

Council of Ambulance Authorities National Patient Satisfaction Survey 2014

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EXECUTIVE SUMMARY

This report details the results of the Council of Ambulance Authorities Annual National Patient Satisfaction Survey. The data was collected by the Council of Ambulance Authorities and analysed and interpreted by the Ehrenberg-Bass Institute. This research investigated the service quality and satisfaction ratings of ambulance services across Australia (states/territories based) and in New Zealand (Wellington Free Ambulance) in 2014. The purpose of this research was to measure the quality of ambulance services, as perceived by its customers (patients or carers). The ratings were compared over time as this study has been running since 2002 in Australia and since 2012 for Wellington Free Ambulance in New Zealand.

Patients were asked to evaluate their experience of using ambulance services on a number of dimensions: timeliness, telephone assistance, treatment received, paramedics' care, journey quality and the overall satisfaction using the ambulance service. The key findings are illustrated below.

Australian states/territories

Eight Australian states/territories were investigated: Australian Capital Territory (n=404), New South Wales (n=384), Northern Territory (n=145), Queensland (n=451), South Australia (n=551), Tasmania (n=571), Western Australia (n=337) and Victoria (n=432).

Overall, the majority of patients were *satisfied or very satisfied* for all service dimensions investigated, only with minor statistically significant variations between years and states/territories. Below is a summary of the key changes in scores from 2013 to 2014.

- Queensland: Statistically significant increases in satisfaction for Call response time, Communication staff assistance and Overall satisfaction.
- <u>Tasmania</u>: Stable for most service dimensions measured, with a statistically significant increase in *Trip/ride satisfaction*.
- <u>New South Wales</u>: Statistically significant decreases in satisfaction ratings for *Paramedics care*, *Treatment satisfaction*, *Trip/ride satisfaction* and *Overall satisfaction*.
- <u>South Australia</u>: Stable for most service dimensions measured, with a statistically significant decrease in *Trip/ride satisfaction*.

Australia overall

There were a total of 3,275 respondents in Australia in 2014. The overall Australian results were weighted to match the total road and air patient population in 2012/2013 of each state/territory.

Table 1 shows Australia's results across all the service dimensions measured. The results are presented as the proportion of customers who, in 2014, were: *very dissatisfied or dissatisfied* (column 2), *neither satisfied nor dissatisfied* (column 3), and *satisfied or very satisfied* (column 4). The table shows a comparison with the proportion of *satisfied or very satisfied* customers in 2013 (column 5) and indicates over time statistically significant changes (at p<0.05) (column 6). This five-point scale is the preferred method of data collection by the Council of Ambulance Authorities.

Table 1: Service dimensions - Australia

	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Service dimensions	or dissatisfied	nor dissatisfied	2014	2013	2013 - 2014
	%	%	%	%	
Paramedics' care (I)	1	1	98	99	↓
Treatment satisfaction (I)	1	1	98	99	\downarrow
Call response time (I)	0	2	98	98	↔
Communication staff assistance (I)	1	1	98	98	↔
Overall satisfaction (I)	1	1	98	98	↔
Ambulance paramedics (II)	1	3	96 #	96	↔
Ambulance response time (III)	3	3	94 ##	95	↔
Trip/ride satisfaction (III)	2	5	93 ##	94	↔

Service dimensions are listed in descending order according to satisfied or very satisfied customers in 2014.

(I), (II), etc - These signs indicate the rank each service dimension achieved according to its performance in 2014 (statistically significant at p<0.05).

 $\Leftrightarrow \uparrow \downarrow$ - These signs indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

Satisfaction scores across Australia were high and mostly consistent over time. The *Overall satisfaction* score was 98%, which was similar to previous years. There were only some small statistically significant changes for *satisfied or very satisfied* scores between 2013 and 2014:

- Paramedics' care decreased slightly from 99% in 2013 to 98% in 2014, going back to the same level it was in 2012; and
- Treatment satisfaction also decreased slightly from 99% in 2013 to 98% in 2014, going back to the same level it was in 2012.

Similar to scores in previous years, *Ambulance response time* and *Trip/ride satisfaction* scored statistically significant lower than all other service dimensions (94% and 93%, respectively).

New Zealand – Wellington Free Ambulance

In 2014 there were 711 respondents for Wellington Free Ambulance in New Zealand. Results across all service dimensions measured are shown in Table 2. Comparisons were made between Wellington Free Ambulance scores for 2013 (column 6) and with the scores for Australia in 2014 (column 7).

^{# -} Indicate service dimensions that differ from others, based on the proportion of satisfied or very satisfied customers in 2014 (statistically significant p<0.05).

Table 2: Service dimensions – New Zealand (Wellington Free Ambulance)

	Very dissatisfied	Neither satisfied nor	Satisfied or very satisfied		Change	Compared
Service dimensions	or dissatisfied	dissatisfied	2014	2013	2013 - 2014	to Australia
	%	%	%	%		
Overall satisfaction (I)	1	1	98	99	↓	\leftrightarrow
Call response time (I)	1	1	98	98	\leftrightarrow	\leftrightarrow
Paramedics' care (I)	1	1	98	98	\leftrightarrow	\leftrightarrow
Treatment satisfaction (I)	1	1	98	98	\leftrightarrow	\leftrightarrow
Ambulance paramedics (I)	1	2	97	97	\leftrightarrow	\leftrightarrow
Communication staff assistance (I)	2	1	97	98	\leftrightarrow	\leftrightarrow
Trip/ride satisfaction (II)	1	4	95 #	96	\leftrightarrow	↔
Ambulance response time (III)	4	4	92 ##	95	↓	↓

Service dimensions are listed in descending order according to satisfied or very satisfied customers in 2014.

