

# State Highways 73/75 and 74 Christchurch to Akaroa and Lyttelton speed review

## Crash causes and speed

### How crash data is collected and used

Waka Kotahi NZ Transport Agency manages the Crash Analysis System (CAS), New Zealand's primary tool for capturing information on where, when and how road crashes occur.

The system provides tools to analyse and map crashes, and enables users to identify high-risk locations and monitor trends and crash sites. This information helps inform transport policy, design and prioritise road safety improvements and monitor their effectiveness.

Lots of people have asked us what sorts of crashes people are having travelling from Christchurch to Akaroa and what is causing them.

CAS data is complex and can be misinterpreted. Experienced and qualified Waka Kotahi staff have prepared the data tables below, which need to be read while understanding these points:

- The following data is provided from the road traffic crash database; CAS version 2.0.0 for the years 2011–2020.
- Waka Kotahi maintains the CAS which is updated once a Traffic Crash Report (TCR) is received from NZ Police sometime after the crash.
- Data is limited to crashes along the SH73/75 Christchurch to Akaroa and SH74 Lyttelton as shown in community consultation information published on 3 November 2020.
- A crash, to be recorded in CAS has to have occurred on a road. The CAS definition of a road is any street, motorway or beach, or a place to which the public have access with a motor vehicle, whether as of right or not e.g. a public car park.
- Due to the police reporting timeframe and subsequent data processing, there is a lag from the time of a crash to full and correct crash records within CAS. As a result, 2020 crash data is incomplete currently.

- Due to the nature of non-fatal crashes it is believed that these are under-reported, with the level of under-reporting decreasing with the severity of the crash.
- Totals have not been provided for the contributing factor information, as most crashes have multiple contributing factors.
- The totals vary from what has been reported in initial statistics as new crash records for 2020 have since been added to CAS and have subsequently increased the crash numbers. There have been no additional fatal crashes and three additional serious injury crashes included.
- Contributing factors and movement categories are determined by NZ Police and by the CAS reporting method.
- The causes of a crash do not change the fact that speed is the single biggest factor that determines if a person is killed in or survives a crash.
- Ensuring speeds are right for the road is the quickest and most effective way of reducing the numbers of people being killed and seriously injured.

Crash data is a snapshot in time. The data shared during July/August community engagement period was extracted in November 2020. This is why the total crash number shown here is different from the statistics shown in speed review community engagement information provided earlier this year. The difference in numbers is not only new crashes – but also crashes from 2020 that have since been entered into the database – which is continuously being updated. The additional crashes that have occurred reinforces the need for change on this corridor.

**The causes of a crash do not change the fact that speed is the single biggest factor that determines if a person is killed in or survives a crash.**

### Key trends

- Loss of control crashes on straights and bends along with rear end crashes are the most common types of crashes on this corridor. These are often attributed to speed and can be mitigated with speed reduction and safety improvements to the road.
- Inappropriate speed is within the top five contributing factors for crashes on this corridor.
- Rear end crashes are high but mostly occurring in low speed environments, hence the low severity of the crashes (mostly minor and non-injury crashes).
- Most crashes, particularly fatal and serious crashes, are primarily occurring in higher posted speed environments.

## A note on alcohol and drugs

Drug and drink driving can be contributing factors in a crash. Along this SH73/75 corridor, 6.5% of crashes involve alcohol. This includes a positive test of alcohol, suspected alcohol or test refused (which is considered a positive result). Alcohol as a contributing factor is not unique to this route – it is happening right across the country.

## The solution: Road to Zero

To stop people being killed or injured on our roads, three years ago the government published the Road to Zero strategy for 2020–2030 and the initial 3-year action plan. It includes Vision Zero – seven principles, five focus areas and targets — including the target of a 40% reduction in death and serious injuries (from 2018 levels) by 2030.

Our five focus areas are:

- Infrastructure improvements and speed management.
- Vehicle safety.
- Work-related road safety.
- Road user choices.
- System management.

Road to Zero calls on a commitment from all of us who use our roads, cycleways and footpaths, as well as everyone involved in designing and maintaining New Zealand roads, to play their part.

## Why change speeds?

In the last decade there have been 739 crashes (that we know of) on this road\*. Nine people were killed and 72 people suffered serious injuries in these crashes, leaving families and communities grieving and many people with life-long injuries.

