



Government of Western Australia  
East Metropolitan Health Service

East Metropolitan  
Health Service



# WA State Trauma Annual Report 2023

Prepared by State Trauma Office



STATE ADULT TRAUMA SERVICE  
— WESTERN AUSTRALIA —



# Acknowledgment of country

We respectfully acknowledge the Traditional Custodians of the lands on which we operate. We recognise their continuing connection to land, waters, and community, and pay our respects to their Elders past, present and emerging.

We are committed to honouring Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, and their rich contribution to society.



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# Preface

The Trauma Service of Royal Perth Hospital and the State Trauma Office are proud to present the combined 2023 Annual Report. This report reflects our commitment to excellence in trauma care, injury prevention, and system improvement for the care of injured patients in Western Australia.

In 2023, our teams faced challenges and opportunities that tested the resilience and adaptability of our trauma systems. We responded to a growing demand for services, while also implementing innovative programs designed to enhance patient outcomes and community safety. In collaboration with other stakeholder groups, including the Road Safety Commission of Western Australia, St John Ambulance, the Royal Flying Doctor Service of Western Australia, and various universities, colleges and educational institutions, we have advanced initiatives that address injury prevention, education and research in trauma care.

These achievements were made possible by the dedication of our multidisciplinary teams, the support of our stakeholders, and the trust of our community. The collaborative efforts of surgeons, nurses, allied health professionals, case managers, data analysts, and administrative staff continue to set a high standard for trauma care.

As we look forward to the challenges of 2026, we remain committed to innovation, collaboration, and excellence in trauma care. This report not only documents our achievements but also serves as a foundation for future endeavours in creating safer communities and enhancing the quality of life for all Western Australians.

We extend our deepest gratitude to the staff, partners, and stakeholders who make this work possible. Together, we will continue to lead the way in trauma care and injury prevention.



**Professor Stephen Dunjey**  
State Director of Trauma  
State Trauma Office



**Professor Dieter Weber**  
Head of Service & Director of Trauma  
Royal Perth Hospital



**Lola Sikora**  
Trauma Program Manager  
Trauma Services  
Royal Perth Hospital





L to R: Dr Martin Jarmin, Jessica Spicer, Lola Sikora, Professor Dieter Weber, Dr. Rohit Sarvepalli and Danielle Biddle

## Trauma verification 2023

In August 2023, Royal Perth (RPH) Hospital invited the Trauma Verification Program led by Royal Australasian College of Surgeons (RACS) to conduct an external review of the hospital's Trauma Service. This independent benchmarking process is an essential component in maintaining the highest standards of trauma care and ensuring our service meets the comprehensive requirements of a tertiary trauma facility.

The verification process involved a multidisciplinary panel of experts who reviewed the entire spectrum of trauma services provided by RPH. These included the:

- clinical care and the systems delivering these services
- education and training programs
- injury prevention and community outreach programs
- data management and quality improvement
- research program
- leadership role in the region as well as nationally and beyond.

The RACS panel commended the RPH Trauma Service for several strengths, including the high quality level of clinical care patients are receiving from the broad multidisciplinary team of trauma practitioners as well as the steadfast dedication from this team.

The panel provided constructive feedback and recommendations for further enhancement of our service, including expanding research initiatives to increase the publication of trauma-related studies, enhancing and collaboratively reviewing the education and training programs, and strengthening the regional leadership role by the hospital, as the State's single adult trauma referral centre.

Based on the findings of the verification visit, the RPH Trauma Service continues to fulfil its role as the state's only Level 1 Trauma Centre. The assessment underscored the critical importance of sustained funding, innovation, and collaboration to maintain and elevate the standard of care.

This recognition is a testament to the dedication and expertise of our entire team. The RACS verification not only reaffirms our current capabilities but also serves as a roadmap for future growth, ensuring that we remain at the forefront of trauma care in Australia.

The RPH Trauma Service is committed to addressing the recommendations and advancing trauma care excellence as we move forward. We extend our gratitude to RACS for their thorough evaluation and to our staff, whose tireless efforts have made this achievement possible.

# 2023 State snapshot

There was a total of **1,488** major trauma admissions in WA.

Royal Perth Hospital

**1,115**  
major trauma  
admissions

**483**  
of these were  
road trauma  
related

**595**  
of these had a  
traumatic  
brain injury

**305**  
major trauma  
patients  
admitted to  
ICU

Median ED  
length of stay  
for a major  
trauma patient:  
**3.7hrs**

Major trauma  
patients'  
average length  
of stay:  
**12.76 days**

Perth Children's Hospital

**84**  
total major  
trauma  
admissions

**34**  
traumatic brain  
injury  
admissions

**32**  
major trauma  
patients admitted  
to ICU

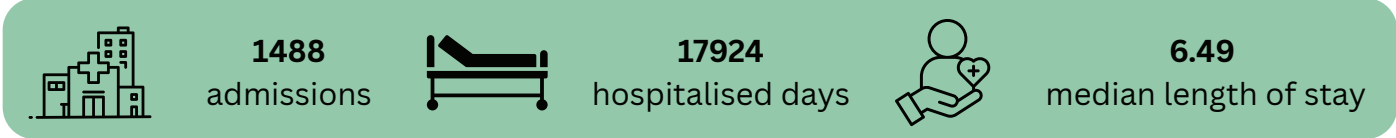
Major  
trauma patients'  
average length of  
stay:  
**14.44 days**

**4.9 hours**  
was the median  
ED length of stay  
or a major trauma  
patient

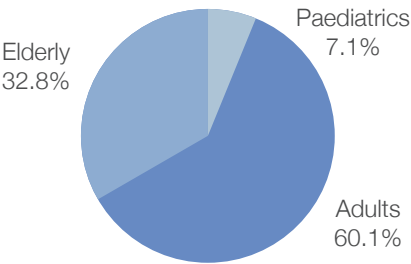


# 2023 State stats

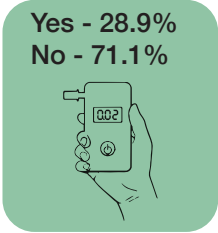
## State major trauma admissions (ISS >12) for 2023



