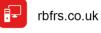
INTEGRATED RISK MANAGEMENT PLAN 2015-19













RoyalBerksFRS

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Integrated Risk Management Plan Project 3: Prevention

EXECUTIVE SUMMARY

This document contains the findings of the research that Royal Berkshire Fire and Rescue Service (RBFRS) has conducted to identify its priorities and objectives for Prevention during the period of Vision 2019. The scope includes the identification of emerging or foreseeable risks to the long-term health and wellbeing of our communities. The report is provided for our Corporate Management Team, Fire Authority Members, our staff and also our external stakeholders. The information within the report will be used to develop the Prevention section of our Integrated Risk Management Plan (IRMP) consultation. The outcomes of the consultation will inform the development of our Prevention strategy for 2016/17 to 2019/20.

Our research has been drawn from a wide range of sources, other fire and rescue services, stakeholders such as: local authorities, third sector organisations and Social Services. We have scrutinised strategy documents, reports, policy documents and initiatives being delivered in other parts of the country. We have considered reported notable practice by other organisations and considered approaches used to counter mutually held community risks and challenges.

This report therefore, presents evidence based proposals allowing the reader to consider, challenge or support delivering a philosophy where Prevention activity is better than cure.

Scope

This document considers factors posing societal and health risks within our communities and proposes how Royal Berkshire Fire Authority may choose to focus its resource to reduce these risks over the coming period.

Accidental dwelling fire deaths

Information from 20 accidental Berkshire fire deaths was examined, covering a period of the past 5 years. We measured our outcomes against similar national reports and drew consistent conclusions. We know that 90% of accidental fire deaths occur in the home and 60% of victims are aged over 60. We know that physical disability, lack of mobility, living alone and lifestyle choices, such as alcohol and smoking, significantly influence an ability to escape fire even where suitable and sufficient smoke detection was present. We know that we responded effectively but these individuals still lost their lives. We also know that 90% had interaction with other agencies.

Despite resources responding promptly to fire calls and carrying out extensive preventative Home Fire Safety Check activity, we are still experiencing relatively high numbers of fire deaths in homes across Berkshire. We propose to work collaboratively with a wide range of partner organisations who work with the most vulnerable in our communities. We will receive their data, client referrals, provide training, advice, deliver targeted Home Fire Safety Checks and in some cases supply fire assistive technologies allowing safe and independent living. We will make the reduction of fire deaths our number one priority and will aim for zero fire deaths. We will work to reduce accidental fire deaths in dwelling fires over the coming five years through carefully targeted Prevention work carried out with partners.

Road safety

Road traffic incidents are a societal risk and the leading cause of fatality in young adults. We worked with Berkshire Safer Roads and have been able to identify who is at greatest risk and when and where they are at risk. This research and collaborative working also identified a clear gap in road safety education in the high risk 11-15 year age group.

If we are to reduce the number of fatalities and the severity of injuries amongst our young people, we must work collaboratively with other road safety partner agencies to deliver a joined up approach.

We propose to deliver a comprehensive road safety programme filling the identified gap at the 11-15 year group, introduced via Personal, Health and Social Education (PHSE). We will develop a strategy working collaboratively with Berkshire's Road Safety professionals delivering a consistent, unified and targeted approach. Through working with our partners in this way and measuring performance, we will aim to reduce road deaths and injuries by 25% over the next five years through delivering targeted road safety education programmes.

Water safety

We learnt that 400 people drown accidently every year in the UK. In almost half of these, the individual had no intention of entering the water. Alcohol consumption, under estimating risk, lack of knowledge, lack of water related competence i.e. ability to swim, risk taking and thrill seeking amongst young adults are primary factors. Until recently, there was a lack of data and national strategy in this area.

Due to the lack of precise data on the risk in Berkshire, we can only draw on national data. Anecdotal and RBFRS incident data seems to support national data. To reduce the number of drowning incidents, we propose to develop a local strategy in collaboration with partners to provide water safety education targeted at the 11-15 year age group.

We propose aligning to the UK Drowning Prevention strategy 2016-26, with the stated aim of reducing drowning incidents by 50% by 2026.

Health and wellbeing of Berkshire's communities

The trusted brand of our Fire and Rescue Service allows us access and interact with our communities which is the envy of many other services. We know through our Home Fire Safety Check programme and in gaining access to individuals in their homes, we can significantly widen the scope of our visit to encompass other preventative health and wellbeing issues.

We found opportunities in children and young person's (CYP) activities, supporting long-term health and wellbeing, supporting apprenticeships and in affecting behavioural change through adult fire counselling.

We are proposing to widen the scope of our Home Fire Safety Check visit to deliver a safe and well approach. This will expand the process to investigate other vulnerabilities, for example: falls prevention, fuel poverty, isolation and health issues, such as smoking and weight. With the individual's consent we will facilitate access for other professional and third sector services.

We propose to deliver a range of CYP activities focused on health, nutrition and fitness along with other programmes supporting confidence and promoting self-esteem, thereby providing a platform to lifelong health and wellbeing.

We propose to develop apprenticeships and pathways to employment, supporting individuals and raising prospects within our challenged communities.

We propose to support adult fire-setter counselling, affecting behavioural change and supporting the restorative justice programme.

Conclusions

The range of proposals outlined in this document, if supported, will allow RBFRS to deliver a preventative Service Delivery programme over the coming years. It will challenge unnecessary death, injury, and reduce personal and community loss. Deliver healthy and safe communities, allowing all to live safe and fulfilling lives. It will meet Royal Berkshire Fire Authority's strategic commitments to the people of Berkshire, providing inclusive and safe communities and reducing the fiscal burdens associated with reactive service by introducing an integrated preventative multiagency programme.

Through these proposals we intend to achieve our goal of *enabling people to live safe and fulfilling lives*.

1. Purpose

This document contains the findings of the research that Royal Berkshire Fire and Rescue Service (RBFRS) has conducted to identify its priorities and objectives for Prevention during the period of Vision 2019. This includes the identification of emerging or foreseeable risks to the long term health and wellbeing of our communities. The report is provided for our Corporate Management Team, Fire Authority members, our staff, the public and also our external stakeholders. The information within the report will be used to develop the Prevention section of our Integrated Risk Management Plan (IRMP) consultation. The outcomes of the consultation will inform the development of our Prevention strategy for 2016/17 to 2019/20.

2. Background

Under the Fire and Rescue Services Act 2004, Royal Berkshire Fire Authority is required to promote fire safety in its area:

Part 2 – Functions – Fire safety

- (1) A fire and rescue authority must make provision for the purpose of promoting fire safety in its area.
- 2) In making provision under subsection (1) a fire and rescue authority must in particular, to the extent that it considers it reasonable to do so, make arrangements for:
- (a) The provision of information, publicity and encouragement in respect of the steps to be taken to prevent fires and death or injury by fire;
 - (b) The giving of advice, on request, about:
 - How to prevent fires and restrict their spread in buildings and other property; and
 - The means of escape from buildings and other property in case of fire.

We have a responsibility to continually improve the way we deliver services and to work with partners to provide the best possible services for the communities across Berkshire. This is against a backdrop of significant financial pressures for public services and rising demand for many partners, notably for the NHS and for local authority social care teams.

For over a decade now, fire and rescue services across the country have driven a prevention agenda leading to significant reductions in fires, fire deaths and injuries. Fire and Rescue Services have been able to use their prevention expertise to tackle wider issues affecting their communities, often involving the same high risk/highly vulnerable client base. The prevention expertise developed over this time has led other Health, Local and Social Services to recognise the benefit, which could be achieved by working with the Fire Service, as a valuable community safety asset.

I was so impressed with the work of the fire services! I realised that the agendas of preventing ill-health and preventing fires were closely linked: fires and ill-health occur in the more deprived areas, to people at the bottom of the socio-economic gradient, to those in poor quality housing, and to those whose circumstances have lead them to take up unhealthy lifestyles. The fire services do what every stakeholder involved in reducing health inequalities should do: engage directly with the community, work to provide them with the opportunities they need to live a healthy life and focus on prevention.

Professor Sir Michael Marmot Fair Society, Healthy Lives – Strategic Review of Health Inequalities in England Post 2010 Published 2010

Firefighters have been fantastically successful in moving from a responsive to an interventionist service. Instead of the fire and rescue service being residualised, its remit must be expanded to offer different types of interventions – including in preventative health and social care. By working with local councils and health and wellbeing boards, local fire services can be really effective partners in improving the overall health of their neighbourhood.

Dr Claire Mansfield Head of Research, New Local Government Association

Author of Fire Works: A Collaborative Way Forward for the Fire and Rescue Service
July 2015

Source: CFOA Health Strategy 2015-19: Fire and Rescue Services as a Health Asset.

Fire and Rescue National Framework

The Government sets out its expectations of Fire and Rescue Authorities in the Fire and Rescue National Framework document. These expectations include a requirement for each Fire and Rescue Authority to produce an Integrated Risk Management Plan (IRMP) that considers all the fire and rescue related dangers that could affect our communities. Among other requirements, the IRMP must be publicly available, reflect consultation with stakeholders, cover a three year time period and demonstrate the most up to date risk analysis.

The priorities within the Framework are for fire and rescue authorities to:

- Identify and assess the full range of foreseeable fire and rescue related risks their areas face, make provision for prevention and protection activities and respond to incidents appropriately
- Work in partnership with their communities and a wide range of partners locally and nationally to deliver their service
- Be accountable to communities for the service they provide

IRMP allows RBFRS to focus on risk, and potentially emerging or foreseeable localised risks, and provides the autonomy for tailored, cost effective and proportionate response mitigating community risk.

All our prevention activity is required to be effective, proportionate and provide value for money¹.

Royal Berkshire Fire Authority has published its priorities for 2015-19 as six strategic commitments, made to the people of Royal Berkshire, to deliver the Vision 2019 of enabling safe and fulfilling lives. Of these six commitments, two are particularly relevant to Prevention:

Commitment 1 - We will educate people on how to prevent fires and other emergencies, and what to do when they happen.

Commitment 4 - We will seek opportunities to contribute to a broader safety, health and wellbeing agenda.

This report was produced by managers from RBFRS Prevention department with support from other areas of the organisation.

The terms of reference were to review current and foreseeable risks within our communities and provide proposals to address these risks, delivering a safer Royal Berkshire where people live safe, healthy and fulfilling lives.

Our proposal is to make the reduction of fire deaths and injuries our number one priority over the coming years. We will deliver reductions in both road and water fatalities and propose how we can achieve this. Collaborative and joint working arrangements will be developed, making sure that every contact made with the communities most vulnerable residents will be shared, ensuring their risks are assessed and addressed in full, keeping people living safely and independently in their own homes. Proposals are also made to support our children and young people's health and wellbeing.

We approached the research reviewing the position of national professional bodies, other fire services and public sector organisations. We conducted visits, telephone interviews, desktop reviews and statistical assessments from our performance databases. We assessed strategy documents, policies and notable practices.

We focused on current community risk, aligned to RBFRS core business, and the requirements of the strategic commitments and 2019 Vision.

Local IRMPs

All 'local IRMPs' are linked to the Service's Strategic IRMP, so that they can contribute to agreed strategic objectives. They also all include statutory Prevention, Protection and Response activity. Beyond that, their focus is determined by local circumstances and risk is considered from a much broader perspective – as are the range of services provided to manage it.

 $[\]underline{\text{https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/136127/efficiency} \underline{\text{effectiveness.}} \underline{\text{pdf}}$

For example:

- If it is identified that vulnerable older people in the area are at risk, with support from community safety specialists, as well as colleagues from local authorities and the NHS, carefully targeted home safety and welfare visits and other interventions are used to address these risks. These interventions don't just deal with fire risk, but the whole range of risks that can reduce the chances of older people being able to live safe, healthy and independent lives;
- Where there are problems with particular types of business premises, with support from specialist Protection Officers, these are being tackled through the risk-based inspection programme;
- If cultural issues in the local community are generating risk, with support from the central Prevention team, and by working alongside elected representatives and partner organisations, community engagement activity is addressing these risks;
- Where there are specific road safety issues in the area, then these are being addressed by carefully targeted community engagement activity;
- If there is a risk of people drowning in nearby lakes or rivers, then the local IRMP is tackling this risk, at the times of year when it makes most sense to do so;
- Where levels of petty crime and/or anti-social behaviour involving young people are high, the Service is being commissioned by other organisations to deliver *FireBreak* courses. These courses employ the Service's trusted brand and are being used to engage the young people involved and encourage them to make different, more positive choices;
- If there is a risk that local people might not receive life-saving medical care quickly enough, then South Central Ambulance Service is commissioning co-responding schemes to enable firefighters to provide the help needed;
- In areas where young people have relatively low aspiration and poor future employment prospects, the Service is being commissioned to use its inspiring brand to engage them through the *FireEd* initiative, to improve their life chances; and
- Where the health of local communities needs to be improved, the Service is delivering various initiatives under the *FireFit* banner – which capitalises on the physically fit and healthy brand of the Service. Some of these are formal programmes, commissioned by public health professionals, and focus on specific issues such as childhood obesity.

3. Fire deaths in the home

3.1 Our research

A key role for all fire and rescue services is to prevent people from dying in fires in their homes or elsewhere in the fire and rescue service's area.

In recent years, two significant pieces of research have been carried out within the fire and rescue sector that provides evidence to help focus this fire prevention activity. These were conducted by North Wales FRS (2009) and the North West of England region (2011).

The key finding for the research carried out by North Wales FRS was that those who were most vulnerable to losing their lives in fire were not the same group who were most associated with the volume of fire incidents occurring. They learnt that simply doing more Home Fire Safety Checks to tackle the volume of fires would not be successful at reducing the number of fire deaths. According to the North Wales research, parallel strategies were required:

- One to reduce the number of people dying in fires these people could live anywhere
 and it was the person who was at risk, due to their condition. The majority of people
 who were dying were elderly, were known to other agencies, had long term conditions
 and had been in hospital in the six months prior to their death. There was a low
 volume of incidents, but a high risk of death, when such an incident occurred.
- Another to reduce the volume of incidents these fires are often related to the location
 of the property and the demographic circumstances involved and it is possible to
 predict where these fires may occur. Whilst these provide a high volume of fires, there
 is a low incidence of death but a high risk of injury.

The research conducted by North Wales Fire Service, measured a six year activity window and demonstrated that their community safety strategy to reduce accidental fires, injuries and deaths, proved successful in two of the three measures. They were able to demonstrate:

- A 28% reduction in accidental dwelling fires
- A 20% reduction in fire injuries

However, there was **no reduction in accidental fire deaths** over the period.

