



# Report on Drowning 2010



Our Partners



# Water Safety New Zealand

## Vision

Everyone in New Zealand will have the water safe skills and behaviours necessary to use and enjoy the water.

## Mission

Through water safety education, prevent injury and drowning.

## What is Drowning?

Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid.

This definition was set by the International Life Saving Society in 2002.

## DrownBase™

All drowning incidents in New Zealand are recorded in DrownBase™, the only fully integrated drowning database in the world.

All drowning data is provisional until a coronial inquest is completed.

Data recorded in DrownBase™ includes all mortality (fatality) data since 1980 and all morbidity (hospitalisation) data since 2003 in New Zealand.

2010 drowning data is compared against the five year average, 2005-2009.



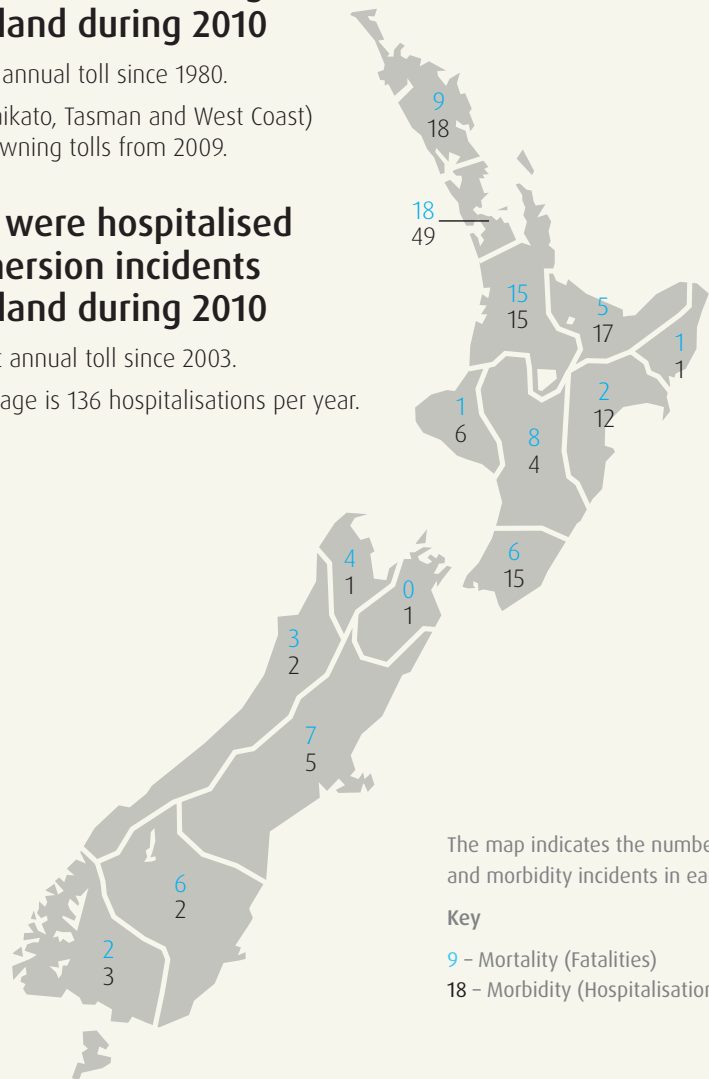
## How many people drowned in 2010?

### 87 people died of drowning in New Zealand during 2010

This is the lowest annual toll since 1980.  
 Three regions (Waikato, Tasman and West Coast) had increased drowning tolls from 2009.

### 160 people were hospitalised due to immersion incidents in New Zealand during 2010

This is the highest annual toll since 2003.  
 The five year average is 136 hospitalisations per year.



The map indicates the number of mortality and morbidity incidents in each Region.

**Key**

- 9 - Mortality (Fatalities)
- 18 - Morbidity (Hospitalisations)

