Performance Improvement Committee

Statewide Trauma Advisory Council

Wednesday, March 6, 2024

WISCONSIN DEPARTMENT *of* HEALTH SERVICES

Division of Public Health

Acronyms

- GCS: Glasgow coma scale
- PHI: Protected health information
- PI: Performance improvement
- PIPS: Performance improvement and patient safety
- TOPIC: Trauma Outcomes and Performance Improvement Course

Agenda

- Call to Order and Introductions
- Review and approve December 2023 meeting minutes
- Pediatric Audit Filters
- Feedback Letter
- Poll for PI assistance
- TOPIC Poll

Agenda

- Regional PI Process Guideline Evaluation
- Adult PI dashboard review
- Public comment related to the Wisconsin Trauma Care System

Committee Members

- **Chair:** Thomas Bergmann, Aurora BayCare Hospital, Region 3, Level II
- **Vice Chair:** Kristin Braun, Children's Wisconsin, Region 7, Level I
- Committee Members:
  - **Ali Heiman**, Aurora Oshkosh, Region 6, Level III
  - **Tracy Schaetzl**, UnityPoint Health Meriter, Region 5, Level IV
  - **Thomas Ellison**, UW Health, Region 5, Level I

Approval of Minutes

Pediatric Audit Filters

Criteria

- 2(p):The TCF’s trauma PIPS program must have audit filters to review and improve pediatric and adult patient care

Evidence

- Kissoon N, Tepas JJ 3rd, Peterson RJ, Pieper P, Gayle MO. **The evaluation of pediatric trauma care using audit filters**. Pediatr Emerg Care. 1996 Aug;12(4):272-6. doi: 10.1097/00006565-199608000-00009. PMID: 8858651.
- Nakayama DK, Gardner MJ, Waggoner T. **Audit filters in quality assurance in pediatric trauma care**. J Pediatr Surg. 1993 Jan;28(1):19-25. doi: 10.1016/s0022-3468(05)80347-1. PMID: 8429465.
- Copes WS, Staz CF, Konvolinka CW, Sacco WJ. American College of Surgeons **audit filters: associations with patient outcome and resource utilization.** J Trauma. 1995 Mar;38(3):432-8. doi: 10.1097/00005373-199503000-00027. PMID: 7897733.

Society of Trauma Nurses

- Weight documented on arrival
- Appropriate fluid resuscitation of child with signs of shock, 20cc/kg bolus x2 followed by blood administration
- GCS documented on arrival and at least Q1 hour with head injury
- Child abuse screen for all injured children with suspicious injury or history

Society of Trauma Nurses

- Appropriate IV/IO access with appropriate fluid resuscitation including maintenance IV fluids
- Clear documentation of splenic or liver injury grade with clear documentation of plan of care, operative versus non-operative
- Emergent operative intervention required for any expected non-operative care (spleen, head . . .)
- Over- and undertriage

ImageTrend Filters

- Pediatrician not consulted within 48 hours <13yrs
- Pediatric trauma case
- Pediatric transferred to non-pediatric trauma center
- ATMD-Adult trauma MD cared for peds patient (0-14)

State Imaging Guideline

State of Wisconsin
Pediatric Imaging Guidelines
for Blunt Trauma

(This guideline is not meant for Child Abuse Investigation)

Consider Head CT
(PECARN Data)

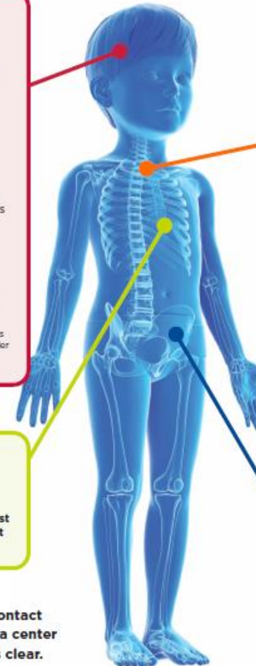
Less than 2 yrs:
- Altered mental status, GCS 14
- Loss of consciousness > 5 sec.
- Non-frontal scalp hematoma
- Palpable skull fracture
- Non-normal behavior according to family
- Severe mechanism of injury*

2 yrs and older:
- Altered mental status, GCS 14
- History of loss of consciousness
- Vomiting
- Signs of basilar skull fracture
- Severe headache
- Severe mechanism of injury*

Severe mechanism of injury defined as:
- MVC with rollover or passenger ejection
- Pedestrian or bicyclist without helmet struck by motor vehicle
- Fall greater than 3 feet for less than 2 yrs old, greater than 5 feet for 2 yrs and older
- Head struck by high-impact object (e.g., baseball, golf club)

Consider Chest X-ray
- Obtain a chest X-ray

If concern for cardiothoracic trauma and/or an abnormal chest radiograph, contact your closest pediatric trauma center.