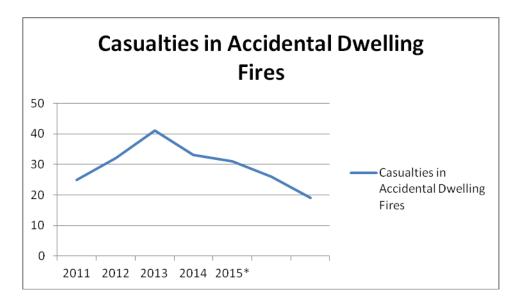
As presented in the table series which follow, we present RBFRS data against these measures, extracted from IRS² data. We can draw a similar conclusion to our partners:

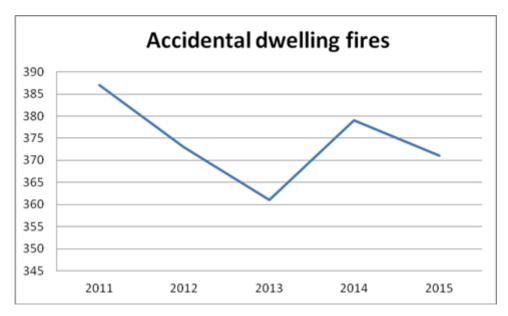
- A 22% reduction in accidental dwelling fires
- A 24% reduction in fire injuries

However, there was **no reduction in accidental fire deaths** over the period.

² Incident recording system (IRS) capturing Fire Service data for the Home Office (previously DCLG)

Figure 1 - Representation of fires, casualties and fatalities in Royal Berkshire





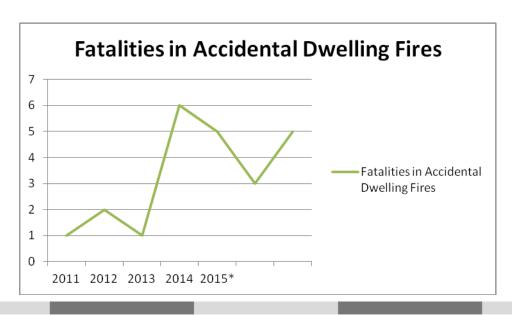


Table 1 - Accidental dwelling fire deaths within the Royal Berkshire area 2011-15

Fatalities	Total
2011	1
2012	6
2013	5
2014	3
2015	5
Combined total	20

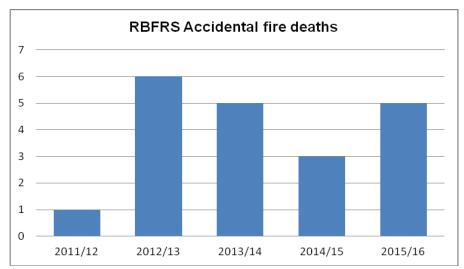
It was estimated by the Department for Communities and Local Government (DCLG) that the overall economic cost for each fire fatality is £1.65 million pounds³. Based on this estimate, accidental fire deaths in Berkshire have cost £30 million pounds since 2011.

The North West Regional Group is combined of five fire services serving a heavily populated metropolitan, industrial and urban area of approximately seven million people. Their combined report focuses on fire deaths and the factors which identify vulnerabilities. This is drawn from a significant incident base of 18,065 dwelling fires, between 2011 and 2014, in which 92 people lost their lives due to fires that were of an accidental origin.

RBFRS's population is recorded as 861,900.⁴ To provide a wide and consistent capture for RBFRS data, a measure has been extended over five years, where 1,860 accidental dwelling fires have resulted in 20 accidental fire deaths.

The North West Region also identifies an overall reduction in accidental dwelling fires.

Figure 2 – Representation of accidental fire deaths by year



National statistics provided by DCLG state that males are at a higher risk of death by fire⁵, which is also reflected within the North West Region report. However, RBFRS data reflects a

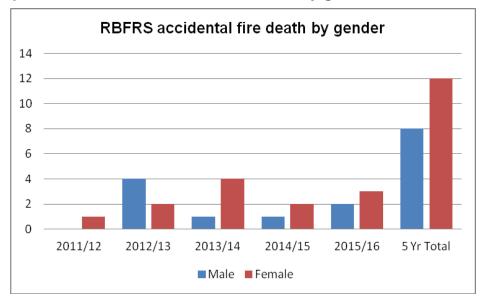
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³ http://www.cfoa.org.uk/19272 https://www.gov.uk/government/statistics/fire-statistics

⁴ 2011 census

33% bias toward females being the more vulnerable to death caused by an accidental dwelling fire.

Figure 3 - Representation of accidental fire deaths by gender



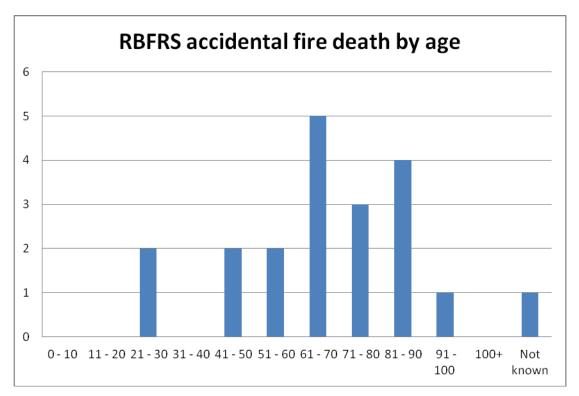
When reviewing fire death by age, DCLG statistical data reports that the risk of dying in a fire for elderly people (aged 65 and over) is over twice as high as the average for all other ages⁶.

The North West's research found that 64% of accidental fire fatalities were from the age group of 60 or over. RBFRS data shows that those aged 61-90 years old are the most vulnerable to death due to accidental dwelling fire and they account for 60% of all such fatalities.

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/531625/fire-statistics-data-tables-fire0503.ods

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/531625/fire-statistics-data-tables-fire0503.ods

Figure 4 - Representation of accidental fire deaths by age 2011 - 16



When examining fire fatality by ethnicity, in the North West region those who were White British accounted for 92% of fire deaths. As shown in the figure below, RBFRS drew broadly similar returns with 85% being recorded as being of White British ethnicity. The ratios therefore show that based on those recorded as White British, against another ethnicity, proportionally the risk of fire death in Berkshire to an individual based on ethnicity is identical over the time period measured.

Figure 5 – Representation of accidental fire deaths by ethnicity

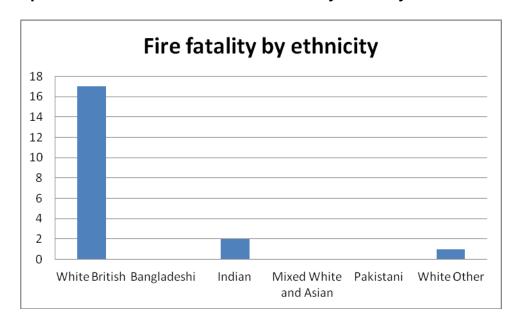


Table 2 - % Persons recording themselves as white British across the unitary areas

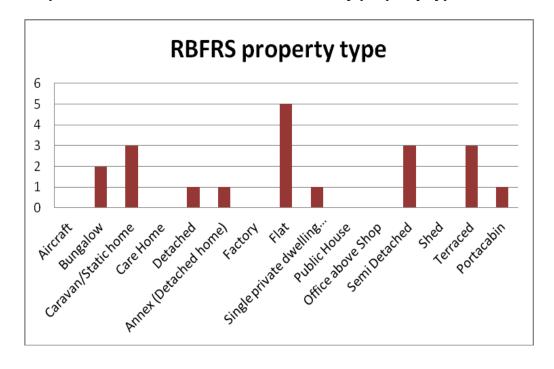
Unitary Authority	% White British ⁷
Reading	65
Wokingham	83
Slough	34
West Berkshire	90
Windsor & Maidenhead	78
Bracknell	85

The North West's research reviewed death by month, season, day and time. They reported 65% of all fatalities occured during the seasons of winter and autumn, where RBFRS's data shows 60%. When reviewing the day of the week, the North West's level of risk is relatively consistent throughout the seven days and this is the same for RBFRS. The North West recorded two significant risk periods by time of day, 06:00 - 10:00 and 16:00 - 20:00. Only 15% of accidental fire fatalities within Berkshire occur between 10:00 and 18:00 with the other 85% volume spread fairly consistently over the remaining time period.

(The 10:00 to 18:00 time slot represents a third of the 24-hour period. All things being equal, it would be expected to account for 33% of fire deaths. Therefore, there is less than half the chance of dying during the main daytime hours than at other times.)

When examining fatalities by property type, the North West region states that the domestic setting accounts for 91% of all accidental fire fatalities. RBFRS draws a very similar conclusion with 90% of fires occuring in domestic settings.

Figure 6 – Representation of accidental fire deaths by property type



⁷ 2011 census data

The North West's research showed flats, terraced and semi-detached properties as being the highest risk property types accounting for 75% of fire deaths. Terraced property made up 29.8% of housing stock but accounted for 35.5% of fire deaths. A similar measure against these property types received a 55% return in Berkshire, with caravans providing the other main property type. Fire deaths recorded in caravans or static homes in Berkshire appear disproportionally high providing 15% of the deaths in 1% of the housing stock. Flats are a dwelling type producing 25% of our fire deaths from 18% of our housing stock. Proportionally therefore, caravans and static homes are the greatest risk property in Berkshire. Consistent with the North West's research, our data showed that detached properties are of a lower risk compared to other dwellings.

The North West's research found that the lounge, bedroom and kitchen are the locations within the home identified where risk is increased, accounting for 88% of fire deaths. Fire deaths in areas other than the bedroom would suggest the individual had not retired to bed, giving an opportunity to discover the fire. It maybe that disability led to them residing in the lounge, but whatever the circumstance, the individual was unable to successfully escape the property. Other locations documented are garage, hallway and dining room. RBFRS can attribute 95% of all their accidental fire fatalities to the lounge, bedroom and kitchen, with the bedroom being of highest risk.

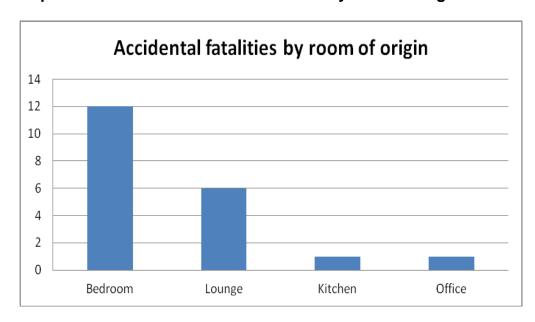


Figure 7 – Representation of accidental fire deaths by room of origin

The North West region were able to identify a range of circumstances which were attributed as the cause of fire. RBFRS are able to attribute route cause of fires to a much narrower range of events, with the primary factor being careless use or disposal of smoking materials at 60%.

http://www.rbwm.gov.uk/public/pp_bshma_pgs82-89_report.pdf

Cause of Fire

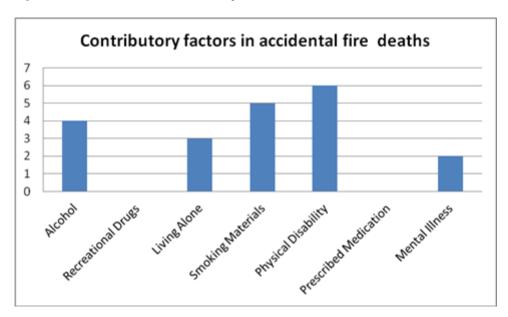
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Figure 8 – Representation of cause of fire attributed to accidental fire death

All the investigations referred to in this document reviewing accidental fatal fires have identified contributory health and lifestyle factors which had either a direct influence or had an indirect effect on fire deaths. For example, physical disability significantly reducing the ability of a person to escape a fire.

Figure 9 – Representation of contributory factors in accidental fire deaths



The reports also suggests that on occasions a number of these factors may be present at any one time. For example, being an individual living alone who smokes and has a physical disability.

The main fire risk educational and prevention tool being used by RBFRS over recent years has been the Home Fire Safety Check. Currently, personnel who deliver this service look at a

property, fire related behaviours within the property and provide advice to the resident. Where appropriate they will install smoke detectors with a ten-year battery life.

Looking back at the 20 deaths over the five year period, RBFRS had carried out Home Fire Safety Checks in 6 (30%) of the properties where an individual died. However, the same occupier had only been present in two of the six properties. This means that we did not provide any fire prevention support to 14 of the 20 people (70%) who died in fire. We had carried out a Home Fire Safety Check in four further properties where people died (20%) but when a previous occupier had been present, and those interventions were unsuccessful in preventing the fire deaths of the new occupiers. In a further two cases (10%), we had carried out a Home Fire Safety Check but that was not successful in saving the lives of those people. These findings suggest that we are not reaching a great enough proportion of the most vulnerable people. Where we do reach them, we are assessing the property and behaviour within rather than the individual and their vulnerability.

The RBFRS research shows that in nine of the 20 incidents detailed above, even though the alarm system present functioned correctly, the individual was unable to exit from the property. In a further six of the 20 cases an alarm was fitted but either failed to operate or failed to raise the alarm. This is shown in Figure 10:

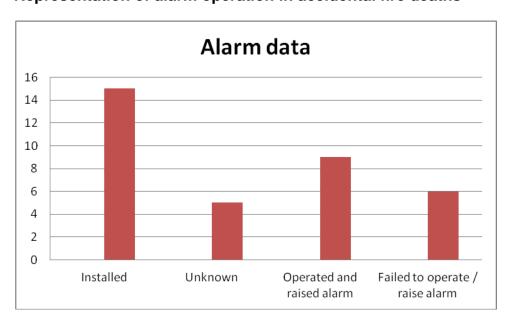


Figure 10 - Representation of alarm operation in accidental fire deaths

Fire statistics show⁹ that individuals at greatest risk from fire injury or death are often from hard to reach groups and known to statutory, private and voluntary sector organisations in Health and Social Care.

Whenever a fire death occurs in Berkshire, a detailed fire investigation is completed and a report is produced for HM Coroner. RBFRS data from fire investigation reports (for the five-year period 2011-15) shows that **90% of those killed in an accidental fire were known to one or more agencies** ranging from Social Services, health groups and police to housing providers.

⁹ https://www.gov.uk/government/collections/fire-statistics-great-britain

Table 3 – Those known to other agencies prior to death.

