



Ontario Branch Registered Charity No. 10809 7270 RR0001

The Lifesaving Society is Canada's lifeguarding expert.

The Society works to prevent drowning and water-related injury through its training programs, Water Smart® public education initiatives, aquatic safety management services, and lifesaving sport.

Annually, over half a million Canadians participate in its swimming, lifesaving, lifeguard and leadership training programs. The Society sets the standard for aquatic safety in Canada and certifies Canada's National Lifeguards.

The Society is an independent, charitable organization educating Canadian lifesavers since the first Lifesaving Society Bronze Medallion Award was earned in 1896.

The Society represents Canada internationally as an active member of the Royal Life Saving Society and the International Life Saving Federation, and is the governing body for lifesaving sport – a sport recognized by the International Olympic Committee and the Commonwealth Games Federation.

THE DROWNING REPORT 2008 Edition

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THE DROWNING REPORT 2008 Edition

A profile of Ontario drowning and water-related injuries, 1987-2004.

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The Lifesaving Society

The Lifesaving Society is a full-service provider of programs, products and services designed to prevent drowning and water-related injury.

The Society is a national volunteer organization and registered charity composed of tens of thousands of individual members, and over 2,000 affiliated swimming pools, waterfronts, schools and clubs.

We are a leader and partner in the delivery of water safety education throughout Canada and around the world. The Lifesaving Society represents Canada in the International Life Saving Federation and the Commonwealth Royal Life Saving Society which operates globally in over 40 countries.

Teaching Canadians to save themselves and rescue others

Annually, over half a million Canadians participate in our swimming, lifesaving, lifeguard and leadership programs. Each year, we certify thousands of instructors who provide the leadership for our training programs. Over 25,000 Canadians earn our Bronze Medallion each year. As Canada's lifeguarding experts, we set the standard for lifeguard training and certify Canada's National Lifeguards.

Making Canadians Water Smart®

Our drowning research focuses Water Smart® drowning prevention efforts on people most at risk – like men fishing in small boats – or on those who can make a significant difference, such as parents of young children. We deliver Water Smart® messages through our Swim Program, through the media and through various community action channels. Our Swim to Survive® Program provides the essential minimum skills required to survive an unexpected fall into deep water.

Setting the standard

The Lifesaving Society establishes aquatic safety standards and consults on aquatic safety issues for the aquatic industry, governments and the judiciary. The Society offers a suite of services to help aquatic facility operators maintain and improve safe pool and waterfront operations. We perform aquatic safety audits and serve as experts in legal cases involving aquatic safety.

Lifesaving sport

The Lifesaving Society is the Canadian governing body for lifesaving sport – a sport recognized by the International Olympic Committee and the Commonwealth Games Federation. We organize annual championships for age-group, senior and masters athletes and coordinate Canada's National Lifesaving Team participation in international competition.



100 Years of Saving Lives in Canada

In 2008, the Lifesaving Society celebrates 100 years of achievement in drowning prevention and water rescue in Canada.

The Lifesaving Society has a long and proud lifesaving history. We trace our roots to 1891 in London, England where we began as The Swimmers' Life Saving Society. In 1894, Arthur Lewis Cochrane brought the Society's lifesaving skills to Canada where he passed them along to students at Upper Canada College in Toronto. In 1896, 18 of his students were the first recipients of our distinguished Bronze Medallion award. In 1908, Cochrane and a group of distinguished citizens officially established the first Branch of the Society in Canada.

Research and technical innovation have been hallmarks of the Society. We were the first Canadian organization to adopt mouth-to-mouth as the method of choice over manual methods of artificial respiration. We started our first CPR training program in the 1960s. In the mid 1970s we organized and hosted the Cold Water Symposium – the first in a long line of national symposia on topics important to the Society's water rescue work. In the 1980s, we initiated a project to design an economical CPR training manikin (ACTAR 911™). We also initiated our annual drowning research and we launched our Water Smart® public education campaign to drive behavioural change.

In the 1990s, the Society introduced innovative training programs to meet new needs (Boat Operator Accredited Training, the Junior Lifeguard Club and the Canadian Swim Patrol Program). Through our Aquatic Safety Management Service, the Society defines public safety standards for aquatic facility owners, operators and regulatory agencies and government. We expanded our First Aid training programs and completely revamped the Bronze medal and the National Lifeguard training programs to suit the needs of the new century.

In 2001, we defined the Canadian Swim to Survive® Standard and launched the Swim to Survive® Program to teach Canadians the minimum essential skills they need to survive an unexpected fall into deep water. Our Swim Program is our most recent drowning prevention initiative.

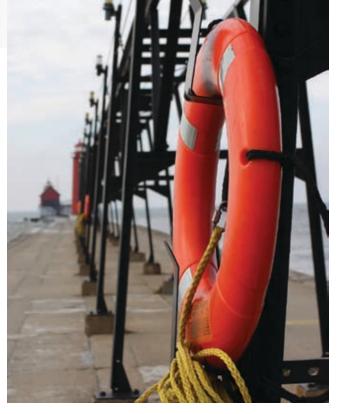
20 Years of Drowning Research

The Lifesaving Society has been researching and reporting on drowning and preventable water-related deaths in Ontario since 1989, and since 1990, for each province and nationally. This research provides a comprehensive fact base on the drowning "problem" to guide the Society and others in developing drowning prevention "solutions."

This edition of the Drowning Report provides a snapshot of drowning trends from 1987 to 2004 (the most recent year for which complete information is available). We are encouraged to note that the launch of the Society's Water Smart® public education campaign in 1987 coincides with the beginning of a substantial drop in drowning deaths in Ontario and Canada. In fact, the number of annual drownings has been cut in half in Ontario since then.

While the numbers change year over year, the drowning death rate (i.e., the number of deaths per 100,000 population) is probably the most valuable measure of change over time. In this regard there is good news.

Risk-taking young men have been a particularly high priority target for Lifesaving Society drowning prevention public education efforts, so it is very encouraging to see the progress that has been made in reducing both the total number of deaths, and the death rate relative to population, among 18 to 34-year-olds.



It is also encouraging to see the number of deaths and death rate dropping among children under 5 years of age. Just 10 years ago (1991-94), these young toddlers had the highest drowning death rate of any age group, which led the Lifesaving Society to make it one of its high priority target groups for public education, along with risk-taking young male adults.

But our drowning prevention work remains. Drownings among older adults and seniors have climbed in the recent data. In fact, individuals 65 years and older now have the highest drowning death rate of all age groups in Ontario. Our drowning research is providing the evidence the Society needs to add this target group to our priorities going forward.



What is drowning?

A new definition of drowning was adopted by the 2002 World Congress on Drowning and subsequently by the World Health Organization. Specifically: Drowning is the process of experiencing respiratory impairment from submersion / immersion in liquid. Outcomes of drowning may be: death, morbidity, or no morbidity. In other words, a person may die from drowning; be injured by a drowning episode; or escape from drowning through rescue or other means.

To date, and in this report, the Canadian drowning data represents fatalities only. We are working to access non-fatal drowning data to provide a more comprehensive picture of the drowning problem under its new definition.

The Global Picture

Drowning around the world

Drowning is a serious threat to world health. The World Health Organization (WHO), which collates the most comprehensive global data on drowning mortality, identifies drowning as the third leading cause of unintentional injury death after motor vehicle collisions and falls. WHO estimates 409,272 people died from drowning in 2000, and 382,000 in 2002 with 97% of unintentional drowning deaths occurring in low- and middle-income countries.

