The ED presentation rate in the VEMD (not limited to injury) was slightly higher for the January to March 2021 period in comparison to the period January to March 2017-2019 (average):

\[ \uparrow \, 27,701 \text{ per 100,000 (2021)} \text{ vs } 27,341 \text{ per 100,000 (2017-2019, average)} \]
Background

In response to the global COVID-19 pandemic, Australia, including Victoria, has implemented physical distancing to limit transmission of the coronavirus. For most Victorians, in 2020 the physical restrictions and extensive period of lockdown had a marked impact on the pattern of exposure to the workplace, road network, sport and leisure activities and exposure to the home environment. The Victorian Injury Surveillance Unit responded to this in 2020 by producing monthly injury bulletins, reporting on injuries in the home (including DIY injuries), farm, transport, self-harm and assault (home) related injuries. The pandemic has also had a profound effect on use of health services, with Emergency Department (ED) attendances well below the level expected for the time of year, during periods of lockdown. Injury statistics were therefore provided not only in absolute terms but also relative to overall ED health service use. The last bulletin of 2020, presenting the injury statistics for November and December 2020, provided an overview of injury statistics during stepwise reopening.

In 2021, VISU will continue to present regular overviews of injury statistics during the pandemic. The bulletins in 2021 will be quarterly, and to stay relevant to the current situation, the focus areas have shifted. The 2021 bulletins will focus on injuries in the home, work-related injuries, farm injuries, sports injuries, intentional injury (self-harm; assault in the home) and transport injury. The 2020 bulletins contained a comparison for each month from March 2020 onwards matched with the same month in 2019. This approach is not suitable for the 2021 bulletins as the comparison period needs to be pre-pandemic. Therefore, the relevant three-month period in 2021 is compared to the average of the same quarter in 2017, 2018 and 2019: a three-year average is used to provide robust baseline statistics. The three-month period in 2020 is also shown, but not used in statistical comparisons. In the 2021 quarterly bulletins, the injury statistics are no longer presented relative to ED service use, as ED service use is no longer below the expected levels for the time of year.

To provide context for the injury bulletin, a historical overview of key dates of the restrictions in metropolitan and regional Victoria in 2020 up to March 2021 has been provided in the Appendix section.

Method

Data used to compile this bulletin were extracted from the Victorian Emergency Minimum Dataset (VEMD), which holds de-identified clinical records of presentations at Victorian public hospitals with designated 24-hour emergency departments (EDs) (currently 38 hospitals). ED presentations from 1 January 2017 to 31 March 2021 were analysed for this bulletin. A detailed outline of the methods used for case selection are provided in the Appendix section of this report. For more information on methods used by the Victorian Injury Surveillance Unit see here and background information and pre-COVID statistics see here.

Key Injury Groups
In the three months from January to March 2021, there were 462,652 Emergency Department presentations in Victoria, as recorded in the Victorian Emergency Minimum Dataset (VEMD). This number is 6.5% higher than the number of ED presentations expected based on the average in January to March, in 2017 to 2019, which was 434,414. The corresponding difference in population-based rate in the first quarter of 2021 (27,701 per 100,000 population) vs. the average for the first quarter of 2017-2019 (27,341) was less pronounced at +1.3%, but nevertheless statistically significant at p<0.0001.

An overview of the change in ED presentations in the first quarter of 2021 compared to the average for the first quarter in 2017 to 2019 is shown in the figure below, by diagnostic group. The two most commonly occurring diagnostic groups are Injury and poisoning and Symptoms and signs. The latter had the greatest increase in ED presentations in 2021 January – March, in terms of proportional change as well as in absolute numbers.
An overview of specific interest areas: viral illnesses, respiratory illnesses and adverse effects of COVID vaccines, are shown in the table below. The rate of ED presentations for viral infections was higher in January to March 2021 than in the same time period in 2017 to 2019 (averaged over three years), with a 39% increase in annual rate from 448 to 621 per 100,000 population. The rate was higher in January to March 2020, i.e. the early months of the COVID-19 outbreak: this is discussed in earlier bulletins1. Rates of ED presentations for upper respiratory infections (unspecified) were also higher in January to March 2021 than in the 2017-2019 comparison period, by 80%. Similar to what was observed for viral infections, rates of upper respiratory infection-related ED presentations were particularly high in the first quarter of 2020, but this has been discussed in the 2020 editions of this bulletin.

Rates of pneumonia-related ED presentations were slightly lower in the first quarter of 2021 than in the 2017 to 2019 comparison period, with a 6% decrease in population-based rate, and asthma-related ED presentations showed a 21% decrease in rate. Less than five cases of adverse effects of COVID vaccines2 presenting to the ED were recorded in the VEMD in January to March 2021.

Table 1 ED presentations for specific interest areas: viral illnesses, respiratory illnesses and adverse effects of COVID vaccines

<table>
<thead>
<tr>
<th>Category</th>
<th>January to March 2017 to 2019*</th>
<th>January to March 2020</th>
<th>January to March 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Rate per 100,000 population</td>
<td>Frequency</td>
</tr>
<tr>
<td>Respiratory illness or virus-related ED presentations:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viral infection, unspecified</td>
<td>7123</td>
<td>448</td>
<td>15503</td>
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<tr>
<td>Upper respiratory infection, unspecified</td>
<td>2379</td>
<td>150</td>
<td>5451</td>
</tr>
<tr>
<td>Pneumonia (broncho- or lobar)</td>
<td>2625</td>
<td>165</td>
<td>3624</td>
</tr>
<tr>
<td>Asthma</td>
<td>4098</td>
<td>258</td>
<td>4788</td>
</tr>
<tr>
<td>Adverse effects of COVID vaccines2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Data selection methods are explained in the Appendix section. Note: ED presentation numbers extracted from consolidated ED data up to June 2020 and non-consolidated ED data from July 2020 to March 2021. *Three-year average.

