



Drowning Prevention Report 2021



Summary

This report relies on information from 273 drowning incidents (both fatal and non fatal) gathered from coronial findings, police and DHB incident reports between 1 January 2021 and 31 December 2021.

Cases are categorised 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.

We analyse the data and look for groupings of incidents with similar characteristics. These characteristics help us to understand more about the drivers of behaviour that result in these incidents. This report looks at the 2021 data compared with 2020, and the five year average 2015-2019.

Fatalities

In 2021 there were 90 recreational (intending to be in the water) and non-recreational (no intention of being in the water) preventable drowning fatalities.

This is a per 100,000 population rate of 1.76, up from the five year average of 1.67.

Preventable fatalities in 2021 increased by 7% on 2020 (84) and 13% on the five year average (80). 2021 had the highest number of preventable drowning deaths since 2011.

Like 2020, there were lockdowns and restrictions of varying levels in New Zealand in 2021. The nationwide lockdown from mid August to September didn't have any significant changes to drowning totals that time of year (which has very few deaths on average). December 2021, the beginning of summer and the move to fewer restrictions in the orange level of the traffic light system saw 17 fatalities, almost double December 2020 (9) and over 50% higher than the five year average (11). December 2021 was the highest December since 1998.

Estimations of participation rates in December, using ACC drowning related claim data, show that participation rates in December 2021 (3,099 claims) were similar to that of December 2020 (3,177 claims).

Environments

Drowning deaths at beaches (25) and rivers (24) made up over half the fatalities in 2021.

Activities

There were 60 recreational drowning fatalities in 2021. Swimming (22) and powered boating (13) made up 58% of those deaths.

Hospitalisations

In 2021 there were 183 hospitalisations, which are drowning related hospitalisations that required hospital care. This is a 10% decrease on 2020 (203) and slightly less than the five year average (186).

Per 100,000 people, the hospitalisation rate was 3.57 in 2021, down from the five year average of 3.86.

The nationwide lockdown in mid August to September may have had some influence on the hospitalisations at that time – there were 3 hospitalisations in September compared with a five year average of 11.

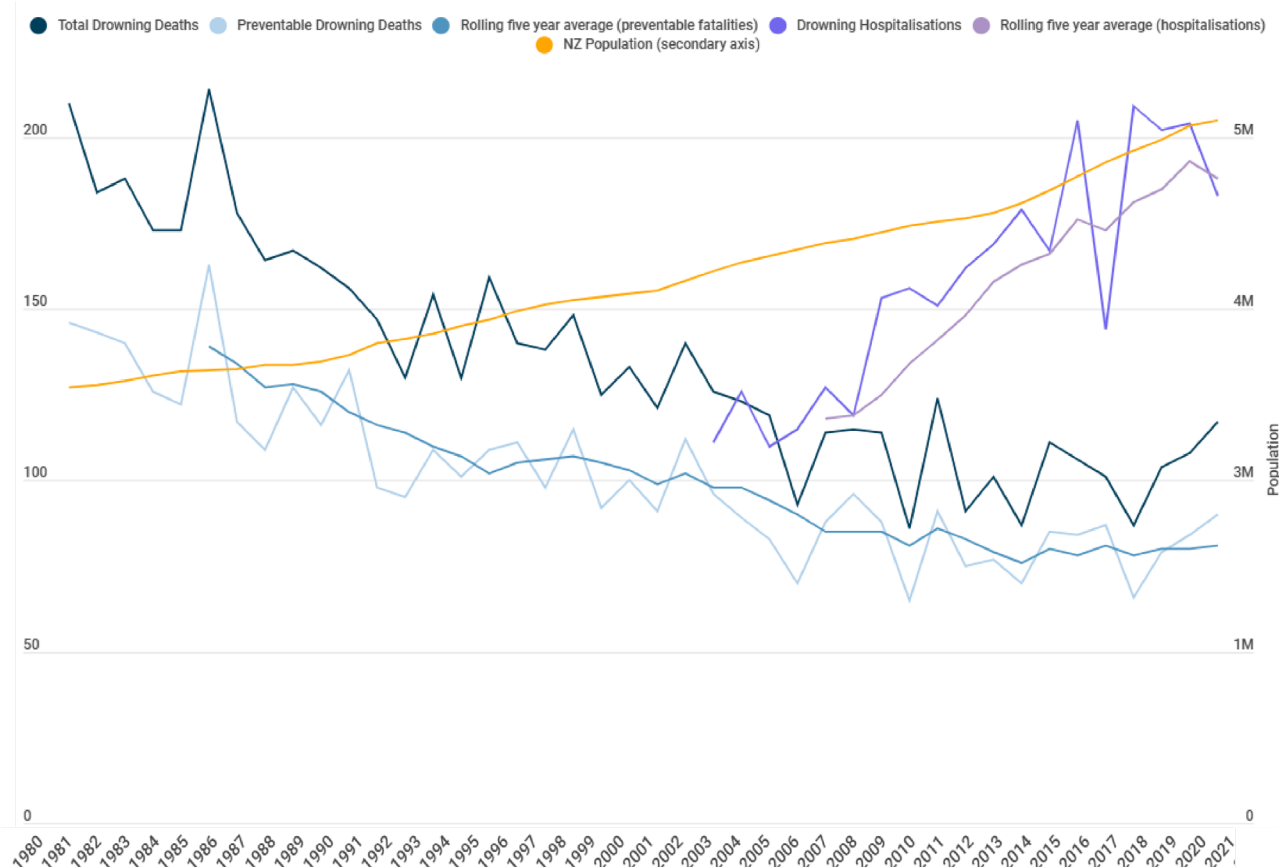
Environments

Over a third of hospitalisations occurred in the sea (70) followed by 41 in rivers (22%) and 34 in pools (19%).

Activities

Swimming (62) made up 34% of hospitalisations, followed by powered boating (43 or 23%) and slips/falls (28 or 15%).

1980 - 2021 Overview



Key Findings



All the Under Five drowning deaths occurred outside of the home and garden (in rivers, lakes, farm waters).