 \Leftrightarrow \uparrow \downarrow - These signs indicate change in the results for satisfied or very satisfied customers between 2013 and 2014, and also differences in the service dimensions in New Zealand in 2014 compared to Australia in the same period (statistically significant at p<0.05).

Satisfaction scores for Wellington Free Ambulance in New Zealand were high and mostly consistent over time. There were only some small statistically significant changes for *satisfied or very satisfied* scores between 2013 and 2014:

- Overall satisfaction decreased slightly from 99% in 2013 to 98% in 2014; and
- Ambulance response time decreased from 95% in 2013 to 92% in 2014.

Similar to scores in previous years, *Ambulance response time* scored the lowest compared to all other service dimensions, at 92%. This was lower than the result achieved in Australia in 2014 (94%).

^{# -} Indicate service dimensions that differ from others, based on the proportion of satisfied or very satisfied customers in 2014 (statistically significant p<0.05).

⁽I), (II), (III), etc - These signs indicate the rank each service dimension achieved according to its performance in 2014 (statistically significant at p<0.05).

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RESEARCH OBJECTIVES & METHODOLOGY

The key purpose of the Patient Satisfaction Survey was to track perceived service quality and satisfaction across patient segments in Australia (states/territories based) and New Zealand (Wellington Free Ambulance). Previous studies, conducted annually in Australia since 2002 and for Wellington Free Ambulance since 2012, provided benchmarks for comparison with the 2014 results.

The sample

In 2014, eight Australian states/territories based patient segments were investigated and the overall result for Australia was incorporated. Also, the New Zealand Wellington Free Ambulance patient segment was included in the research. Therefore, the ten segments were:

- 1. Australian Capital Territory
- 2. New South Wales
- 3. Northern Territory
- 4. Queensland
- 5. South Australia

- 6. Tasmania
- 7. Western Australia
- 8. Victoria
- 9. Australia overall
- New Zealand Wellington Free Ambulance

The data was collected by each ambulance service, using the same core questionnaire. Each state/territory was responsible for the mailing, collection and data entry of its patient survey. The individual service providers sent the data to the Council of Ambulance Authorities. The results were combined and reported by the Ehrenberg-Bass Institute. The Institute, as an independent research body, analysed the data and drew this report, including statistically significant differences between patient segments as well as comparisons with previous year's results.

A randomly selected sample of 1300 (Code 1 & 2) patients who were transported within two months of the sampling date was used in this study. Code 1 relates to an emergency event requiring one or more immediate ambulance responses under light and sirens where the incident is potentially life threatening. Code 2 relates to urgent incidents requiring an undelayed response by one or more ambulances without warning devices, with arrival desirable within thirty minutes.

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¹ Wellington Free Ambulance surveys were collected through weekly surveys.

The instrument

The Council of Ambulance Authorities, in consultation with the Ehrenberg-Bass Institute, developed a universal service quality and satisfaction measurement instrument.

Across all patient segments, three service and five satisfaction ratings were obtained, as well as four patient demographic profile questions. All service quality rating questions used a five-point Likert scale, where a higher number indicates better-perceived performance. A full version of the questionnaire is included in the Appendix section.²

Approach to analysis

The data was collected, entered and cleaned by each patient segment and then pooled and converted to SPSS, software used for analysis by the Ehrenberg-Bass Institute. For each patient segment, descriptive statistics were used to uncover the proportion of people who were *very dissatisfied or dissatisfied*, *neither satisfied nor dissatisfied*, and *satisfied or very satisfied* for the various satisfaction and service quality attributes. *Unsure* and *not applicable* responses were not included in the analysis due to the very low incidence and low managerial implications from them.

To better represent the total road and air patient population in 2012/2013 of each state/territory, the analysis included weighting for the Australian result overall. In order to do so, the results of some states/territories were weighted up and others weighted down to match the population in the analysed period. This was the same process employed in previous reports. The following example explains the process:

The 2012/2013 road and air population for New South Wales was 551,408. This corresponded to 32% of the total road and air population in Australia.

In 2014, there were 384 respondents in the sample from New South Wales. This accounted for 12% of the total sample in Australia.

Therefore, to match up the sample with the population, New South Wales was weighted up in the combined Australian result. In doing that the results are based on the population figure instead of the sample size.

In all tables, state/territory ambulance services were listed in a descending order according to the proportion of patients who said that they were *satisfied or very satisfied* with a certain element or service. In some cases differences in scores between states/territories were not statistically significant (i.e. arose from random sampling fluctuations), which means that, regardless of the order, all states/territories can be considered equal in performance.

Additional analysis was conducted to test whether variations between states/territories were statistically significant (at p<0.05). Where there were differences, the score was marked with the sign #. In front of each state/territory there is a rank that the ambulance service achieved according to its performance in 2014. (I) indicates a better result than (II), (II) is better than (III) and so on.

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 $^{^2}$ The questionnaire for Wellington Free Ambulance did not include questions related to the gender and age of patients.

Comparison to 2013 results was provided for all patient segments based on the percentage of respondents who were *satisfied or very satisfied* with each service dimension. The last column in each table indicates changes over time (statistically significant at p<0.05). The symbol ↔ shows a stable result, ↑ shows an increase and ↓ shows a decrease. In some cases while no statistically significant differences were observed on state/territory level (due to restricted sample sizes), the overall score produced statistically significant differences, as the aggregated sample has higher statistical power.