The number of ED presentations due to injury and poisoning was 106,981 in the first quarter of 2017-2019 (averaged), 99,635 in the first quarter of 2020 and 107,725 in the first quarter of 2021. The focus of this bulletin is on unintentional home injury; work-related injury; farm injury; sports injury; intentional injury and transport injury. First, in the figure below, an overview is provided of injury related ED presentations in January to March 2021 and the comparison period in 2017 to 2019, by place of injury occurrence. The greatest increase was observed in home injuries, in absolute numbers (+3299). Proportionally, the greatest increase was observed in farm injury (+16%). The greatest reductions (comparing the first quarter of 2017 to 2019 (three-year average) to the first quarter of 2021) were observed in injuries that took place in residential institutions (-16%) and industrial or construction areas (-15%). Notably, injury related ED presentations with place coded to ‘unspecified place’ decreased by 14%.

2 Diagnostic code U077: Emergency use of U07.7 [COVID-19 vaccines causing adverse effects in therapeutic use]
Injury and Poisoning ED Presentations by Place of Occurrence in Victoria, Jan-Mar: 2021 vs 2017-2019 (Avg.)

Jan-Mar 2021
Jan-Mar 2017-19 (Average)
Comparing January-March 2021 to the control period of January-March in 2017-2019 (average over three years), the rate of ED presentations recorded in the VEMD increased by 1.3% from 27,341 per 100,000 to 27,701 per 100,000.

ED presentations for "symptoms and signs" had the greatest increase, both proportionally (+16.9%) and in absolute numbers (+16,095).

ED presentations for viral infections (unspecified) and upper respiratory infections (unspecified) increased by 39% and 80%, respectively, in the first quarter of 2021 compared to the control period (the first quarter of 2017–2019, averaged).

Less than five ED presentations were coded as due to adverse effects of COVID vaccines, in January to March 2021.

There were 107,725 injury and poisoning related ED presentations in the first quarter of 2021 vs 106,981 in the control period (first quarter of 2017 to 2019, averaged).

The home was the most commonly recorded place of injury occurrence, at both timepoints; home injury also had the greatest increase, in absolute numbers (+3299) but not proportionally (+8%). Farm injury had the greatest proportional increase (+16%).
In the first quarter (January to March) of 2021, there were 37,583 ED presentations for unintentional home injuries recorded in the VEMD: the annual rate was 2250 home injury presentations per 100,000 population. In the comparison period of January to March of 2017 – 2019 (averaged), 35,342 presentations were recorded, and the rate was 2224 per 100,000 population. These patterns are shown in the figure below; population-based rates in the two period did not differ significantly. In January to March 2021, 7672 (20%) of ED presentations for home injury were subsequently admitted; this admission rate is similar to the 21% observed in the comparison period of January to March 2017 to 2019 (7397 subsequent admissions, average).

Unintentional home injury rates by broad age group are shown below, as well as more detailed age-specific rates for people aged 65 years and above. Both figures show the rates per 100,000 population in the first quarter of 2021, in the first quarter of 2017-2019 (averaged) as comparison, and the first quarter of 2020. The latter are included for completeness, but this time period is the focus of earlier editions of this bulletin.

The cause of unintentional home injury ED presentations, and the main injury type, as recorded in the VEMD, are summarised in the graph below. Both in the first quarter of 2021 and in the comparison period (the first quarter of 2017 to 2019, averaged), the most common cause of injury in the home resulting in ED presentation was falls, followed by hit/struck/crush injury. The two most common injury types were fractures (most common injury type in January-March 2021) and open wounds (most common injury type in the January-March 2017-2019).
Among people aged 75 years and above, the most common causes of unintentional home injury ED presentations are shown in the figure below. In this age group, 70-71% of unintentional home injuries were caused by falls. Among all-age unintentional home injury ED presentations, this proportion is much smaller, with 40-41% of cases caused by falls.
SUMMARY: EMERGENCY DEPARTMENT PRESENTATIONS FOR UNINTENTIONAL HOME INJURY (VIC)

- Comparing January-March 2021 to the control period of January-March in 2017 - 2019 (average over three years), the rate of ED presentations for unintentional home injury in Victoria did not differ significantly (2250 and 2224, respectively).

- The rate of admission subsequent to ED presentation for unintentional home injury was also similar at both time points (20% and 21% for the first quarter of 2021 and the comparison period, respectively).

- Unintentional home injury was most common in the broad age group 0-14 years, followed by ages 65+ years, and relatively less common in the age groups 15-24 years and 25-64 years, at both time points (January-March 2021 and January-March in 2017-2019).

- Unintentional home injury rates increased with age above 75 years; this pattern continued until age 94 years. This pattern was observed at both time points (January-March 2021 and January-March in 2017-2019).

