



# Learning From Fatal Fires

## Yorkshire and the Humber Regional Report

*Data Includes Fatal Fires Between April 1st 2011 - March 31st 2016*





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**We are grateful for the input and data supplied by the four fire and rescue authorities within Yorkshire and the Humber that have contributed to this report.**



## Chief Fire Officer - James Courtney

### South Yorkshire Fire and Rescue

It must never be overlooked that in the myriad of statistics that the modern Fire & Rescue Service works with, fatalities are real people, with real lives and real families. These individuals are often some of the most vulnerable people in society who are from hard to reach groups and may already be known to statutory and voluntary organisations in health and social care or the criminal justice system.

Despite great effort and targeting of resources, there have been 133 fatal fires in the Yorkshire & Humber region during the five year period of this report. These deaths also have a considerable economic cost with an overall regional cost to society of £225 million over the past five years. The aim of this report has been to gather data from fatal fire scenes with the aim of learning who within our communities are at increased risk of fire to identify at risk individuals and work with our partners to target resources appropriately, cost effectively and in the direction of those who require our help the most.



This report will be an effective tool to support many of our prevention initiatives by providing accurate data from fire fatalities. This is the first time that we have compared regional data in this way, combining data from the Metropolitan Fire Authorities of South Yorkshire and West Yorkshire with the Combined Fire Authorities of North Yorkshire and Humberside. Understanding how the data highlights risk to individuals will allow us to share examples of best practice and develop better understanding of the root cause of such deaths and work together collectively to develop new initiatives, knowing we all face the same challenges.

The most effective way to reduce the risk of fire and fire related casualties and fatalities within the region is through a combined fire and rescue service and partnership approach. It is therefore important that the regional learning detailed in this report is shared with all our partners to provide them with an understanding of the difficulties we collectively face and how we can develop our approach to address this.

We will continue to develop the regional Learning from Fatal Fires report to increase our understanding of who is likely to become a victim of fire in the Yorkshire and the Humber region. We will also continue to identify measures that will reduce this trend. We are confident that this regional approach will identify learning opportunities for all our organisations and those of our partners and further develop our understanding of the risk presented and the necessary measures to reduce, as far as possible, the number of fatalities within the region.

# Learning From Fatal Fires: A Comprehensive Regional Report

Between April 1<sup>st</sup> 2011 and March 31<sup>st</sup> 2016, the four Fire and Rescue Services in the region of Yorkshire and the Humber attended a total of 122 fires that resulted in a total of 133 fatalities. This report investigates the common themes and contributing factors surrounding the fires which resulted in fatalities within the region - whether from accidental or deliberate causes.

The results that stem from this report will then be used to further enhance the prevention work that the region currently provides, and help continue to protect the people that reside in Yorkshire and the Humber.

The four Fire and Rescue Services in Yorkshire and the Humber; comprised of South Yorkshire Fire and Rescue (SYFR), Humberside Fire and Rescue Service (HFRS), West Yorkshire Fire and Rescue Service (WYFRS), and North Yorkshire Fire and Rescue Service (NYFRS), have contributed to this report with the analysis and final report being compiled by SYFR.



## Fatal Fires: An Overview

### Regional Demographics



Yorkshire and the Humber is one of twelve official regions of the United Kingdom and is approximately 6,080 square miles in size. It is served by four Fire and Rescue Services inclusive of SYFR, HFRS, WYFRS and NYFRS.

According to the mid-2014 population estimates conducted by the Office for National Statistics (ONS), Yorkshire and the Humber has an estimated population of 5.3 million people (Office For National Statistics, 2015), of which 49.3% are registered as males and 50.7% are registered as females.

Children (aged between 0-9) make up 12.3% of the total population of Yorkshire and the Humber.

Teenagers (aged between 10-19) make up 11.6% and Young adults (aged between 20-29) make up 13.9% of the total population.

Adults (aged between 30-59) make up 38.8% of the total population and the Older persons (60 and above) make up 23.4%. (*Office For National Statistics, 2015*)

According to the 2011 Census data, 73.1% of people in Yorkshire and the Humber are Christians, 14.1% have no religion, 3.8% are Muslim and 7.8% of people did not state whether they had a religion or not.

Other religions in Yorkshire and the Humber included Buddhist, Hindu, Jewish, Sikh, or "Other religion" and when combined make up a total of 1.2% of the total population of Yorkshire and the Humber (*Census Data, 2011*)





# Fatal Fires: Public Perceptions

## Public Perceptions Of Fatal Fires



Surveys were published to the corporate communications teams of the four Fire and Rescue Services that serve the area of Yorkshire and the Humber for distribution over social media to gauge the public perception of when fatal fires occur and who they are most likely to affect.

- A total of 127 people responded to the survey, 97.2% were from the Yorkshire and the Humber region with the remaining 2.8% from other localities including, Cheshire, Nottinghamshire, Hertfordshire, Lincolnshire, Derbyshire, Wiltshire, Hampshire, Leicestershire, Lancashire, Cornwall and London.
- 90.5% of people who responded believed an accidental cause was the most common type of fire which would result in fatalities. Careless handling of items such as cigarettes, candles, etc. (51.2%) followed shortly by faulty electrical equipment (31.2%) made up the largest ignition sources.
- Those who responded believed that the age group most at risk of losing their life in a fire (70.8%) were older persons aged 60 years and over, followed by adults aged 20 to 59 (17.3%) and finally Children / Teenagers (11.8%).
- The kitchen was identified as being the room that the most fires would result in fatalities started in (59.8%).
- 48% of those that responded believed that the most dwelling fires would occur on a Saturday, between 19:00hrs - 06:00hrs.
- 96% of people said they had at least one working smoke alarm in their house. 1.6% stated they had a smoke alarm but it did not work and 2.4% of respondents had no fire detection.



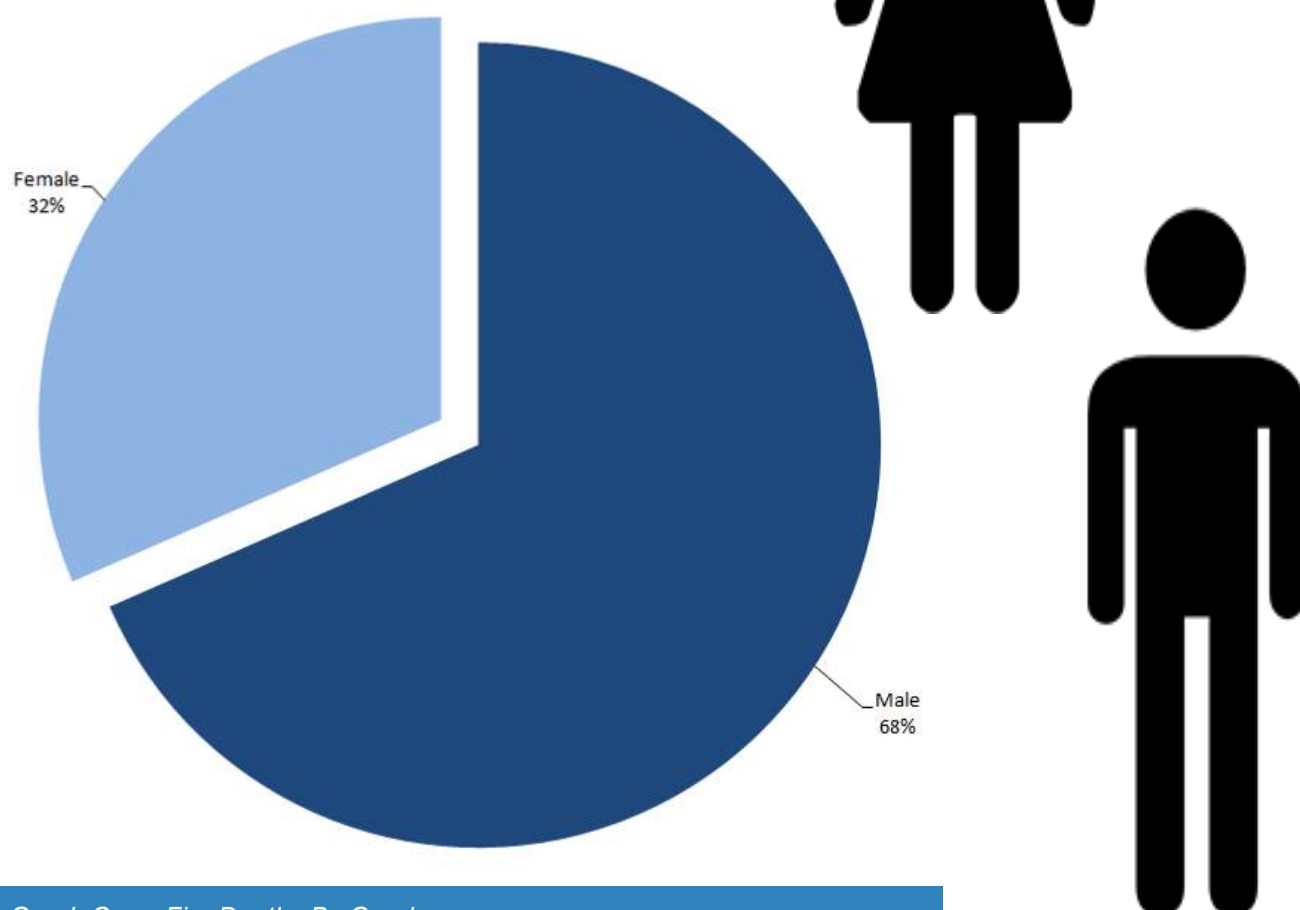
## Who Died In Fatal Fires?

