Summary

This report provides an overview and analysis of accidental dwellings fires in 2016/17 (1 April 2016-31 March 2017), including the fatalities and injuries that occurred. It brings together the outcomes ofFatal Fire Reviews and the Accidental Dwelling Fire (ADF) Review with statistical data. It highlights focus areas for community safety work and initiatives whilst also acknowledging work underway, and is intended to support continued work at all levels to reduce fire risk to Londoners.

Recommendations

That the Committee -

1. Notes the work undertaken by officers; and

2. Supports the Brigade’s approach to addressing accidental dwelling fires and fire fatalities as set out in paragraphs 62 to 67 in the report.

Introduction

1. This report reviews all fire deaths in 2016/17 and brings together statistical information and outcomes from fatal fire and accidental dwelling fire reviews. This report concentrates on accidental dwelling fires and their associated deaths and injuries as they make up the largest proportion of primary (or more serious) fires, and are considered to be largely preventable. In
2016/17 there were 5103 accidental dwelling fires\(^1\) attended by the brigade, resulting in 39 fatalities and 375 serious injuries.

2. The conclusions in this report have been reached by a full exploration of the characteristics of each person who dies in the fire, the circumstances of each fire and the Brigade’s response, as well as any interaction with any partner agency. This report is based on reviews during 2016/17 although any annual report which identifies current issues/trends, needs to be considered alongside longer-term data/trends. Longer-term analysis feeds into the assessment of local risk which underpins the London Safety Plan.

3. The Brigade’s experience is that many of the people who die in accidental dwelling fires share similar characteristics and are often within relatively easy grasp of better safety and protection, as most are in regular contact with a public agency at some level. The recently approved London Safety Plan clearly states that the Brigade believes that by influencing and changing behaviours, the number of fires can be reduced along with the number of injuries and deaths that result from them.

**Fire deaths in London**

4. In 2016/17, there were 49 deaths at fires. The coroner found that five of these deaths were not fire related leaving 44 deaths which were as a direct result of fire or smoke. Forty one of these deaths occurred in dwellings. Eighty nine per cent (39 fire deaths) were accidental in nature and classed as an accidental dwelling fire (ADFs). ADFs are deemed to be largely preventable due to there being an opportunity to prevent the fire; whether this is through the Brigade’s home fire safety visits and recommendations for further risk reduction methods, or by action by a partner organisation or, indeed the householder.

**Chart 1: Deaths at fires, 2016/17**

5. Although this report focuses mainly on fatalities as a result of ADFs, it is worth noting that there were five fire related deaths which resulted either from fires started deliberately and/or were not in dwellings. Two of the deaths were as a result of the fires being started deliberately. Three of the deaths were accidental but not in dwellings, two occurred in garages (one of which was being used as sleeping accommodation) and one took place in nightclub.

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\(^1\) An accidental dwelling fire is defined as a primary fire in a dwelling of accidental or unknown motive based on government national Incident Recording System (IRS) categories. This figure includes ‘late calls’. A ‘late call’ is classified as a fire which is already extinguished by the time the Brigade was called.
6. Fire related deaths in London, for the last fifteen years, together with the rolling ten year average, is shown in the chart below.

**Chart 2: Fire related deaths over the last 15 years**

7. This data for the last 15 years shows that the annual number of fire deaths fluctuates year on year, but that the underlying trend, as measured using the ten year average (which is the basis of the agreed performance indicator/target) shows a steady downward trend. The number of accidental dwelling fire related deaths in 2016/17 was at a much higher level than recent years, and was higher than any year since 2011/12.

**Fatal fire reviews and ADF reviews**

8. Fatal fire reviews were introduced in 2010, and in 2012 a borough-based version of the process was introduced for qualifying accidental dwelling fires. These reviews support Authority headline targets to reduce fires and fire related casualties (both deaths and injuries). The outcomes from both review processes influence and support work at all levels by the Brigade to improve fire safety, build effective relationships with partners and share the Brigade's fire safety messages more widely. All accidental fire deaths in 2016/17 have been subject to a fatal fire review.

9. To inform the fatal fire review process, officers produce:
   - A fire safety regulation post fire audit report. The audit is undertaken by fire safety regulation inspecting officers in order to quickly gather information relating to compliance with fire safety law and inform enforcement action as necessary. The audit does not apply to single private dwellings but does include the shared areas serving single private dwellings.

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3 A fatal fire review panel is convened by the Director of Operations for fires involving fatalities. The review panel consists of a range of officers including the Director of Operations, the Area Deputy Assistant Commissioner, the relevant Borough Commander, together with officers representing community safety, fire safety regulation, and information management.

