



# Drowning Prevention Report 2020



# Summary

This report relies on information from 276 drowning incidents (both fatal and non fatal) gathered from coronial findings, police and DHB incident reports.

We categorised each case according to the nature of the incident; preventable fatality, or hospitalisation, age, gender and ethnicity of the victim and nature and cause of the incident, including activity and environment and a host of other factors.

Behind the scenes we analyse the data to look for significant groupings of incidents with similar characteristics that might reveal some underlying cause to the incident.

## Fatalities

In 2020 there were 74 recreational (intending to be in the water) and non-recreational (no intention of being in the water) preventable drowning fatalities.

2020 saw a decrease of eight, or 9.7%, compared to the 82 preventable drowning fatalities in 2019 with zero preventable drowning fatalities in the months of April and September (Level 4 lockdown nationally, and Level 3 Auckland/Level 2 other regions, respectively).

On a per capita basis, the preventable fatal drowning rate is represented as 1.62 per 100,000 people in New Zealand. This rate has been steady for the past five years..

## Environments

Rivers (24) and Beaches (23) make up 47 of the 74 preventable fatal drownings, or 64%.

## Activities

Swimming (21) and Underwater Diving (12) make up 33 of the 54 preventable fatal recreational drownings, or 61%.

## Hospitalisations

In 2020 there were 202 recreational (intending to be in the water) and non-recreational (no intention of being in the water) drowning hospitalisations.

Beginning of 2020, hospitalisations were tracking

similarly to 2014-2018 five year average (181).

In April (Level 4 lockdown) there were only three hospitalisations compared with five year average of 13. In September (Auckland Level 3/other regions Level 2) there were seven which is down on the five year average of 11. However, over the 12 month period there were the same number of hospitalisations as 2019. Just over half of all hospitalisations involve young people under 24 years of age (107).

On a per capita basis, the hospitalisation drowning rate is represented as 3.77 per 100,000 people in New Zealand. This rate has been steady for the past five years.

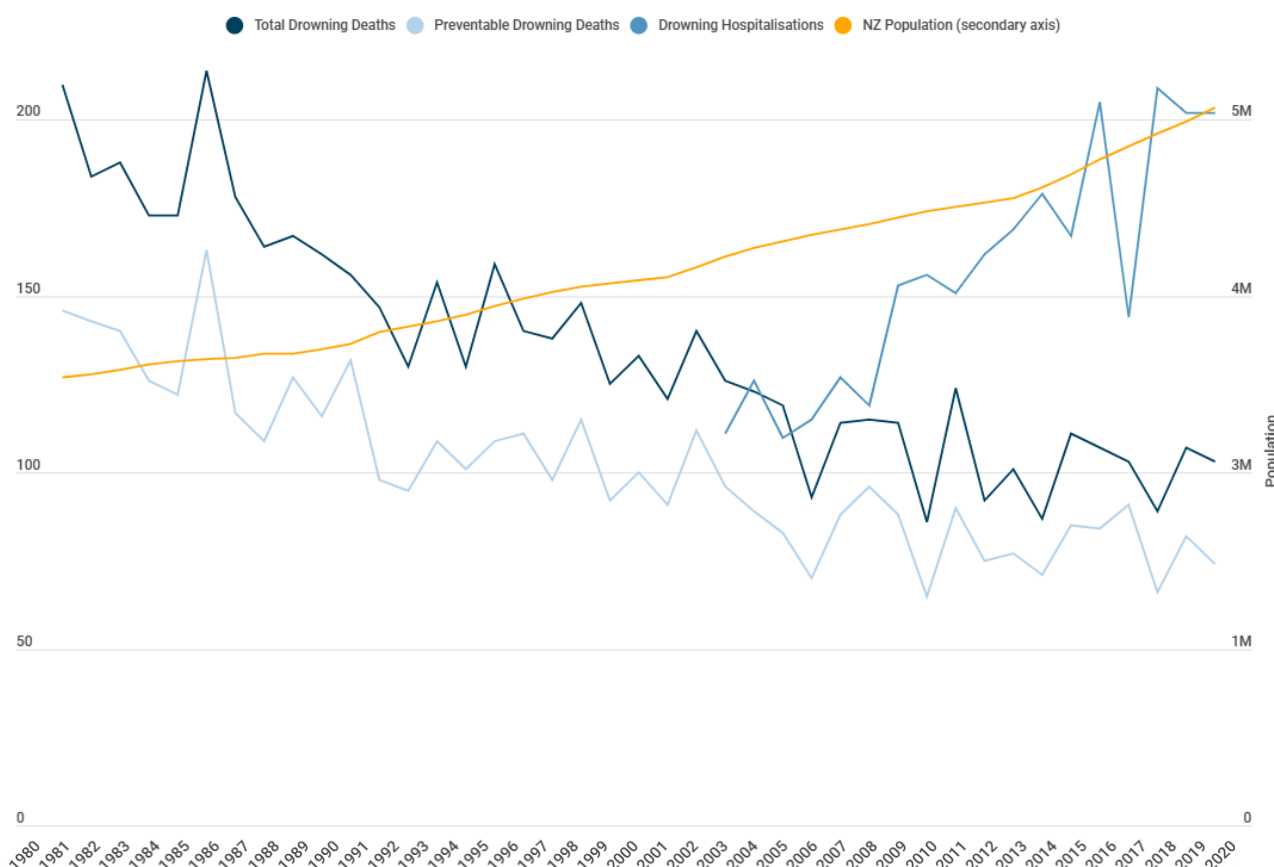
## Environments

A third of hospitalisations were incidents occurring in the sea (75), following by 43 in pools (21%) then at rivers (35 or 17%).

## Activities

Swimming (83) makes up 41% of hospitalisations followed by boating incidents (37 or 18%) and falls and slips (24 or 12%) with half of these incidents involving children under five years of age.

## 1980 - 2020 Overview



## Key Findings



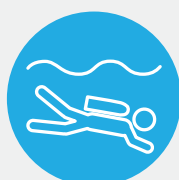
23 Beach Fatalities in 2020 was a reduction on 2019's 26, but it was still higher than the 2014-2018 average of 19.



There were 38 Hospitalisations for the Under-5s category, up on 2014-2018 average of 33.



In 2020, there were 83 Swimming Hospitalisations, an increase on 67 in 2019.



Underwater Diving Fatalities increased in 2020 with 12, double the 2014-2018 average of 6.