### Number of Deaths by Gender

Fire Cause	Male		Female	
	Total Number	Percentage	Total Number	Percentage
<b>All Fires</b>	91	68.4%	42	31.6%
<b>Accidental</b>	61	63.5%	35	36.5%
<b>Deliberate</b>	30	81.1%	7	18.9%

*Table One - Fire Deaths By Gender*

The statistics above show that more males have died as a result of fires in Yorkshire and the Humber, despite the statistics produced by the Office for National Statistics (shown on page 7) which showed that there is a marginally larger proportion of females than males in this area.



*Graph One - Fire Deaths By Gender*

## Who Died In Fatal Fires?

### Number of Deaths by Age



Of all accidental fire fatalities, 10.4% were Children and Teenagers (0-19), 32.2% were adults (20-59) and 56.2% were Older Persons (over 60s). The higher fatality numbers in the older persons could be due to higher risk factors posed by being an older person, for example, general fatigue and fragility, more likely to be living with health related issues which could impact on mobility etc.

The rates in deliberate fires however are different, showing that 10.8% were children and teenagers (0-19), 67.3% were adults (20-59) and 21.9% were older persons (over 60s).

Age Range	All Fires			Accidental			Deliberate		
	Total	Percent	Pop. Rate	Total	Percent	Pop. Rate	Total	Percent	Pop. Rate
<b>0-9</b>	11	8.3%	1.67	9	9.4%	1.37	2	5.4%	0.30
<b>10-19</b>	3	2.3%	0.48	1	1.0%	0.16	2	5.4%	0.32
<b>20-29</b>	7	5.3%	0.94	5	5.2%	0.67	2	5.4%	0.26
<b>30-39</b>	11	8.3%	1.70	5	5.2%	0.77	6	16.2%	0.92
<b>40-49</b>	16	12.0%	2.16	8	8.3%	1.08	8	21.4%	1.07
<b>50-59</b>	22	16.5%	3.18	13	13.5%	1.88	9	24.3%	1.30
<b>60-69</b>	21	15.8%	3.51	15	15.6%	2.50	6	16.2%	1.00
<b>70-79</b>	22	16.5%	5.47	21	21.9%	5.22	1	2.7%	0.25
<b>80-89</b>	13	9.8%	6.22	13	13.5%	6.22	0	0.0%	0.00
<b>90+</b>	5	3.8%	11.42	5	5.2%	11.42	0	0.0%	0.00
<b>Unknown</b>	2	1.5%	-	1	1.0%	-	1	2.7%	-

Table Two - Fire Deaths By Age



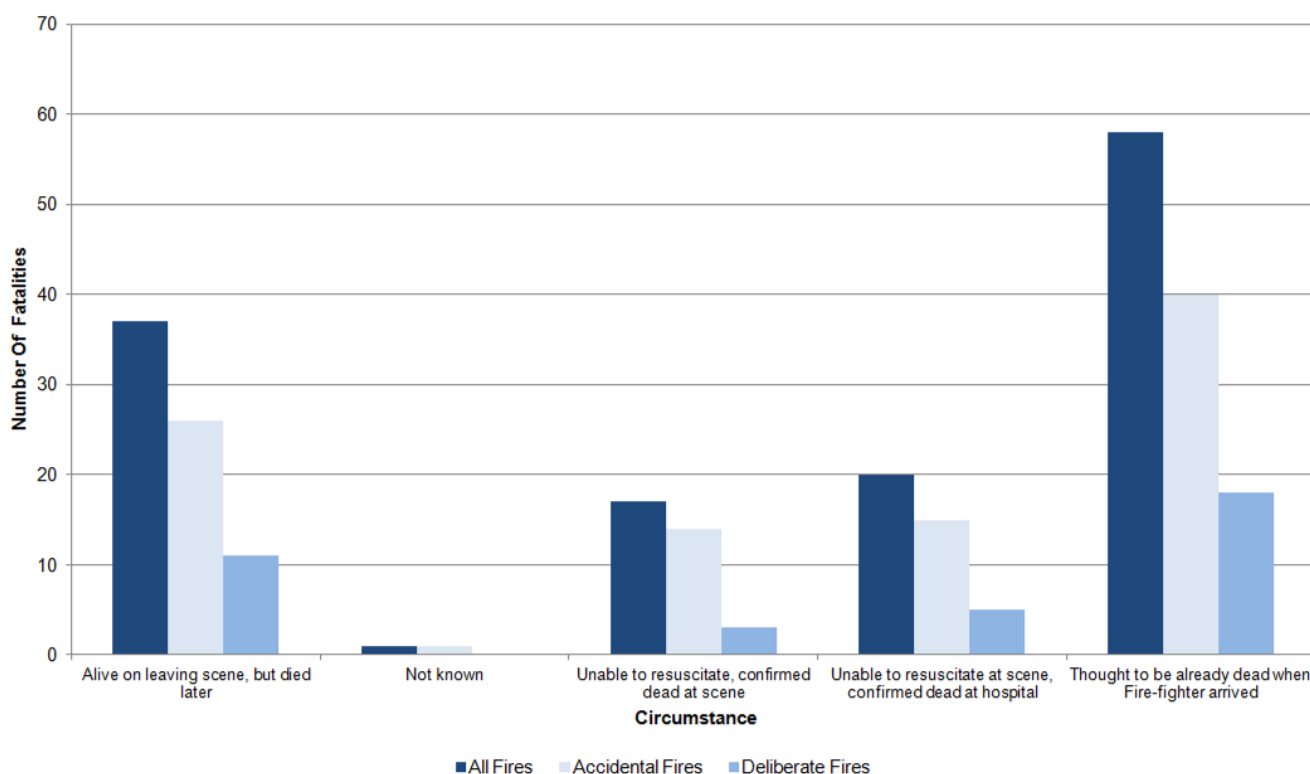




## Who?

# Who Died In Fatal Fires?

## Fatality Circumstances



Graph Two - Circumstances surrounding time of death in fire fatalities



## Who Died In Fatal Fires?

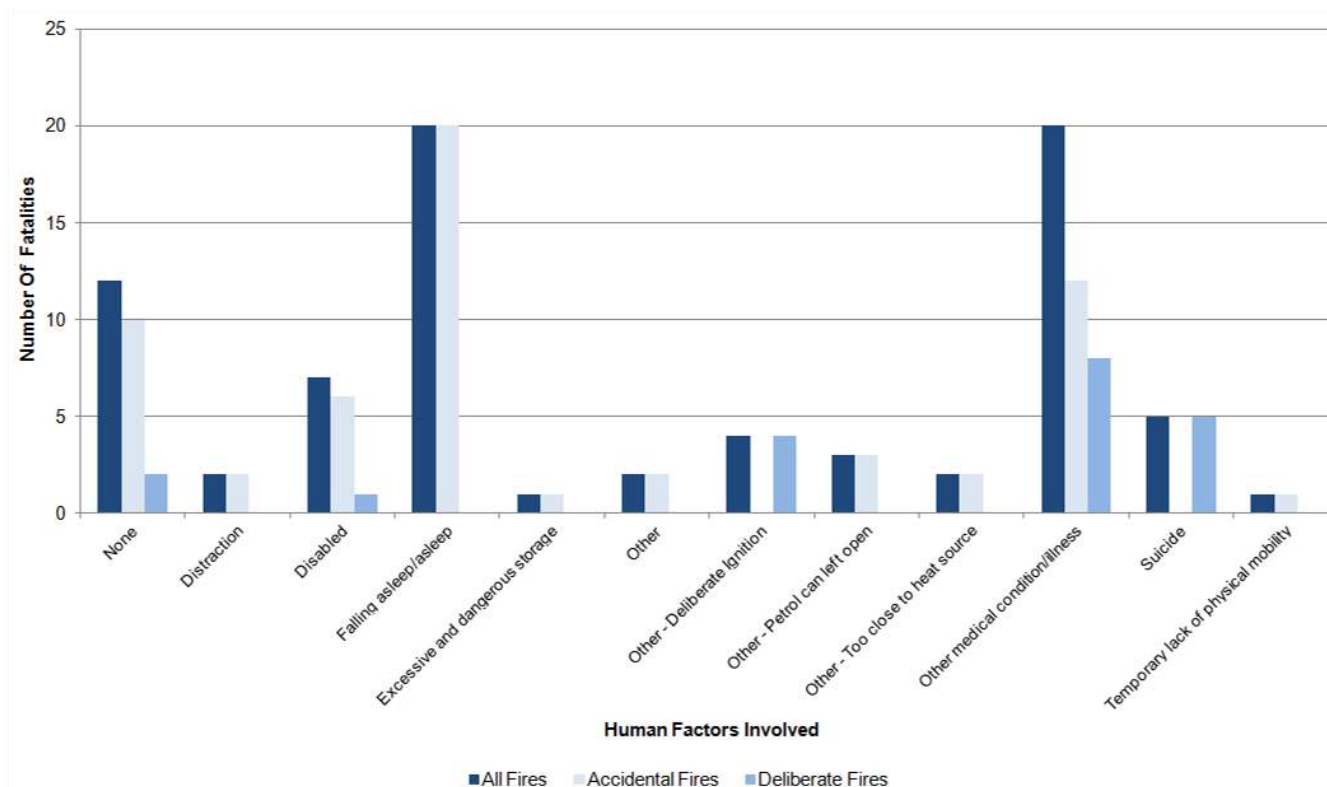
### Human Factors



Human factors are the influence of humans in the cause of, or during, a fire. In both accidental and deliberate fatal fires there was a large variety in human factors recorded, including distraction, falling asleep and medical conditions.

In cases of accidental fire fatalities, 20.8% were due to falling asleep or being asleep at the time of the fire, 12.5% were due to a medical condition or illness and 6.3% were from immobility due to being disabled.

Where deliberate fatal fires are concerned, 21.6% of the factors stated involved other medical conditions or illnesses, 13.5% were stated to be suicide and 10.8% were from deliberate ignition.