3 To qualify for an accidental dwelling fire review a fire must meet at least one of the following criteria; a member of the public being taken to hospital as a result of injuries sustained at the incident, multiple people are injured (but not necessarily moved to hospital), it is determined by the officer in charge (OIC) that the severity of the fire has made the dwelling uninhabitable for at least 24 hours and/or where the OIC establishes a previous fire has occurred. A review can also be initiated at the request of the Area Deputy Assistant Commissioner.
A fire investigation report. This is a comprehensive report produced by the Brigade’s Fire Investigation Team on every fire death. This report is provided to the Coroner.

A Borough Commander’s fatal fire report that brings together all of the circumstances around the fatal fire including information about the deceased, inter-agency involvement, incident management and post fire community safety interventions.

10. Each review discusses the fire, the characteristics of the people involved, their living conditions, detailed scrutiny of the circumstances leading up to the fire including any previous interventions that the Brigade had carried out, identified regulatory fire safety issues, the Brigade’s subsequent fire investigation and follow-up community safety action to reduce fire risk. A significant amount of organisational learning has resulted from the reviews and they have influenced the priorities and direction of strategic and borough based preventative work. The fatal fire review process is led by the Director of Operations.

11. The accidental dwelling fire review process is led by each Area Deputy Assistant Commissioner (DAC) and follows a similar format to that of a fatal fire review. The review informs local risk reduction work and each Area DAC reports on trends and issues identified on a quarterly basis.

12. Examining a range of information helps officers to draw conclusions about the key contributory factors that feature in fires that result in casualties (whether fatal or not), and to gain an insight into the characteristics and circumstances that make the difference between people that survive fires, and those who do not.

13. ADFs have resulted in 19 adult safeguarding referrals to partner agencies. The accidental dwelling fire review process also led to the initiation of borough based partnership initiatives and regular meetings with housing associations, mental health services, telecare providers, care providers, trading standards and residents groups. Topics covered included cooking safely, high-rise safety, standards of HMOs within boroughs, the risks associated with the use of illegal tobacco products, the risks associated with hoarding, the need to review care packages regularly to ensure they are adequate for residents’ changing needs, and tracking the movement of people with a high fire risk between boroughs. Individual case referrals included topics such as the need for smoke detection with telecare monitoring, the risk of smoking when using oxygen equipment and other health equipment, the need for home suppression equipment such as sprinklers, the need for greater support, and vulnerability to fire.

14. ADFs reviews documented the impact of fires that often left homes uninhabitable for some time and members of the public with injuries ranging from shock to severe burns. At two fires the casualties were known to partner agencies but not to the Brigade, additional partnership working is being pursued to ensure that local knowledge is shared. Fourteen fire victims had experienced previous fires and 17 had a previous home fire safety visit, the majority of these took place three or more years prior to the most recent incident. This demonstrates the need to re-evaluate risk as an individual’s circumstances change and to programme revisits to the most high risk residents. As with fatal fires many of the homes of those experiencing accidental dwelling fires exhibited evidence of the unsafe disposal of smoking materials prior to the fire; officers continue to help care agencies and partners recognise fire risk to their clients and work with the Brigade to reduce risk of fire to the most vulnerable.
Accidental dwelling fires
15. As shown in chart 3 below, there were 10621 primary\(^4\) (serious) fires in London in 2016/17 and just over half (52 per cent) were in dwellings (5508). The vast majority of dwelling fires (92 per cent – 5103) were of accidental rather than deliberate motive (i.e. accidental dwelling fires).

Chart 3: Primary fires in 2016/17 with breakdown by property type

16. There were 198 fewer accidental dwelling fires (including late calls) in 2016/17 than in 2015/16. The data for dwellings fires and casualties (fatal and non-fatal) is set out in table 1 below.

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\(^4\) A primary fire is one at a primary fire location (buildings, vehicles and most outdoor structures) A primary fire is also any fire attended by five or more pumping appliances before the time of the stop message at any type of property or any fire where there are fatalities, injuries or rescues.
Table 1: Dwelling fires, deaths and casualties 2015/16 and 2016/17

<table>
<thead>
<tr>
<th></th>
<th>2015/16</th>
<th></th>
<th></th>
<th>2016/17</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accidental</td>
<td>Deliberate</td>
<td>Total</td>
<td>Accidental</td>
<td>Deliberate</td>
<td>Total</td>
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<tr>
<td>Dwelling fires</td>
<td>5301</td>
<td>403</td>
<td>5704</td>
<td>5103</td>
<td>405</td>
<td>5508</td>
</tr>
<tr>
<td>Deaths in dwelling fires</td>
<td>21</td>
<td>5</td>
<td>26</td>
<td>39</td>
<td>2</td>
<td>41</td>
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<tr>
<td>Serious injuries in dwelling fires</td>
<td>405</td>
<td>70</td>
<td>475</td>
<td>375</td>
<td>68</td>
<td>443</td>
</tr>
</tbody>
</table>

Fire size
17. The Brigade has developed a fire size methodology in order to provide some clarity about the different types of action taken by crews on arrival or where there are exceptional resources required (five or more appliances). The size of a fire and the Brigade resources required do not correlate consistently with the likelihood of fire injuries or fatalities, nor the numbers involved. People can die or be injured in relatively small fires; ones which do not require any firefighting action when the Brigade arrives (chart 4 below). In 2016/17, though a majority of fatalities died in fires requiring five or more appliances, 15 per cent of fatalities were involved in fires that required little to no firefighting when crews attended.

