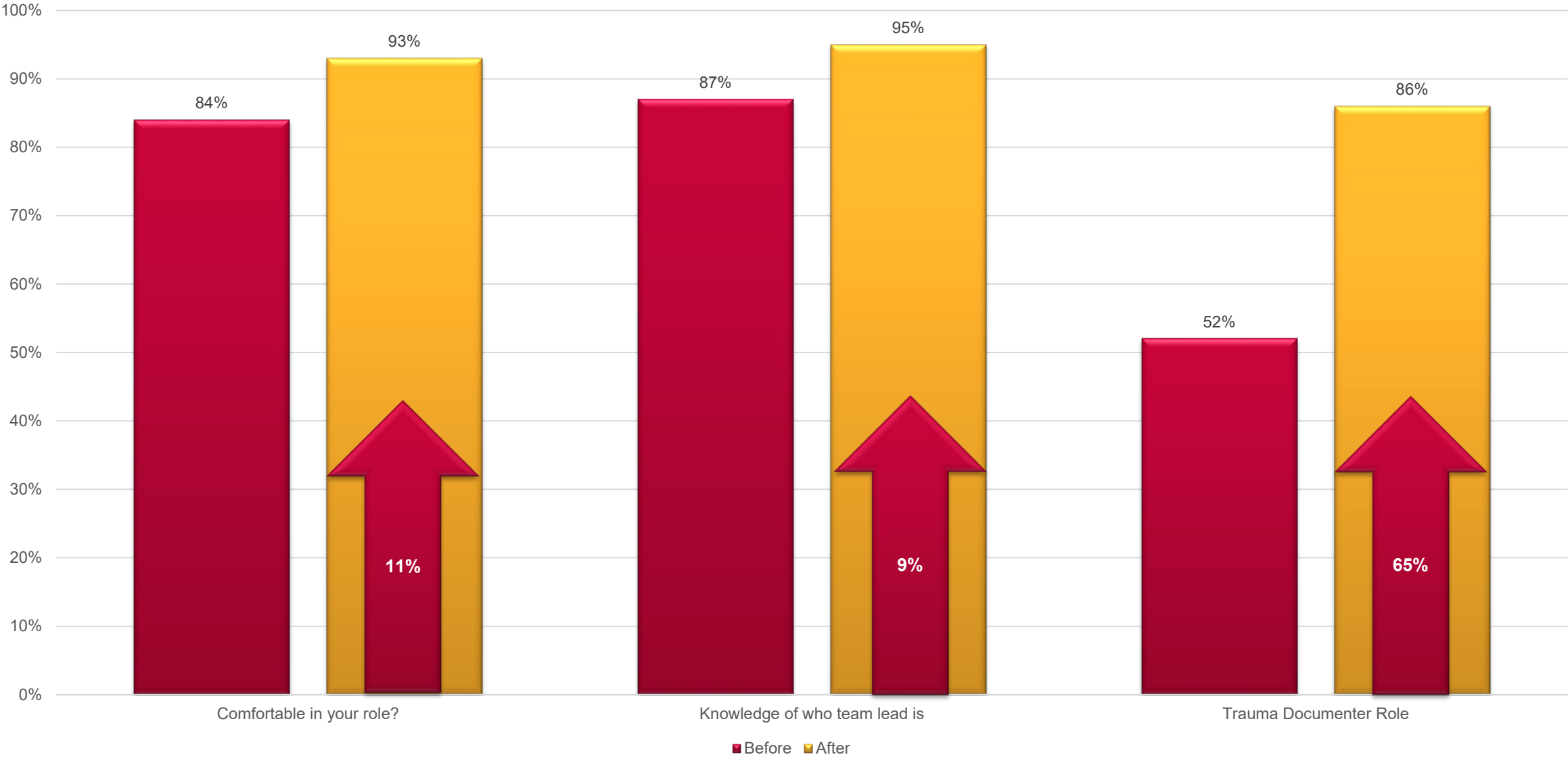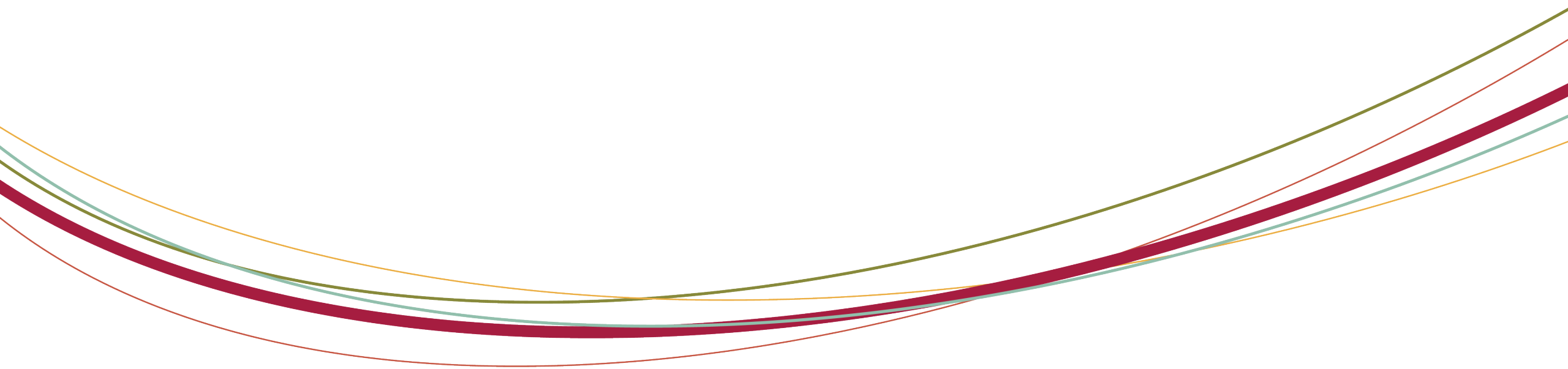
# Improvements