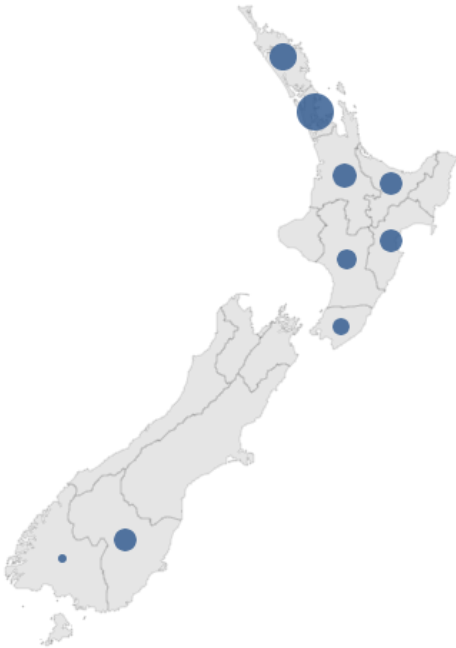
There were 57 Māori Preventable Drowning Fatalities in 2020, an increase on 2019's 42, and the 2014-2018 average of 41.



There were 24 River Fatalities in 2020, an increase compared to the 2014-2018 average of 17.

## Regions

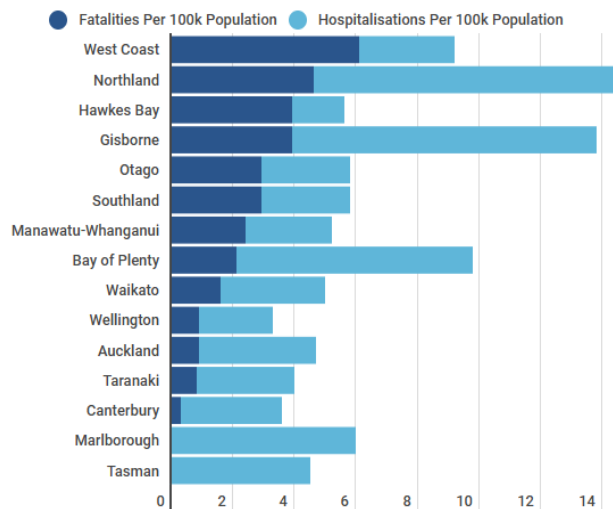
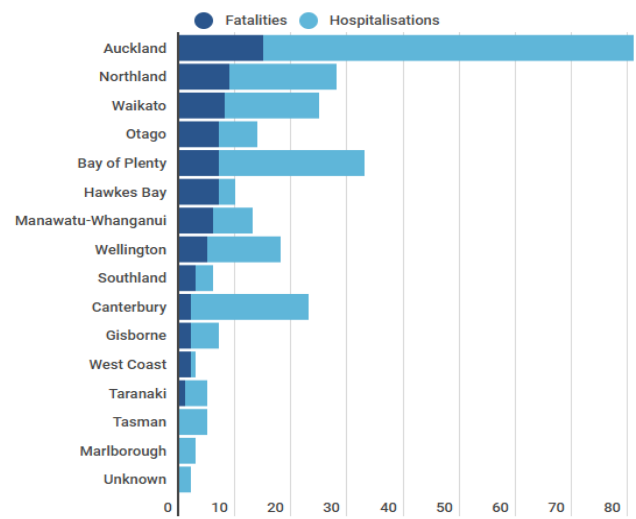
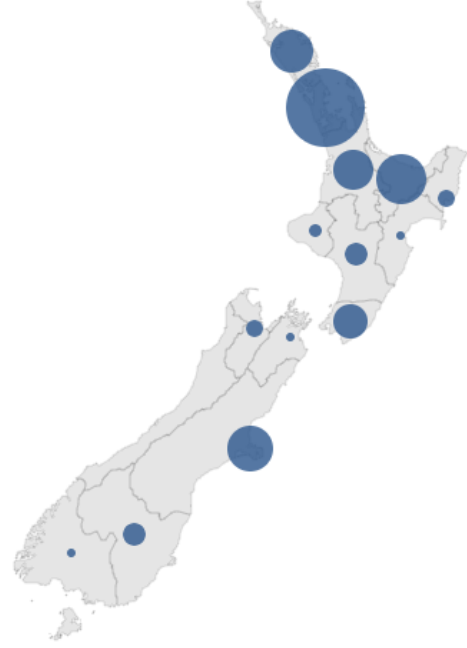
### Fatalities



|                    | Fatalities | Hospitalisations |
|--------------------|------------|------------------|
| Auckland           | 15         | 66               |
| Northland          | 9          | 19               |
| Waikato            | 8          | 17               |
| Otago              | 7          | 7                |
| Bay of Plenty      | 7          | 26               |
| Hawkes Bay         | 7          | 3                |
| Manawatu-Whanganui | 6          | 7                |
| Wellington         | 5          | 13               |
| Southland          | 3          | 3                |
| Canterbury         | 2          | 21               |
| Gisborne           | 2          | 5                |
| West Coast         | 2          | 1                |
| Taranaki           | 1          | 4                |
| Tasman             | 0          | 5                |
| Marlborough        | 0          | 3                |
| Unknown            |            | 2                |

|                    | Fatalities Per 100k Population | Hospitalisations Per 100k Population |
|--------------------|--------------------------------|--------------------------------------|
| West Coast         | 6.1                            | 3.1                                  |
| Northland          | 4.6                            | 9.8                                  |
| Hawkes Bay         | 3.9                            | 1.7                                  |
| Gisborne           | 3.9                            | 9.9                                  |
| Otago              | 2.9                            | 2.9                                  |
| Southland          | 2.9                            | 2.9                                  |
| Manawatu-Whanganui | 2.4                            | 2.8                                  |
| Bay of Plenty      | 2.1                            | 7.7                                  |
| Waikato            | 1.6                            | 3.4                                  |
| Wellington         | 0.9                            | 2.4                                  |
| Auckland           | 0.9                            | 3.8                                  |
| Taranaki           | 0.8                            | 3.2                                  |
| Canterbury         | 0.3                            | 3.3                                  |
| Marlborough        | 0.0                            | 6.0                                  |
| Tasman             | 0.0                            | 4.5                                  |

### Hospitalisations



# Findings

## Fatalities

Auckland had the highest total number of drowning fatalities in 2020, but with its population, the per 100,000 rate is 0.9. West Coast had the highest per 100,000 rate of 6.1.

Hawke's Bay had an increase from 2 drowning fatalities in 2019 to 7 in 2020.

Northland decreased from its significantly high total of 15 in 2019 to 9 in 2020. This is similar to the five year average.