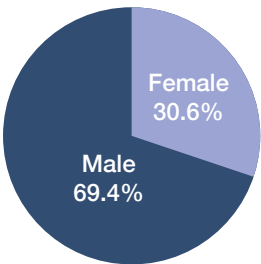
### Age group



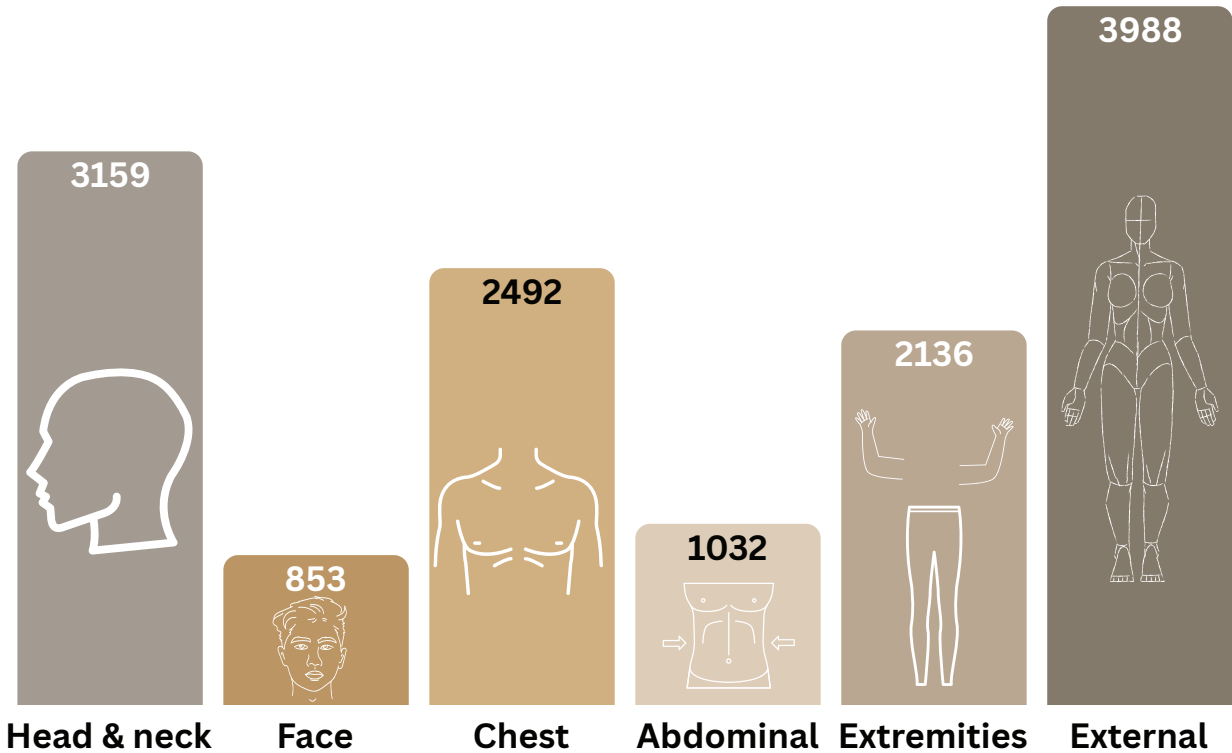
### Blood alcohol recorded



### Sex at birth



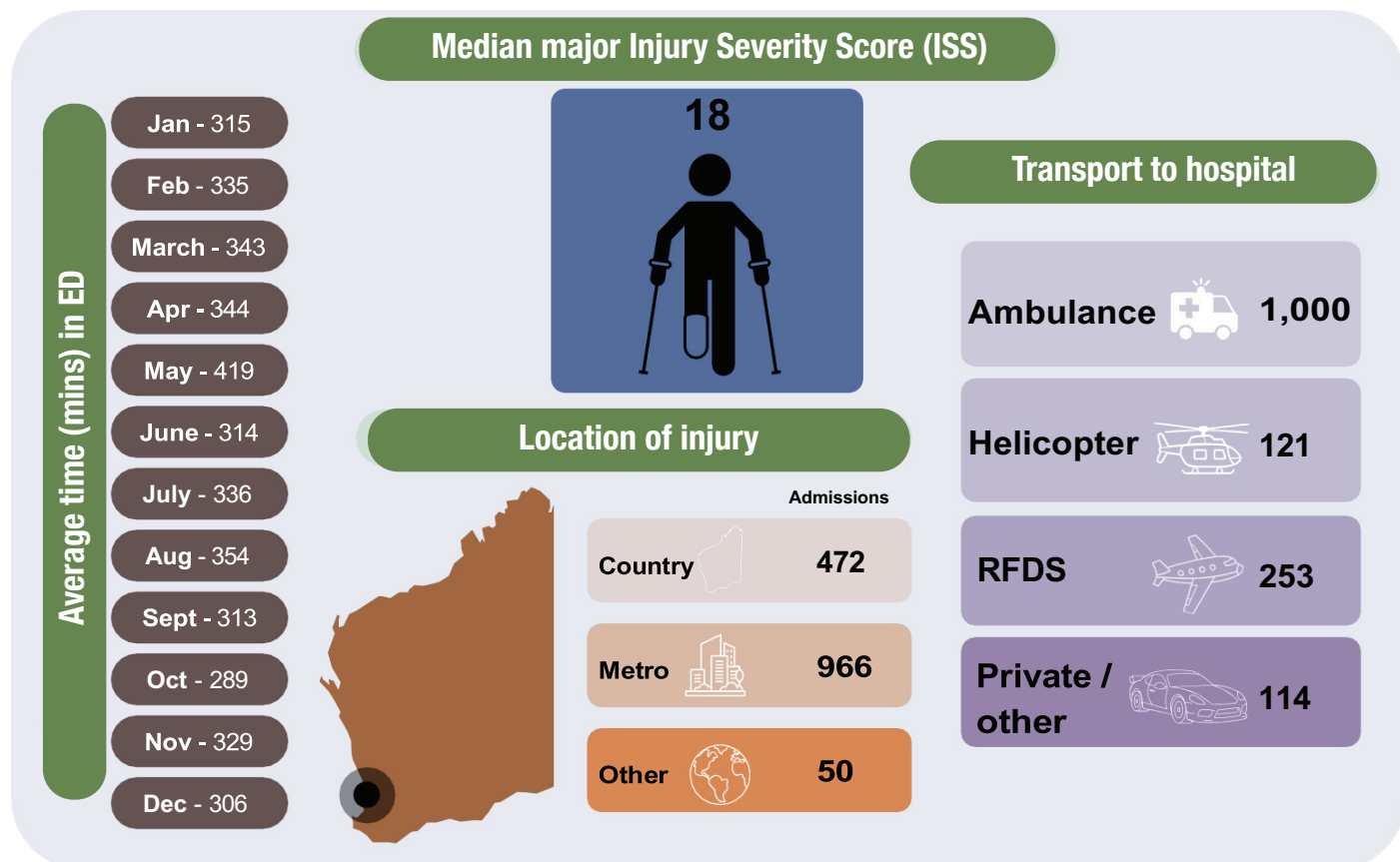
## Trauma injuries to body regions



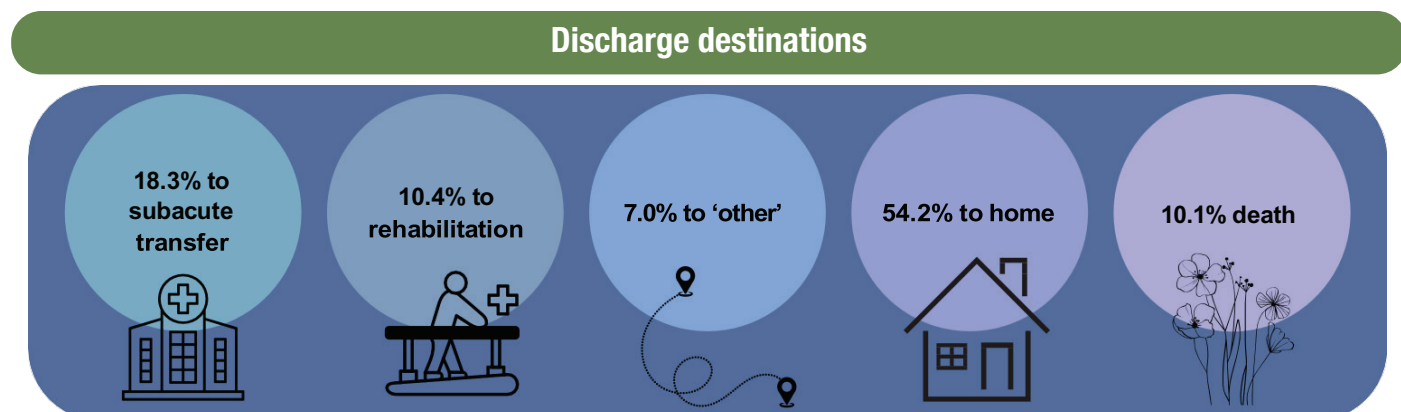
Total Trauma injuries to body regions in 2023: 13660



# 2023 State stats cont



Trauma admissions and severity by ISS groups				
Injury severity score	Admissions	Acute care days	Deaths	% Category deaths
Moderate (ISS 13 - 24)	1039	9368	43	4.14%
Severe (ISS 25 - 40)	399	6798	92	23.06%
Critical (ISS 41 - 75)	50	1758	15	30.00%