| | 2022 GH PI Dictionary | | | | |
|---|---|---|---|---|---|
| Benchmark Goal % | **CODE/AUDIT FILTER** Definition · criteria | Level of review *=needs timeline in narrative Who can close issue Event resolution justification | Issue description convention and standard verbiage Appropriate per policy/CPG/SOP OFI Identified | Level 2 To Do Actions Essential information to include in review narrative | Standard discussion verbiage Appropriate per policy/guideline/SOP Inappropriate/OFI/review details |
| 90% | **OPEN_FX** Open fracture Antibiotics & Tetanus Administered · Tetanus admin if appropriate? · Antibiotics within 1 hour of arrival | L1 - Compliant  TNC, TPM  L2 - Deviation  TMD  Standards of care met and CPG followed. | [date] Case details reviewed. Patient arrived at ***, antibiotics given at ***, and tetanus given at ***. Care consistent with current open fracture guideline. Care appropriate. No OFI. Closed.  Open fracture review. Case details reviewed. OFI identified. | · Brief pt description  · Injury details  · Treatment course and disposition  · Time to antibiotic  · Tetanus status | date] L1 review Case details reviewed. *Details* Refer to L2 for BSF review.  [date] *Details* Case details reviewed. Care not consistent with current Open fracture CPG. |

**O1** More specific PI filters

**O2** During annual review of filters determine which filters are helpful and delete resolved filters

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# Improvements



**O3** Quality document could include ICD 10 codes for validation of trauma patients

**O4** More vigorous PI and in depth chart review to explore opportunities to improve care across the continuum of care

# Improvements

**MR1** The trauma quality improvement plan shall address the entire spectrum of services, from **pre-hospital** to rehabilitative care, and ensure continuity of care to all admitted patients.



**Pre-Hospital Event Identification**

Level 1 reviews: TPM/TNC

Level 2 reviews: EMS Medical Director, Manager of EMS Clinical Quality, TMD, TPM, and TNC

Events Reviewed:

- Scene Time > 20 min for trauma activations

- C-collar Application per NEXUS

- High Risk, Low Frequency Procedures

- Standards of Care

- Over/Under Triage using Cribari and NFTI (STAT)

