



Bedfordshire
Fire and Rescue Service

BFRS AND EAST COLLABORATION EVALUATION 2021

EVALUATION OF RETURN ON INVESTMENT FROM COLLABORATION
WITH THE EAST OF ENGLAND AMBULANCE SERVICE TRUST



PREVENTING



PROTECTING



RESPONDING



EMPOWERING



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MAXIMISING



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FOREWORD



Together, we assure you of our continued commitment to making Bedfordshire a safer place.

This report demonstrates Bedfordshire Fire and Rescue Service is delivering its continued commitment to making Bedfordshire a safer place.

Working in collaboration is part of our DNA. We are proud to work with the East of England Ambulance Service Trust; our staff enjoy the experience. Our public expect to see collaboration between blue light services as routine and part of the 'new normal' as we emerge from the worst effects of the Covid-19 pandemic.

The collaboration landscape changed significantly for emergency services in England with the introduction of the Policing and Crime Act in 2017. This placed a statutory duty on fire and rescue authorities, police forces, and ambulance trusts to:

- Keep collaboration opportunities under review;
- Notify other emergency services of proposed collaborations that could be in the interests of their mutual efficiency or effectiveness; and
- Give effect to a proposed collaboration, where the proposed parties agree that it would be in the interests of their efficiency.

We have embraced these principles with energy and vigor and aim to do more to explore the impact on all our communities in line with our Community Risk Management Plan 2019–2023.

I am very grateful to Dr Rowena Hill, Tom Barker and Simon King of EEAST, Jack Pickering of the Home Office, and Deputy Chief Fire Officer, Mid and West Wales Fire and Rescue Service, Roger Thomas for their generous time, comments and good counsel in developing the content of this report.



All of these initiatives facilitate greater access for us, to members of our community who may be at an enhance risk, whether that be safeguarding, home fire safety or collaborative information sharing (closing the loop on public safety). This in my opinion adds huge further social value to the Bedfordshire taxpayer.

Andrew Hopkinson
Chief Fire Officer

BFRS AND E EAST COLLABORATION EVALUATION



SUMMARY

- People in Bedfordshire receive significant social value including health and economic benefits from the collaboration between Bedfordshire Fire and Rescue Service (the Service) and the East of England Ambulance Service Trust (EEAST).
- Bedfordshire received the following benefits in 2020-21:
 - the return on investment and social value of the Service’s support during the pandemic from firefighter secondments into EEAST is £0.448m.
 - the social value of the Service’s Falls team in 2020-21 was £1.053 million.
 - bariatric complex patient rescue service has added social value to Bedfordshire of £0.384m.
 - co-responding has added social value to Bedfordshire of £2.244m.
 - effecting entry has added social value to Bedfordshire of £0.960m.
- This adds up to a return on investment of £5.09 million in social value, or £7 for every £1 invested. Gross cost to the Service in supporting EEAST is £724,766.55.
- Appendix 1 of this report contains our methodology.
- Appendix 2 contains unit costs and social value proxy measures used to make our calculations contained in this report and answers our second objective.
- Appendix 3 answers our third objective.

RESEARCH OBJECTIVES

- Calculate the return on investment from collaboration with EEAST including monetary, social, and organisational benefits;
- Develop a practical set of metrics and criteria to help consider future resourcing decisions in line with the FRS Community Risk Management Plan;
- Consider the best ways to evaluate the impact of community safety initiatives based on Bedfordshire FRA experiences; and
- Promote and share good practice.

BACKGROUND

- According to the University of Hertfordshire in 2017, Emergency Medical Response, when modelled at scale, has the potential to create considerable financial benefits over a ten-year time period. These benefits are estimated to outstrip the estimated costs. They calculate the overall financial return on investment (ROI) for the wider public purse is 1:4.41. This means that for every £1 invested over a ten-year period, approximately £4.41 of gross fiscal savings are generated, a proportion of which is likely to be cashable.
- However, these calculations do not take into consideration new social value calculation methodologies, or the reputational and qualitative benefits of collaboration. This report aims to address these gaps.
- On 24 March 2020 the National Fire Chiefs Council (NFCC), Fire Brigades' Union and the National Joint Council for Local Authority Fire and Rescue Services ('the National Employers') formally acknowledged that the fire and rescue service is a vital 'blue light' service that had the capabilities to support our communities through the national emergency caused by the COVID-19 pandemic.
- Their formal agreement included:
 - Providing support to the ambulance service including driving ambulances to provide extra capacity and resilience;
 - Delivery of essential items such as food and prescriptions to vulnerable members of the community, including those shielding due to pre-existing health conditions which makes them especially susceptible to coronavirus;
 - Providing assistance to HM Coroners and local authorities in the movement of dead bodies during the pandemic.
 - Providing face-fit tests for the protective masks used by frontline NHS and clinical care staff working with COVID-19 patients;
 - The delivery of personal protective equipment (PPE) and other medical supplies to NHS and care facilities;
 - Assisting in taking samples for COVID-19 antigen testing known as swab tests; and
 - The assembly of single-use face shields for the NHS and social care staff.
- In response, Bedfordshire Fire and Rescue Service:
 - Trained 54 staff in total to support EEAST. This includes seconding 19 staff to EEAST in April 2020, and trained 35 more over the summer;
 - Maintained support to EEAST throughout the pandemic which is the only FRS in the eastern region to do so since introducing the secondments in April 2020; and