**739**  
Crashes



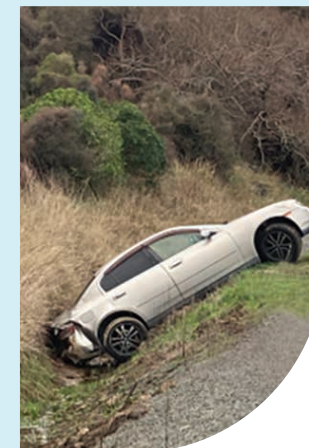
**9**  
People  
lost their  
lives



**72**  
People  
seriously  
injured



\*In a ten-year period from 2011–2020, data from CAS extracted in August 2021



The scenic winding sections of SH75 have steep drop offs and reduced visibility. This is where increasing numbers of motorcyclists are being killed and injured. By reducing speeds, we have a better chance of walking away from a crash if it happens.

[SH73/75 motorcyclist crashes 2011–20 \[PDF, 678 KB\]](#)

Given New Zealand's death rate per 100,000 population is more than twice the rate of the world's best performing countries and is costing the country over \$4 billion every year, setting safer speeds are the quickest and most important safety measures we can take.

Because even the best drivers, on familiar roads, can make mistakes. Christchurch to Akaroa is in the top ten per cent in the country where we can make the biggest difference in reducing the numbers of people being killed and seriously injured.

**TABLE 1: Summary table of crash movement categories for crashes along SH73/75 Christchurch to Akaroa (source: CAS 2011-2020)**

CRASH SEVERITY		FATAL CRASH		SERIOUS CRASH					MINOR CRASH					NON-INJURY CRASH						TOTALS	
Posted speed limit		60	100	50	60	70	80	100	50	60	70	80	100	10	50	60	70	80	100	Number	%
Movement codes categories	Head on crash		3					8	1	2			4		1	1	2	1	18	41	5.5%
	Lost control bend	1	2		1	1	1	22	3		4	2	53		12	8	17	5	122	254	34.4%
	Lost control straight road		1					8	1	3			11		5	7	1	1	36	74	10.0%
	Manoeuvring			2	1		1	2	1	1		1	3	1	6	5		3	5	32	4.3%
	Merging			1					3	5		1	1		1	1	3		4	20	2.7%
	Misc						1						1		1			1	1	5	0.7%
	Obstruction			1					1	1	1	1	2		4	1	3	1	9	25	3.4%
	One turns right			3		1		5	14	4	1		1		14	17	5	1	4	70	9.5%
	Overtaking		2	2				2			1	1	5		7	4	7		16	47	6.4%
	Pedestrian crossing road								2	2										4	0.5%
	Rear end crash							1	4	1	10	1	4		19	15	13	3	7	78	10.6%
	Same direction turning							3	1	3			5		4	6	2	1	11	36	4.9%
	Crossing not turning			2	1				4	2		1			3	5		2	3	23	3.1%
	Crossing one turning			1		1			8	3		2	2		2	5	3		3	30	4.1%
	Crash totals	1	8	12	3	3	3	47	42	27	16	10	90	1	78	71	56	19	235	739	



**TABLE 2: Summary table of contributing factor categories for crashes along SH73/75 Christchurch to Akaroa (source: CAS 2011–2020)**

	CRASH SEVERITY				FATAL CRASH		SERIOUS CRASH				MINOR CRASH				NON-INJURY CRASH						TOTALS	
	Posted speed limit	60	100	50	60	70	80	100	50	60	70	80	100	10	50	60	70	80	100	Number	%	
Movement codes categories	Alcohol above limit suspected or test refused	1	2	2		1		15	5	2	3	0	12		10	9	8		26	96	6.5%	
	Drugs	1	3					1		1		1	3		1	1	1		4	17	1.1%	
	Animals												1				3		7	11	0.7%	
	Attention diverted by:		1	1	1			7	2		2		5		6	11	6	3	20	65	4.4%	
	Body or chassis			1								1	1		1	1			3	8	0.5%	
	Brakes												2						1	3	0.2%	
	Crossing road								2											2	0.1%	
	Did not see another party until too late			3	3			6	14	7	1	4	5		10	13	10	2	11	89	6.0%	
	Did not stop			4		1			2	4					4	9	5			29	2.0%	
	Driver/passenger boarding or leaving						1						1							2	0.1%	
	Entering or leaving land use			1				2	1	2			1		1	1	2	2		13	0.9%	
	Failed to give way			5	1	1	1	5	27	12	1	4	4	1	16	20	6	5	15	124	8.4%	
	Fatigue (drowsy)							6	1	2	1		9		2	4	2	1	15	43	2.9%	
	Following too close							1	3	3	7	1	2		11	9	9	5	11	62	4.2%	
	Forbidden movements			1				1	3	1			1		1				5	13	0.9%	
	Illness and disability						1	1		1			3		2	1	2		4	15	1.0%	
	Inappropriate speed	1	4	1		1		8	1		2		15		7	7	7	4	54	112	7.5%	
	Inattentive: failed to notice			2		1		3	2	4	5	1	5		16	19	13	1	13	85	5.7%	
	Incorrect use of vehicle controls								1		2		1		1	2				7	0.5%	
	Inexperience		2	1	1		1	5	1	1	1	1	15		7	3	7	1	39	86	5.8%	
	Intentional or criminal							1							1	1				3	0.2%	

