

Fire Deaths in Hertfordshire

1st April 2017 to 31st March 2020



Hertfordshire Fire and Rescue Service
Working to protect. Acting to save.

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Foreward

Darryl Keen, Chief Fire Officer

Fire deaths in Hertfordshire remain rare occurrences, however we recognise that each fatality has far reaching consequences. This report draws on a wide range of data and presents our analysis of the key factors which have contributed to fire deaths in the county.

Hertfordshire Fire and Rescue Service continues to analyse the risk factors and to undertake targeted activities to mitigate these factors in order to further reduce fire deaths and injuries. We recognise that we cannot do this alone and this report shows that the majority of those that have been a victim of fire are often known to other agencies. We will continue to work closely with our partner agencies to raise awareness and educate both the vulnerable and those who support the most at risk in our County.

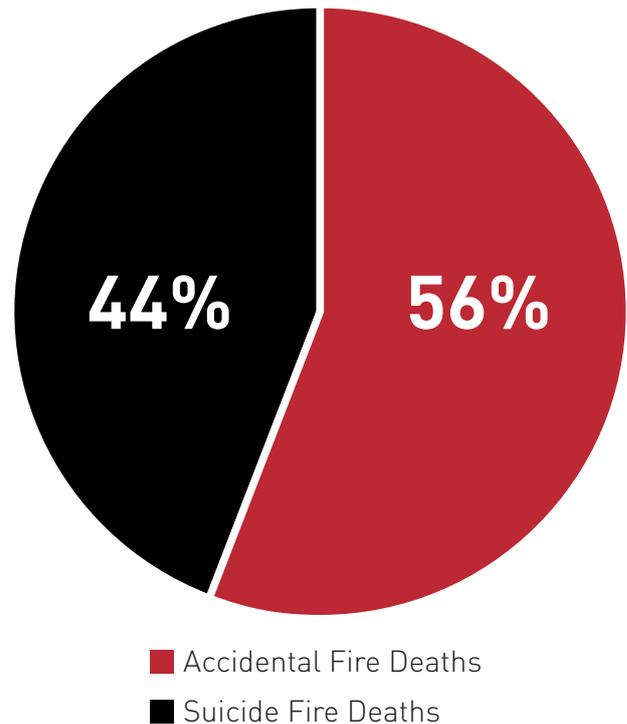
Overview

This document provides an analytical summary of accidental and deliberate fatal fires occurring within Hertfordshire between 1 April 2017 and 31 March 2020.

The report has been compiled using research data from a total 14 incidents resulting in 16 deaths*. Of the incidents attended, 7 of these were accidental dwelling fires and the other 7 resulting from suicides.

Data used within this report for five of the fatalities are still awaiting inquests.

The pie graph to the right shows the different percentage of Accidental and Suicide Fire Deaths.



*2 of the accidental dwelling fires resulted in two fatalities at each incident

Summary of Key Findings

- The most common factor was that the victim lived alone in accidental dwelling fires
- Over 65s are still the main at-risk group
- Smoke detector ownership is more present within the accidental fire deaths than the previous report 2000 - 2017
- Smoking as a cause has decreased
- Drugs prescribed or illegal has increased
- The two main agencies that people were known to were the NHS and ACS
- There were 7 suicides over 17 years from the previous study. There were 7 suicides over 3 years from the current study
- The age range of suicide from the current study is across the whole age spectrum



Accidental Fire Risk Factors

During the study of each fire death, the presence of seven lifestyle, medical or behavioural factors were identified as key influencers.

These factors in order of prevalence were:



Victim lived alone



Limited mobility*



Drugs (both prescription & illegal)



Alcohol



Smoking



Poor health**



Mental health***

*Limited mobility includes victims known to have a disability.

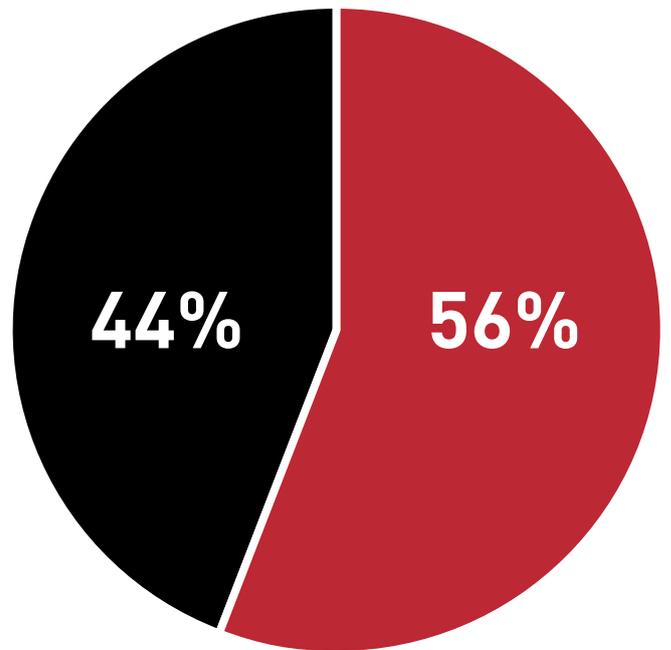
**Poor health includes those victims that previously suffered from long term health conditions or terminal illnesses including cancer, multiple sclerosis, osteoarthritis, diabetes, crohn's disease, emphysema, heart murmur, oedema, liver disease, chronic obstructive pulmonary disease, oxygen user, blindness, angina, and peripheral neuropathy.

***Authorities don't always know that someone is suffering with mental health issues therefore this isn't recorded officially, so figures contained within this report could in fact be higher

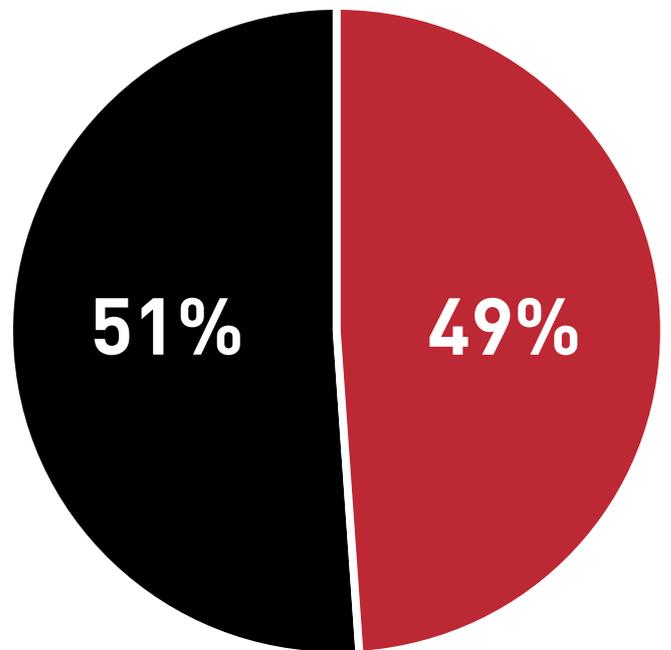
Accidental Fire Deaths - Gender of fatalities

Results from the study for accidental fire deaths show that there were 4 male fatalities compared to 5 female fatalities. Accidental fire deaths resulting in female victims has increased by 7% since the last study (2000-17).

The pie graph to the right shows the different percentage of Gender Fatalities between 2017-2020.



Pie graph to the right shows the different percentage of Gender Fatalities between 2000-2017.