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# Pre-Hospital Reviews

## 43% Increase in Pre-Hospital Level 2 Meetings
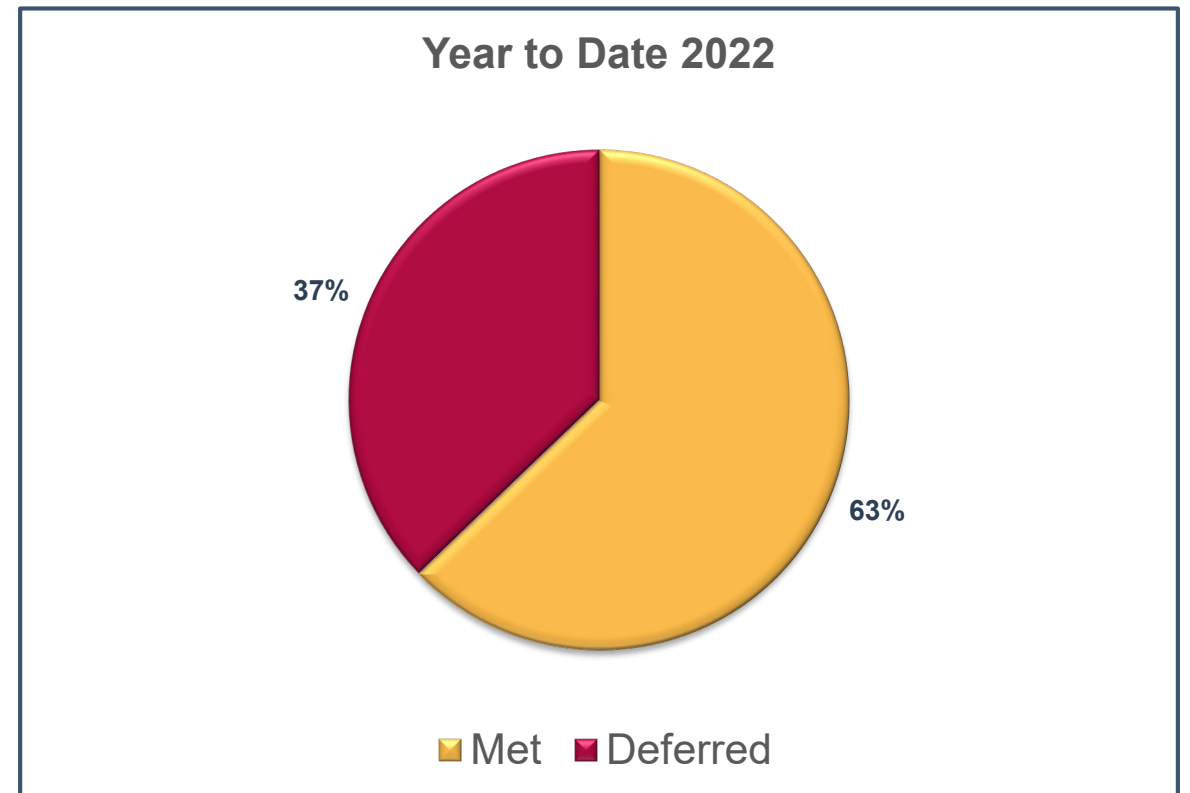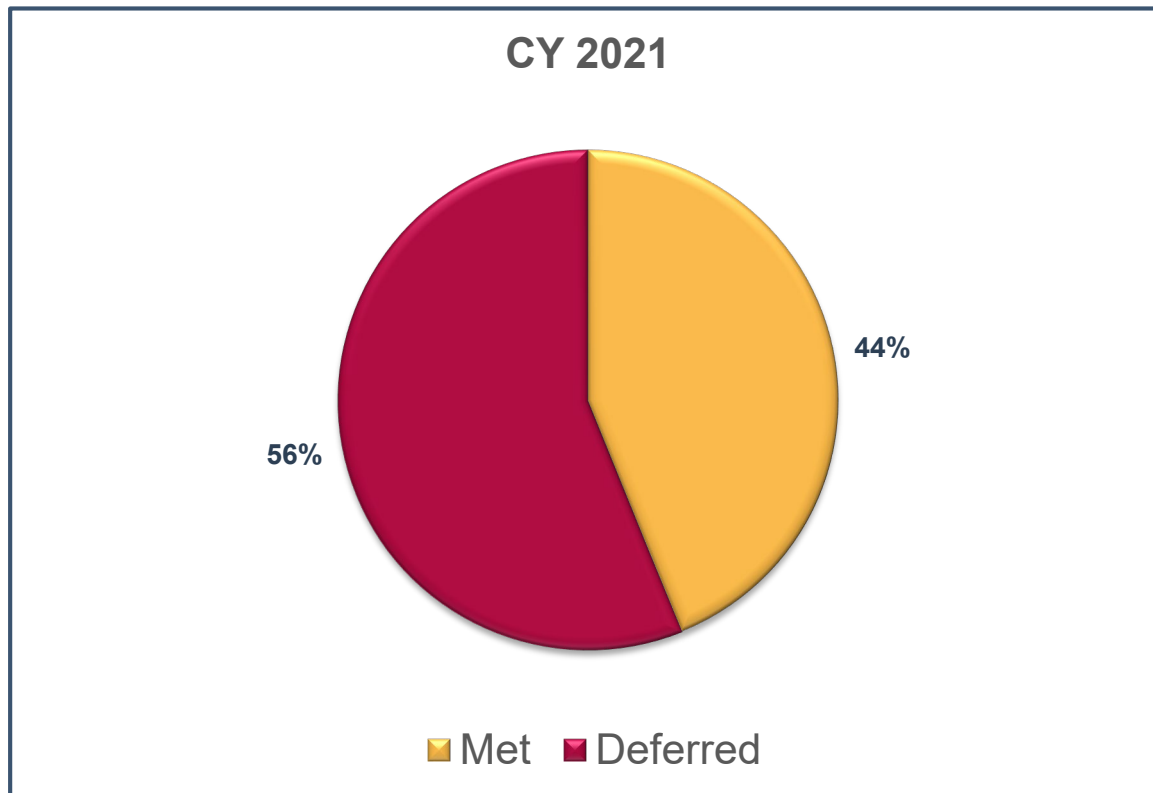
**CY 2021**

56%  44%

Met  Deferred

**Year to Date 2022**

37%  63%

Met  Deferred

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# Improvements Continued

**MR1** The trauma quality improvement plan shall address the entire spectrum of services, from pre-hospital to **rehabilitative care**, and ensure continuity of care to all admitted patients.