44% (40) of drowning fatalities occurred when the person was alone.



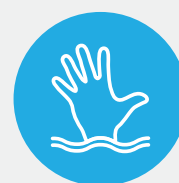
85% (11) of Powered Boating drowning deaths occurred on boats smaller than 6m.



Almost all Land Based Fishing drowning deaths were angling - usually it is split more evenly between angling/shellfishing/netfishing



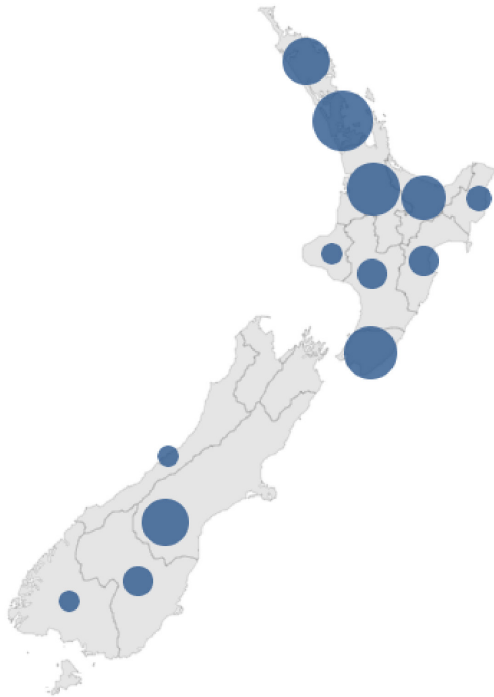
Drowning deaths in Tidal Waters (18) were twice that of 2020 and over a third higher than the five year average (13).



Asian drowning fatalities (19) were more than double 2020 (7) and 72% more than the five year average (11).

Regions

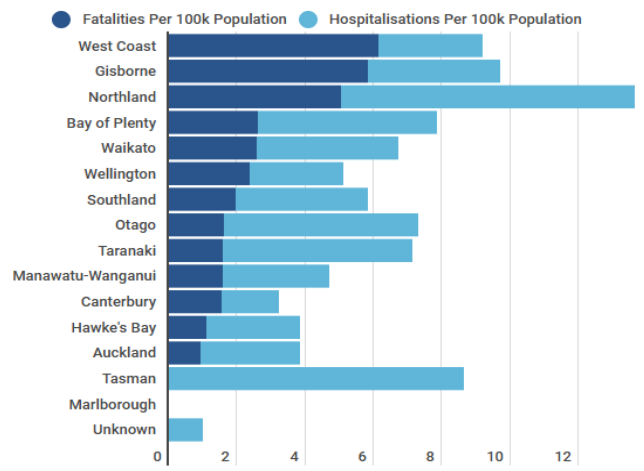
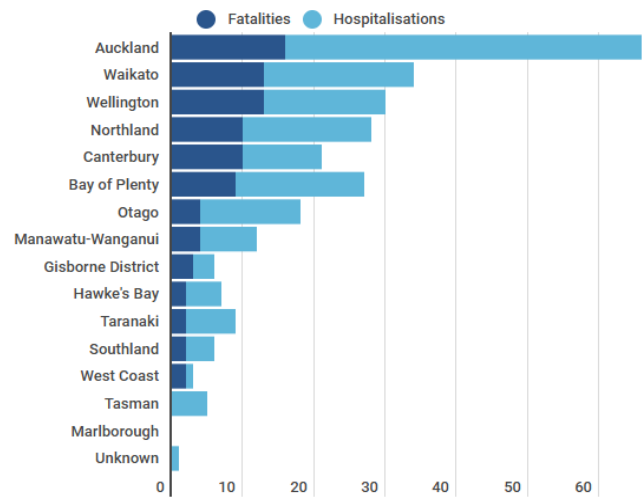
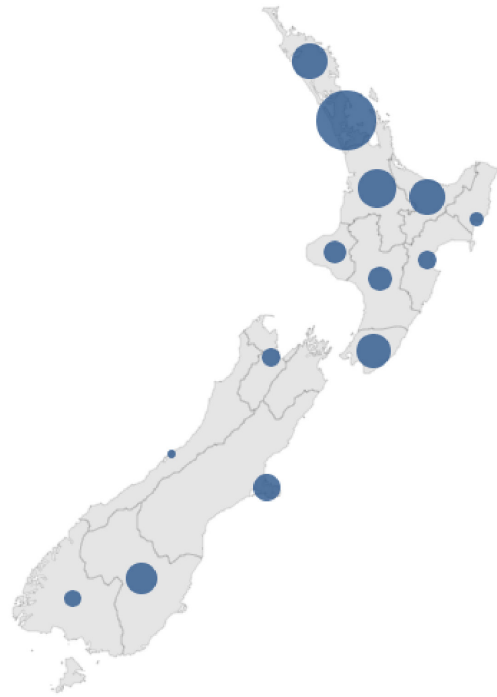
Fatalities



	Fatalities	Hospitalisations
Auckland	16	50
Bay of Plenty	9	18
Canterbury	10	11
Gisborne District	3	3
Hawke's Bay	2	5
Manawatu-Wanganui	4	8
Marlborough	0	0
Northland	10	18
Otago	4	14
Southland	2	4
Taranaki	2	7
Tasman	0	5
Waikato	13	21
Wellington	13	17
West Coast	2	1
Unknown		1

	Fatalities Per 100k Population	Hospitalisations Per 100k Population
Auckland	0.93	2.91
Bay of Plenty	2.62	5.24
Canterbury	1.54	1.69
Gisborne District	5.83	3.88
Hawke's Bay	1.10	2.75
Manawatu-Wanganui	1.56	3.12
Marlborough	0	0
Northland	5.05	8.59
Otago	1.62	5.67
Southland	1.95	3.89
Taranaki	1.58	5.54
Tasman	0	8.64
Waikato	2.57	4.15
Wellington	2.38	2.74
West Coast	6.12	3.06

Hospitalisations



Findings

Fatalities

Auckland had the highest total of drowning deaths in 2021 (16), but has a per 100,000 rate of 0.9. West Coast (6.1) and Northland (5.1) had the highest per 100,000 rates.