Age	Gender	Known other agencies ¹⁰
21	F	Yes
30	М	No
44	F	No
50	F	Yes
54	М	Yes
60	М	Yes
62	F	Yes
65	F	Yes
67	М	Yes
67	F	Yes
68	F	Yes
75	F	Yes
80	М	Yes
80	F	Yes
81	F	Yes
82	М	Yes
83?	М	Yes
90	F	Yes
98	F	Yes
Not Known	M	Yes

Reviewing the analysis of RBFRS's incident response for these 20 fire death incidents, measured against our current standard performance measure, we can conclude that we achieved our performance measures for 85% of the incidents. On 40% of occasions we got our fire crews to the scene within our response times, but when they arrived our crews did not remove the deceased from the building. This would have been because the conditions inside would not have supported life or because the fire burnt undiscovered for a protracted period of time, self extinguishing with no firefighting action needed. On the remaining 60% of occasions, our fire crews arrived and removed the person from the building but they were declared dead prior to, or once removed to hospital.

Table 4 demonstrates the distance of the dwelling where a fire fatality occurred, to the nearest fire station and an estimated travel time, at posted road speed¹¹. This identifies that close proximity to a fire station is not a key factor in preventing fire death. The key factor with

¹⁰ Data from Fire Investigation and coroner reports

¹¹ Distance source AA route finder

the cohort we have identified as vulnerable to fire is their contributory health factors, such as lack of mobility, which prevent an ability to raise the alarm or escape the property.

Table 4 - Distance and travel time

Location	Station Post code	Road Mileage	Estimated time
	201011		
Mayer House, Chatham Place, Reading, RG1 7AN	RG1 8AA	0.5 miles	2 minutes
Roman Way, Reading, RG6 7JP	RG6 1JU	1.2 miles	4 minutes
Elm Lane, Earley, Reading, RG6 5UE	RG6 1JU	1.3 miles	4 minutes
Woodlands Court, Norwich Drive, Woodley, RG5 3EY	RG6 1JU	1.7 miles	6 minutes
Rowlands Copse, Midgham Green, Midgham, RG7 5SA	RG30 4BW	9.4 miles	18 minutes
Elan Close, Tilehurst, Reading RG30 4AU	RG30 4BW	3.4 miles	11 minutes
Bodin Gardens, Springfield Lane, Greenham, Newbury, RG14 7SG	RG14 1LD	1.8 miles	7 minutes
Springfield Lane, Greenham, Newbury, RG14 7SU	RG14 1LD		
Ravenswing Park, Winkworth Lane, Aldermaston, RG7 4PS	RG7 3TE	1.7 miles 4.6 miles	6 minutes 9 minutes
Watersplash Lane, Newell Green, Bracknell, RG42 4SS	RG12 7AA	2.7 miles	8 minutes
Weekes Drive, Cippenham, Slough, SL1 2YW	SL1 2XA	1.1 miles	5 minutes
Linchfield Road, Datchet Common, Slough, SL3 9LZ	SL3 7HS	2.6 miles	7 minutes
Staines Road, Wraysbury, TW19 5AG	SL3 7HS	5.5 miles	14 minutes
Riding Court Farm, Riding Court Road, Datchet, Slough, SL3 9JT	SL3 7HS		
Station Road,	SL3 7HS	2 miles 5 miles	5 minutes 13 minutes

Wraysbury, TW19 5NN			
High Street, Bray,	SL6 8PG		
Maidenhead, SL6 2AB		1.4 miles	5 minutes
Orchard Court, Margaret Close, Whitley Wood, Reading, RG2 8PH	RG2 8FS	0.5 miles	2 minutes
Linden Road, Whitley,	RG2 8FS		
Reading, RG2 7EH		2 miles	7 minutes
Blandford Road,	RG2 8FS		
Reading, RG2 8RN		0.8 miles	3 minutes
Wolf Lane, Dedworth,	SL4 4LS		
Windsor SL4 4JD		0.6 miles	2 minutes

3.2 Our findings

- Fatal fires in Berkshire over the five-year period (2011-15) resulted in an estimated cost to society of £30million.
- Women, based on our research data, are statistically more at risk of dying in accidental fires in Berkshire than males.
- Members of our communities aged between 61 and 90 years old have accounted for 60% of all accidental fire fatalities over the five-year period.
- The Winter and Autumn seasons accounted for 60% of fire fatalities in the five year period.
- Only 15% of fire fatalities occur between 10.00 and 18.00 hours. People are less than half as likely to die due to fire in Royal Berkshire during the core day time hours than outside them.
- 90% of all fire fatalities occurred within the home, within Berkshire, compared to other locations.
- Accidental fire fatalities are significantly more likely to occur in flats, terraced or semidetached housing, with the most common locations being the lounge, kitchen and bedroom. Proportionally measuring the % of housing stock against the % of fire deaths, caravans, static mobile homes and flats present as the highest risk dwelling types.
- Careless use or disposal of smoking materials is the highest cause of fire in accidental fire fatalities at 60%.
- Contributory factors relating to accidental fire fatalities are physical disability, living alone, alcohol, mental illness and smoking.

- We did not provide a Home Fire Safety Check to 70% of the people who died in fire in Berkshire.
- For 30% of fire deaths over the period in Berkshire, we carried out a Home Fire Safety Check in the property with the occupier present and yet later they still died in that property due to fire.
- On 45% of occasions where a person died due to fire in their home, during the period a smoke detector was fitted and operated but that did not save the person.
- 18 (90%) of the 20 people who died in fire in Berkshire over the period were known to another agency.
- On 85% of incidents, RBFRS achieved its standard performance measure for responding to fires.
- On 40% of occasions, when fire crews arrived they did not remove the person from the
 property as they had already died due to the effects of the fire and they had almost
 certainly died before the call for help was received by the fire and rescue service.
- A dwelling in close proximity to a fire station does not reduce fire death in the vulnerable cohort. Their inability to effectively raise the alarm and escape property due to contributory lifestyle factors is the main underlying factor in fire death.

3.3. The implications

Our tool for identification of individuals has been a socio demographic mosaic database providing predictive areas of residence by postcode and is, therefore, limited in accuracy.

We have demonstrated that those most vulnerable are aged 65 and over. Over the last 25 years there has been a gradual rise in the percentage of the UK population aged over 65. The proportion of people aged 65 and over increased from 15% in 1983 to 16% in 2008. However, projections indicate that this trend is accelerating. 23% of the UK population will be aged over 65 by 2033. We also know the fiscal challeges to social care and the desire for people to live independently within their own homes will generate a greater number of vulnerable individuals within our communities.

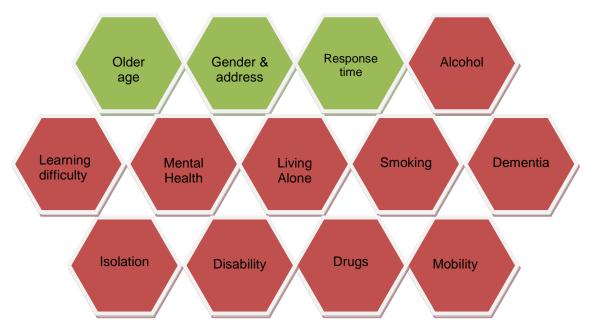
We have recently received, following work between the Chief Fire Officers Association and the National Health Service-England, a suite of data providing addresses of all persons aged 65 and over, who are estimated to represent 17-20% of a fire service area population. Each property within this released data has been matched to its unique property reference number which enables us to identify 140,000 properties in Berkshire. It is estimated that 10% of the residents within this data set would be representitive of the most vulnerable, benefiting most from fire service prevention activity, this equates to 14,000 properties within Berkshire.

We are then able to apply additional filters to this data, such as the socio demographic modelling and age brackets and will work with health colleagues developing data sharing agreements, compliant with legislative requirements, enabling us to identify and offer a preventative Home Fire Safety Check to the 14,000 most vulnerable residents.

¹² Cheshire FRS

What makes these residents more vulnerable are the contributory factors recorded earlier and this presents as data gaps in the fire service knowledge base. The model below provides a visual demonstration of the additional information required.

Figure 11 – Representation of required data



What can we do to address this?

We know that partner organisations, ranging from Health to Social Services to the third sector, work with and hold information about individuals who have the risk factors and information we require. A primary consideration going forward must be to develop relationships and information sharing agreements with these organisations allowing us to enrich our data overlays. Following incident evaluation, we were able to evidence that on at least 40% of occasions the fire victim had lost their life prior to the attendance of RBFRS resources. It is therefore vital that we develop current and accurate data sets with which to provide preventative action, keeping the most vulnerable members of the community safe and living independently within their own homes.

Vulnerable persons

The need for organisations to work collaboratively, sharing information for the common good, has been recognised by a Berkshire Coroner following an inquest into a fire death. Acting on information supplied by RBFRS, the Coroner enforced Regulation 28 of the Coroners (investigations) Regulations 2013, directing unitary authorities in Berkshire to share information on vulnerable persons.

3.4. Our proposals

As a direct result of this and following a spate of accidental fire deaths in the Reading unitary area in 2015, a pilot programme has commenced called 'adult referral programme' (ARP). The focus of this is to engage a wide range of partner organisations, who have carers

working in the community, to provide them with fire safety related training, risk assessment toolkit and a referral pathway to RBFRS. Following our training input, in the community carers are able to identify fire vulnerability first-hand and gain the consent of the resident for RBFRS to provide a Home Fire Safety Check.

A futher development step to enhance the Home Fire Safety Check, is to consider the vulnerability issues and contributory factors of the individual. Assistive technology can be applied as part of the risk assessment conditions to support the safety of the individual. The assistive technologies available range from fire retardent bedding, throws and night wear through to cooker shut off systems, call centre linked point alarm systems and, for high risk cases, water misting systems or a combination based on client need.

What must also be considered is training for our crews, to ensure holistic focus whilst completing a Home Fire Safety Check. They must consider the property, behaviours, vulnerability of the individual, contributory factors and also the longer term risk for the individual.

We intend to put the prevention of accidental dwelling fire deaths as our number one priority within our prevention work. We intend to prevent accidental dwelling fire deaths over the next five years, through putting in place a very focused and targeted programme of interventions to protect those who fall into our very high risk group. To achieve this aim, we will need a great deal of assistance from partner agencies such as our six Unitary Authorities and our health partners. We cannot do this alone and would need to work with them closely. We will need to work with our partners using our 'Adult Referral Guide' programme to identify high risk individuals, working to utilise assistive technologies within care packages, allowing safe independent living. We intend to carry out 35,000 Home Fire Safety Checks suitable for this target group over the next five years. Within the first two years, we intend to reach all of the 14,000 most vulnerable people.

Taking the learning from the study carried out in North Wales in 2009, we believe we also need to have a means to reduce the number and severity of other dwelling fires and the injuries that result from them. These fires and injuries occur in homes that fall into a different set of criteria, some examples are presented below:

- Childless new owner occupiers in cramped new homes.
- Young singles and sharers renting small purpose built flats.
- Low income families occupying poor quality older terraces.
- Often indebted families living in low rise estates.
- Vulnerable young parents needing substantial state support.

In Berkshire there are 52,230 addresses that fall into these high risk occupancy groups. We recognise the traumatic and life changing effects of these fires in the home, together with the significant cost they pose over many years to the NHS. We believe we should also carry out Home Fire Safety Checks to reduce the number of these fires that occur and the injuries that result from them. We aim to reduce the number of accidental dwelling fires by 20% over the next five years. We intend to achieve this by carrying out a total of 12,500 Home Fire Safety Checks to those who are the most vulnerable to fires and associated injuries over the five-year period.

4. Road safety

4.1 Our research

RBFRS has a statutory duty to respond to road traffic collisions as defined in the Fire and Rescue Service Act 2004. To deliver this function we have invested in our staff, equipment and training to deliver our operational response standard. Our operational measure of standard was percentage of attendance times achieved in under 11 minutes where extrication from a vehicle was required.

Road traffic incidents are a societal risk and the leading cause of fatality in young adults in the age group 15-24 years¹³. A very recent change in our statistical measure now defines events from all road safety types, as captured from Thames Valley Police data. It is an area RBFRS must influence by reducing casualty figures across all road safety incident types through collaborative work with Berkshire Safer Roads, Local Authority Road Safety officers, Highways Agency and Thames Valley Police.

RBFRS has never had a clear strategy for road safety education and delivery. We regularly support events, where requested by partners, with extriction demonstrations a popular example of our participation. We also support the very successful annual 'Safe Drive Stay Alive' event, delivered by Thames Valley Police to 23,000 young people across Berkshire and Hampshire in 2015.

Our past educational delivery methods have led to a perception from road safety professionals of a 'scattergun approach', which is a major area where directional change is required. The proposal is to develop a collaborative strategy, producing an integrated, themed calendar of road safety messaging and events, providing a unified targeted approach to road risk with other road safety professionals.

During initial scoping work, we identified that an educational gap is present in Berkshire amongst the high vulnerability age group of 11-15 year-olds¹⁴. One proposal to address this could be developing a package for delivery to schools using the Fire Service role model brand. The aim of this would be to influence the thoughts and road use behaviours of these young people, whether as a pedestrian, cyclist or future vehicle driver. Crucially, this will provide the educational awareness *before* they move into the highest at risk group of 20-24 year-olds. We also believe that we can influence access for this educational delivery to pupils supporting the National Curriculum Physical Health and Social Education programme.

As the report data highlights, significant progress has been made over the last decade in reducing road related casualties and this is a trend that must be continued. Austerity measures have placed enormous pressure on Public and Social Services with road safety now emerging as a service being discontinued by some Local Authorities. Through scoping work for this report, we have identified an age group, vulnerable on our roads, where RBFRS working collaboratively with road safety professionals can reduce the impact due to loss of services, endeavour to ensure the continued reduction year on year in road casualties and provide essential education for children and young adults, making our communities safer.

Figure 12 below shows the number of casualties injured in Berkshire by age group. It shows that the highest numbers of casualties are from the 20-24 age group. There were 556

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¹³ DfT road casualty statistics 2012

¹⁴ Supporting report at page 20

casualties aged 11-15 in Berkshire, who were injured between 2010 and 2014, of which 63 were fatally or seriously injured.