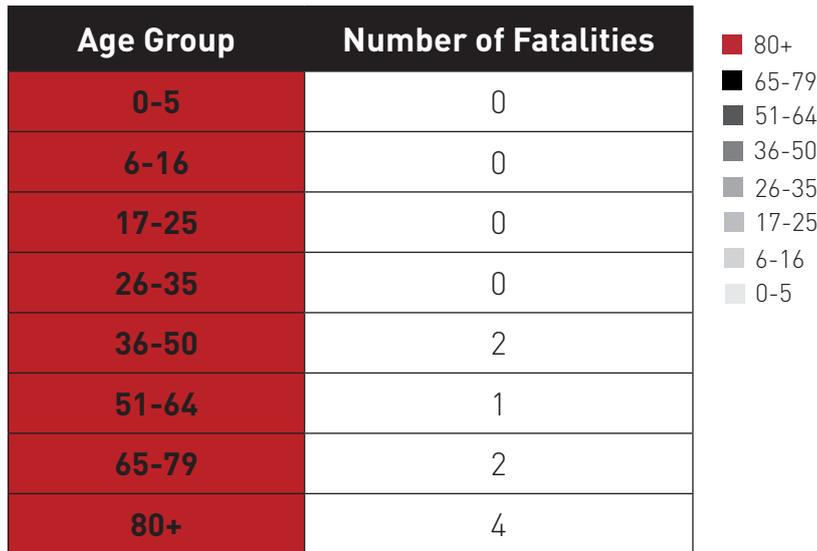


■ Females ■ Males

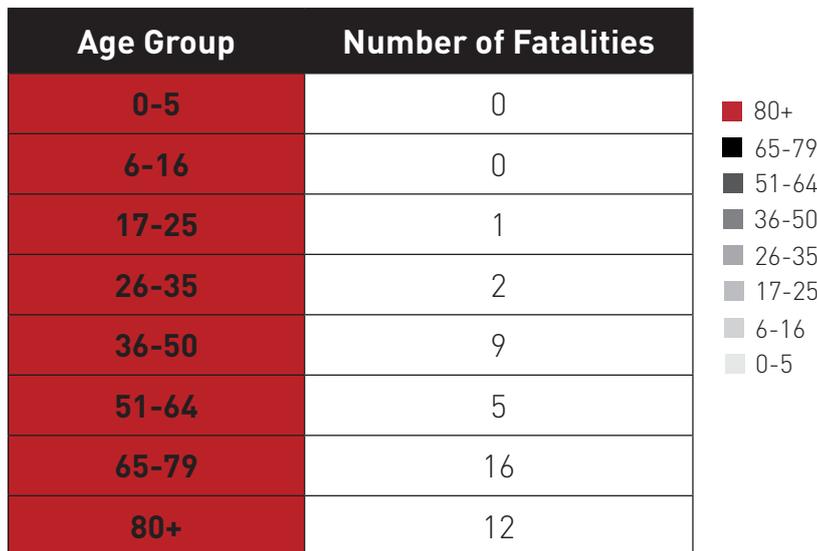
Age of Accidental Fire Fatalities

The average age of a male fatality was 65 compared to 81 for a female fatality. The “over 65” age category group remains the highest weighted age group for accidental fire deaths, with 67% of fatalities falling into this range. This is compared to 62% of fatalities from the fire death report 2000 - 2017.

The table and pie graph below shows the number of Accidental Fatalities per age group between 2017-2020.

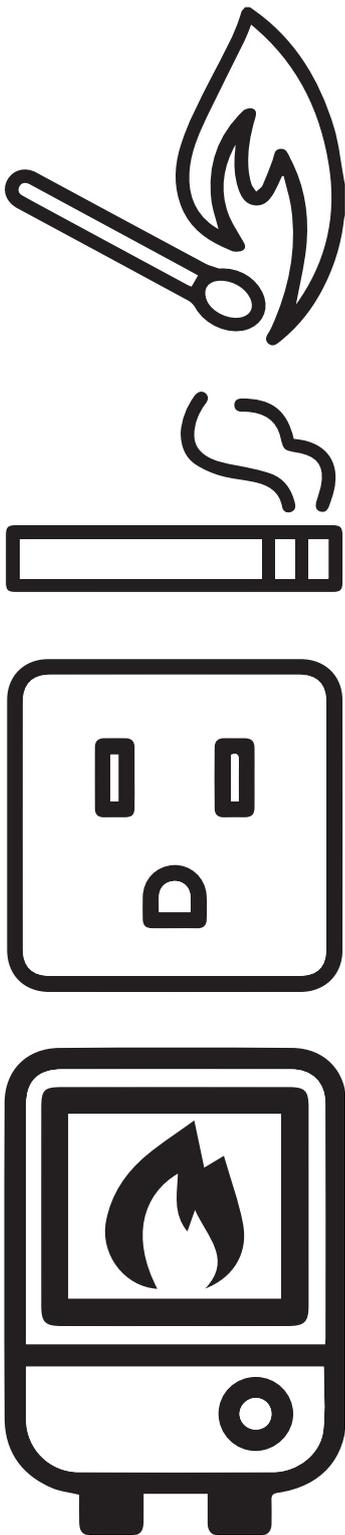


The table and pie graph below shows the number of Accidental Fatalities per age group between 2000-2017.



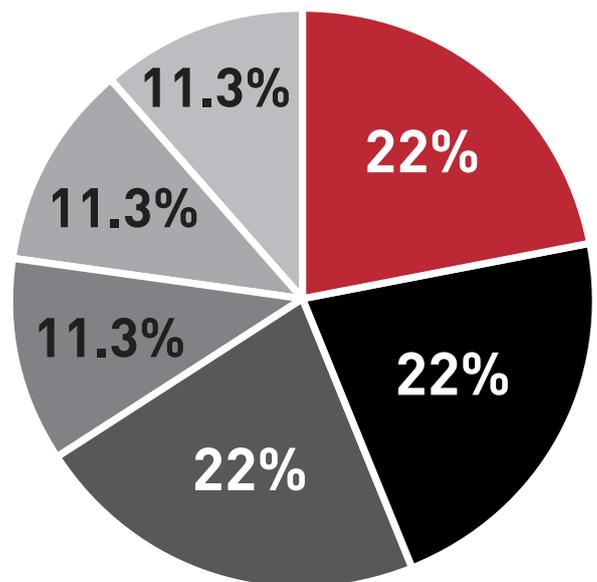
Causes of Accidental Fire Deaths

The table and pie graph below shows the causes of fire and the number of accidental fire deaths.



Causes of Fires	Number
Electrical Fault	2
Smoking Materials	2
Defective Value on Oxygen Cylinder*	2
Radiated Heat from Portable Heater	1
Radiated Heat from Bedside Lamp	1
Arcing of High Voltage Current	1

- Electrical Fault
- Smoking Materials
- Defective Value on Oxygen Cylinder*
- Radiated Heat from Portable Heater
- Radiated Heat from Bedside Lamp
- Arcing of High Voltage Current



*This cause of fire is extremely unusual and not a common occurrence. It is specific to one incident occurring in 2018 which resulted in two fire deaths.

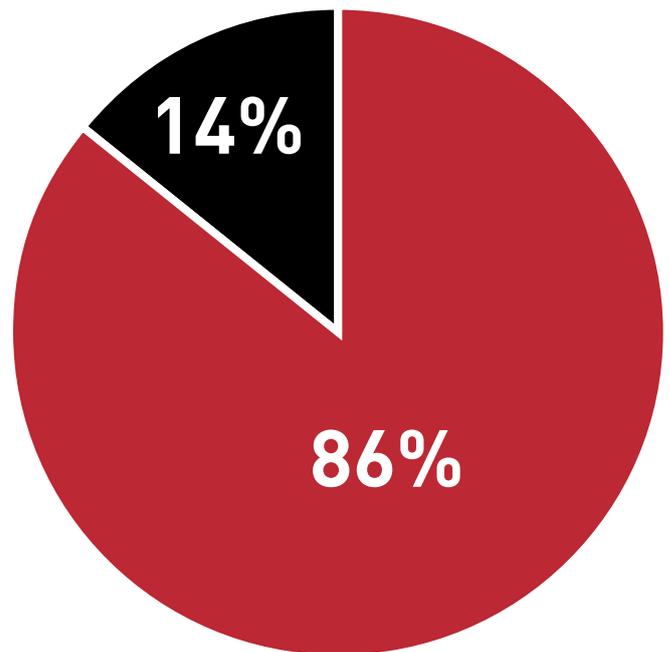
Was a smoke detector present and did it actuate?

The presence of a smoke detector within the homes of the accidental fire fatalities has increased by 35% since the last report (2000-17). All the accidental dwelling fires within this report had a smoke alarm present.