WHO acknowledges that world drowning deaths are significantly underreported and that the drowning problem is even greater because its data include only "accidental drowning and submersion". Cataclysms (floods), transport incidents, assaults, and suicide were specifically excluded. Cataclysms and transport incidents cause significant numbers of drowning deaths and are certainly unintentional.

The collection of drowning data is a formidable challenge. Many countries do not have complete or reliable data on drowning fatalities. There is no data for many countries and regions – even from developed nations. And, since the reliable data that is available excludes cataclysms, transport, etc., tens of thousands of drowning deaths are not included in existing figures.

The International Life Saving Federation's *World Drowning Report 2007* points to United Nations world population projections that mean we can anticipate that the drowning problem is going to get worse without significant intervention, especially in developing countries. The world of 2050 is likely to be one in which Africa and Asia are home to more than 80 per cent of the population. China and India together will shelter about one third of the world population. In the world of 2050, the drowning prevention challenge, let alone the drowning data collection challenge is formidable.

In the ILS survey of its member organizations, all countries that provided data based on gender, reported significantly more men drowning than women. In almost all countries that reported data by age, men aged 18–49 years had the highest drowning numbers and highest drowning rate. Swimming and boating were the activities that most men were engaged in when they drowned. In many countries, children under 5 years of age had the second highest drowning risk. Indeed, the WHO *Factsheet on Drowning* indicated that children under 5 years were the age group with the highest risk of drowning.

Counting victims does not save lives or reduce drowning – but understanding the magnitude of the problem and identifying the risk factors does allow lifesaving organizations to provide effective prevention actions to the highest risk populations, locations and activities.



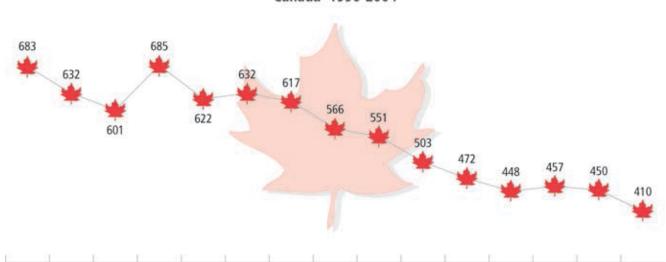






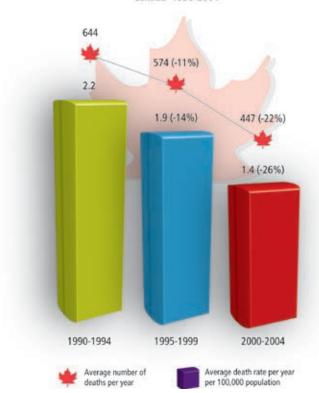
The Canadian Scene Drownings nationally

Number of Preventable Water-Related Deaths Canada 1990-2004



1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004

Change in Number of Preventable Water-Related Deaths per Year & Preventable Water-Related Death Rate Canada 1990-2004



There has been significant progress in reducing death by drowning in Canada. The number of drownings has fallen substantially and reached an all-time low in 2004 with 410 water-related fatalities, down 9% from 2003, and down 12% from the previous 5-year average. There are also major reductions in Canadian drowning longer-term. Looking at the most recent 5-year time period (2000–2004), Canadian water-related deaths decreased by 22% from the previous five years, and were down even more sharply (-31%) from 10 years ago.

Taking population into account, the national water-related death rate in 2004 was down to 1.4 drownings per 100,000 Canadian population, much lower than during the 5- and 10-year-ago periods. The drowning death rate is down by over one-third (-36%) from 10 years ago.

The long-term decrease in Canadian water-related deaths reflects reductions in all provinces and regions of the country. During the last five years, drowning deaths were down by one-third in British Columbia, Quebec and Atlantic Canada, compared to 10 years ago; and down by almost half (-44%) in the northern territories. In Ontario and the Prairies, water-related deaths were down by one-quarter during the same period.

Focus on Ontario **Drowning overview**

In less than 20 years, Ontario drownings have been cut in half, if we compare back to the Lifesaving Society's first two years of tracking in 1987 and 1988, when 248 and 278 deaths occurred respectively. The two lowest annual death totals were recorded in the two most recent years for which data are available – 128 in 2003 and 132 in 2004.

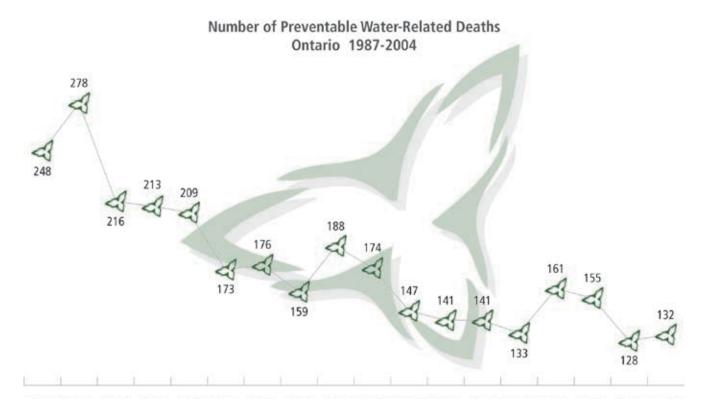
In the late 1980s there were about 250 water-related deaths annually. In the most recent 5-year period (2000–2004), drownings were down to an average of 142 deaths annually. The trend toward fewer Ontario drownings reflects:

- Fewer deaths among all age groups under 65 years of age; most dramatically among the historically highest risk age group of young men 18 to 34 years of age.
- An aging population. As Ontario "Baby Boomers" approach retirement, we are seeing an increase in drownings among older Ontarians, especially those over 65 years.
- The largest decreases (in both absolute numbers and percentage terms) occurred in aquatic settings where the greatest numbers of drownings occur – lakes

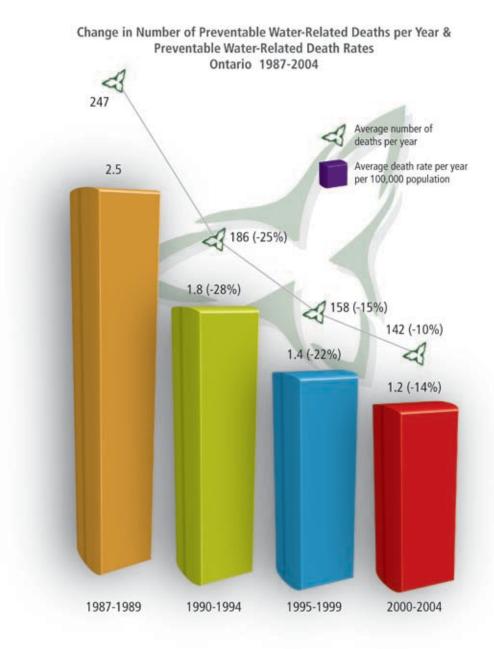


and rivers. Drownings were down in all regions of the province, but most dramatically so in southwestern, central and eastern Ontario.

- Swimming is still the activity during which the largest numbers of drownings occur, closely followed by powerboating and sport fishing.
- Boating deaths were down by one-third from 10 years ago, reflecting a major decrease in powerboating deaths.