- The most common cause of unintentional home injury, at both time points, was falls (40-41% of cases); among people aged 75 years and above, falls was the injury cause in 70-71% of cases.

- In unintentional home injury ED presentations, the two most common injury types were fractures and open wounds.
4. WORK-RELATED INJURY

In the first quarter (January to March) of 2021, there were 6567 ED presentations for unintentional work-related injuries recorded in the VEMD among those 15 years and above: the annual rate was 489 work-related injury presentations per 100,000 population. Please note that the rates presented here are calculated based on the Victorian population, not based on the Victorian workforce or full-time equivalents. In the comparison period of January to March of 2017 – 2019 (averaged), 6870 presentations were recorded, and the rate was 540 per 100,000 population. These patterns are shown in the figure below; population-based rates of work-related injury were lower in the first quarter of 2021 compared to the comparison period in 2017-2019. In January to March 2021, 1002 (15%) of ED presentations for work-related injury were subsequently admitted; this admission rate is similar to the 16% who were subsequently admitted in the comparison period of January to March 2017 to 2019 (1113 subsequent admissions, on average).

Note: rates are calculated based on the Victorian population, not based on Victorian workforce full-time equivalents

Unintentional work-related injury rates by age group (15 years and above) are shown below. The figure shows the rates per 100,000 population in the first quarter of 2021, in the first quarter of 2017-2019 (averaged) as comparison, and the first quarter of 2020. The latter are included for completeness, but this time period is the focus of earlier editions of this bulletin. In each of the time periods, work-related injury rates peaked in the 20-24 years age group and then decreased with age until the 40-59 years age group. Rates were lowest at ages 65+ years, where work-force participation is also expected to be relatively low.
The place of occurrence of unintentional work-related injury is shown in the figure below: red bars indicate the number of ED presentations in January to March 2021 and light red bars indicate the ED presentations in the comparison period: January to March 2017-2019 (averaged). In both time periods, the most common place of occurrence was Trade and service area, followed by Industrial and construction area. Home injury, although slightly more commonly recorded as place of work-injury in the first quarter of 2021, was ranked 6th most common place of occurrence at both time periods.
The cause of unintentional work-related injury ED presentations, and the main injury type, as recorded in the VEMD, are summarised in the graphs below. Both in the first quarter of 2021 and in the comparison period (the first quarter of 2017 to 2019, averaged), the two most common causes of work-related injury resulting in ED presentation were hit/struck/crush injury and cutting/piercing injury. The most common injury type, in both time periods under comparison, was open wounds.
SUMMARY: ED PRESENTATIONS FOR UNINTENTIONAL WORK-RELATED INJURY (VIC)

- The rate of ED presentations for unintentional work-related injury in Victoria was lower in January-March 2021 compared to the control period in 2017 to 2019: respectively, 489 vs. 540 ED presentations per 100,000 population annually.

- Rates are based on the general Victorian population by age group, not specified to workforce participation or full-time equivalents.

- The rates of admission subsequent to ED presentation for unintentional work-related injury were similar at both time points (15% and 16% for the first quarter of 2021 and the comparison period, respectively).

- Unintentional work-related injury resulting in ED presentation was most common in the age group 20-24 years, followed by a gradual decrease with increasing age, in both time points (January-March 2021 and January-March in 2017-2019).

- The two most common causes of unintentional work-related injury, at both time-points, were cutting/piercing and hit/struck crush injuries.

- In unintentional work-related injury ED presentations, the most common injury type was open wounds, at both time points.
5. FARM INJURY

In the first quarter (January to March) of 2021, there were 959 ED presentations for unintentional farm injuries recorded in the VEMD: the annual rate was 57 farm-related injury presentations per 100,000 population. In the comparison period of January to March of 2017 – 2019 (averaged), 836 presentations were recorded, and the rate was 53 per 100,000 population. These patterns are shown in the figure below. Population-based rates of farm injury were slightly higher in the first quarter of 2021 compared to the comparison period in 2017-2019; however, the difference was not statistically significant. In January to March 2021, 234 (24%) of ED presentations for farm injury were subsequently admitted; this admission rate is similar to the 23% observed in the comparison period of January to March 2017 to 2019 (193 subsequent admissions, on average).

Unintentional farm injury rates by broad age group are shown below. The figure shows the rates per 100,000 population in the first quarter of 2021, in the first quarter of 2017-2019 (averaged) as comparison, and the first quarter of 2020. The latter are included for completeness, but this time period is the focus of earlier editions of this bulletin. In each of the time periods, farm injury rates were highest in the 15-24 years broad age group. Rates were lowest at ages 0-14 years, in each of the time periods.
Please note that the farm injury statistics presented here include work-related as well as non-work-related farm injuries. ED presentations that were recorded as WorkCover patients are shown below; the remaining ED presentations were Medicare, overseas, or other patients. In the first quarter of 2021, 42% (n=109) of ED presentations for unintentional farm injuries were recorded as WorkCover patients; this compares to 45% (n=99) in the comparison period (first quarter of 2017-2019, averaged).