Definition in PI Dictionary: Review on all patients with LOS > 24 hrs.

Jan 2022 – current
Physical Therapy Event Identification Process

Compliance:

**Yes**: Patient receives PT consult within 24 hours and PT evaluates within 24 hours of order.

**Close at Level 1**

**No**: One or both from above not completed.

**Refer to Level 2**

**Acceptable Deviation**: Deviation in consult or order related to patient status (i.e. medically unstable for therapeutic evaluation)

**Refer to Level 2**

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# Reporting

Compliance captured in registry as of Jan 22
Exported monthly to PowerBI Dashboard
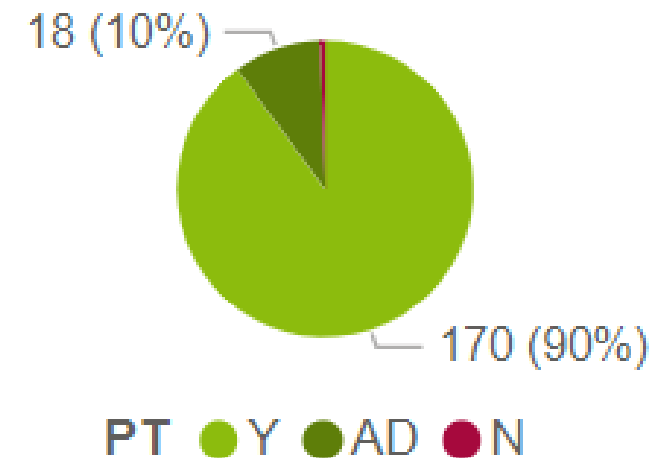
Benchmark Goal: 80%

Reported at Peer Monthly

- Manager of Rehab Services attends TOC and reports relevant information impacting care of patients.

- 100% of identified events of a delay in evaluation is reviewed by the Manager of Rehab Services.

**Jan – Oct 2022**

## 99%
### PT Compliance

18 (10%)

170 (90%)

PT ● Y ● AD ● N

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# Improvements Continued

**MR1** The trauma quality improvement plan shall address the entire spectrum of services, from pre-hospital to rehabilitative care, and ensure **continuity of care to all admitted patients.**
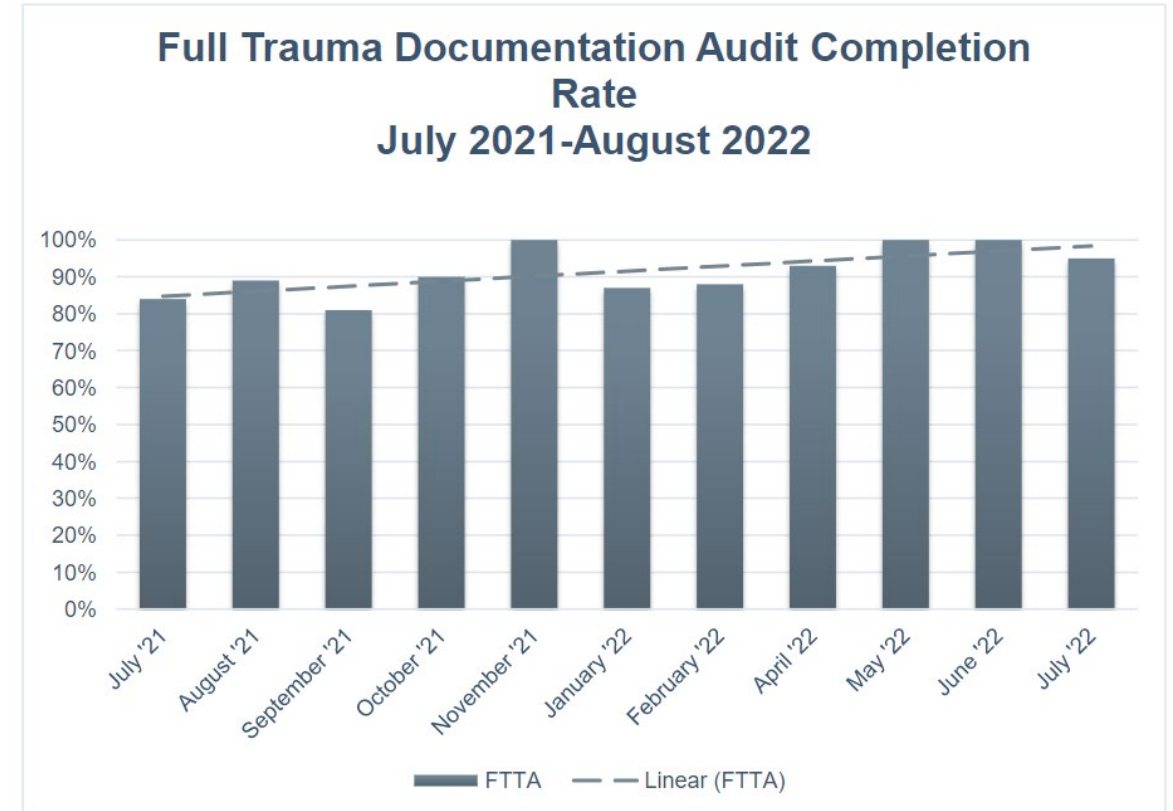
TNC Concurrent Review Process