Chart 4: Fire size – fire fatalities at accidental dwelling fires, 2016/17

18. Chart 5 (Fire size) shows that 3577 (70 per cent) accidental dwelling fires in 2016/17 required ‘small means’ or no firefighting by the Brigade.
Delay in calling for Brigade assistance
19. There can be a delay in calling the Brigade to a fire for a number of reasons, ranging from members of the public not reacting immediately or stopping to fight the fire, as well as fire detection or equipment faults. Below are details of delayed calls to fire fatalities for 2016/17.
- Members of public not reacting immediately (5)
- Stopping to fight the fire (8)
- Ineffective emergency procedures (6)

Automatic fire alarm equipment, monitored alarms and automatic fire suppression system can reduce risks considerably when fitted according to the fire risk and characteristics of the occupiers, and ensure the Brigade are called promptly.

20. In 2016/17, 39 per cent (1991) of accidental dwelling fires had an estimated delay of 10 minutes or more between the time of ignition and the first call to Brigade control. Table 2 shows the numbers of incidents and casualties together with percentages.

Table 2: How quickly the Brigade was called* (in London), 2016/17

<table>
<thead>
<tr>
<th>2016/17</th>
<th>Called immediately</th>
<th>Called within 10 mins</th>
<th>Called in more than 10 mins</th>
<th>Unknown Ignition To Call Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ADFs*</td>
<td>16%</td>
<td>42%</td>
<td>39%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>816</td>
<td>2165</td>
<td>1991</td>
<td>130</td>
</tr>
<tr>
<td>ADF serious injuries**</td>
<td>8%</td>
<td>42%</td>
<td>46%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>157</td>
<td>171</td>
<td>16</td>
</tr>
<tr>
<td>ADF fatalities</td>
<td>5%</td>
<td>20%</td>
<td>62%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8</td>
<td>24</td>
<td>5</td>
</tr>
</tbody>
</table>

* estimated time between ignition and calling the Brigade | * no data is available for 147 fires | ** no data is available for 27 injuries
21. In total, there was a delayed call in 37 of the 39 (95 per cent) fire fatalities that occurred in accidental dwelling fires. In four of these incidents, there was a delay in calling the Brigade after ignition of the fire of over one hour or more. Using information on all the factors surrounding each fatal fire, such as nature of injuries, victim and fire location, it is a reasonable assessment that 27 of the 39 (69 per cent) accidental dwelling fire fatalities had already sustained life threatening injuries by the time the Brigade was called.


23. The Brigade continues to include immediately calling the emergency services within its core prevention messaging. It is stressed that this must be one of the first actions taken on discovery of a fire as it has potentially life changing consequences for those involved. For those people responsible for other’s safety this is a paramount message. Where there are vulnerable people there must be a resilient method of automatically summoning assistance. If assistance is not readily available for those with severe mobility impairment, automatic fire suppression such as sprinklers may be essential if there are additional high fire risk behaviours such as smoking in bed. For specialised housing, staff availability onsite must be taken into account when deciding whether a monitored fire alarm system is an adequate safeguard.

24. Fire fatalities are spread across London and can happen in affluent areas as well as areas of social deprivation (see map 1). The combination of high fire risk behaviours, such as smoking, along with mental or physical infirmity increase the likelihood or fire, injury and death.

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Type of dwelling and location of accidental dwelling fires

Type of dwelling

25. The 2011 Census recorded that half the population of London lived in flats and maisonettes. Dwelling fires by property type show that a slightly higher proportion of dwelling fires start in flats and maisonettes (58 per cent) with 41 per cent in houses (Chart 6 below). These proportions are similar to 2015/16. The proportion of housing in flats or maisonettes tends to be higher in P16 areas; with a higher numbers of fires, more social housing and areas of deprivation but fire fatalities are spread across London.

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1. To ensure that the Brigade’s HFSVs reach those most at risk from fire, the Brigade targets communities and individuals with characteristics that have been identified as recurring and being an indicator of fire risk. Households and individuals are targeted for prevention activity in two ways:
   - Priority postcodes (geographic risk or "P1 Postcodes") – based on a combination of socio-demographic data and historic incident data.
   - Priority people (high risk individuals or "P1 People"). These are targeted at people/households with two of the characteristics below:
     - high risk fire behaviours e.g. smoking
     - is less able to react to a fire/alarm
     - is less able to physically escape from a fire