Consider Cervical Spine

Less than 3 yrs:
- Obtain plain cervical spine X-rays (anterior/posterior and lateral views)

3 yrs and older:
- Obtain plain cervical spine X-rays (anterior/posterior, lateral and odontoid views)

If concerns, keep in cervical collar and contact your closest pediatric trauma center.

Consider Abdomen/Pelvis CT

If unable to obtain IV access for contrast, please contact closest pediatric trauma center.

Imaging: Positive FAST in hemodynamic stable patients

Labs: Increased AST/ALT>200/125

Physical Findings:
- Abdominal wall bruising/seat belt sign
- Abdominal tenderness/pain/concern for peritonitis
- Thoracic wall trauma
- Vomiting
- Hematuria

If there is concern for a collecting system injury, please obtain a 5-min. delay images.

Please avoid the pan scan, contact your nearest pediatric trauma center prior to imaging if transfer is clear.

marshfield children's hospital

Children's Wisconsin

UWHealthKids
American Family Children's Hospital

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Cumberland Healthcare Example

- Amazing work!
- Thank you Rebecca Ekenstedt from Cumberland Healthcare for sharing

PEDIATRIC AUDIT FORM

Confidential – Peer Review Protected

Prepared for Purpose of Peer Review in Quality Assurance Activity

Date: ____________________ Age: _________ M or F

Name: ____

MR #: ______________________ Account #: ______________ Trauma Log #: ____________

ER Provider: ____________________________ Surgeon: ______________________________

Identified Injuries: ____

____

Arrival Time: _________ Disposition Time: __________ Total Time in ED: __________ Admit to unit time: __________

Disposition: DC Home Death Admit: ICU, Med/Surg, OR, OB, Other______ Transfer to: ________________

CRITERIA MET	Met	Not Met	NA
Missed intubation (more than one attempt to place endotracheal tube)			
Unplanned extubation (Unintentional extubation by patient or provider)			
Extubation within 24 hours of RSI (excluding operative procedures)			
Hypocapnia and/or hypercapnia			
Resuscitation volume problems (Infusion of more than 50 ml/kg during the first 2 hours in child with normal VS)			
Appropriate fluid resuscitation of child with signs of shock (20cc/kg bolus x2 followed by blood administration)			
Vascular access problems (Any acquisition of vascular access that takes longer than 5 minutes to accomplish, especially if intraosseous infusion is not used)			
Unplanned operation following non-operative management (Any operation for control of hemorrhage in a patient being managed non-operatively)			
Nosocomial pneumonia			
Missed injury (Any injury related to the initial traumatic event diagnosed more than 24 hours after admission)			
Child abuse screen for all injured children with suspicious injury/history			

For questions

- Pediatric Trauma Centers: we want to help!!!

Feedback Letters

Feedback Letters

- Discussion items provided to level I and II facilities
- For further discussion, reach out to the level I and II facilities directly
- If you need a contact, reach out to DHSTrauma@dhs.wisconsin.gov
  - Do not provide any PHI

Poll for PI Assistance

What area of PI would you like additional education on?

- Event identification
- Audit filters
- Multidisciplinary committee
- Pre-hospital
- Inpatient
- Action plans
- Loop closure
- Written PIPS plan

TOPIC Poll

Is there a need for TOPIC?