- Standards of Care / CPG Compliance
- Policy Adherence
- Audit C (SBIRT) Completion
- Trauma Activation Nursing Documentation



**Rolling 12 Months Audit C Completion Rates: State Inclusion Patients**
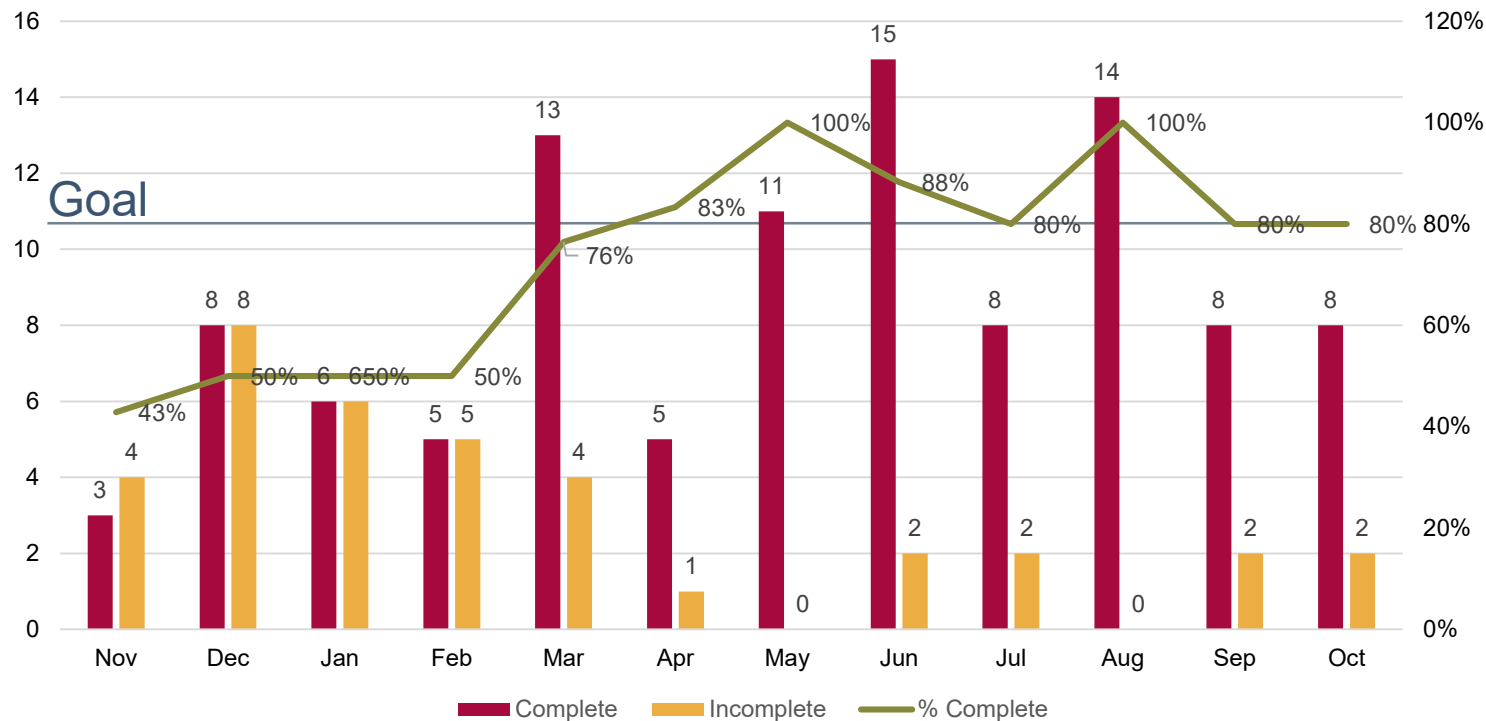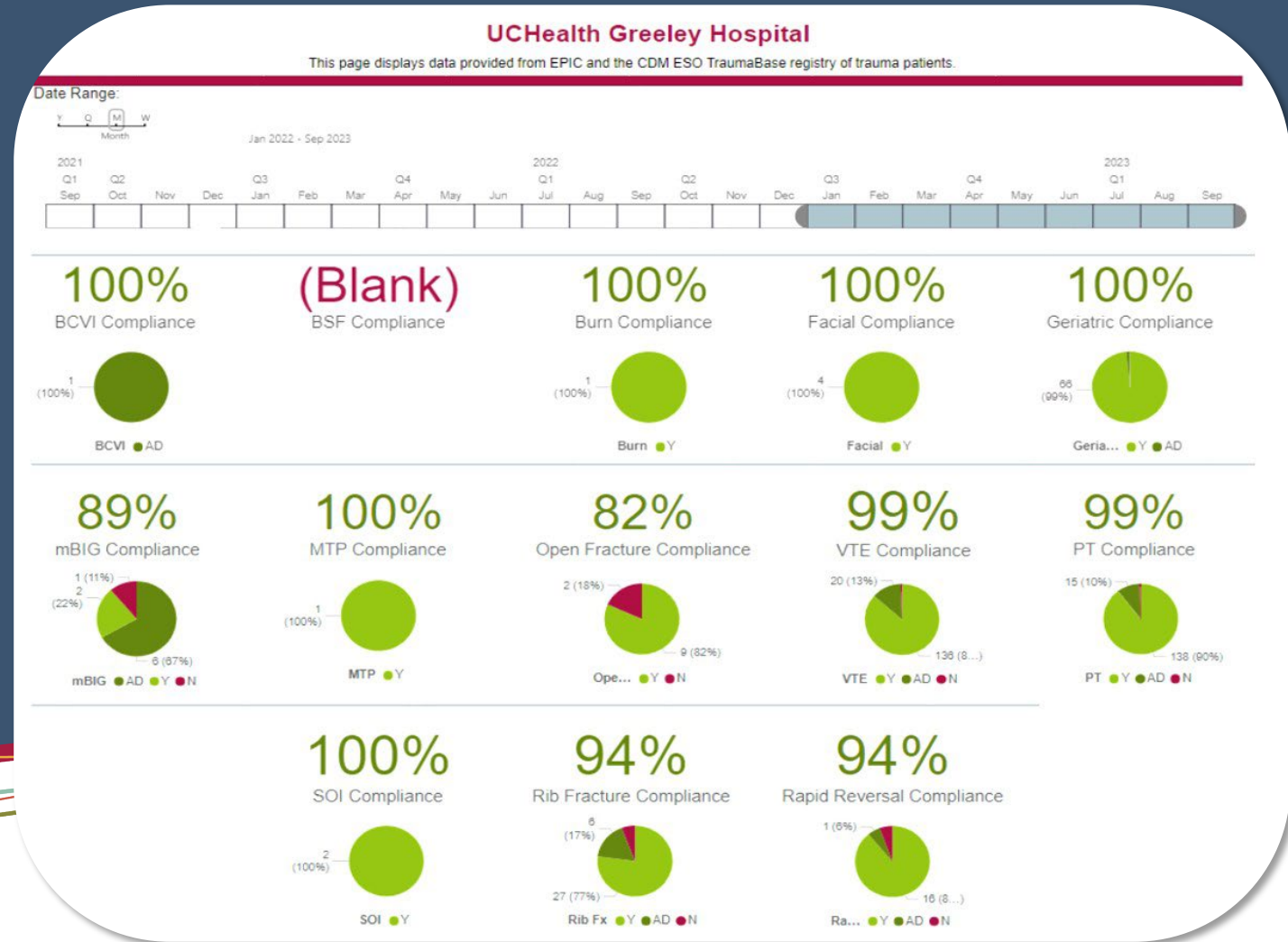