- introduced emergency medical response (EMR) at three fire stations, building on the learning and new skills gained from the secondments. The three stations volunteering to undertake EMR have all attended additional training delivered by EEAST and received a formal qualification.
- Exhibit 1 shows some of things delivered in 2020-21.
- The Service engaged with regional FRs on a weekly basis at Principal Officer level to discuss support to EEAST. The Service also engaged with EEAST managers at both the strategic and local levels up to three times a week to manage things and ensure a shared assessment of risk. This has proved valuable when considering the range of support required and being able to quickly respond to collaborative opportunities.
- At time of writing, in 2020-21 the Service had responded to 119 incidents involving people suspected of being infected with Covid-19.

Exhibit 1 – Summary of support to EEAST infographic



- As a result, the impact of Covid-19 has been less impactful on EEAST and since April 2020 the support of BFRS has enabled an extra 600 emergency Ambulances to be available and more than **22,332** patient-facing hours have been provided. Therefore, in 2020-21 EEAST have been able to meet all their category 1 life threatening incident response standards in the Bedfordshire area for the first time since 2010. EEAST have reported the third best performance in England within their 7-minute target during 2020-21. Other factors contributed, but we can say there is a causal link.
- Other collaborative activity is underway. The Service now services EEAST ambulances and has developed its ambulance servicing, workshop and maintenance capabilities. And the Service is currently in negotiation with various suppliers for additional accredited medical training and development.
- EEAST were previously co-located at Sandy, Shefford and Luton fire stations. During covid-19 the Service developed Dunstable to host two Ambulances and their staff to mobilise into the surrounding area, which was operational from August 2020. The Service is piloting a similar solution at Bedford fire station.
- These co-locating at Bedford fire station creates a tri-service community safety facility with Bedfordshire Police. An agreed rate is in place for cost recovery for these facilities.
- Over 170 bodies have been transported from care homes to morgues and final resting places.
- Most significantly the Service manages the six 12-hour vaccine centres adding a capacity of over 700 vaccines per centre per day. A Safe and Well helpdesk is being provided at each centre and this is likely to significantly increase the number of referrals for a home visit.



DATA ANALYSIS

QUANTITATIVE DATA

- Between 6th April to 18th May 2020, the Service's seconded firefighters provided 5,479 hours of operational cover for EEAST. This is divided as 1,786.5 hours in North Bedfordshire and 3,692.5 hours in South Bedfordshire. To date our data shows over 22,332 hours have been provided.
- This has contributed to a regional level of support to EEAST which currently equates to 160 seconded firefighters and in excess of 22,332 hours of patient facing care. By 1st February 2021, the Service increased its contribution to 10,102 hours which is the highest contribution of any FRS in the Eastern region.
- A Home Office request for data on the number of responses made by firefighters supporting their respective Ambulance Trusts was sent on 11th May 2020 and reported an estimated 750 patients directly assisted by seconded firefighters from Bedfordshire. As of 20th May 2020 to 1st April, this is estimated to have reached 117.
- Service data from 1st April 2020 to 1st February 2021 finds:
 - The Service's support to EEAST on collecting patients suffering a trip or fall has made a clear impact with 22% of all related non-emergency 999 calls responded to in 22 minutes. This is an improvement on the 120-minute EEAST a median response standard for Bedfordshire.
 - The Service's seconded ambulance drivers provided over 5,479 hours in a six-week period since 1st April 2020. This was one of the busiest periods of demand for EEAST since 2010. In 2020-21 we provided over 22,332 hours.
 - The Service's Falls team has increased its capacity from three in January 2020, to 6 staff by January 2021 giving a full weekly coverage.