Graph Three - Human factors involved in fatal fire incidents

## When?

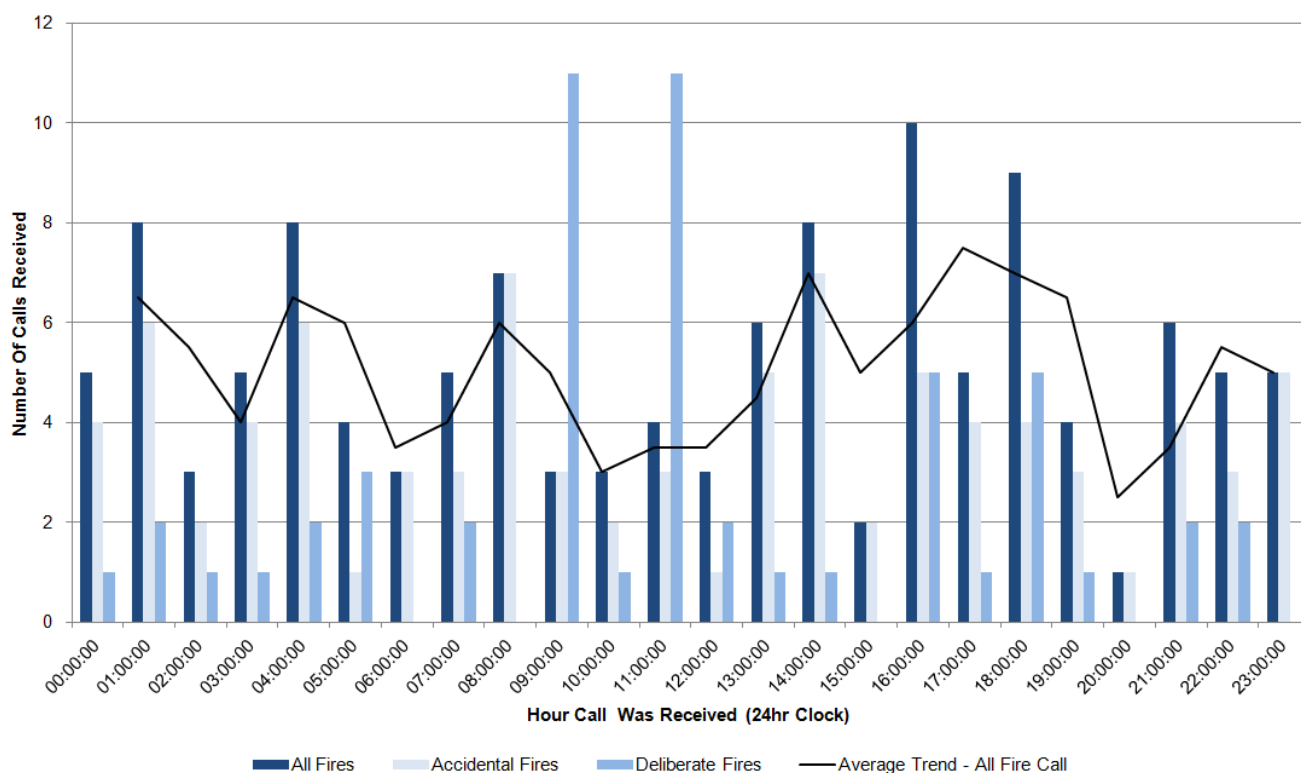
# When Did Fatal Fires Occur?

## Fires recorded by Time of Call

When combining accidental and deliberate fatal fire statistics, there is a small spike in fatal fires between 16:00Hrs - 17:00Hrs and between 18:00Hrs - 19:00Hrs. These are closely followed by calls between; 01:00Hrs - 02:00Hrs, 04:00Hrs - 05:00Hrs, 08:00Hrs - 09:00Hrs and 14:00Hrs -15:00Hrs

In cases involving accidental fatal fires, the timings are more spread out. However, there are small peaks 01:00Hrs - 02:00Hrs, 04:00Hrs - 05:00Hrs, 08:00Hrs - 09:00Hrs.

14.7% of fatal fires from deliberate causes occurred between 16:00Hrs - 17:00Hrs, and a further 14.7% between 18:00Hrs - 19:00Hrs.



Graph Four - Time of day that the first call was placed to fire service in fatal fire incidents



## When Did Fatal Fires Occur?

Fires recorded by Day of Week

Weekday	All Fires	Accidental	Deliberate
<b>Monday</b>	13.9%	14.8%	11.8%
<b>Tuesday</b>	9.8%	9.1%	11.8%
<b>Wednesday</b>	13.1%	10.2%	20.6%
<b>Thursday</b>	11.5%	10.2%	14.7%
<b>Friday</b>	13.1%	13.6%	14.7%
<b>Saturday</b>	24.6%	26.1%	20.6%
<b>Sunday</b>	13.1%	15.9%	5.9%

Table Three - Date of call to Fire Service Control in fatal fires



## When?

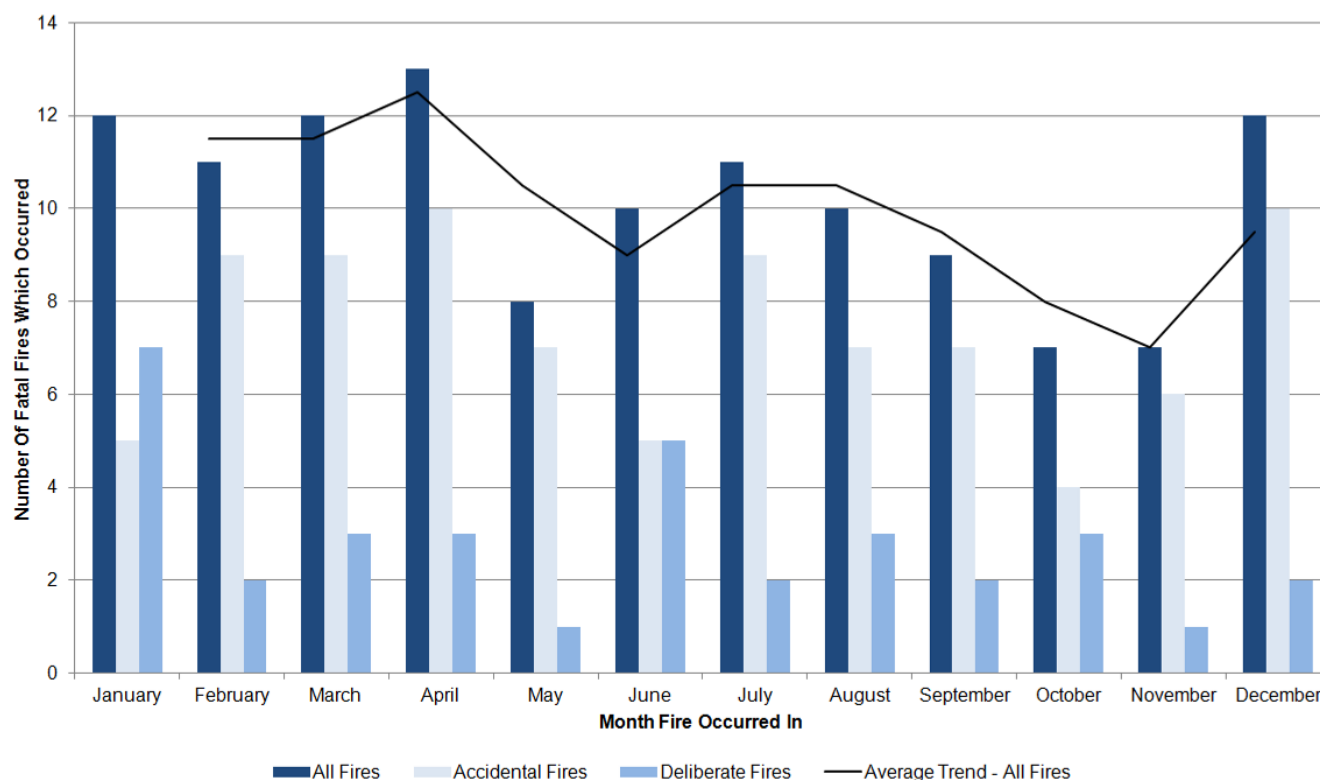
# When Did Fatal Fires Occur?

Fires recorded by Month



11.4% of fatal fires which were started accidentally occurred in April, with a further 11.4% in December. The next highest month for fatal fires to occur was July, February and March at 10.2%.

In cases of deliberate fires which resulted in fatalities, 20.6% occurred in January, closely followed by June where 14.7% occurred.



Graph Five - Months that fatal fire incidents occurred



## When Did Fatal Fires Occur?

Fires recorded by Season



Accidental fatal fires had their highest proportional occurrence between March and May (29.5%). This was closely followed by December to February (27.3%).

Deliberate fatal fires had their highest proportional occurrence between December to February (32.4%) followed by June to August (29.4%).



## Where Did Fatal Fires Occur?

Fires recorded by Location in the Region

Location	Estimated Population	Fires	Fatalities	Population Rate (Fatalities per 1,000,000)
<b>YORKSHIRE AND THE HUMBER</b>	5,359,234	122	133	25
<b>Humberside</b>	923,876	24	25	27
<b>West Yorkshire</b>	2,264,329	52	55	24
<b>North Yorkshire</b>	805,182	11	11	14
<b>South Yorkshire</b>	1,365,847	35	42	31

*Table Four - Fires recorded by regional locations*

During the period covered by this report there were 122 fires which resulted in a total of 133 fatalities in Yorkshire and the Humber. In order to gain a more accurate representation of what is happening across the region, the number of fatalities were divided by the estimated population (*Office For National Statistics, 2015*) and then multiplied by a rate of 1,000,000 to give an estimated number of fatalities per 1,000,000 people. This showed that per 1,000,000 people South Yorkshire had the most estimated fatalities with 31, and North Yorkshire with the least estimated fatalities at 14.