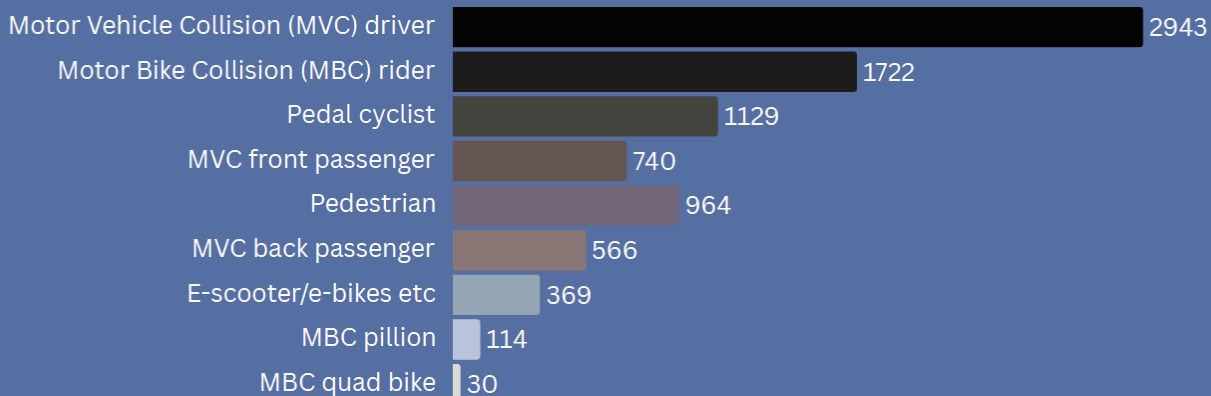




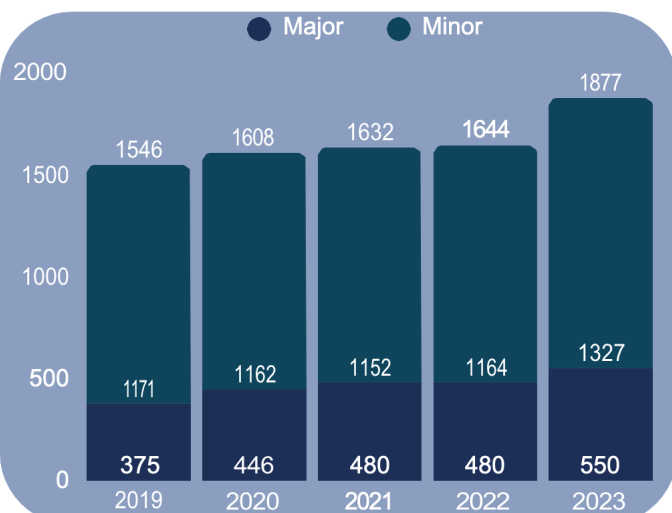
# WA road trauma



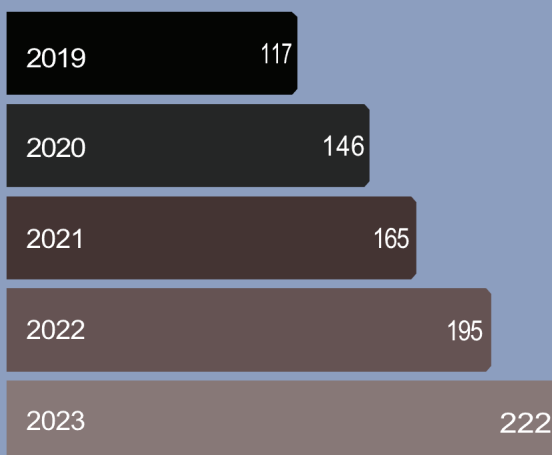
## Causes of road trauma admissions



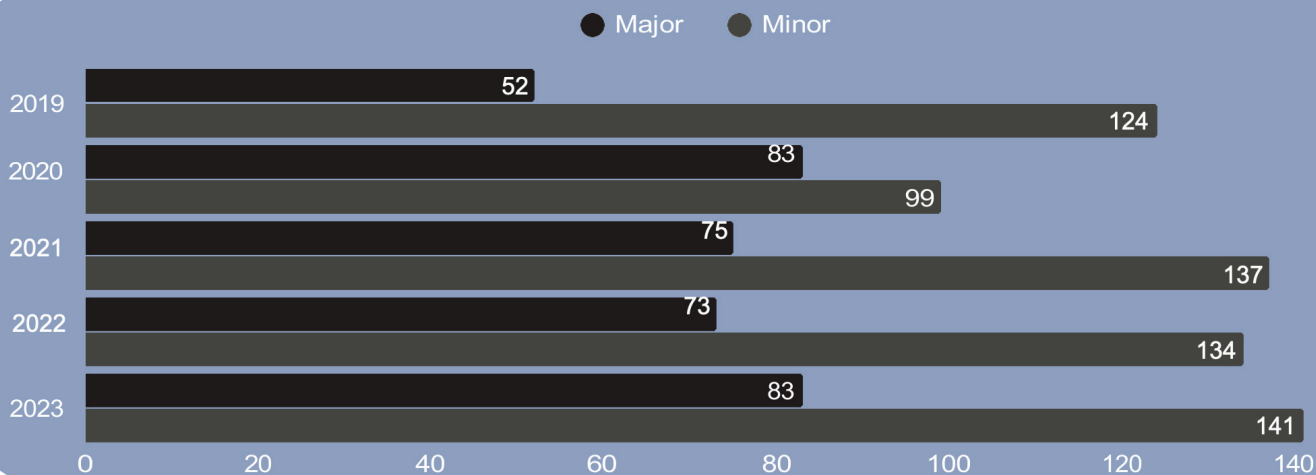
## Road trauma major vs minor admissions



## Road trauma related hospital deaths



## RPH older adult (65+) major & minor road trauma admissions



# Statewide developments

## Embedded Observer Program

Western Australia's trauma network is geographically unique, which impacts rural and remote patients requiring specialised care. Transfer times from these areas can be lengthy. To facilitate trauma learning opportunities for physicians working in the wider metropolitan, rural and remote areas, the State Trauma Office established the Embedded Observer Program in 2024.

The Embedded Observer Program takes participants through the patient journey from the Emergency Department (ED), Intensive Care Unit (ICU), the State Major Trauma Unit (SMTU) ward through to discharge. By observing trauma surgeons, participants can understand critical decision-making processes such as CT and the decision to operate.

While at RPH, observers attend tier 1 and tier 2 trauma calls in the ED and ward rounds in ICU and the SMTU. Observers also have the opportunity to attend multidisciplinary team meetings along with research and Morbidity & Mortality (M+M) meetings. Observers are exposed to the referral process to other specialty services and observe life-saving interventions such as laparotomies and intercostal catheter insertions. Participants are also engaged in education sessions such as trauma grand rounds, statewide case presentations and journal clubs. Since January 2024, 19 physicians have completed the program. Examples of reported benefits included improved understanding of multidisciplinary trauma care, greater insight into RPH trauma processes, strengthened clinical decision-making, enhanced management of remote trauma transfers and exposure to high acuity patient care.



Professor Steve Dunje, State Director of Trauma for the State Trauma Office and Dr Michelle McNamara from Rockingham General Hospital.

Government of Western Australia  
East Metropolitan Health Service

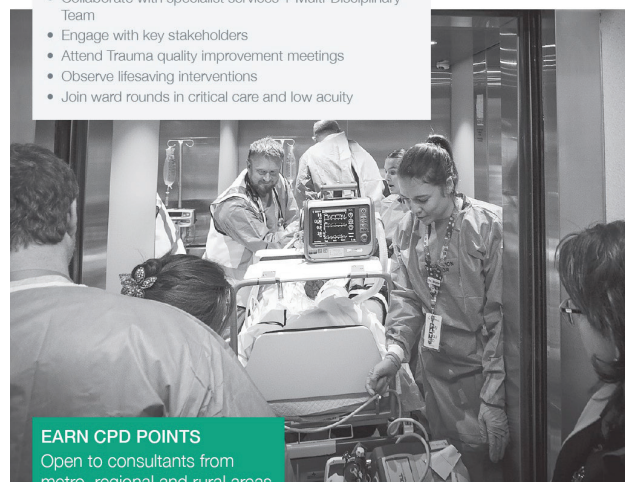


## State Trauma Observer Program

One/two week placements at RPH

Observe trauma specialists at the level 1 State Adult Major Trauma Centre.