QUALITATIVE DATA

- Bedfordshire Fire and Rescue Service also benefited from increased staff satisfaction, new skills, and positive attitudes towards further collaboration. A survey in November 2020 of those staff seconded to EEAST finds:
 - a 95% return rate with 100% competition;
 - 95% of staff feel they made the right decision to represent BFRS with a secondment to drive ambulances for EEAST;
 - 72% were able to maintain their service identity whilst undertaking this secondment, for example keeping in touch with colleagues and viewing communications;
 - 83% felt supported by EEAST colleagues whilst undertaking the secondment;
 - 95% would strongly consider another opportunity to work alongside EEAST in a similar arrangement in the future; and
- 95% feel they made a positive contribution to the communities of Bedfordshire during the current NHS major incident.
- Staff told us:
 - “The period of secondment has been both enjoyable and given me a valuable experience.”; and
 - “It has been a great experience working alongside our EEAST colleagues, I feel it has enhanced my skills which I will take back with me.”
- The survey also identified scope for better pre-secondment training. Secondment activities have been examined in detail and an action plan is in place to learn any lessons and improve things next time.
- Staff recently recruited into the Service referenced the ability to learn new skills and work across organisation’s as a key factor in applying for a job.
- Collaboration gets positive media coverage. Positive communications about collaboration between the Service and EEAST comprise of 15% of all positive news stories about emergency services in Bedfordshire. Over a third of all press releases issued by the Service from 1st April 2020 to 1st February 2021 related to collaboration with EEAST. The six press releases we evaluated¹ in detail generated 35 positive news stories in the local media in the current financial year.
- A number of the seconded firefighters have been recognised for the work they have done with EEAST. This includes:
 - Healthwatch Bedford – award presented to those who are playing a key role in the health service or going over and above their duties;
 - Internal awards from EEAST; and
 - #EveryDayHeroes – via IN2BEATS radio and social media recognition;
 - BBC 3 Counties Radio you make a difference award for the fire fighters volunteering with EEAST.

¹ See bedsfire.gov.uk/News and evaluated using the UK government OASIS Evaluation Framework 2.0

CALCULATIONS

SUPPORT TO EEAST DURING THE PANDEMIC FROM SECONDMENTS

- The social value of support to EEAST during the pandemic from secondments is **£0.448m**

EXHIBIT 2 – RETURN ON INVESTMENT AND SOCIAL VALUE FROM SECONDMENTS TO EEAST		
Assumptions	Calculation	Sub Total
The average UK ambulance driver hourly rate according to the Healthcare costing standards for England: Ambulance: Information ² is £11.38 an hour:	Therefore 22,332 hours x £11.38 is £254,138.16	+ £254,138.16
Costs of secondment include: <ul style="list-style-type: none"> • Cost to the Service of seconded Firefighters used for driving ambulances – Wholetime = £177,874 • Cost of seconded Firefighters used for driving ambulances – On Call = £98,861 • Management time of 30 hours at £35 an hour = £10,500 	(£98,861 + £10,500) = £109,361 Note – net cost of wholetime firefighters is zero as they are employed anyway	-£109,361
Social value of hourly rates above, and added organisational value of training and development at £2 an hour using the UK Government social value toolkit	Equates to £10,958 + £62,351.02 = 73,309.02	+ 73,309.02
Organisational value to EEAST and avoidance of fines	Evidence from recently audited ambulance trusts including WAST, SWAS and SEAST	+ £87,000
Added value of 150 shifts covered and impact on response times	Data from the Association of Ambulance Chief Executives and WAST and SWAS ambulance trusts 150 x £419 per mobilisation and 910 patients assisted	+ £62,850
Reputational value to EEAST and Bedfordshire Fire and Rescue Service ³	A review of accounts from 3 ambulance trusts: £40,000 each ⁴	+ £80,000
Total		£447,936.18

² See [improvement.nhs.uk/costing standards](https://improvement.nhs.uk/costing-standards) ³ See [Value of Collaborative working.pdf \(instituteforgovernment.org.uk\)](https://www.instituteforgovernment.org.uk) ⁴ See [Quality-Report-Accounts-2019-20](https://www.bedsfire.gov.uk/quality-report-accounts-2019-20)

TRIPS AND FALLS

Members of the BFRS prevention team trained by EEAST to the level of Community First Responders, respond to vulnerable people who fall in their homes.

- The social value of the service's trips and falls team in 2020-21 is £1.05 million.
- The Trips and Falls Service was mobilised to 137 incidents, of which 82 had patients that needed serious medical attention, and this resulted in a 70% success rate. Success is measured as the intervention and support offered that prevents a need to be admitted to hospital. So, 70% of patients are able to remain in their home.
- Of those 82 patients that were treated, 11 had immediate life-threatening injuries.

