

Information Support, Research and Evaluation

Report

**Falls-related ambulance attendances for Queenslanders aged 65 years and over,
2018-2019**

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Key Points

- During 2018-2019, there was a total of 41,968 Queensland Ambulance Service (QAS) attendances to patients aged 65 years and older who had fallen (56.2 per 1,000 population).
- This overall rate of falls-related attendances amongst persons aged 65 years and over is increased from 44.5 cases per 1,000 population in 2007-08.
- The rate of attendance increased with age – the highest being 158.0 attendances per 1,000 population for adults aged 85 years and over.
- The majority of patients attended were treated at scene (96.2%) and transported (68.3%).
- The majority (83.1%) of patients aged 65 years and over attended for falls only presented to QAS once.

Introduction

Across all age groups, falls-related injuries continue to be one of the leading reasons for calls to Queensland Ambulance Service, accounting for over 75,000 (9.3% of all patient records) recorded in 2018-19.

Given the well-recognised association between risk of falling and age, this report examines the patterns of ambulance service attendance at falls-related cases for patients aged 65 years and over to give insight to the extent of the issue.

Methodology

Data for the financial year 2018-2019 was extracted from Queensland Ambulance Service (QAS) databases containing Computer Aided Dispatch (CAD) data, recorded by the Emergency Medical Dispatcher at call taking, and electronic Ambulance Record Form (eARF) data as documented by the attending paramedics. All ambulance CAD incidents with a dispatch code identifying a fall, where a matching eARF record was established and patient age was 65 years and over, were included for analysis.

Descriptive analyses included age and gender breakdown of patients receiving ambulance attendance; month, location and outcomes of attendance, including treatment and transport status.

Age standardised rates were calculated using the estimated resident population in Queensland as at June 2017.¹

Data Issues

The quality of the reported data is conditional on the accuracy of the documentation completed by paramedics whilst attending the patient. In the event a paramedic cannot determine the exact date of birth of a patient, and estimated age is recorded. Information about transportation relates to transport by a QAS vehicle to any destination.

Results

During 2018-19, there were a total of 41,968 attendances by QAS to patients aged 65 years and over who had fallen (56.2 per 1,000 population). Falls were the second most common reason for calling an ambulance and accounted for 14.1% of all emergency attendances for this age group. The overall rate of falls has increased from 44.5 cases per 1,000 population in 2007-08 to 56.2 per 1,000 population in 2018-19.

Month of attendance

On average, there were 3497 fall-related ambulance attendances each month during 2018-19. These attendances were more likely to occur during certain months of the year, as opposed to being evenly spread over the entire year ($\chi^2 = 210, p < 0.001$). Total attendances were higher during the cooler months (May-August), with a second slight peak in December. (Figure 1) However, there are differing patterns across age groups, with the highest monthly caseload amongst the 65-74 years age range is in the warm December month; by comparison the 75+ years patients have highest attendances in the winter months. (Figure 2) This suggests there may be some differing causal mechanisms for falls between these age groups.