- Yes, traditional course
- Yes, rural course
- Yes, either course
- No

Regional PI Process Guideline Evaluation

Current Plan

- Regional Performance Improvement Process Guideline 2021 Review

Revision

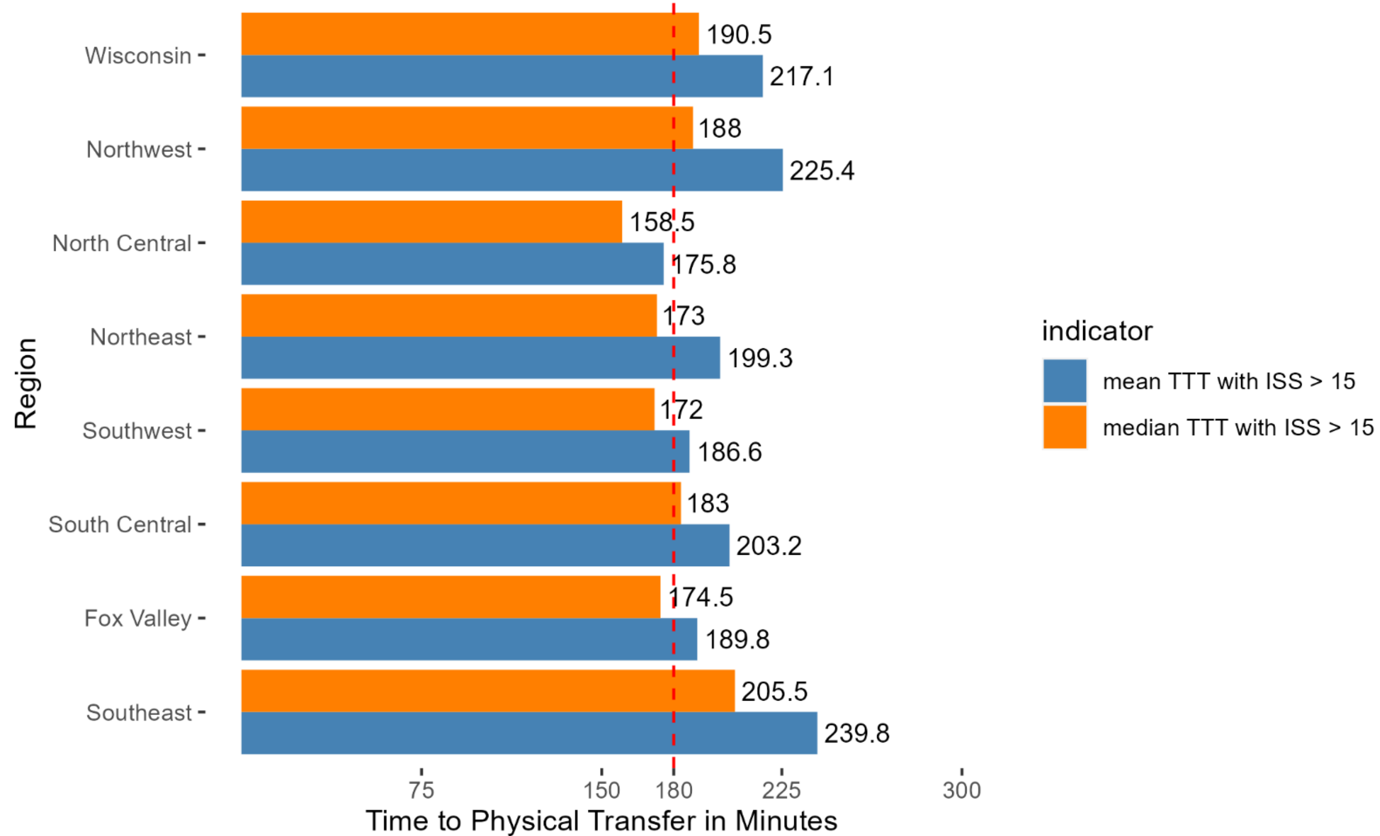
- Call out for workgroup members
- Goal to have a revised draft to present at the June 2024 meeting
- Any additional feedback can be sent the DHSTrauma@dhs.wisconsin.gov