## Activity

### Fatalities

There were two drowning deaths of people using pool floats on rivers in 2020.

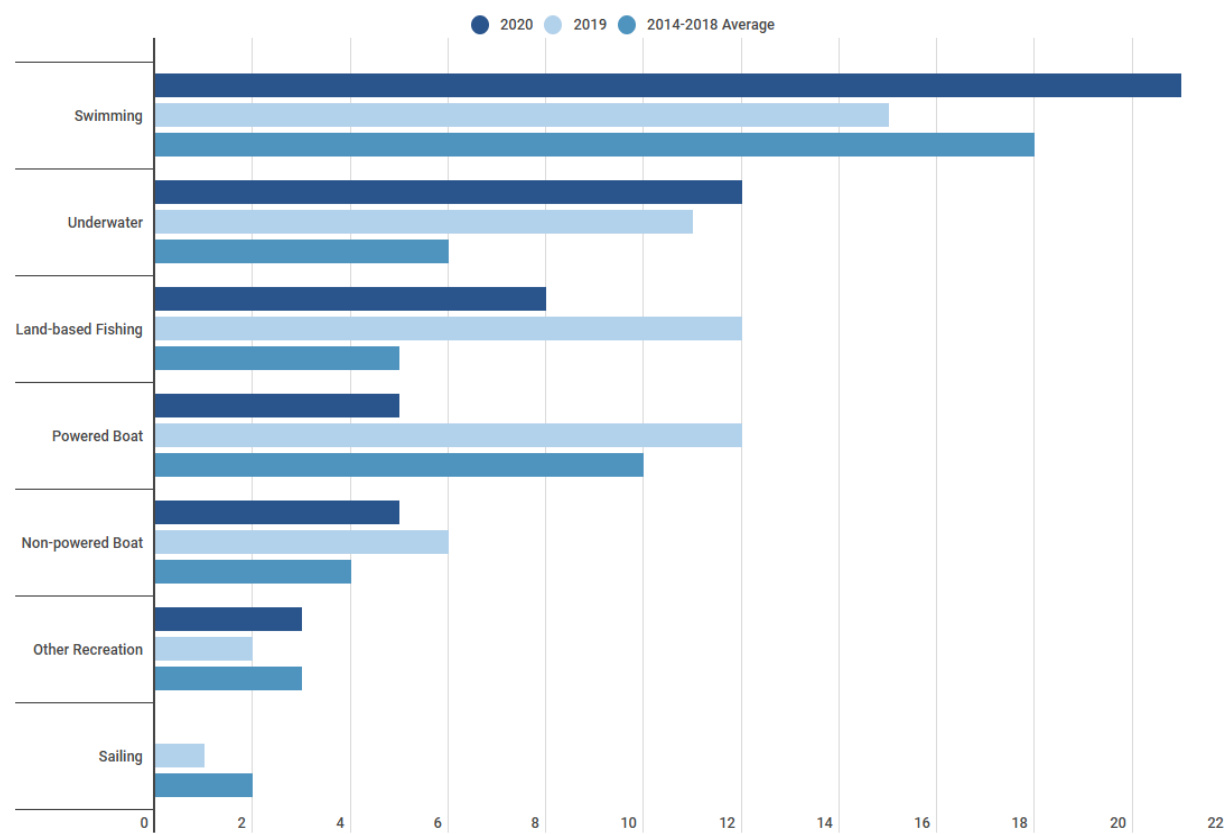
In 2020, it was the highest total for Underwater drowning deaths (12) since 1995, twice the amount of the five year average (6).

## Hospitalisations

Auckland had the highest number of drowning hospitalisations (66) in 2020, which was an increase of 22% on the five year average (55).

Gisborne had the highest per 100,000 rate of drowning hospitalisations in 2020, with a rate of 9.9.

In 2020, Canterbury (21) had its highest number of drowning hospitalisations since records began in 2004. This was an increase of 62% on the 2014-2018 five year average (13).