Wellington (13) drowning deaths were over double the five year average (6) and 44% more than 2020 (9).

Canterbury (10) increased 233% on 2020 (3) and was up from a five year average of 7.

Activity

Fatalities

There were 22 Swimming deaths in 2021. Eight occurred at Beaches and seven in Rivers. Three occurred in Lakes, the same as 2020, when the five year average is less than 0.6.

Powered Boating drowning fatalities (13) increased by 160% on 2020 (5) and was almost a third more than the five year average (10). 70% occurred on Tidal Waters (in the harbour or on a harbour bar).

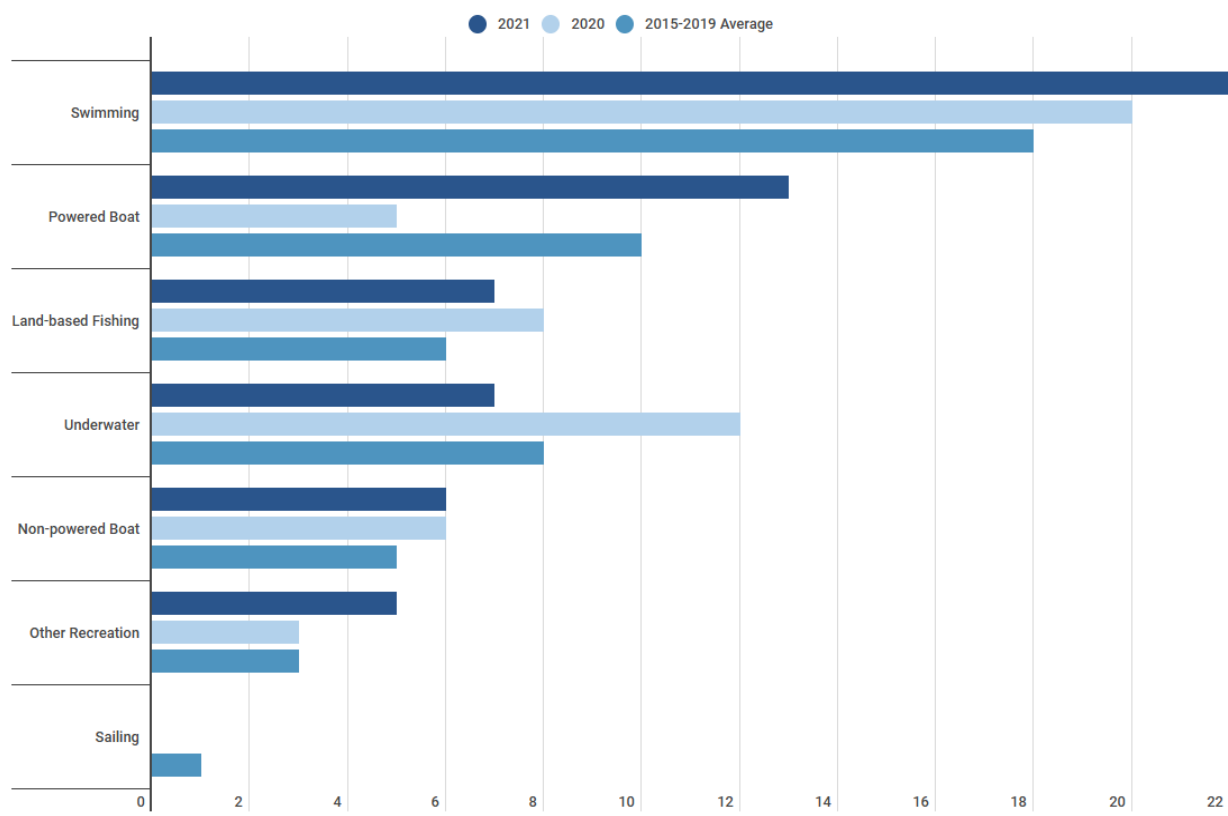
Hospitalisations

Auckland had the highest number of drowning hospitalisations (50) with a per 100,000 rate of 2.9. Northland (9.1) and Tasman (8.6) had the highest per 100,000 rates.

The drowning deaths in Bay of Plenty (18) decreased by almost a third on 2020 and five year average (26).

Canterbury, which had its highest hospitalisation rate ever in 2020 (22), halved that in 2021 (11).