Also, differences in performance may be attributable to demographic biases rather than real differences between two equivalent populations. For example, compared to other states/territories, New South Wales had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations. This could partly explain the lower performance of the state for most service dimensions. These differences were reported in the *Respondents' profile* section as well as throughout the report.

Response rate

The overall 2012/2013 road and air patient population for the different patient segments was:

New South Wales= 551,408 Tasmania = 46,560

Victoria = 449,246 Northern Territory = 27,618

Queensland = 356,643 Australian Capital Territory = 23,532

Western Australia = 121,279 Total Australia = 1,721,155

South Australia = 144,869 Wellington Free Ambulance (NZ) = 28,701

Table 3 shows the response rates for each ambulance service, calculated based on the number of surveys sent and received.

Table 3: Response rates

Ambulance services	Sent	Received	Response rate %
TAS	1,300	571	44
SA	1,500	551	37
QLD	1,300	451	35
VIC	1,386	432	31
ACT	1,300	404	31
NSW	1,300	384	30
WA	1,300	337	26
NT	1,300	145	11
Total Australia	10,686	3,275	31
New Zealand WFA	1,300	711	55

States/territories are listed in descending order according to the response rate.

In 2014, the response rate achieved in Australia was 31%, which was consistent with 2013. The Northern Territory had the lowest response rate at 11%. Such a low response rate meant, the NT results had a higher error margin, meaning some of the seemingly substantial differences were statistically insignificant, unless indicated otherwise. This was consistent with the results from previous studies. A low response rate leads to the likelihood of non-response bias in their results and less accuracy when comparing with the other states/territories and over different time periods.

In New Zealand, the response rate for Wellington Free Ambulance was 55%, which was higher than in 2013 when it achieved 27%.

FINDINGS

Call response time

Table 4 shows the respondents' satisfaction with the time taken to answer their emergency call.

Table 4: Call response time satisfaction ratings (Q2)

	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
SA (I)	0	1	99	98	\leftrightarrow
QLD (I)	0	1	99	97	↑
WA (I)	0	1	99	97	\leftrightarrow
NT (I)	0	2	98	96	\leftrightarrow
ACT (I)	1	1	98	98	\leftrightarrow
TAS (I)	1	1	98	97	\leftrightarrow
VIC (II)	0	3	97 #	98	↔
NSW (II)	1	2	97 #	98	↔
Australia	0	2	98	98	↔
New Zealand WFA	1	1	98	98	↔

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

The majority of states/territories performed equally well for *Call response time*. The exceptions were Victoria and New South Wales, which achieved statistically significant lower results than all other ambulance services. There were some demographic profile differences that could explain these variations. Compared to other states/territories, Victoria had a higher proportion of carers who completed the survey. New South Wales had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations.

Results for most states/territories were consistent with 2013. The exception was Queensland, which scored statistically significant higher this year (from 97% in 2013 to 99% in 2014). Compared to 2013, in 2014 Queensland had a higher proportion of older patients, who tend to provide less critical evaluations. This increase did not impact the Australia result at the aggregate level.

In total, 98% of the respondents were *satisfied or very satisfied* with the time taken to answer their call in Australia and New Zealand Wellington Free Ambulance. This was consistent with 2013.

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

 $[\]Leftrightarrow$ \uparrow \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

Communication staff assistance

Respondents were then asked about their level of satisfaction with the operator they spoke to when their emergency phone call was answered. Results are presented in Table 5.

Table 5: Communication staff assistance satisfaction ratings (Q3)

	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
SA (I)	0	1	99	99	↔
QLD (I)	0	1	99	97	↑
WA (I)	1	0	99	98	↔
ACT (I)	1	1	98	99	↔
TAS (I)	1	1	98	98	↔
NT (I)	1	2	97	95	↔
NSW (II)	1	2	97 #	98	↔
VIC (II)	1	2	97 #	98	↔
Australia	1	1	98	98	↔
New Zealand WFA	2	1	97	98	↔

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

 \Leftrightarrow † \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

The majority of states/territories performed equally well for *Communication staff assistance*. The exceptions were New South Wales and Victoria, which achieved statistically significant lower results than all other ambulance services. New South Wales had a higher proportion of younger patients and respondents who had been transported only once. Victoria had a higher proportion of carers who completed the survey. These groups tend to provide more critical evaluations.

Nevertheless, results for all states/territories were high and mostly consistent with 2013. The exception was Queensland, which scored statistically significant higher over time (change from 97% in 2013 to 99% in 2014). In 2014 Queensland had a higher proportion of older patients. These patients tend to provide less critical evaluations. This increase did not impact the Australia result at the aggregate level.

Across Australia, the overall score of respondents who were *satisfied or very satisfied* with the operator they spoke to when their emergency phone call was answered was high at 98%. New Zealand Wellington Free Ambulance achieved 97% satisfaction. Both these results were consistent with 2013.

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

Ambulance response time

Respondents were asked to rate their satisfaction with the time the ambulance took to arrive. Results are presented in Table 6.

Table 6: Ambulance response time satisfaction ratings (Q4)

	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
WA (I)	1	1	98	96	\leftrightarrow
SA (I)	1	3	96	98	\leftrightarrow
QLD (I)	2	2	96	95	\leftrightarrow
TAS (I)	3	1	96	95	\Leftrightarrow
ACT (II)	2	3	95 #	95	\leftrightarrow
VIC (II)	3	3	94 #	93	\leftrightarrow
NT (II)	3	4	93 #	89	\leftrightarrow
NSW (II)	4	4	92 #	95	↔
Australia	3	3	94	95	↔
New Zealand WFA	4	4	92	95	↓

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

 \Leftrightarrow \uparrow \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

Western Australia, South Australia, Queensland and Tasmania performed equally well for *Ambulance response time*. On the other hand, Australian Capital Territory, Victoria, Northern Territory and New South Wales achieved statistically significant lower results than all other ambulance services (95%, 94%, 93% and 92%, respectively). There were some demographic profile differences that could explain these variations. Compared to the majority of states/territories, the Australian Capital Territory, Northern Territory and New South Wales had higher proportions of younger patients and respondents who had been transported only once. Victoria had a higher proportion of carers who completed the survey. These groups tend to provide more critical evaluations. Nevertheless, results for all states/territories were consistent with 2013.