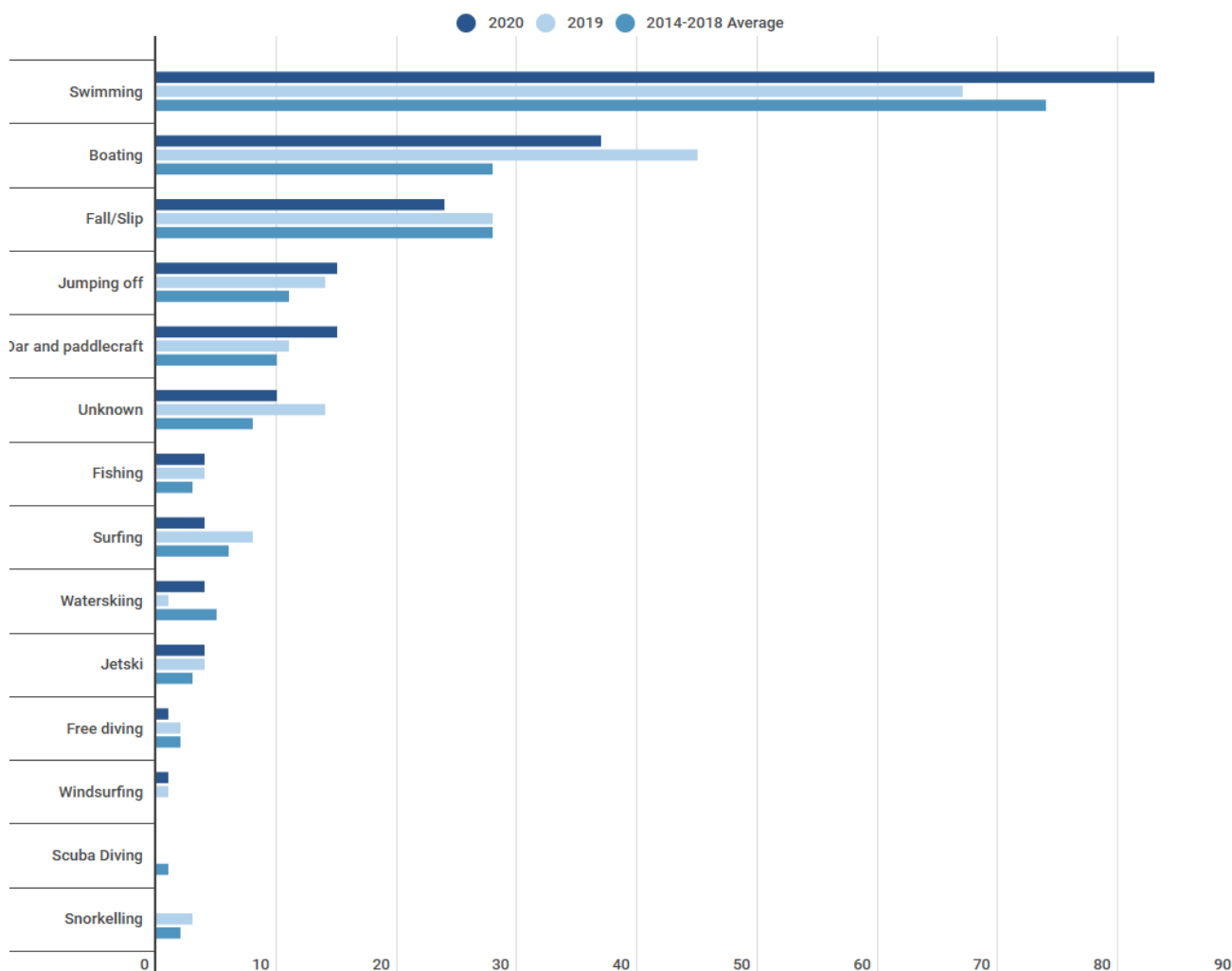


## Hospitalisations

In 2020, Swimming drowning hospitalisations (83) were up 24% on 2019 (67) and 12% on the five year average (74). Over half the Swimming drowning hospitalisation incidents occurred in a pool (43).

Oar and Paddlecraft drowning hospitalisations (15) in 2020 were up 36% on 2019 (11) and 50% on five year average (10).

In 2020, Jumping Off drowning hospitalisations (15) were up slightly on the 2019 total (14) and up 36% on the five year average (11). 40% (6) of Jumping Off drowning hospitalisations occurred in Rivers and 33% (5) in the Sea.



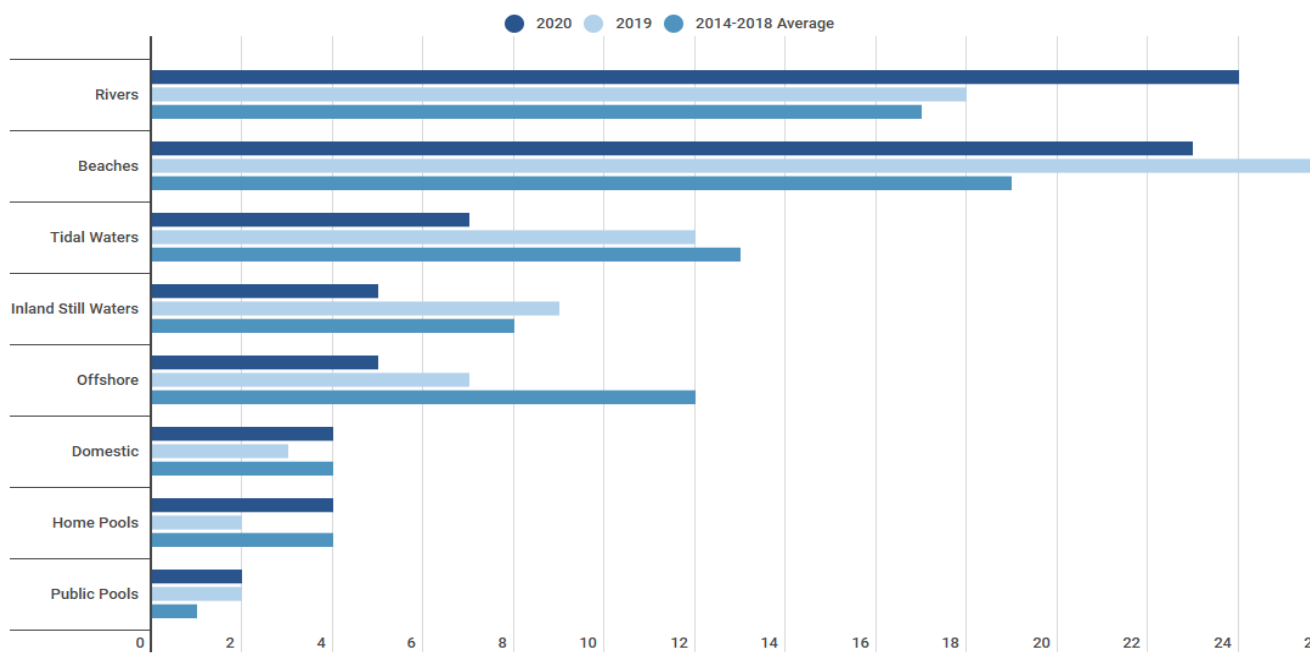
## Environment

### Fatalities

Drowning fatalities that occurred in Rivers (24) in 2020 were up 33% on 2019 (18) and 41% on the five year average (17). 38% (9) of River drowning deaths in 2020 were aged 15 – 24.