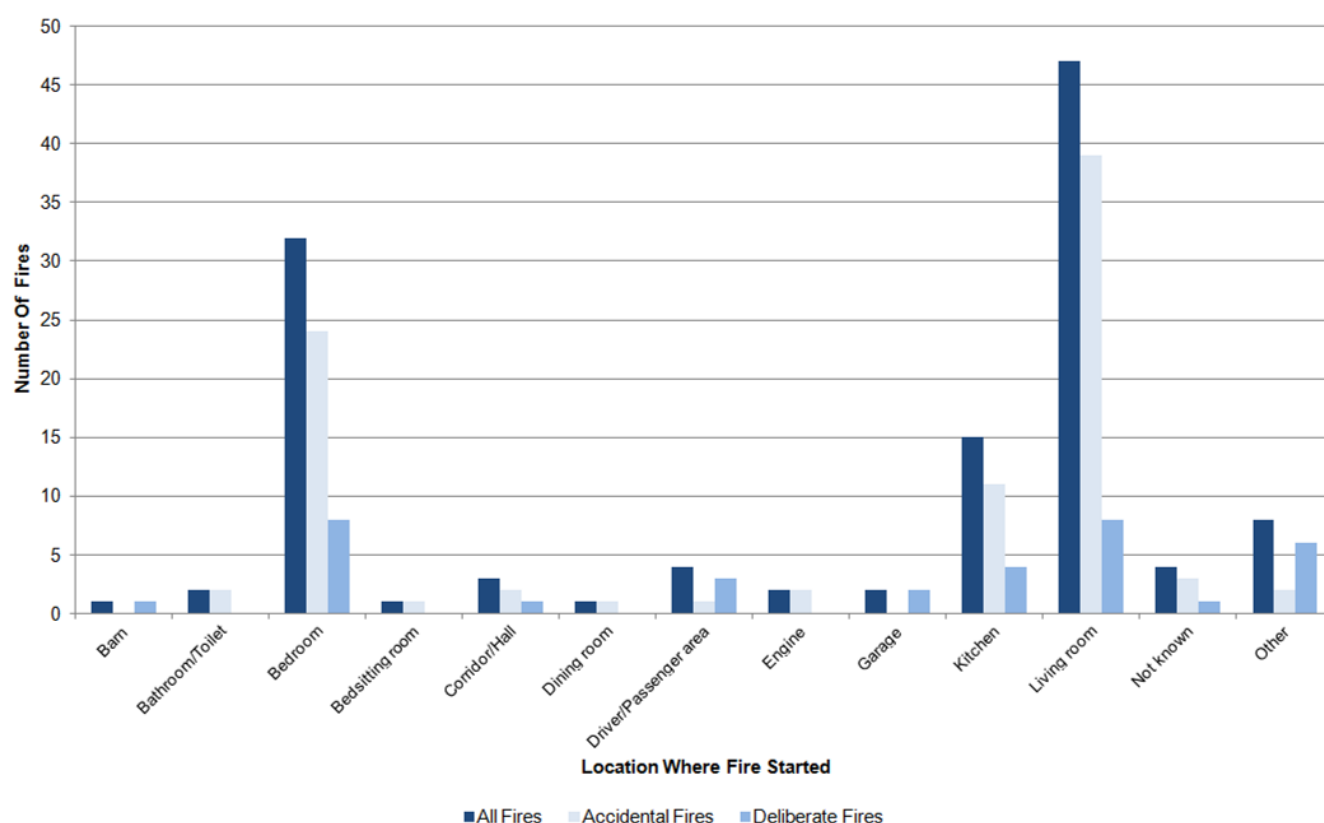


## Where Did Fatal Fires Occur?

Fires recorded by Room of Origin

44.3% of accidental fatal fires started in the living room, with a further 27.3% starting in the bedroom and 12.5% in the kitchen.

In the case of deliberate fires 23.5% occurred in the living room and in the bedroom, 11.8% occurred in the kitchen.



Graph Six - Room/area of origin in fatal fire incidents

# Where Did Fatal Fires Occur?

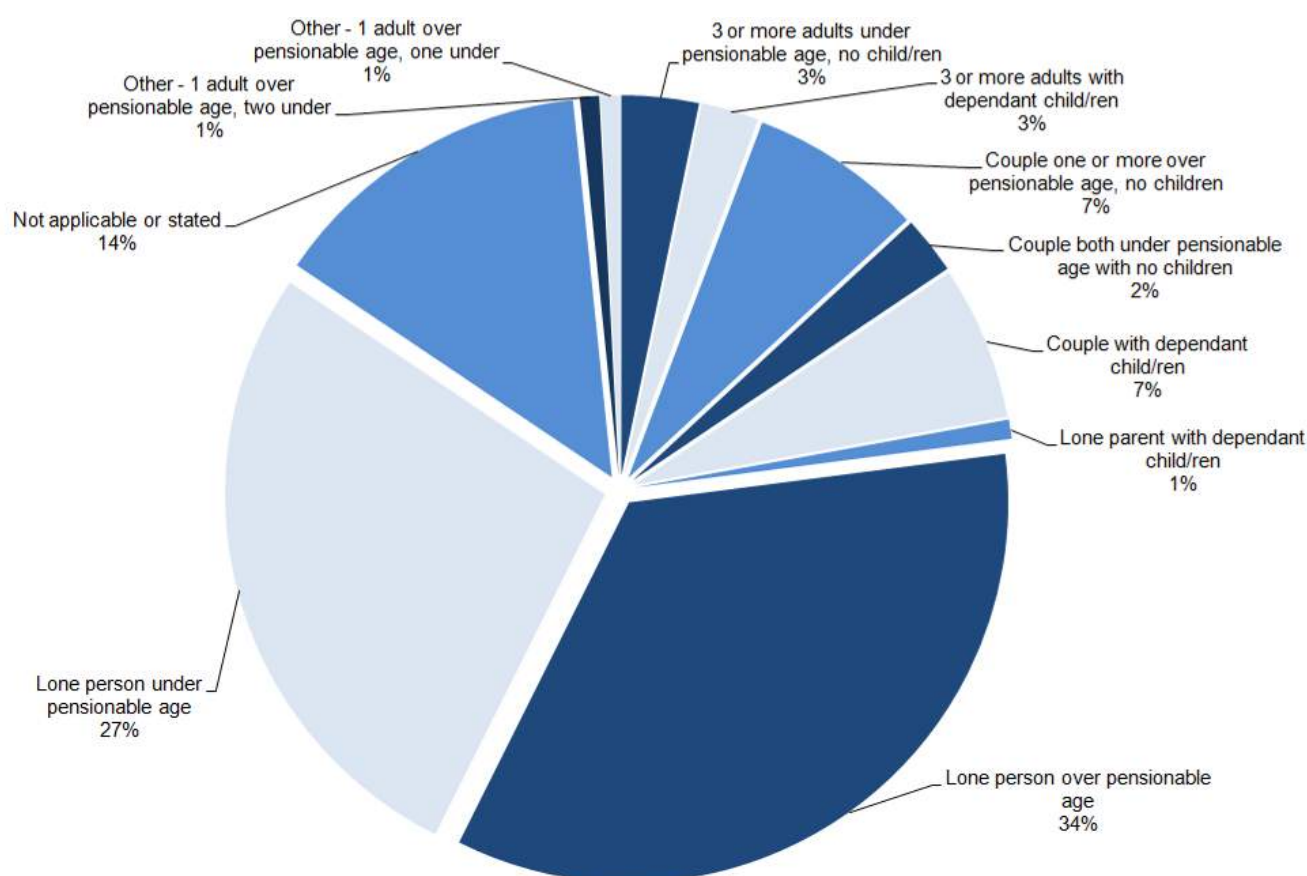
## Fires recorded by Household Occupancy Type

Household Occupancy Types are derived from the people living within the property, for example couples with dependant children or lone people.

A large proportion (69.3%) of accidentally caused fatal fires started in a household where the occupancy type was a lone person. 9.1% of accidental fatal fires occurred where the occupancy was a “couple with one or more people over pensionable age,” with no children and 6.8% were “couples with a dependant child / children”.

In the case of deliberately caused fatal fires, 41.2% occurred in a household where the occupancy type was a “lone person”. In 35.3% of these households, the occupancy types were not recorded.

In general, there is a significant trend across the region that showed people living alone were more likely to be involved in a fatal fire with 61% of fatal fires being in properties where people were living alone.



Graph Seven - Household occupancy types in fatal fires





# What Caused Fatal Fires To Occur? Accidental or Deliberate?

Of the fatal fires which occurred across the region of Yorkshire and the Humber;

- 71.3% were due to accidental cause,
- 21.3% were deliberate on the persons own property,
- 3.3% were deliberate to others property of an unknown persons property
- 4.1% were due to causes unknown.

In fires that occurred in the areas covered by South Yorkshire Fire and Rescue,;

- 60.0% were due to accidental cause
- 28.6% were deliberate on the persons own property
- 5.7% were deliberate to others property of an unknown persons property
- 5.7% were due to causes unknown.

Of fires that occurred in Humberside Fire and Rescue Service's area;

- 75.0% were due to accidental cause,
- 20.8% were deliberate on the persons own property
- 4.2% were due to causes unknown.

In West Yorkshire Fire and Rescue Service's area;

- 71.1% were from accidental cause,
- 21.1% were deliberate on the persons own property,
- 1.9% were deliberate to others property of an unknown persons property and
- 5.9% were due to causes unknown.

100.0% of the fires that occurred in North Yorkshire Fire and Rescue Service's area, were due to accidental cause.