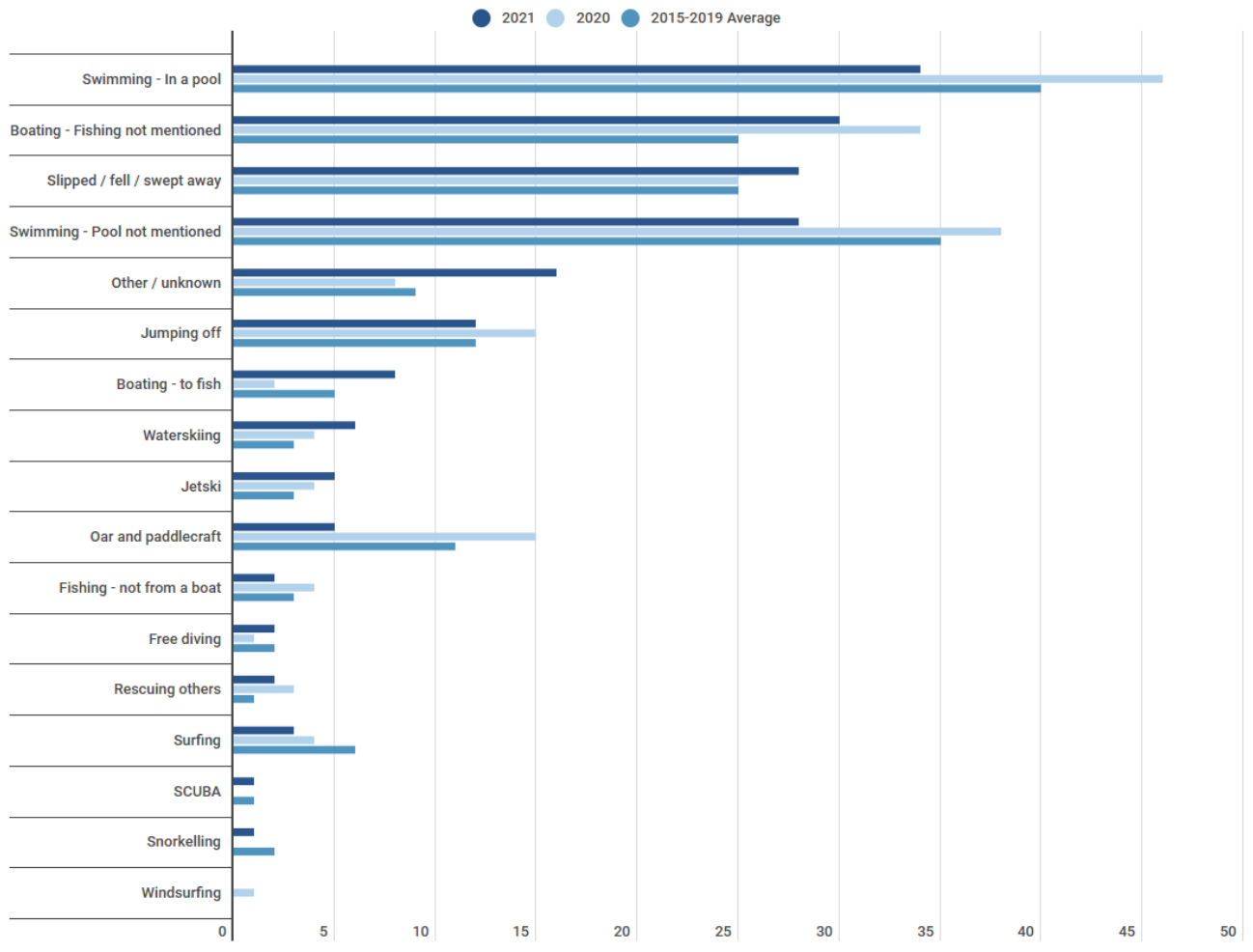
The seven Underwater drowning deaths in 2021 was a decrease of 42% on 2020 (12) and similar to the five year average. Maori (5) were 71% of 2021 Underwater deaths, down slightly from 2020 (10 or 83%), but an increase on the five year average of around 50%.



Hospitalisations

There were 62 Swimming hospitalisations in 2021. This is down 26% from 2020 (84) and 17% from the five year average (75). Over half of the Swimming hospitalisations (33 or 53%) were aged under 15 years.

Powered Boat hospitalisations (43) was up slightly on the 2020 total (40) and increased by 27% on the five year average (33). The majority of Powered Boat hospitalisations were aged 45 years and over (29 or 67%).



Environment

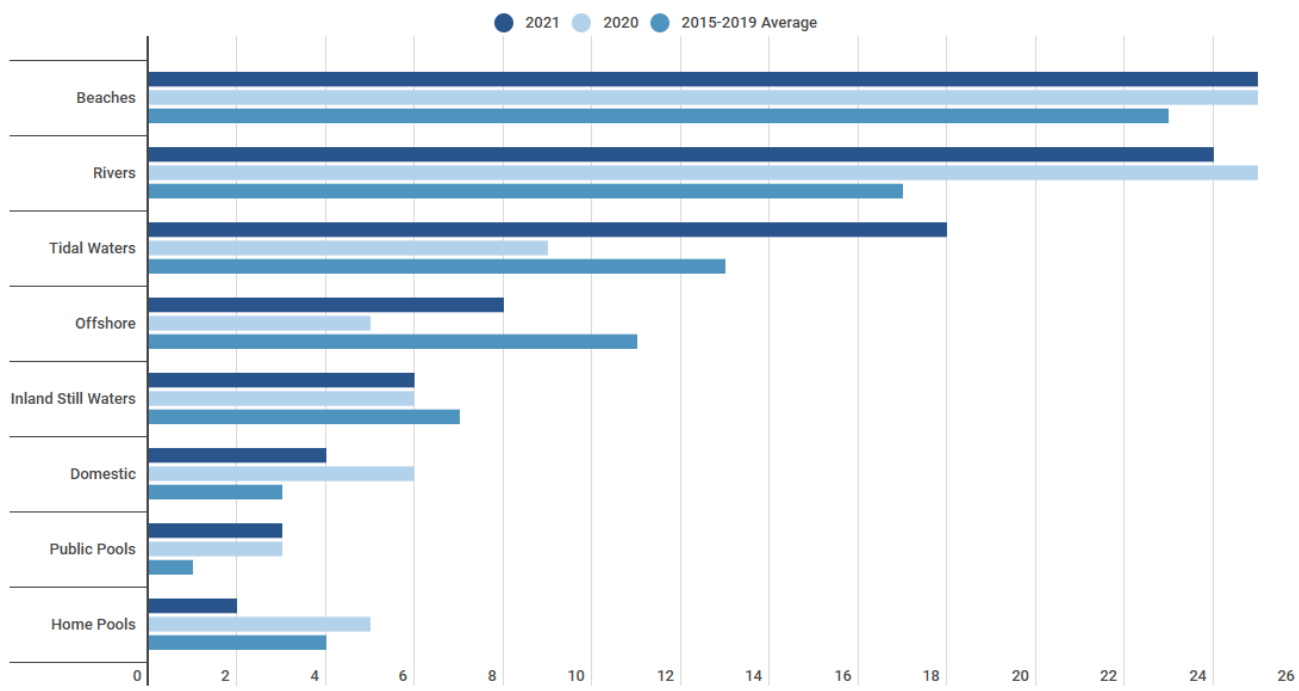
Fatalities

There were 25 drowning deaths on New Zealand Beaches in 2021. This is the same as 2020 and up slightly on the five year average of 23. New Zealanders died participating in 9 different recreational activities at the beach in 2021*.