EXHIBIT 3 – SOCIAL VALUE OF THE SERVICE'S TRIPS AND FALLS TEAM

Assumptions	Calculation	Sub Total
<p>Research⁵ shows that within every 75-patient cohort, 2 patients (one man and one woman) would have died without swift medical intervention. This is confirmed by Service Incident Recording System data. In addition, the average age of a patient falling over and dying is 75.</p> <p>The average life expectancy in Bedfordshire is 81 for men and 84 for women, then 14 years have been saved.</p> <p>The National Institute for Clinical Excellence (NICE) Quality Adjusted Life Years (QALY) threshold is £20,000⁶ for someone aged over 75.</p>	<p>14 years at £20,000 is £280k plus any loss to society and family.</p>	£280,000
<p>Costs per overnight stay in hospital and follow up treatment is £913 per inpatient overnight stay and £743 per outpatient stay.</p> <p>According to EEAST, 70% of all trips and falls interventions meant patients could stay in their home, avoiding overnight inpatient and outpatient stays.</p> <p>Research by Kings College London on trips and falls in 2012 finds that nearly all transportation to hospital result in an overnight stay.</p> <p>They also find that the average stay in hospital as a result of a trip or fall leads to 2 days overnight stay plus two days of outpatient stays. This equates to £3,312.</p>	<p>71 incidents attended/70% = 50 occasions where patients is taken to hospital.</p> <p>Therefore if 100% of patients needed to be taken to hospital then an additional cost to the NHS is:</p> <p>50 x £3,312 is £165,600</p>	£165,600
<p>Research by the NHS Personal Social Services Research Unit⁷ shows costs of £101,258 per year per patient in a local authority run care home with mental health and high medication support.</p> <p>Research by Kings College London on trips and falls in 2012 finds half of all serious injuries from trips and falls results in a decision to move the patient to a care home. Often the trip and fall is a catalyst for the patient and their carers to move their family member to a safe place. Therefore, immediate and effective intervention can keep half those patents out of care homes.</p>	<p>11 serious injuries / 2 is 6</p> <p>Therefore 6 x £101,258 = £607,548</p>	£607,548
Total		£1.053 million

⁵ See bmchealthservres/Cost of Trips and Falls ⁶ Quality of Life Years are costed at £20k for someone aged over 75 years, and £30k for someone under 75 ⁷ See Unit Costs of Health and Social Care 2020 | PSSRU

CO-RESPONDING

BFRS crews with enhanced trauma care skills assist EEAST to provide timely assistance to members of the community requiring urgent medical assistance.

- In 2020-21 the Service responded to 147 incidents which is twice as many as 2019-20. Of these, 26 were for serious injuries and in addition, 5 were fatalities. With reference to incident data the average age of those patients with serious injuries was 65.
- Based on experience and evidence from those firefighters carrying out co-responding and cross checking with EEAST data, we can assume that three quarters of those seriously injured would have survived anyway, this leaves 7 patients with life threatening conditions.
- Survival from out-of-hospital cardiac arrest in the UK is poor. Only 14% of such patients have a pulse on arrival at hospital, defined as return of spontaneous circulation (ROSC)⁸. This remains largely unchanged in the last 12 years⁹.
- Using the NICE QALY index of £20,000 per year, the Service added social value of $81-65 = 16 \times 7 \times £20,000 = £2.24m$. Costs of training and staff time when responding for 138 hours is estimated as £3,450.
- Therefore, co-responding has added social value to Bedfordshire of **£2.244m**.

BARIATRIC COMPLEX PATIENT RESCUE

Specially trained BFRS crews from Dunstable working in partnership with EEAST to provide an enhanced response to bariatric and complex patients, bringing specialist knowledge and equipment to scene.

- In 2020-21 the Bariatric Service responded to 104 incidents which is four times more than 2019-20. Of these, 9 were for serious life-threatening injuries and in addition there was one fatality. With reference to incident data the average age of those patients with serious injuries was 66.
- Based on experience and evidence from those firefighters carrying out bariatric rescue and cross checking with EEAST data, we can assume that three quarters of those seriously injured would have survived anyway, this leaves 2 patients with life threatening conditions.
- Using the NICE QALY index of £20,000 per year, the Service added social value of $81-66 = 15 \times 2 \times £20,000 = £0.60million$. Costs of training and staff time when responding for 43 hours is estimated as £2,295.
- Costs of equipping the service was £215,500 in 2020-21.
- Therefore, bariatric rescue service has added social value to Bedfordshire of **£0.383m**.