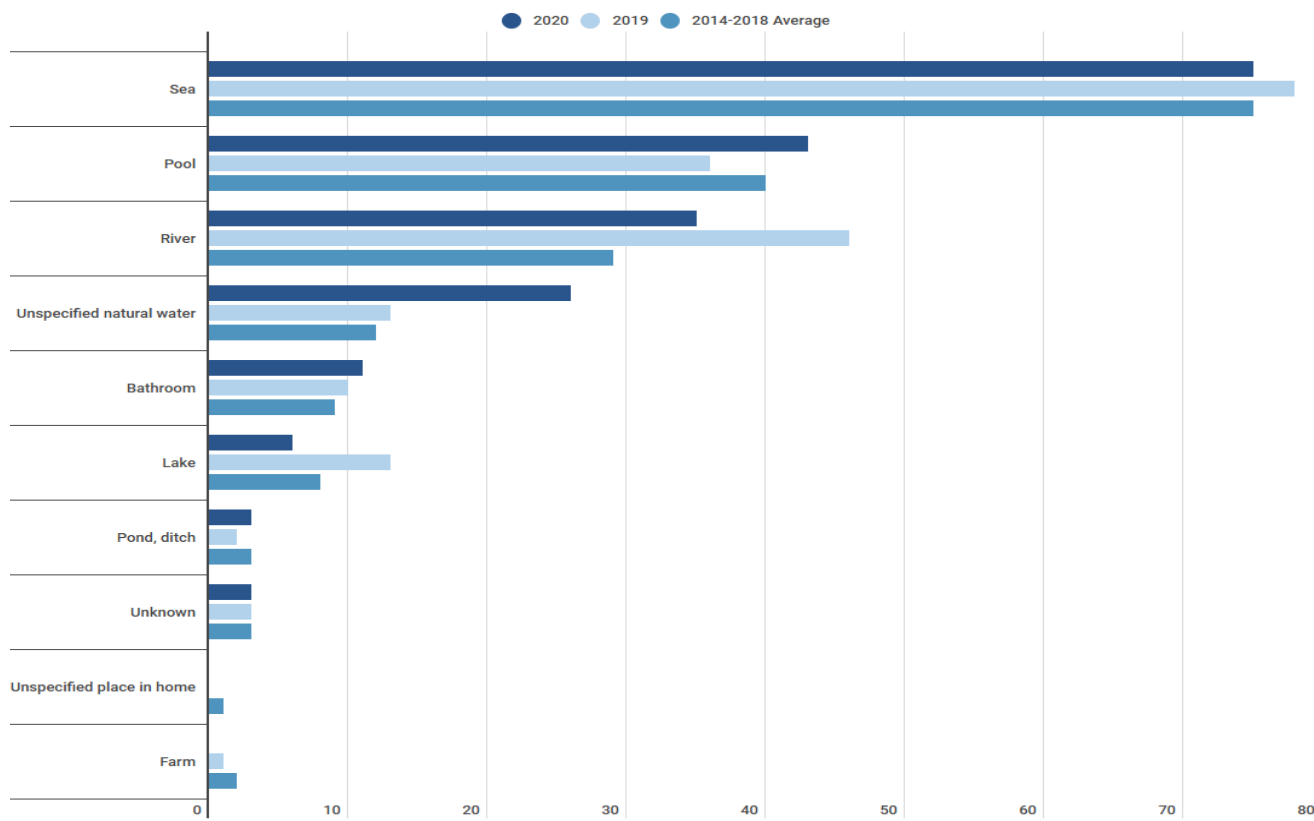
Drowning fatalities in 2020 that occurred in Tidal Waters (7) were down 41% on 2019 (12) and 46% on the five year average (13), when the trend for Tidal Waters over the past decade has been increasing.

There were 5 Offshore drowning fatalities in 2020 which continues a downwards trend over the past several years.



## Hospitalisations

53% (20) of Under Five and 40% of 5-14 year old drowning hospitalisations in 2020 occurred in a Pool.

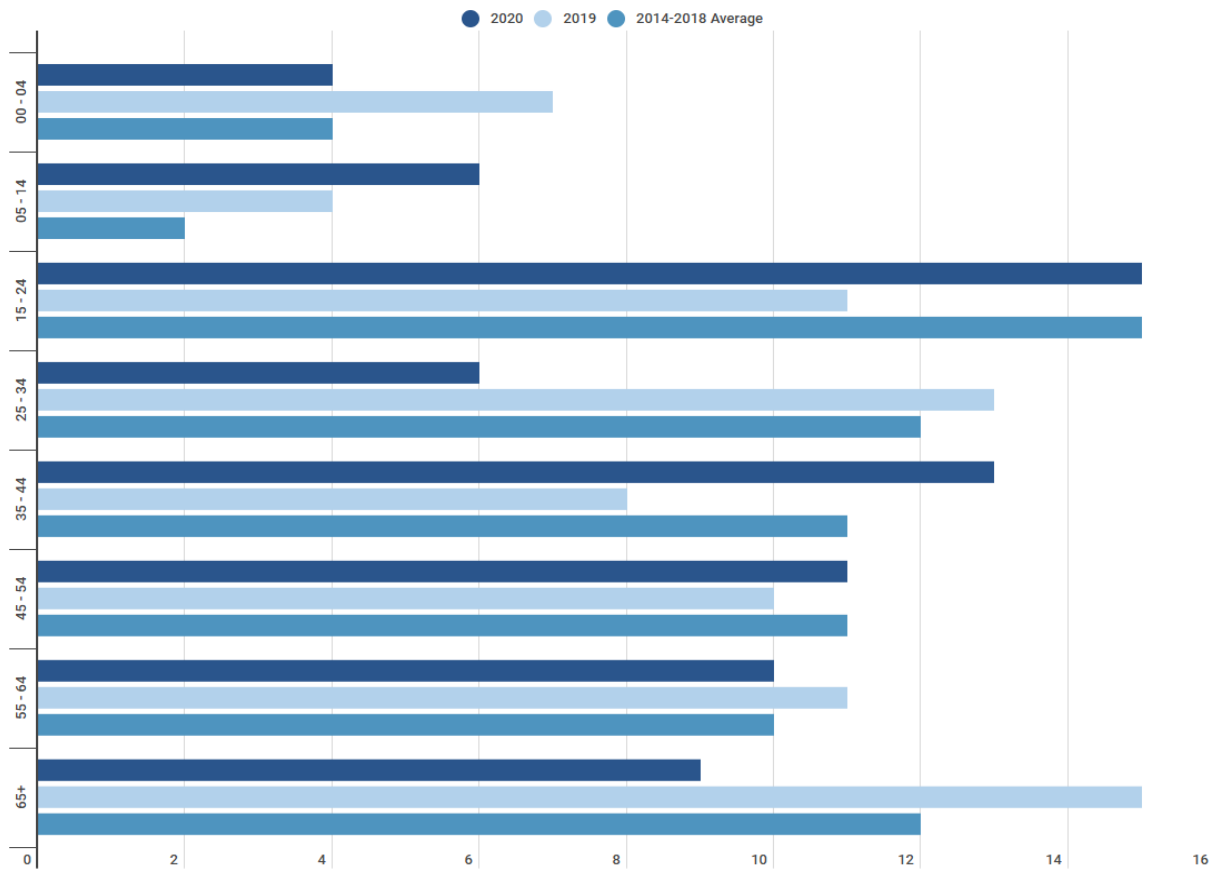


## Age

### Fatalities

Drowning fatalities of the 5 – 14 age group show an increase on 5 year average (2) in 2019 (4) and 2020 (6). In 2020, this was the highest total for this age group since 2013.

In 2020, the 25 – 34 drowning fatalities (6) were around half that of 2019 (13) and the five year average (12). It is the lowest total in this age group since 2010.