Drowning deaths in Rivers in 2021 (24) were almost the same as 2020 (25) and up 41% on the five year average (17). Ten drowning deaths in Rivers in 2021 were of Maori ethnicity (42%).

There were 18 drowning deaths in Tidal waters (e.g. harbour, bar, marina or estuary) in 2021. This is double the amount of deaths in 2020 and up 38% on the five year average (13). Two thirds of the drowning deaths in tidal waters occurred when boating.

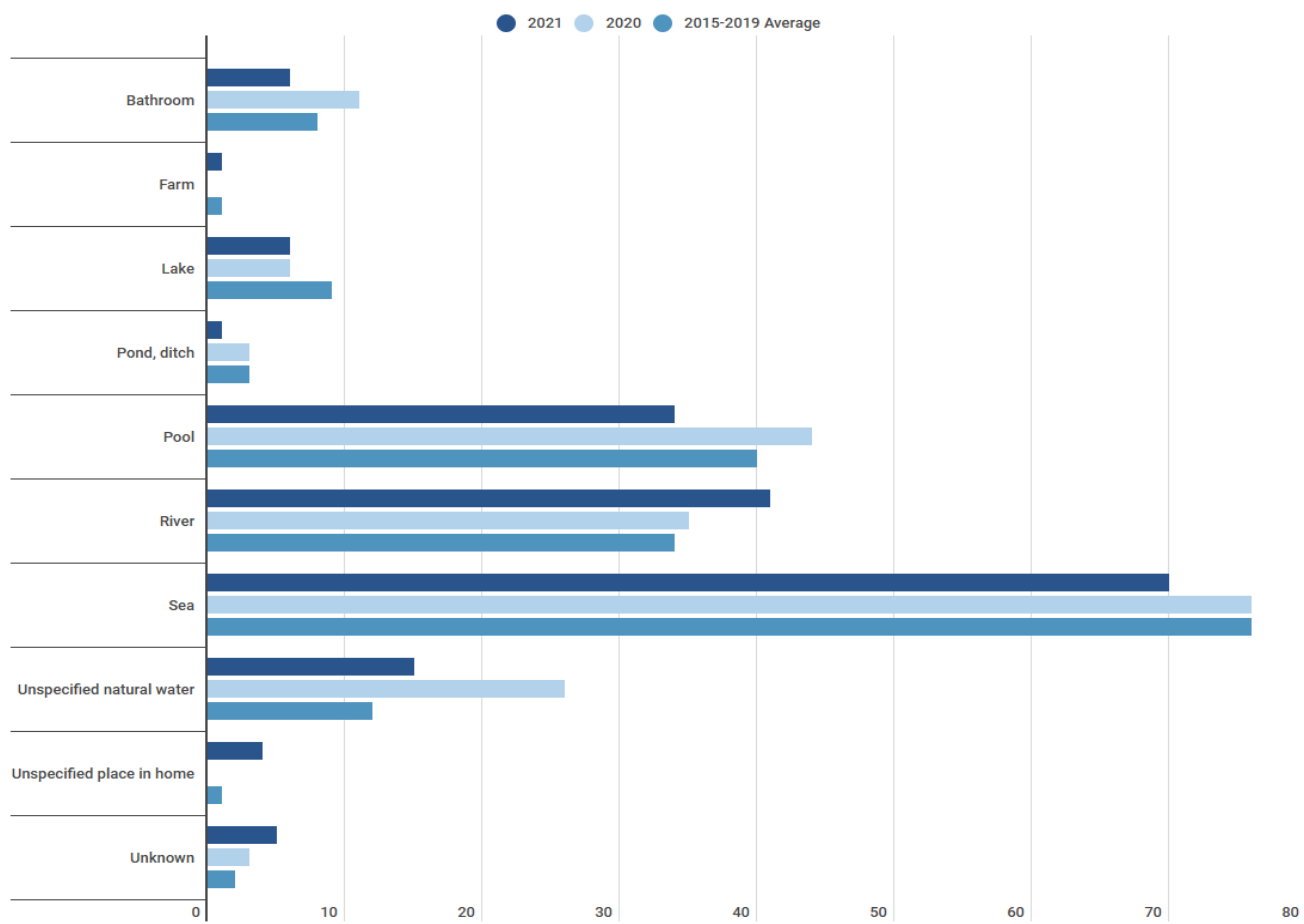
*Beach recreational activities being undertaken when drowning death occurred: angling, board riding (surfing), boogie boarding, jumping, free diving, net fishing, snorkelling, swimming, powered boat under 4m.



Hospitalisations

Hospitalisations from River incidents (41) in 2021 increased over 2020 (35) and the five year average (34). There was a slight increase in most age groups in River incident hospitalisations.

Hospitalisations in Pools (34) in 2021 was down 22% from 2020 (44) and down 15% on the five year average (40) – due largely to the decrease in 0-4 years drowning hospitalisations in the pool and home environments (down a third on the five year average).