⁸ See Current Practice and Prospects for FRS Co-responding Fire Research Series 14/2008 ⁹ See NHS England survival stats

EFFECTING ENTRY

BRFS crews across the county are trained to effect entry using specialist equipment to tackle a variety of scenarios. Under the legislative powers of entry within the Fire Service act, crews work alongside EEAST to enable swift medical assistance.

- Joining up response with blue light partners can help to ensure that there are fewer obstacles or delays preventing someone receiving the care they desperately need.
- The main benefits of this initiative are that it reduces the delay delivering medical care to patients, minimises the time ambulance crews are delayed at incidents of this nature and reduce overall cost to the public.
- The Police have traditionally provided a forced entry function for the ambulance service. However, due to breaking in equipment not being routinely carried,

demands on resources and the methods used to gain entry, ambulance services can benefit from fire and rescue services assisting. Fire crews carry the right equipment and can make specialist access, for example, entry at height.

- Whilst it is difficult to put a monetary value on effective entry on behalf of EEAST and police, we can say it increases survival rates of patients by getting to them quickly and reducing the demand for the police who may get greater value from deploying specialist resources elsewhere. The opportunity costs of doing things for others and avoiding them paying for it is not calculated here.
- In 2020-21 the Service effected entry at 226 incidents. Of these, 11 incidents included people who had serious

injuries. The records of the age of those rescued is not recorded but we can assume the average age is 64, as this fits with other incident data and the age profile of those most often injured from fire and other emergencies.

- Based on experience and evidence from those firefighters carrying out affected entry we assume that three quarters of the most seriously injured would have survived anyway, this leaves us with 2 patients.
- Using the NICE QALY index of £30,000 per year, the Service added social value of $81-65 = 16 \times 2 \times £30,000 = £960,000$. Costs of training and staff time when responding for 43 hours is estimated as £2,295.
- Therefore, affecting entry has added social value to Bedfordshire of £0.96m.

COSTS TO THE SERVICE

Gross cost to the service in support EEAST is **£724,766.55** comprising:

- Cost to the Service of seconded Firefighters used for driving ambulances of **£289,235**
- Costs of equipping the bariatric service was **£215,500** in 2020-21.
- Falls team **£92,300** (estimated from budget)
- Workshop parts (£17,971.15) and labour (£22,530.24) = **£40,501.55**
- Training **£87,230**



APPENDIX 1



METHODOLOGY

- We set out our methodology in our presentation to Corporate Management Team on 10th November 2020. We shared this presentation with members of the reference group in December 2020.
- Our methodology included:
 - Agreeing review methods and approach (December 2020)
 - Collating and evaluating current social value, return on investment and impact metrics available nationally
 - Call for evidence internally and with partners (Jan 2021)
 - Structured interviews with key partners including EEAST
 - List and Evaluate all relevant performance data including FRS, EEAST, NICE, prevention, and performance data
- Evaluation of all cost data including budget, spend, capital, staff and training costs, and maintenance data
- Calculate return on investment and social value (February 2021)
- Share finding with partners and trusted subject experts
- Write report
- Peer review (March 2021)
- Report to Members and take scrutiny
- Publish headlines (May 2021)
- Host good practice activity (August 2021).

RISKS

- General Data Protection Regulation (GDPR) and confidentially seen as a barrier to share information
- Competitive rather than collaborative approach internally, between partners and with others
- Potentially aggravates Fire and Rescue Services' relationship with staff rep bodies
- Timing and ensuring the messages land right
- Mitigation is the review approach as set out earlier, peer review by the Reference Group, support from Members and key partners, good doses of political acumen.

APPENDIX 2



UNIT COSTS AND SOCIAL VALUE PROXY MEASURES

UNIT COSTS

- Data calculated by Dorset and Wiltshire FRS as part of its business case for combination finds £523 per mobilisation of a whole-time appliance traveling over 5 miles in Dorset or Wiltshire.
- Cost per mobilisation are £492 for Devon and Somerset, and £538 for Greater Manchester FRS.
- Cost per mobilisation of an ambulance vary between trusts:
- East of England Ambulance Service Trust mobilisation costs:
 - £252 per rapid response vehicle (car) with two crew,
 - £419 ambulance with paramedic; and
 - £512 bariatric ambulance.
- Wales Ambulance Service Trust mobilisation costs:
 - £272 per rapid response vehicle (car) with two crew;
 - £375 ambulance with paramedic; and
 - £482 bariatric ambulance.
- Costs per overnight stay in hospital¹⁰ and follow up treatment:
 - £913 per inpatient overnight stay and £743 per outpatient stay.
 - Research by Kings College London¹¹ on trips and falls in 2012 finds one in four interventions by the ambulance service results in an overnight stay. This overnight stay – on average - leads to 2 days plus two days of outpatients stays. This equates to £2,726.