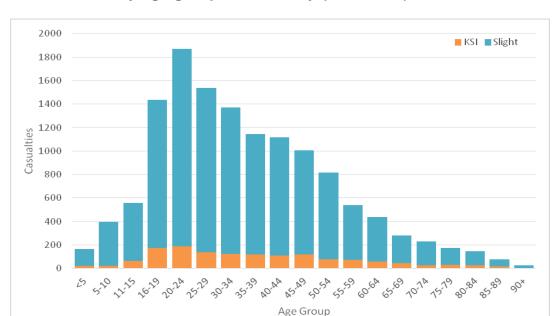


Figure 12 - Casualties by age group and severity (2010-2014)

Figure 13 shows the numbers of casualties aged 11 to 15 that were injured in Berkshire each year from 2004 to 2014. Also shown is the trend for casualties of all ages for comparison. Casualties aged between 11 and 15 have reduced over the past decade. In 2014, there were 98 casualties in the 11-15 age group compared to 82 in 2013. However, this is still a reduction compared to 2004 when there were 158 casualties. Casualties who were either killed or seriously injured have halved over the past decade, from 22 in 2004 to 10 in 2014. Casualties of all ages have also reduced from 2004.

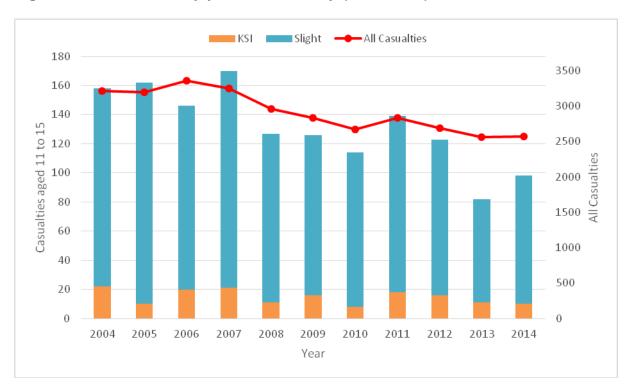


Figure 13 - Casualties by year and severity (2010-2014)

Table 5 shows the casualty class and related vehicle type of casualties aged 11 to 15 injured in Berkshire between 2010 and 2014. The highest numbers of casualties were injured as a car passenger (187), followed by as a pedestrian (175) and as a pedal cycle rider (160). These three groups will be analysed in more detail later in the report. Of the 175 pedestrian casualties, 154 were injured in a collision with a car with 10 involved in a collision with a goods vehicle.

Table 5 - Casualties aged 11-15 by casualty class and related vehicle type (2010-2014)

Casualty Class	Car	Motorbike	Goods	Bus	Cycle	Other	Total
Driver/Rider	0	1	0	0	160	2	163
Passenger	187	4	1	26	0	0	218
Pedestrian	154	4	10	4	3	0	175
Total	341	9	11	30	163	2	556

Figure 14 shows that highest percentage of casualties aged 11 to 15 are injured in Berkshire on Tuesdays and Thursdays, although the spread across week days is fairly even and not dissimilar to the percentage of casualties of all ages. There is a lower percentage of casualties aged 11 to 15 injured on a Sunday.

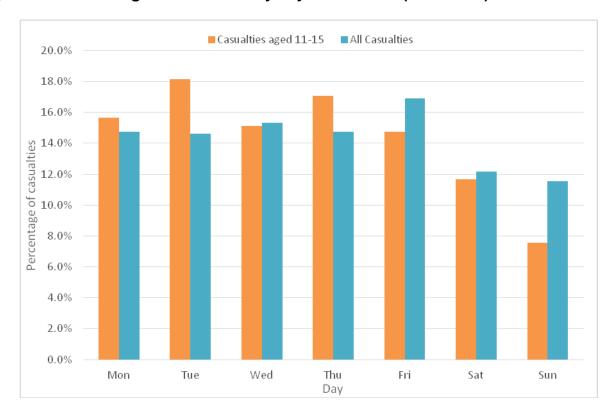


Figure 14 - Percentage of casualties by day of the week (2010-2014)

Figure 15 shows the percentage of casualties aged 11 to 15 by the time of day that they were injured. The percentage of casualties of all ages is also shown for comparison. By far the most common time for casualties aged 11 to 15 to be injured is 8-9am and 3-4pm. 37% of casualties aged 11-15 were injured at either 8am or 3pm compared to 15% of casualties of all ages at the times of day. There are also a higher percentage of casualties aged 11-15 injured between 4pm and 8pm. This shows that there are higher percentages of children injured on the way to and from school but also a significant number in the early evening.

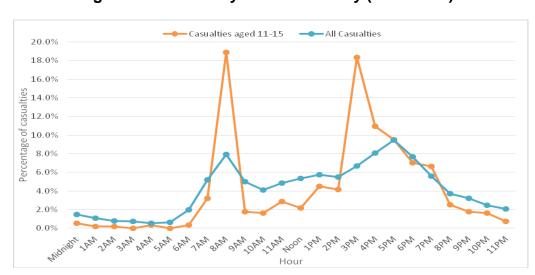


Figure 15 - Percentage of Casualties by Time of the Day (2010-2014)

Figure 16 shows there is a higher percentage of casualties aged 11 to 15 injured in July. There is a fairly even spread across the rest of the year with a generally higher percentage in the summer months and a lower percentage in winter.

Casualties aged 11-15 ■ All Casualties 16.0% 14.0% 12.0% Percentage of casualties 10.0% 8.0% 6.0% 4.0% 2.0% 0.0% **February** POIL June HU Nox Month

Figure 16 - Percentage of casualties by crash month (2010-2014)

Figure 17 shows that the highest number of casualties aged 11 to 15 were injured on unclassified and 'C' roads in Berkshire, followed by A-roads. This is different to where casualties of all ages tend to be injured with most injured on A-roads.

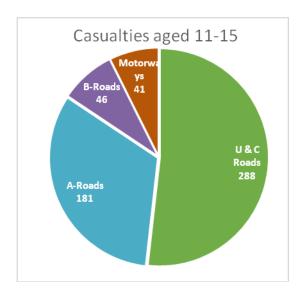


Figure 17 - Casualties by road class (2010-2014)

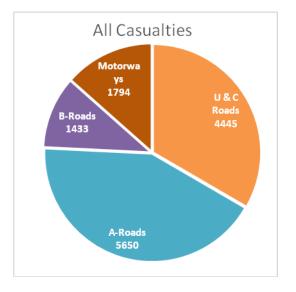


Table 6 shows that casualties aged 11-15 were most commonly injured on single carriageway roads (77%), followed by dual carriageways (14%) and roundabouts (7%). The highest percentages of casualties of all ages are also injured on single carriageway roads but the percentage is lower than for casualties aged 11-15 (62%). 37% of casualties were injured on a dual carriageway and 12% were injured on a roundabout.

Table 6 - Casualties by road type (2010-2014)

Road Type	Casualties aged 11- 15	Percentage of casualties aged 11-15	Casualties (all ages)	Percentage of casualties (all ages)
Dual carriageway	79	14.2%	3092	23.2%
One-way/slip	6	1.1%	382	2.9%
Roundabout	41	7.4%	1603	12.0%
Single carriageway	430	77.3%	8242	61.9%
NK	0	0.0%	3	0.0%

Table 7 shows the road number where the casualty was injured. Casualties aged 11 to 15 were most commonly injured on unclassified and 'C' roads (52%). 8% were injured on the A4; a further 8% were injured on the A329 and 7% on the M4.

When looking at casualties of all ages, 33% were injured on unclassified or 'C' roads, 12% of casualties were injured on the M4, 12% on the A4 and 8% on the A329. Most casualties were injured away from the Highways England (HE) managed road network, with 8% of casualties aged 11-15 and 15% of casualties of any age injured on a HE road.

Table 7 - Casualties by route (2010-2014)

Route	Casualties (11-15)		Route		Casualties (all ages)	
	Number	%		Number	%	
U	288	52%	U	4445	33%	
A4	46	8%	M4	1603	12%	
A329	44	8%	A4	1533	12%	
M4	38	7%	A329	1105	8%	
A417	14	3%	A308	295	2%	
A355	10	2%	A332	292	2%	
A3095	8	1%	A355	255	2%	
A308	6	1%	A33	253	2%	
A322	6	1%	A321	242	2%	
A327	6	1%	A34	200	2%	
A330	6	1%	A327	199	1%	
A332	6	1%	A3095	193	1%	
B4447	5	1%	A322	169	1%	
A339	4	1%	A330	128	1%	
B3030	4	1%	A329(M)	118	1%	

Figure 18 shows the average distance from home by age group, in kilometres, where casualties were injured. Distance is 'as the crow flies' and doesn't take in to account the distance travelled on the road network. The average of 18.5 km is shown on the chart as a red line for comparison. The chart shows that 11 to 15 year olds are more likely to be nearer to home when they are injured. On average they were 8.2 km from home. Only casualties aged 85-89 were nearer to home when they were injured.

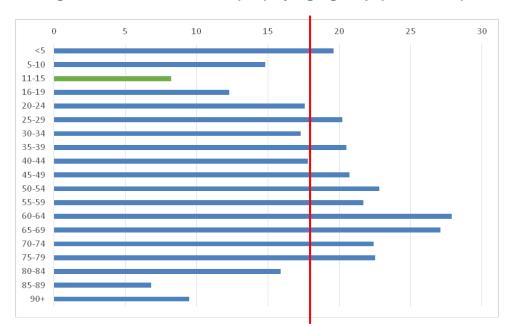


Figure 18 - Average distance from home (km) by age group (2010-2014)

Table 8 shows that within Berkshire the highest number of casualties aged 11-15 were injured in Slough. The lowest numbers were injured on the roads of Bracknell Forest. The percentage of casualties aged 11 to 15 injured in Slough is higher than the percentage of casualties of all ages injured in Slough. The opposite is true for casualties injured in West Berkshire.

Table 8 - Casualties by highway authority (2010-2014)

Highway Authority	Casualties (11-15)	Casualties (11-15) %	Casualties (all ages)	Casualties (all ages) %
Bracknell Forest	54	9.7%	1446	10.9%
Reading	95	17.1%	2251	16.9%
Slough	149	26.8%	2988	22.4%
West Berkshire	83	14.9%	2375	17.8%
Windsor and				
Maidenhead	96	17.3%	2418	18.2%
Wokingham	79	14.2%	1844	13.8%

Figure 19 is a heat map of collisions involving one or more casualties aged 11 to 15. The areas with the highest collision density tend to be more urban areas such as: Slough, Reading, Newbury, Bracknell, Maidenhead and Windsor.

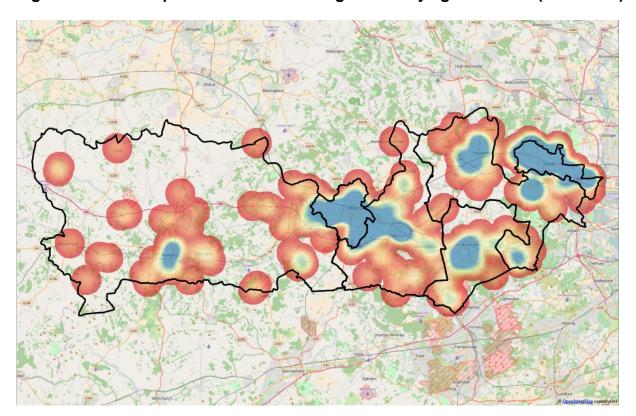


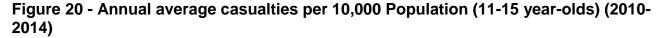
Figure 19 - heat map of collisions Involving a casualty aged 11 to 15 (2010-2014)

This section focuses on the casualties involved in collisions in Berkshire as well as on the residents of Berkshire involved in collisions anywhere in the country, between 2010 and 2014.

- Within the 11-15 age group, 54% of casualties were male.
- When looking at all casualties, 58% of casualties were male.
- 87% percent of casualties aged 11-15 who were injured in Berkshire, were residents
 of Royal Berkshire with the remainder coming from neighbouring districts, such as:
 South Buckinghamshire, South Oxfordshire and Basingstoke and Deane.
- 74% percent of casualties of any age, who were injured in Berkshire, were residents of the county.
- The higher percentage of casualties aged 11 to 15 injured in collisions in Berkshire who are residents of the county, compared to casualties of any age, shows that casualties from this group tend to be injured nearer to home.

 Analysis of Berkshire residents' casualties aged 11 to 15 shows that 87% are injured in Berkshire with the remainder injured in neighbouring districts, including South Buckinghamshire, Hart and Spelthorne.

Figure 20 shows the casualty rate for Berkshire's Highway Authorities, as well as the overall rates for Berkshire, the South East and Great Britain for comparison. The rate is the annual average casualties aged 11 to 15, between 2010 and 2014, per 10,000 population of 11 to 15 year olds. Berkshire's overall rate of 15.9 per 10,000 population is lower than both the South East and Great Britain rates. Within Berkshire, Slough has the highest rate and West Berkshire has the lowest. Slough is the only Highway Authority with a higher rate than the South East and Great Britain, with the other five authorities all being lower than both.



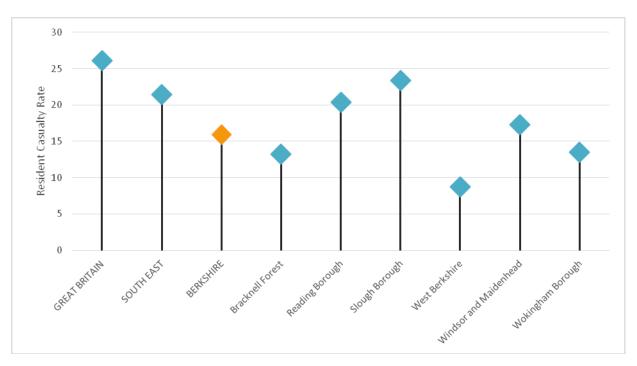


Figure 21 shows the Mosaic¹⁵ Group in which casualties from Berkshire aged 11-15 belong. The highest numbers of casualties are from Group M. There are also similar numbers of casualties from Groups D, I, B and H. The index value indicates whether the casualties from each Group are over or underrepresented based on the population of that Group living in Berkshire. Groups M, I and H are overrepresented but Groups D and B are underrepresented based on population.

¹⁵ http://www.experian.co.uk/assets/marketing-services/brochures/mosaic-ps-brochure.pdf

250 80 221 Casualties Index 70 200 60 Number of casualties 50 150 and 100 ludex Value 135 115 40 30 88 20 74 50 10 0 0 M D В Н **MOSAIC GROUP**

Figure 21 - Casualties from Berkshire by Mosaic Group (2010-2014)

Figure 22 shows Berkshire's resident 11-15 year old casualties by the Index of Multiple Deprivation decile of the area they live in. The chart shows that the highest numbers of casualties are from the least deprived communities. However, they are underrepresented based on population, suggesting that the higher numbers are a result of higher numbers of people from this decile living in Berkshire. The more deprived communities are injured at a higher than expected level based on their population as shown by the index values above 100 (the Index figure below representing the situation of a level comparison across the population).