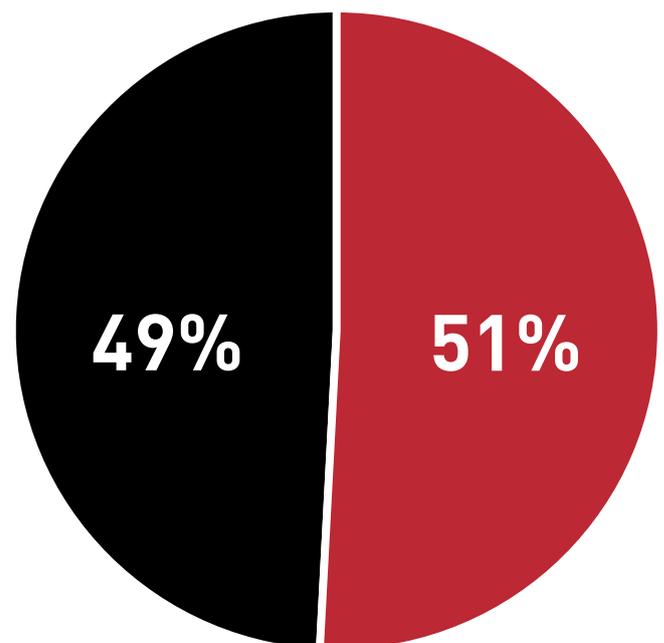
Of the accidental dwelling fires that occurred, a smoke detector was present but failed to actuate the alarm within only one of the dwellings.

The smoke detectors did actuate in all of the remaining dwellings.

The pie graph to the right shows the different percentage of a smoke detector being present within homes between 2017-2020.



The pie graph to the right shows the different percentage of a smoke detector being present within homes between 2000-2017.

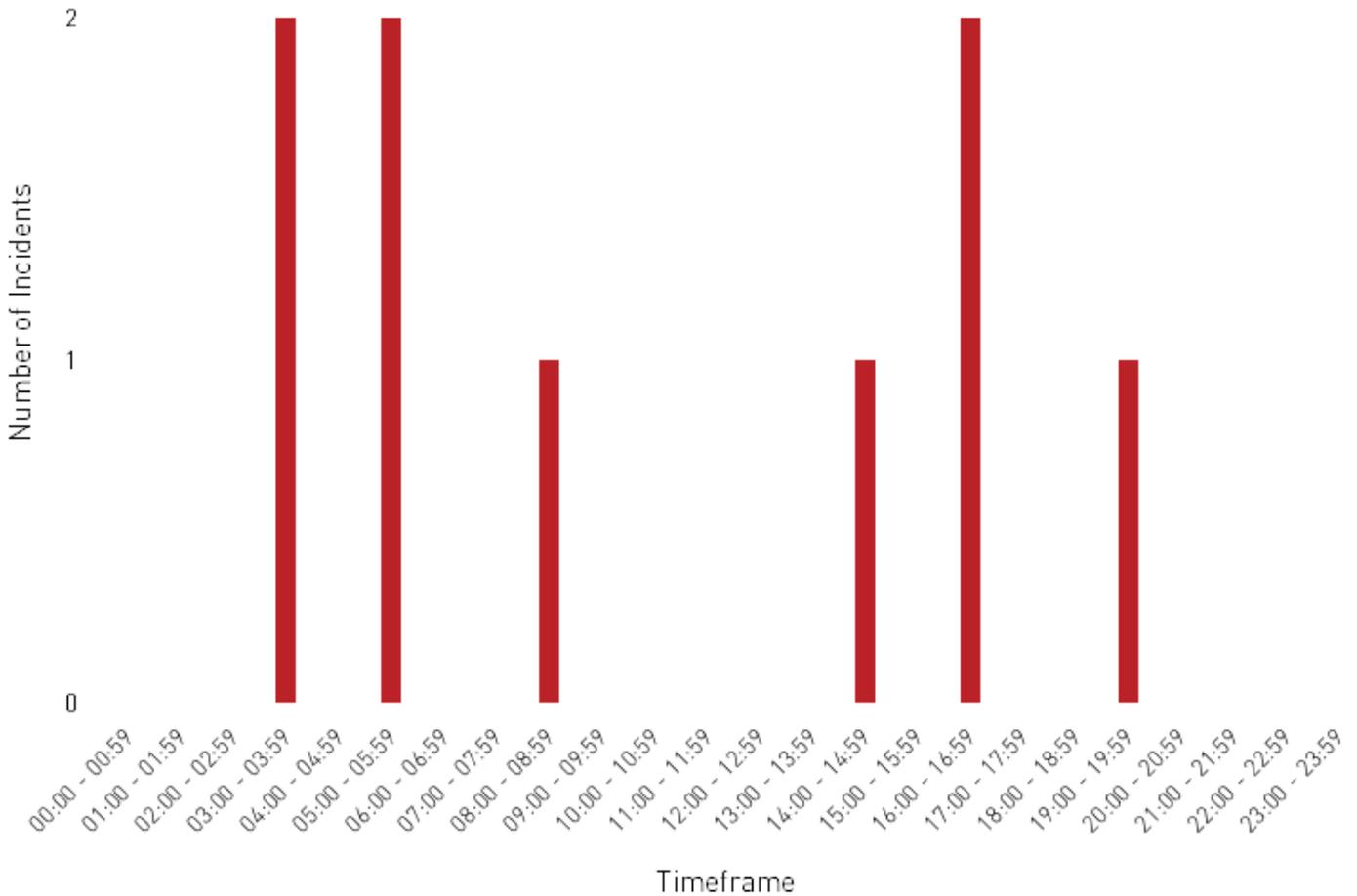


■ Yes

■ No

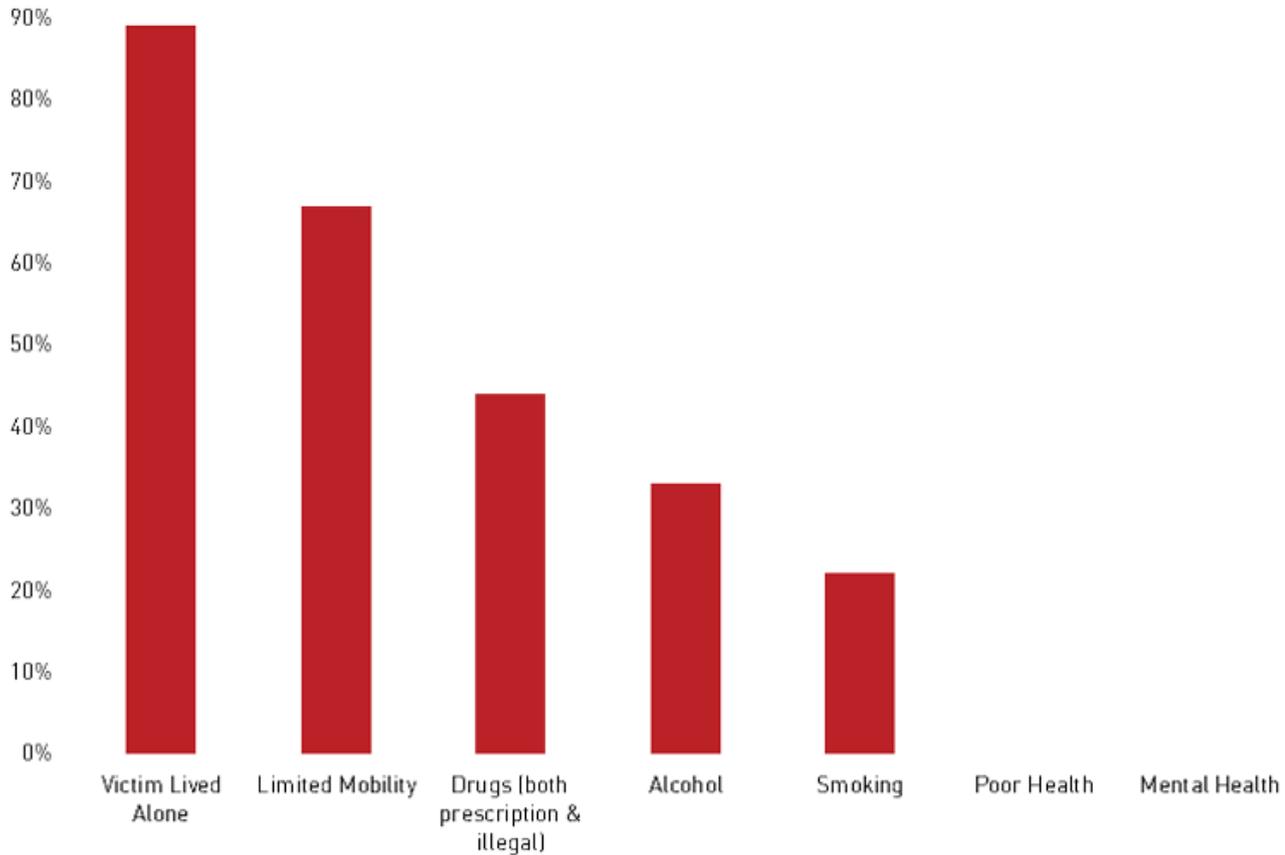
Timings of Accidental Fire Deaths 2017-2020

Of those fatal fires that occurred in dwellings the graph below shows the times of these incidents. 4 fire fatalities occurred between 03:00 and 06:00.

