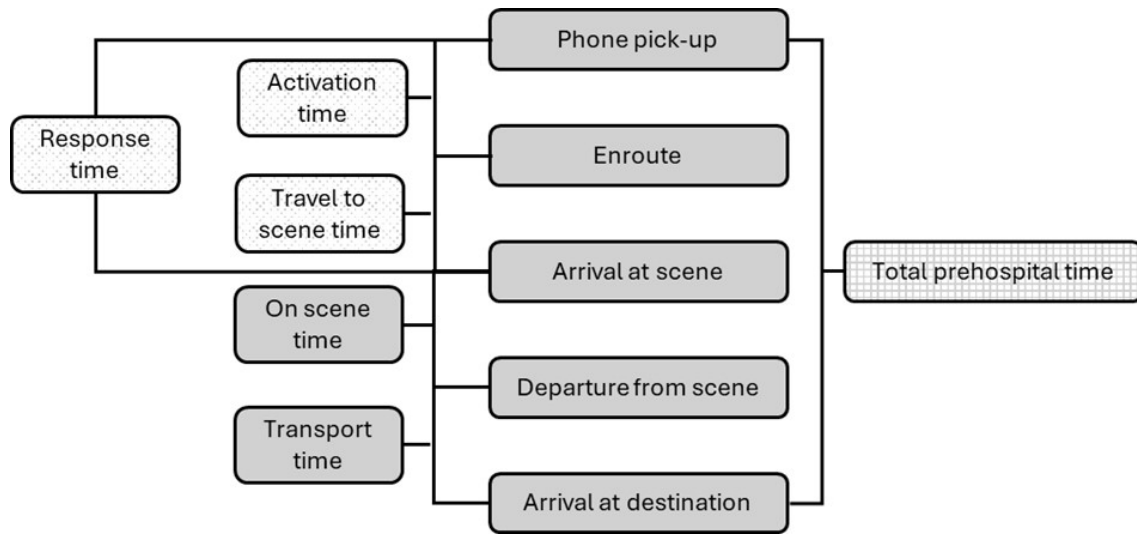


**Figure 1:** Emergency medical services prehospital time intervals.



**Table 1:** Demographic and injury characteristics of emergency medical services-attended major trauma patients in Aotearoa New Zealand by prehospital mortality status, 2016–2018.

Characteristics*	Died prehospital	Survived to first hospital	Total	p-value**
	n=105	n=3,229	n=3,334	
	n (%)	n (%)	n (%)	
<b>Sex</b>				
Female	28 (26.7)	988 (30.6)	1,016 (30.5)	0.4
Male	77 (73.3)	2,241 (69.4)	2,318 (69.5)	
<b>Median age in years (IQR)</b>	44 (25–60)	48 (27–65)	48 (27–65)	<0.001
<b>Ethnicity (prioritised)</b>				
Māori	30 (30.6)	687 (21.3)	717 (21.6)	0.03
Non-Māori	68 (69.4)	2,542 (78.7)	2,610 (78.4)	
<b>Geographic Classification for Health of incident</b>				
Urban	66 (62.9)	2,143 (66.6)	2,209 (66.5)	0.4
Rural	39 (37.1)	1,075 (33.4)	1,114 (33.5)	
<b>NZDep2018 of incident</b>				
1–3 (low deprivation)	24 (22.9)	813 (25.4)	837 (25.3)	0.7
4–7	50 (47.6)	1,406 (44.0)	1,456 (44.1)	
8–10 (high deprivation)	31 (29.5)	980 (30.6)	1,011 (30.6)	

**Table 1 (continued):** Demographic and injury characteristics of emergency medical services-attended major trauma patients in Aotearoa New Zealand by prehospital mortality status, 2016–2018.