- UK government Department of Transport values for serious injury and fatality were used in previous research on the cost of fire deaths and injuries (DCLG 2008). A fatality is currently valued at £1,958,303, a serious injury at £220,058 and a slight injury at £16,964 (2018 values) (HM government 2018).

COST OF FIRE STATIONS

- Data from the chief fire officer's association in 2012, and detailed evaluation by the Chief Fire and Rescue Advisor Wales, Mid and West Wales FRS, Cambridgeshire FRS and Devon and Somerset FRS finds:
 - the cost of a volunteer fire station of £61k per year
 - average cost of a retained station is £120k per year in 2019-20.
 - average cost of a wholetime 24-hour shift station is £1,112,345 in 2019-20. This has been confirmed by other fire and rescue services.

¹⁰ See Guidance on the application of the NHS Injury Cost Recovery scheme for 2020 to 2021, Updated 29 October 2020

¹¹ See Can Fire and Rescue Services and the NHS work together and identify vulnerable people? 2010

COST OF FIRES

- Unit cost data from the Greater Manchester Combined Authority shows the average cost per fire contained in room or origin across the UK in urban areas is £3,186, average public clean-up cost post fire per hour is £32, and average cost of a small fire in a commercial building is £75,881. See GMCA cost-benefit-analysis¹².
- Average large loss of business in commercial buildings in 2020 is £657,074.

PAY

- Staff hourly rates 2020¹³
- Whole time competent firefighter £22
- Watch manager £27
- Station manager £31
- Group manager £35
- Principal officer £45-48
- Competent on call RDS firefighter £15 using Devon and Somerset FRS and South Wales FRS retainer rates and 'pay as you go' elements
- RDS Crew manager £16
- RDS Watch manager £18
- Research by Audit Wales in 2020 of costs of collaboration and partnership working finds the average hourly rate of

a principle officer attending partnership meetings is £52 and includes administration and ICT service costs. This rate is calculated using video conferencing costs and not mileage and travel costs.

UPLIFTS

- Cost of sparsity¹⁴ to a semi-rural FRS at £4.80 per resident per year
- Cost of 25% LOAS Deprivation in semi-rural area is £13.10 per resident
- Inflation¹⁵ 1.21% in 2020-21
- London weighting for London Ambulance staff is for:
 - Inner London is 20% of basic salary, subject to a minimum payment of £4,473 and a maximum payment of £6,890;
 - Outer London is 15% of basic salary, subject to a minimum payment of £3,784 and a maximum payment of £4,822; and
 - The fringe of London is 5% of basic salary, subject to a minimum payment of £1,034 and a maximum payment of £1,792.

COLLABORATION EFFICIENCIES

- Back office harmonisation activities from Devon and Somerset FRS combination¹⁶ show efficiency savings of up to £1.7m per year and Dorset and Wiltshire FRS¹⁷ of £2.3 million per year.

¹² See Cost Benefit Analysis - Greater Manchester Combined Authority 2020

¹³ See Pay settlement hourly rates. Overtime rates are used as they include special circumstances payments and admin costs.

¹⁴ See Sparsity and rurality impact on fire_and_rescue services

¹⁵ See inflation-rate-in-the-united-kingdom up to 2025

¹⁶ See devon-and-somerset-fire-combination LGA evaluation

¹⁷ See D&WFRACombinationBusinessCase.pdf

- Shared control rooms in Mid and West Wales FRS, South Wales FRS and South Wales Police generate £0.5 million of efficiency savings per organisation per year. The Joint Emergency Services Centre has improved call handling rates by 20% with a knock in effect on average reduction in mobilisation and response times of 10 seconds for both FRS.