Note: 9 hospitalisations were recorded with unknown locations



# Mortality (Fatalities)

## Where are people drowning?

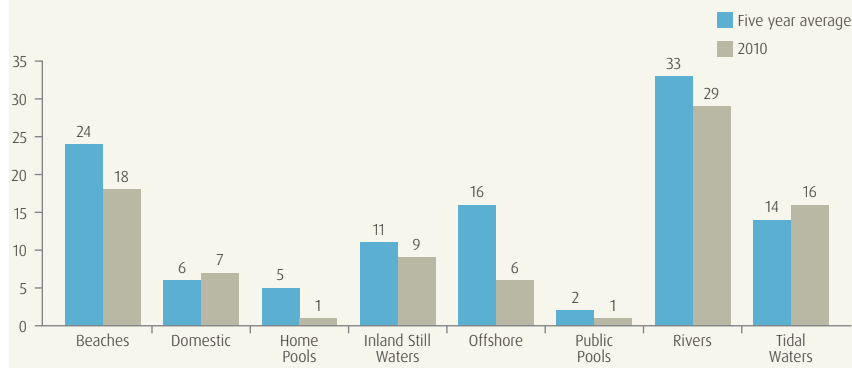
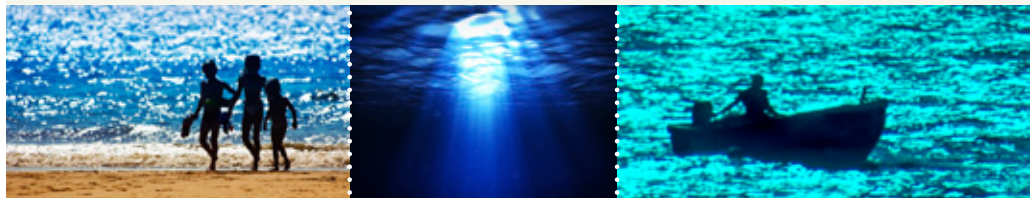


Figure 1. Drowning Deaths by Environment—Five Year Average and 2010

*Rivers* continue to be the most dangerous environment with 29 fatalities.

Drownings have decreased from the five year average in *Home Pools* (by 80%), *Offshore* (by 63%) and at *Beaches* (by 25%).

Drownings in *Tidal Waters* (including harbours, marinas, estuaries and river/harbour bars) have increased from the five year average by 14%.



## What activities were people undertaking prior to drowning?

When recording data relating to what the deceased was doing at the time of death, WSNZ classifies incidents into one of three categories – *Recreational*, *Non Recreational* and *Other Activity*.

*Recreational* activities are those where the person intended to be in the water for recreational purposes e.g. fishing, sailing, swimming and diving.

*Non Recreational* is where the person had no intention of being in the water for recreational purposes e.g. Immersion Incidents and Occupational Related drownings.

*Other Activity* includes Suicide, Homicide and Road Vehicle incidents.

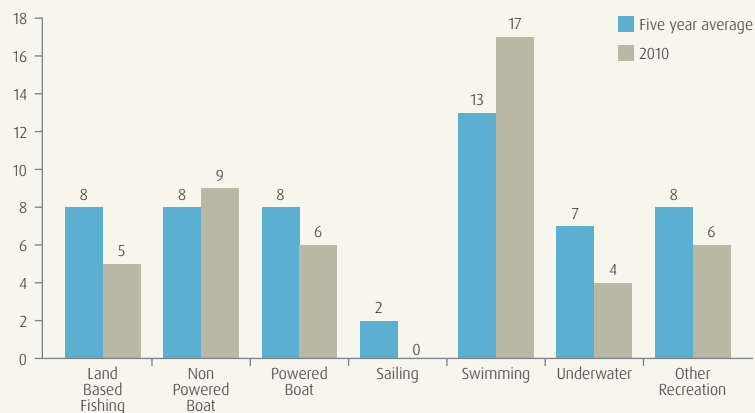


Figure 2. Drowning Deaths by Recreational Activity—Five Year Average and 2010

In 2010 there were 47 *Recreational* drownings, 19 *Non Recreational* drownings and 21 recorded as *Other Activities*.

*Swimming* had the highest recreational drowning toll of 17 in 2010, up 31% from the five year average. *Powered Boating* fatalities dropped to six, 25% lower than the five year average.

*Non Powered Boating* recorded a slightly increased toll of 13% from the five year average.

*Land Based Fishing*, *Sailing* and *Other Recreation* were lower than their five year averages by 38%, 100% and 25% respectively.

Underwater related activities such as Free Diving, Snorkeling, and Scuba Diving recorded four deaths - less than the five year average and under half the 2009 toll of ten.