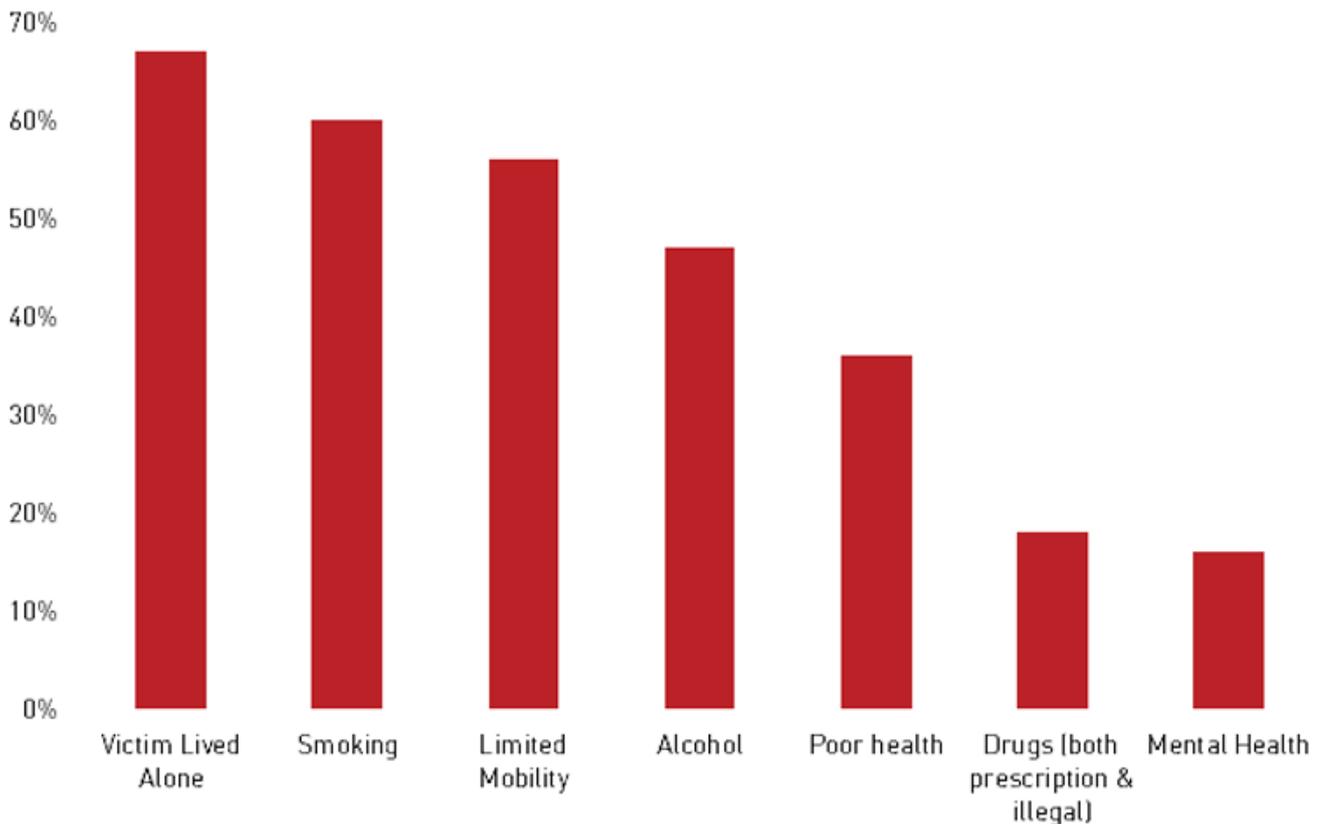


Accidental Fire Risk Factors

The graph below shows the different risk factors for accidental fires between 2017-2020.



The graph below shows the different risk factors for accidental fires between 2000-2017.

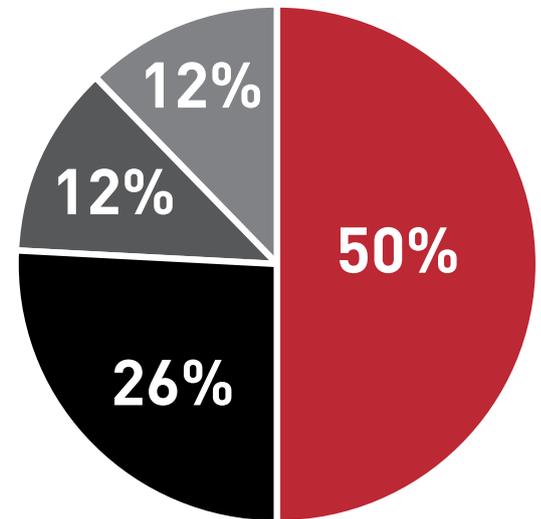


Age Ranges of Accidental Fire Death Fatalities that Lived Alone

The table and pie graph below shows the number of fire death fatalities per age group that lived alone.

Age Group	Number
0-5	0
6-16	0
17-25	0
26-35	0
36-50	1
51-64	1
65-79	2
80+	4

- 80+
- 65-79
- 51-64
- 36-50
- 26-35
- 17-25
- 6-16
- 0-5



The most common factor was that the victim lived alone **with 76% of those being aged 65 or over.**

In 78% of cases there was more than 1 risk factor present. There was at least one risk factor present for each victim.