1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004



In terms of risk factors, major contributors to the drowning problem in Ontario are:

- Not wearing a PFD continues to be a major behavioural problem among adult men and the number one contributing factor in recreational boating drownings. Only 4% of all 2000–2004 victims in relevant situations (e.g., boating, snowmobiling) were wearing a PFD properly.
- Consuming alcoholic beverages problematic behaviour still involved in half of water-related deaths among men 18 to 49 years of age.
- On or near the water alone a big problem with young and old victims. Two-thirds of victims over 50 years of age, and 95% of young children under 5 years, were alone when their fatal incident occurred.
- Cold water and/or hypothermia is a silent killer, identified as a factor in about one-quarter of Ontario water-related deaths



Who is drowning?

There were fewer deaths among all age groups under 65 years of age; but most dramatically among the historically highest risk age group of young adult men 18 to 24 and 25 to 34 years of age. The drowning death rate for children under 5 years has been brought down in-line with the average for all ages combined.

The drowning numbers and death rates of children 5 to 12 and teens 13 to 17, relatively low in early years, dropped further during 2000-2004.

On the other hand, as the population ages and "Baby Boomers" approach retirement, we see an increase in drownings among older Ontarians. In the past 5 years, those 65+ years of age now have

the *highest* drowning death rate of all age groups, which is a shift from earlier years.

The vast majority of drowning victims continue to be men. Year after year, 8 out of 10 drowning victims are male. The skew to male victims is evident across all age groups, but most pronounced among 18 to 34-year-olds, where 9 of every 10 victims are male. Overall, men accounted for 83% of Ontario water-related deaths during 2000–2004.

Inability to swim affected victims in all age groups (25%), especially children under 5 (92%), children 5-12 (43%) and seniors 65+ (31%).

THE WHO, WHEN, WHERE, WHAT OF ONTARIO DROWNINGS

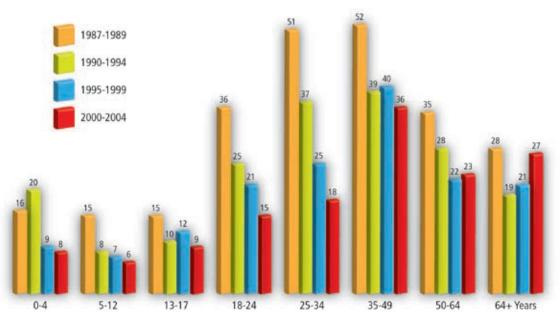
WHO IS DROWNING?

WHEN DROWNINGS OCCUR

WHERE DROWNINGS OCCUR

WHAT VICTIMS WERE DOING

Number of Preventable Water-Related Deaths/Year by Age Group Ontario 1987-2004



Death Rate	0-4	5-12	13-17	18-24	25-34	35-49	50-64	64+
1987-89	2.5	1.5	2.2	3.3	3.1	2.7	2.6	2.8
1990-94	2.7	0.7	1.4	2.1	1.9	1.6	1.8	1.4
1995-99	1.2	0.6	1.6	2.0	1.4	1.5	1.3	1.5
2000-04	1.1	0.5	1.1	1.3	1.1	1.2	1.2	1.8
% Male Victims 2000-04	71%	67%	73%	92%	93%	86%	81%	78%



THE WHO, WHEN, WHERE, WHAT OF ONTARIO DROWNINGS

WHO IS DROWNING?

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When drownings occur

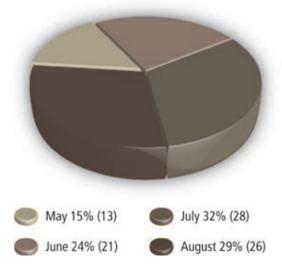
Ontario drownings skew to the warmer summer months: May, June, July and August accounted for two-thirds (65%) of Ontario drownings during 2000–2004, with the peak in July and August.

In both the summer and non-summer months, drownings were down versus 10 and 15 years ago.

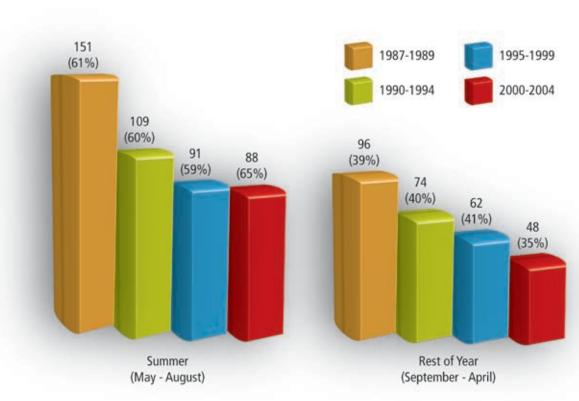
Just over half (56%) of fatal incidents occurred on the weekend (Friday, Saturday, Sunday) when participation in aquatic recreation is highest.

Almost half (42%) of fatalities occurred in the evening or at night, despite most participation in aquatic activities taking place during the day. Being in, on, or around the water after dark is a significant risk factor, especially for incidents involving adult victims.

Average Number of Preventable Water-Related Deaths Within Summer Months Ontario 2000-2004



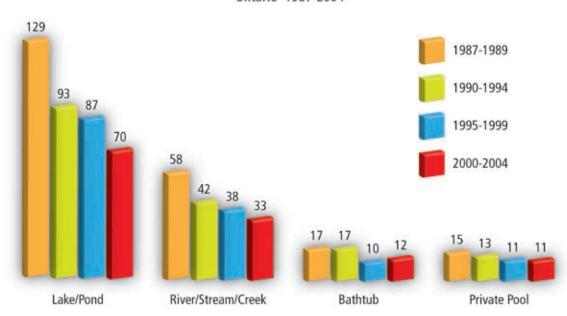
Average Number of Preventable Water-Related Deaths/Year by Time of Year Ontario 1987-2004





Where drownings occur

Top Four Aquatic Settings Number of Preventable Water-Related Deaths/Year Ontario 1987-2004

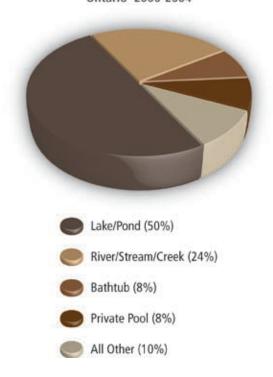


The largest decreases in Ontario water-related deaths have occurred in lakes and rivers – the same places where three-quarters of all Ontario water-related deaths occur (50% in lakes; and 24% in rivers/streams/creeks).

Private backyard swimming pool deaths have edged downward in the last 10 years, but the backyard pool remains the number one location where children under 5 years of age drown.

There were no deaths in Ontario public pools during the most recent data year (2004). There have been just three deaths in public pools in the 10 years 1995–2004.

Aquatic Settings Number of Preventable Water-Related Deaths/Year Ontario 2000-2004



THE WHO, WHEN, WHERE, WHAT OF ONTARIO DROWNINGS

WHO IS DROWNING?

WHEN DROWNINGS OCCUR

WHERE DROWNINGS OCCUR

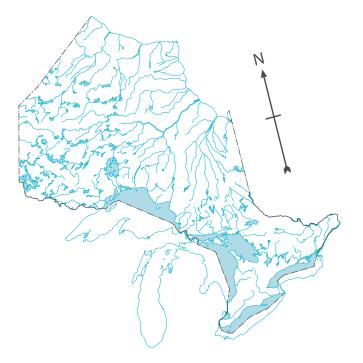
WHAT VICTIMS WERE DOING

	Where Deaths Occurred				Where Victim Lived			Difference*
	1987-89	1990-94	1995-99	2000-04	1991-94	1995-99	2000-04	1995-2004
Northwest Ontario	26	22	18	24	18	11	17	+14
Northeast Ontario	48	36	36	33	25	24	21	+24
Southwest Ontario	30	21	18	17	17	18	15	+2
Niagara	22	19	11	13	18	11	10	+3
Toronto	22	12	11	11	22	21	19	-18
Eastern Ontario	35	30	27	17	24	20	14	+10
Rest of Ontario (Central & South Georgian Bay)	60	41	37	27	38	35	30	-1
Out-of-Province	-	-	-	-	15	16	14	-30
Total Ontario	247	185	158	142	178	158	142	+/- 0

^{*} Difference between where deaths occurred in 1995-2004 and where victims live 1995-2004.