# Who drowns in New Zealand?

## Age groups

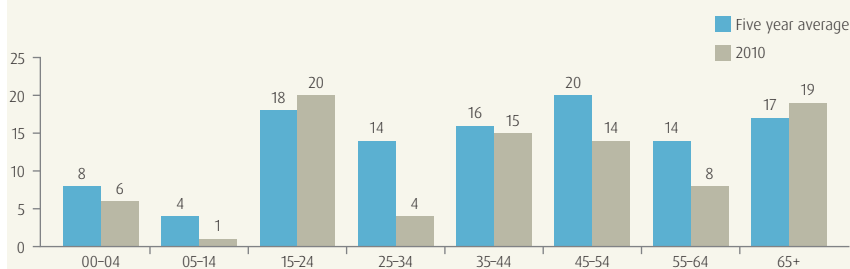


Figure 3. Drowning Deaths by Age Group – Five Year Average and 2010

Drownings in the 25-34 year age group decreased by 71% from the five year average.

There was a decrease in both the 45-54 (by 30%) and 55-64 (by 43%) year age groups.

School aged children continues to have a low drowning toll, dropping by 75% on the five year average in the 5-14 age group.

15-24 year olds continue to be highly represented. Despite the low drowning toll in 2010, this age group increased by 11% on the five year average.

Drownings of small children under five was lower than the five year average, decreasing by 25%.

## Ethnicity

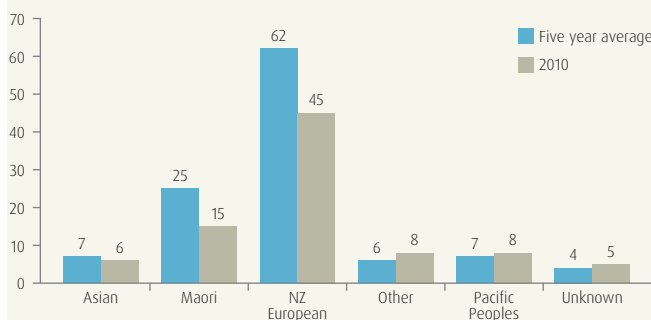


Figure 4. Drowning Deaths by Ethnicity – Five Year Average and 2010

NZ Europeans accounted for 52% of the 2010 drowning toll.

17% of drowning victims were Maori. This is lower than the five year average of 23%, and highlights previous years of overrepresentation for Maori in drowning statistics. Maori constitute 15% of the population\*.

Pacific Peoples continue to be overrepresented in drownings. They constitute 7% of the population\* but account for 9% of drowning deaths.

The drowning toll of Others (immigrants, tourists etc from the rest of the world) was 33% higher than the five year average.

\*2006 New Zealand Census

## Gender

76% of drowning victims in 2010 were male. This is on par with the five year average.

## When are people drowning?

The months of January (13), February (12) and December (13) had the highest number of fatalities; traditionally these are the highest months. The five year average is 17 for January, 12 for February and 10 for December. There were two drownings in the month of November (the five year average for November is 10).