2. The preferred method of HFSV generation is by partnership referral of P1 People.
Room of fire origin

26. ADF figures continue to show that the most common cause of fire is cooking. At 58 per cent (2976 fires), the room where the fire started most often was the kitchen. Nine per cent of fires started in the bedroom (469 fires), and six per cent in a living room (284 fires). These proportions are similar to those in 2015/16. The majority of fires involving non-fatal casualties (50 per cent) started in the kitchen but 21 per cent started in the bedroom and nine per cent started in the living room. Chart 7 shows the comparative percentages. When it comes to ADF fatalities, over 35 percent of fires started in the bedroom, 33 per cent in the living room, 20 per cent the kitchen and 5 per cent (2) in the hallway.
How fires start in dwellings
27. Given that 58 per cent of all ADFs start in the kitchen, it is not surprising that 39 per cent of fires (1990 fires) were caused by cooking. However, smoking materials were the predominant cause of fatalities in ADFs representing 51 per cent (21). Smoking only caused 9 per cent of the total number ADFs (459). A breakdown of the main causes is shown in chart 8 below.
Cooking
28. As cooking is still the most prevalent cause of all ADFs, the Brigade has focused media campaigns on the risks associated with cooking, especially when under the influence of alcohol, when taking medication that may make them drowsy or have a health condition that affects the memory, such as dementia. Following the success of a heat alarm pilot conducted by the Brigade in 2015, the project has been extended to all four Brigade areas so that heat alarms can be fitted during HFSVs where cooking risk is evident. The installation of these alarms in the homes of vulnerable individuals will provide additional protection alongside smoke alarms. Working collaboratively with partner agencies, the Brigade will identify vulnerable individuals and arrange pre-planned visits.

Electrical
29. Electrical supply, domestic appliances and electric lighting caused 1122 (22 per cent) of accidental dwelling fires and also resulted in a single accidental dwelling fire fatality. Domestic appliance fires due to faults and in a number of cases ‘user error’, slightly decreased in 2016/17 with refrigeration being a particular concern due to the unprotected, highly flammable insulation (which presents a greater risk of property damage, injury or death in the event of a fire), and the fact that these appliances are always powered on, presenting an increased risk to people sleeping. Officers continue to use the evidence of our fire investigations to identify patterns and work with regulators and the industry to improve safety standards nationally and internationally.

30. The Brigade’s Total Recalls campaign has been calling for improvements in product recalls in the UK, which is underpinned by a drive to improve the manufacturing standards of white goods. The campaign has successfully convinced some manufacturers to change their advice to consumers with faulty goods and recall potentially dangerous white goods and this has been supported nationally by the NFCC, other Brigades, MPs and other elected representatives. The Brigade is also working with partner agencies, industry and stakeholders to improve the effectiveness of product recalls, which are often at best only 10-20 per cent effective at reaching product owners and ensuring identified safety issues are rectified. The Brigade’s web pages contain information and links to product recall pages. Officers submitted evidence to a government inquiry into the effectiveness of product and represented CFOA on the Government’s Recall Review Steering Group and a Working Group on Product Recalls and Safety. To reduce the fire risk posed by faulty white goods, the Brigade are calling on the Government to act on the recommendations of the Total Recalls campaign.

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7 http://www.london-fire.gov.uk/total-recalls-white-goods-campaign.asp
8 A review of the UK product recall system was announced in November 2014 and subsequently launched in March 2015, when it was announced that Lynn Faulds Wood would lead the review. This reported in February 2016, with a series of recommendations and the Government announced that a steering group would be set up to consider how these might be taken forward. Following a major fire in Shepherd’s Bush in August 2016 the Department for Business, Energy and Industrial Strategy set up a new working group on Product Recalls and Safety which published its report in July 2017 setting out its recommendations: https://www.gov.uk/government/publications/report-to-margot-james
A breakdown of the causes of accidental dwelling fire fatalities is set out in chart 9 below.

**Chart 9: Causes of accidental dwelling fire deaths, 2016/17**

**Smoking and smoking materials**
31. In 2016/17, 21 of the accidental dwelling fire deaths were caused by either the unsafe handling or unsafe disposal of smoking materials. Despite the introduction of fire safer cigarettes in November 2011 (sometimes called reduced ignition propensity (RIP) cigarettes), smoking materials remains the most common cause of fire fatalities. Fire-safer cigarettes were identified as the cause of eight accidental dwelling fire fatalities. It is clear that cigarettes and smoking continue to pose a serious fire risk, and that fire safer cigarettes continue to be involved in fire deaths. Similar to cooking, reducing fires and deaths caused by smoking is a key priority and the Brigade has promoted a number of high profile media campaigns to raise awareness. In March 2016 the Strategy Committee recommended that a Brigade Health Strategy be produced. As of September 2016, the Brigade’s Strategy Committee agreed the health strategy and, with the expansion of home fire safety visits into safe and well visits now in development, the Brigade will now actively promote smoking cessation and signpost to relevant smoking cessation agencies.

