

Fire incidents increase during the pandemic

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Fire departments among seven reporting jurisdictions in Canada attended just over 39,000 fires in 2021, marking the second consecutive year of increases. Both fires and the number of fatalities increased during the first two years of the COVID-19 pandemic, with the number of deaths rising from 148 in 2019 to 202 in 2021. Prior to the pandemic, total fire incidents had generally been declining.

Compared with 2020, outdoor fires (excluding wildfires) increased by just over 2,700 incidents in 2021, becoming the most commonly reported type of fire for the first time ever. Outdoor fires accounted for 45% of all reported incidents. Examples of outdoor fires include open ground dumps, fences, and light ground cover.

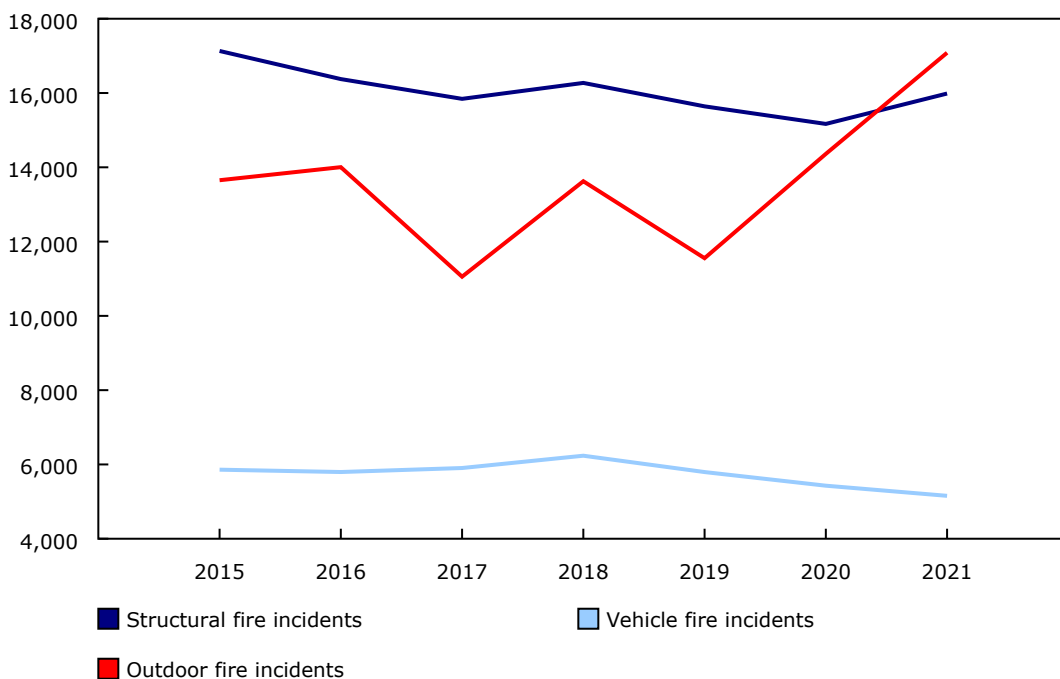
Structural fires, which have historically been the most common type of fire in a given year, also increased, albeit to a lesser extent. Structural fires, of which 7 in 10 were residential, accounted for 42% of incidents in 2021.

An additional 13% of fires were vehicle fires. In contrast to other types of fire, the number of vehicle fires declined by 273 incidents in 2021.

Information from the National Fire Information Database, now available, is based on data reported by seven jurisdictions: Nova Scotia, New Brunswick, Ontario, Manitoba, British Columbia, Yukon and the Canadian Armed Forces.

Chart 1
Number of structural, vehicle and outdoor fire incidents, 2015 to 2021

number of fire incidents



Note(s): There were seven jurisdictions in Canada that provided fire incident data to the National Fire Information Database: Nova Scotia, New Brunswick, Ontario, Manitoba, British Columbia, Yukon and the Canadian Armed Forces.

Source(s): National Fire Information Database ([5248](#)).



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Of the seven jurisdictions, two reported a substantial increase in fire-related deaths during the first year of the pandemic, as fire-related deaths rose from 148 in 2019 to 199 in 2020, a 34% increase. This was the highest number of fire-related deaths in more than 10 years, and it continued to increase to 202 in 2021, a slight increase from the previous year.

The increase in the number of fire-related deaths from 2019 to 2020 was the result of increases in British Columbia and Ontario. In British Columbia, reported deaths nearly doubled from 28 in 2019 to 54 in 2020, and continued to rise in 2021, to 59. In Ontario, fire-related deaths jumped 63% in the first year of the pandemic, from 70 to 114. The number of fire-related deaths in Ontario further increased by 3 in 2021.