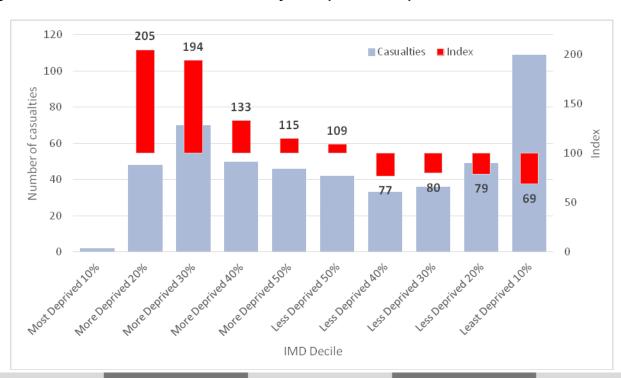


Figure 22 - Casualties from Berkshire by IMD (2010-2014)

At the beginning of the report, three distinct casualty groups were identified, with the 11 to 15 age group being the most commonly injured in collisions. These were car passengers, pedestrians and pedal cycle riders. These three groups are analysed in more detail here.

Figure 23 shows percentage of casualties from each road user group by age group.

In the pedestrian casualty group, the highest percentage was aged 11-15. 13% of pedestrian casualties in Berkshire between 2010 and 2014 were aged 11 to 15.

The highest percentage of pedal cyclist casualties was from the 35-39 age group, although there is a similar percentage in all of the age groups between 11 and 44.

Car passenger casualties in Berkshire tend to be aged 16-24. 7% of car passenger casualties in Berkshire were aged 11-15.

Figure 23 - Percentage of casualties by age group and road user group (2010-2014)

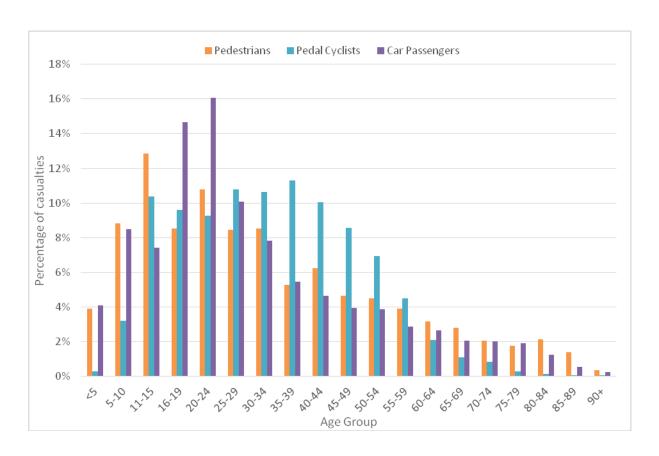


Table 9 shows the percentage of casualties aged 11-15 in each highway authority by the percentage of all casualties aged 11-15 in that authority injured as a pedestrian, pedal cyclist or car passenger.

Reading has the highest percentage of pedestrian and pedal cyclist casualties and the lowest percentage of car passenger casualties.

West Berkshire has the lowest percentage of 11-15 year-old casualties who were pedal cyclists.

Windsor and Maidenhead and West Berkshire have the highest percentages of car passenger casualties.

The higher percentage of 'other' in West Berkshire consists of casualties who were passengers in vehicles other than a car, such as a bus.

Table 9 - Casualties by highway authority and road user group (2010-2014)

Highway Authority	Pedestrian casualties %	Cyclist Casualties %	Car Passenger Casualties %	Other %
Bracknell Forest	41%	26%	30%	4%
Reading	47%	36%	15%	2%
Slough	30%	26%	38%	6%
West Berkshire	28%	13%	40%	19%
Windsor and Maidenhead	23%	32%	42%	3%
Wokingham	23%	41%	34%	3%

Figure 24 shows the time of day that the 11-15 year old casualties were injured, by road user group. All three groups were most commonly injured between 8-9am and 3-4pm. This is more evident for pedestrian casualties and pedal cycle user casualties.

Figure 24 - Percentage of casualties by time of the day and road user group (2010-2014)

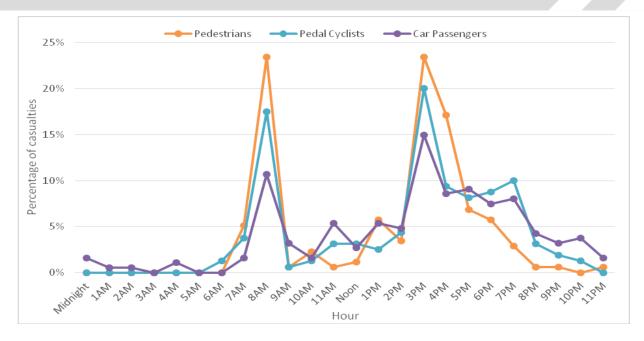


Figure 25 shows the day of the week that 11-15 year-old casualties were injured, by road user group.

Pedestrian casualties tend to be injured during the week, with 90% injured between Monday and Friday.

Pedal cycle user casualties are also more likely to be injured on a weekday (81%).

Car passenger casualties are more spread out across the week with the highest number being injured on a Saturday.

Figure 25 - Percentage of casualties by day of the week and road user group (2010-2014)

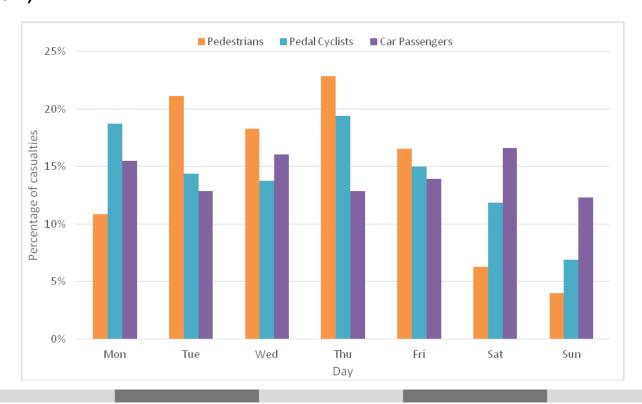


Figure 26 shows the month in which pedestrians are injured varies across the year, with the highest percentage of casualties being injured in January and the lowest in August. Most pedal cycle user casualties are injured between May and July, with 40% being injured in these three months. Car passenger casualties are generally spread out across the year, with the highest percentage injured in July.

There were 113 pedestrian casualties involved in collisions, where a police officer attended the scene. Of these casualties, 92 were attributed a contributory factor (CF), this means that 81% of pedestrian casualties aged 11-15 were believed to have contributed to their collision in some way.

Pedestrians ■ Pedal Cyclists ■ Car Passengers 18% 16% 14% Percentage of casualties 12% 10% 8% 6% 4% 2% 0% Feb Apr Jul Oct Nov Dec Jan Mar May Jun Aug Sep Month

Figure 26 - Percentage of casualties by month and road user group (2010-2014)

Table 10 shows the numbers of pedestrian casualties assigned a 'pedestrian only' CF along with the percentage of casualties who were assigned the CF of all casualties who were assigned any CF:

90% percent of casualties were attributed the CF 802, 'Failed to look properly'.

32% attributed CF 808, 'Careless, reckless or in a hurry'.

30% attributed CF 801, 'Crossed road masked by stationary or parked vehicle'.

Table 10 - Contributory factors assigned to a pedestrian casualty aged 11-15 (2010-2014)

CF	Casualties	% of casualties assigned
		any CF
801	28	30%
802	83	90%
803	15	16%
804	7	8%
805	5	5%
806	0	0%
807	0	0%
808	29	32%
809	3	3%
810	2	2%

There were 105 pedal cycle riders aged 11-15 involved in injury collisions in Berkshire between 2010 and 2014, where a police officer attended. As contributory factors are attributed to a vehicle, unless the casualty is a pedestrian or an uninjured contributing casualty, drivers are the focus here. This means that pedal cyclists, who were uninjured, in a collision with someone who was injured are also included. There were 93 pedal cyclists aged 11-15 who were involved in a collision in Berkshire, therefore 89% were believed to have contributed to the collision in some way.

Table 11 shows the numbers of pedal cyclists who were assigned a CF67 % were attributed CF 405, 'Failed to look properly'.

27% CF 310, 'Cyclist entering road from pavement'.

18% CF 406, 'Failed to judge other person's path or speed'.

17% CF 602, 'Careless, reckless or in a hurry'.

Table 11 - Contributory factors assigned to a pedal cyclist aged 11-15 involved in an injury collision (2010-2014)

CF	Riders	% of riders assigned any CF
405	62	67%
310	25	27%
406	17	18%
602	16	17%
307	8	9%
701	8	9%
203	6	6%
302	6	6%
410	6	6%

4.2 Our findings

- The number of casualties aged 11-15 who were injured in Berkshire has reduced over the past decade (down 38% from 2004) despite a small increase from 2013.
- The majority of casualties aged 11-15 who were injured in Berkshire (between 2010 and 2014) were pedestrians (175), pedal cycle users (160) or car passengers (187).
- The highest numbers of pedestrian casualties in Berkshire are in the 11-15 age group (when grouping all casualties in to five-year age bands).
- The 11-15 age group contains the fourth highest number of pedal cycle user casualties in Berkshire over the period 2010-2014.
- Casualties aged 11-15 were more likely to be injured between 8-9am and 3-4pm, with 37% injured in these two hours. 47% of all pedestrian casualties aged 11-15 in Berkshire were injured in these hours.
- Pedestrian casualties amongst those aged 11-15 were more common during the week, with 90% of casualties injured between Monday and Friday. 81% of pedal cycle user casualties and 71% of car passenger casualties were injured during the week.
- The highest number of car passenger casualties was on a Saturday.
- The highest number of casualties aged 11-15 were injured in July (15%).

- Casualties aged 11-15 tended to be injured on unclassified roads (52%) nearer to home (average 8.2km) and were residents of Berkshire (87%).
- The collision density map shows a higher density of collisions involving 11-15 yearolds in urban areas such as: Slough, Reading, Newbury, Bracknell, Maidenhead and Windsor.
- The annual average casualties per 10,000 population rate for each highway authority in Berkshire shows that the 11-15 year old residents of the more urban authorities of Slough, Reading and Windsor and Maidenhead were more at risk of being a casualty.
- IMD analysis shows that although numbers of casualties from less deprived communities were higher, those in the more deprived communities were more at risk when the population of those communities living in Berkshire was taken in to account.
- Both pedestrian casualties and pedal cycle riders were most commonly adjudged to have 'failed to look properly'. There were also many instances of pedestrians being 'careless, reckless or in a hurry' (32%) or 'crossing road masked by stationary or parked vehicle' (30%) and pedal cycle riders 'entering road from pavement' (27%).

4.3 Our proposals

Working with road safety professionals we have identified a group where there is an unsupported education gap in those aged 11 to 15 years of age. This age group accounted for 556 road incident casualties between 2010 and 2014. We believe that targeting this group through Physical Health and Social Education programmes in schools will allow us to educate about the dangers present on our road network, increasing awareness and reducing risk before these young people move into the higher risk age bracket.

Our road safety performance measure reviews all deaths and injuries on Berkshire's roads, pedestrian, cyclist and vehicular. Our target will be to reduce road deaths and injuries by 25% over the next five years.

5. Water safety

5.1 Our research

400 people drown accidently in the UK each year. This accounts for more accidental fatalities annually than fire deaths in the home or cycling deaths on the road. It is also estimated that 44% of the people who drown have no intention of entering the water therefore it is not just the recreational water user who can get themselves into difficulties.

Due to the vulnerability and impact of such events on our community, RBFRS's Prevention team believe supporting the National Water Safety Forum, Drowning Prevention Strategy

(2016-2026) would be highly valuable. In making this statement consideration must be given to the fact that the fire service has no statutory responsibility for water safety education and would deliver this as an unfunded additional work stream akin to the position with water and flood incident response.

Figure 27 reflects data collected over a three year timeframe and demonstrates a vulnerability to drowning throughout every age group in the population. This can be attributed to a wide range of factors whether from the very young, being most vulnerable due to limited hazard awareness, to little or no swimming ability, unsupervised children, to risk taking youths and adults and many more.

Figure 27- Data provided from WAID figures 2010-2013

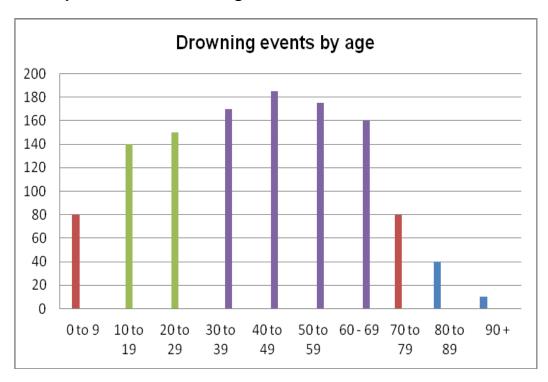


Figure 28 shows males are at highest risk group, accounting for eight out of 10 drowning fatalities. Fatalities rise significantly through teenage years and throughout the 20's. The greatest volume of drowning deaths is recorded as males between 20 and 29 years, whilst amongst women it is 50 to 59 years.

Figure 28 - Data provided from WAID figures 2010-2013

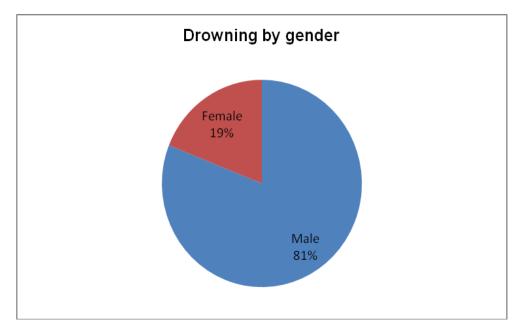
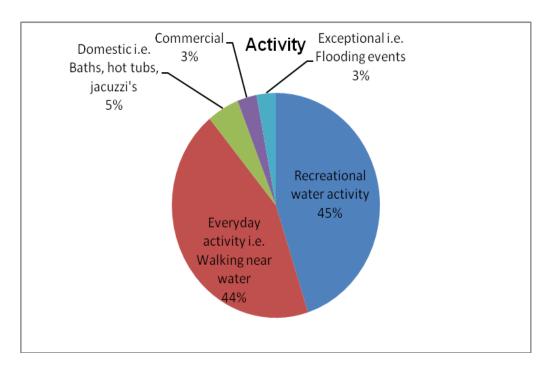


Figure 29 shows almost half of all accidental drowning incidents (44%) occur where the individual has no intention of entering the water. These events usually revolve around recreational activity, such as walking next to bodies of water, and contributory factors, such as alcohol consumption maybe being present. In adults of working age, alcohol was a suspected or confirmed factor in an estimated 1 in 3 incidents.