Across Australia, the overall score of respondents who were *satisfied or very satisfied* with the *Ambulance response time* was high at 94%. This was stable compared to 2013. New Zealand Wellington Free Ambulance achieved 92% satisfaction, what was statistically significant lower than in 2013 when it scored 95% satisfaction.

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), (III), etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

Paramedics' care

Respondents were asked to rate their satisfaction with the care the ambulance paramedics took when attending them. Results are presented in Table 7.

Table 7: Paramedics' care satisfaction ratings (Q5)

	Very dissatisfied Ne	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
SA (I)	0	1	99	99	↔
WA (I)	0	1	99	99	↔
TAS (I)	1	0	99	99	↔
QLD (I)	1	0	99	98	↔
ACT (I)	1	1	98	99	↔
VIC (I)	1	1	98	99	↔
NT (I)	1	1	98	95	↔
NSW (II)	2	1	97 #	99	\downarrow
Australia	1	1	98	99	↓
New Zealand WFA	1	1	98	98	\leftrightarrow

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

 \Leftrightarrow \uparrow \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

The majority of states/territories performed equally well for *Paramedics care*. The change for NT was statistically insignificant. The exception was New South Wales, which achieved a slightly but statistically significant lower result than all other ambulance services. As previously mentioned, New South Wales had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations.

Compared to 2013, the only change over time was for New South Wales, which achieved a statistically significant lower result this year (from 99% in 2013 to 97% in 2014). Compared to 2013, in 2014 New South Wales had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations so this could explain this variation.

Across Australia, the overall score of respondents who were *satisfied or very satisfied* with the care the ambulance paramedics took when attending to the patients was high at 98%. Australia's score decreased slightly over time going back to the same level as in 2012 (from 98% in 2012, to 99% in 2013, to 98% in 2014). New Zealand Wellington Free Ambulance also achieved 98% satisfaction. This was consistent over time.

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), (III), etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

Treatment satisfaction

Respondents were asked about their satisfaction with the standard of treatment they received from the ambulance paramedics. Results are presented in Table 8.

Table 8: Treatment satisfaction ratings (Q6)

Al.	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
TAS (I)	0	1	99	99	↔
QLD (I)	0	1	99	98	\leftrightarrow
SA (I)	1	0	99	99	↔
SA (I)	1	0	99	99	↔
NT (I)	1	0	99	96	↔
VIC (I)	1	1	98	99	↔
WA (I)	1	1	98	99	↔
ACT (I)	1	1	98	98	↔
NSW (II)	1	2	97 #	99	↓
Australia	1	1	98	99	↓
New Zealand WFA	1	1	98	98	\leftrightarrow

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

The majority of states/territories performed equally well for *Treatment satisfaction*. The change for NT was statistically insignificant. The exception was New South Wales, which achieved a statistically significant lower result than all other ambulance services. Again, New South Wales had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations.

Also, compared to 2013, the only change over time was for New South Wales, which achieved a statistically significant lower result this year (from 99% in 2013 to 97% in 2014). Compared to 2013, in 2014 the state had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations and could explain this variation.

Across Australia, the overall score of respondents who were *satisfied or very satisfied* with the treatment received from the ambulance paramedics was high at 98%. Australia's score decreased slightly over time going back to the same level as in 2012 (from 98% in 2012, to 99% in 2013, to 98% in 2014). New Zealand Wellington Free Ambulance also achieved 98% satisfaction. This was consistent over time.

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), (III), etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

 $[\]Leftrightarrow$ \uparrow \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

Ambulance paramedics

Respondents were asked how satisfied they were with explanations given by the ambulance paramedics about what was happening to them and why. Results are presented in Table 9.

Table 9: Ambulance paramedics satisfaction ratings (Q7)

	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
TAS (I)	1	2	98	97	↔
SA (I)	1	2	98	96	↔
QLD (I)	0	1	98	96	↔
WA (I)	1	3	97	97	↔
NT (I)	0	4	96	93	↔
VIC (I)	2	3	96	95	↔
NSW (II)	2	3	95 #	97	↔
ACT (II)	1	5	94 #	96	↔
Australia	1	3	96	96	\leftrightarrow
New Zealand WFA	1	2	97	97	\leftrightarrow

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

 \Leftrightarrow \uparrow \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

The majority of states/territories performed equally well for *Ambulance paramedics*. The change for NT was statistically insignificant. The exceptions were New South Wales and Australian Capital Territory, which achieved statistically significant lower results than all other ambulance services. Compared to the majority of states/territories, New South Wales and the Australian Capital Territory had higher proportions of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations. Nevertheless, results for all states/territories were stable and consistent with 2013.

Across Australia, the overall score of respondents who were *satisfied or very satisfied* with the explanation given to them by the ambulance paramedics was 96%. New Zealand Wellington Free Ambulance achieved 97% satisfaction. Both these results were consistent with 2013.

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), (III) etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

Trip/ride satisfaction

Respondents were also asked about their satisfaction with the conditions of the trip when being transported by an ambulance. Results are presented in Table 10.