<b>Triage priority</b>				
Purple/red (high)	56 (53.3)	1,472 (45.7)	1,528 (45.9)	0.1
Other	49 (46.7)	1,751 (54.3)	1,800 (54.1)	
<b>Mechanism of injury</b>				
Transport	71 (76.3)	1,959 (61.3)	2,030 (61.7)	0.001
Fall	8 (8.6)	851 (26.6)	859 (26.1)	
Other specified	14 (15.1)	388 (12.1)	402 (12.2)	
<b>Injury intent</b>				
Intentional	9 (8.6)	281 (8.7)	290 (8.7)	1.0
Unintentional	96 (91.4)	2,933 (91.3)	3,029 (91.3)	
<b>Median Injury Severity Score (IQR)</b>	57 (34–75)	17 (14–25)	17 (14–25)	<0.001
<b>Injury Severity Score (ISS) groups</b>				
Minor/moderate (ISS 1–15)	5 (4.8)	881 (27.3)	886 (26.6)	<0.001
Severe (ISS 16–24)	9 (8.6)	1,513 (46.9)	1,522 (45.7)	
Very severe (ISS ≥25)	91 (86.7)	830 (25.7)	921 (27.7)	

\*Small amounts of missingness were present for ethnicity (n=7), rurality (n=11), deprivation (n=30), triage priority (n=6), mechanism (n=43), injury intent (n=15) and ISS (n=5). The geographical injury location was used to assign the New Zealand Index of Deprivation (NZDep) 2018 (1=lowest deprivation, 10=highest) and rurality (binary version of the Geographic Classification for Health [GCH]).

\*\* $\chi^2$  test was used for categorical variables; Mann–Whitney U-test for continuous variables. Those with responses “not recorded” or “unknown” were not included in the  $\chi^2$  test.

IQR = interquartile range; NZDep = New Zealand Index of Deprivation; ISS = Injury Severity Score.

**Table 2:** Distribution of response time (activation time and travel to scene time) by prehospital mortality for emergency medical services-attended major trauma patients in Aotearoa New Zealand, 2016–2018.

Time components (minutes)	Died prehospital (n=105) Median (IQR)	Survived to first hospital (n=3,227*) Median (IQR)	Total (n=3,332*) Median (IQR)	Mann-Whitney p-values	Contribution % (95% CI)
Response time	11.5 (8.0–17.1)	14.5 (9.4–23.8)	14.4 (9.4–23.6)	0.0002	
Activation time	2.9 (1.7–4.4)	3.7 (2.6–5.7)	3.7 (2.6–5.7)	<0.0001	32.6 (31.9, 33.3)
Travel to scene time	8.0 (5.4–13.8)	9.8 (5.7–16.8)	9.8 (5.6–16.7)	0.06	67.4 (66.7, 68.1)

\*Those for whom response time could not be calculated were removed from analysis (n=2).  
IQR = interquartile range; CI = confidence interval.

**Table 3:** Distribution of total prehospital time and prehospital time components by 24-hour mortality after hospitalisation for emergency medical services-attended major trauma patients in Aotearoa New Zealand that survived to hospital, 2016–2018.

Time components (minutes)	Died within 24 hours following injury (n=121) Median (IQR)	Survived to 24 hours following injury (n=3,104*) Median (IQR)	Total (n=3,225*) Median (IQR)	Mann-Whitney p-values	Contribution % (95% CI)
Total prehospital time	65.6 (46.1–108.7)	81.1 (55.6–114.4)	80.6 (55.2–114.0)	0.003	
Response time	12.4 (8.4–17.3)	14.6 (9.5–23.9)	14.5 (9.4–23.8)	0.0005	22.0 (21.6, 22.4)
On-scene time	28.4 (17.7–47.5)	30.7 (19.8–49.5)	30.6 (19.7–49.4)	0.2	42.8 (42.2, 43.5)
Transport time	17.0 (7.8–29.9)	20.2 (11.4–33.5)	20.1 (11.3–33.4)	0.009	28.2 (27.7, 28.7)

\*Those for whom response time or on-scene time could not be calculated were removed from analysis (n=4).  
IQR = interquartile range; CI = confidence interval.