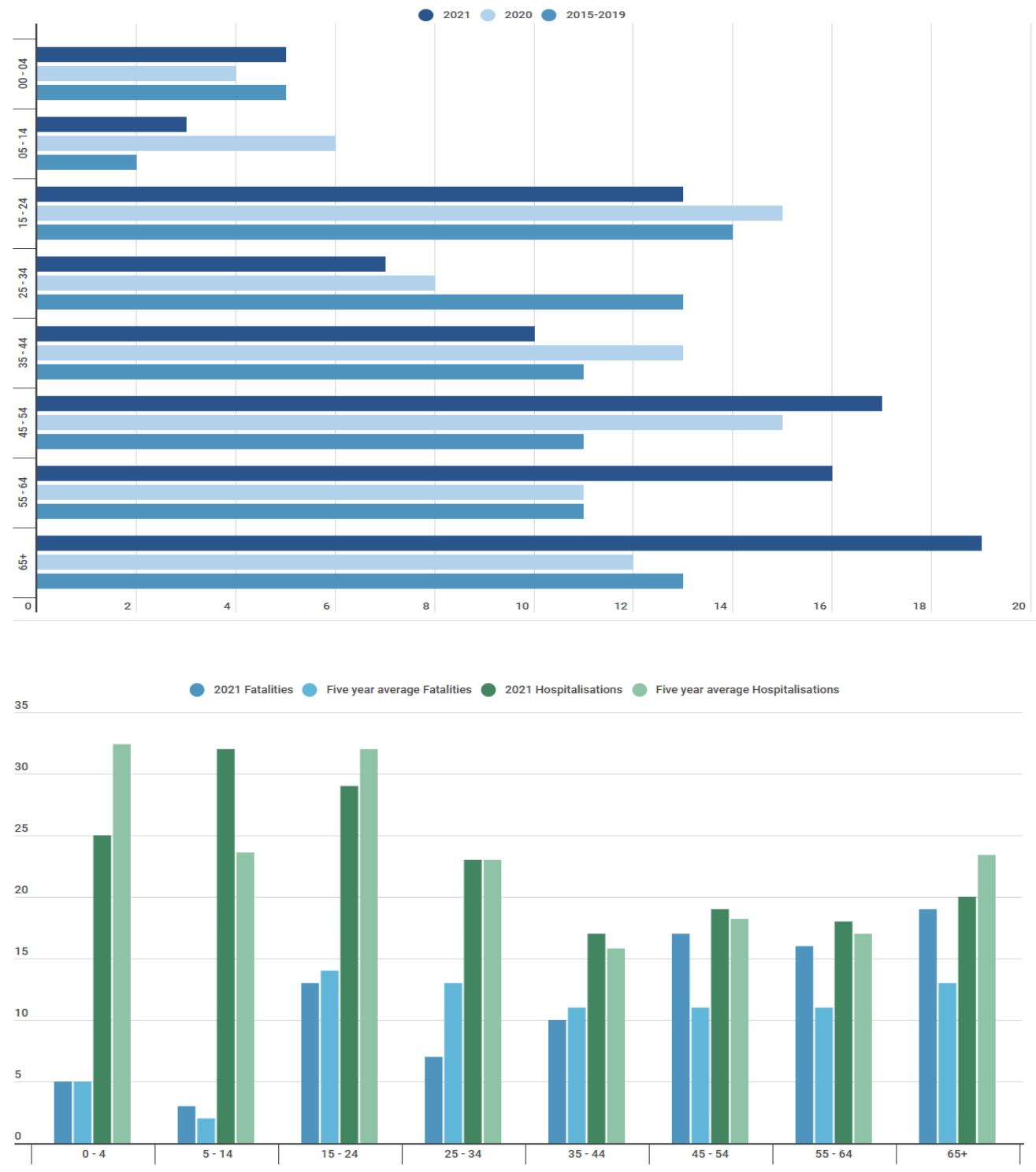


Age

Fatalities

There were 19 drowning fatalities in 2021 in the 65+ age group - this is the highest since 1988. Deaths occurred more in the older age groups of 45+, with a total 58% of drowning fatalities (52).

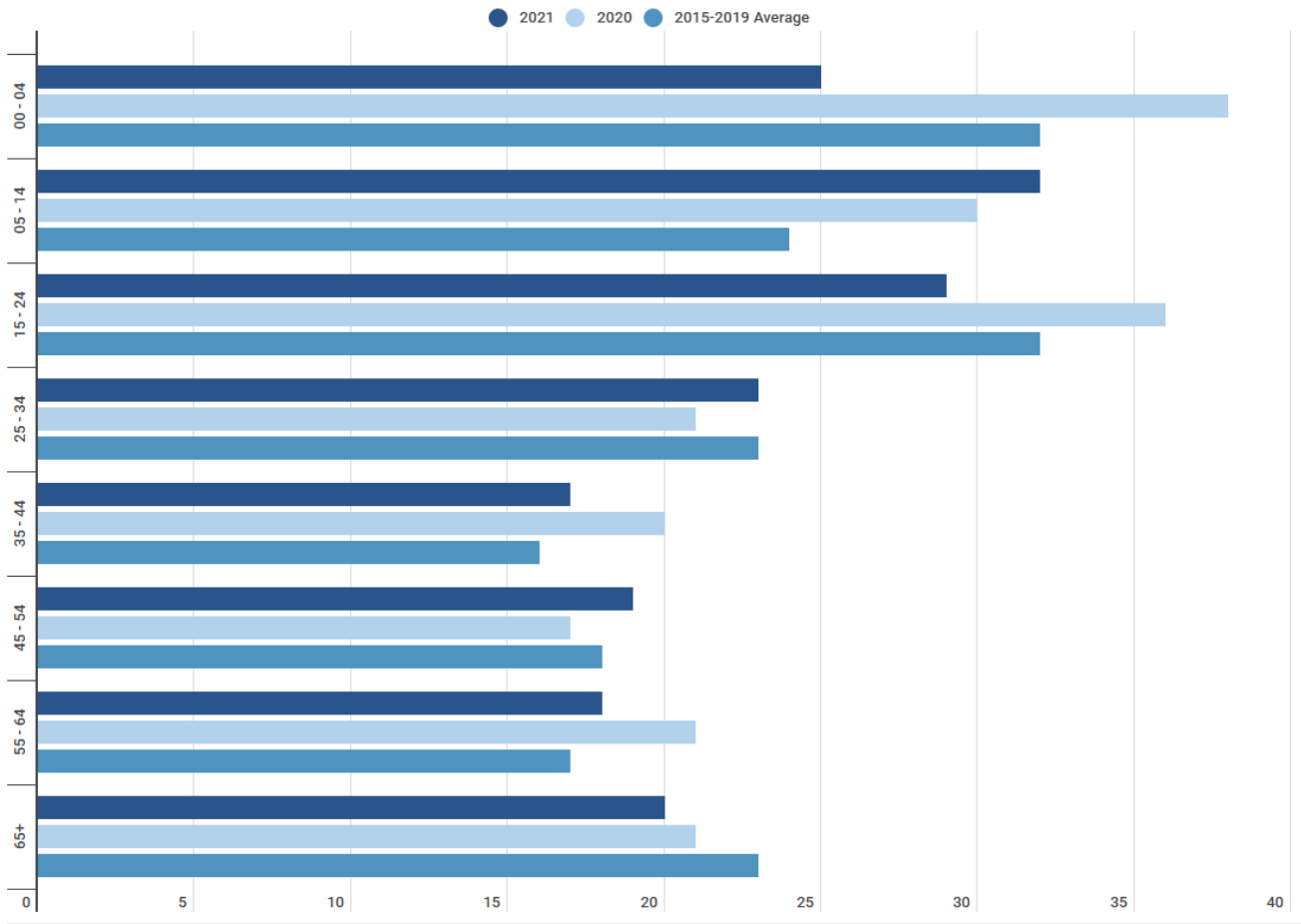
Fatality and hospitalisation rates are close in the older age groups, with a larger difference in rates in the younger age groups.