Table 10: Trip/ride satisfaction ratings (Q8)

	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
NT (I)	1	1	98	97	↔
WA (I)	0	3	97	95	↔
TAS (I)	2	2	96	93	↑
QLD (I)	2	4	94	92	\leftrightarrow
ACT (I)	3	3	94	95	↔
VIC (II)	2	5	93 #	93	\leftrightarrow
SA (II)	2	6	92 #	95	↓
NSW (II)	3	6	91 #	95	↓
Australia	2	5	93	94	\leftrightarrow
New Zealand WFA	1	4	95	96	↔

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

The majority of states/territories performed equally well for *Trip/ride satisfaction*. The exceptions were Victoria, New South Wales and South Australia, which achieved statistically significant lower results than all other ambulance services, therefore, formed the second-best rated group. Also, most results were stable from 2013 to 2014. However, there was a decrease for South Australia and New South Wales, and an increase for Tasmania.

There were some reasons that could explain why these variations happened across states/territories and over time. Compared to other states/territories, Victoria had a higher proportion of carers who completed the survey. Carers tend to provide more critical evaluations, hence the lower result. Also compared to other states/territories, New South Wales had higher proportions of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations, hence the lower score. Moreover, over time New South Wales had a decrease from 95% in 2013 to 91% in 2014. Compared to 2013, in 2014 the state had a higher proportion of younger patients and respondents who had been transported only once. Again, these groups tend to provide more critical evaluations and could explain this variation. There were no demographic differences in the South Australian sample to explain the lower score in 2014 and the over time variation (from 95% in 2013 to 92% in 2014). In fact, the opposite would be expected based on the state having more patients transported more than once in 2014 compared to 2013. These patients tend to be less critical on their evaluations. Thus this was an actual change. Tasmania has consistently been showing fluctuations over time – from 92% in 2011, to 97% in 2012, to 93% in 2013, to 96% in 2014.

Nevertheless, a lower score for *Trip/ride satisfaction* could be explained by geographical and transportation differences such as distance of travel, rugged terrain, large proportions of population

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), (III), etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

 $[\]Leftrightarrow$ † \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

living in the hills or up in valleys where access includes windier roads, and also differences in vehicles used for transport.

The over time differences did not impact the Australia result at the aggregate level. Across Australia, the overall score of respondents who were *satisfied or very satisfied* with the conditions of their trip while being transported in an ambulance was 93%. New Zealand Wellington Free Ambulance achieved 95% satisfaction. Both these results were consistent with 2013.

Overall satisfaction

Table 11 shows the respondents' overall satisfaction using the ambulance service.

Table 11: Overall satisfaction ratings (Q10)

	Very dissatisfied	Neither satisfied	Satisfied or very satisfied		Change
Ambulance services	or dissatisfied	nor dissatisfied	2014	2013	2013-2014
	%	%	%	%	
QLD (I)	0	1	99	96	↑
WA (I)	1	0	99	99	↔
SA (I)	1	1	98	99	\leftrightarrow
ACT (I)	1	1	98	98	\leftrightarrow
TAS (I)	1	1	98	98	\leftrightarrow
NT (I)	1	2	97	95	\leftrightarrow
VIC (II)	2	1	97 #	98	\leftrightarrow
NSW (II)	2	2	96 #	99	↓
Australia	1	1	98	98	\leftrightarrow
New Zealand WFA	1	1	98	99	↓

States/territories are listed in descending order according to satisfied or very satisfied customers in 2014.

 \Leftrightarrow \uparrow \downarrow - Indicate change in the results for satisfied or very satisfied customers from 2013 to 2014 (statistically significant at p<0.05).

All ambulance services achieved a high *Overall satisfaction*. The majority of states/territories performed equally well, with the exceptions of Victoria and New South Wales, which achieved statistically significant lower results than all other ambulance services. As previously mentioned, there were some demographic profile differences that could explain these variations for both states. Compared to the other ambulance services, Victoria had a higher proportion of carers who completed the survey. New South Wales had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations.

Most results were stable from 2013 to 2014. However, there was a statistically significant increase in *Overall satisfaction* for Queensland. The state has shown fluctuations over time for *Overall satisfaction* (from 97% in 2012, to 96% in 2013, to 99% in 2014). Moreover, in 2014 Queensland had a higher proportion of older patients, who tend to provide higher scores. On the other hand, there was a decrease for New South Wales (from 99% in 2013 to 96% in 2014). Compared to 2013, in 2014 the state had a higher proportion of younger patients and respondents who had been transported only once. These groups tend to provide more critical evaluations and could explain this variation. These over time differences did not impact the Australia result at the aggregate level.

Similar to 2013, in 2014 the *Overall satisfaction* score for Australia maintained high at 98%. New Zealand Wellington Free Ambulance also achieved 98%, what was slightly lower than in 2013 when it scored 99% satisfaction.

Table 12 shows the confidence interval for *Overall satisfaction*. It was calculated based on the overall patient population (total road and air) for each ambulance service at 95% confidence level. This demonstrates the allowed error given the sample size and proportion of *satisfied or very satisfied* respondents for each state/territory.

^{# -} Indicate states/territories that differ from others, based on the proportion of satisfied or very satisfied customers (statistically significant at p<0.05).

⁽I), (II), etc - Indicate the rank each state/territory achieved according to its performance in 2014 (statistically significant at p<0.05).