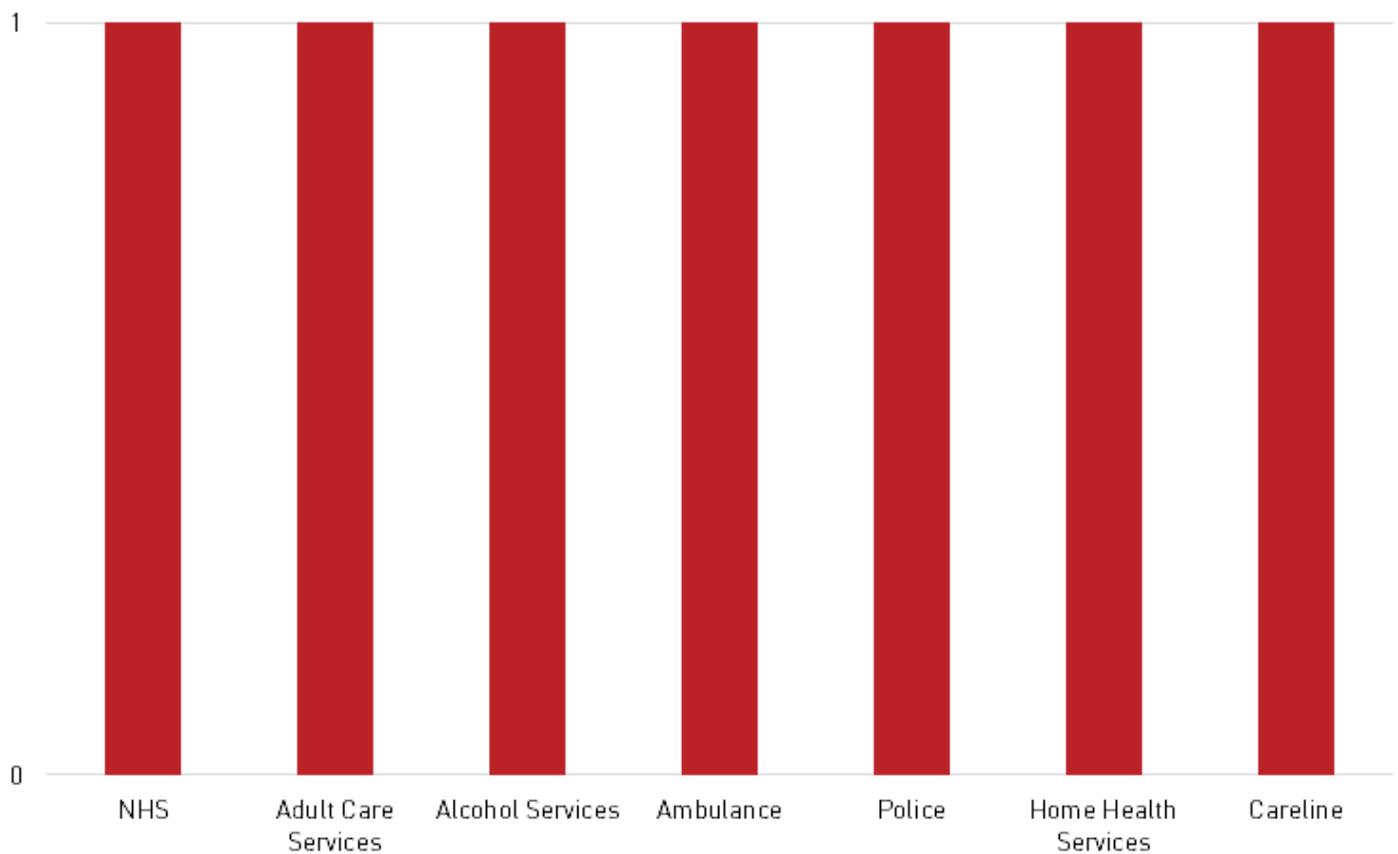
- 22% of victims had 1 factor present
- 22% of victims had 2 factors present
- 44% of victims had 3 factors present
- 0% of victims had 4 factors present
- 12% of victims had 5 factors present

Accidental Fire Death Fatalities that were Known to Other Agencies

Of the 9 accidental fire deaths, 4 were known to other agencies, 3 of which were each only known to one agency (one to Home Health Services, one to Careline and one to the NHS) and one of the fatalities was known to multiple agencies (Adult Care Services, Alcohol Services, Ambulance and the Police).

Hertfordshire Fire and Rescue Service continues to work closely with partner agencies to reduce risk.

The graph below shows the Agencies that the fatalities were known to.



Accidental Fire Deaths 2017-2020

Index of Multiple Deprivation

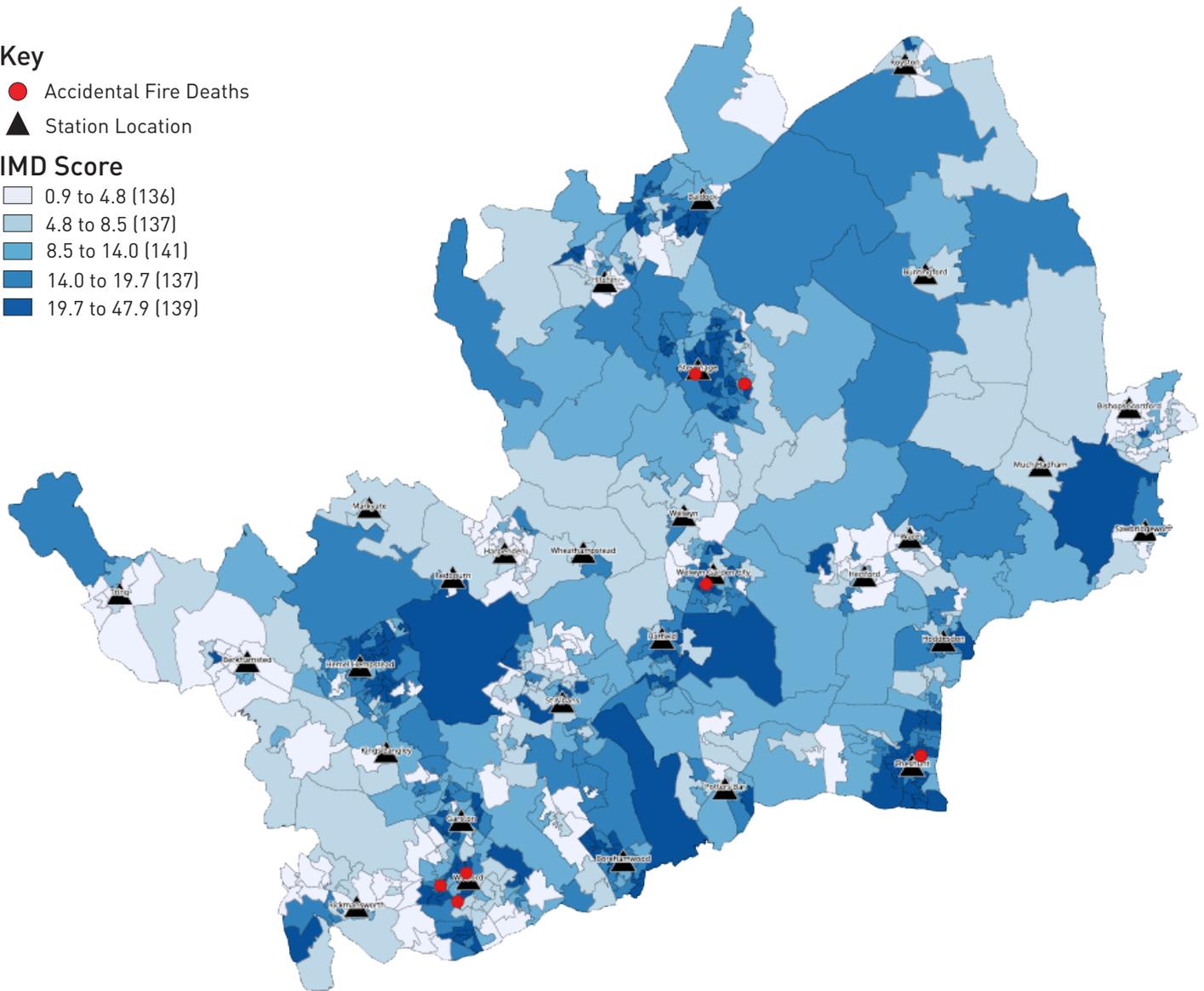
Map of Hertfordshire detailing the location of fatal accidental dwelling fires mapped against Index of Multiple Deprivation (IMD).

Key

- Accidental Fire Deaths
- ▲ Station Location

IMD Score

- 0.9 to 4.8 (136)
- 4.8 to 8.5 (137)
- 8.5 to 14.0 (141)
- 14.0 to 19.7 (137)
- 19.7 to 47.9 (139)