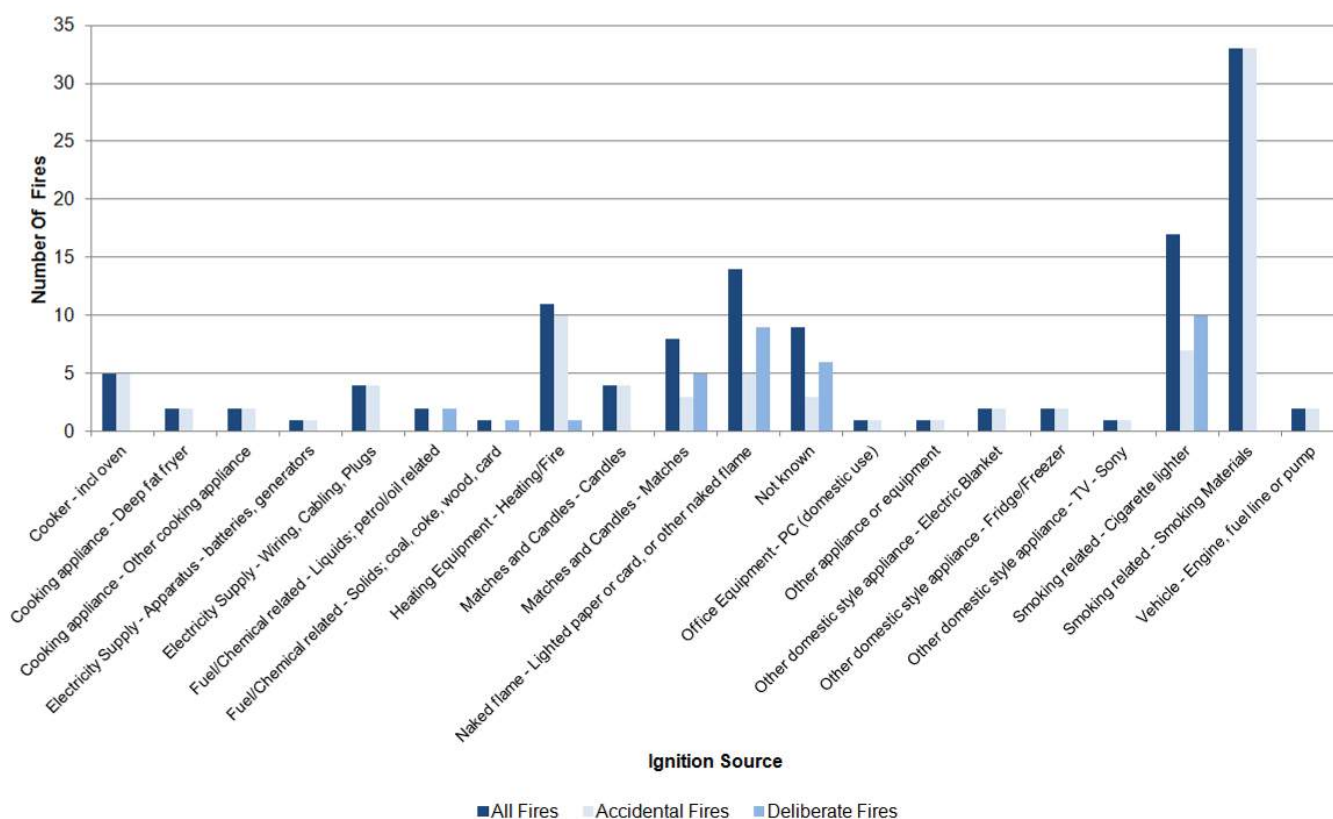
# What Caused Fatal Fires To Occur?

## Fires recorded by Ignition Source



The most common ignition sources in accidentally caused fires were smoking materials at 37.5% followed by heating equipment at 11.4%, and cooking appliances 10.3%.

In deliberate fire cases 29.4% were ignited using a cigarette lighter, 26.5% using lit paper or card and 14.7% by matches.



Graph Eight - Ignition sources in fires which resulted in fatalities



# What Caused Fatal Fires To Occur?

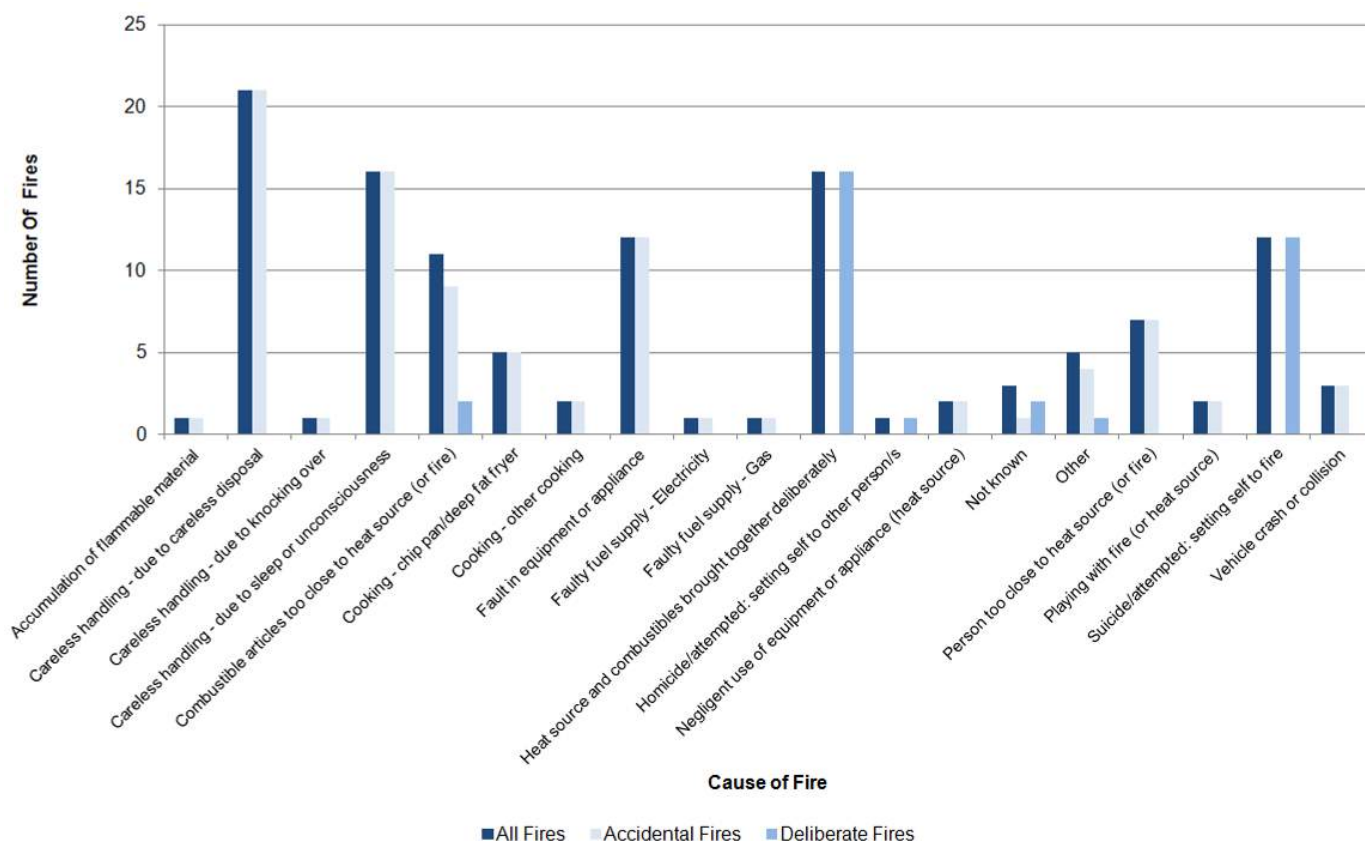
## Fires Recorded By The Direct Cause

Out of all fires, it was found that 47.5% were started by an Adult (18-59), 3.3% were started by Children (aged 0- 9), 34.4% by Older Persons (aged 60 and over), 2.5% by additional persons (age not known) and 5.7% by other methods (e.g. electrical). In 6.6% of cases it was unknown.

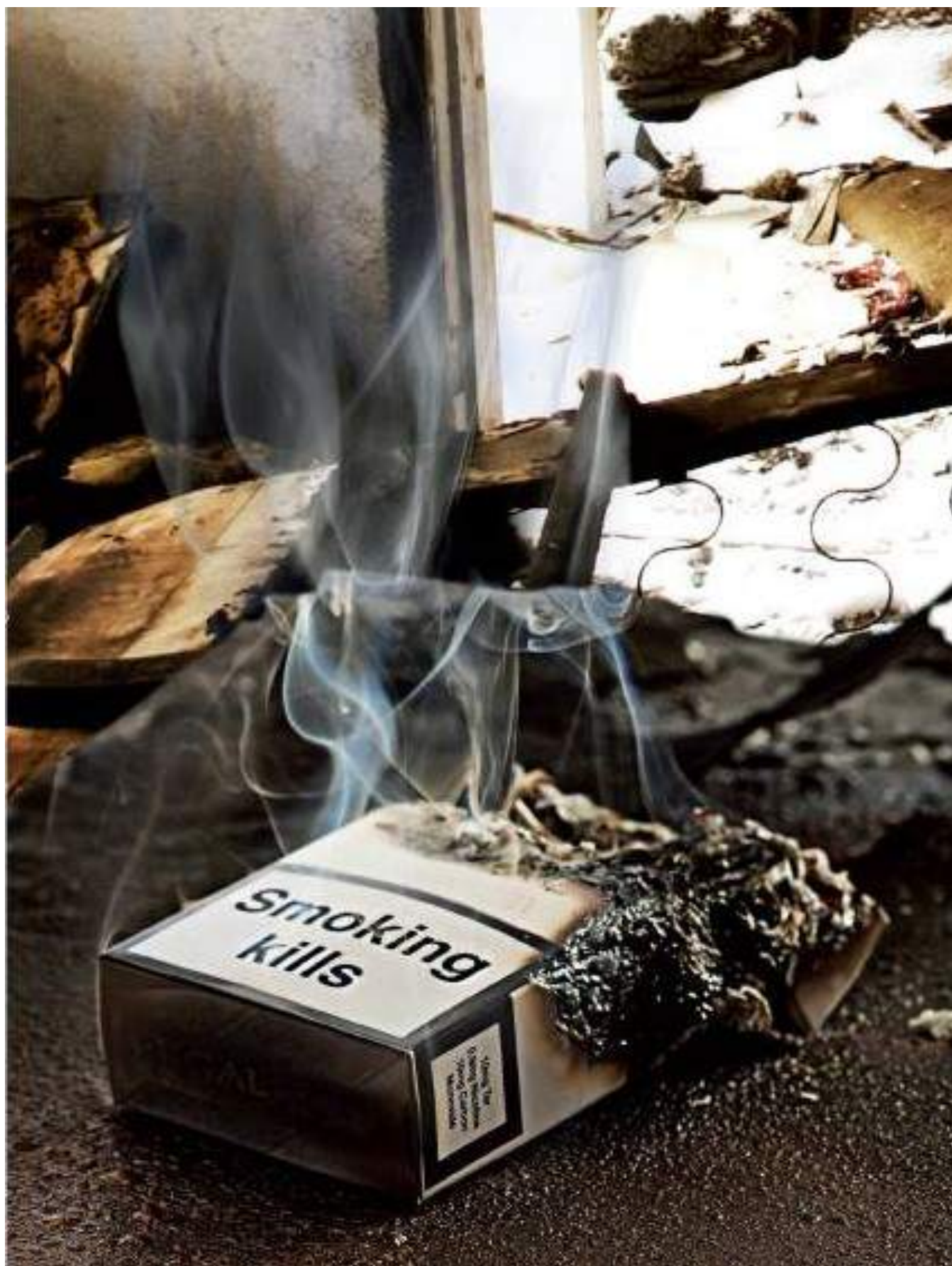
The largest cause of fire ignition accounting for a total of 31.1% of fires was careless handling due to careless disposal, sleep or unconsciousness or knocking items over. This was followed by faults in equipment or appliances at 11.4%, suicide/homicide at 10.6% and careless articles being too close to a heat source at 9.0%.