**Unintentional Farm Injury ED Presentation Rate by Broad Age Group**

- **0-14 years**
  - Jan-Mar 2017-19: 121
  - Jan-Mar 2020: 99
  - Jan-Mar 2021: 119
- **15-24 years**
  - Jan-Mar 2017-19: 153
  - Jan-Mar 2020: 119
  - Jan-Mar 2021: 122
- **25-64 years**
  - Jan-Mar 2017-19: 122
  - Jan-Mar 2020: 99
  - Jan-Mar 2021: 122
- **65+ years**
  - Jan-Mar 2017-19: 107
  - Jan-Mar 2020: 80
  - Jan-Mar 2021: 109

**Unintentional Farm Injury ED Presentations: Compensable Status for Work-Related Injury**

- **Medicare patient, overseas patient, or ineligible hospital exempt**
  - Jan-Mar 2017-19 (Average): 121
  - Jan-Mar 2020: 119
  - Jan-Mar 2021: 122
- **WorkCover**
  - Jan-Mar 2017-19 (Average): 153
  - Jan-Mar 2020: 99
  - Jan-Mar 2021: 109
The cause of unintentional farm injury ED presentations, and the main injury type, as recorded in the VEMD, are summarised in the graphs below. Both in the first quarter of 2021 and in the comparison period (the first quarter of 2017 to 2019, averaged), the most common cause of farm injury resulting in ED presentation was transport, followed by falls injuries. The most common injury type, in both time periods under comparison, was fracture, followed by open wounds.
The rate of ED presentations for unintentional farm injury in Victoria was slightly (but not statistically significantly) higher in January-March 2021 compared to the control period in 2017 to 2019: respectively, 57 vs. 53 ED presentations per 100,000 population annually.

The rate of admission subsequent to ED presentation for unintentional farm injury was similar at both time points (24% and 23% for the first quarter of 2021 and the comparison period, respectively).

Unintentional farm injury resulting in ED presentation was most common in the age group 15-24 years, in both time points (January-March 2021 and January-March in 2017-2019).

Less than half of ED presentations for unintentional farm injuries were recorded as WorkCover patients: 42% and 45% of farm injury presentations, in the first quarter of 2021 and the comparison period in 2017-2019, respectively.

The most common causes of unintentional farm injury, at both time-points, was transport, followed by falls.

In unintentional farm injury ED presentations, the most common injury types were fractures and open wounds, at both time-points.
6. SPORTS INJURY

In the first quarter (January to March) of 2021, there were 14,414 ED presentations for sports injuries recorded in the VEMD among those aged 5 years and above: the annual rate was 918 sports injury presentations per 100,000 population. In the comparison period of January to March of 2017 – 2019 (averaged), 13,401 presentations were recorded, and the rate was 901 per 100,000 population. These patterns are shown in the figure below. Population-based rates of sports injury were not statistically significantly different in the first quarter of 2021 compared to the comparison period in 2017-2019. In January to March 2021, 2427 (17%) of ED presentations for sports injury were subsequently admitted; this admission rate is slightly higher than the 15% observed in the comparison period of January to March 2017 to 2019 (2011 subsequent admissions, on average).

Unintentional sports injury rates by broad age group (5 years and above) are shown below. The figure shows the rates per 100,000 population in the first quarter of 2021, in the first quarter of 2017-2019 (averaged) as comparison, and the first quarter of 2020. The latter are included for completeness, but this time period is the focus of earlier editions of this bulletin. In each of the time periods, sports injury rates were highest in the 5-14 years age group. Rates decreased with increasing age, for the broad age bands 15-24, 25-64 and 65+ years, as shown below.
The place of occurrence of sports injury is shown in the figure below: red bars indicate the number of ED presentations in January to March 2021 and light red bars indicate the ED presentations in the comparison period: January to March 2017-2019 (averaged). In both time periods, the most common place of occurrence was Sports & athletics areas. Home injury was ranked 4th most common place of occurrence in both time periods.
The ten most common sports injury ED presentations, and the main injury type, as recorded in the VEMD, are summarised in the graphs below. Both in the first quarter of 2021 and in the comparison period (the first quarter of 2017 to 2019, averaged), the most commonly specified sports injury was cycling injury. Unspecified sports and exercise activity, however, was the most commonly recorded activity category for sports injury. The two most common injury types, in both time periods under comparison, were fractures and dislocation, sprain & strain.
The rate of ED presentations for sports injury in Victoria was 918 per 100,000 population annually in January-March 2021 and 901 in the control period in 2017 to 2019 (not statistically significantly different).

The rate of admission subsequent to ED presentation for unintentional sports injury was slightly higher in the first quarter of 2021 than in the comparison period in 2017-2019 (17% vs. 15%, respectively).

Sports injury resulting in ED presentation was most common in the broad age group 5-14 years, at both time points (January-March 2021 and January-March in 2017-2019).

The most commonly specified sport injury ED presentation was related to cycling, at both time-points.

At both time-points, the most common place of occurrence was Sports and athletics areas; the home was ranked fourth at both time-points.