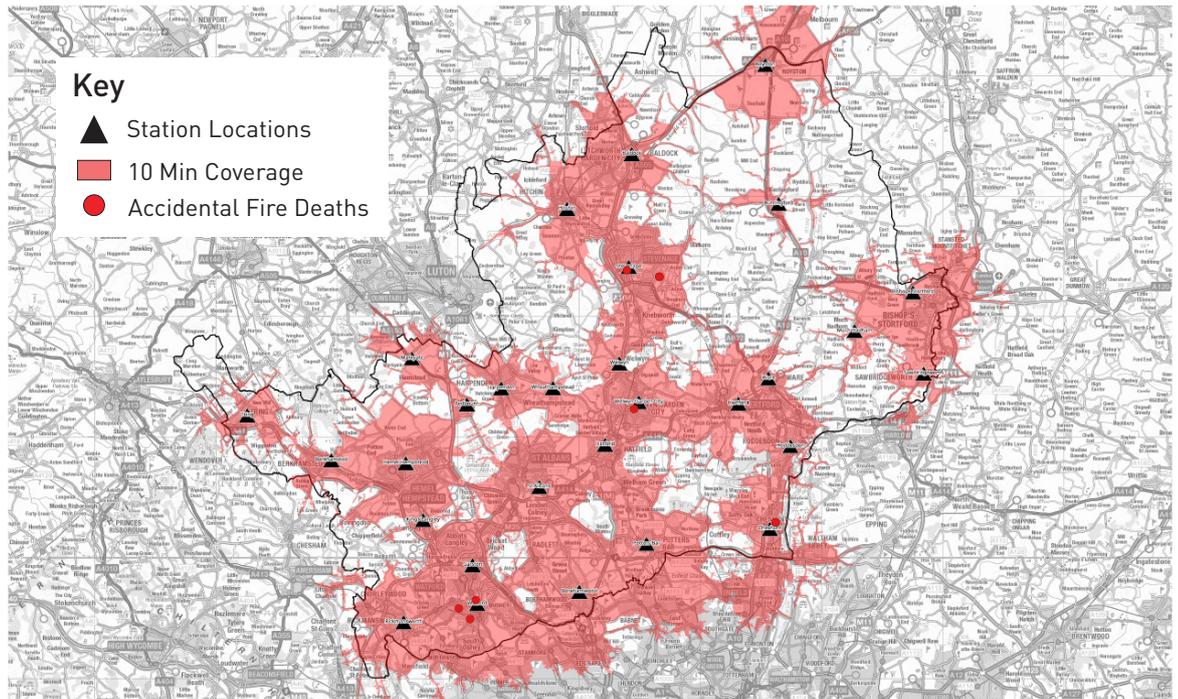


Of those fatal fires that occurred in dwellings the map shows that deprivation plays a significant factor.

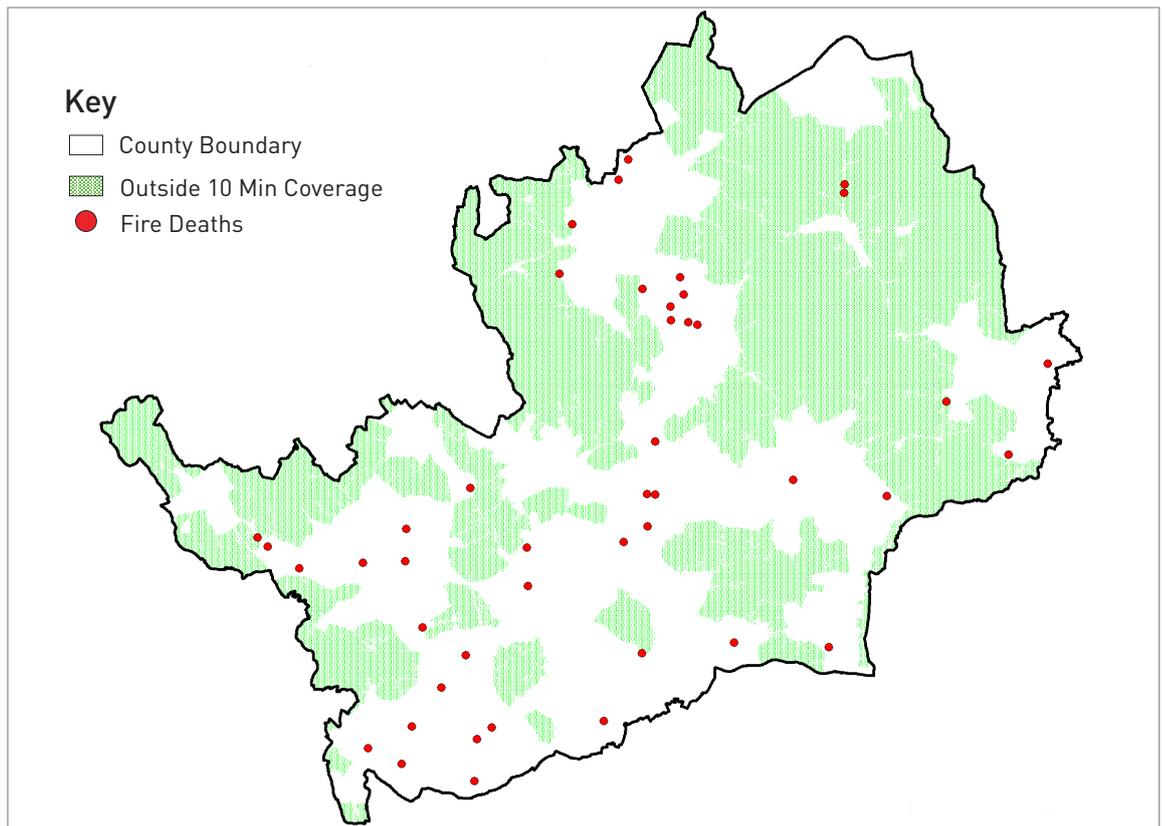
Accidental Fire Deaths - Fire Station 10 Minute Coverage

Of those fatal fires that occurred in dwellings the maps below highlights their location in relation to HFRS attendance standards. It can be seen that none of the accidental dwelling fire deaths occurred outside of the 10 minute response time. This was the same for the period 2000 -2017.