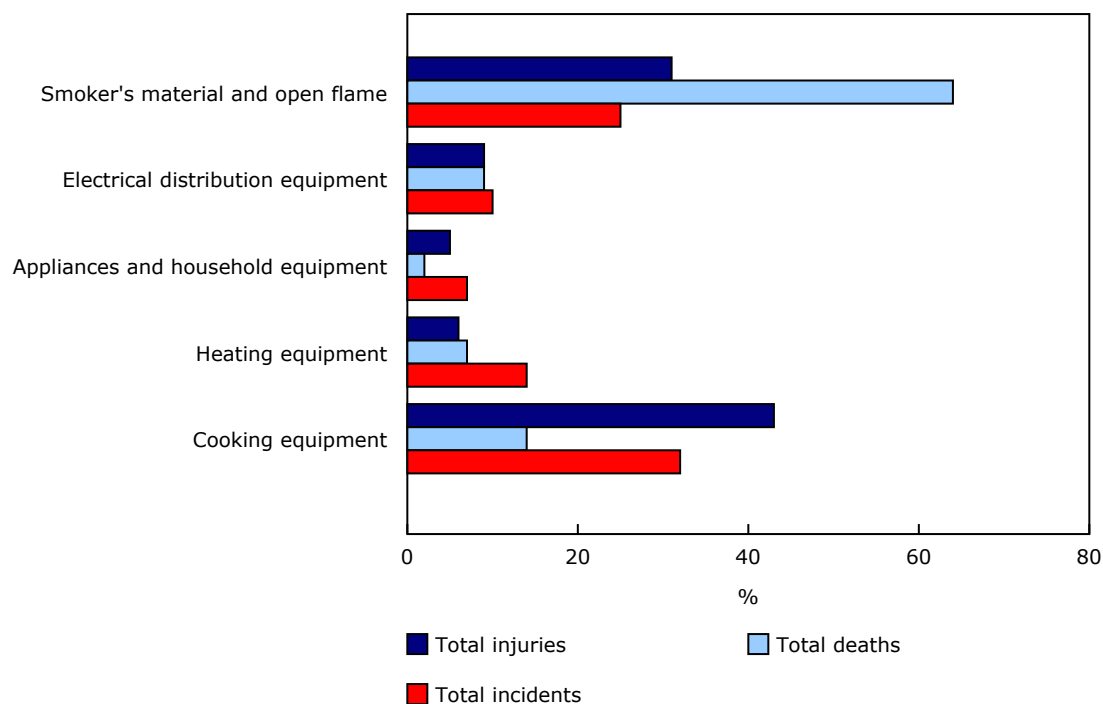
From 2015 to 2021, 65% of fire-related fatalities were men and 35% were women. From 2020 to 2021, the number of fire-related fatalities increased by 15% for men and dropped by 23% for women.

Residential fires account for most fire deaths

In 2021, of the 202 fire-related deaths, three out of four occurred in residences. Among the 10,819 residential fires, 1% ended in a death, with a total of 156 fatalities.

Cooking equipment and smoker's material and open flame continue to be the leading causes of fire in residential fires. These two categories have consistently accounted for over half of all residential fires that occurred from 2015 to 2021. While cooking was the leading cause of fire incidents (32%) and injuries (43%), smoker's material accounted for 64% of the residential fire-related deaths.

Chart 2
Proportion of residential fire incidents, deaths and injuries, by selected source of ignition, 2015 to 2021



Note(s): There were seven jurisdictions in Canada that provided fire incident data to the National Fire Information Database: Nova Scotia, New Brunswick, Ontario, Manitoba, British Columbia, Yukon and the Canadian Armed Forces.

Source(s): National Fire Information Database (5248).

Just over one in three residents have a working smoke alarm

From 2015 to 2021, 37% of residential fires had a working smoke alarm, while 12% had smoke alarms that did not activate and 13% had no smoke alarm installed. For over one in three residential fires (38%), fire services reported the status of the smoke alarm as unknown. This could be because it was destroyed during the fire or this information was not captured during the investigation.

Death rates were lower in homes with working smoke alarms, where 26% of incidents resulted in death. Homes without a working smoke alarm, including those without an installed alarm or the status is unknown, accounted for nearly three out of four deaths (74%).

With respect to fire-related injuries, injury rates were higher in homes with a working smoke alarm and no sprinkler protection than in homes without working smoke alarms but with sprinkler protection. This could be because residents attempted to control the fires themselves when the alarms were activated.

Certain types of actions can be associated with increased fire risk. For instance, behaviours like fatigue, suspected impairment, and distraction or preoccupation were associated with 20% of residential fires, 20% of injuries and 14% of deaths in homes in 2021. Other associated factors were mechanical or electrical failures or malfunctions (18% of residential fires, 15% of injuries and 10% of deaths in homes) and incendiary fires (meaning accidental or intentional fires started by a person), which accounted for 14% of residential fires, 12% of injuries and 27% of deaths in homes.

Firefighters account for nearly one in five persons injured during a fire

From 2015 to 2021, the seven jurisdictions reported 19% of people injured in fire incidents were the firefighters themselves, amounting to 1,264 firefighters.