Figure 29 - Data provided from WAID figures 2010-2013



5.2 The implications

The National Curriculum states that by the end of Key Stage 2 all children should be able to swim a **minimum** distance of 25 metres unaided. It is therefore vital that schools offer a comprehensive and effective swimming lesson programme for all students up to the age of 11. The position is not consistent throughout all schools with various barriers such as lack of access to facilities, pressures of the National Curriculum and cost implications. To influence Berkshire's position, work would be required with local schools, authorities and leisure providers to identify how RBFRS could assist with delivery or support to this area of education.

This proposed change in prevention activity would direct RBFRS into an area of fairly limited data, limited activity outside of incident response and limited subject matter educational resources. We do however have a multi-agency strategy and a host of professional bodies to engage to support development. Our operational response ensures that our personnel are highly trained and knowledgeable in the behaviour and risks associated with bodies of open water. We have a highly experienced and dedicated personnel resource to both develop and deliver a programme which will influence the knowledge and behaviours of our young people and wider communities, ultimately making Berkshire a safer place.

There is of course an impact on RBFRS's capacity to deliver this change of focus. The RBFRS workforce currently delivers fire safety messaging to schools at Key Stage 1, 2 and 3 across Berkshire. The current core message is around home and personal fire safety awareness and practice.

Table 12 - Current fire safety education provided in Berkshire schools

Unitary	No of <u>Primary</u> School Classes (inc Infant Schools as still KS1 but not Nursery Schools)	No of <u>Primary</u> School Year 5 (KS2) Classes	No of <u>Secondary</u> Schools (KS3)
West Berks	74	86	14 + 11 Special Schools (25 in total)
Wokingham	62	84	11 + 5 Special Schools (16 in total)
Slough	33	69	13 + 6 Special Schools (19 in total)
RBWM	61	76	16 + 5 Special Schools (21 in total)
Reading	43	71	12 +7 Special Schools (19 in total)
Bracknell	36	57	8 + 4 Special Schools (12 in total)
TOTAL	309 Classes in	443 Classes in	74 + 38 Special
	Total	Total	Schools = 112 Secondary Schools in total

To create capacity for implementing water safety interventions in schools, the challenge will be removing Key Stage 1 fire safety education and using the additional volume for Key Stage 3 activity, with a road and water safety package. The view taken by the Prevention managers producing this report is that due to the other wide range of Fire Service activity targeting home fire safety, a clear conduit is still available to support youth education in the fire related area.

April 2015-2016 fire safety education delivered to KS2 by Stations and Prevention:

- 120 sessions
- 5,451 children
- 1,426 delivery hours
- We supported 55 youth groups, Scouts, Guides, Brownies etc.
- We supported 770 targeted or general fire safety events

5.3 Our proposals

A primary factor connected to drowning incidents is behaviour. It is understood that certain behaviour traits increase the risk of accident and drowning. People under estimate the risk posed by water, lack knowledge, lack water related competence and in some cases alcohol consumption leads to poor decision making or supresses the ability to assess risk. Young adults thrill seek not understanding risks posed in their choice of activity. Children are at high risk where parental supervision is lacking. 45% of children aged 7-11 years of age cannot swim 25 metres unaided.

RBFRS should engage local authority partners to promote community water risk awareness, developing risk assessment and investment in and maintenance of appropriate preventative measures. We should utilise our Fire Authority Prevention Champion to raise awareness and influence Unitary Authority policy direction.

In adopting the strategy, we will commit RBFRS to reduce accidental drowning events by 50% by 2026.

6 Health and Wellbeing of Berkshire's communities

6.1 Our research

The trusted brand of the Fire and Rescue Service has, over many recent years, allowed RBFRS to gain invited access to people's private dwellings to provide a Home Fire Safety Check service, designed to assist in keeping the residents safe through the provision of information, advice and (in appropriate circumstances) the provision of 10-year smoke alarms. This is an example of how fire services have changed direction from a primarily focused reactionary service to a primarily focused preventative service, and in doing so reducing fire deaths, injuries and significantly reducing the occurrence of fire. This success has drawn comment from a range of sector professionals.

It is also now recognised that the area of the population in which the Fire Service gain access to, through these programmes such as Home Fire Safety Checks, have a risk profile and contributory risk factors which are also of a common interest to Health and Social Services. If the visits conducted by RBFRS (which are currently solely aimed at reducing fire risk) were to broaden their scope to include interest areas of the wider health and wellbeing agenda, significant benefits could be derived.

The Chief Fire Officers Association (CFOA) Health Strategy (2015-19) presents a 'live' document which focuses on the challenges facing the NHS, Public Health and Social Care with demand outstripping supply. Poor health outcomes, which present vulnerability from fire, are also the factors placing significant burdens on Health Services. Ambulance Services are under significant pressure with enormous growth in demand and public service level expectations. Both CFOA and the New Local Government Network recognise the opportunity that exists for the Fire Service to develop partnerships with counterpart public services to look at how they can support collaborative work, drawing on their expertise in fire prevention.

I was so impressed with the work of the fire services! I realised that the agendas of preventing ill-health and preventing fires were closely linked: fires and ill-health occur in the more deprived areas, to people at the bottom of the socio-economic gradient, to those in poor quality housing, and to those whose circumstances have lead them to take up unhealthy lifestyles. The fire services do what every stakeholder involved in reducing health inequalities should do: engage directly with the community, work to provide them with the opportunities they need to live a healthy life and focus on prevention.

Professor Sir Michael Marmot
Fair Society, Healthy Lives – Strategic Review of Health Inequalities in
England Post 2010
Published 2010

Author of Fire Works: A Collaborative Way Forward for the Fire and Rescue Service
July 2015

Source: CFOA Health Strategy 2015-19: Fire and Rescue Services as a Health Asset.

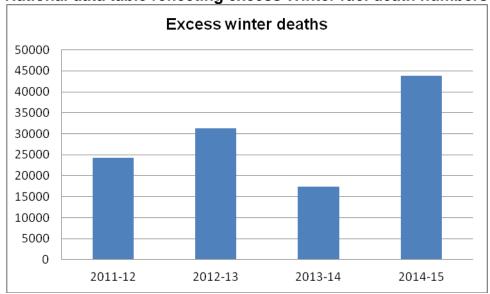
Falls

A third of people over 65 and half of people over 80 fall at least once a year. Falls are the most common cause of death from injury in the over 65's and cost the NHS over £2bn a year. Nearly nine million, or one in six people in the population in England, were aged 65 years or over at the time of the last census, and the figure is forecast to rise by another two million by 2021.

At an individual level, falls are the number one precipitating factor for a person losing independence and going into long-term care. A first fall can set in motion a downward spiral of fear of falling, which in turn can lead to more inactivity, loss of strength and a greater risk of further falls. The human cost includes pain, injury, distress, loss of confidence and a greater risk of death.

Excess Winter deaths

Figure 30 – National data table reflecting excess Winter fuel death numbers



Excess Winter deaths occur every year between December and March and are the difference in number from those recorded over that in the remainder of the year. The elderly are more susceptible to Winter related issues such as the flu virus and the lack of financial ability to meet household fuel cost, the cold exacerbating underlying chronic health conditions.

6.2 What can we do the address this?

We possess a database programme designed to facilitate contact arrangements with a view to the provision of a Home Fire Safety Check. If during the Home Fire Safety Check visit the fire service were to expand the scope, they could carry out personal and falls home risk assessment. This would enable signposting of individuals, where necessary, to falls referral agencies, preventing falls, reducing non-elective admissions and associated burdens on the health service, allowing people to live independently in their own homes and eliminating the distress which comes with a serious fall event. The fire service could offer support providing notice of flu inoculation programmes, supporting wider awareness and take up. It would also be able to signpost those identified as being potentially at risk through the inability to meet utility cost, over 10% of household income.

These are just two examples of why the alteration in focus to also consider partner agency needs could provide significant joint benefits. The adoption of the 'making every contact count' principle, being the eyes for and sign posting to other agencies first introduced by the NHS as a strategy in 2007. The linked principles of the 'safe and well' concept which focuses on other risk issues through interactions with people in their homes and, having had the necessary additional awareness training, will enable firefighters to identify and act upon a significantly wider range of risks; not only fire risks but those that predispose people to a number of health issues that can significantly reduce life expectancy and/or quality of life.

In April 2015, a consensus statement between National Health Service England, CFOA, Public Health England, Age UK and Local Government Association was agreed which sets out how Health, Public Health, the Fire and Rescue Service and Age UK can work together to encourage local action to prevent and minimise service demand and improve the quality of life of older people, children and adults with long term conditions. This developed the design principles for a Safe and Well visit that is informed by existing good practice within the FRS and Age UK network. The visit aims to identify and tackle risk factors that impact on health and wellbeing and which can lead to an increase in demand for Health and local authority services. Wider health impacts are also addressed during the visit, such as the identification of frailty, promotion and support of healthy ageing, help to avoid trips and falls and signposting to relevant services through making every contact count and sources of help. RBFRS is already developing relationships and working on a much more collaborative basis with colleagues in health and the local authorities, exploring options where the Fire Service can assist in improving health and quality of life outcomes for those at risk in the community.

A further consideration in developing this joint working is the delivery of this work to local needs. Deciding on the specification could involve a number of options:

- Joint Strategic Needs Assessment analysing the JSNA for each local authority area.
- Public Health / Health and Wellbeing strategy priorities identifying the priorities set for each area and whether the Safe and Well visit could help deliver the priorities.
- Better Care Fund priorities:
 - o Reducing non elective admissions.
 - o Falls prevention.
 - Reducing delays in discharge.
 - Reducing the number of people going into care.
 - Promoting independence.
- Fire and Rescue Service priorities e.g. fire fatality trend data, including for example smoking, living alone, age and mobility.
- Safeguarding priorities such as: making safeguarding personal, mental health / hoarding and isolation.

Safe and Well visits can support the objectives of better care fund plans, integration work between Health and Social Care as part of CCG strategies, and Health and Wellbeing Board strategies and Council Plans that aim to improve community self help / resilience. Safeguarding Partnership Boards priorities include focusing more on prevention to avoid safeguarding intervention. The boards aims are to increase a person centred approach and aim to ensure people who visit residents in their home can be aware of risks.

The integration work between CCG and Public Health involves risk stratification in-line with the requirements of the better care fund, which makes it a requirement for services to be targeted at those most at risk. This is a similar process of risk stratification to target resources that RBFRS is embarking upon with Safer Data, which it aims to build on with further information made available from partners.

RBFRS can then provide the safety information to prevent injury and fatality to the residents whose risk factors are common to fire risk and health / social care concerns. RBFRS can provide the Prevention expertise from years of experience and success.

A range of potential social and health themes which could be supported are outlined below, which are by no means exhaustive, and should be based around local evidence and need:

- Weight.
- Mobility.
- · Falls and frailty.
- Dementia.
- Loneliness/Social Isolation.
- Smoking, drugs, and alcohol.
- Hoarding.

Progressing options for delivery change one step further. Critical Intervention Teams could be used to address multi-agency capacity issues and progress collaborative joint working. These teams, piloting in other areas of the country, deliver a multi-agency Prevention and Response requirement through a single service. The work portfolio is designed to reduce demand for the emergency services through early interventions in areas such as falls in the home, fire prevention, mental health and risk of crime.

They conduct holistic home safety assessments and fit minor adaption to the home, such as: hand rails to prevent falls, taping thread bare carpet, securing faulty locks, and refer any higher risk maintenance issues for further professional assessment. In terms of blue light partner activity, it is high volume, low priority intervention where teams respond to falls, concern for welfare, gaining entry to property and the management and transfer of bariatric patients. They can also be utilised to support community resilience during periods of adverse weather e.g. heat wave and floods.

In electing to develop a local capability and all the potential service benefits this could provide, this will also require multi-agency commitment, agreed delivery model, branding and priorities. It will require significant investment, service level agreement, policy and procedure. There will be hurdles regarding risk management and appetite of the various partners, along with procurement, training and time issues.

A pilot scheme launched and managed in Greater Manchester successfully bid for and received £3.73 million in government funding, delivering 10 critical intervention teams, with a cost benefit analysis reporting a £10-million saving to the local economy.

6.3 Our proposals

- Home Fire Safety Check we are proposing to alter the emphasis of our Home Fire Safety Check programme and methodology, developing a 'safe and well' and 'making every contact count' approach. Engaging with partners and based on unitary and health data, we propose to provide additional tailored information on a number of health and social issues prevalent in the unitary area. On a collaborative basis, we will signpost, where appropriate to other professional services, where consent is achieved from the resident.
- Develop Critical Intervention Teams to challenge the significant cost of nonelective admissions on public finances and supporting social, NHS, health and blue light service providers, we propose to scope the feasibility of developing 'Critical Intervention Teams'. These teams would conduct holistic home safety assessments and fit minor adaption to the home, such as: hand rails to prevent falls, taping thread bare carpet, securing faulty locks and refer any higher risk maintenance issues for further professional assessment. In terms of blue light partner activity, it is the high volume, low priority interventions where firefighter teams respond to falls, concern for welfare, gaining entry to property and the management and transfer of bariatric patients. If direction is taken to progress in this area, organisational commitment and finance will be required to carry out further work

7. Risk mapping and data

RBFRS has used data mapping to identify households who are vulnerable to fire because of their social and economic circumstances and those where previous fires have occurred. In utilising this data, there is an element of prediction that is possible; we cannot say exactly where and when a fire will occur but we can aim to better identify where it is most likely, and deliver preventative measures to support this, for example; Home Fire Safety Checks. Our reduction in dwelling fires and casualties over recent years would indicate this use of data to identify risk, directing a preventative treatment, has been successful to date. However, we must be aware that over focusing on one specific group type might in turn increase the number of fires in other household types.

Organisationally, work is progressing to produce risk and response maps to a Lower Layer Super Output Area (LSOA), which measures at approximately 1000 people or 400 households. For RBFRS to develop and challenge a further range of societal issues, such as fire deaths in vulnerable groups, drowning, road incidents and health and wellbeing, it is essential that we gather and utilise all available data and produce predictive mapping tools to LSOA level detail over a range of prevention activity fields. Strategy directing effective risk treatments can then be delivered to targeted areas reducing risk in our communities.