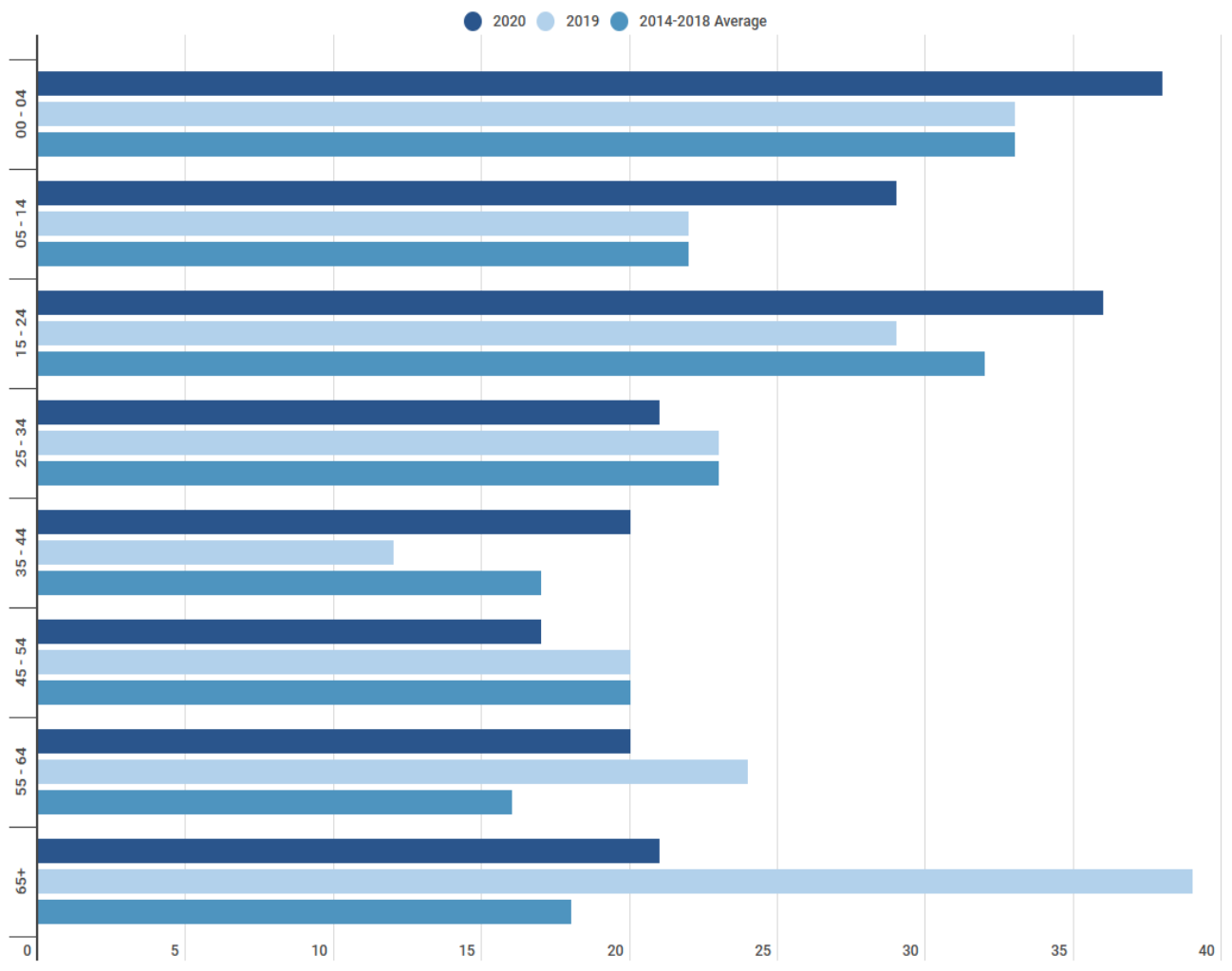




Hospitalisations

Drowning hospitalisations for the 5 – 14 year age group (29) in 2020 was the highest toll on record.

The Over 65's drowning hospitalisation rate (21) in 2020 was down 44% on 2019 (39) but still above the five year average (18).

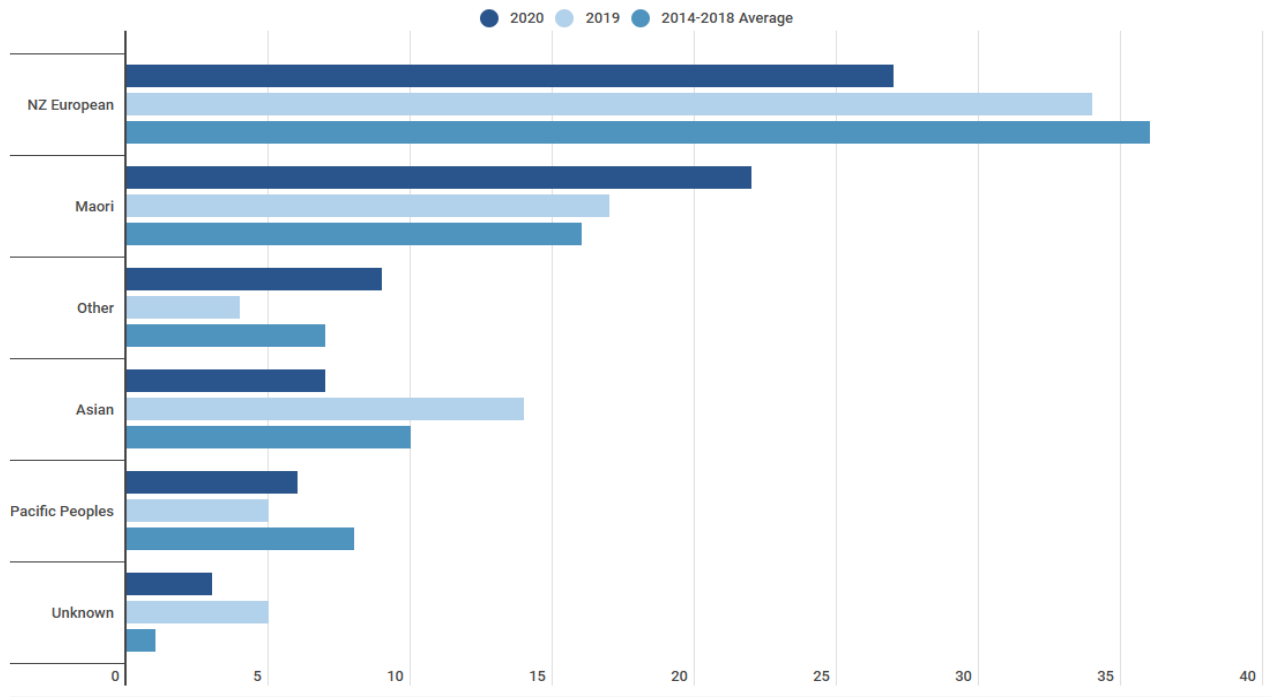


# Ethnicity

## Fatalities

The 22 Māori drowning fatalities in 2020 was the highest total since 2003. It was an increase of 29% on 2019 (17) and an increase of 38% on the five year average (16).