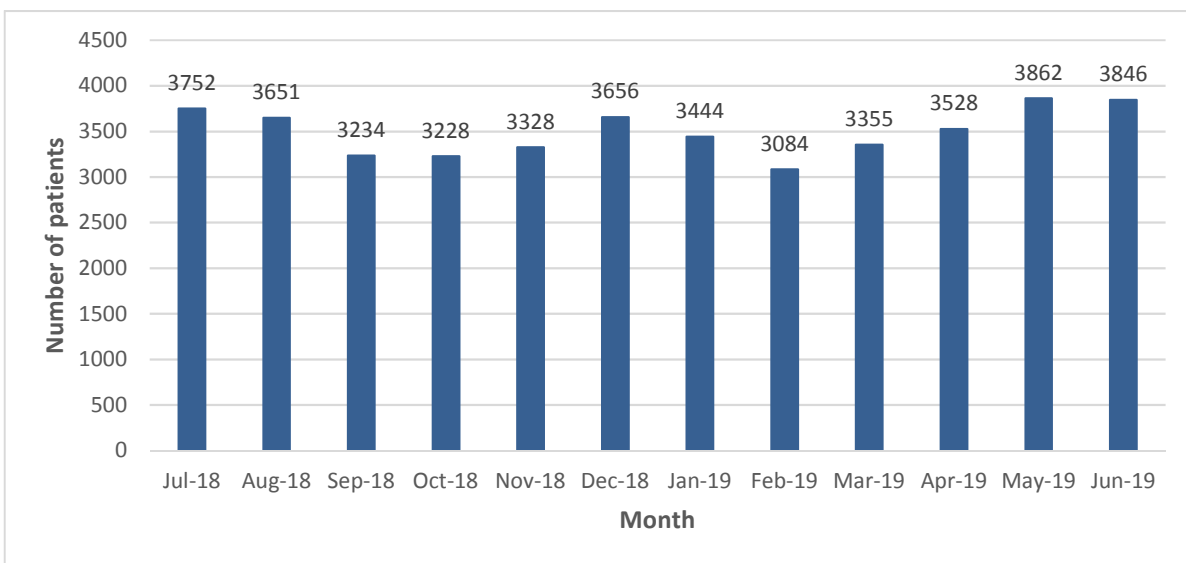


Figure 1: Number of ambulance attended falls-related patients by month, adults 65+, Queensland, 2017-18 (n = 41,968)

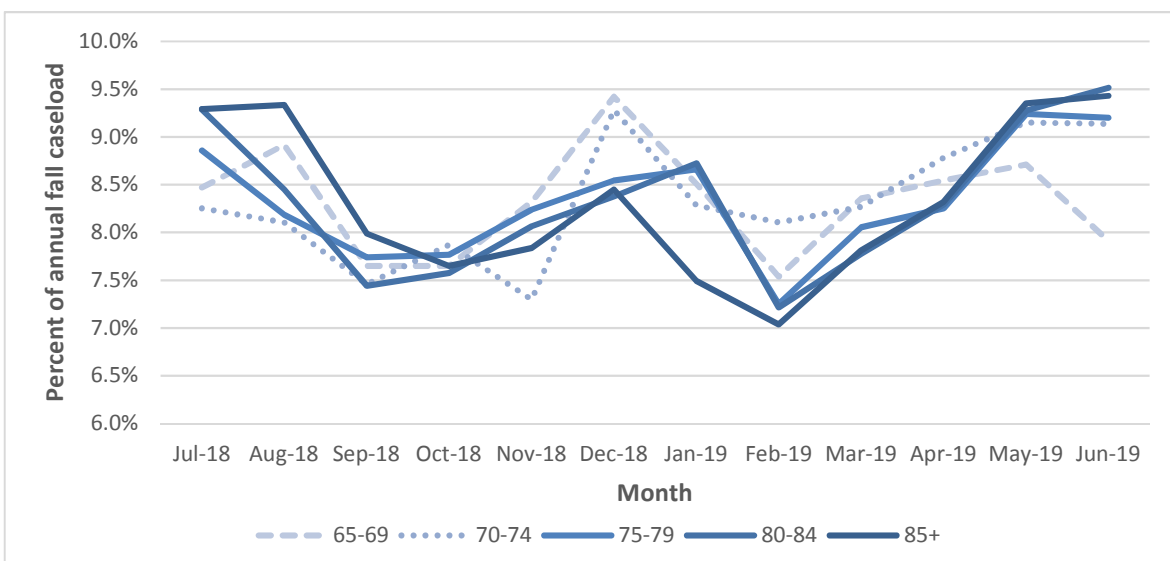


Figure 2: Falls-related attendances within age group by month, Queensland, 2018-19 (n = 41,968)

Age and gender standardised rates

There was an inverse relationship between age and falls occurrence. Table 1 shows that 33% of cases (n = 13,788) were in the over 85-year age group who comprised 12% of the population of interest (n = 87,268); by comparison only 12.8% of cases (n = 5,341) were in the 65 to 69 age group who comprised 33% of the population examined (n = 242,598). The age-specific rate of attendances, shown in Figure 3, highlight the sharp increase associated with age, from 22.0 per 1,000 population in the 65-69 years old to 158.0 per 1,000 population for persons aged 85 years and older.