**TABLE 2: Summary table of contributing factor categories for crashes along SH73/75 Christchurch to Akaroa (source: CAS 2011-2020) cont.**

	CRASH SEVERITY		FATAL CRASH		SERIOUS CRASH					MINOR CRASH					NON-INJURY CRASH						TOTALS	
	Posted speed limit	60	100	50	60	70	80	100	50	60	70	80	100	10	50	60	70	80	100	Number	%	
Movement codes categories	Lights and reflectors							1												1	0.1%	
	Load												1		1			1	1	4	0.3%	
	Lost control	1	6	1	1	1	1	20	3	2	3	1	40		16	7	9	5	119	236	15.9%	
	Markings, islands, barriers																		2	2	0.1%	
	Miscellaneous vehicle		1		1			1					2						2	7	0.5%	
	Misjudged speed, distance or position				3			1	3	2	1	1	1	2		8	6	2		7	37	2.5%
	Obstructions and objects																	1	2	3	0.2%	
	Overtaking		1					3	1	1			6		2	1		1	6	22	1.5%	
	Position on road				1				13	2	4	2	2	27		7	7	4	1	55	125	8.4%
	Reason for death/injury		1										1							2	0.1%	
	Showing off												1			1	1			3	0.2%	
	Signalling															1			2	3	0.2%	
	Signs and signals															1				1	0.1%	
	Slippery road		1					4			3	1	11		8	1	2	1	35	67	4.5%	
	Steering																1		1	2	0.1%	
	Sudden action							4					6		2	5	3		12	32	2.2%	
	Surface condition				1			2				1	4				1		1	10	0.7%	
	Tyres												4				1		2	7	0.5%	
	Visibility limited		1					2									2		2	7	0.5%	
	Weather							1	3	1			5		2	1	1	3	11	28	1.9%	
	Windscreen or mirror												1							1	0.1%	

This short section of SH74 is being reviewed to align with recent speed reductions to Lyttelton's urban streets introduced by the Christchurch City Council recently. This is a busy thoroughfare with lots of people about – pedestrians, along with cars and buses as well as heavy vehicles moving to and from Lyttelton Port.

**TABLE 3: Summary table of crash movement categories for crashes along SH74 Norwich Quay/Gladstone Quay (source: CAS 2011-2020)**

Movement codes categories	CRASH SEVERITY	SERIOUS CRASH	MINOR CRASH	NON-INJURY CRASH	TOTALS	
	Posted speed limit	50	50	50	Number	%
	Lost control bend	1		1	2	25%
	Manoeuvring	1	1	2	4	50%
	Other pedestrian		1		1	12.5%
	Crossing one turning			1	1	12.5%
	Crash totals	2	2	4	8	100%

**TABLE 4: Summary table of contributing factor categories for crashes along SH74 Norwich Quay/Gladstone Quay (source: CAS 2011-2020)**

Movement codes categories	CRASH SEVERITY	SERIOUS CRASH	MINOR CRASH	NON-INJURY CRASH	TOTALS	
	Posted speed limit	50	50	50	Number	%
	Alcohol	1		2	3	20%
	Attention diverted by:			1	1	6.7%
	Did not see another party until too late	1	1		2	13.3%
	Failed to give way	1		1	2	13.3%
	Inappropriate speed	1		1	2	13.3%
	Inattentive: Failed to notice	1			1	6.7%
	Inexperience			1	1	6.7%
	Miscellaneous pedestrian		1		1	6.7%
	Misjudged speed, distance or position			2	2	13.3%