Table 12: Confidence interval for overall satisfaction ratings

	95% Confidence Interval +- Error margin							
Ambulance services	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014		
ACT	1.3	1.6	1.9	1.6	1.2	1.4		
NSW	1.4	1.1	1.1	1.2	1.0	1.8		
NT	2.4	2.4	1.9	2.0	2.9	3.0		
QLD	1.2	1.3	1.4	1.6	2.0	0.9		
SA	1.0	0.9	1.0	1.4	1.0	1.2		
TAS	1.1	1.1	1.0	1.1	1.0	1.0		
VIC	0.9	0.9	0.9	1.0	1.3	1.6		
WA	1.8	1.3	1.4	1.4	1.2	1.0		
Australia	0.5	0.4	0.4	0.5	0.5	0.5		
New Zealand WFA	n/a	n/a	n/a	1.0	0.4	1.1		

Reasonable time for emergency ambulance arrival

Respondents were asked what they expected to be a reasonable time for an ambulance to arrive in an emergency situation. This was an open-ended question, providing respondents with the opportunity to answer the exact timing in minutes. Table 13 illustrates indicators such as: average (mean value), median (a mid-point where half the answers are below this point and half above), minimum (lowest answer), maximum (highest answer) and range (range between the lowest and the highest answers).

Table 13: Reasonable time for emergency ambulance arrival (Q9)

Ambulance services	Average	Median	Minimum	Maximum	Range
Allibulatice services					
TAS	17	15	2	90	88
NSW	15	13	2	90	88
WA	14	15	1	63	62
SA	13	10	3	60	57
VIC	14	12	1	50	49
QLD	14	13	1	45	44
NT	13	10	3	45	42
ACT	12	10	3	40	37
Australia	14	12	1	90	89
New Zealand WFA	15	15	1	60	59

States/territories are listed in descending order based on the range.

The average results were largely consistent with the previous surveys. The reasonable time for emergency ambulance arrival was on average 14 minutes for Australia and 15 minutes for New Zealand Wellington Free Ambulance.

Table 14 shows the most common times expected for emergency ambulance arrival for Australia and for New Zealand Wellington Free Ambulance:

Table 14: Most common times expected for emergency ambulance arrival

	Australia %	New Zealand WFA %
5 minutes	8	8
10 minutes	32	29
15 minutes	25	27
20 minutes	10	14
30 minutes	7	9

Similar to previous years, the most common times expected for emergency ambulance arrival were: Australia – 5 minutes (8%), 10 minutes (32%), 15 minutes (25%), 20 minutes (10%) and 30 minutes (7%); Wellington Free Ambulance in New Zealand – 5 minutes (8%), 10 minutes (29%), 15 minutes (27%), 20 minutes (14%) and 30 minutes (9%).

In Australia, 48% of respondents believed the ambulance should arrive in 10 minutes or less, 28% thought 11 to 15 minutes was the ideal time and 23% expected it in 16 minutes or more. In New Zealand, 44% of respondents believed the ambulance should arrive in 10 minutes or less, 30% thought 11 to 15 minutes was the ideal time and 26% expected it in 16 minutes or more.

RESPONDENTS' PROFILE

This section reports on the demographic characteristics of respondents who were part of the 2014 study. These characteristics are important as they influence respondents' answers and were used to interpret and explain results for the core questions of the study throughout this report.

Who completed the survey

Respondents were asked: 'Is the person completing this survey... the patient that was transported, or a relative, or carer of the patient?'. Results are presented in Table 15.

Table 15: Proportions of patients and carers who completed the survey (Q1)

Ambulance services	Patient	Carer/relative
Allibulatice services	%	%
QLD (I)	81	19
ACT (I)	79	21
WA (I)	79	21
NSW (I)	78	22
NT (I)	78	22
SA (I)	78	22
TAS (I)	78	22
VIC (II)	69 #	31
Australia	77	23
New Zealand WFA	84	16

States/territories are listed in descending order according to the proportion of patients.

(I), (II), (III), etc - Indicate the rank each state/territory achieved according to the proportion of respondents that were patients (statistically significant at p<0.05).

Across all ambulance services the majority of the respondents were patients. In Australia, patients composed 77% of the sample, and for Wellington Free Ambulance in New Zealand 84%. Both results were consistent with 2013.

Similar to 2013, in 2014 Victoria had the lowest proportion of patients answering the survey. Carers tend to provide more critical evaluations; hence, this could be a reason why Victoria scored lower than other states/territories for some service dimensions.

Compared to 2013, there were more patients and fewer carers who completed the survey in Western Australia (patients answering the survey increased from 72% in 2013 to 79% in 2014). This variation did not appear to cause any changes over time in satisfaction of service dimensions in the state.

Gender

Table 16 shows the gender split of the patients transported.³

^{# -} Indicate states/territories that differ from others, based on the proportion of respondents that were patients (statistically significant at p < 0.05).

 $^{^{\}mbox{\footnotesize 3}}$ This information is not available for Wellington Free Ambulance in New Zealand.

Table 16: Proportions of male and female patients who have been transported (Q11)

Ambulance services	Male	Female
Allibulatice services	%	%
NT (I)	53	47
SA (I)	48	52
TAS (I)	48	52
NSW (I)	47	53
QLD (I)	47	53
ACT (I)	46	54
VIC (I)	45	55
WA (I)	44	56
Australia	46	54

States/territories are listed in descending order according to the proportion of males.

(I), (II), etc - Indicate the rank each state/territory achieved according to the proportion of respondents that were males (statistically significant at p<0.05).

In total, the composition of patients transported in Australia was 46% males and 54% females. This is consistent with 2013.