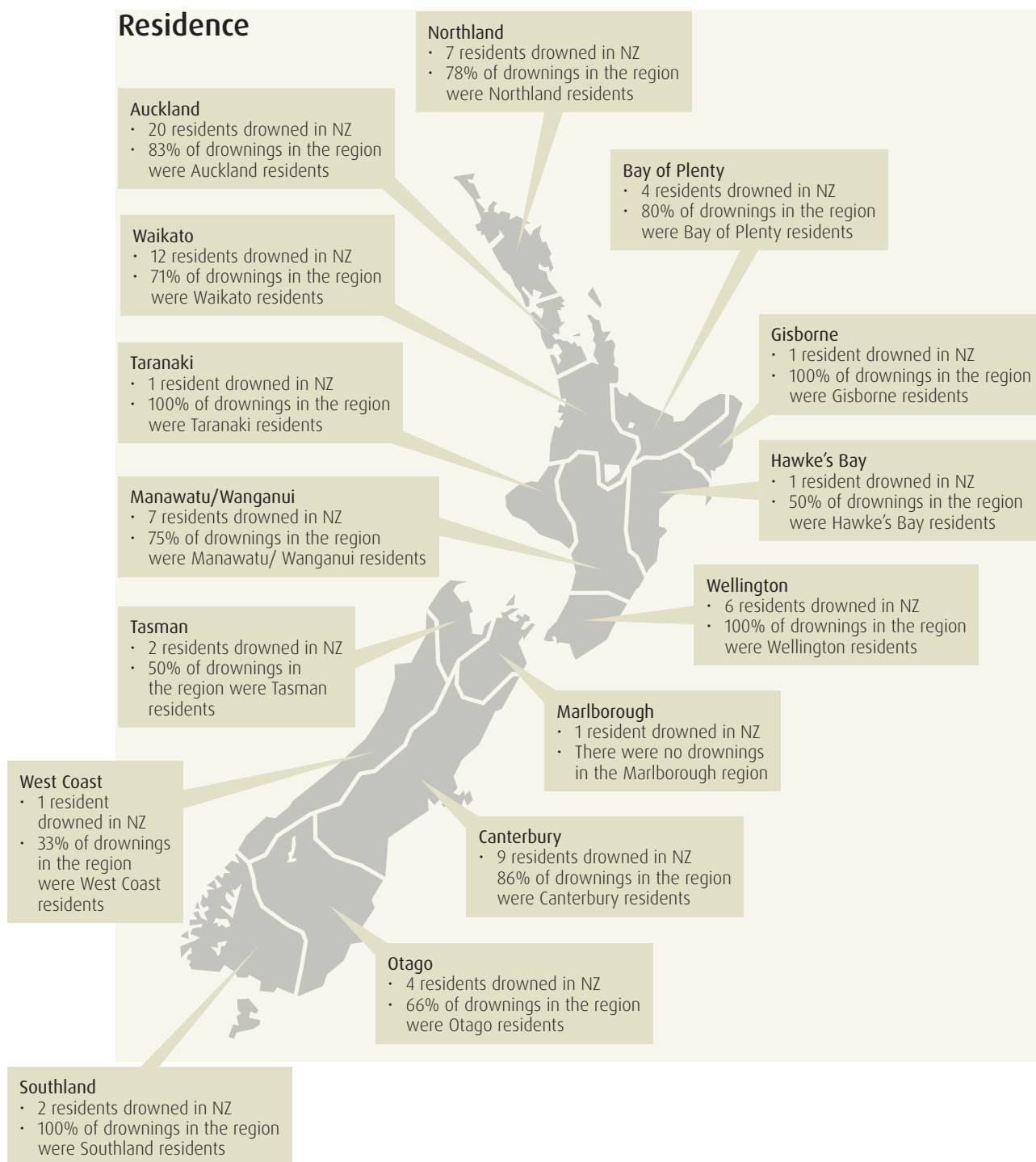
## Which regions have the highest toll per capita?

The following table indicates the top regions for drowning on a per capita (n=100,000) basis in 2010:

Rank	Region	Drowning Deaths per Capita
1	West Coast	9.4
2	Northland	5.9
3	Tasman/Nelson	4.4
4	Waikato	3.8
5	Manawatu/Wanganui	3.5
6	Otago	3.0
7	Gisborne	2.2
7	Southland	2.2
9	Bay of Plenty	1.8
10	Auckland	1.3
10	Hawke's Bay	1.3

New Zealand's five year average drowning toll on a per capita basis is 2.7 deaths per 100,000 people.

## Residence



Note: 4 drownings were recorded with Unknown NZ residences and 5 with foreign residences

# Morbidity (Hospitalisations)

## Region

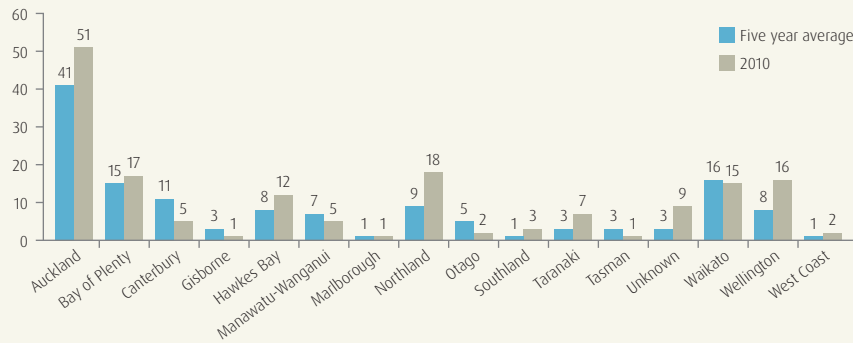


Figure 1. Hospitalisations by Region – Five Year Average and 2010

Wellington and Northland were double their five year average for water related hospitalisations.

Auckland, Bay of Plenty, Hawke’s Bay, Southland, Taranaki and West Coast have also recorded incidents higher than their five year average.

Auckland was greater than 2009’s total of 49.