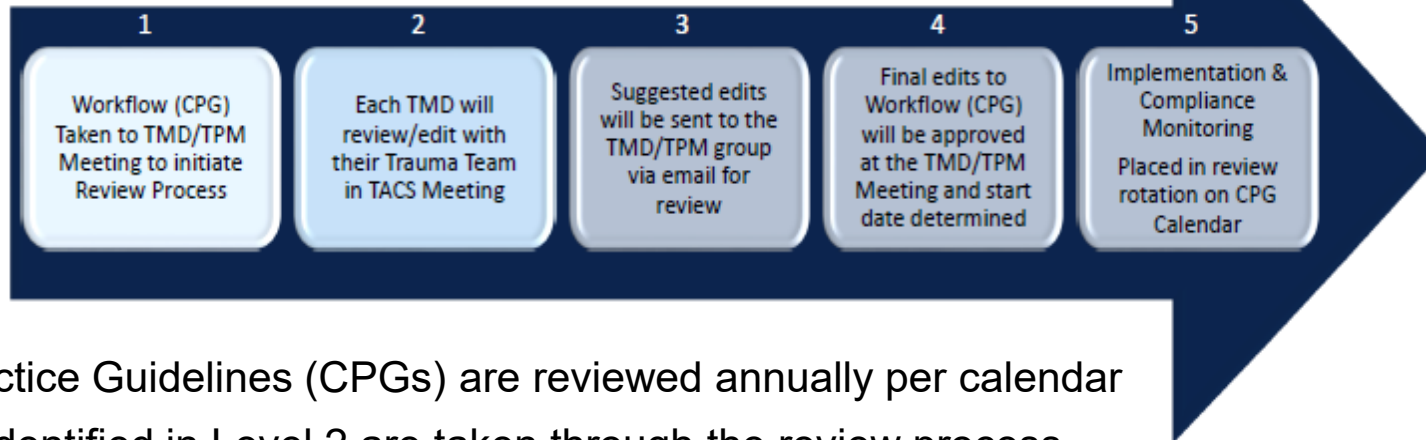
# Trauma Documentation Audits
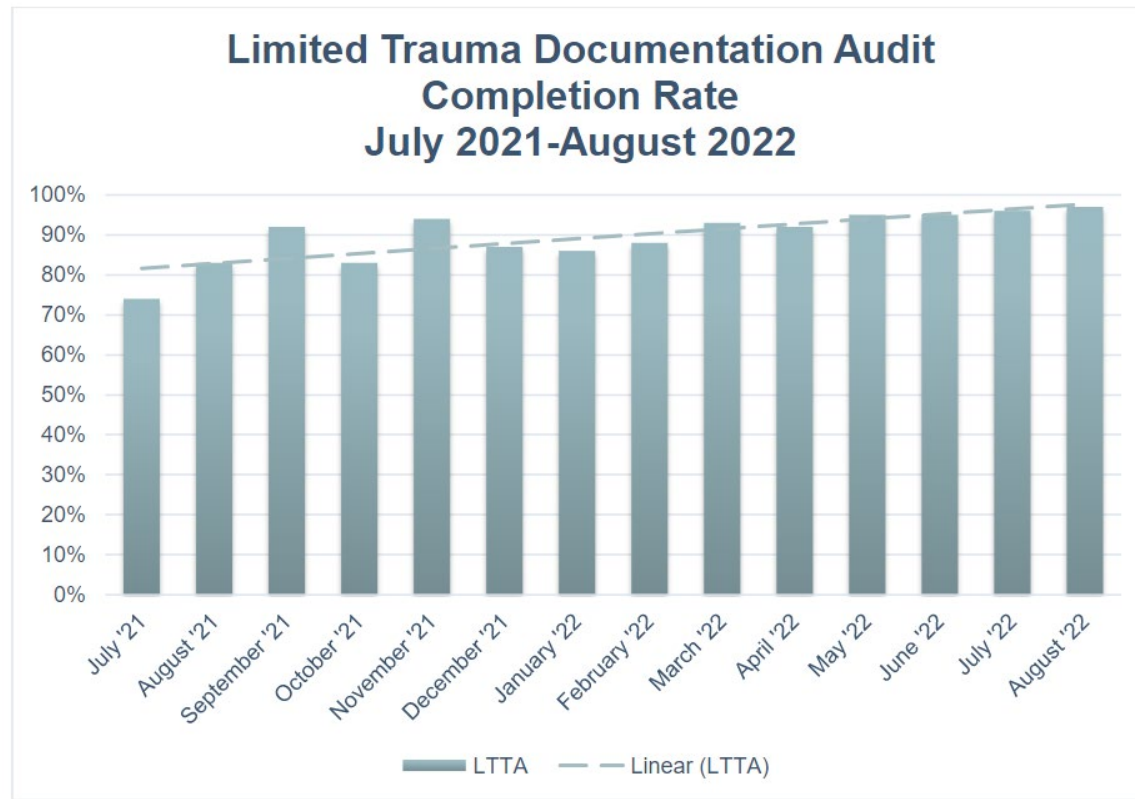
# Improvements