2017-20



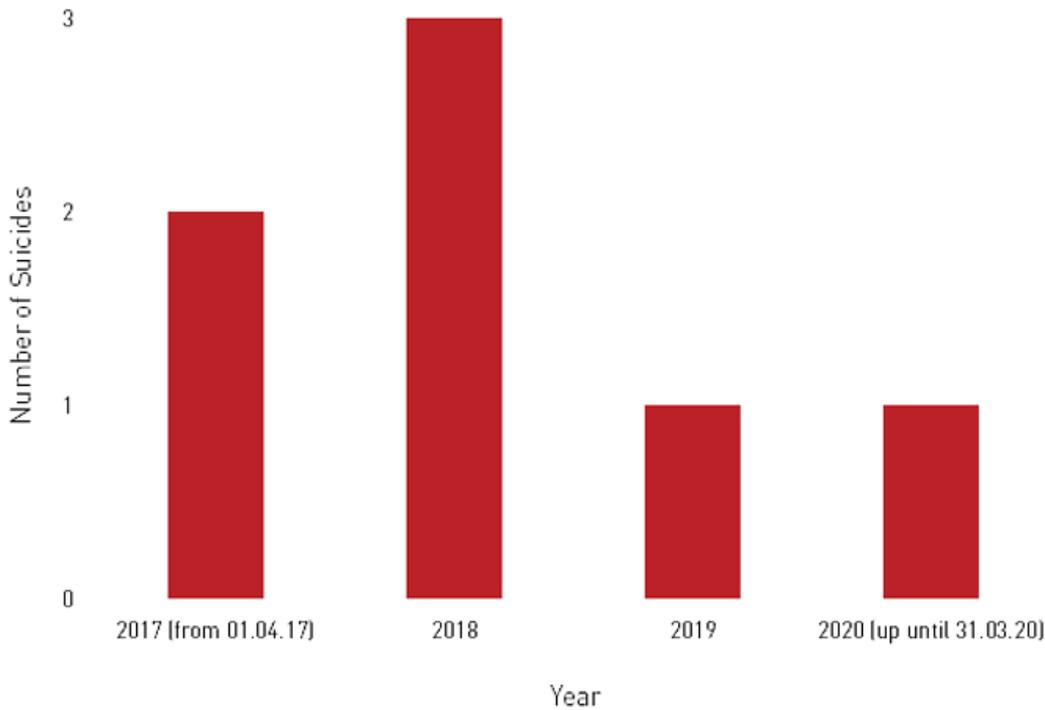
2000-17



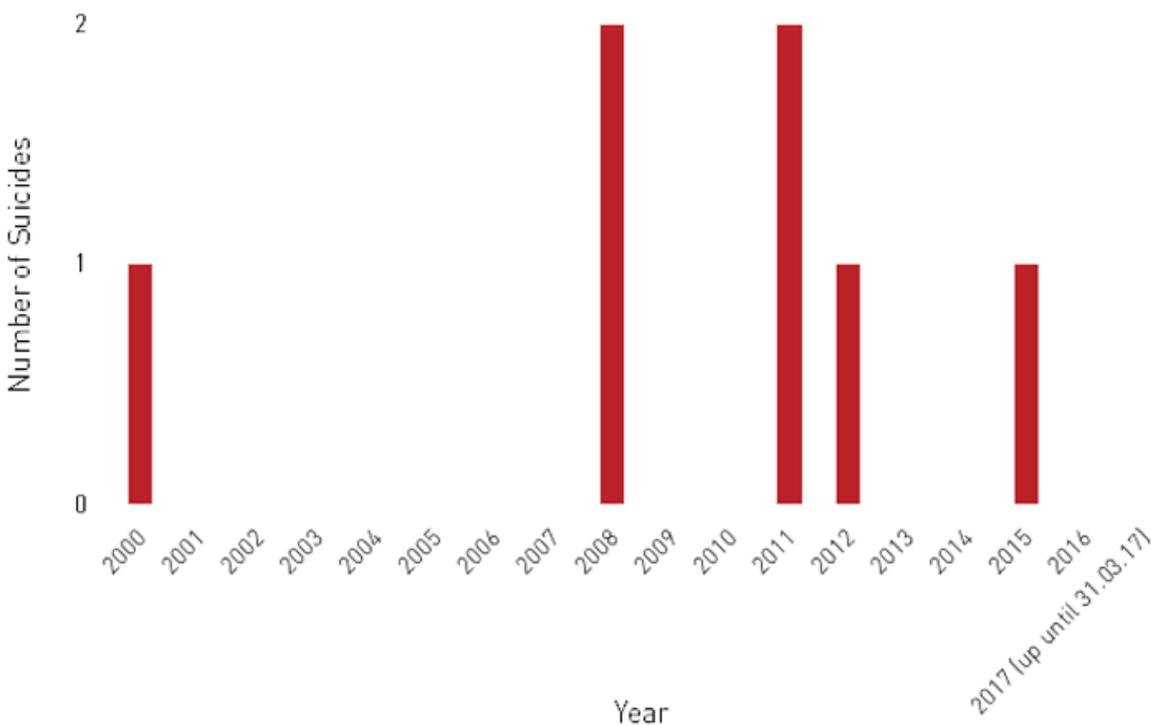
Suicide Fire Deaths

There were 7 deaths which resulted in a person taking their own life by fire during the three year period 2017-20*. This is a large increase from the last study which also saw 7 suicide deaths, yet this was over a seventeen year period (2000-17).

The graph below shows the number of suicide fire deaths between 2017-2020.



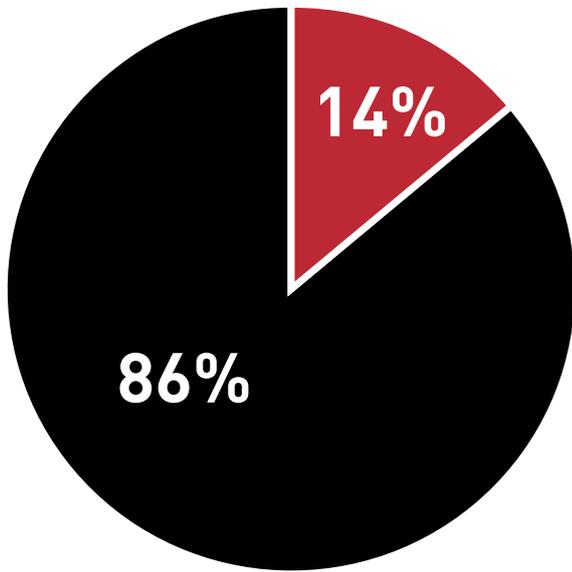
The graph below shows the number of suicide fire deaths between 2000-2017.



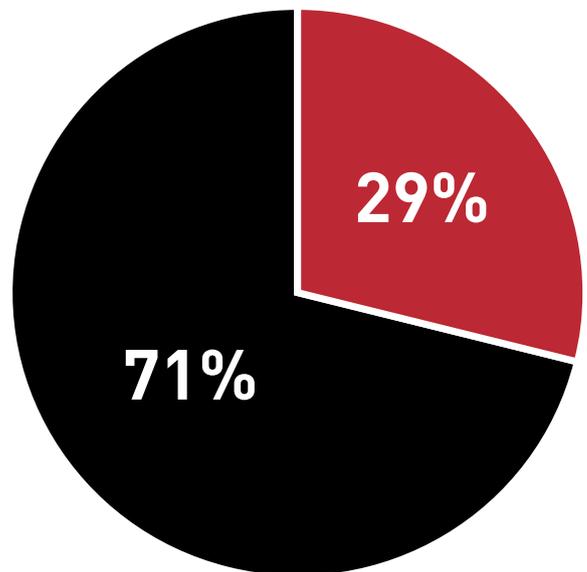
*One of these deaths was as the result of a double murder suicide resulting in three fatalities. The two murder victims were not fire related and as such are not included within this study.

Suicide Fire Deaths - Gender of fatalities

The pie graph below shows the different gender percentage of suicide fire deaths between 2017-2020.



The pie graph below shows the different gender percentage of suicide fire deaths between 2000-2017.



■ Females ■ Males



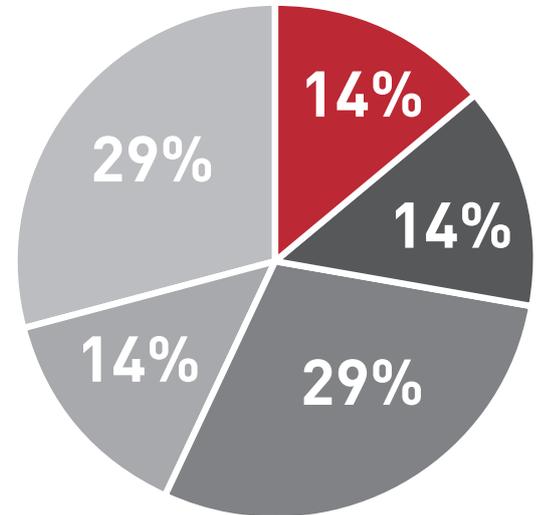
Suicide Fire Deaths - Age of fatalities

Age of Fatalities 2017-20

The table and pie graph below shows the number of suicide fire deaths fatalities per age group between 2017-2020.

Age Group	Number of Fatalities
0-5	0
6-16	0
17-25	2
26-35	1
36-50	2
51-64	1
65-79	0
80+	1

- 80+
- 65-79
- 51-64
- 36-50
- 26-35
- 17-25
- 6-16
- 0-5

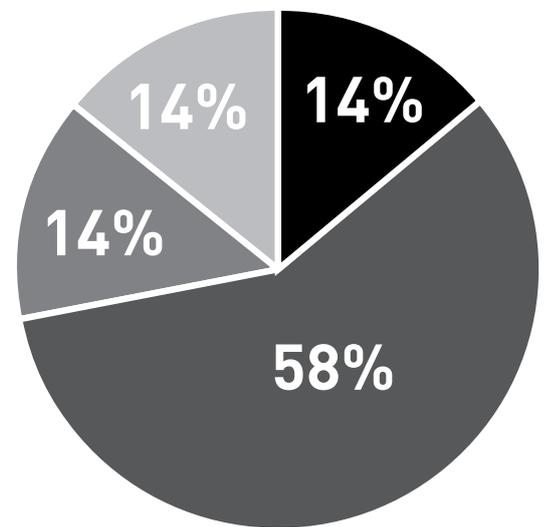


Age of Fatalities 2000-17

The table and pie graph below shows the number of suicide fire deaths fatalities per age group between 2000-2017.