- Attend Emergency Department Trauma calls
- Consolidate Emergency Management of Severe Trauma (EMST)
- Collaborate with specialist services + Multi-Disciplinary Team
- Engage with key stakeholders
- Attend Trauma quality improvement meetings
- Observe lifesaving interventions
- Join ward rounds in critical care and low acuity



**EARN CPD POINTS**  
Open to consultants from  
metro, regional and rural areas

Email [StateTraumaOffice@health.wa.gov.au](mailto:StateTraumaOffice@health.wa.gov.au) for further information, interest and availability

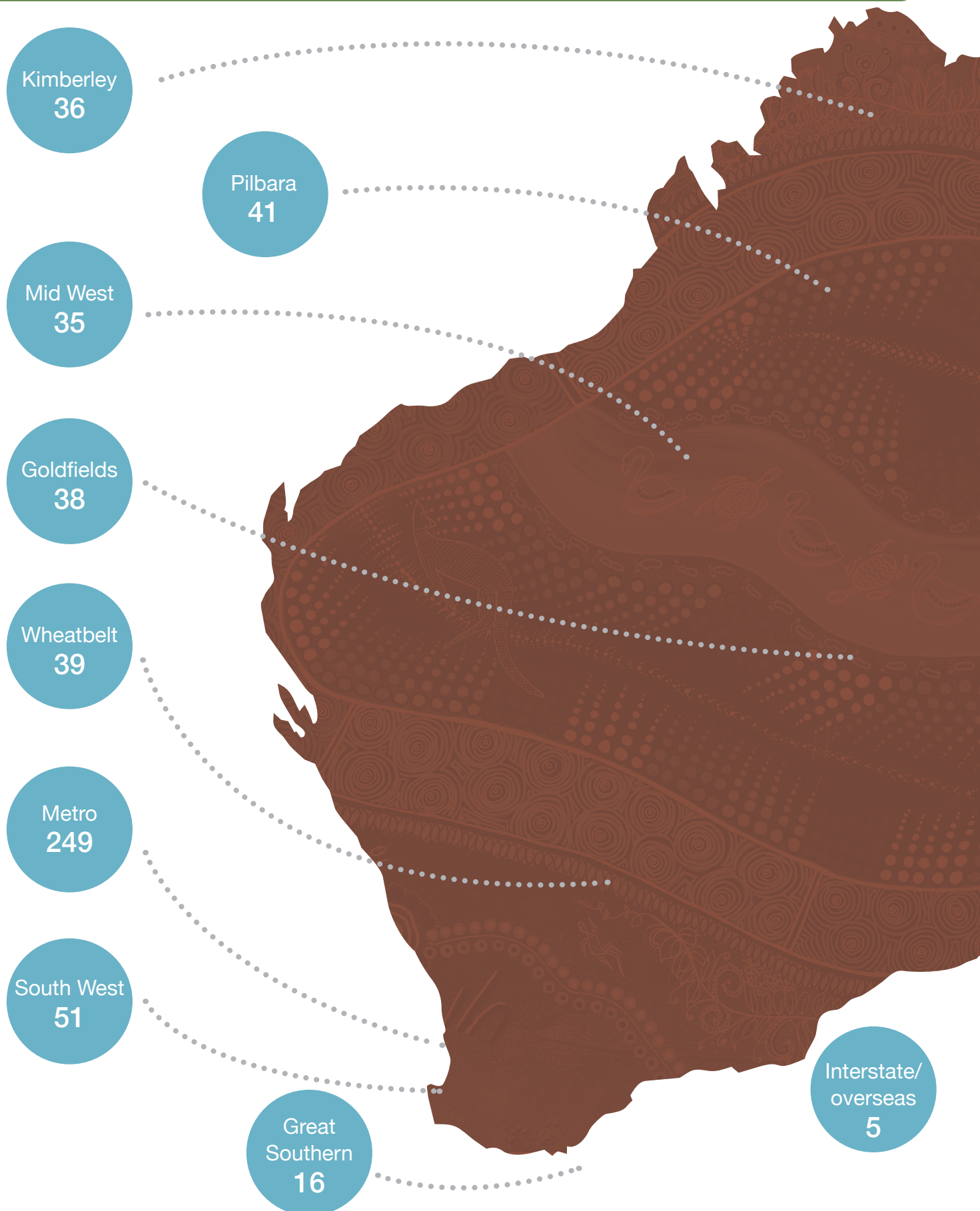
[www.health.wa.gov.au](http://www.health.wa.gov.au)

MO407580/12



# Transfers to Royal Perth Hospital

## 2023 Major Trauma



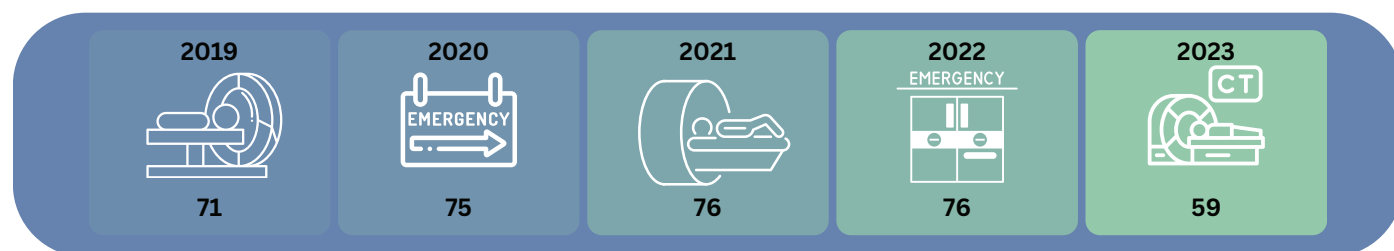
# Royal Perth Hospital

The average length of stay (LOS) in ICU for a major trauma patient was **6.9 days** in 2019 and **8.9 days** in 2023.