Canterbury, Gisborne, Manawatu/Wanganui, Otago, Tasman and Waikato had lower numbers of hospitalisations than their five year average.

## Environment

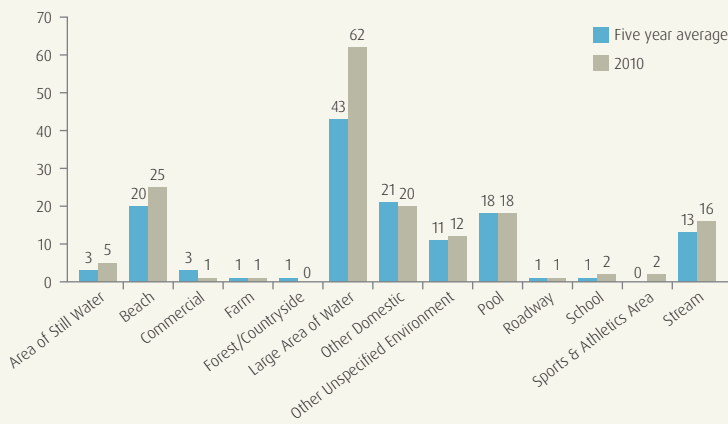


Figure 2. Hospitalisations by Environment – Five Year Average and 2010

Water related hospitalisations increased by 44% from the five year average in the *Large Area of Water* environment (which includes lakes and rivers).

*Area of Still Water*, *Beach* and *Stream* also showed an increase from the five year average by 67%, 25% and 23% respectively.

The other environments were on par with their five year averages, with *Other Domestic* dropping by 26% from the 2009 total.

## Activity

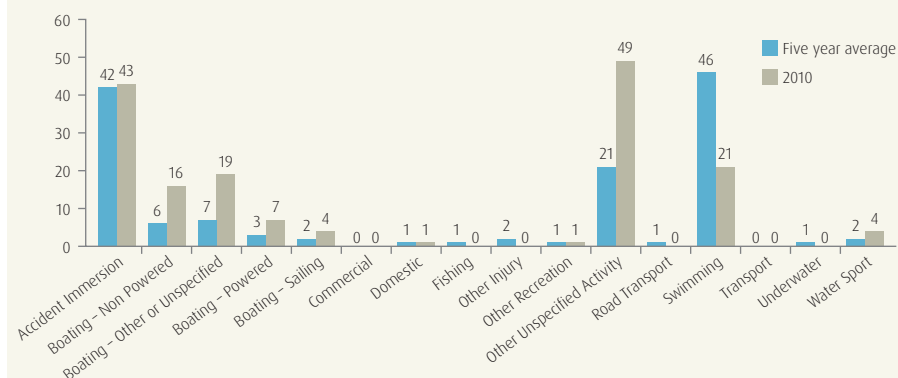


Figure 3. Hospitalisations by Activity - Five Year Average and 2010

Specified activities resulting in incidents requiring hospitalisation are compared to the five year average.

Hospitalisations due to *Boating* related activities have increased by more than 100% on the five year average for three out of the four boating categories (Powered, Non-Powered and Other).

Swimming incidents have decreased from both the five year average (by 54%) and the 2009 toll (by 40%).

*Water Sport*, although down 20% from the 2009 total, is still above the five year average.

## Gender

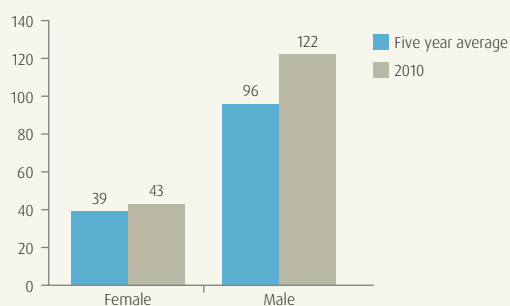


Figure 4. Hospitalisations by Gender - Five Year Average and 2010

Both genders showed increases on the five year average in 2010. There continues to be a  $\frac{1}{3}$  Female :  $\frac{2}{3}$  Male proportional difference between the genders involved in incidents. (In comparison the drowning proportion is  $\frac{1}{4}$  Female :  $\frac{3}{4}$  Male).