In sports injury ED presentations, the most common injury types were fractures and dislocations, sprain & strain, at both time-points.
In the first quarter (January to March) of 2021, there were 2326 ED presentations for self-harm and 564 for assault injuries recorded in the VEMD: the annual rates were, respectively, 139 and 34 presentations for self-harm and assault injury presentations per 100,000 population. In the comparison period of January to March of 2017 – 2019 (averaged), 2450 presentations for self-harm and 522 for assault injury were recorded, and the rates were, respectively, 154 and 33 per 100,000 population. These patterns are shown in the figure below; population-based rates of self-harm injury were lower in the first quarter of 2021 compared to the comparison period in 2017-2019, while assault injury presentation rates did not differ statistically significantly. In January to March 2021, 1155 (50%) of ED presentations for self-harm injury were subsequently admitted; this admission rate is similar to the 52% observed in the comparison period of January to March 2017 to 2019 (1270 subsequent admissions, on average). Admission rates for assault injury ED presentations were 35% (n=200) and 31% (n=163) in the first quarter of 2021 and comparison period, respectively: these were also not statistically significantly different.

**Intentional: Self-Harm Injury ED Presentation Frequencies & Rates**

- **Jan-Mar 2017-19 (Average):** 154
- **Jan-Mar 2020:** 137
- **Jan-Mar 2021:** 139

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**ED PRES. PER 100,000 ANNUALLY**

- **Frequency**
- **Annual rates**

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7. INTENTIONAL INJURY
Self-harm and assault injury rates by broad age group are shown below. The figures show the rates per 100,000 population in the first quarter of 2021, in the first quarter of 2017-2019 (averaged) as comparison, and the first quarter of 2020. The latter are included for completeness, but this time period is the focus of earlier editions of this bulletin. Self-harm injury ED presentations were most common in the broad age group 15-24 years, in each of the time periods. Assault injuries were most common across a wider age range, spanning the broad age groups 15-24 years and 25-64 years.
The most common main injury types of self-harm injuries and assault injuries, as recorded in the VEMD, are summarised in the graphs below. Both in the first quarter of 2021 and in the comparison period (the first quarter of 2017 to 2019, averaged), the most common self-harm injury type was poisoning or toxic effects. For assault injuries, the most common injury types were other and unspecified injury followed by superficial injury. Other and unspecified was more commonly reported for assault injuries in the first quarter of 2021 (34%) than in the comparison period in 2017-2019 (23%).
The perpetrator recorded for assault injury presentations to the Emergency Department is shown in the figure below. In both time periods (January to March 2021 and January to March in the 2017-2019), the most commonly reported perpetrator was ‘partner’, followed by ‘other family member’.

![Intentional Assault (home) Injury ED Presentations: Eight Most Common Injury Types](image)

![Intentional Assault (home) Injury ED Presentations by Perpetrator Type](image)
The rate of ED presentations for self-harm injury in Victoria was lower in January-March 2021 compared to the control period in 2017 to 2019: respectively, 139 vs. 154 ED presentations per 100,000 population annually. Assault injury rates in these time periods were not statistically different (respectively, 34 and 33 ED presentations per 100,000 population annually).

The rate of admission subsequent to ED presentation for self-harm injury was similar at both time points (50% and 52% for the first quarter of 2021 and the comparison period, respectively). Assault admissions subsequent to ED presentation were 35% in the first quarter of 2021 and 31% in the comparison period in 2017-2019.

Self-harm injury resulting in ED presentation was most common in the age group 15-24 years, while assault injuries were relatively common across broad age groups 15-24 and 25-64 years; this pattern was observed at both time points (January-March 2021 and January-March in 2017-2019).

The two most common injury types in self-harm injury was poisoning or toxic effects. For assault injuries, the most commonly recorded injury types were other and unspecified injury and superficial injury.

In assault injury, the most commonly recorded perpetrator was ‘partner’, at both time-points (January-March 2021 and January-March in 2017-2019).
In the first quarter (January to March) of 2021, there were 6486 ED presentations for transport injuries recorded in the VEMD: the annual rate was 388 transport injury presentations per 100,000 population. In the comparison period of January to March of 2017 – 2019 (averaged), 5648 presentations were recorded, and the rate was 355 per 100,000 population. These patterns are shown in the figure below; population-based rates of transport injury were higher in the first quarter of 2021 compared to the comparison period in 2017-2019. In January to March 2021, 2911 (45%) of ED presentations for transport injury were subsequently admitted; this rate is similar to the 43% observed in the comparison period of January to March 2017 to 2019 (2446 subsequent admissions, on average).

Transport injury rates by broad age group are shown below. The figure shows the rates per 100,000 population in the first quarter of 2021, in the first quarter of 2017-2019 (averaged) as comparison, and the first quarter of 2020. The latter are included for completeness, but this time period is the focus of earlier editions of this bulletin. In each of the time periods, transport injury rates were highest in the 15-24 years age group, followed by the (broad) 25-64 years age group.
The road user type in transport injury ED presentations, and the main injury type, as recorded in the VEMD, are summarised in the graphs below. In the first quarter of 2021, the most commonly recorded road user type was pedal cyclist rider or passenger; in the first quarter of the comparison period (2017-2019), the most commonly recorded road user type was motor vehicle driver. Third listed, at both time-points, were motorcycle riders. Both in the first quarter of 2021 and in the comparison period (the first quarter of 2017 to 2019, averaged), the most commonly reported injury types were other and unspecified injuries, followed by fractures.
The rate of ED presentations for transport injury in Victoria was higher in January-March 2021 compared to the control period in 2017 to 2019: respectively, 388 vs. 355 ED presentations per 100,000 population annually.

The rate of admission subsequent to ED presentation for transport injury was similar at both time points (45% and 43% for the first quarter of 2021 and the comparison period, respectively).