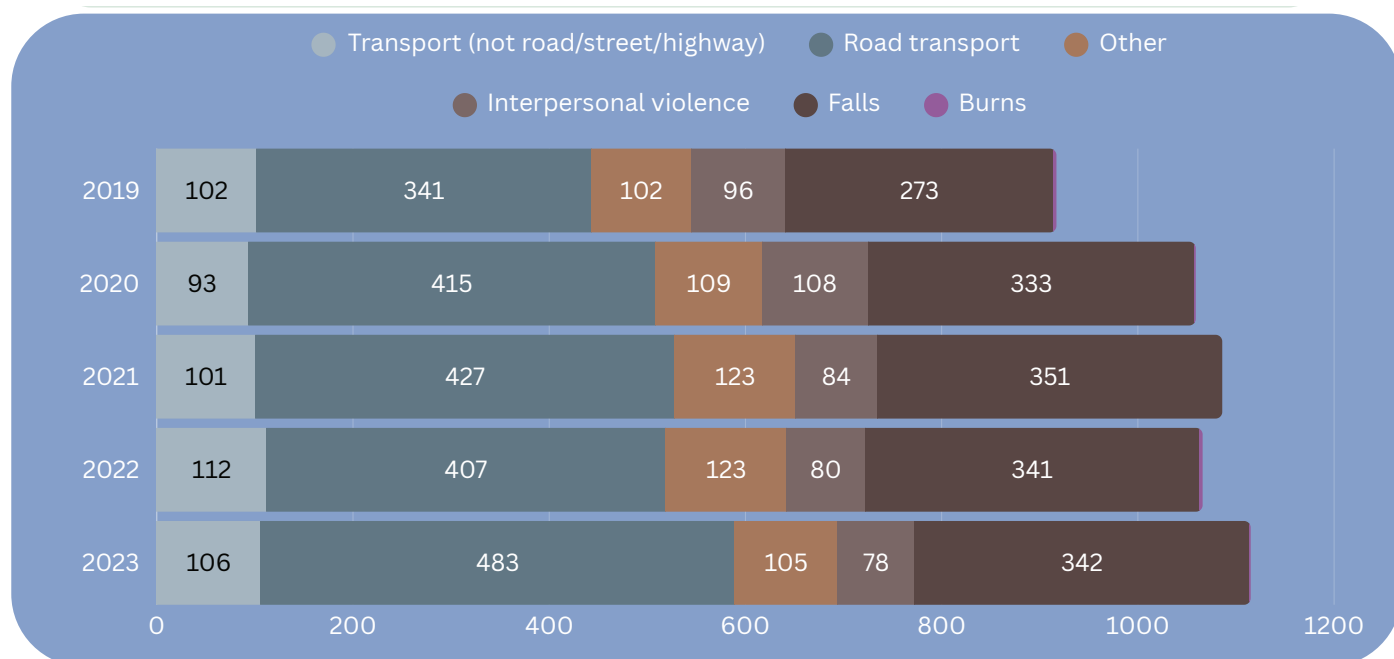
There were **5,074** blunt trauma admissions and **169** penetrating trauma admissions.