32. In 17 of the 21 cases there was clear evidence of previous unsafe disposal of smoking materials. 13 of these people were either in receipt of care (either formal or informal care), and/or were known to a partner agencies who would have had the opportunity to see evidence of previous unsafe disposal of smoking materials that could have resulted in fires. In four cases, partners had identified the risk and home fire safety visits were conducted.

33. The fact that some individuals had been referred for home fire safety visits by partner agencies, highlights work being carried out by the Brigade across all London Boroughs to help care partners recognise fire risk to their clients and work with the London Fire Brigade to reduce risk. This further demonstrates the need for more care industry liaison and additional safety measures to be implemented where the vulnerability of an individual impacts upon their ability to respond
to or escape from fire. The Brigade now has an officer solely dedicated to working with the care industry to improve fire risk identification and management.

**Fire loading and fire development**

34. At three properties the hoarding level was recorded at level six on the Clutter Image Rating scale and the severity of the hoarding obstructed the firefighters ability to access the properties and secure their escape routes. In hoarding cases materials are more likely to be stored close to, or in contact with, heat sources such as candles and heaters and present an opportunity for fires to start and develop rapidly. Hoarded materials can also enable a fire to spread unseen.

35. The Brigade has an agreement in place with the London Ambulance Service focused on identifying hoarding behaviour and work together to reduce risk. London Ambulance crews refer patients with hoarding behaviour directly to the Brigade for HFSVs. When carrying out the visit if Brigade crews identify the hoarding level as five or above on the Clutter Image Rating, a safeguarding referral is made to the local authority for further intervention to reduce all risks associated with hoarding.

**Fire detection and suppression**

**Fire detection ownership and selection**

36. In 2016/17, 50 per cent (2552) of homes where there was an ADF attended by the Brigade did not have a working smoke alarm (in 2010/11 this was 63 per cent). The declining proportion of homes without a working smoke alarm where there was an accidental fire is shown in chart 10. Whilst the proportion of homes without a working smoke alarm is still too high, the proportion of dwellings fires attended without at least one working smoke alarm has been declining over time. This is due to a combination of factors, not least the Brigade’s programme of home fire safety visits. In the last five years the Brigade has fitted nearly 350000 smoke detectors, with 60 per cent fitted in homes of those a greatest risk of from fire.

**Chart 10: proportion of accidental dwelling fires with no working smoke alarm, 2010/11 to 2016/17**

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9 The Clutter Image Rating (CIR) scale is an internationally recognised document that provides a consistent standard for emergency services and partners to use when judging the severity of hoarding in premises.
37. Chart 12 below highlights that smoke alarms only raised the alarm in 39 per cent of all accidental dwelling fires (1990). Where detection is installed it is often to a basic standard and is not augmented when the resident changes or their support needs, and associated fire risk, rise. Of 39 fire fatalities resulting from accidental dwelling fires, 26 (69 per cent) had smoke detection, yet, in only five cases (13 per cent) was working smoke detection fitted in the room where the fire started (see chart 11 above). This evidence continues to support the case for increasing smoke alarm provision to cover all areas of fire risk rather than providing only a base level of cover for those who are at increased risk of fire. The message 'Get a smoke alarm' has changed to 'Fires can start in any room. Fit smoke alarms in your hallways and in any room where you: smoke, leave electrical equipment on or on charge, use candles, incense sticks or portable heaters and fit a heat alarm in your kitchen'. The case for more alarms in areas of fire risk is supported by the NFCC and the Home Office Fire Kills programme. The Brigade’s home fire safety visit training package and fire awareness package for carers include clear messages that detection must be fitted in all areas of risk. The Brigade continues to promote this message within the fire industry and with partners however, work must continue to ensure that domestic fire alarm systems take account of the fire risk profile of the occupier.
38. As the cost of alarms can still be a barrier to their installation, officers are working with the fire industry to reduce the costs of all heat alarms, and of wireless linked smoke and heat alarms thus reducing/removing purchase and installation costs. Officers are also considering the case for the removal of smoke alarms with removable batteries from the market (as batteries are often removed and battery life can now match detector sensor life), and whether, due to the disposal issues and prevalence of false alarms, ionisation smoke alarms remain viable. Smoke alarm sensors decrease in their efficiency over time and the practice of continually replacing batteries in smoke alarms means that although the alarm is receiving battery power, over time the sensor reduces its ability to detect fires, or increases the number of false alarms. Both of these outcomes reduce faith in smoke alarms and increase the likelihood that smoke alarms fail to provide an effective warning of fire.

**Telecare**

39. The Brigade’s project on reducing fire risk to vulnerable people through telecare has engaged with telecare commissioners, manufacturers and installers, and feedback from Borough Commanders supports the view that partners are recognising the need for telecare installations to include linked fire alarms. However it is clear that it will take time for custom and practice to reach the standard required. Telecare fire detection must be designed, installed, maintained and monitored in accordance with the appropriate British (or EU equivalent) Standards.