In accidental fires the most prevalent cause was careless handling which made up 43.2% of the causes of accidental fires, followed by faults in equipment or appliances at 16.8%.

In deliberate fires the biggest causes were heat sources and combustibles brought together deliberately at 47.1% or suicide / homicide at 38.2%.



Graph Nine - Direct causes in fires which resulted in fatalities



# What Caused Fatal Fires To Occur?

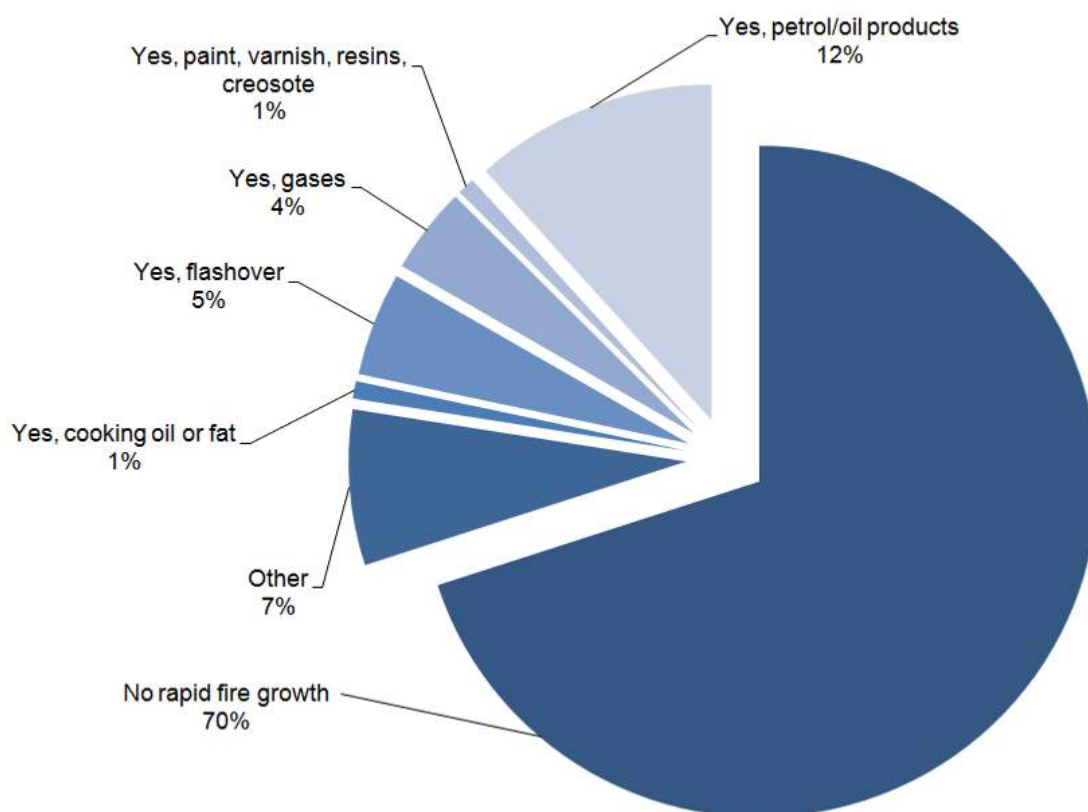
## Cases of Rapid Fire Growth



In the majority of cases reported, no rapid fire growth was noted. Rapid fire growth was most likely to occur due to the use of petrol / oil products in deliberate fire cases.

In those cases where there were no additional reasons for rapid fire growth to occur (such as cooking oils or petrol/oil products) it was generally down to flashover conditions.

Other causes of rapid fire growth included the involvement of household gas supplies, cooking oils / fat, petrol / oil products, paint / varnish / resins or creosote, or in some cases, strong winds.



Graph Ten - Causes of rapid fire growth in fires which resulted in fatalities



## What Damage Did Fatal Fires Cause?

### Extent of Damage

Damaged Sustained Following Fire	All Fires	Accidental	Deliberate
Affecting more than 2 floors (not whole building)	0.8%	1.1%	0.0%
Driver/Passenger compartment	0.8%	0.0%	2.9%
Limited to 2 floors (not whole building)	12.3%	13.6%	8.8%
Limited to floor of origin (not whole building)	26.2%	25.0%	29.4%
Limited to item 1st ignited	1.6%	2.3%	0.0%
Limited to room of origin	27.0%	28.4%	23.5%
Not applicable or not known	15.6%	17.0%	11.8%
Roof space and other floors	0.8%	0.0%	2.9%
Whole building	9.8%	8.0%	14.7%
Whole vehicle	4.9%	4.5%	5.9%

*Table Five - Damage sustained during / following fatal fires*



# What Damage Did Fatal Fires Cause?

## Costs of Fatal Fires

According to the latest estimates produced by the Department for Communities and Local Governments (DCLG) in the document entitled "The economic cost of fire: estimates for 2008" each domestic property fire costs society £47,197 and each fatality in one of these fires costs society £1,648,539. (*Department for Communities and Local Governments* , 2011)

In Yorkshire and the Humber, between the financial years of 2011 - 2016, there were 122 fires with a resulting 133 fatalities, giving a total regional cost to society of just over £225 million.

		Humberside	North Yorkshire	West Yorkshire	South Yorkshire	Yorkshire and the Humber
Accidental Fires	Fires	18	11	37	22	88
	Fatalities	19	11	40	26	97
	Cost to Society	£32,171,787	£18,653,096	£67,687,849	£43,900,348	£162,413,080
Deliberate Fires	Fires	6	0	15	13	34
	Fatalities	6	0	15	16	37
	Cost to Society	£10,174,416	£0	£25,436,040	£26,990,185	£62,600,641
Total Cost to Society		£42,346,203	£0	£93,123,889	£70,890,533	£225,013,721

Table Six - Estimated cost to society in fatal fires across the region

The cost of fires and fatalities to society is worked out by taking into account response costs and consequence costs. These include (but are not necessarily limited to) loss of property, costs of healthcare, loss of business, loss of earnings and Fire and Rescue Service response costs (*Department for Communities and Local Governments* , 2011).





# Fatal Fires: Public Intervention

## How Did The Public Try To Help?

In the majority of fatal fires cases there was no public intervention, however in a few cases the public attempted to stop the fire themselves prior to the arrival of the fire service. Mostly this was with the application of water from a garden hose or a bucket. However a few other cases involved property ventilation, for example the opening of a door or window, or smothering, for example using a fire blanket.