## RPH time to CT for Glasgow Coma Scale (GCS) <13 (minutes)



## Cause of RPH major trauma admissions



## Abbreviated Injury Scale (AIS) ≥ 3

### Liver injuries



### Spleen injuries

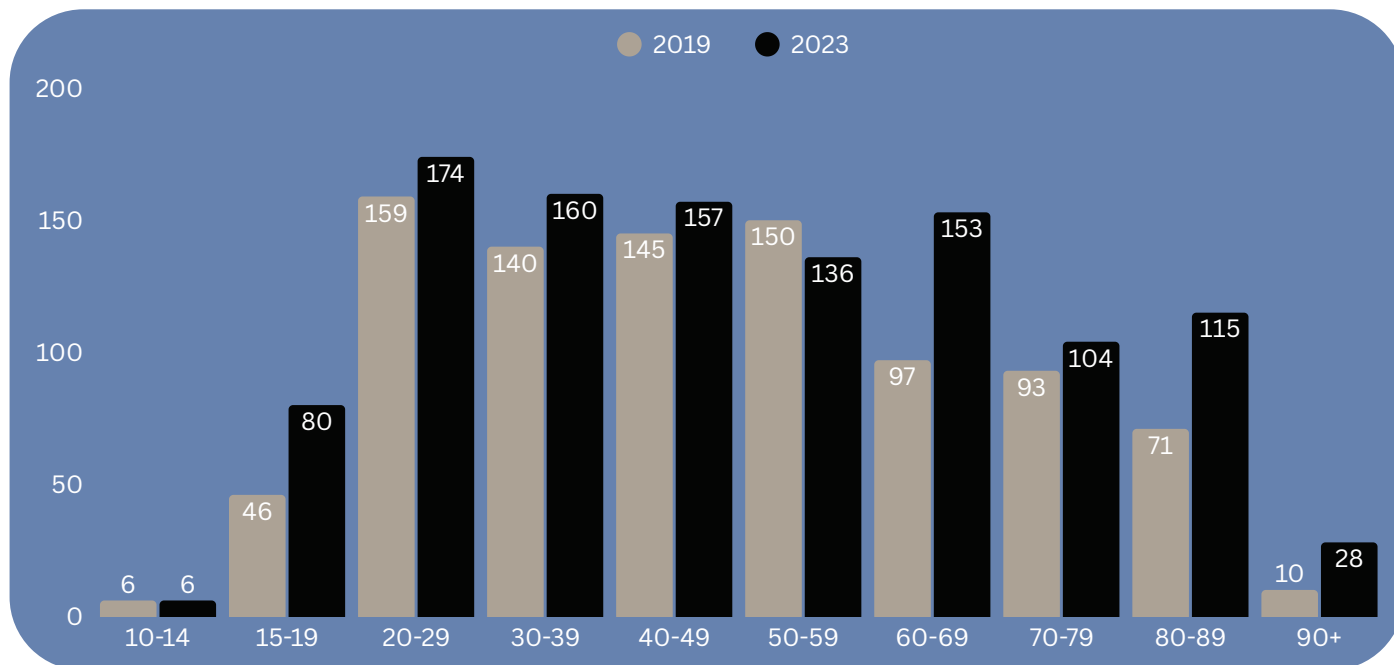


### Kidney injuries



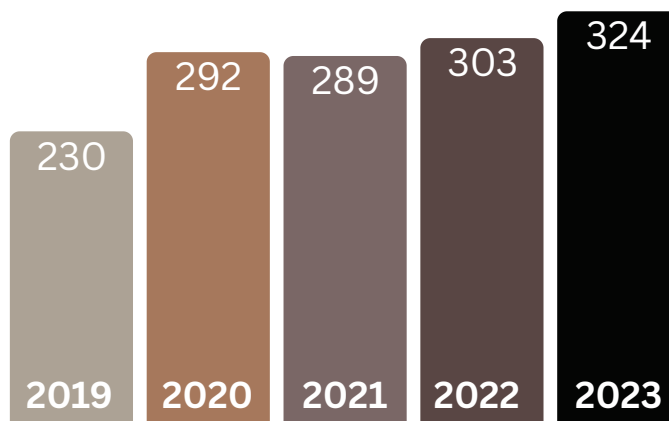


## Age cohorts (year groups) of major trauma 2019 vs 2023



## Older adult major trauma admissions

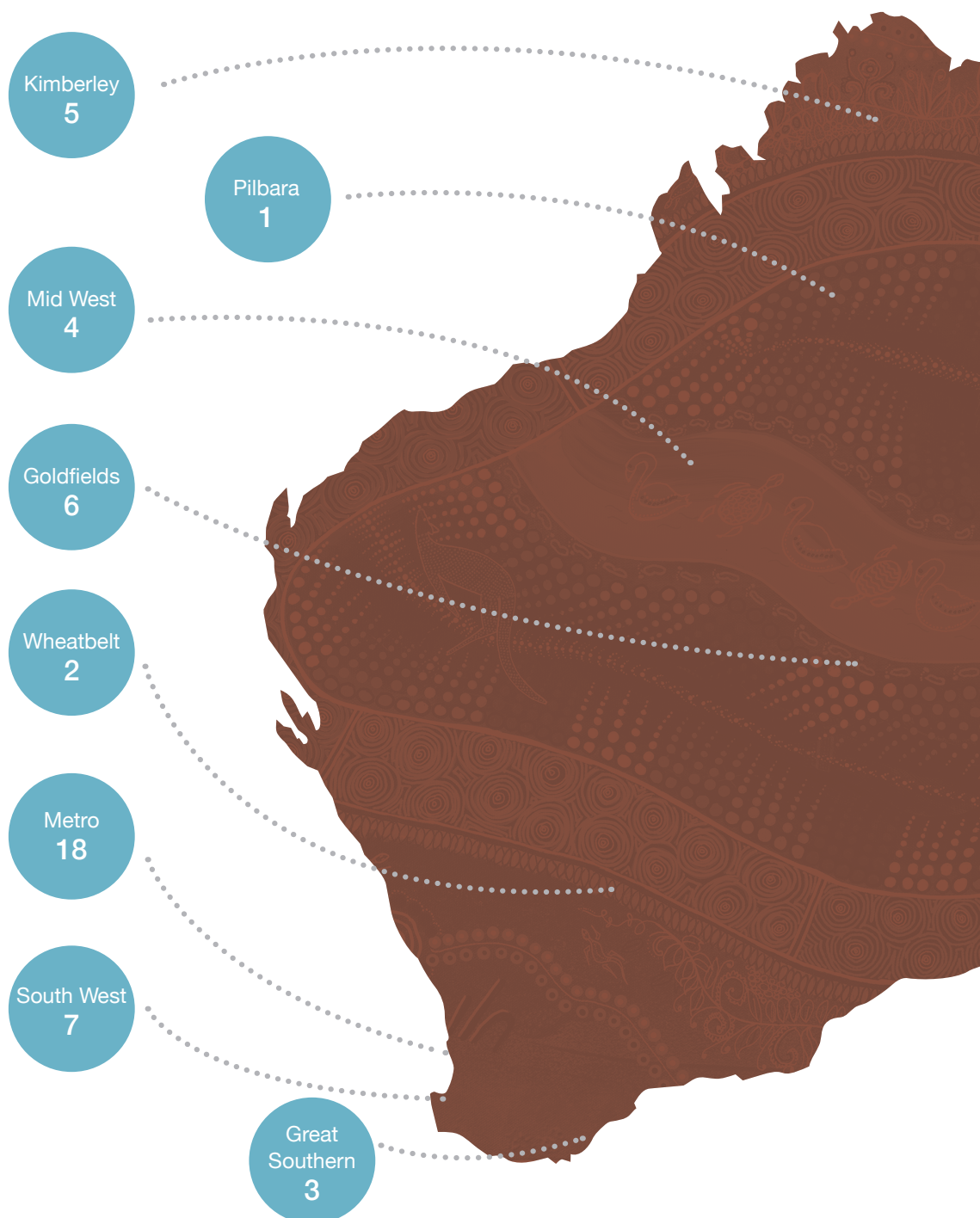
Age distribution of trauma shows a notable increase in relation to older adult trauma with a growing number of older adults (65+), reflecting contribution of an ageing population to the burden of the health system. The increased number of older adults sustaining trauma has important implications for the management of trauma injuries with higher risk of mortality, longer admissions and more complex management due to comorbidities.