## Ethnicity

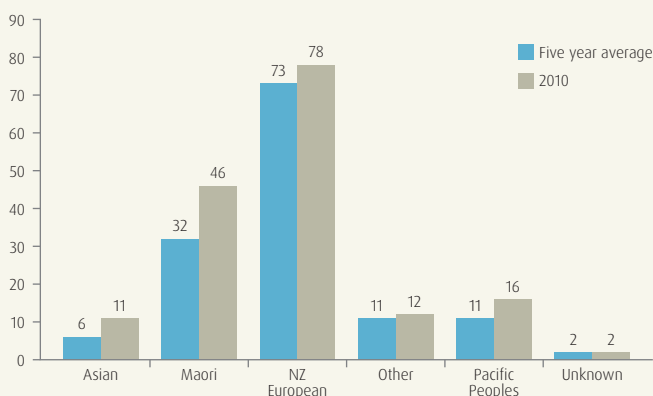


Figure 5. Hospitalisations by Ethnicity – Five Year Average and 2010

There was an increase on the five year average across all ethnicities in 2010.

Maori increased by 44% from the five year average and had a 35% increase from the 2009 toll.

NZ European, despite still being higher than the five year average in 2010, was down 14% from the 2009 total.

## Age

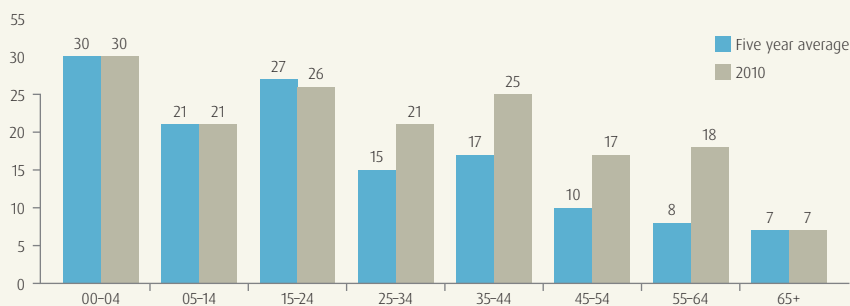


Figure 6. Hospitalisations by Age Group – Five Year average and 2010

The age groups between 25 years and 64 years have increased hospitalisations from the five year average, however the totals of the age groups between 25 years and 54 years are on par with the 2009 numbers.

The 0-24 age groups and 65+ remain static when compared with the five year average.

# Quick facts

Mortality Toll Breakdown	2010		5 Year Average (2005-2009)	
<b>Activity</b>				
<b>Recreational Drownings</b>				
Swimming	17	(20%)	13	(12%)
Non Powered Boating	9	(10%)	8	(7%)
Powered Boat	6	(7%)	8	(7%)
Other Recreation	6	(7%)	8	(7%)
Land Based Fishing	5	(6%)	8	(7%)
Underwater activities	4	(5%)	5	(6%)
Sailing	0	-	2	(2%)
<b>Non Recreational Drownings</b>				
Immersion Incidents	19	(22%)	31	(28%)
Occupational Related	0	-	1	(1%)
<b>Other Activity Drownings</b>				
(Road Vehicle, Suicide, Homicide)	21	(24%)	25	(23%)
<b>Environment</b>				
Rivers	29	(33%)	33	(30%)
Beaches	18	(21%)	24	(22%)
Tidal Waters	16	(18%)	14	(13%)
Inland Still Waters	9	(10%)	11	(10%)
Domestic	7	(8%)	6	(5%)
Offshore	6	(7%)	16	(14%)
Home Pools	1	(1%)	5	(5%)
Public Pools	1	(1%)	2	(2%)
<b>Ethnicity</b>				
Asian	6	(7%)	7	(6%)
Maori	15	(17%)	25	(23%)
NZ European	45	(52%)	62	(56%)
Pacific Peoples	8	(9%)	8	(7%)
Other Nationalities	8	(9%)	6	(5%)
Unknown	5	(6%)	4	(4%)
<b>Gender</b>				
Female	21	(24%)	26	(23%)
Male	66	(76%)	85	(77%)
<b>Age Groups</b>				
00-04	6	(7%)	8	(7%)
05-14	1	(1%)	4	(4%)
15-24	20	(23%)	18	(16%)
25-34	4	(5%)	14	(13%)
35-44	15	(17%)	16	(14%)
45-54	14	(16%)	20	(18%)
55-64	8	(9%)	14	(13%)
65+	19	(22%)	17	(15%)

Some percentages may not add to 100% due to rounding.

For DrownBase™ Fact Sheets and further information visit:  
[www.watersafety.org.nz](http://www.watersafety.org.nz)



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