Hospitalisations

Hospitalisations of Under fives (25) decreased almost a third on 2021 (37) and 22% on the five year average (32), with swimming and slips/falls in this age group being lower than the five year averages.

The gender split of drowning hospitalisations is almost 50:50 up to 15 years of age; but from age 15 years onwards, hospitalisations are two to four times more likely to be male.



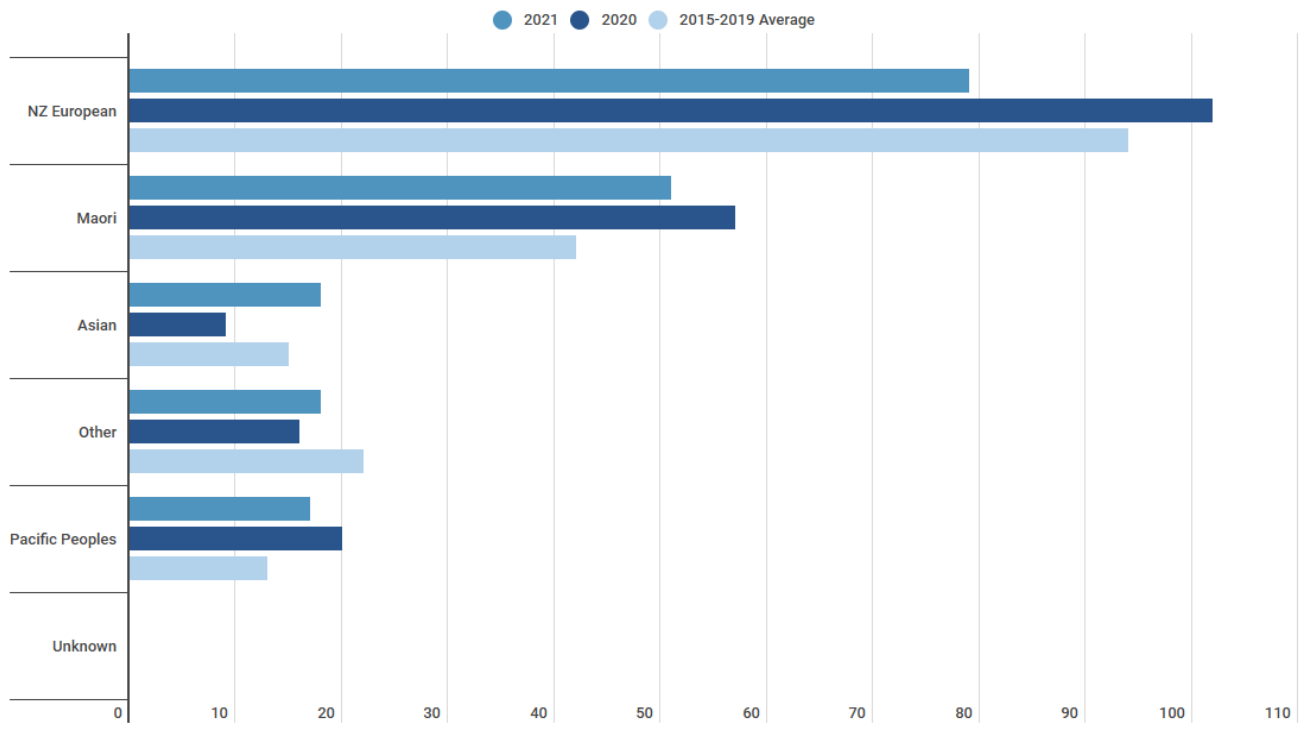
Ethnicity

Fatalities

Māori drowning fatalities in 2021 (28) were slightly higher than 2020 (27) and 43% higher than the five year average (16). It was the highest number of Maori drowning fatalities since 2001, mostly occurring in swimming, underwater and boating activities.

81% of the 2021 NZ European drowning deaths were aged over 45 (22).