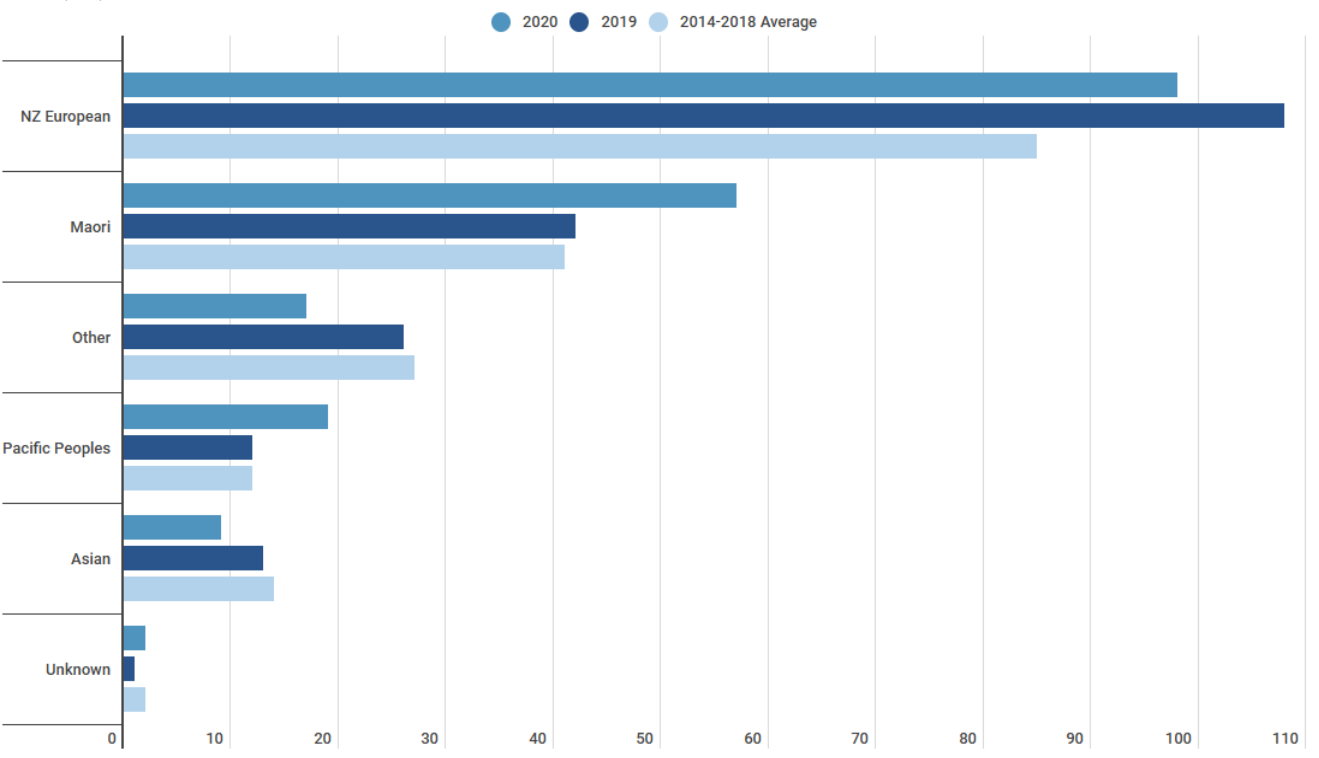
In 2020, there were seven Asian drowning deaths. This was a 50% decrease on 2019 (14) and a 30% decrease on the five year average (10).



## Hospitalisations

2020 Māori drowning hospitalisations (57) were up 36% on 2019 (42) and 39% on five year average (41). This is the highest Māori drowning hospitalisation total on record and is up 24% on the previous highest total (46) in 2018.

Pacific Peoples drowning hospitalisations (19) in 2020 is the highest on record and up 58% on 2019 and five year average (12).



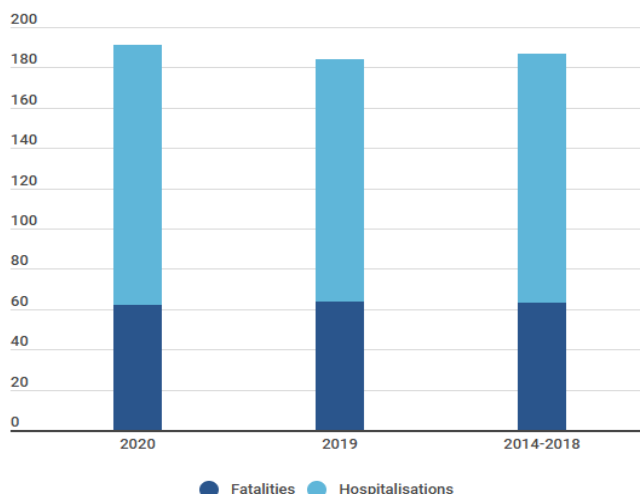
## Gender

### Fatalities

12 female drowning fatalities in 2020 is the lowest total since 2013.

In 2020, 100% of Pacific Peoples fatal drownings (6) were male, 100% of Asian fatal drownings (7) were male, and 95% of Māori fatal drownings were male (21).

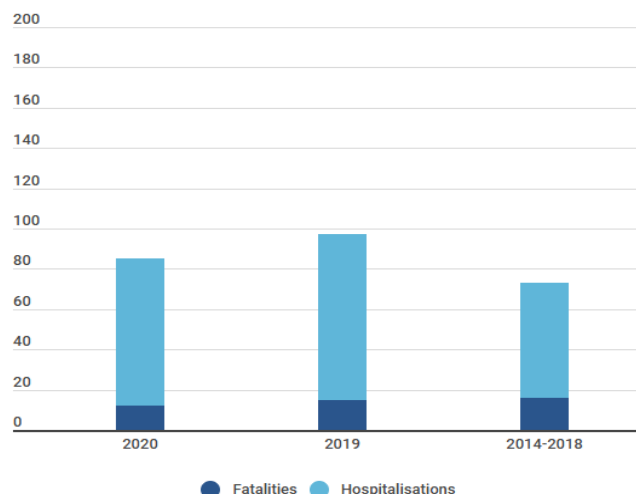
### Male



### Hospitalisations

In 2020, Females (73) made up 36% of drowning hospitalisations. But for under 25's, the female drowning hospitalisation rate in 2020 was 44% (45).