During the course of the reporting period the following actions by the public were noted;

- Water from hose reel
- Water from garden hose
- Water from bucket/container
- Used fire extinguisher
- Ventilation of the property
- Smothering
- Placing casualty in bath of water



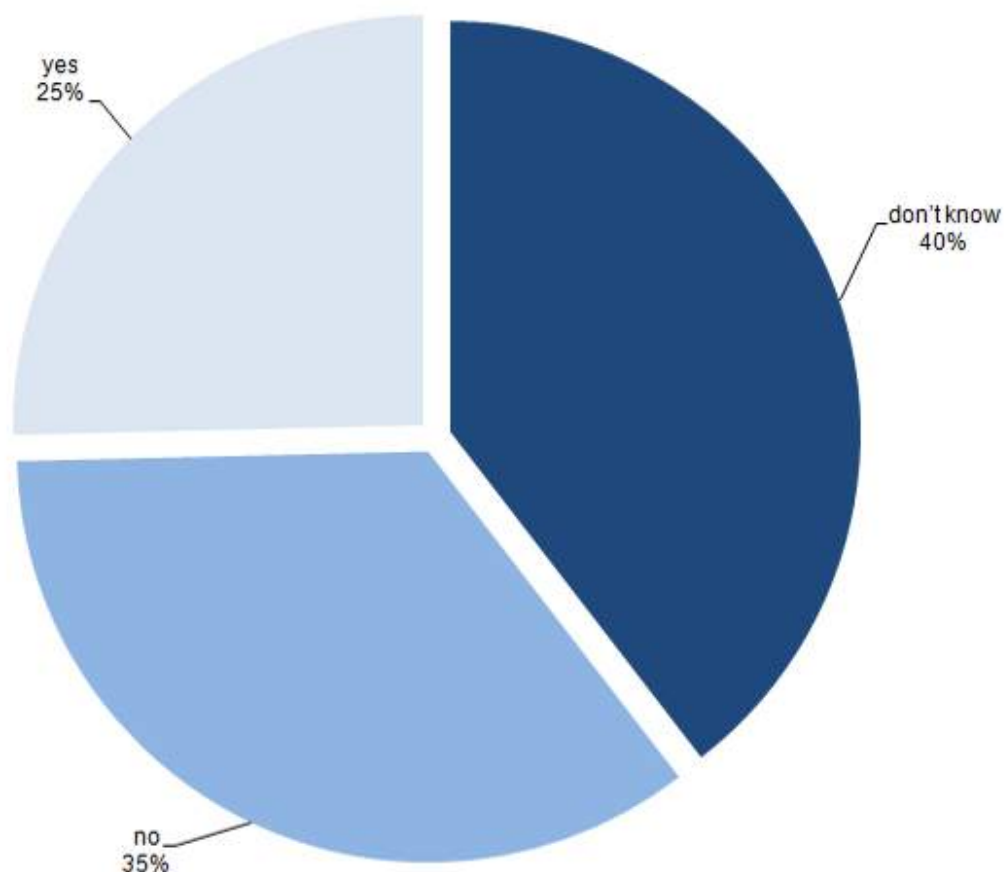


# Fatal Fires: Contributing Factors

## Drug/Alcohol Involvement

During the period of 1st April 2011 to 31st March 2016, 30.9% of accidental fire fatalities were thought to have been under the influence of alcohol or drugs at the time of the fire, 29.9% of cases it was unknown and 39.2% were not thought to have been under the influence of alcohol or drugs.

In cases due to a deliberate nature, 10.8% of fatalities were suspected to be under the influence of drugs or alcohol, 24.3% were believed to not be under the influence and in 64.9% of cases it was unknown.



Graph Eleven - Whether drugs/alcohol was a factor in fatal fires



## Fatal Fires: Contributing Factors

### Mental Health

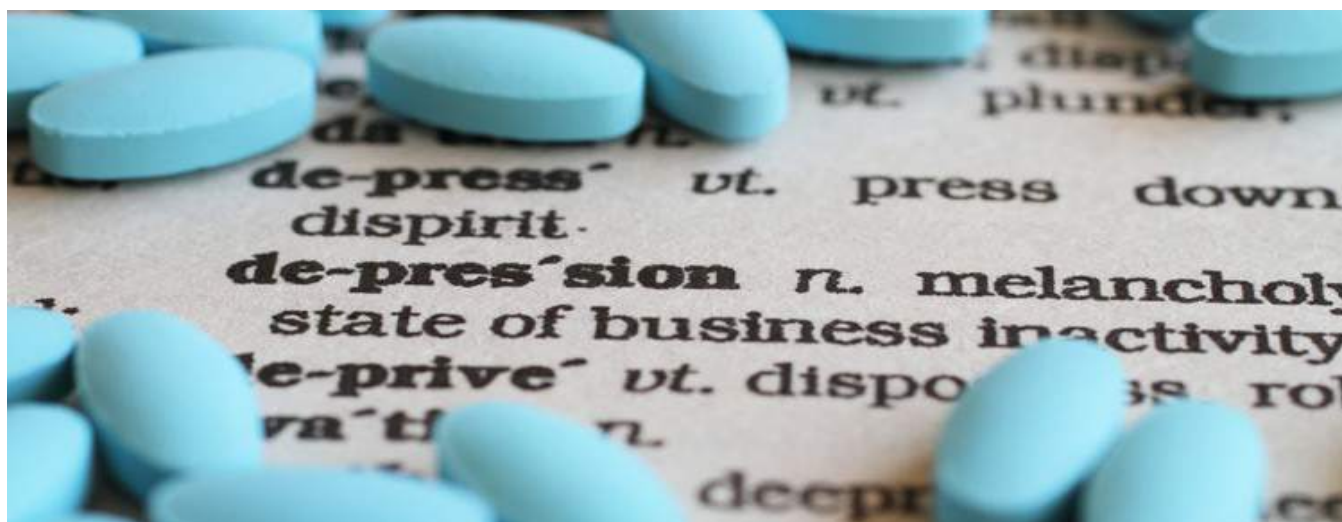
Financial Year	England	Humberside	West Yorkshire	North Yorkshire	South Yorkshire
2010/11	1173	18	38	19	34
2011/12	1168	17	30	19	25
2012/13	1069	26	40	15	27
2013/14	1110	2	44	14	28
2014/15	1085	8	43	29	41
Percentage Change	- 7.5%	- 55.6%	+ 13.2%	+ 52.6%	+ 20.6%

Table Seven - Attendances at incidents recorded as "Suicide/Attempted Suicide" reported by the Fire Statistics Monitor (April 2014-March 2015)

According to the "Fire Statistics Monitor: England April 2014 - March 2015", attendance by Fire and Rescue Services nationally to incidents of "suicide/attempted suicide" have fallen 7.5% (see the above table). However, with the exception of Humberside, attendances to this incident type have risen within the region of Yorkshire and the Humber. (*Department for Communities and Local Governments, 2015*)

Of the deliberate fire fatalities that occurred during the timescale of this report, 38.2% of fatalities were thought to be related in some respect to mental health issues. This appears to be a rising trend throughout the region of Yorkshire and the Humber.

However, recording of the involvement of mental health factors in fatal fires is limited to the capabilities of the Incident Recording System (IRS) which fire and rescue services use to record information about the incidents they have attended.



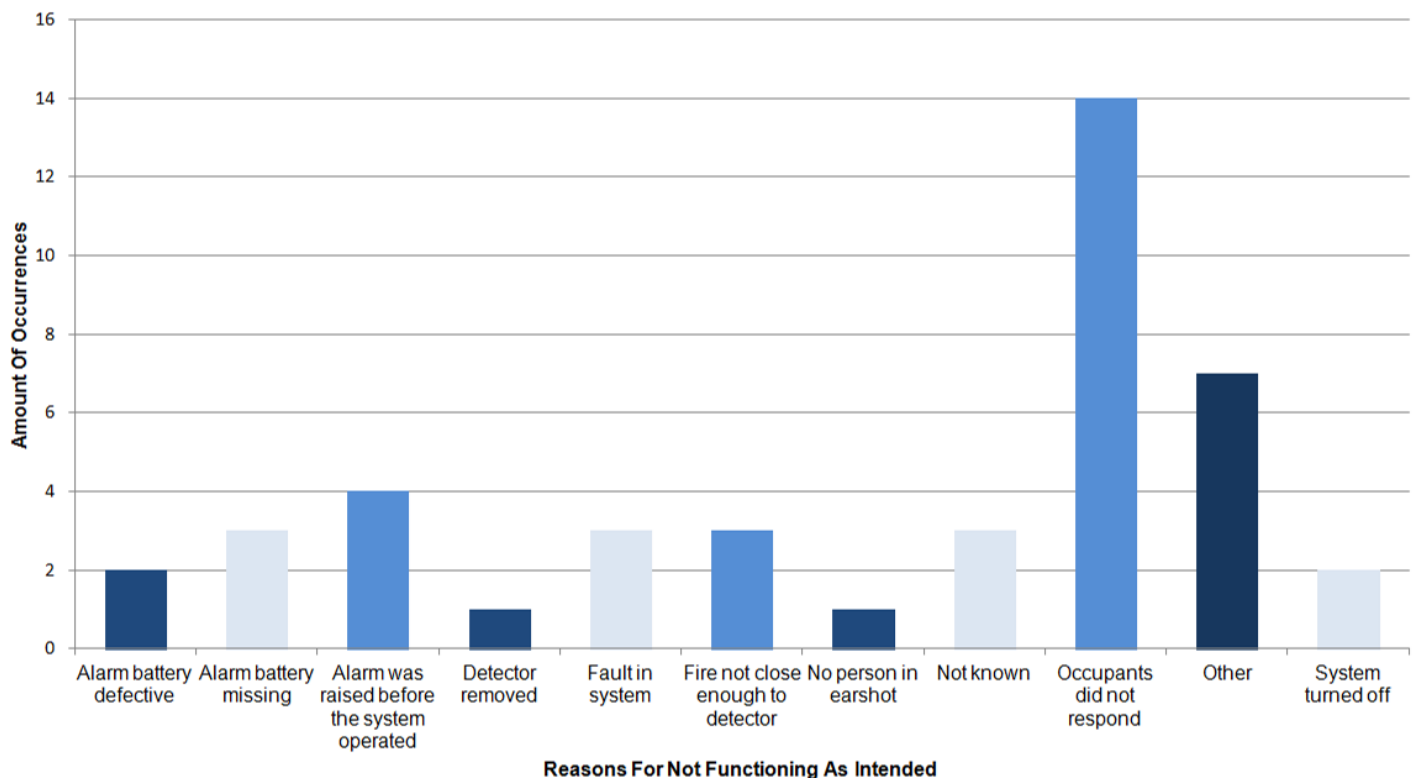
# What Prevention Methods Were In Place?

## Smoke Detectors

In fatal fires which resulted from accidental causes, 65.9% of properties had at least one working smoke alarm fitted, 28.4% did not have one fitted and in 5.7% of cases it was either unknown or not applicable. Of the smoke alarms fitted in properties, 48.3% functioned as intended and raised an alarm, 20.7% failed to operate and in 31.0% of cases the alarm operated but did not raise the alarm of occupants.