7.1 What can we do to address this?

Prevention information currently available provides us a number of layers of data:

- Sustained Action for Elderly Risk (SAfER) data provides gender, year of birth, address.
- 2. Previous Incident data for trend analysis, fires, casualties and fatalities. *Identifies those most likely to have a dwelling fire.*
- 3. Mosaic (Experian) data *household data*. IT layer the information provided by Experian across Berkshire. Produces a list of more vulnerable postcodes to target.
- 4. HFSC management and completions database.



The image above gives a visual representation of how the information layers overlap, assisting in building a predictive picture. We know there is a data vacant sphere which can be filled by sharing data with our partner organisations in local government, Health, Social Services, voluntary sectors and many other groups. Developing information sharing agreements and demonstrating secure managed data practices will provide confidence allowing data exchange and effective Prevention Service Delivery.

Information sharing and/or data from partners can be cross referenced to more easily identify priority areas and groups. Multiple types of data can be layered to better pinpoint the most vulnerable in Berkshire based on specific criteria.

We know our local authorities gather a range of data sets around economy, crime and disorder, health wellbeing and social care. They also hold information on housing, learning skills and population. They hold vital statistical information which details population information including number of carers, people with disabilities, long term limiting illness, dementia, mental health issues and depression which are key contributory factors to individuals being vulnerable to fire, and therefore data we must access.

We have the index of multiple deprivation information domains which provides a societal risk value across seven domains.

- 1. Income Deprivation.
- 2. Employment Deprivation.
- 3. Education, Skills and Training Deprivation.
- 4. Health Deprivation and Disability.
- 5. Crime.
- 6. Barriers to Housing and Services.
- 7. Living Environment Deprivation.

We need to link in with partners to add further detailed information, for example Clinical Commissioning Groups and the rich data source and signposting which could be exploited through GP's. There is the health Joint Strategic Needs Assessment which in planning for commissioning of service, will hold a vast quantity of assistive data. Adding these layers and weighting them will enable us to better identify the most vulnerable and target resources accordingly.

This quality will improve Fire Service delivery in terms of finance, time, improved productivity and an engaged, motivated workforce recognising the value a data led targeting database will provide. We will be able to; identify households where people are significantly at risk from fire, as well as identify community areas where targeted prevention activity can enhance road and water safety. Benefit would also be derived in future work areas, supporting health and wellbeing and pathway to employment initiatives.

7.2 Our proposals

Data sharing - in gathering evidence for this report, a consistent challenge and overwhelming need we have also identified is for a comprehensive data exchange and effective predictive modelling, data management and targeting systems. If we are to be effective, we must develop understanding arrangements with a wide range of partner organisations leading to secure and effectively managed data exchange. We must develop an integrated predictive system using multiple data layers, allowing effective targeting and delivery of service, supporting the vulnerable and addressing risks present in our communities.

We need to share and manage data relating to the most vulnerable members in our community, ensuring a joined up approach and delivery of supportive preventative services to these individuals. In order to achieve this work, significant development may be required in our data systems, information sharing agreements, and relationships with others. Secondly, investment may be required on an invest-to-save basis which may, over the longer term, generate greater savings to the local purse than for the Fire and Rescue Service.

8. Developing young people

There are a range of health and social factors which are affecting children and young people now, and if unchallenged will last through into adulthood.

According to estimates from Public Health England, a quarter of children between 2 and 10 years old are overweight or obese. Obese children are more likely to become overweight adults and to suffer premature ill health and mortality. By 2034, 70% of adults are expected to be overweight or obese.

Youth unemployment is now one of the greatest challenges facing the country. Nearly one and a half million young people are currently not in education, employment or training. Over 1 in 5 of all young people. A quarter of a million have been unemployed for over a year. The costs of these levels of long-term youth unemployment, now and in the future are enormous. It means lower earnings, more unemployment, and more ill health later in life. Youth unemployment is also a time-bomb under the nation's finances, it cost the exchequer £4.8 billion in 2012. 111,000 people aged 16-24 had been unemployed for over 12 months between December - February 2016; the unemployment rate for people aged 18-24 was 12.2%.

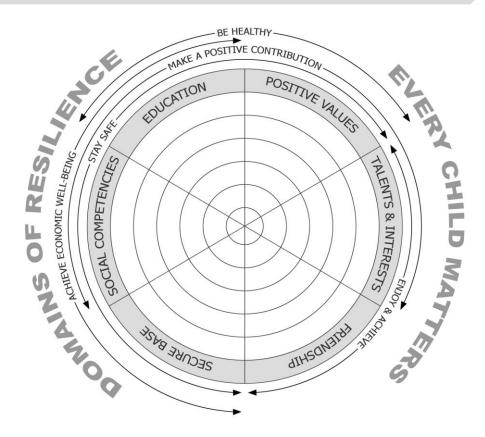
8.1 What can we do to address this?

RBFRS has successfully provided fire safety education for children and young people across Berkshire over many years. We are in a position where our Service is recognised and accepted by children and young people, allowing us to influence their thoughts and behaviours. RBFRS can use this influence to challenge poor health and social factors by developing a range of activities designed for young people, building their personal qualities and attributes, making them more attractive to prospective employers. These programmes within a strategy for children and young person's activity will promote personal resilience, aspiration and attainment, with a focus on health, nutrition, fitness and wellbeing, providing a platform for long-term good health.

RBFRS is currently piloting two youth engagement programmes and developing a third. These work closely to a children and young people's development framework called 'The Domains of Resilience'. The six domains enable us to focus on specific behavioural characteristics, developing a young person's ability to face adversity by promoting:

- 1. Education.
- 2. Secure base.
- 3. Talents and interests.
- 4. Friendships.
- 5. Social competences.
- 6. Positive values.

The 'Building Resilient Outcomes' map enables us to clearly evidence the five outcomes against Service Delivery. The map below helps to explain the relationship between the five key outcomes and the domains of resilience.



The three pilot programmes we have developed to support young people's health and wellbeing have been branded: FireFit, FireBreak and FireEd.

FireBreak

A five-day personal development programme, which combines practical fire drill ground and scenario-based training, along with classroom based discussion and workshops. The FireBreak programme incorporates a wide variety of activities, such as; hose drills, wearing breathing apparatus, moral reasoning, fire safety and much more.

Undertaken in a safe learning environment, which allows participants to take part without fear of being judged and to share their feelings about their learning, students will take part in activities intended to develop a number of key attributes, including:

- Self-motivation, discipline and confidence;
- Self-respect and respect for others;
- Communication skills listening and understanding;
- Working with others;
- Personal and social responsibility; and
- Punctuality and adherence to a structured day.

At the end of each day, pupils have an opportunity to reflect on their experiences with the support of a mentor. The desired outcomes of the programme are achieved by using the fundamental Fire and Rescue Service principles of leadership, teamwork, motivation and discipline.

At the end of the programme, a 'Passing Out Parade' will be held to celebrate and showcase the achievements of each young person. Parents, carers, teachers and friends are invited to attend. The 'Passing Out Parade' will include demonstrations by the young people, followed by a presentation of certificates.

FireFit

RBFRS are currently working in partnership with the West Berkshire Public Health and Wellbeing Team to pilot the FireFit initiative. Its primary focus is to promote and improve healthy lifestyles in children and their families.

It is designed to facilitate a better understanding in the areas of nutrition and fitness for young people aged 11- 16 years and their guardians/carers, with a view to increasing positive lifestyle behaviours around healthy eating and physical activity. The course will provide:

- An emphasis on the importance of encouraging all family members to eat healthily and to be physically active, regardless of their weight.
- Weekly fitness sessions.
- The chance to experience and learn the skills of a firefighter with weekly one hour firefighter experience sessions.
- Sessions are run on local fire stations.
- Sessions are run by qualified instructors.

The desired outcomes from course participation:

- Children and young people progress towards achieving a sustainable healthy weight and improvement in physical activity levels.
- Families continue to make sustainable behaviour and lifestyle changes the programme should motivate the children and parents towards a healthier lifestyle.
- Reduction in sedentary behaviour.
- Individual appropriate reduction/maintenance in weight/waist circumference.
- Reduction in body mass index points.
- Decreased resting heart rate/activity laps.
- Increased emotional wellbeing.
- Improved eating behaviours and quality of the child or young person's diet, reduced energy intake.

FireEd

FireEd is currently in the early stage of development in collaboration with Dedworth Middle School, Windsor. The current model being explored has a firefighter working within the school, on a regular basis using their role model status to influence in the area of health, fitness and nutrition.

Apprenticeships, work experience and volunteering

RBFRS is aware of the challenges for young people in gaining employment. We also recognise the implications that this can have on individuals, families and communities where some young people find themselves in a position where sustainable employment is unattainable. This may be due to factors such as; individuals possessing a criminal record, lack of practical work experience and/or qualifications. We need to devise programmes which will seek to develop personal and professional progression pathways, providing opportunities through work experience and volunteering for young people. We need to work with partner organisations, such as Greater Manchester Fire Service, using their experience to develop 'traineeships' and modern apprenticeships. The goal must be to accredit the young people's work as well as generate opportunities for them to work towards and achieve a range of qualifications. This will support their transition to further education, training or long term employment, providing them with the sort of skills and experiences that are valued by future employers.

We will seek to develop our relationships with other organisations with similar aims, for example The Thames Valley Berkshire City Deal (known as Elevate Berkshire). Their aim is to address the skills gaps, unemployment and underemployment of the 16-24 year-old population. The aim is to deliver employment and skills support for 4,500 young people; the deal will deliver the following:

- Aim for a 50% reduction in youth unemployment within three years.
- Generate 1,300 new employment opportunities for young people including helping 800 sustain work for at least six months.
- 1,500 work experience placements.
- 300 additional apprenticeships.

Elevate Berkshire has placed a significant emphasis on presenting a more joined up approach and working with delivery partners, such as; the Princes Trust, Ways Into Work and Department of Work and Pensions (DWP), has enabled them to support young people in a more holistic way to move into employment. The model provides high-quality, personalised advice and support, so that every young person has the opportunity to undertake the right training, improve their skills, find an apprenticeship or get a job.

FireSafe

Our work with children or young people who have deliberately set fires is conducted carefully and is based on an educational approach. Working collaboratively with other professionals and the parents, we aim to encourage consequential thinking as well as to provide information about the range of risks associated with this behaviour. Robust case

management has ensured that this work is appropriate and reduces the likelihood of future fire-setting behaviour.

Table 13 - FireSafe counselling interventions completed

Year	Numbers of Juvenile Referrals	Numbers of Adult Referrals
2013	50	7
2014	21	No Referrals Received
2015	41	10
2016	15 to date	Closure of Programme until IRMP report
		outcome

Developing on our success with youth counselling, we engaged an extended duration adult FireSafe pilot programme. The pilot was run from one female bail hostel with the duration extended due to the lower number of clients available to the programme, allowing for effective evaluation. To allow consideration of the value achieved from the programme, the feedback¹⁶ and evaluation report in terms of reoffending rates are found below:

- Of the 17 participants identified, 3 (17%), were convicted of further offences.
 However, it is noted that of the 17 participants, none of them have gone on to commit further fire setting offences.
- In 2009, the national average for reconviction rates for females was 51%¹⁷ within 12 months of being released from custody.
- Between April 2013 and March 2014, adult offenders with an index offence of 'Arson and Criminal Damage' had a proven re-offending rate of 26%¹⁸.
- Of the 17 participants, 5 (29.4%) have remained living within the Thames Valley region.
- The average cost of a female spending 12 months in custody in 2013-2014 was £32,875.00. Therefore had the 17 participants been convicted at the average reconviction rate of 26%, and each received a 12-month sentence, this would have cost £145,307.50¹⁹.

¹⁷ Prison reform trust

¹⁶ Appendix A

¹⁸ Ministry of Justice statistics bulletin

¹⁹ Ministry of Justice Information release

Table 14 - FireSafe adult re-offending record post intervention

Name	Area Now Residing In	Any Further Offending
NA	Can Not Locate	
WS	Moved out of Thames Valley	No further offending
LW	Moved out of Thames Valley	No further offending, OM advised she
		speaks very highly of the course.
PM	Moved out of Thames Valley	No further offending
TM	Moved out of Thames Valley	No further offending
TJ	Moved out of Thames Valley	No further offending
JK	Moved out of Thames Valley	No further offending
NF	Residing in Thames Valley	No further offending
KR	Can Not Locate	
GW	Residing in Thames Valley	No further offending
DJ	Moved out of Thames Valley	One further offence, but not for fire
		setting
JP	Residing in Thames Valley	No further offending
SD	Moved out of Thames Valley	No further offending
SG	Moved out of Thames Valley	No further offending
LW	Residing in Thames Valley	No further offending
KA	Moved out of Thames Valley	One further offence, but not for fire
		setting
OK	Residing in Thames Valley	No further offending
MJ	Moved out of Thames Valley	No further offending
PH	Current resident at AP – due to	Further offending, but not fire setting.
	move out of Thames Valley	

We consulted South East Regional partners to determine what service provision is being offered within their county area for adult convicted arsonists or those showing risky behaviour around fire setting. There are nine counties that sit within the South East Region, Berkshire, Oxfordshire, Surrey, West Sussex, East Sussex, Isle of Wight, Hampshire, Kent and Buckinghamshire. For the research we have excluded Berkshire and two counties from which we did not receive a response. Of the remaining six counties that responded, four are delivering a service provision, one of these to adults with learning difficulties only. Two are not providing any adult service²⁰. Of the four that are delivering the adult service, they offer to all forums and agencies, including HMP Prisons, NHS Mental Health Services, Institutes, Hospitals and Probation.

8.2 Our proposals

Children and young people - we propose an alteration in focus developing child
and young person interventions which address a range of social and health issues.
The proposed courses will focus on specific behavioural characteristics, developing
a young person's ability to face adversity by promoting, education, secure base,
talents and interests, friendships, social competences and positive values. We will
promote health, fitness and nutrition using the Fire Service brand and role model
status to influence young people's thoughts and behaviours supporting long-term

²⁰ Appendix B

healthy lifestyle choice.