Table 1: Fall-related QAS attendances by age and gender, 65 years and over, 2018-19 (*181 missing age or gender)

	No. of attendances (%)		Estimated population	Cases per 1,000 population
Age group				
	65-69 years	5,341 12.8	242,598	22.0
	70-74 years	6,774 16.2	195,007	34.7
	75-79 years	7,570 18.1	132,317	57.2
	80-84 years	8,314 19.9	86,178	96.5
	85+ years	13,788 33.0	87,268	158.0
Gender				
	Male	17,953 43.0	354,817	50.6
	Female	23,834 57.0	388,551	61.3
	*Missing age or gender	181		
Total		41,968 100	743,368	56.2

The attendance rate was higher for females than males overall (61.3 and 50.6 per 1,000 population), however in the oldest age group (85 years and over) the rate is lower for females than males (152.5 and 167.1 per 1,000 population; Figure 3).

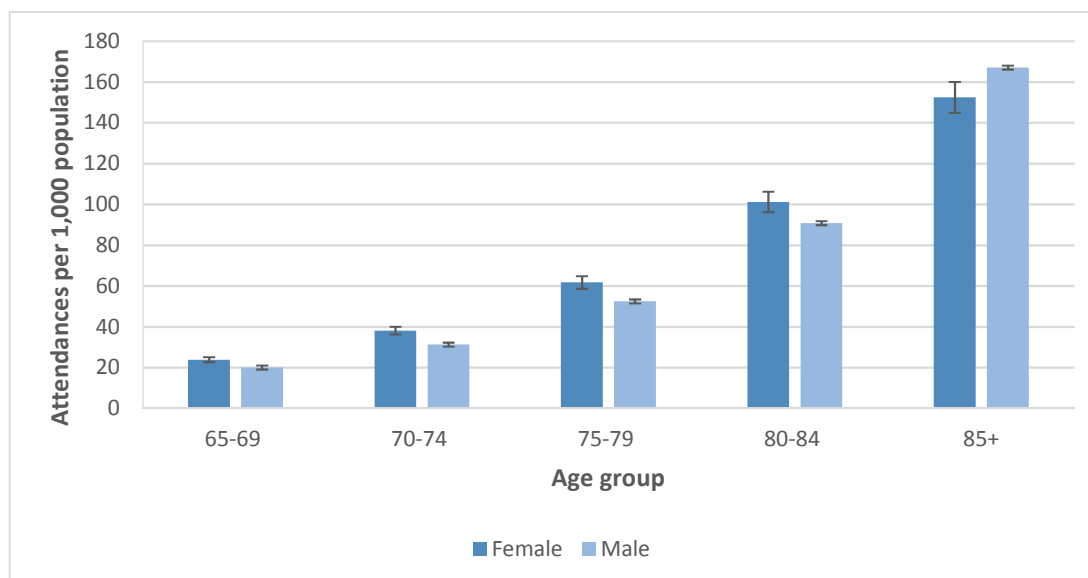


Figure 3: Rate of falls-related ambulance attendances (and 95% confidence intervals) by age and gender, adults 65+, Queensland, 2018-19

Treatment and transport status

Table 2 shows that over 96% of attendances resulted in some treatment being provided on scene, and 68.3% of patients were transported by ambulance.