This year, all states/territories achieved similar proportions of male patients transported (approximately a half and half male/female split). The proportion of males and females from 2013 to 2014 was stable for most ambulance services. The only exception was Western Australia, which had fewer males transported this year (change from 52% males in 2013 to 44% in 2014). Again, this variation did not appear to cause any changes over time in satisfaction of service dimensions in the state.

^{# -} Indicate states/territories that differ from others, based on the proportion of respondents that were males (statistically significant at p<0.05).

Age groups

Respondents were asked about the age of the patient transported.⁴ The survey used eighteen age groups in alignment with the Australian Bureau of Statistics quotas, starting from 0-4 years old up to 85 years old and over. Results are presented in Table 17.

Table 17: Age of the patients (Q12)

Age Groups	ACT %	NSW %	NT %	QLD %	SA %	TAS %	VIC %	WA %	Australia %
0-4	0	0	0	0	0	3	0	1	0
5-9	0	0	2	0	0	1	1	1	1
10-14	0	0	0	0	0	1	1	0	1
15-19	1	1	1	0	1	2	2	0	1
20-24	1	4	2	1	2	2	1	1	2
25-29	2	4	2	2	1	1	2	1	3
30-34	2	2	1	2	1	1	2	2	2
35-39	3	5	6	2	2	2	3	2	3
40-44	5	4	3	3	2	3	2	3	3
45-49	7	6	6	5	4	5	4	2	5
50-54	5	11	7	5	5	5	6	5	7
55-59	10	11	10	7	5	6	5	6	7
60-64	14	10	13	9	7	8	7	5	8
65-69	10	10	11	10	11	7	7	8	9
70-74	11	9	11	13	12	12	12	14	11
75-79	13	10	8	12	13	13	13	14	12
80-84	8	5	13	13	16	14	13	15	11
85+	8	8	4	16	18	14	19	20	14

 $^{^{\}rm 4}$ This information is not available for Wellington Free Ambulance in New Zealand.

Three main age groups were created to assist in determining statistically significant differences in the ratings. These were 0-24, 25-49 and 50+ years old as presented in Table 18.

Table 18: Patients' main age groups (Q12)

Ambulance services	0-24 years	25-49 years	50+ years
Allibulatice services	%	%	%
SA (I)	3	11	86
WA (I)	4	10	86
QLD (I)	1	14	85
VIC (I)	5	13	82
ACT (II)	2	18	80 #
TAS (II)	8	12	80 #
NT (II)	6	17	77 #
NSW (III)	5	22	73 ##
Australia	4	16	80

States/territories are listed in descending order according to the proportion of 50+ years old.

(I), (II), (III), etc - Indicate the rank each state/territory achieved according to the proportion of respondents that were 50+ years old (statistically significant at p<0.05).

Overall, 80% of the respondents in Australia were 50 years old or over. This was slightly lower than in 2013 when there were 82% over 50 years old respondents.

Compared to the other states/territories, Australian Capital Territory, Tasmania, Northern Territory and News South Wales were the ambulance services with the lowest proportion of older patients (50 years old or older), New South Wales achieving the lowest proportion. Older patients generally provide higher scores and younger patients more critical evaluations. This partly explains the lower performance of New South Wales for all service dimensions.

Compared to 2013, this year there were fewer older patients in Victoria and New South Wales. Younger patients generally provide lower scores. This difference could have impacted the results, i.e. New South Wales achieved worse results in 2014 for many service dimensions. On the other hand, there were higher proportions of older patients in Queensland and the Northern Territory. Older patients generally provide less critical evaluations. This increase could have impacted the results, i.e. Queensland achieved statistically significant better results in 2014 for *Call response time*, *Communication staff assistance* and *Overall satisfaction*.

^{# -} Indicate states/territories that differ from others, based on the proportion of respondents that were 50+ years old (statistically significant at p<0.05).

Usage of ambulance service

Respondents were asked to identify how many times the patient transported used the ambulance service in the twelve months prior to responding the survey. Results are presented in Table 19.

Table 19: Usage of ambulance service in the last twelve months (Q13)

Ambulance services	Once	Between 2 and 5 times	More than 5 times
	%	%	%
ACT (I)	65	33	2
NSW (I)	63	32	5
NT (I)	56	41	3
TAS (II)	54 #	39	7
WA (II)	50 #	44	6
SA (III)	45 ##	46	9
QLD (III)	42 ##	47	11
VIC (III)	41 ##	52	7
Australia	50	43	7
New Zealand WFA	58	38	4

States/territories are listed in descending order according to the proportion of patients transported once.

(I), (II), etc - Indicate the rank each state/territory achieved according to proportion of patients transported once (statistically significant at p<0.05).

The results for usage of ambulance service in the last twelve months were stable in Australia, with 50% of patients being transported once only. For Wellington Free Ambulance in New Zealand, 58% of the patients were transported once. This was also similar to 2013.

The Australian Capital Territory, New South Wales and the Northern Territory were the ambulance services with higher incidences of patients transported only once in the last twelve months. Patients who have been transported only once tend to provide more critical evaluations. This partly explains the lower performance of these states/territories for some service dimensions.

Compared to 2013, this year there were fewer patients transported only once in the Australian Capital Territory, the Northern Territory and South Australia; and more patients transported only once in New South Wales. This sort of patients generally provide lower scores, hence, this variation could have impacted the results for New South Wales, that is, this may explain why the state achieved statistically significant worse results in 2014 for many service dimensions.

^{# -} Indicate states/territories that differ from others, based on the proportion of patients transported once (statistically significant at p<0.05).