Transport injury resulting in ED presentation was most common in the age group 15-24 years, at both time points (January-March 2021 and January-March in 2017-2019).

The most commonly reported road user type in transport injury in the first quarter of 2021 was pedal cyclist (rider or passenger); in the comparison period in 2017-2019, the most commonly reported road user was motor vehicle driver.

In transport injury ED presentations, the most common injury types were other and unspecified injury followed by fracture, at both time-points.

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Jan-Mar 2021</th>
<th>Jan-Mar 2017-19 (Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign body</td>
<td>-1</td>
<td>-12</td>
</tr>
<tr>
<td>Injury to internal organs</td>
<td>-12</td>
<td>+1</td>
</tr>
<tr>
<td>Crushing injury</td>
<td>+3</td>
<td>-12</td>
</tr>
<tr>
<td>Intracranial injury</td>
<td>+79</td>
<td>+37</td>
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<tr>
<td>Injury to muscle &amp; tendon</td>
<td>+9</td>
<td>-37</td>
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<tr>
<td>Open wound</td>
<td>-2</td>
<td>-12</td>
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<td>Superficial injury</td>
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<td>+251</td>
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<td>Dislocation, sprain &amp; strain</td>
<td>-153</td>
<td>+3</td>
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<tr>
<td>Fracture</td>
<td>+251</td>
<td>+3</td>
</tr>
<tr>
<td>Other &amp; unspecified injury</td>
<td>+695</td>
<td>+3</td>
</tr>
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</table>

**SUMMARY: ED PRESENTATIONS FOR TRANSPORT INJURY (VIC)**

- The rate of ED presentations for transport injury in Victoria was higher in January-March 2021 compared to the control period in 2017 to 2019: respectively, 388 vs. 355 ED presentations per 100,000 population annually.
- The rate of admission subsequent to ED presentation for transport injury was similar at both time points (45% and 43% for the first quarter of 2021 and the comparison period, respectively).
- Transport injury resulting in ED presentation was most common in the age group 15-24 years, at both time points (January-March 2021 and January-March in 2017-2019).
- The most commonly reported road user type in transport injury in the first quarter of 2021 was pedal cyclist (rider or passenger); in the comparison period in 2017-2019, the most commonly reported road user was motor vehicle driver.
- In transport injury ED presentations, the most common injury types were other and unspecified injury followed by fracture, at both time-points.
7.1 INJURY PREVENTION RESOURCES

FAMILY VIOLENCE

MENTAL HEALTH AND SUICIDE PREVENTION

CHILD INJURY PREVENTION

FALLS PREVENTION

FARM SAFETY

SAFE CYCLING

7.2 SUPPORT SERVICES

MENTAL HEALTH AND SUICIDE SUPPORT
Victoria has a range of mental health support services that are available 24 hours a day, seven days a week. These services can provide treatment, information, tools and advice on how to deal with a range of mental health issues (Better Health Channel).

- Call Lifeline to anonymously and confidentially discuss any personal difficulties, including suicidal thoughts at any time. Phone 13 11 14 (24/7), Lifeline text 0477 131 114 (6pm-midnight AEST, 7 days) and online chat service https://www.lifeline.org.au/crisis-chat/ (7pm-midnight AEST, 7 days).
- Suicide Call Back Service is a confidential 24-hour crisis support line available 24 hours a day, 7 days a week. Phone 1300 659 467 (24 hours).
- SuicideLine Victoria is a free 24/7 telephone, video and online counselling service offering professional support to people at risk of suicide, people concerned about someone else’s risk of suicide, and people bereaved by suicide. Phone 1300 651 251 (24 hours).
- SANE Australia helps people affected by mental illness to lead a better life. Phone 1800 187 263 (Monday to Friday, 10am - 10pm AEST).
- Beyond Blue provides information and support to help everyone achieve their best possible mental health, whatever their age and wherever they live. Phone 1300 224 636 (24/7), chat online 3pm to 12am (AEST) 7 days a week, or online forums (24/7).
• **GriefLine** is a free national counselling and support telephone, SMS and video service, offering confidential 7 days a week phone and telehealth counselling and support to people experiencing grief, loss and/or trauma. In Victoria: Phone 03 9935 7400 (6am – 2am, 7 days).

• **Kids Helpline** is 24-hour service is available for young people (aged five to 25) who need advice, counselling or just someone to talk to – no problem is too big or too small. Phone 1800 551 800 (24/7).

• **ReachOut** is an online mental health service for young people. It provides practical support to help young people manage any issues they might face, from everyday struggles to much tougher situations.

• **Conversations Matter** is an online resource that encourages and guides the user through conducting a safe and effective discussion about suicide both in a one-on-one situation and in the community.

FAMILY VIOLENCE SUPPORT SERVICES

• **Safe Steps** is Victoria’s state-wide access point for those who need support or access emergency crisis accommodation. Phone 1800 015 188 (24/7).

• **1800RESPECT** is the national sexual assault, domestic and family violence confidential counselling service available 24 hours a day, seven days a week. Phone 1800 737 732 (24/7), or through online chat service (24/7).

• The **Men’s Referral Service** is a free, confidential telephone helpline that offers counselling, advice and support to men who have anger, relationship or parenting issues. The service also provides help to women (or other family members) who are experiencing violence or controlling behaviour by men. Phone 1300 766 491 (24/7).