Table 2: Fall-related QAS attendances by treatment and transport status, 65 years and over, 2018-19

No. of attendances (%)		
Treatment at scene		
Treated	40,388	96.2
Not treated	1,580	3.8
Transportation outcomes		
Transported	28,673	68.3
Not transported	13,295	31.7

Repeat Fallers

Overall presentation rates show that most patients 65 years and over (83.1%) only presented to QAS once during the 12-month period of this report, comprising 64.3% of total caseload. The remaining 16.9% of patients who presented twice or more were responsible for 35.7% (n = 14,983) of falls related attendances amongst patients aged 65 years or older. Notably, 39 patients (0.1%) presented ten times or more for falls within the 12-month period, being responsible for a total of 732 attendances (1.8% of caseload).

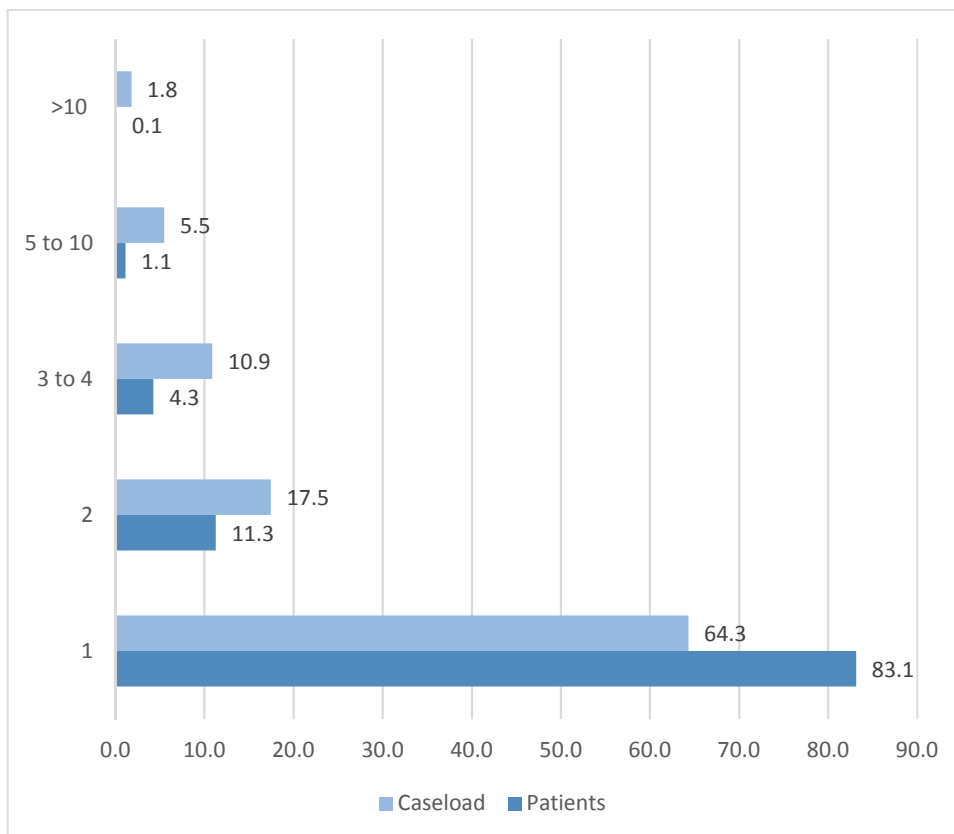


Figure 4: Percentage of patients (n = 31,181) and total caseload (n = 40,305) for fall-related attendances by number of presentations within 12 months, 65 years and over, 2018-19

References

1. Queensland Government Statistician's Office (QGSO) - ABS consultancy for QGSO, October 2018. These estimates correspond with ERP by SA2 and LGA as released in the publication - Population by Age and Sex, Australia, 2017 (ABS 3235.0, released 28 September 2018).

<http://www.qgso.qld.gov.au/products/tables/erp-age-sex-sa1-qld-consult/index.php>

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