CONCLUSION

Satisfaction scores in 2014 were very high and mostly stable compared to the results from previous studies. Overall, 98% of patients in Australia and in New Zealand (Wellington Free Ambulance) were satisfied or very satisfied with the ambulance service they received.

All individual patient segments in Australia performed well and were relatively stable for most service dimensions, with only small statistically significant variations. Demographic differences (% of patients and relatives or carers who completed the survey, age distribution and usage levels) could have caused differences between states/territories scores due to sample bias.

Recommendation:

Consistent with our advice in the previous years, we recommend changing the reporting style from focusing on amalgamated figure of *satisfied or very satisfied* patients, to reporting these two groups separately. The reason for this advice is that in many dimensions the amalgamated score has reached almost 100%. While this indicates an excellent performance, from an analysis point of view, this result presents a statistical challenge known as the "ceiling effect". This effect means that changes in scores are harder to identify when they vary by such a narrow margin at the top of the scale. Reporting separately the proportions of *satisfied* and *very satisfied* customers will allow for better sensitivity of the measurement instrument, providing better identification of the changes over time and between the states. Another suggestion is reporting mean results (average from one to five) rather than proportions of *satisfied or very satisfied* respondents. This would allow more meaningful comparisons across states/territories and over time.

APPENDIX 1: QUESTIONNAIRE

Patient Satisfaction Survey

Please answer the questions below by placing a tick in the appropriate box. If you don't understand any questions, please use the 'don't know' option and move to the next question. If the question is not relevant to your experience, mark the 'NA' box and move on to the next question. Please note that your personal opinions will be kept confidential and that no information, which could identify you, will be released. Information obtained from you will be combined with the other responses and used for analytical purposes only.

Q1 Is the person completing this survey?

- o 1 The patient that was transported
- O 2 A relative, or carer of the patient

Q2 When the ambulance was called, thinking about the time it took to be connected with an Ambulance Service call taker, were you?

- o 1 Very satisfied
- o 2 Satisfied
- O 3 Neither satisfied nor dissatisfied
- O 4 Dissatisfied
- 0 5 Very dissatisfied
- O 6 Don't know/Can't say
- o 7 Not applicable

Q3 How satisfied were you with the assistance provided by the Ambulance Service call taker, were you?

- O 1 Very satisfied
- O 2 Satisfied
- O 3 Neither satisfied nor dissatisfied
- o 4 Dissatisfied
- 0 5 Very dissatisfied
- O 6 Don't know/Can't say
- O 7 Not applicable

Q4 Thinking about the time the ambulance took to arrive, were yo
--

- O₁ Very satisfied
- O 2 Satisfied
- O 3 Neither satisfied nor dissatisfied
- O 4 Dissatisfied
- ο 5 Very dissatisfiedο 6 Don't know/Can't say
- o 7 Not applicable

Q5 Thinking about how caring the ambulance paramedics that attended to you were, were you?

- o 1 Very satisfied
- O 2 Satisfied
- O 3 Neither satisfied nor dissatisfied
- O 4 Dissatisfied
- 0 5 Very dissatisfied
- O 6 Don't know/Can't say
- o 7 Not applicable

Q6 How satisfied were you with the standard of treatment provided by the ambulance paramedics, were you?

- o 1 Very satisfied
- O 2 Satisfied
- O 3 Neither satisfied nor dissatisfied
- O 4 Dissatisfied
- 0 5 Very dissatisfied
- 0 6 Don't know/Can't say
- o 7 Not applicable

Q7 How satisfied were you with the ambulance paramedics' explanation about what was happening to you and why, were you?

- O₁ Very satisfied
- O 2 Satisfied
- O 3 Neither satisfied nor dissatisfied
- O 4 Dissatisfied
- O 5 Very dissatisfied
- 0 6 Don't know/Can't say
- O 7 Not applicable

Q8 Thinking about your journey in the ambulance, how satisfied were you with the quality of the ride i.e. smoothness of transport and quietness of the vehicle? Overall, were you?

- O 1 Very satisfied
- O 2 Satisfied
- O 3 Neither satisfied nor dissatisfied
- o 4 Dissatisfied
- 0 5 Very dissatisfied
- 0 6 Don't know/Can't say
- o 7 Not applicable

Q9	All things	s conside:	ed, if yo	u had	an en	nergenc	y in y	your	home,	what d	o you	think	is a
rea	sonable t	ime for ar	n ambula	nce to	o arriv	e after c	allin	g on	e?				

No of mins

Q10 How satisfied were you overall with were you?	your last experience using the Ambulance Service,
	 O 1 Very satisfied O 2 Satisfied O 3 Neither satisfied nor dissatisfied O 4 Dissatisfied O 5 Very dissatisfied O 6 Don't know/Can't say
Q11 Gender (of the patient)	
, ,	O_1 Male O_2 Female
Q12 Please indicate the age group that y	ou (the patient) fall into.
Q13 How many times have you (the patie months)?	() 01 0-4 () 02 5-9 () 03 10-14 () 04 15-19 () 05 20-24 () 06 25-29 () 07 30-34 () 08 35-39 () 09 40-44 () 10 45-49 () 11 50-54 () 12 55-59 () 13 60-64 () 14 65-69 () 15 70-74 () 16 75-79 () 17 80-84 () 18 85 and over
·	o 1 Once
	O 2 Between 2 and 5 times O 3 More than 5 times
Q14 What is your (the patient's) postcode	e?
	Postcode
Q15 Include non-standard demographic	questions (if required).
•	ave regarding your experience of the Ambulance Service.

The Ambulance Service respects your privacy and would like to thank you for taking the time to complete this questionnaire. Please place the completed questionnaire in the reply paid envelope provided and post.