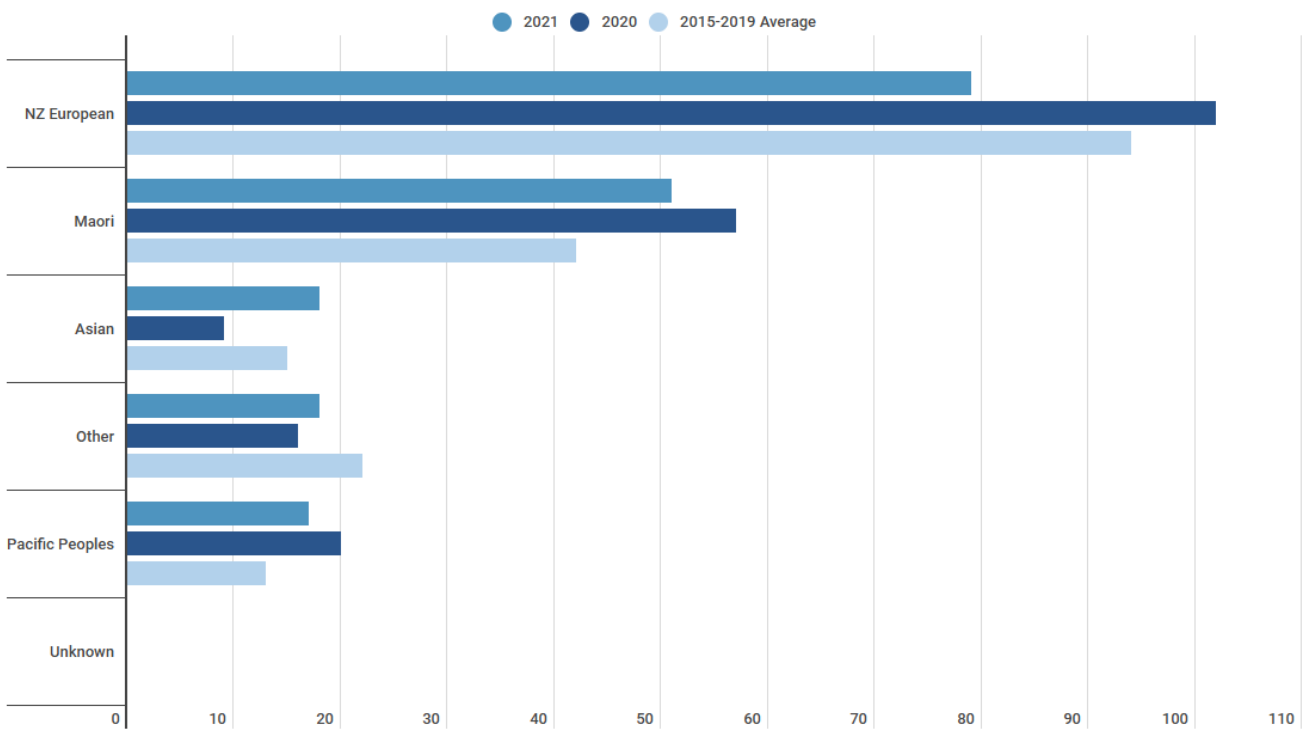
Half the 2021 Asian drowning fatalities were aged over 45 (10).



Hospitalisations

NZ Europeans account for 63% of hospitalisations for those aged 45+ (36), and 56% of powered boating hospitalisations (24).

42% of hospitalisations of 0-14 year olds are of Maori ethnicity (24).



Gender

There were 76 male drowning deaths in 2021. This is the highest male total since 2003 (80).

There was no significant change in female drowning death numbers in 2021 (14) from the 2020 total (13) and the five year average (15).

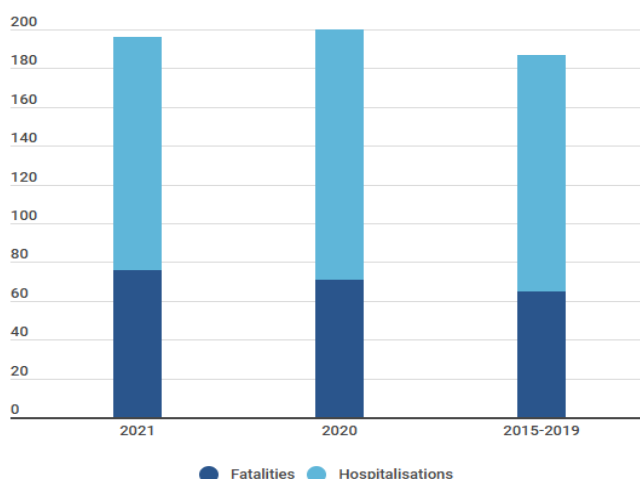
The most male drowning fatalities occurred in the 65+ age group (18). The largest age group for female drowning deaths in 2021 was the Under fives with three fatalities.

In 2021, Females died by drowning in just 3 types of recreational activities. Males drowned taking part in 16 different recreational activities*.

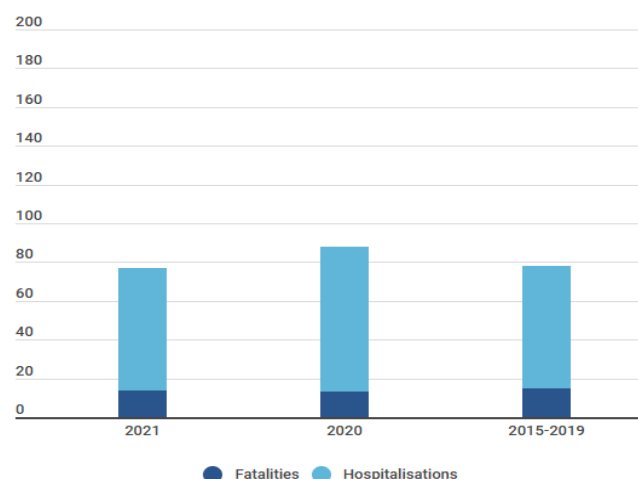
In 2021, female hospitalisations were close to 50:50 with male hospitalisations in non-recreational activities, but were less than half (39) the male total (92) in recreational activities.

* Female recreational activities resulting in drowning fatality: free diving, swimming, powered boat under 4m Male recreational activities resulting in drowning fatality: angling, board riding (surfing), boogie boarding, canoeing, jumping, free diving, jet skis, kayaking, net fishing, powered boat over 4m, powered boat under 4m, rafting, rowing craft/dinghy, scuba diving, snorkelling, swimming.

Male



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)”*.

The Drowning Prevention Report uses statistics on preventable drowning deaths only. Preventable drowning deaths are classified as “Fatalities”, and are all drowning deaths other than those that result from suicides, homicides and vehicle accidents.

Non fatal drownings are classified as “Hospitalisations”, which are drowning related hospitalisations that required hospital care.

Reported drowning related statistics often change due to updated information on cause of death or injury. This information is compiled from a range of sources. Thanks to our partners for making their information available.

*International Life Saving Federation, 2016

More detailed information is available on request or at www.watersafety.org.nz.

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



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