In fires which resulted in fatalities that were due to deliberate causes, 47.1% of properties had at least one working smoke alarm fitted, 41.2% did not have one fitted and in 11.7% of cases it was either unknown or not applicable. Of these smoke alarms fitted in properties 21.4% functioned as intended and raised an alarm, 35.7% failed to operate and in 57.1% of cases the alarm operated but did not raise the alarm of occupants.

The reason behind failed activation of smoke alarms and not alerting the occupants varies. In the majority of cases this was due to the occupants not responding (whether intentionally or unintentionally). Other reasons included the smoke alarm batteries being defective or missing, there being no person in earshot, a fault in the system, the detectors removed or in some cases the fire not being close enough to the detector itself.



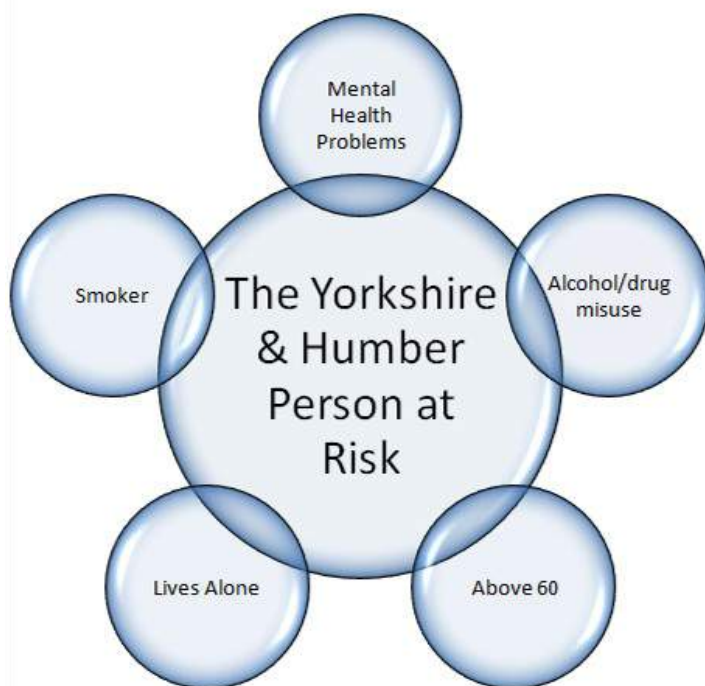
Graph Twelve - Reasons smoke alarms that were fitted in properties did not function as intended



## The “Person At Risk” As Noted By The Report Yorkshire and the Humber

The findings of this report identified the “person at risk of fire” in the region of Yorkshire and the Humber, is likely to include one or more of the following contributory factors;

- Aged over 60
- Lives alone
- Likely to be a smoker
- Suffering from mental health related problems
- Alcohol or drug use



Graph Thirteen - The person at risk



### Fatal Fires: Case Study 1

#### Sheffield, South Yorkshire

On the 19<sup>th</sup> February 2016 at 18:28hrs, South Yorkshire Fire and Rescue were called to a reported flat fire in a domestic high rise building. The call was received from a mobile phone and multiple calls were received for this incident. On arrival fire fighters noted a very dense black smoke and a severe amount of hoarding within the property whilst crews rescued the casualty.

Following extensive excavation of the fire scene, the seat of fire was discovered which identified most probable cause being the misuse of electrical items, specifically an extension lead that had been compromised by a high level of hoarding.

It was concluded that this was a slow burning fire with the point of origin being the extension cable located under a pile of refuse and waste hoarding. The extension cable had suffered severe damage from overheating.

This incident highlights the impacts of hoarding not only on fire development, but also for fire fighter access.



### Fatal Fires: Case Study 2

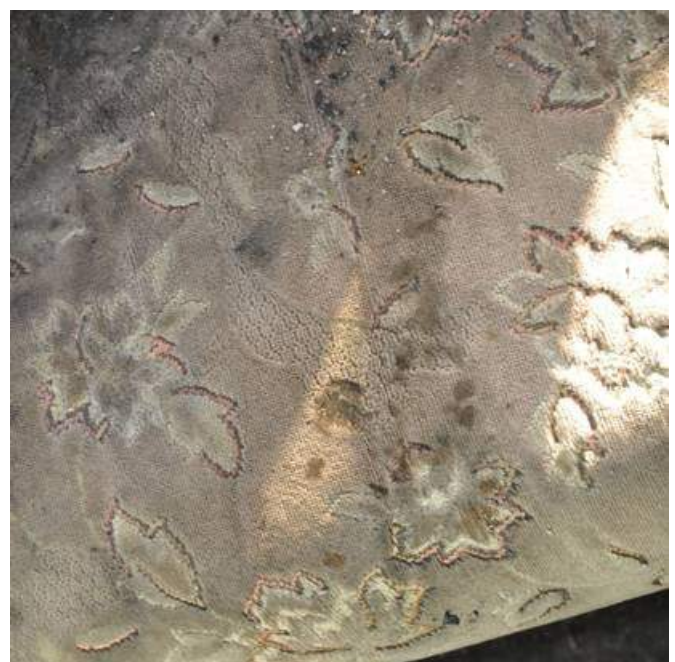
#### York, North Yorkshire

On the 1st May 2015, North Yorkshire Fire and Rescue Control received a call to a reported property fire in the York area of North Yorkshire and fire fighting appliances were mobilised.

This property housed two older persons, who were known to be smokers. One male had initially escaped but returned to the property to alert his partner and was overcome by smoke, sadly dying as a result.. His partner was rescued by fire and rescue personnel and made a full recovery.

It is believed that the fire was caused by a dropped cigarette, however it is still uncertain who actually dropped the cigarette as both were smokers. The coroner ruled an accidental death, caused by smokers' materials.

This particular incident highlights that once you get out, you stay out and call 999.





## Fatal Fires: Case Study 3

### Reedness, Humberside



At 09:52hrs on the 31<sup>st</sup> December 2014, a call was received by Humberside Fire and Rescue Service control from Humberside Police stating that a male had been found deceased in his home, covered in soot but they were unsure if a fire had occurred.

Following the mobilisation of a level three fire investigator, further testing was conducted where it was believed to have been caused by the introduction of a naked flame to an artificial coal effect fire and specifically the PMMA (plastic based) screen. It is believed the occupant confused the artificial coal effect fire for a real coal fire and attempted to ignite it.

Now fire and rescue services work closely with other agencies to work towards protecting vulnerable people within our communities.

## Fatal Fires: Case Study 4

### Brighouse, West Yorkshire



At 22:43 on 25 July 2015, West Yorkshire Fire and Rescue Service Control received a call to a fire at a domestic property in Lightcliffe, Brighouse. Fire-fighters wearing breathing apparatus then entered the property through the front door and discovered a female sat in a chair in the living room. She was carried from the property where first aid was administered until the Ambulance service arrived.

There was a smoke detector fitted on the ceiling in the hallway adjacent to the bedroom door and another on the living room ceiling. It was later noted that the female had a hearing impairment.

The most likely cause of the fire was abnormal electrical activity in an electric blanket, which was located on the bed. It is unknown how old it was.

This incident highlighted the need for the testing of electrics.



# Conclusions and Key Findings

There are common themes and contributing factors surrounding the fatal fires that occurred between April 1st 2011 and March 31st 2016 in Yorkshire and the Humber that have been highlighted during the writing of this report. These have been explored and presented in a way that is easier to interpret than just raw data.

This report will present the four Fire and Rescue Services along with their partners, with a wealth of information relating to the causes and contributory factors of fatal fires. The identification and targeting of resources towards those communities and persons within them that are most at risk is the principle aim of all of the fire services, which this report will help them to achieve.

The key findings of this report are laid out below;



- More males died in accidental fires than females
- Of accidental fire fatalities 56.2% were over the age of 60
- More calls to fatal fires occurred between 16:00hrs and 17:00hrs or 18:00hrs and 19:00hrs
- A quarter of fatal fire calls occurring on a Saturday
- 11.4% of accidental fires occurred in April with a further 11.4% in December
- Accidental fires were more likely to happen in Spring and Winter and deliberate fires were more likely to happen in Winter and Summer
- 47.5% of all fatal fires were started by an adult and 34.4% by older persons
- Of accidental fatal fires 43.2% were caused by careless handling
- Of deliberate fires 47% were caused by heat sources and combustibles deliberately brought together
- 44.3% of accidental fatal fires started in the living room
- In the case of deliberate fires 23.5% occurred in the living room and in the bedroom, 11.8% occurred in the kitchen.
- Of homes where fatal fires that occurred 65.9% accidentally had at least one working smoke alarm.
- Of accidental fire fatalities 31.3% were thought to have been under the influence of alcohol or drugs
- 69.3% of accidentally caused fatal fires started in a household where the household occupancy type was a lone person.

# Recommendations

## What Can We Do To Prevent More Deaths?



### **Production of a regional fire fatalities, serious injuries and fire investigation database**

This will help to monitor regional trends, particularly with regards to contributory factors, and will allow us to more effectively share learning and analysis across the sector.

### **Gender targeting**

With men identified as almost twice as likely to die in a fatal fire, further work should be commissioned to explore the causes of this with a view to better targeting accidental fire prevention work at this group.

### **Targeting lone persons**

People living alone have also been found more likely to die in an accidental fire. Further work should be commissioned to explore the causes of this with a view to better targeting fire prevention work at this group.

### **Continuing to target by age**

Older people (over 60s) were found to be most at risk from dying in a fire when compared with other age groups. The sector should continue to prioritise the targeting of its accidental fire prevention work at older people.

### **Analysis of other contributory factors**

Further work is needed to analyse the many and varied factors which contribute not just to serious fires, but also fires resulting in serious injuries.

### **Develop the serious incidents debriefing process**

The region currently holds panel meetings following fire deaths and serious injuries, but these should be developed to include relevant partners and methods of more robustly reporting learning outcomes across the region.

## Further Information

## Document Control

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## Further Information

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