Drownings were down in all regions of the province, but most dramatically so in southwestern, central and eastern Ontario, compared to 10 and 15 years ago. Northwestern Ontario is the one region where the number of drownings remains close to that of the late 1980s.

Relatively few drownings occur in the city of Toronto, although some Toronto residents become victims when recreating in other parts of the province. Northwest, northeast and eastern Ontario are the regions where a high proportion of drowning victims are not residents of those regions, e.g., out-of-province or GTA victims.

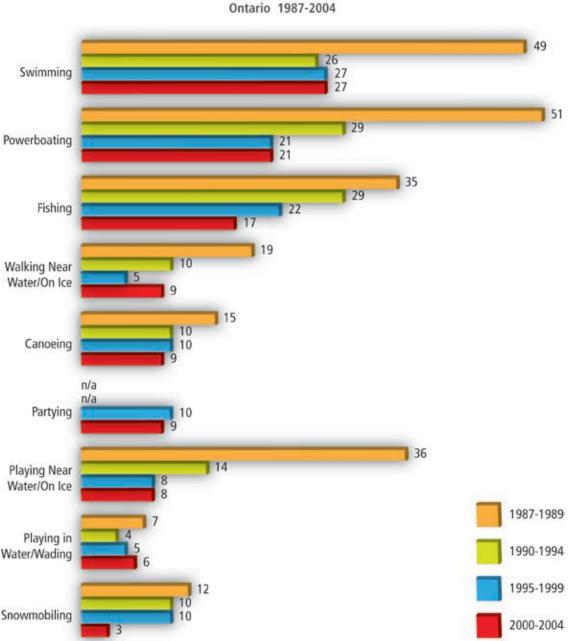




What victims were doing

Swimming is still the activity during which the largest number of drowning occur, closely followed by powerboating and fishing. A wide range of other recreational activities are also involved in water-related fatalities, reflective of the breadth of water-based recreation enjoyed in Ontario. Most activities show decreases in the number of fatalities versus 10 or 15 years ago.





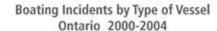
THE WHO, WHEN, WHERE, WHAT OF ONTARIO DROWNINGS

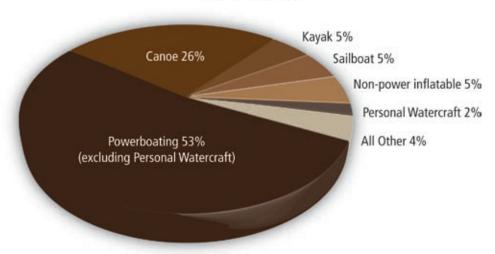
WHO IS DROWNING?

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WHERE DROWNINGS OCCUR

WHAT VICTIMS WERE DOING





Boating deaths were down by about one-third (-30%) from 10 years ago, reflecting a major decrease in powerboating deaths (-42% vs. 10 years ago). The major factors cited in fatal boating incidents were capsizing and falling/being thrown overboard, often in rough water and strong winds. As well, alcoholic beverage consumption continues to play a major role, involved in 40% of all boating deaths, and 45% of those fatalities where the victim fell overboard.

The number of canoeing deaths is unchanged from earlier years. Drownings while kayaking have increased slightly but the absolute number of kayaking fatalities remains low – an average of 2 per year during 2000-2004.

For these paddle craft, as with powerboats, the victims were almost always not wearing a PFD. Only two of 55 canoeing victims during 2000–2004 were wearing a PFD properly, and none of the nine victims in a kayak were wearing a PFD when they died.

The number of water-related snowmobiling fatalities is much lower in recent years - down to 3 per year during 2000-2004 vs. 10 per year during 1990-1999. The number of fatalities involving personal watercraft remains low, averaging just one fatality per year throughout the past 15 years.

Fewer water-related deaths occurred in 2000–2004 during both recreational and daily living activities. Recreational activities continued to account for the bulk of Ontario drowning (70%), but were down by 24% from 10 years earlier.

Daily living deaths in 2000–2004 were down by 38% from 10 years prior. About half of daily living fatalities were while bathing (especially young children and elderly victims), and about one-third involved automobile travel (e.g., where the vehicle went off the road or bridge, or went through ice) among 18 to 49-year-old victims.

Drowning Across the Lifestages



Depending on what stage of life we are at, we experience changes in physical development and attitudes, new interests, new influences and new challenges. For example, we may find ourselves participating in different water-based activities at different stages of our life; and different, changing risks may come into play, affecting the potential for injury or drowning. Despite changes in physical condition and capabilities, people may also carry into later lifestages certain attitudes developed during their formative years.

To prevent drowning and water-related injury, we need to understand evolving attitudes and behaviour and develop effective prevention programs. This section of *The Drowning Report* looks at the drowning problem during the various life stages and identifies relevant and effective drowning prevention strategies.



DROWNING ACROSS THE LIFESTAGES

TODDLERS & CHILDREN UNDER 5 YEARS

> CHILDREN 5-12 YEARS

TEENS 13-17 YEARS

YOUNG MEN 18-34 YEARS

MID-LIFE MEN 35-49 YEARS

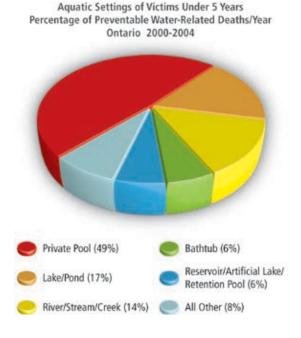
OLDER ADULTS 50+ YEARS



Toddlers and children under 5 years

There has been a significant decrease in the number of drownings among children under 5 years of age. During 2000–2004 there were 8 deaths per year on average in this age group, less than half of the 20 deaths per year just 10 years ago. Water-related deaths among children under 5 years dropped to all-time lows of four deaths in each of 2003 and 2004.

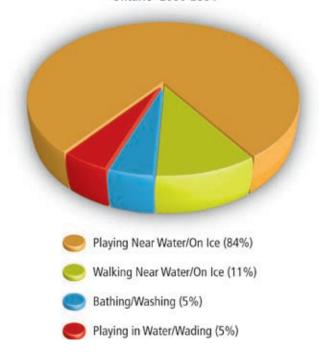
The drowning death rate has also dropped by more than half – down to 1.1 deaths per 100,000 population under 5 years during 2000–2004, bringing it in line with the death rate (1.2) for all ages combined.





Two to four-year-olds are increasingly mobile as they progress through the toddler years. At this stage in life, toddlers are inquisitive and keen to take advantage of their ever-expanding range and speed of mobility. They have no awareness of looming aquatic danger so it is up to parents and caregivers to protect them. They are at risk when they are playing near water – far and away the activity most involved in toddler drownings.