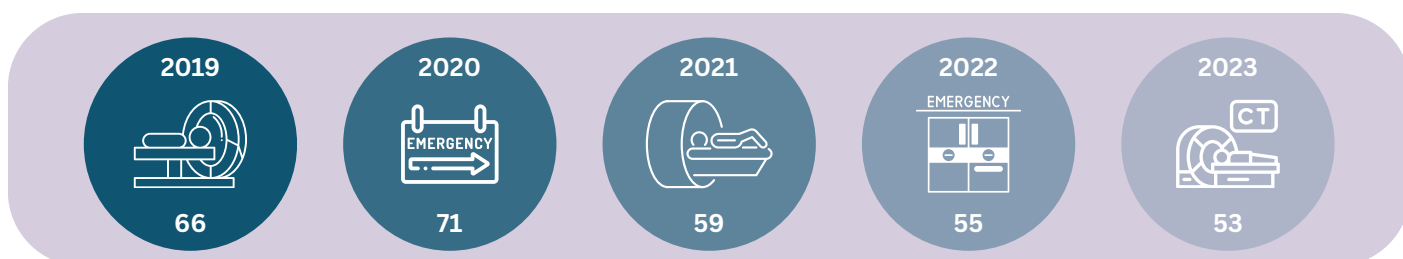
## Major trauma ICU admissions



## WA health region initiating transfer to PCH

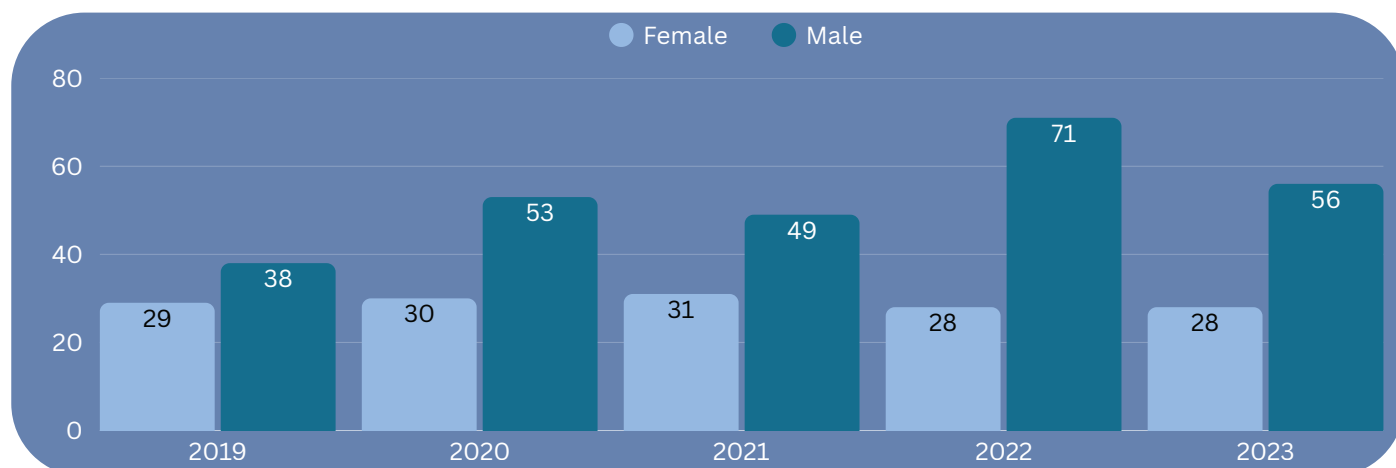


## PCH time to CT for GCS <13 (minutes)

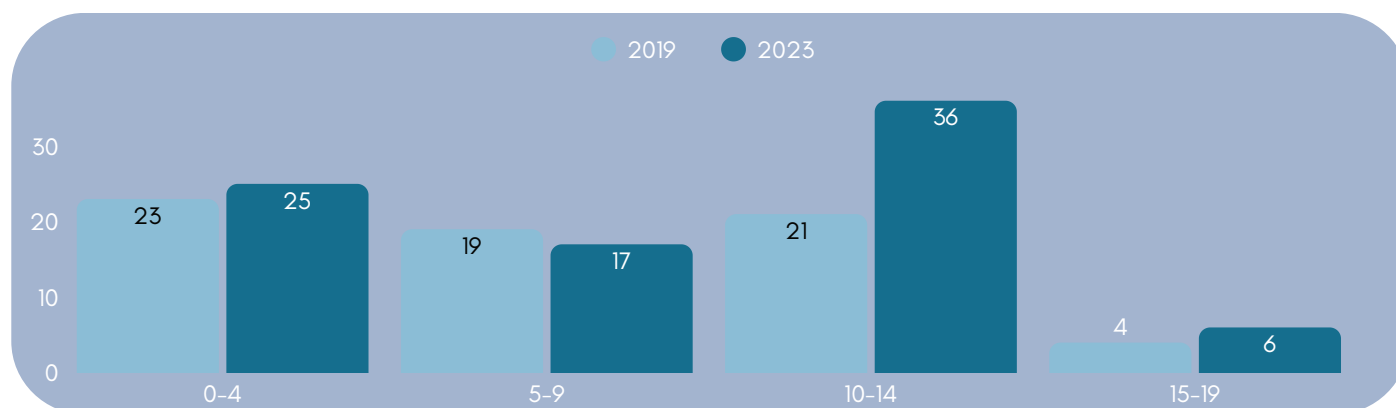




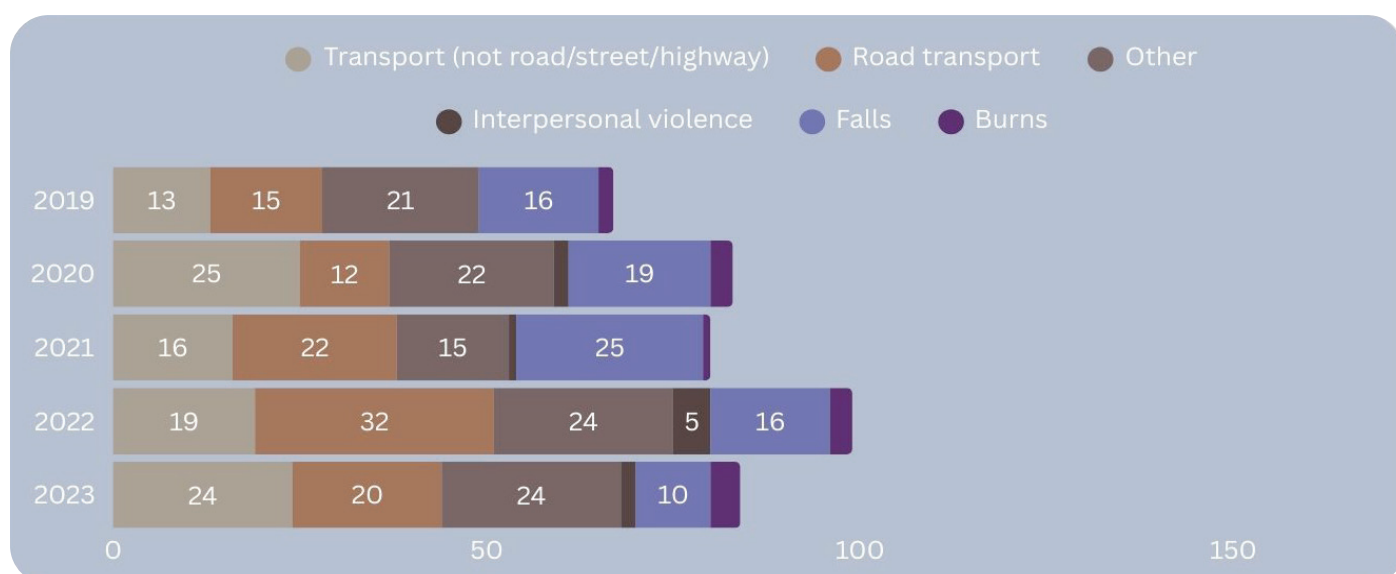
## Sex at birth of major trauma



## Age cohorts of major trauma 2019 vs 2023



## Cause of PCH major trauma admissions





# Save the date

## WA State Trauma Conference

Wednesday 10th June 2026

The Ritz Carlton Hotel, Perth

Get in touch:  08 9224 2387



Angela.D'Castro@health.wa.gov.au



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Hospital



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**St John**