SOCIAL VALUE

- Real gains can be made from use of volunteers for prevention activity. Unit Costs of Health & Social Care 2020¹⁸ developed by the Personal Social Services Research Unit in the University of Kent finds added social value from Volunteering for young people safety interventions in Hampshire, is £396.40 per substantive intervention, including the co-ordinator, marketing and admin, volunteer expenses, and overheads at 20%. On the Isle of Wight, this is £304.65 per substantive intervention for the Volunteer Co-ordinator.
- The Family Savings Calculator (FSC) tool¹⁹ was developed by the Education and Public Services Group within the Welsh Government, and this is a useful source of information on the cost of delivering different activities across health, education and social services in Wales.
- We see a strong link between trips and falls and strokes. According to the Stroke Association in 2019 the average societal cost of stroke per person is £45,409 in the first 12 months after stroke (cost of incident stroke), plus £24,778 in subsequent years (cost of prevalent stroke). The average cost of NHS and Personal Social Services (PSS) care in the first year after a severe stroke is almost double that for a minor stroke (£24,003 compared to £12,869) (Stroke Association 2019).
- For each stroke avoided there is a potential saving of £45,409 (Stroke Association 2019). Assuming the potential prevention of between 2.42 and 12.1 strokes the gross savings to the NHS and care providers between a lower estimate of £110,000 and an upper estimate of almost £550,000.
- According to the National Fire Chiefs Council (NFCC) Preventing trips and falls through additional Safe and Well checks saves 65 A&E attendances every 1,000 visits which equates to £27,235 based on a visit cost of £419 which is before any treatment being done.
- A 2016 report by Public Health England on an Evaluation of the impact of fire and rescue service interventions to reduce the risk of a variety of health issues including fires and winter related ill-health finds a clear causal link between targeted interventions and reduction in poor outcomes and need for intervention finds a mid to high risk fall averages £4,530 in direct costs to the public sector.
- A 2019 report by the RAC Effectiveness of UK Road Safety Interventions finds the average prevention of serious injury saves society £0.6m and prevention of death £0.9m.

¹⁸ See Unit Costs of Health and Social Care | PSSRU ¹⁹ See Family Savings Calculator

- The National Institute of Clinical Health (NICE) has recently published its latest value for prevention of fatality data which is £1.8m per life, and £30,000 per quality adjusted life year or one year of good health²⁰ for under 65s and £20,000 for over 65s.

RETURN ON INVESTMENT

- Research by Oxford University in 2019 on impact of family interventions finds that for every £1 invested in young people and family intervention activity yielded a social benefit of £91 was accrued.
- Evaluation by Boston Council and East Riding Council shows that for every £1 spent on town centre safety, business continuity and business support activity yields between £2.60 and £7 in social value.
- Social value calculations by West Midlands FRA prevention case studies, and South Yorkshire FRA finds that every project it analysed is delivers positive social return on average, £7.80 per £1 investment, see their evaluation report
- Analysis by Hertfordshire University in November 2017 sets out a strong value-for money case for co-responding. The indicative benefits to both health and social care partners far outstrip the initial investment required, with an overall financial return on investment of £4.41 per £1 invested, taking a conservative view of the population served. Taken as a very broad average, this equates to a net financial saving of approximately £214 per callout; even accounting for the 79% of corresponding attendances in which it is determined that cardiac arrest has not occurred.
- For everyone with improved physical and psychological performance, it is broadly estimated that a benefit is created in the order of:
 - £24,000 for clinical commissioners as a result of reduced length of stay in intensive care and less costly treatment requirements; and
 - £44,500 for social care commissioners as a result of reduced demand for postcardiac arrest domiciliary care.
- An alternative way of presenting the financial case is to subtract the cumulative costs from the cumulative benefits. With discounting applied, this provides a figure called the 'Net Present Budget Impact' (effectively an expression of total financial benefits, less total costs). Weighing costs and benefits against one another, UK FRS co-responding's net immediate impact is £15.7m on public budgets, on average each year – based on an average cost draw of £4.6m and an average cost saving of £20.3m each year. After ten years, it is estimated that it will have had a Net Present Budget Impact of -£157.3m. Taken as a very broad average, this equates to a net financial saving of approximately £214 per callout. The payback period for return on investment is 1 year (first year).

²⁰ See NICE/standards-and-indicators 2021

VULNERABILITY MEASURES

- Data analysis by London Fire Brigade, ORH Ltd and the London based GLA Economic Insight Team shows the following are strongly related to the risk of an incident occurring. In order of priority/vulnerability:
 - Recent visits to hospital by Ambulance
 - The Index of Multiple Deprivation (IMD) score by LSOA
 - Council missed bins
 - Royal Mail occupant risk/health and safety data
 - Non-payment of council tax
 - % of households which are Council Tax Band A
 - The percentage of the population that is aged 65+
 - The population density
 - Social media presence.



APPENDIX 3



EVALUATING THE IMPACT OF COMMUNITY SAFETY INITIATIVES

- Learning, benefits realisation, and evaluation forms an important part of the BFRS Project Management Office’s project management methodology including the Project Initiation Document.
- Evaluation is about considering:
 - **Value** – establishing the utility, need for specific types of community activities;
 - **Processes** – being clear about what exactly we are trying to achieve, our expectations and those of our stakeholders, and whether this is consistent with our strategic aims included in our CRMP 2019-23 refreshed for 2021;
 - **Efficiency** – the relationship between resources, outputs and outcomes;
 - **Impact on equality, diversity and inclusion** – including those living in circumstances that make them vulnerable. Thinking about the avatars in Family Bedfordshire is helpful.²¹ See below.
 - **Return on investment** – if we have achieved some quantifiable social value; and
 - **Effectiveness** – the extent to which outputs achieve the desired objectives.