Top 4 Activities of Victims Under 5 Years of Age Ontario 2000-2004



Most drownings among under 5-year-olds are among 2 to 4-year-olds (79% of all under 5-year-old deaths).

Private backyard pools present the greatest danger at this life stage, accounting for one-half (49%) of water-related deaths for young children under 5 years, although beaches and waterfronts on lakes and rivers also contribute.

By far the biggest risk factor for young children is lack of supervision from parents or caregivers. Almost all these young victims were alone when they became immersed in water (95% of 2000–2004 victims under 5 years of age). The lapse in attention may have been just a few moments but it was nonetheless fatal.

Prevention

If you're not within arms' reach, you've gone too far.

Drowning is a silent killer and can happen in as little as 10 seconds. Parents and caregivers must be near (within arms' reach) their children whenever they are near water – in the backyard, at the beach and in the bathroom. Stay tub-side until the water is drained and children are out of the tub. Most bathtub drownings occur because children are left alone "just for a moment".

Restrict and control access to the water.

Many toddlers who drown do so because they unexpectedly gained access to the water – the backyard pool, the lake or the bathtub. Typically, human error leads to a gate or door being left open or a lock unsecured.

Layers of protection will reduce the chance of human error. If you can't eliminate the water hazard, restrict access to it by fencing off natural or man-made bodies of water on your property and ensure that gates are self-closing and self latching. Drain bathtubs when not in use, and empty unattended wading pools and buckets of water and turn them over.

Designate a backyard pool lifeguard.

An adult must always supervise children using a pool – in-ground, above-ground or wading pool. If one adult must be absent for a moment, designate a replacement or close the pool until someone can assume supervisory duties.

Wear a lifejacket.

As an extra layer of protection, put toddlers in a lifejacket when they are near water. Lifejackets do not replace attentive supervision, but will keep a toddler at the surface – which may give parents the seconds they need to save a life.

Go to lifeguard supervised beaches and pools.

For safer play near the water, take children to beaches and pools supervised by certified lifeguards. Lifeguards do not replace direct parental supervision but act as an extra layer of protection.

Parent & tot aquatic programs.

A positive introduction to water can give your child a lifetime of pleasure swimming. Toddlers are particularly suited to get used to the water with their parents in an instructional setting.



DROWNING ACROSS THE LIFESTAGES

TODDLERS & CHILDREN UNDER 5 YEARS

> CHILDREN 5-12 YEARS

TEENS 13-17 YEARS

YOUNG MEN 18-34 YEARS

MID-LIFE MEN 35-49 YEARS

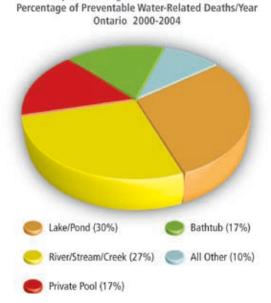
OLDER ADULTS 50+ YEARS



Children 5-12 years

In Ontario, elementary school age children 5 to 12 years of age have been at less risk of drowning than other stages of life. The drowning death rate for this age group was 0.5 deaths per 100,000 population during 2000–2004, which is less than half that (1.2) of all ages combined. On average six children in this age group drowned each year during 2000–2004 which is fewer than in previous years.

Lakes (30%) and rivers (27%) are the settings that account for more than half of drowning among 5 to 12-year-olds.



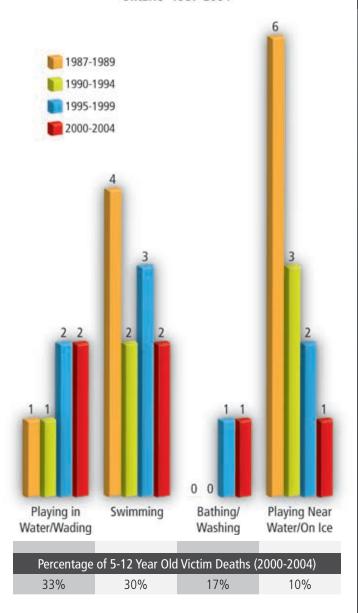
Aquatic Settings of Victims 5-12 Years



At this lifestage, children are beginning to venture farther afield into new environments with and without mom and dad. Habits and behavioural patterns are being formed that will set the stage for a lifetime. Skill development lessons are common at this age. As adults we are less likely to take lessons for an activity or sport so this is a crucial age for instruction. As well, this period provides an opportunity when children impart knowledge and skills that they have learned to their family members. They are great ambassadors of knowledge and behaviour. Children can have a big impact on their parents, motivating them to improve behaviour they might otherwise not.

The activity that these children are engaged in at this lifestage shifts to "in the water" as opposed to younger toddlers who tended to be "near the water".

Top 4 Activities for Victims 5-12 Years Number of Preventable Water-Related Deaths/Year Ontario 1987-2004



Playing in water (33%) and swimming (30%) are what two-thirds of 5 to 12-year-old victims were doing when they drowned.

Almost half (43%) of victims 5 to 12 years of age were non-swimmers (among those for whom swimming ability information was available). And although children of this age are often playing with friends, one-quarter of victims were alone and another one-quarter were with other minors (no adults present).

Prevention

Learn to swim.

Parents should ensure their children learn to swim – a fundamental requirement to prevent drowning. Because most non-swimmers do not take swimming lessons as adults, it is crucial that children learn to swim when they are young. But surveys tell us that less than half of Canadian children have ever taken swimming lessons.

In its Swim to Survive® Standard, the Lifesaving Society defines the minimum standard of basic swimming skill for Canadians: roll into deep water, tread water for 1 minute and swim 50 metres. These are the essential minimum skills required to survive an unexpected fall into deep water.

The Lifesaving Society's Swim and Lifesaving programs offer a wide range of aquatic training to further develop swimming, survival, and rescue skills well beyond the Swim to Survive® basics.

Swim in supervised areas.

Parents should ensure their children swim only at lifeguarded pools and beaches, and under direct adult supervision at the cottage or in the backyard.

Swim with a buddy.

Over half of drowning victims are alone. In many cases, lives would be saved if someone with them used a reaching aid or called for assistance. Lives will be saved if children learn this never-swimalone message and adopt this behaviour throughout their lifetime.

Wear your lifejacket.

Most drowning victims never intend to be in the water, certainly not boaters. Ninety-five percent of victims in boating fatalities are not wearing lifejackets. Ironically, it's more common to see children in a boat wearing lifejackets but not the adults. But not common enough. Putting on your lifejacket when you get into a boat should become as normal as putting on your seatbelt when you get into the car.

Ice is risky – always.

Measure clear hard ice in several places.

Each winter drowning as a result of falling through ice makes headlines. Never go on the ice alone. A buddy may be able to rescue you or go for help if you get into difficulty. Keep away from unfamiliar paths or unknown ice. Before you leave shore, inform someone of your destination and expected time of return.



DROWNING ACROSS THE LIFESTAGES

TODDLERS & CHILDREN UNDER 5 YEARS

> CHILDREN 5-12 YEARS

TEENS 13-17 YEARS

YOUNG MEN 18-34 YEARS

MID-LIFE MEN 35-49 YEARS

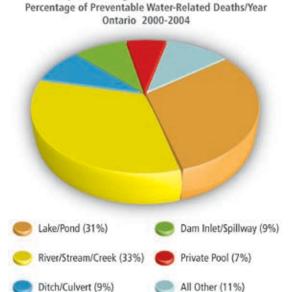
OLDER ADULTS 50+ YEARS



Teens 13-17 years

During 2000–2004, the drowning death rate among 13 to 17-year-olds was 1.1 deaths per 100,000 population, almost equal to the death rate among all ages combined (1.2).