- Apprenticeships and pathways to employment RBFRS is aware of the challenges for young people in gaining employment. We also recognise the implications that this can have on individuals, families and communities where some young people find themselves in a position where they are unable to secure long-term employment. This can lead to a burden on the welfare state, lack of personal aspiration, lack of skills development and over the longer term impact, needing support from the health system. The project team have identified national notable practice and funded local providers seeking engagement from the Fire Service to develop pathways, supporting apprenticeships, work experience and volunteering enhancing an individual's qualities, attributes and life experience, making them more attractive to potential employers. The project team propose a limited partnership development, allowing further detailed work to be completed regarding our ability to effectively support and produce benefit in this area.
- Counselling following many years of positive influence on identified young fire-setter behaviours a pilot has been undertaken in a counselling intervention for adults. This limited trial has been lauded as highly successful by the end user with no incidences of arson re-offending by those receiving the counselling programme. The project team believe there is scope for a limited delivery capacity to be supported, adding value to our Prevention service. Our proposal would be to provide a limited team of FireSafe adult specialists, all of who are current, experienced and skilled practitioners in the child fire counselling role. This will provide the capacity to deliver, where deemed appropriate, adult arson counselling to the probationary and restorative justice service in Berkshire.

9. Collaboration

The Fire Authorities within the Thames Valley have entered into an understanding, establishing a clear commitment where they are responsible for operating as preferred collaborative partners. This is regarded as a key element in the process of delivering important outcomes for communities, whilst balancing budgets in the face of increasing downward financial pressure.

By seeking to provide an accurate picture of potential collaboration opportunities within the tri-service prevention work stream, engagement has taken place between the three Prevention departments comprising the Thames Valley Fire Service. In completing this engagement, it is clear many opportunities with potential have been identified.

Table 15 – Collaborative Opportunity Proposals

WHAT POTENTIAL COLLABORATION	WHY (fiscal and activity benefits)
Thames Valley Prevention 'Critical Intervention Teams'	Increased ability to respond to identified vulnerable need across the Thames Valley. Combining this facility across all three authorities could allow for combined purchasing strength ultimately reducing expenditure for all authorities.
Thames Valley Prevention 'Children and young people intervention / education teams'	Combining the resources of three Authority departments could allow for increased skill functions, consistent delivery and potentially allow for a tailoring of service producing long-term savings.
Thames Valley Prevention 'Data coordination services'	Through careful use of Thames Valley data sets, Prevention activities could be delivered more precisely, allowing for a wider impact, reducing recurring incidents, increasing capacity and reducing expenditure in Response.
Thames Valley 'Safe and Well teams'	Increased ability to respond to identified vulnerable need. Combining this facility across all three Authorities could allow for combined purchasing strength ultimately reducing expenditure.
Thames Valley Prevention training	If we combine training for Prevention teams we will achieve standardised Prevention outcomes and reduce expenditure in training costs.
Thames Valley Prevention Management	By utilising a more focused management team approach through increased engagement, the Thames Valley could benefit from a clearly defined set of Prevention expectations. This could give potential synergies in messaging Thames Valley wide. This may also allow for a reduction in overall personnel, reducing expenditure.
Thames Valley Prevention 'Data Teams'	A collaborative approach could allow for strategically located data teams to coordinate information for all three authorities. This could produce more clearly defined outcomes and could allow for longer term tailoring of service and fiscal savings.
Thames Valley Prevention 'resources'	By combining needs and increasing purchasing strength, fiscal savings could be achieved. This could also allow for

	a standard delivery across the Thames Valley.
Thames Valley Prevention 'hub'	By co-locating Prevention teams for all three authorities information sharing could improve, allowing for increased performance and fiscal savings found in reduced premises needs.
Thames Valley Prevention 'Safe teams'	By combining this service we could increase skill sets and capacity in dealing with potential fire setting in both the young and adult cohort. Possible fiscal saving in team resizing.
Thames Valley 'Arson Reduction'	Two Thames Valley Fire Services fund the 'TVP link Arson Officer' this provides data and information which links ASB crime and affects community safety. Joint funding provides reduced fiscal impact.

Final summary and next steps

This report has been produced to review and report on risks - current, emerging or foreseeable, which might have an impact on the health and wellbeing of Berkshire's communities.

In compiling this information, the intent has been to present the research, findings and enable proposals to be developed to inform the Service's Prevention strategies.

We have identified the reasons why accidental fire deaths are occurring and who is affected. We will need to carry out targeted interventions working with partner agencies to reduce the number of future deaths due to accidental dwelling fires.

We have identified those groups of people who experience the highest volumes of fires and who are most likely to be injured if a fire occurs in a dwelling. We will need to carry out carefully targeted prevention work to reduce these fires and so to reduce the number of injuries in the future.

We have identified that road and water safety are key priorities for us. There are specific groups at heightened risk of death or injury due to road traffic collisions or due to drowning. If we are able to deliver less fire safety education for the age groups of young people where we are not experiencing high numbers of injuries or deaths, we could move those resources to target the higher risks of water and road safety amongst young people. Where we deliver less fire safety education at some key stages, we will still deliver fire safety education to them at later key stages.

Data sharing, health and wellbeing and collaborative opportunities are also covered with proposals as to how we might progress our prevention agenda, meeting the strategic commitments of Royal Berkshire Fire Authority and our key partners, notably the six Unitary Authorities and the NHS.

Appendix A

Safe Programme feedback

Feedback from Mary Phillips, Chair of Trustees, Elizabeth Fry Charity

The Safe Programme has been running at Elizabeth Fry Hostel for a number of years. It is a valued part of the rehabilitation programme offered to women on licence who are taking their first steps back into the community after their time in prison following their sentencing. The programme is targeted at those women who have a history of fire-setting. This is a preventive programme and as with all preventative programmes it is always difficult to prove their benefit in cost terms.

I am aware that the feedback by residents who have attended is extremely positive and a good number of the women have expressed to me how valuable that they have found the programme.

I would support the continuation of the programme.

One key reason has to be the cost it saves to our community as a whole. This can no doubt be further demonstrated by the feedback forms completed by those women who have attended the course.

LW has developed and run this programme with great success. She has a very positive rapport with the women which has enabled her to make such progress with addressing their issues with fire setting.

The Board of Trustees of Elizabeth Fry Charity would very strongly support the continuation of the programme.

Feedback from Fiona Humphreys, Chief Executive Officer, Elizabeth Fry Charity

I first met with LW in 2011 to discuss the possibility of a one to one programme being delivered to residents at Elizabeth Fry who had a conviction or known history of arson. Elizabeth Fry Approved Premises is a 22 bed Ministry of Justice Approved hostel for women involved in the Criminal Justice System. We provide placements for women assessed as posing a medium to very high risk of causing serious harm to others. We accept women who have been convicted of any offence and have always provided placements to women with a conviction/s for arson. Prior to the Adult Safe Programme being provided at Elizabeth Fry, I was aware that most of the women coming to us from custody with a conviction for arson had undertaken no offence specific work and that there was no local programme available to women convicted of arson available on release.

I welcomed the opportunity for residents at Elizabeth Fry to address and explore their history of fire-setting. I believed the programme would assist residents in finding move-on accommodation, reduce the likelihood of further offending and contribute to the resident's risk assessment and management plan.

We began piloting the six-session programme in 2013 and the impact of the programme on the individuals who have completed it was clearly significant from the start. I was involved in final review meetings for the first group of residents who completed the programme and was able to hear directly from residents about their experience of the programme. Without exception, the feedback was positive with residents being able to articulate what they had

learnt about fire and how this would impact on their behaviour in future when moving to independent accommodation. Residents identified that they had benefited from the course and a number stated to me that they felt all residents, regardless of their offending history, should have the opportunity to complete the course. This is exceptional feedback, bearing in mind that residents of Elizabeth Fry are often not here by choice and that there can be resistance to discussing or addressing their offending behaviour. Indeed, many of the residents who completed the course were initially resistant, but their attitude changed once they began the programme. The excellent level of attendance by individuals at sessions supports the fact that residents value this programme.

Throughout the time that LW has been working in partnership with Elizabeth Fry, she has linked in with the staff team to ensure that they are aware of and supportive of the work she has done with residents, but also to share any concerns and risk issues that have become apparent during the sessions. This partnership work his contributed to the management of risk and has also enabled Elizabeth Fry staff to provide additional support to residents when required.

Elizabeth Fry residents usually face a number of obstacles to finding suitable move-on accommodation and for residents with a conviction for arson identifying somewhere to live after their placement at Elizabeth Fry has expired can be particularly challenging. I have found the fact that residents have completed the Adult Safe Programme and can evidence their achievement with the portfolio can hold real weight with accommodation providers. In addition, it is evident that residents who have completed the course have a significantly increased understanding of the dangers of fire and consequently the risks of fire in future accommodation, deliberate or accidental have been reduced.

I am disappointed to hear that the Adult Safe Programme may not be delivered to future Elizabeth Fry residents. It is important to emphasise that if this is the case, there is no one else who will be doing this work with residents. I therefore believe that our experience of working with residents, who have an arson conviction will be poorer as we won't benefit from the contribution to the risk assessment and management proves that LW provides. In addition, residents will move on from Elizabeth Fry to live with family, friends or in other temporary or privately rented accommodation without having benefitted from the course. As previously stated, the course does not solely address the issues around deliberate firesetting, but residents also complete the course equipped with knowledge to keep them safe and reduce the likelihood of accidental fire in their homes.

In summary, the Adult Safe Programme provides a rare opportunity for women with a conviction of arson to explore their own fire-setting behaviour, learn about the nature of fire and what they need to be aware of to keep themselves and others safe from fire in the future. It is highly valued by residents, staff and Trustees at Elizabeth Fry. I very much hope that a way can be found for the programme to continue and will provide all the support possible to enable this to be the case.

Feedback from Jan Clifford-Evans, Offender Supervisor, Elizabeth Fry Charity

I have worked alongside LW since she started running the safe Programme at Elizabeth Fry Approved Premises. I have found her to be approachable and accepting of all our residents. She has worked with quite a few that I have been working with and they have all fed back how much they enjoyed the sessions. Initially, thinking that they knew everything and coming away with so much more useful information than they were expecting.

I have sat in during the presentations with 'my' residents and many have been sad to see the end of them as they have enjoyed them so much and are appreciative of the work that LW has completed with them.

I believe that this service has been a positive one for our residents; as far as I am aware none have re-offended. All residents that have attended have spoken highly of it, especially to those who were waiting to attend.

Feedback from Magda Le Roux, Offender Supervisor, Elizabeth Fry Charity

I have been working at Elizabeth Fry Approved Premises for over nine years and have worked with many women who have been convicted of Arson offences. One of the main purposes of the Approved Premises is public protection and supporting women in their rehabilitation and settling back into the community. When the Safe Programme was first introduced, it was exciting to see that there finally was something relevant and specific for the need – a programme designed and delivered to the target group - women who have been convicted of arson or have displayed risky behaviour which could lead to fire-setting.

I am familiar with the content of the programme and co-worked with LW and with many women who had an advantage of completing it. From my experience, and from what I have been told by women who completed Safe Programme, there are many benefits of it. To start with, it increases the awareness of the fire safety; it forms part of victim awareness work and prevention of reoffending, which is clearly – prevention of arson. The Safe Programme has been identified by many offender managers as a crucial part of an individual's risk management plan. Women who have worked with LW and me often would comment on how issues discussed in the programme would question their previous negligence and oblivious attitude towards dangers of fire. Safe Programme has helped many women to increase the insight into their emotions and ability to manage them. Lack of these skills has often been identified as a factor linked to their offending behaviour – arson. I genuinely believe that the Safe Programme always helped to achieve our common goals: create safer community, reduce reoffending, and prevent fire.

Appendix B

Responses received regarding adult arson and fire setting behaviour counselling service:

West Sussex	Provide a service up to the age of 18 and only provide a service to anyone over this age that has learning difficulties.
Hampshire	They provide to adults of all ages within HMP's, Probation, NHS Mental Health Units. They are funded by the Police Commissioner to deliver to all custodial and non-custodial arson/fire-setting offences and have been recognised by the Criminal Justice Board.
	Here in Hampshire we work with adults and have done since 2010.
	We work in HMP Winchester and get many referrals from the National Probation Service (NPS) and a couple from the Community Rehabilitation Company (CRC), we also work with the Southern Health Trust NHS in Mental Health Secure Units.
	We have had funding from the Hampshire and Isle of Wight Police Crime Commissioner (OPCC), our programme is also recognised by the Hampshire and Isle of Wight Criminal Justice Board (CJB) as a sentencing option for all custodial and non custodial fire-setting/arson offences.
	We are just in the process of introducing Restorative Justice in to the programme.
	It is an education fire awareness programme which helps to address re offending with arson/fire-setting offences and is in line with our OPCC and his future plans for re-offending, as is the restorative justice element.
	We are in the process of getting the programme accredited through the Prison Service effective regime interventions, ultimately under the Ministry of Justice.
Surrey	Not currently working with adult fire setters, but something we have considered. Not something that we would want to lead on, independent of prisons, rather working with them as part of a programme.
Oxfordshire	No adult provision. We have never done adult fire-setters in Oxfordshire - primarily because we had not been receiving requests for it and only have the one Prison in the County so we did not feel that the demand would warrant the costs involved in the initial training.
	I would suggest that the commitment for this would come from the Prison Service.
Buckinghamshire	We do have advisors trained to work with adults, though we don't do very many cases.
	We usually ask for the referring agency to fund the intervention – this is usually probation.
	We have, however, just taken on two prolific cases, and our Senior Management has agreed to bear the cost.
Kent	We in Kent do offer (actively), adult fire-setter intervention. We will work on an individual basis if required but more often we work in support of the Mental Health Service and this can be with an individual or a group that they

have brought together whom they are working with. We also work in prisons in our area primarily with the Mental Health teams but also occasionally on a one to one basis.

Our management teams are very much in favour of this work and support it well. They see the benefits of giving an understanding to the prisoners and adults and that it has shown to reduce their likelihood of re-offending. Whilst it is recognised that some, possibly, many of the people we work with in the prisons will not be living in our area when released, if this work is carried out nationally then work in other prisons would benefit people there who may come out and live in Kent.

We see this work as a collaborative support to the NHS and the Prison Service. Part of the research we did was to look at our fire calls and see how many are recorded as adult deliberate ignition compared to youth deliberate ignition. We were surprised to find that there was not much difference in the numbers. If I remember there were only about 20 more youth incidents. We looked further into this and found that more pumps were mobilised to the adult fires, resulting to an on cost the service, and also more injuries in the adult fires which has an effect on the NHS.

Our work is well received and respected now by the Mental Health Teams and we are building better relationships to support each other's work. We are making more inroads with the prisons after looking at the number of fires that we attended last year for fires inside the prison which have increased by around 50%, and any work we can do to reduce this has got to be a good thing for everyone concerned.

I am currently doing some work on this with Teresa Gannon (University of Kent at Canterbury) who is one of the national leads on this.