Adult PI Dashboard Review

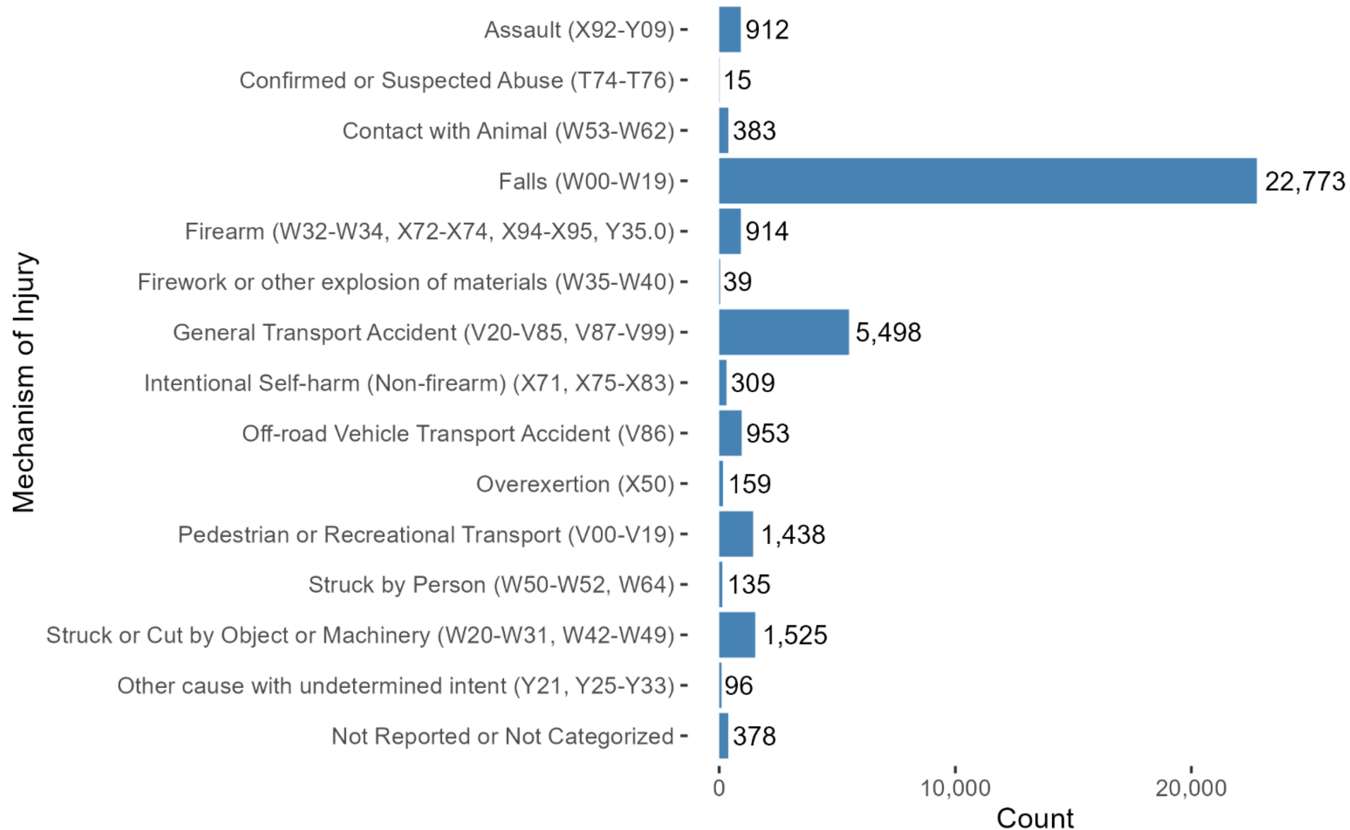
Data details

- Includes data with incidents dates occurring in 2023
- Data was pulled 2/7/2023, late submissions from December may not be included in these numbers
- Only injuries meeting the inclusion criteria were included