During 2000–2004, an average of nine 13 to 17-year-olds died each year in water-related incidents, fewer than in previous years. An all-time low of four deaths was recorded in 2004.



Aquatic Settings of Victims 13-17 Years

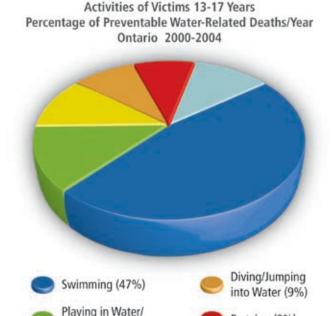


The drowning death rate climbs as children enter their teenage years, and begin to "push the envelope" with riskier behaviour. As in other age groups however, progress has been made.

Teenagers are exercising independence and trying new experiences. Friends supplant family as the most important social relationships in their lives. And teenagers often act impulsively; risks are not rationally considered or evaluated. Their actions around the water may be no different and avoidable fatalities result. This behaviour and the resulting injuries and fatalities are overwhelmingly more likely to be among males.

Young men tend to place themselves in high risk scenarios and act without concern for danger. "It won't happen to me" is a common belief. Risk taking behaviour includes the influence of drugs or alcohol, diving into unknown waters, driving recklessly in a boat and not wearing a lifejacket.

Most teenage drownings happen at lakes (31%) and rivers (33%), and not so much at the pool at home (7%). Half of fatal incidents occur while swimming (47%), but other aquatic activities enter the mix as well, including powerboating (11%), diving and jumping into water (9%), and partying near or on the water (9%).



Partying (9%)

All Other (11%)

Diving into shallow water is a particularly high risk activity, whose impact is only partially reflected in the drowning statistics. Many other victims suffer a broken neck or catastrophic spinal cord injury and, while they survive the incident, are paralyzed for life.

Wading (13%)

Powerboating (11%)

More than half of 13 to 17-year-old victims were not with adults when they drowned – either alone (31%) or with other minors (24%). And one-in-five (19%) were non-swimmers or weak swimmers. Although still underage, alcohol and drugs play a significant role in elevating risk – 24% of fatal incidents involved alcohol and 20% involved drugs, for 13 to 17-year-old victims.

Prevention

Learn to swim.

In Canada, knowing how to swim is a life skill. In families new to Canada, older children may not have learned to swim in their younger years. Teens, like younger children, need to at least be able to stay afloat.

In its Swim to Survive® Standard, the Lifesaving Society defines the minimum standard of swimming skill: roll into deep water, tread water for 1 minute, swim 50 metres. These are the essential minimum skills required to survive an unexpected fall into deep water.

Swim to Survive® is only a first step to being safe around water. The Lifesaving Society's Swim and Lifesaving programs offer a wide range of aquatic training for teens well beyond Swim to Survive® basics.

Get the training.

If you have a pool, cottage or camp, ensure that family members learn lifesaving skills. Teens should enroll in lifesaving and lifeguarding courses such as the Lifesaving Society's Bronze and National Lifeguard awards to obtain the skills for a lifetime of fun in the water and as preparation for a job as a lifeguard or swim instructor.

Project your neck.

Spinal injuries are catastrophic, often rendering a teen paralyzed for life. Reduce the risk by entering unknown water feet first; by not diving in shallow lakes, pools; and by refraining from horseplay in a pool or waterfront area.

Wear your lifejacket:

it won't work if you don't wear it.

Most drowning victims never intend to get in the water. Trying to put a lifejacket on just before you capsize is like trying to buckle a seat belt just before you have a car crash.

Always swim with a buddy.

Most drowning victims can swim. But just because you're a good swimmer, doesn't mean you'll be able to take care of yourself if you get into trouble. Learn lifesaving skills so you can save yourself and help to save your buddy.



DROWNING ACROSS THE LIFESTAGES

TODDLERS & CHILDREN UNDER 5 YEARS

> CHILDREN 5-12 YEARS

TEENS 13-17 YEARS

YOUNG MEN 18-34 YEARS

MID-LIFE MEN 35-49 YEARS

OLDER ADULTS 50+ YEARS



Young men 18-34 years

Drownings have dropped more among men 18 to 34 years than any other age group. During 2000–2004, an average of 33 men in this age group died each year. This is just over half of the death toll only 10 years prior. While 18 to 24-year-olds historically had the highest drowning death rate, with 25 to 34-year-olds close behind, during 2000–2004 the death rates for both these groups was in-line with the average for all ages combined.

Most drownings among men 18 to 34 years occur on lakes and rivers. Swimming (25%) remains the leading activity, as it is with younger age groups, but boating activities become much more prevalent, including powerboating (19%), fishing (10%) and canoeing (11%).

Male risk-taking behaviour is exhibited in:

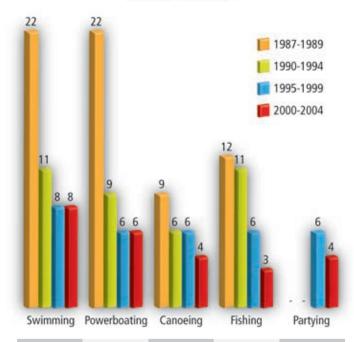
- Not wearing PFDs (only 3% of victims in relevant situations were wearing a PFD properly).
- Alcoholic beverage consumption (43% of 2000–2004 deaths).
- Being on or in the water alone (30%).
- Being out in cold water (20%) and/or rough water (12%).



Risk taking behaviours extend into adult years. This includes the reckless operation of motorized vehicles and the consumption of alcohol and drugs. Many young men participate in a responsible manner with their spouses and children, but demonstrate more reckless behaviour with their male friends. Many seek activities that involve high speed craft and do not change their behaviour in the face of inclement weather and rough water. They are unlikely to wear safety equipment such as lifejackets.

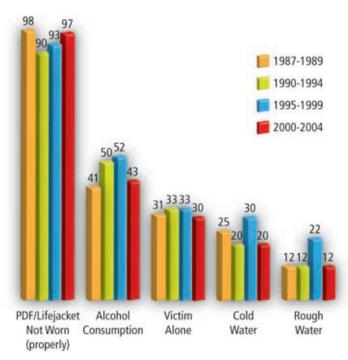
While the proportion of fatalities in this age group involving these risk factors are similar to earlier years, the overall reduction in deaths and fewer numbers of fatal incidents involving these behaviours suggests that some young men entering this lifestage in the past 10 years are behaving more responsibly. However, there is much room for further attitude and behaviour modification, especially with regard to wearing lifejackets or PFDs (personal flotation devices).

Top 5 Activities for Victims 18-34 Years Number of Preventable Water-Related Deaths/Year Ontario 1987-2004



Percentage of 18-34 Year Old Victim Deaths (2000-2004)
25% 19% 11% 10% 11%

Key Risk Factors for Victims 18-34 Years Percentage of Preventable Water-Related Deaths/Year Ontario 1987-2004



Prevention

Buy yourself time: wear your lifejacket.

Most drowning victims never intend to get in the water. And trying to put a lifejacket on just before you capsize is like trying to buckle a seat belt just before you have a car crash.

Canadian waters are cold most of the time. Heavy gasping, uncontrollable hyperventilation and cold shock can occur in just the first minute of entering cold water. If the cold shock doesn't kill you, time will. But if you're wearing your lifejacket, you'll float and have a chance to survive a fall into cold water.