HOW WE EVALUATE OUR IMPACT FROM PREVENTION ACTIVITY?

Quantitative analysis:

- Numerical outputs including how many units delivered.
- Costs and time taken.
- Risk and timescales:

EXHIBIT 4 – HOW WE ASSESS RISK OF SAFE AND WELL REFERRALS

LOW RISK Online support (0-5 points)	< 2 risk factors ticked
MEDIUM RISK Visit usually within 2 weeks (6-10 points)	No working smoke detector < 2 other risk factors ticked
HIGH RISK Visit usually within 3-5 days (11-15 points)	No working smoke detector > 2 other risk factors ticked
VERY HIGH RISK Visit within 24-48 hours (16-20 points)	Immediate Concern: No working smoke detector > 2 other red risk factors ticked

²¹ See Family Savings Calculator

- In August 2020 BFRS launched a new Safe and Well online referral portal. This can be used to make a self-referral, to refer a relative, friend or neighbour and by partner agencies to make a referral. A number of questions are asked about risk, behaviour and safety equipment in the home. This is combined with scores based on Mosaic Group risk and Response time to give an overall Risk score.

Qualitative analysis:

- Customer Satisfaction Surveys²²
- Station Productivity Analysis
- Debrief, staff, and partner feedback
- Family Savings Calculator.

AN EVALUATION CHECKLIST

- Evaluation is a 'can opener' to see what has worked well and why. We must answer the So What? Question our stakeholders may have.
- In broad terms we need to think about:
 - Is the evaluation needed or relevant?
 - Do we have the skills and capacity to do this properly?
 - Do we want to assess how the project's impact on the wider community?
 - Have we adequately considered Equality, Diversity, and Inclusion?
 - Are we clear who wants to see evaluation?
 - Who is going to make the key decisions about the success of the project?
 - What resources are available or needed to undertake the evaluation?
 - Is the focus on processes, impacts, and outcomes?
 - Do we have enough qualitative and quantitative data?
 - Is this data up to date?
 - Are we seeing trends and patterns in the information?
 - Have we met our objectives?
 - How can we convey the findings to different audiences?
 - What implications does the evaluation have for future practice?

²² See Customer Satisfaction Source: bedsfire.gov.uk

WHAT DOES THIS MEAN FOR FAMILY BEDFORDSHIRE?



Grandad Bedfordshire
Still living on his own. He had a fall earlier in the year and was rescued by our Falls Team.



Amrik Bedfordshire
He has converted the 1st floor of his restaurant in to an HMO and has engaged with a HMO Officer to produce his risk assessment.



Susan Bedfordshire
She has applied for the role of Fire Safety Adviser with the Service.



Yasmin Bedfordshire
Has had a virtual Fire Service visit at school supported by the staywise website.



Poppy Smith
Now living in an HMO in Luton. Struggling with lockdown Poppy has started to hoard combustible materials in her room. BFRS crews visited and have made a Safeguarding referral and completed a CFS Ops which updates our MDT's with additional risk information.

- Grandad Bedfordshire benefits from prevention activity as a direct recipient of support from our Falls Team. Other benefits to Family Bedfordshire include:
 - Becoming community opinion forms and spreading good news about their safety and BFRS;
 - Increasing levels of trust in authority in some of our harder to reach communities, this is particularly important for things like Covid-19 vaccine programmes;
 - Lowering the risk of fire;
 - Prevention of economic loss in Amrik's business; and
 - Working with our partners to keep Poppy safe at home. If our prevention activity didn't work, we couldn't convince our partners to work with us.
- Linking data sets is one aspect of our Digital Strategy and is giving us a rich picture of individual incidents and prevention interventions. Behaviour change from prevention activity is regularly monitored. For example, in Yasmin's school where they see the StayWise programme.
- To ensure we make Every Contact Count we are developing our approach to our annual programme of Station Productivity Assessments and:
 - Recording equality, diversity and inclusion data more consistently;
 - Developing a 'model' impact evaluation for each of our 14 fire stations station using the Family Savings Calculator. The Family Savings Calculator has been developed by the Effective Services for Vulnerable Groups Programme by Welsh Government as a way of helping measure the cost impact of safety interventions.

“Bedfordshire Fire and Rescue Service is effective
at keeping people safe and secure.”

HMICFRS December 2018



Bedfordshire Fire and Rescue Service

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