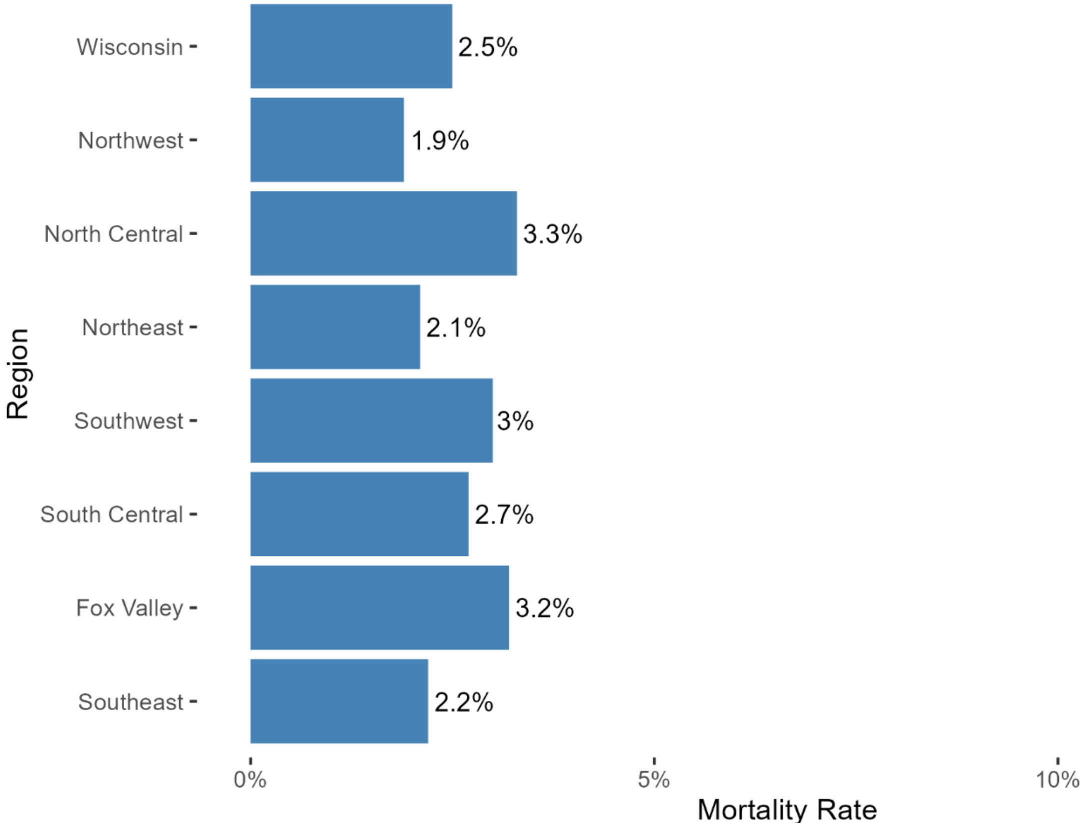
Time to Transfer by Region 2023



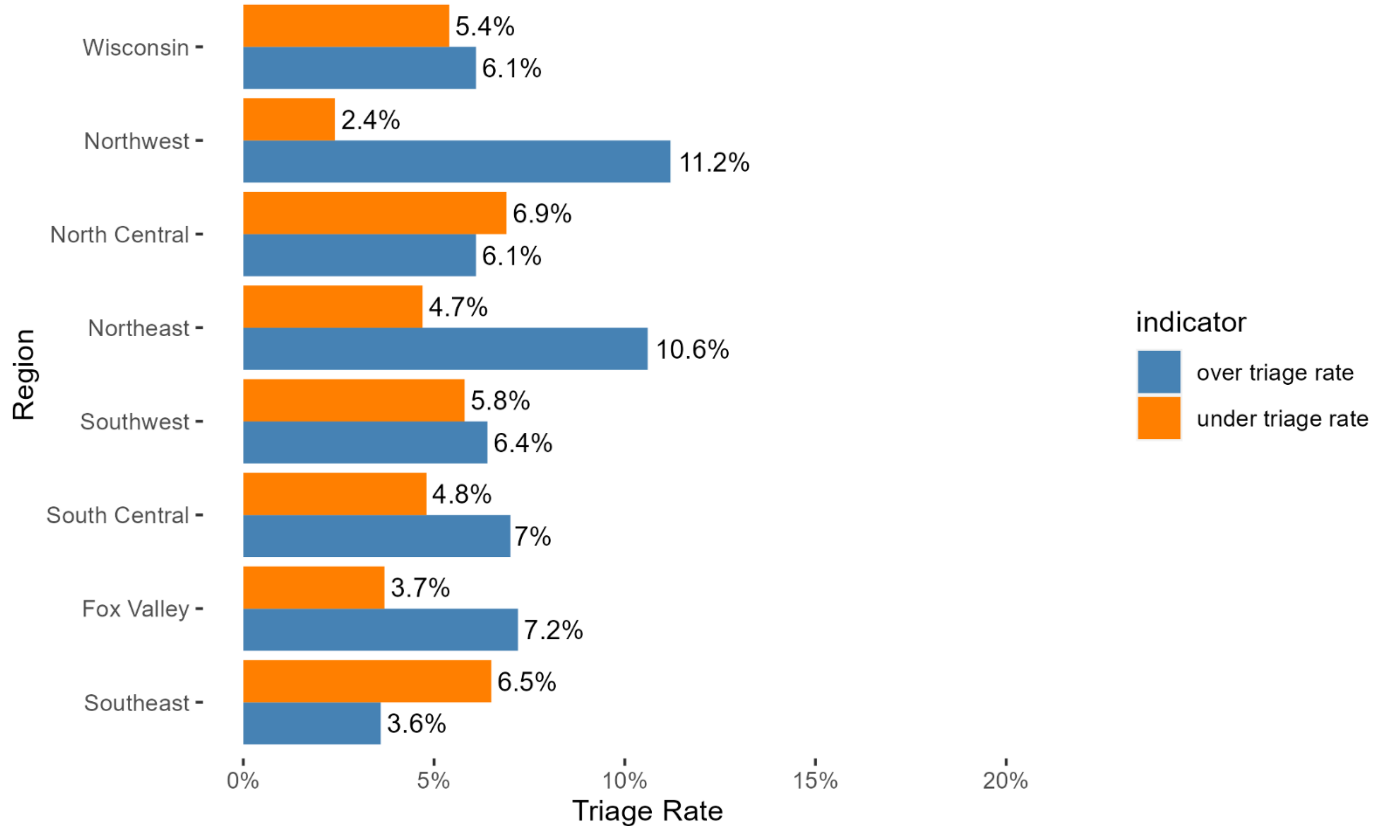