40. Telecare equipment was installed in six fire fatality cases but was only linked to smoke detection in one case, but did raise the alarm.

41. Although monitored telecare systems can speedily summon assistance they are of limited use if the detection is not fitted in the room where the fire starts and assistance is not readily available on site. The working hours and arrangements of site wardens/carers must be taken into account when assessing the need for fire suppression systems. Where someone meets the Authority’s ‘priority person’ criteria in terms of limited mobility, aged over 60 and continues to smoke, automatic monitored fire suppression systems must be recommended.
42. An Officer has been appointed to take forward work with the fire industry and telecare industries to ensure fire risk is recognised in standards, guidance and practice, and linking of smoke alarms to telecare becomes a standard practice where telecare is already fitted, and remote monitoring of fire alarms is recommended where the risk profile identifies a need. The officer will also take forward recommendations for changes in fire alarm standards where a need is identified.

**Automatic fire suppression systems**

43. The annual review of 2016/17 accidental dwelling fire data supports the need to consider personal fire risk profile along with vulnerability when ensuring an adequate level of fire protection. Home fire safety visits including fire prevention advice and the fitting of smoke detection in all areas of risk have been proven to reduce fire risk, but some people will continue to undertake behaviours that put them at high fire risk. For a proportion of these people, specific tailored advice and the use of fire retardant bedding will reduce the fire risk to acceptable levels. However, where these behaviours are combined with a limited ability to respond and/or impaired mobility, automatic fire suppression systems offer the only effective risk reduction alternative. For these people automatic fire suppression systems such as sprinklers and water mist systems have the potential to prevent death and injury. Officers continue to work with manufacturers to refine solutions that are not actuated in non-fire situations but activate in time to prevent death or serious injury.

44. Through the Community Safety Investment Fund (CSIF), the Brigade provided funding for 20 automatic fire suppression systems. The CSIF enabled boroughs across London to take advantage of the new Personal Protection Systems (PPS) standard and utilise funding from the Brigade to purchase equipment designed to control fires in the home of people identified as having a high risk of having a fire and not being able to escape. The combination of the CSIF funding availability and the newly published standard has created a market and motivated suppliers to develop their equipment where development had slowed considerably.

**Person profile and care**

**Age and gender of fire deaths**

45. Table 3 below shows the age and gender of those who died in accidental dwelling fires. The youngest person to die in an accidental dwelling fire in 2016/17 was a 25 year old woman and the oldest person to die was a 91 year old woman. 30 of the accidental dwelling fire fatalities were aged 60 and over. Advancing age and escalating care needs continue to be a predictor of increased vulnerability to fire.

<table>
<thead>
<tr>
<th>Age</th>
<th>Female</th>
<th>Male</th>
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</tr>
</thead>
<tbody>
<tr>
<td>30 and Under</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31-40</td>
<td>1</td>
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<td>1</td>
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<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>23</strong></td>
<td><strong>39</strong></td>
</tr>
</tbody>
</table>
High Risk Criteria

46. 43 out of 158 (27 per cent) casualties who survived accidental dwelling fires also met the Brigade's high risk individual criteria (as identified during accidental dwelling fire reviews). Whilst 28 out of 39 (71 per cent) of casualties who died as a result of accidental dwelling fires also met the Brigade's high risk individual criteria. This reinforces the priority person approach to risk but also supports the case for the Brigade's work targeting people who are less likely to die in a fire, but are still at risk.

47. It is the combination of a range of factors that will determine whether or not a person becomes a casualty of fire. Those with reduced mobility and have high risk habits such as smoking in bed or not disposing of cigarettes properly, are particularly at risk from fire but the effect of serious or long-term illness on survival cannot be underestimated, with six people suffering from a range of conditions including Osteoporosis, Multiple Sclerosis, Cancer, Cerebeller Ataxia and Stroke.

Through a series of family group meetings and fatal fire reviews, the high risk individual criteria was reviewed and amended. The new criteria below was agreed in September 2016. To be classified as a high risk individual, a person must meet two of the three listed criteria.

- Be at an increased risk of fire (due to smoking, unsafe cooking etc.)
- Have a reduced ability to react to fire (lack of adequate smoke detection, deafness etc.)
- Have a reduced ability to escape from fire (mobility issues, congested escape routes etc.)

48. The Brigade continues to work with care providers and commissioning agencies to highlight the dangers of fire. Officers have distributed a fire awareness package to all Borough Commanders to aid them in raising awareness of fire risks amongst those receiving care, and ensure that carers know how to recognise the signs of fire risk such as cigarette and match burn marks on furniture, carpets and clothes, and take risk reduction action including a referral for a home fire safety visit.

49. Planned development and rebuild of the Brigade’s website is due to take place in 2017/18, this will include a more sophisticated online fire awareness package that will provide reporting tools for local authorities and care providers to enable them to track the training undertaken by employees providing care.