Age Group	Number of Fatalities
0-5	0
6-16	0
17-25	1
26-35	0
36-50	1
51-64	4
65-79	1
80+	0

- 80+
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- 17-25
- 6-16
- 0-5



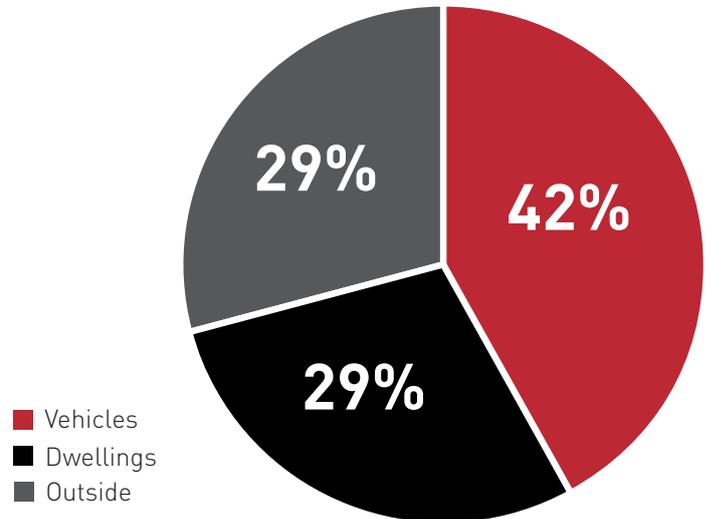
The average age of male victims was 43 compared to the last study where it was 52 (2000-17) and the average age of female victims was 38 compared to the last study where it was 54 (2000-17).

Suicide Fire Deaths - Location of Fires

Location of Fires 2017-20

The table and pie graph below shows the location of suicide fire deaths between 2017-2020.

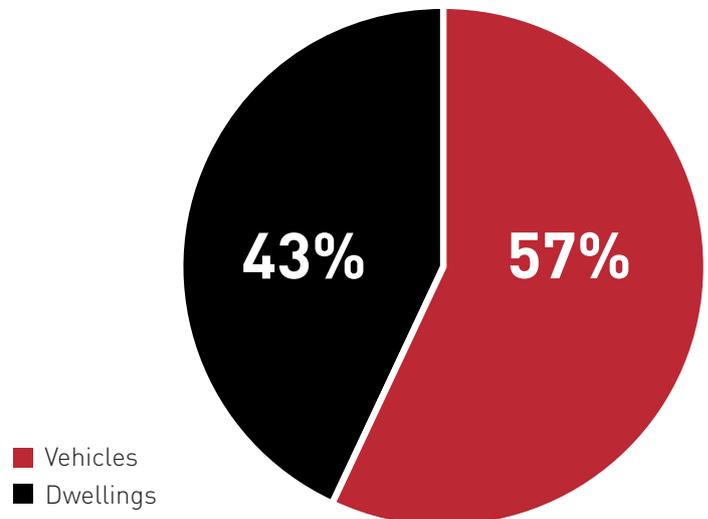
Location	Number of Fatalities
Vehicles	3
Dwellings	2
Outside	2



Location of Fires 2000-17

The table and pie graph below shows the location of suicide fire deaths between 2017-2020.

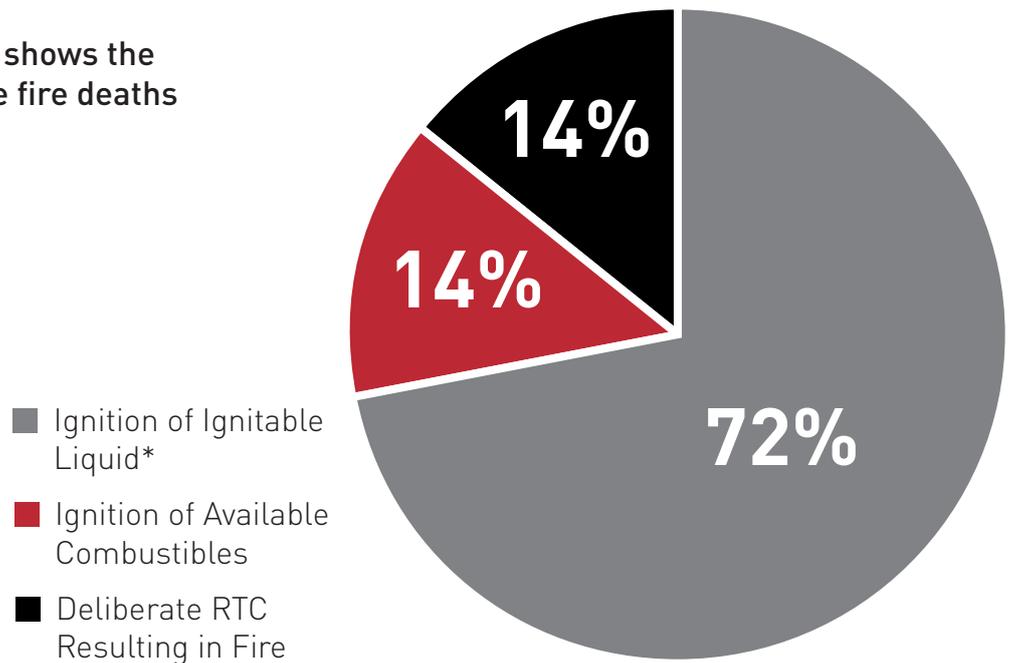
Location	Number of Fatalities
Vehicles	4
Dwellings	3



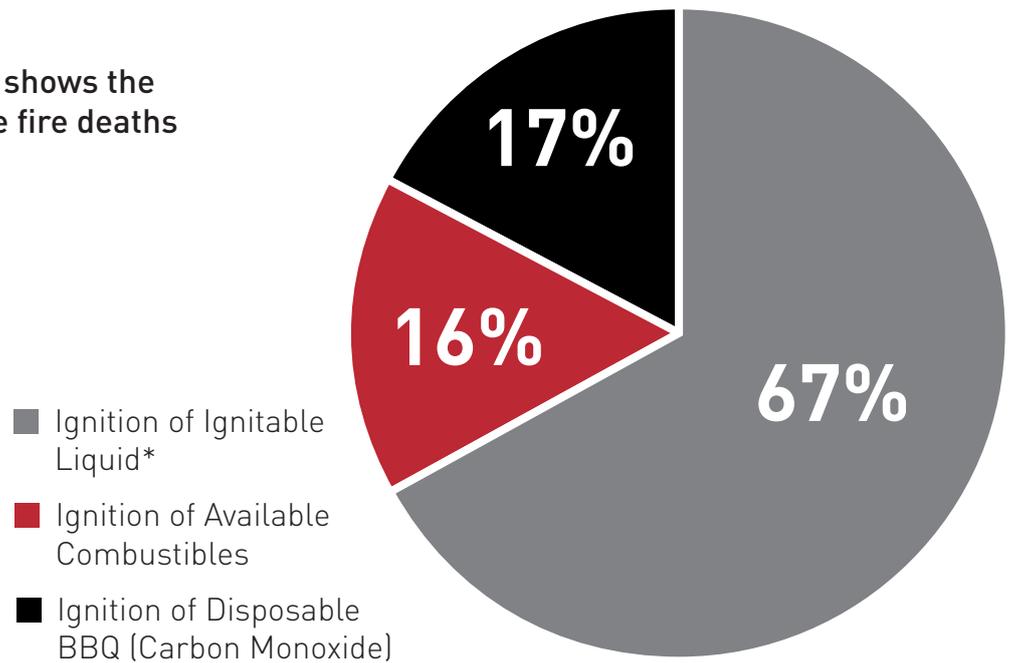
42% of the suicide deaths occurred within vehicles compared to 57% during the last study (2000-2017).

Suicide Fire Deaths - Causes of Fire

The pie graph to the right shows the different causes of suicide fire deaths between 2017-2020.



The pie graph to the right shows the different causes of suicide fire deaths between 2000-2017.



The use of an ignitable liquid remains the biggest cause of fire attributable to suicide by fire deaths with 72% of the fatalities using this method to start the fire and 67% of fatalities from the last study (2000-17).

* Ignitable liquids are liquids that can burn and can be easily ignited in air at ambient temperatures, i.e. petrol, white spirit, kerosene, etc.

Did you know?

Emergency response and firefighting represent a fraction of the work carried out by Hertfordshire Fire and Rescue Service.

Working to reduce incidents and keep people safe we can also provide:

- targeted home safety visits to assess the risks of fire to the household, whilst supporting and influencing behavioural change
- provision of appropriate equipment to reduce fire risk which may include:



Smoke detectors



Fire retardant bedding/throws/chairs



Fire proof letterboxes



A range of fire safety leaflets



Fire safety talks with community groups

For further information and to work more closely with Hertfordshire Fire and Rescue Service contact:



HHSS@hertfordshire.gov.uk



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