Mechanism of Injury 2023



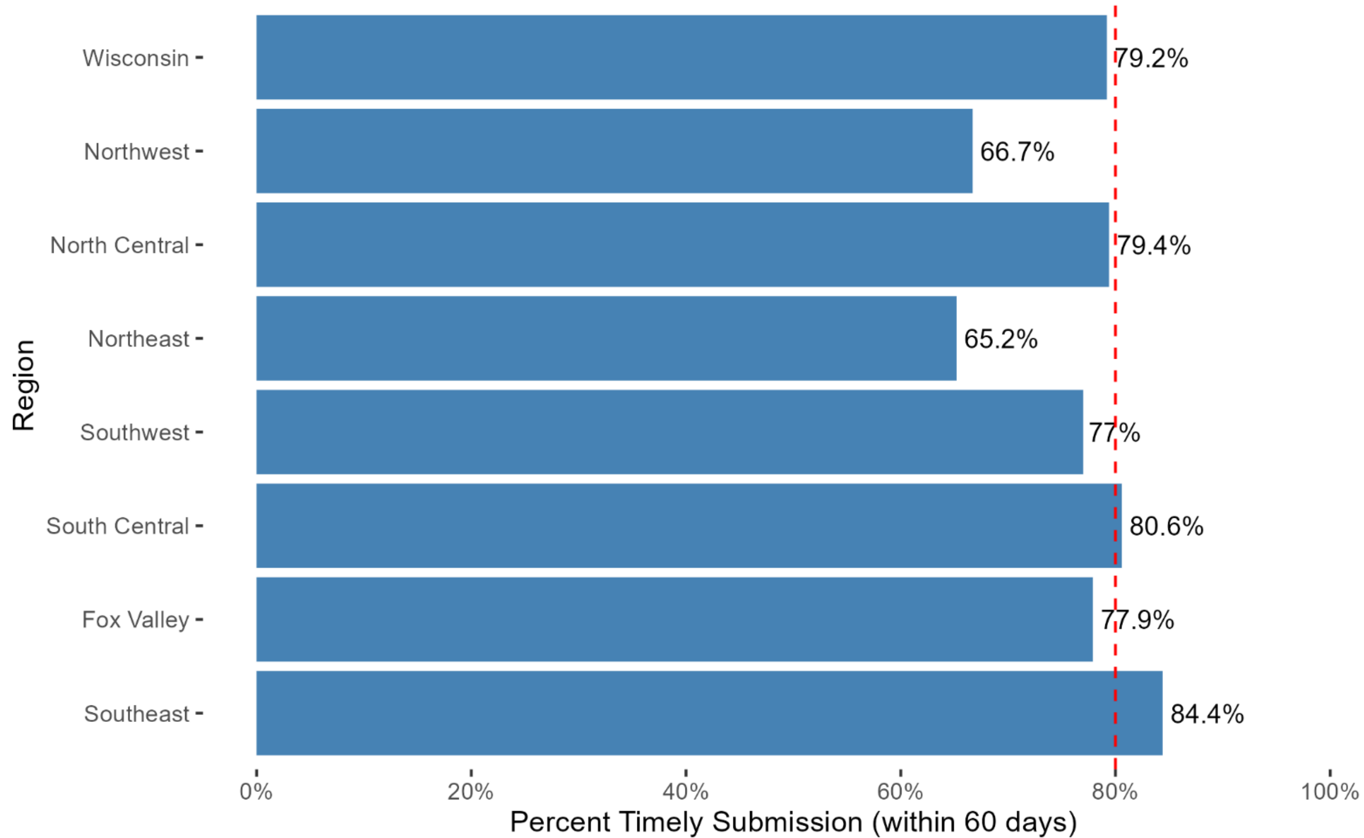
Mortality Rate by