Mental Health

50. 2016/17 saw a further increase in the number of people who died at fires and were recorded as suffering from mental health issues however, as a percentage, this number has dropped. Fifteen (38 per cent) of the 39 individuals who died in an accidental fire were recorded as having a mental health issue.

51. Accidental dwelling fires featured hoarding in seven cases, depression featured four times and dementia featured twice. All operational staff received training in mental health awareness during 2015/2016 and the Brigade has signed the 'Time to Change' pledge and is in partnership with MIND to train Brigade staff as Blue Light Champions. This training enables Brigade staff to recognise signs of mental health issues within their own organisation and signpost to relevant partners. A further training package is also in development for all staff which will raise awareness of mental health issues. The training will be designed to provide guidance and techniques which will enable staff to respond to members of the community with mental health issues more effectively.
52. Due to the introduction of the Care Act 2014, self-neglect is now considered a safeguarding issue. This means that safeguarding procedures apply to higher levels of hoarding. In cases of self-neglect, there is often little that the officers can do in isolation to reduce risk. However by working in partnership with other agencies progress can be made. Information obtained from accidental dwelling fire reviews contributed to a seminar hosted by the Brigade in quarter one 2016/17 regarding engagement with vulnerable people. The event saw a number of partners from the Local Authorities and Borough Commanders brought together to highlight some of the issues faced within local communities, this included guest speakers from the London Ambulance Service and Help for Hoarders\textsuperscript{10}. Engagement with the care industry is ongoing, with a dedicated officer planning a series of engagement activities throughout 2017/18.

**Ethnicity**

53. Chart 13, illustrates the distribution of accidental dwelling fire fatalities by ethnicity. The Brigade collects ethnicity data about those people who die in fires; but does not have this level of data for everyone who experiences a fire. Chart 13, below shows that White British, Irish or Other White people continue to be over-represented amongst fire fatalities (at 31 or 77 per cent of deaths, 60 per cent population) whilst London’s Asian and Black populations are under-represented amongst fire deaths (at 7 people or 18 per cent of deaths, 33 per cent population) when compared to the London population as recorded in the 2011 Census.

**Chart 13: Ethnicity of ADF deaths compared to London population (2011 Census)**

<table>
<thead>
<tr>
<th></th>
<th>White, British and other White</th>
<th>Black or Black British, Caribbean and African</th>
<th>Asian or Asian British, Indian and other Asian</th>
<th>Mixed</th>
<th>Other Ethnic Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015/16</td>
<td>65%</td>
<td>9%</td>
<td>17%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>2016/17</td>
<td>77%</td>
<td>3%</td>
<td>15%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Census 2011</td>
<td>60%</td>
<td>13%</td>
<td>20%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Partnership and property types**

54. During 2016/17, the accidental dwelling fire deaths occurred in 16 (40 per cent) properties that were social housing properties. This figure includes one property that provided sheltered housing for residents. Nine (23 per cent) of fatal fires occurred in privately owned housing, and a further 21 deaths (53 per cent) occurred in privately rented accommodation. This year also saw two deaths at the same incident in a licensed house in multiple occupation with inadequate smoke detection coverage. The high proportion of privately owned housing at 53 per cent is a

\textsuperscript{10} Help for Hoarders is a charity based organisation that provides information, support and advice and creates awareness about hoarding behaviour, for hoarders and their families.
reminder that many asset rich older people may be cash poor and not receive the care and support they need to live safely in their homes.

55. A regular feature of accidental dwelling fire fatalities is that the victim was known to a housing provider and/or partner agency (21) and many (12 of the 21) displayed easily identifiable signs that there was a fire risk present, such as previous unsafe disposal of smoking materials. It is clear that despite work to educate partners in identifying fire risk, partnership fire awareness sessions must continue as a theme for officers. In 215 accidental dwelling fires without fatality (4 per cent) there had been a previous home fire safety visit. Home fire safety visits had also taken place prior to 12 fatal fires, although some were dated as far back as 2013, this continues to re-enforce the importance of reviewing an individuals fire risk profile and scheduling a revisit by the Brigade. Officers will be reviewing procedures to support the delivery of revisits determined by the risk presented. Officers will also be reviewing the fatal fire review process to ensure that it continues to be effective in driving improvements to reduce fires, injuries and fatalities.

56. In March 2015 the Department for Communities and Local Government (DCLG) found that those living in rented accommodation were seven times more likely to have a fire. New smoke alarm legislation was introduced in October 2015 that required the fitting of smoke alarms in private rental property (one per level). To support private rental landlords to meet these requirements DCLG provided smoke alarms to fire and rescue services nationally to distribute to landlords and tenants. As the Brigade received enough alarms for approximately 12 per cent of the rental sector within London, the alarms were initially distributed according to risk. As of Q1 2017/18, all 98090 smoke alarms and 11550 carbon monoxide alarms have been distributed through partnership agencies, events and through the online order form.