If you drink, don't drive your boat.

Ironically, the same people who would never drink and drive their car will drink and boat. In Ontario, if you are convicted of driving a boat while under the influence, you will lose your license to operate your boat and your car.

Be prepared. Get trained.

Coast Guard reports most calls for help are predictable and preventable non-distress calls; boats broken down, run aground or out of gas. Have a proper checklist for your boat and review it before you head out. Make sure that your boat is mechanically sound and that you have enough gas for your intended trip. File a float plan to help Search and Rescue find you in the event of a real emergency.

By September 2009, all operators of any powered craft are required to obtain a Pleasure Craft Operator Card. This requires passing a written test demonstrating knowledge of the basics of boating safety including the rules of the road on the water. The Lifesaving Society's Boat Operator Accredited Training course (BOAT™) teaches all the safe boating knowledge required to earn the Pleasure Craft Operator Card.

Check the ice before you go on it.

Clear, hard, new ice is the only kind of ice recommended for travel. Avoid slushy ice, ice on moving water (rivers, currents), or ice that has thawed and refrozen. Keep away from unfamiliar paths, unknown ice and avoid traveling on ice at night. Remember, ice quality and thickness various across a body of water and both can change very quickly.

Wear a thermal protection buoyant suit to increase your chance of survival if you go through.

Dog walkers need to be careful. Year after year, owners drown trying to rescue their dogs.



DROWNING ACROSS THE LIFESTAGES

TODDLERS & CHILDREN UNDER 5 YEARS

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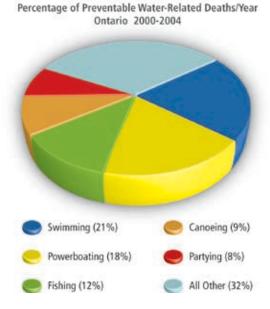
OLDER ADULTS 50+ YEARS



Mid-life men 35-49 years

While the number of deaths among 35 to 49-year-olds has not dropped as much as in younger age groups, this is mainly because the aging population has seen the overall size of this age group swell in Ontario. However taking population into account, the drowning death rate was down from 1.6 deaths per 100,000 population 10 years ago, to 1.2 in 2000–2004 – a drop of 25%. An average of 36 deaths occurred in the 35 to 49-year-old age group annually during 2000–2004.

As with younger men, swimming (21%) is the leading activity involved in fatal incidents, closely followed by boating activities – powerboating (18%), fishing (12%) and canoeing (9%).



Activities of Victims 35-49 Years

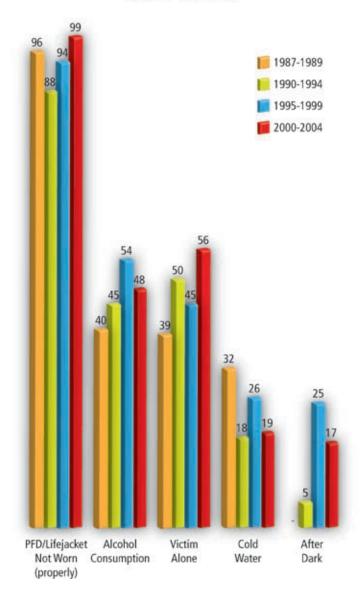


Older men who behave as they did when they were younger are at greater risk of drowning. They may no longer have the same physical ability or stamina to get out of difficult situations. And it appears that mid-life men retain the bad habits around water that developed when they were younger. However they do have growing family responsibilities during these mid-life years, and if they won't become more Water Smart® for themselves, there may be an opportunity to appeal more to their need to take precautions and model better behaviour for the sake of their families.

Key risk factors that emerged among younger men, are accentuated as problem behaviours among mid-life men:

- Only 1% of victims in boating and other relevant situations were wearing a lifejacket or Personal Flotation Device (PFD) properly.
- Half (48%) of fatal incidents involved alcoholic beverage consumption – the highest alcohol involvement of any lifestage.
- More than half (56%) of victims in this lifestage were alone when their fatal incident occurred.
- Being out in cold water conditions (19%).
- Being out after dark (17%).

Key Risk Factors for Victims 35-49 Years
Percentage of Preventable Water-Related Deaths/Year
Ontario 1987-2004



Prevention

Buy yourself time: wear your lifejacket.

Most drowning victims never intend to get in the water. And trying to put a lifejacket on just before you capsize is like trying to buckle a seat belt just before you have a car crash.

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DROWNING ACROSS THE LIFESTAGES

TODDLERS & CHILDREN UNDER 5 YEARS

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OLDER ADULTS 50+ YEARS



Older adults 50+ years

Older adults are the one lifestage where the number of water-related deaths has increased compared to 10 years ago. During 2000–2004 there were an average of 50 fatalities per year for victims 50+ years of age (27 for 65+ years); whereas 10 years earlier (1990–1994) there were an average of 47 fatalities per year among victims 50+ years of age (19 among victims 65+ years).

However, taking growth of the aging Ontario population into account, the drowning death rate for those 50+ years of age was unchanged at 1.4 deaths per 100,000 population in 2000–2004, the same as it was 10 years ago. And among seniors 65+ years of age, the death rate has increased over 10 years from 1.4 to 1.8, making seniors now the lifestage with the highest drowning death rate of any Ontario age group.

While lakes (25 deaths per year during 2000–2004), followed by rivers (9) were still the aquatic settings where the largest number of drowning occur for older adults (just as with younger victims), bathtubs (7), private pools (4) and hot tubs (1) also come more into play with older victims. Seniors 65+ years accounted for: half (49%) of all bathtub deaths; one-quarter (24%) of all backyard pool deaths; and half (50%) of all hot tub deaths during 2000–2004.

In this older lifestage, there is a shift toward more fatalities during near-water activities and boating, with less in-water recreational activity involvement. Fishing (17%), powerboating (14%) and bathing (13%) are most prevalent, followed by swimming (11%) and walking near water (8%).

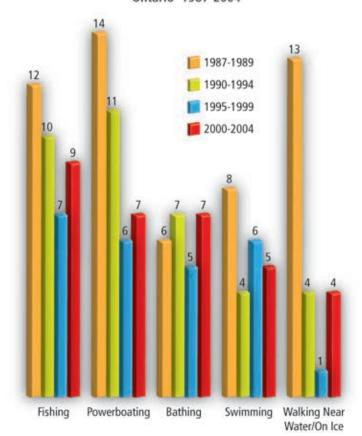


The potential for increased drowning among older adults and seniors will continue as more "Baby Boomers" move into their senior years while retaining the high risk behaviours of their younger years, despite reduced physical capabilities. Certain medical conditions and medications may affect ones' physical abilities or mental capacity. The "older-not-wiser" members of this group may be reticent to admit their vulnerabilities or to avoid risky behaviour. On the other hand, "older-and-wiser" men may be more receptive to safety advice now than when they were younger.

Key risk factors among older adults & seniors include:

- Most older victims in boating and other relevant situations are still not wearing a lifejacket or Personal Flotation Device properly (94%).
- Two-thirds (64%) of victims in this lifestage were alone when their fatal incident occurred, including bathing alone and boating alone.
- Heart disease and heart attacks have emerged as a key physical factor increasing the risk of aquatic emergencies among older victims. One-quarter (28%) of water-related fatality victims suffered from heart disease during 2000–2004 – up from previous years.
- Being out in cold water situations (26%) and/or after dark (21%).