Region 2023



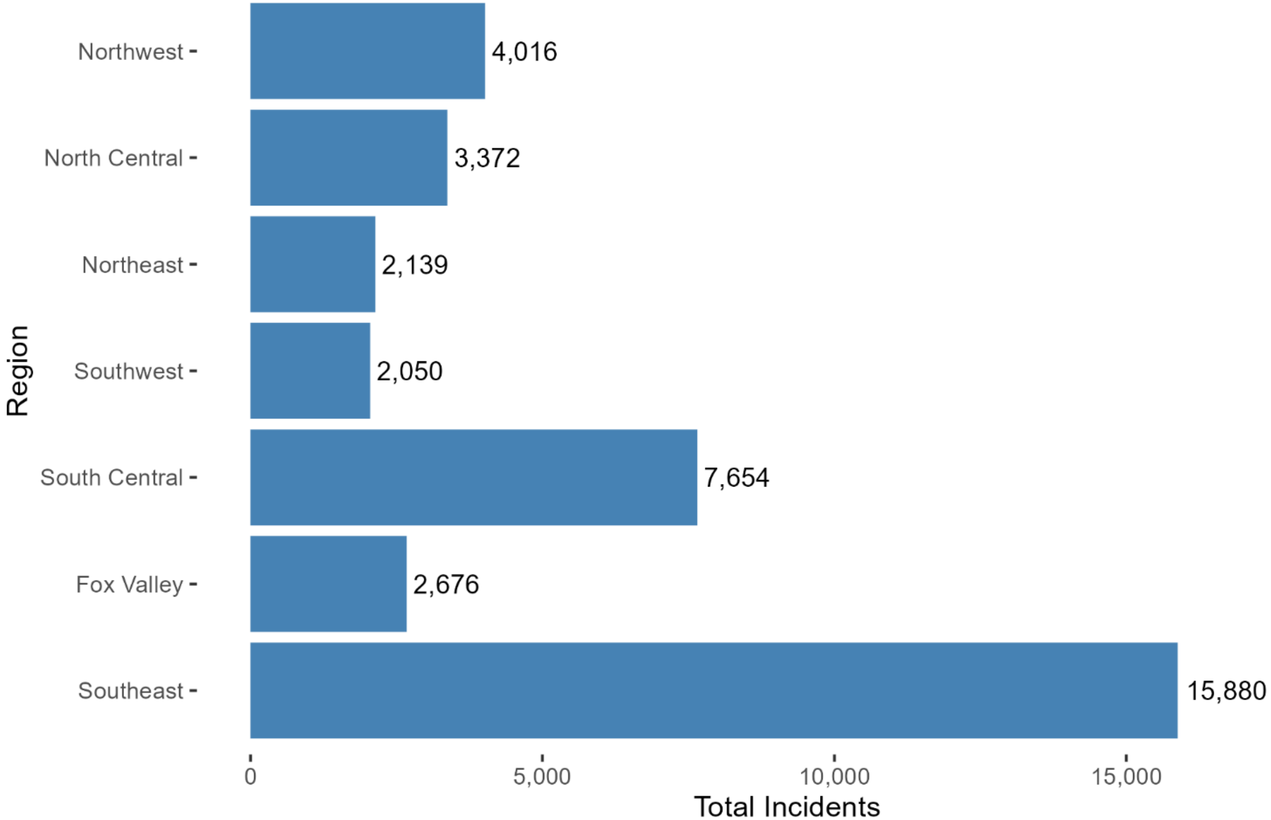
Over- and Undertriage Rate by Region 2023