57. Working in partnership is acknowledged as the most efficient method to reduce risk. Borough Commander briefings to local community safety partnerships and/or Adult Safeguarding Boards on accidental dwelling fires, the factors leading to a fire and opportunities to lower risk have become an embedded feature of risk reduction work. In 2016/17 the circumstances surrounding fatal fires led officers to request Serious Case Reviews in two separate cases, however, it should be noted that reviews of the fatal fires having occurred in 2016/17 are still ongoing and will proceed throughout 2017/18.

58. The Brigade is at the end stages of producing an easy to access, easy to use, basic fire awareness package that aims to provide members of the public and carers with information on fire risk and the what actions can be taken to mitigate them.

Fire safety regulation

59. Where fatalities have occurred in premises or locations where the Regulatory Reform (Fire Safety) Order 2005 (the RRO) does not apply, no further regulatory action would have been taken by Officers; these include premises identified as private single family dwellings. Additionally, fatalities in vehicles, garages/sheds and on open ground would not have been investigated by fire safety regulation officers.

60. For the year 2016/17, fatalities occurred in 23 premises where the RRO applies. In these cases, where the premises had not become a dangerous structure/destroyed as a result of the fire, or a crime scene, then both Post Fire Audits and Post Fire Reviews were undertaken. As a result of post-fire audits of the 23 premises, enforcement action was taken in respect of four premises; each receiving a ‘Notice of Deficiencies’, which is a lower level of enforcement action for deficiencies that do not pose a major risk to people. During the year 2016/17, no prosecutions
were undertaken in respect of these premises. Officers also used information from post fire audits to identify similar properties in the area with potential fire safety deficiencies to carry out further inspections.

61. On a separate issue, Officers have also asked to be notified of any premises where level 5 and above hoarding is identified. In these cases, where the RRO applies, the responsible person will then be contacted to ensure the Fire Risk Assessment for the premises is reviewed to take account of this risk.

Conclusion
62. This annual report on the review of accidental dwelling fires and fatalities has increased the information and evidence that the Brigade requires to influence internal and external priorities. Whilst significant progress is being made to target risk and drive it down, it is clear that more can be done to reduce the number of accidental dwelling fires and fatalities further.

63. Key findings include the need for the Brigade to continue to:

64. Encourage a wide variety of partner organisations, that work in the homes of the vulnerable to include fire risk awareness training and fire risk control measures within their core training programmes, take immediate action to lower fire risk themselves, and refer clients to the Brigade for Home Fire Safety Visits.

65. Engage with the public, fire industry and partners to promote the benefits of increased smoke alarm ownership and the fitting of smoke alarms in all areas of fire risk.

66. Work with the fire industry to:
   - Lower the cost of all heat alarms
   - Lower the cost of wireless interlinked fire alarms (heat and smoke)
   - Encourage the wider adoption of smoke and heat alarms with 10 year, sealed for life batteries
   - Encourage the wider adoption of wireless interlinked alarms
   - Evaluate the case for the removal from sale of both ionisation type alarms and fire alarms with removable batteries
   - Further develop Personal Protection Systems and standards to increase their effectiveness in controlling and suppressing fires whilst not being prone to false alarms.

67. Work with partners, particularly those working with vulnerable people, and the fire industry to highlight:
   - The conditions, behaviours and personal characteristics that increase the risk of having a fire and/or be harmed, such as smoking
   - The increased fire risk associated with some health care equipment such as air-flow mattresses, paraffin based emollient creams and incontinence pads
   - The need to take action to reduce fire risk
   - Provide risk appropriate fire detection and suppression equipment whether:
     o fire detection
     o fire detection combined with monitoring equipment
     o fire detection combined with monitoring and suppression equipment
   As well as promoting fire detection in all areas of risk
   - Improve standards and smoke alarm integration in the telecare industry
Head of Legal and Democratic Services comments
68. The HoLDS has reviewed this report and has no comments

Director of Finance and Contractual Services comments
69. The Director of Finance and Contractual Services has reviewed this report and has no comments.

Sustainable Development implications
70. Prevention work as discussed in the reports conclusions, form one of the themes of the Authority’s sustainable development framework.

Staff Side Consultations undertaken
71. No staff side implications

Equalities implications
72. The analysis contained within this report better enables the Brigade to target services at those most at risk from fire. This includes, but is not restricted to, people with protected characteristics, particularly those with health and or mobility issues.

LOCAL GOVERNMENT (ACCESS TO INFORMATION) ACT 1985

List of background documents
Fifth London Safety Plan 2013/2016
LFB “Reducing Fire Risks in Buildings used as Unsuitable Accommodation” toolkit (June 2014)
LFB Fire Facts “Incident Response Times, 205-2013” (June 2014)

Proper officer  Tom George, Director of Operations

Contact officer  Mark Hazelton
Telephone  020 8555 1200 x 31017
Email  mark.hazelton@london-fire.gov.uk