**MR2** Trauma Multidisciplinary Committee- Maintains facility-defined specialty care filters based on the written scope of care and nationally recognized best practice guidelines.

# Clinical Practice Guideline Compliance



| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Workflow (CPG) Taken to TMD/TPM Meeting to initiate Review Process | Each TMD will review/edit with their Trauma Team in TACS Meeting | Suggested edits will be sent to the TMD/TPM group via email for review | Final edits to Workflow (CPG) will be approved at the TMD/TPM Meeting and start date determined | Implementation & Compliance Monitoring<br><br>Placed in review rotation on CPG Calendar |

- All Clinical Practice Guidelines (CPGs) are reviewed annually per calendar
- Opportunities identified in Level 2 are taken through the review process
- Regional TMD review provides Level I Trauma Center resources for current evidence based practices
- Nationally Recognized Best Practice Guidelines are referenced
- All guidelines are reviewed to ensure scope of care and state trauma regulations are followed

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# Improvements



**MR3** Trauma Peer Review Committee- Review any events that deviate from an anticipated outcome.

100% Review of All Registry Patients; Not Just Inclusion Patients

Non Accidental Trauma PI Initiative

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# Improvements

**Reporting and Trending of Audit Filters**

**MR4** Demonstrate accountability by- Development and implementation of on-going reporting and trending of facility-specific audit filters.

- Reporting calendar developed for Peer and TOC

- Benchmarks defined in PI Dictionary

- Audit Filters reviewed annually

- PI Dictionary Change Log trends definitions and retirement of specific filters

## FY23 Peer Slides: Report Calendar

| Topic | Month # |
|---|---|
| Title | All |
| On-Line Housekeeping | All |
| Confidentiality Notice | All |
| Ground Rules | All |
| Summary of Cases Reviewed: Aggregate | All |
| Just Culture Algorithm | All |
| Progressive Steps Continuum | All |
| Case Reviews | All |
| Consent Agenda | All |
| Peer - Opportunities for Improvement | All |
| Trauma Pearls | All |
| Attendance | All |
| Admission Volume (include Direct) | All |
| Focus Group Updates | All |
| Pediatric Population Drill Down | 2, 8 |
| mBIG Aggregate | All |
| Neurosurgery Consultations | All |
| Non-Surgical Admission & Consultation Rate | All |
| Non-Surgical Scoring Tool Adjust Rate | All |
| Non-Surgical Drilldown (No readmissions; state inclusions) | All |
| CPG Dashboard: | All |
| BCVI | |
| BSF | |
| Burn | |
| Facial | |
| Geriatric Workflow | |
| mBIG | |
| MTP | |
| Open Fractures | |
| VTE | |
| PT Compliance | |
| Obstretric Trauma | |
| SOI | |
| Rib Fractures | |
| Rapid Reversal | |
| MD Response Times | 1, 4, 7, 10 |
| ED Length of Stay & Disposition | 3, 6, 9, 12 |
| EMS overview (EMS Focus Group too) | 5, 10 |
| CPG Updates | PRN |
| FAST | 1, 4, 7, 10 |
| Exploratory Laparotomies | 7 |
| Missed/Delayed Diagnoses | 2, 5, 8, 11 |
| Hospital Events | 6, 12 |
| Rate of Mortality | 1, 4, 7, 10 |
| Inpatient Transfers | 2, 7 |
| Next Meeting | All |
| Links for Just Culture Slides | All |

## FY23 TOC Slides: Report Calendar

| Topic | Month # |
|---|---|
| Title | All |
| On-Line Housekeeping | All |
| Welcome & Announcements | All |
| Regional Executive Updates | All |
| Greeley Executive Updates | All |
| Old Business | All |
| System Process Reviews | All |
| Injury Prevention | 3, 6, 9, 12 |
| Blood Bank | 1, 4, 7, 10 |
| Research | 2, 5, 8, 11 |
| Education & Outreach | All |
| EMS Update | TBD |
| Trauma Reports | |
| Attendance | All |
| Registry Volume | All |
| Inclusion Volume | All |
| Admission Volume | All |
| Trauma Team Activation | All |
| Peds | 3, 8 |
| Over/Under Triage | 2, 5, 8, 11 |
| mBIG aggregate | 2, 5, 8, 11 |
| PT | 3, 6, 9, 12 |
| MTP | 7 |
| OR Delay | 7 |
| Audit C | All |
| Divert | 9 |
| Organ Donation | 7 |
| Transfers In | 7 |
| Transfers Out Location & Specialty for month | |
| Trauma Transfers Out Location & Specialty year | All |
| Operational Opportunities for Improvement | 2, 5, 8, 11 |
| New Business | All |
| Guideline Updates | All |
| 60 Second Updates | All |
| Next Meeting | All |

# Focus Survey - October 2022

Strengths: 12

Opportunities: 3

Met with Reservations: 0

Strength Highlights:

- The culture and attitudes among staff are positive and mission driven.

- The performance improvement process is a strength. It is reliable and repeatable and not dependent on a particular member.

- The facility turned previous weaknesses and deficiencies into strengths by addressing previous review deficiencies through a comprehensive project that resulted in a reorganization of the whole trauma program through he "Reboot" project. The intent was not to fix deficiencies that were found. The focus was to truly identify all issues to ensure a sustainable and high-quality platform moving forward.

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# Questions?

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# Thank You