### Female



## Disclaimer

Drowning is defined as “the process of experiencing respiratory impairment from submersion/immersion in liquid; outcomes are classified as death (fatal) or morbidity (non-fatal)”\*.

In this report non-fatal drownings are classified as ‘Hospitalisations’. The Drowning Report uses statistics on Preventable Drownings only. Preventable Drownings are classified as “Fatalities”, and are all drowning deaths other than those that result from suicides, homicides and vehicle accidents.

\*International Life Saving Federation, 2016

More detailed information is available on request or at [www.watersafety.org.nz](http://www.watersafety.org.nz).

Data sourced from Water Safety New Zealand's DrownBase™ and the figures provided are provisional.

## Total Fatalities

### Preventable and Non-preventable

| Ethnicity       | 2020 | 2019 | 2014-2018 Average |
|-----------------|------|------|-------------------|
| Asian           | 9    | 16   | 12                |
| Maori           | 27   | 24   | 19                |
| NZ European     | 44   | 45   | 49                |
| Other           | 12   | 9    | 9                 |
| Pacific Peoples | 8    | 5    | 8                 |
| Unknown         | 3    | 5    | 1                 |
| Total           | 103  | 104  | 99                |

| Age Group | 2020 | 2019 |
|-----------|------|------|
| 00 - 04   | 4    | 7    |
| 05 - 14   | 8    | 6    |
| 15 - 24   | 17   | 13   |
| 25 - 34   | 10   | 17   |
| 35 - 44   | 17   | 10   |
| 45 - 54   | 18   | 14   |
| 55 - 64   | 16   | 17   |
| 65+       | 13   | 20   |
| Total     | 103  | 104  |

| Activity            | 2020 | 2019 | 2014-2018 Average |
|---------------------|------|------|-------------------|
| Land-based Fishing  | 8    | 12   | 5                 |
| Non-powered Boat    | 5    | 6    | 4                 |
| Powered Boat        | 5    | 12   | 10                |
| Sailing             | 0    | 1    | 2                 |
| Swimming            | 21   | 15   | 18                |
| Underwater          | 12   | 11   | 6                 |
| Other Recreation    | 3    | 2    | 3                 |
| Immersion Incidents | 20   | 20   | 30                |
| Occupational        | 0    | 25   | 1                 |
| Other               | 29   | 0    | 20                |
| Total               | 103  | 104  | 99                |

| Environment         | 2020 | 2019 |
|---------------------|------|------|
| Beaches             | 23   | 26   |
| Domestic            | 4    | 3    |
| Home Pools          | 4    | 2    |
| Inland Still Waters | 5    | 9    |
| Offshore            | 5    | 7    |
| Public Pools        | 2    | 2    |
| Rivers              | 24   | 18   |
| Tidal Waters        | 7    | 12   |
| Total               | 74   | 79   |

| Gender | 2020 | 2019 | 2014-2018 Average |
|--------|------|------|-------------------|
| Female | 18   | 25   | 16                |
| Male   | 85   | 79   | 63                |
| Total  | 103  | 104  | 78                |

## Total Hospitalisations

| Ethnicity       | 2020 | 2019 | 2014-2018 Average |
|-----------------|------|------|-------------------|
| Asian           | 9    | 13   | 14                |
| Maori           | 57   | 42   | 41                |
| NZ European     | 98   | 108  | 85                |
| Other           | 17   | 26   | 27                |
| Pacific Peoples | 19   | 12   | 12                |
| Unknown         | 2    | 1    | 2                 |
| Total           | 202  | 202  | 181               |

| Activity            | 2020 | 2019 | 2014-2018 Average |
|---------------------|------|------|-------------------|
| Swimming            | 37   | 45   | 28                |
| Boating             | 24   | 28   | 28                |
| Fall/Slip           | 4    | 4    | 3                 |
| Jumping off         | 1    | 2    | 2                 |
| Oar and paddlecraft | 4    | 4    | 3                 |
| Unknown             | 15   | 14   | 11                |
| Fishing             | 15   | 11   | 10                |
| Surfing             | 0    | 0    | 1                 |
| Waterskiing         | 0    | 3    | 2                 |
| Jetski              | 4    | 8    | 6                 |
| Free diving         | 83   | 67   | 74                |
| Windsurfing         | 10   | 14   | 8                 |
| Scuba Diving        | 4    | 1    | 5                 |
| Snorkelling         | 1    | 1    | 0                 |
| Total               | 202  | 202  | 181               |

| Gender | 2020 | 2019 | 2014-2018 Average |
|--------|------|------|-------------------|
| Female | 73   | 82   | 57                |
| Male   | 129  | 120  | 124               |
| Total  | 202  | 202  | 181               |

| Age Group | 2020 | 2019 | 2014-2018 Average |
|-----------|------|------|-------------------|
| 00 - 04   | 38   | 33   | 33                |
| 05 - 14   | 29   | 22   | 32                |
| 15 - 24   | 36   | 29   | 23                |
| 25 - 34   | 21   | 23   | 17                |
| 35 - 44   | 20   | 12   | 20                |
| 45 - 54   | 17   | 20   | 22                |
| 55 - 64   | 20   | 24   | 16                |
| 65+       | 21   | 39   | 18                |
| Total     | 202  | 202  | 181               |

| Environment               | 2020 | 2019 | 2014-2018 Average |
|---------------------------|------|------|-------------------|
| Bathroom                  | 11   | 10   | 9                 |
| Farm                      | 0    | 1    | 2                 |
| Lake                      | 6    | 13   | 8                 |
| Pond, ditch               | 3    | 2    | 3                 |
| Pool                      | 43   | 36   | 40                |
| River                     | 35   | 46   | 29                |
| Sea                       | 75   | 78   | 75                |
| Unspecified natural water | 26   | 13   | 12                |
| Unspecified place in home | 0    | 0    | 1                 |
| Unknown                   | 3    | 3    | 3                 |
| Total                     | 202  | 202  | 180.8             |
| School                    | 2020 | 0    | 1                 |
| Sports & athletics area   | 11   |      | 0                 |
| Stream                    | 0    | 21   | 21                |
| Total                     | 6    | 204  | 181               |



[watersafetynz.org](http://watersafetynz.org)