• **MensLine** Australia offers telephone, online chat and video counselling for men with family and relationship concerns. Phone 1300 789 978 (24/7).

• **Sexual Assault Crisis Line** is a Victorian state-wide, after-hours, confidential, telephone crisis counselling service for people who have experienced both past and recent sexual assault. Phone 1800 806 292 (24/7).

• **WithRespect** provides resources, support and advice for LGBTIQ+ people of all ages and their families experiencing difficulty in their relationships, including family violence. Phone 1800 542 847 (9am to 5pm Monday to Friday, and after hours support until 11pm each Wednesday. 10am to 10pm on Saturday and Sundays).

• **InTouch** is a state-wide specialist family violence service that works with women from migrant and refugee backgrounds, their families and their communities in Victoria. Phone 1800 755 988 (9am to 5pm Monday to Friday).

• **Yarning SafeNStrong** is a free and confidential phone crisis line for Aboriginal people and families who need to have a yarn with someone about their wellbeing. Phone 1800 959 563 (24/7).

• **Djirra** provides both telephone and face to face legal and non-legal support to Aboriginal people who are experiencing or have experienced family violence. Phone 1800 105 303 (Mon-Friday, 9am-5pm).
METHODS

Data from January 2017 to March 2021 from the Victorian Emergency Minimum Dataset (VEMD), which holds de-identified clinical records of presentations at Victorian public hospitals with designated 24-hour emergency departments, were used to compile this bulletin.

The focus of this quarterly bulletin is on the latest available data (January to March 2021) to show the changes in injury profiles since the coronavirus pandemic; data from an equivalent pre-pandemic period (average of the same quarter across three years: 2017, 2018 and 2019) are used as comparison. The same quarter in 2020 is also shown, but not used in statistical comparisons.

The changes in injury-related ED presentations are no longer presented relative to ED service use (as in previous Bulletins), as ED service use is no longer below expected levels for the time of year.

EMERGENCY DEPARTMENT HEALTH SERVICE UTILISATION

ED presentations overall (not limited to injury) were selected to generate statistics on health service use overall during the January 2017 to March 2021 period. Only ED presentations that were ‘emergency presentations’ were included: this excludes planned return visits, pre-arranged admissions and those who were dead on arrival.

Rates per 100,000 population were calculated; the denominators used for calculating rates were based on 2016-2020 population estimates from the Australian Bureau of Statistics (ABS).

INJURY CASE SELECTION

ED presentations related to injury were selected only if the first occurring diagnosis code was a community injury (i.e., an ICD-10-AM code in the range of “S00” - “T75” or “T79”); this does not include medical injuries. Episode selection was limited to incidents (i.e., excludes return visits, pre-arranged admissions). For more information on methods used by the Victorian Injury Surveillance Unit see here and background information and pre-COVID statistics see here.

- **Unintentional injury** cases were those with a ‘Human intent’ code “1” (non-intentional harm).
- **Unintentional home injury** cases were unintentional injury cases with a ‘Place where injury occurred’ code “H” (home).
- **Work injury** cases were unintentional injury cases (aged 15 years and above) with an ‘activity when injured’ code “W” (working for income) or a ‘compensable status’ code 3 (WorkCover/WorkSafe).
- **Unintentional farm injury** were unintentional injury cases with a ‘Place where injury occurred’ code “F” (Farm).
- **Sports injury** cases were aged 5 years and above and identified using sport-related ‘activity when injured’ codes and ‘place where injury occurred’ codes, as well as the ‘description of injury event’ text narrative. Utilising multiple fields allows for the comprehensive capture of sports-related presentations in the VEMD.
- **Transport injury** cases were those with ‘Injury cause’ codes “1” through “8” (related to motor vehicle occupants, motor cyclists, pedal cyclists, pedestrians and other transport related circumstances), excluding “7” (Horse related (fall from, struck or bitten by)).
• **Self-harm injury** cases were those with a ‘Human intent’ code “2” (intentional self-harm code for ED presentations in the 2016/17, 2018/19 financial years) and “18” through “20” (intentional self-harm codes for ED presentations in the 2019/20 financial year). In 2019/20, Human Intent coding was amended to distinguish *intentional self-harm with no intent to die* and *suicide attempt*. In some hospitals, this coding change led to incomplete coding of the Human Intent variable; this may have resulted in an overall underestimation of self-harm in the VEMD, starting July 2019.

• **Assault (home) injury** cases were those with ‘Human intent’ codes “12” through “17” (codes related to sexual assaults, and neglect/maltreatment/assaults, by a current or former intimate partner, other family member or other/unknown persons). Additional cases were selected if the ‘Description of injury event’ text field contained terms such as “domestic”, “home” appearing with terms such as “violence”, “hit” etc., and “assault”, “hit”, “struck”, “punch” and other similar terms appearing with terms such as “partner”, “spouse” and other terms for family members. Cases selected using text searches were manually checked for relevance. Assault cases were contained to those with a ‘Place where injury occurred’ code “H” (Home).