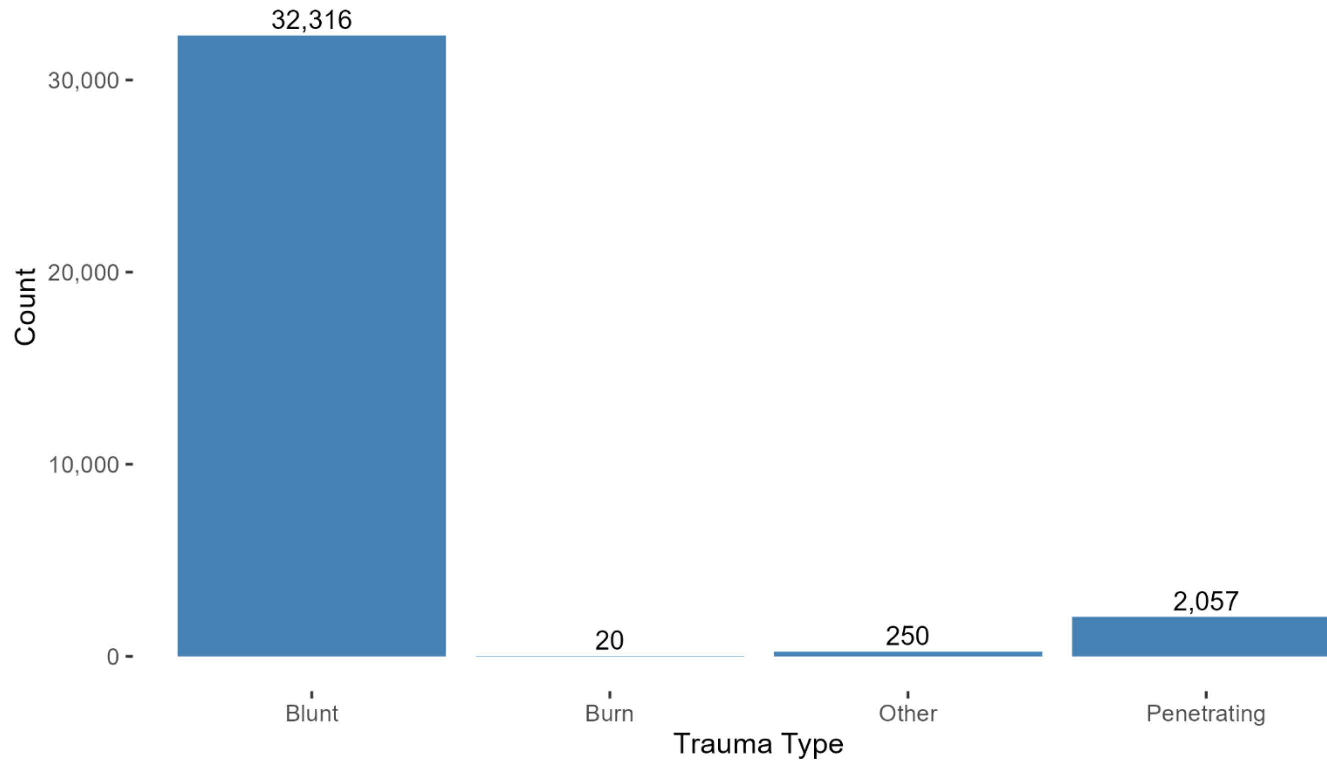
Timely Submission for 2023



Total Incidents 2023



Primary Injury Type



Questions?