Top 5 Activities for Victims 50+ Years Number of Preventable Water-Related Deaths/Year Ontario 1987-2004



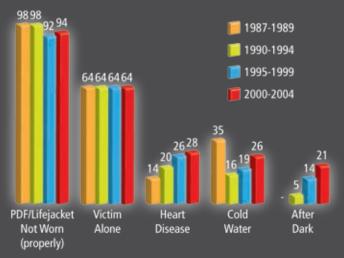
Percentage of 50+ Year Old Victim Deaths (2000-2004)							
17%	14%	13%	11%	8%			

Prevention

To date, the focus for reducing drownings among older adults and seniors has been to work to create safer attitudes and behaviours earlier in life, that they will carry with them as they age into this lifestage. Additional strategies that are especially relevant for this older lifestage include:

- Boat with a buddy, never alone.
- Take care getting in and out of bathtubs. Install grab-bars
 designed for weight-bearing to aid entry, exit and movement
 in your bathtub. Have someone close enough to hear you and
 respond, should you have a problem.
- Be realistic about encroaching health limitations. Know your heart health through regular check-ups and don't "push the envelope" any more on, in or near the water, than you would at home.
- As you become more sensitive and less resistant to cold as you get older, take precautions to avoid exposure to the effects of cold water and hypothermia. Start by always wearing your lifejacket or PFD and by avoiding high risk cold water situations – especially not by yourself or after dark.
- Clear, hard, new ice is the only kind of ice recommended for travel. Avoid slushy ice, ice on moving water (rivers, currents), or ice that has thawed and refrozen. Wear a thermal protection buoyant suit to increase your chance of survival if you go through.

Key Risk Factors for Victims 50+ Years
Percentage of Preventable Water-Related Deaths/Year
Ontario 1987-2004





Research methodology

The drowning research process involves three phases: data collection; research tabulation and analysis; and development of the reports. The data collection phase was conducted jointly by the Lifesaving Society and the Canadian Red Cross Society, and managed on behalf of both Societies since 2005 by the Water Incident Research Alliance. A data collection form and process was developed and refined over the years, which is used to extract the water-related deaths data from the offices of the Chief Coroners and Medical Examiners in each province. The data is consolidated nationally and thoroughly checked for consistency and completeness.

The Lifesaving Society completed its research analysis phase, which involved computerized tabulation and analysis of the research findings, and then developed its national and provincial drowning reports.

The scope of this research:

- collects the data needed to profile victims of aquatic incidents, including the circumstances and contributing factors under which these incidents occurred.
- includes all deaths in each province and Canada overall resulting from incidents "in, on or near" water; "near-water" incidents were included if the incident was closely related to water-based recreational, vocational or daily living activity, or if water was an "attractive nuisance" contributing to the incident.
- includes only preventable (unintentional) deaths. It does not include deaths due to natural causes, suicide, or homicide.

- is based upon Coroner's Reports as reported and compiled by the Chief Coroner's Office in each province; Coroner's Reports provide the most comprehensive data available on Canadian water-related deaths.
- is compiled in as consistent a manner as possible in all provinces, and consolidated nationally, based on common profile data being collected on each death, a common data sourcing format and common research methodology. Some differences exist in the level of detail available from different provinces, given differences in the Coroners' files source data and reporting by province.
- is consistent with prior editions of The Drowning Report and prior years' data, to facilitate year upon year comparisons. New data is analyzed in this edition for 2002, 2003 and 2004, in addition to prior years' data; some data for prior years may be updated and revised in this year's most current edition of *The Drowning Report*.

Acknowledgements

In developing The Drowning Report, the Lifesaving Society gratefully acknowledges the support, co-operation and efforts of:

- The Chief Coroner's Office, Ontario Ministry of the Solicitor General, who permitted and facilitated confidential access to coroners' reports on preventable water-related deaths. This provided the base data for this research and report.
- The Water Incident Research Alliance which managed the data collection and data processing/tabulation phases on behalf of the Lifesaving Society.
- The Canadian Red Cross Society which worked in partnership with the Lifesaving Society on the data collection research phase.
- The volunteers and staff of the Lifesaving Society and Canadian Red Cross Society who contributed their time and energy to this project, including detailed data extraction on preventable water-related deaths from coroners' files.
- The International Life Saving Federation for its World Drowning Report 2007.

Should you have any questions not addressed in this report, contact the Lifesaving Society Ontario office.

Publications of the Lifesaving Society are available from any Branch office. Inquiries from outside Canada should be directed to the National Office.

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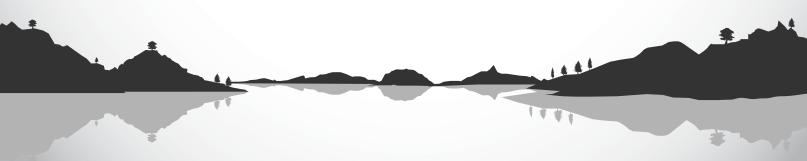
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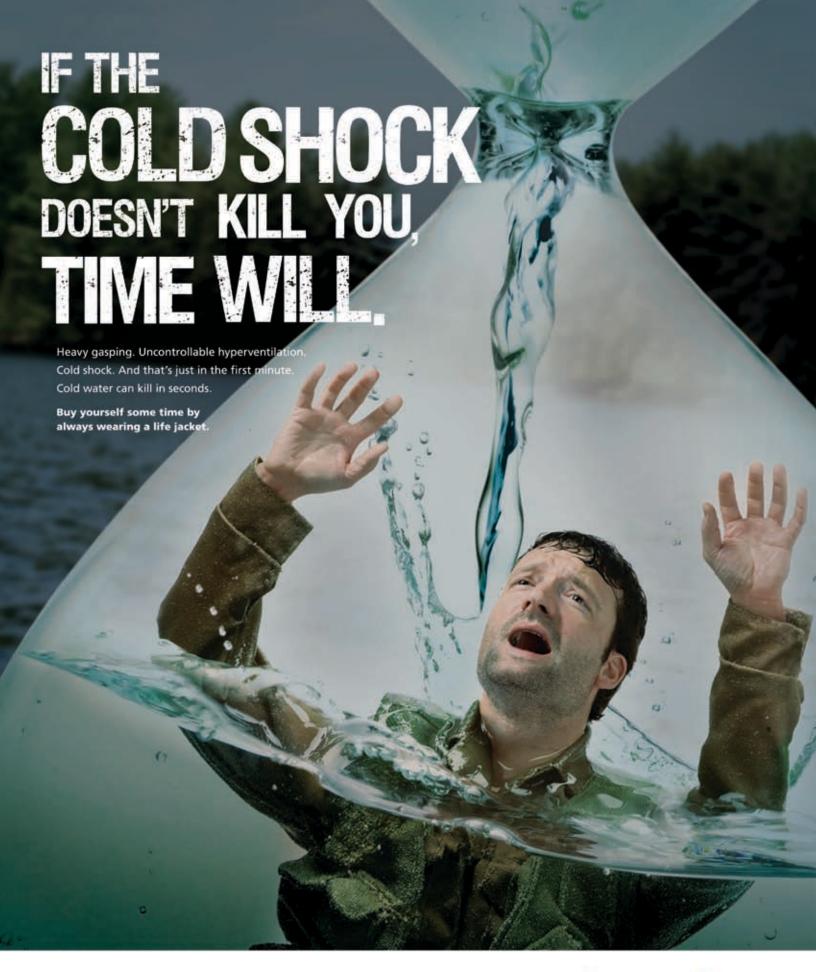
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