**COVID-19 MITIGATION MEASURES AND THEIR TIMELINES, MARCH 2020 TO MARCH 2021, VICTORIA**

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2020</strong></td>
<td></td>
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<tr>
<td>Mid-March</td>
<td>• Border closure to arrivals of non-citizens/non-permanent residents</td>
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<tr>
<td></td>
<td>• Mandatory 14-day quarantine for international arrivals</td>
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<td></td>
<td>• Restrictions on visitation to aged care facilities</td>
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<tr>
<td>Mid-Late March</td>
<td>• Auction houses, real estate auctions, eating in shopping centre food courts</td>
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<td></td>
<td>• amusement parks, play centres, beauty parlours, tattoo parlours banned</td>
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<td></td>
<td>• Gatherings restricted to groups of 10 when outdoors, including funerals.</td>
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<td></td>
<td>• Weddings limited to 5 people</td>
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<tr>
<td></td>
<td>• Implementation of physical distancing rules</td>
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<tr>
<td></td>
<td>• Non-essential services and schools closed to non-essential workers</td>
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<tr>
<td></td>
<td>• Stage 3 restrictions imposed on 30 March</td>
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<tr>
<td>13 May</td>
<td>Easing of restrictions</td>
</tr>
<tr>
<td>20 June</td>
<td>Reinstatement of restrictions</td>
</tr>
<tr>
<td>30 June</td>
<td>Local lockdowns on ten Melbourne postcodes</td>
</tr>
<tr>
<td>4 July</td>
<td>Two additional postcodes are added to the Melbourne lockdown, along with nine public housing towers</td>
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<tr>
<td>8 July</td>
<td>Second period of lockdown with Stage 3 restrictions introduced for metropolitan</td>
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<td></td>
<td>Melbourne and Mitchell Shire - stay at home directions with limited exemptions</td>
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<td></td>
<td>including for permitted work or education, necessary goods or services, care or other compassionate reasons,</td>
</tr>
<tr>
<td></td>
<td>exercise and in emergencies</td>
</tr>
<tr>
<td>23 July</td>
<td>Mandatory face coverings outside of home for all those aged 12 years and over, including when at school</td>
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<tr>
<td>2 August</td>
<td>Imposition of Stage 4 restrictions including a nightly curfew (8pm to 5 am), closing of schools and businesses; limit of one hour of exercise within a 5km radius of their place of residence; no private gatherings indoors, except for visits from intimate partners; limits on number of people who could attend funerals; places of worship were essentially closed</td>
</tr>
<tr>
<td>13 September</td>
<td>Roadmap for reducing restrictions in Victoria commences</td>
</tr>
<tr>
<td>Timeline</td>
<td>Mitigation Measures</td>
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<td>---------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>From 28 October</td>
<td>• Easing of restrictions&lt;br&gt;• First step: Introduction of a social “bubble” to reduce isolation for people who lived alone; easing of the curfew to 9pm to 5am&lt;br&gt;• Second step: Relaxation of restrictions on outdoor work, including increasing of manufacturing and construction; removal of the curfew, re-opening of schools and childcare&lt;br&gt;• Third step: Easing of 5 km movement to 25 km; return to work for most industries; re-opening of retail, indoor physical recreation and entertainment facilities including cinemas and nightclubs, all with careful hygiene and physical distancing measures in place; increase in indoor dining numbers, indoor gatherings; mandatory face masks indoors in public</td>
</tr>
<tr>
<td>8 November</td>
<td>Further easing of some travel and social restrictions</td>
</tr>
<tr>
<td>22 November</td>
<td>Victoria moves to last step of roadmap</td>
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<tr>
<td>6 December</td>
<td>Victoria moves to COVID Safe Summer settings</td>
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<tr>
<td>31 December</td>
<td>Limits regarding the number of visitor to your home reduced to 15 per day, mask-wearing mandatory when in public indoor spaces.</td>
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<tr>
<td>18 January</td>
<td>Victorian Public Service will be able to return to on-site work at 25% capacity and all other office workplaces will be able to increase to 50% capacity. Mandatory mask-wearing eased and only required on domestic flights, at airports, in hospitals, on public transport, in commercial passenger vehicles, at supermarkets and other indoor shopping locations.</td>
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<tr>
<td>8 February</td>
<td>Office-based workplaces allowed to return to 75% capacity</td>
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<tr>
<td>12 February</td>
<td>6-day circuit breaker (Stage 4) lockdown begins in Victoria – only four reasons to leave home, movement restricted to within 5kms of home, facemasks to be worn whenever you leave home, no visitors or public gatherings, school students to switch to remote learning, workers to work from home unless they are deemed essential workers.</td>
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<tr>
<td>18 February</td>
<td>Lockdown ends, no longer restricted to only four reasons to leave home, the five-kilometre rule no longer applies, students can go back to school and workers can return to work. No more than five visitors allowed to visit your home, public gatherings restricted to 20 people.</td>
</tr>
<tr>
<td>27 February</td>
<td>Victoria to return to its previous COVIDSafe settings allowing for more visitors in the home, reduced mask wearing and increasing the number of workers heading back to the office.</td>
</tr>
<tr>
<td>26 March</td>
<td>Relaxing of COVIDSafe settings allowing more visitors in the home (up to 100), reduced face mask wearing and an increase in the number of people allowed in live music venues and other settings.</td>
</tr>
</tbody>
</table>

*For more details visit:  

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The Victorian Injury Surveillance Unit (VISU) is a unit within the Monash University Accident Research Centre (MUARC). VISU is supported by the Victorian Government.