



Admissions to Royal Perth Hospital from pedal cycle injuries

The Royal Perth Hospital Trauma Registry (RPH-TR) has collected and reported on injury data since August 1994. It contributes to a State Trauma Registry database, combining data from all Perth tertiary hospitals and Joondalup Health Campus.

Included on the RPH-TR are all trauma patients presenting to RPH for treatment within seven days of their injury and who were hospitalised for >24hrs, as well as all trauma-related deaths regardless of hospital length of stay.

Injuries are categorised into Minor (Injury Severity Score (ISS) <16); and Major (ISS >15)

Pedal cycle crashes can occur anywhere such as on or off the road, at home, in a park and may or may not involve another vehicle.

From 2010 to 2019 there were 1944 admissions of people who sustained an injury as a result of pedal cyclist-related trauma. Whilst admissions have increased on the roads, there has also been a steady increase in the number of admissions of off-road bike-related trauma, from 8 in 2010 to 19 in 2019.

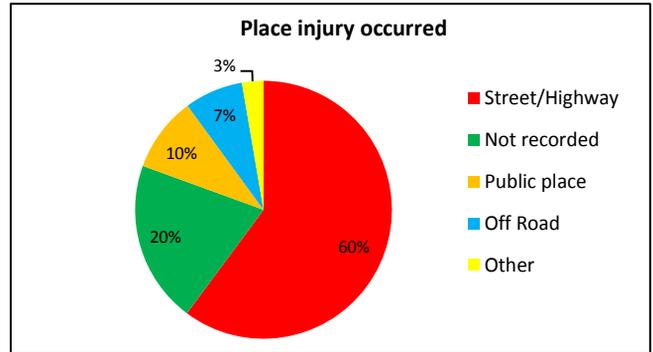
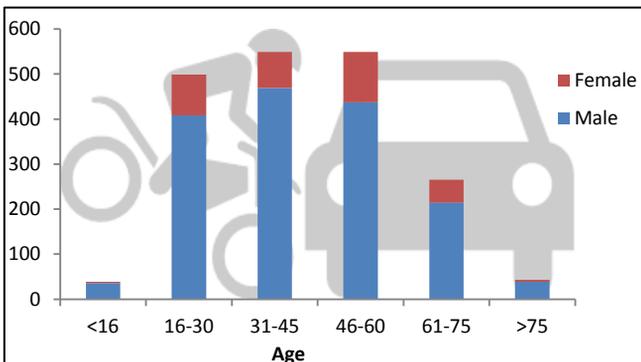
Overall, males continue to outnumber females in every age group: 1603 (82.5%) versus 341 (17.5%).

With an age range of 12 to 90, the two most common age groups were: 31 - 45 years and 46 - 60 years both with 549 (28.2%)

With 265 (13.6%) admissions, the 61-75 age range is increasing, from 15 people in 2010 to 41 in 2019

377 (19.4%) patients did not wear a helmet. However, helmet compliance is increasing slowly each year 73 (51.4%) wore a helmet in 2010; 166 (65.4%) in 2019

170 (11%) had documented consumption of alcohol and, of these, 136 (80%) were not wearing a helmet

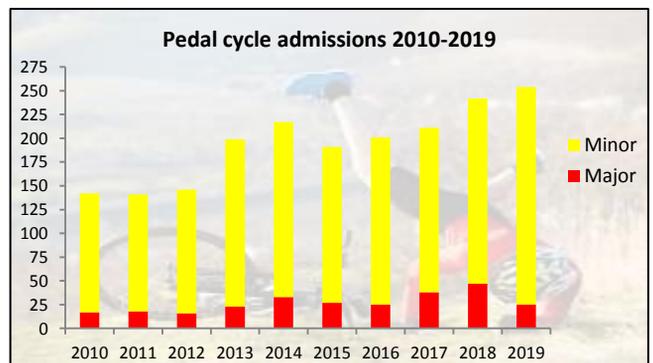


1670 (85.9%) of pedal cycle crashes occurred in the metro area and 263 (13.5%) in regional areas:

- 1159 (59.6%) occurred on a street/highway (road);
- 181 (9.3%) in a public place;
- 142 (7.3%) off road;
- 18 (0.9%) home;
- 52 (2.7%) other; and for 392 (20.2%) location was not recorded

With the increasing number of pedal cycle crashes, there has been a corresponding increase in injury severity:

- 1675 (86.2%) patients sustained minor injuries with a median injury severity score (ISS) of 5
- 269 (13.8%) patients sustained major injuries with a median ISS of 21
- The average length of stay at RPH was 3 days for a minor trauma patient and 10.1 days for a major trauma patient
- 1670 (85.9%) of patients were discharged home



Along with the number of older cyclists on our roads increasing, pedal cycle admissions have nearly doubled over the last 10 years. Most crashes occur in the metro area, with the majority occurring on streets/and highways. The overall severity of injuries has also increased. Use of safety devices and mutual vigilant awareness and respect between all road users is paramount to prevent these trauma admissions.