Seniors are at highest risk for fire-related death

In general, seniors aged 65 years and older have had the highest rate of fire-related death, a trend which has continued in recent years. During the first year of the pandemic, the rise in deaths was most visible among seniors, according to data from New Brunswick, Ontario, British Columbia and Yukon. In fact, in 2020, the number of seniors who died in fires doubled from the previous year. In 2021, both the number and rate declined to levels seen prior to the pandemic.

From 2015 to 2021, 39% of seniors who died as a result of fires were women and 61% were men. Further, among seniors injured, women accounted for 44%, while men made up the remaining 56%.

The elevated risk among seniors has been established in two previous reports: [Circumstances surrounding unintentional fire-related deaths, 2011 to 2020](#) and [Fire Risk in Senior Population: Analysis of Canadian Fire Incidents](#).

Note to readers

A pilot project for the National Fire Information Database (NFID) was first released in 2017. At that time seven jurisdictions (New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and the Canadian Armed Forces) provided information for 2005 to 2014. This current release includes data for 2015 to 2021 for the following jurisdictions: New Brunswick, Nova Scotia, Ontario, Manitoba, British Columbia, Yukon and the Canadian Armed Forces.

As some of the seven jurisdictions differ from those of the original release, totals for all reporting jurisdictions cannot be compared across the two reporting periods. Not all jurisdictions have provided detailed information for some categories. Their information has been included in an "unknown" category and rates and percentages have been calculated accordingly. The Council of Canadian Fire Marshals and Fire Commissioners are working across the country promoting the collection of more detailed and consistent information and supporting all jurisdictions in reporting their data to the NFID.

Table 1
Number of deaths in fire-related incidents, seven jurisdictions, 2015 to 2021

	2015	2016	2017	2018	2019	2020	2021	Total
	number of deaths							
Total, including Canadian Armed Forces	149	168	135	161	148	199	202	1,162
Nova Scotia	10	7	6	18	14	7	15	77
New Brunswick	5	11	12	5	11	8	3	55
Ontario	97	104	78	93	70	114	117	673
Manitoba	13	20	12	16	19	14	5	99
British Columbia	23	25	26	26	28	54	59	241
Yukon	1	1	1	3	5	2	3	16
Total, excluding Canadian Armed Forces	149	168	135	161	147	199	202	1,161
Canadian Armed Forces	0	0	0	0	1	0	0	1

Note(s): There were seven jurisdictions in Canada that provided casualty data to the National Fire Information Database: Nova Scotia, New Brunswick, Ontario, Manitoba, British Columbia, Yukon and the Canadian Armed Forces.

Source(s): National Fire Information Database ([5248](#)).

Table 2
Fire incident related injuries, civilians and firefighters, 2015 to 2021¹

	Civilians		Firefighters		Unknown ²	Total injuries
	number	%	number	%		
Total	5,444	81	1,264	19	1,155	7,863
2015	845	79	227	21	164	1,236
2016	741	80	186	20	192	1,119
2017	750	83	149	17	191	1,090
2018	834	83	171	17	212	1,217
2019	847	82	185	18	147	1,179
2020	691	79	183	21	149	1,023
2021	736	82	163	18	100	999

1. There were seven jurisdictions in Canada that provided casualty data to the National Fire Information Database: Nova Scotia, New Brunswick, Ontario, Manitoba, British Columbia, Yukon and the Canadian Armed Forces. However, Manitoba's numbers are included in 'unknown' as they did not provide the class of victim information.

2. Unknown includes fire/police/RCMP/military/other and unknown.

Note(s): Injuries where it was unknown whether the victim was a civilian or a firefighter were excluded from the calculation of percentages. Totals may not add to 100% due to rounding.

Source(s): National Fire Information Database (5248).

Table 3
Number and rate of deaths of children, youth, adults and seniors related to fire incidents, New Brunswick, Ontario, British Columbia and Yukon, 2015 to 2021¹

	Children ²		Youth ²		Adults ²		Seniors ²	
	number	rate ³	number	rate ³	number	rate ³	number	rate ³
2015	4	2	1	1	71	6	45	14
2016	12	5	4	3	72	6	45	14
2017	6	2	3	2	70	6	32	9
2018	4	2	2	2	69	5	45	13
2019	4	3	1	1	70	5	32	9
2020	2	1	3	2	93	7	65	17
2021	9	3	2	2	103	8	53	14

1. Only New Brunswick, Ontario, British Columbia and Yukon provided age representative data.
 2. For the purpose of this report, children are defined as persons 11 years and under; youth are persons aged 12 to 17 years; adults are 18 to 64 years; seniors are 65 years and older.
 3. Rates are calculated based on 1,000,000 population.
- Source(s): National Fire Information Database (5248).

Available tables: [35-10-0192-01](#) to [35-10-0197-01](#) .

Definitions, data sources and methods: survey number [5248](#).

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; infostats@statcan.gc.ca) or Media Relations (statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca).