


Agenda Item 8

		THE HEALTH SCRUTINY COMMITTEE FOR LINCOLNSHIRE	
Boston Borough Council	East Lindsey District Council	City of Lincoln Council	Lincolnshire County Council
North Kesteven District Council	South Holland District Council	South Kesteven District Council	West Lindsey District Council

Open Report on behalf of LIVES (Lincolnshire Integrated Volunteer Emergency Services)

Report to	Health Scrutiny Committee for Lincolnshire
Date:	15 February 2017
Subject:	LIVES (Lincolnshire Integrated Volunteer Emergency Services) Status Report and Update

Summary:

LIVES (Lincolnshire Integrated Volunteer Emergency Services) is a registered charity which provides an emergency response by trained volunteers to medical emergencies throughout Lincolnshire.

LIVES delivers two responses to emergencies. Most responses are in the form of a locally-based trained volunteer Community First Responder delivering timely life-saving interventions. The other type of response is from our volunteer Medic First Responders, who are qualified healthcare professionals providing advanced or critical medical care. LIVES supports the service provided by the East Midlands Ambulance Service NHS Trust as the statutory ambulance service provider with whom we have a Service Level Agreement. LIVES also works in close collaboration with Lincolnshire Fire & Rescue, providing training, support and clinical governance to co-responders and the Joint Ambulance Conveyance Project (JACP).

In October 2016 LIVES began responding to 111 calls as a disposition of the Clinical Assessment Service, an alliance between 111 and NHS providers in Lincolnshire.

The following LIVES personnel will be attending the Committee: -

- Nikki Silver, Chief Executive Officer
- Dr Simon Topham, Clinical Director

Actions Required:

- (1) To consider and comment on the information presented.
- (2) The Committee is invited to explore the following issues:
 - the nature and impact of the response delivered by LIVES volunteers;
 - support from and liaison with the East Midlands Ambulance Service;
 - future working with Lincolnshire Fire & Rescue and the context of blue light collaboration;
 - opportunities for LIVES to make a larger contribution to community resilience and challenges in the health economy;
 - funding issues and in particular support from central government grants (LIBOR) and Lincolnshire CCGs.

1. Background

Introduction

LIVES is a charity in its 48th year of operation with the following charitable objectives:

To provide Immediate Medical Care to any person injured in an accident or involved in any medical emergency in the area of Lincolnshire, North-East Lincolnshire or any area reasonably close to. To advance the principle of Pre-Hospital Emergency Care on a national basis; providing advice and guidance in all aspects of such care, including the delivery of training and provision of approved emergency equipment.

Responders are organised into operational groups based on a response time of approximately six minutes under normal driving conditions. There are over 160 responder groups across Lincolnshire, with around 700 active LIVES Community First Responders and LIVES Medics. LIVES has responded to almost 21,000 emergency calls in 2016, an increase of approximately 15% on the previous year and this number is likely to continue to increase in the future.

In 2016 LIVES appointed its first Chief Executive Officer in recognition that the organisation has now reached the level where strategic development is required to respond to the ever-growing demand for health and care within a resource-limited NHS. LIVES feel that they have the ability and opportunity to provide far more to the people of Lincolnshire than at present, both in terms of the number of emergencies responded to, the nature of the response delivered and through the transfer of skills such as CPR education to both young people and communities.

The following information provides an outline of the responder and medic roles.

LIVES Responders

When a 999 call is made within the responder's local area, East Midlands Ambulance Service (EMAS) despatch an emergency ambulance with a response category determined by the AMPDS computer-based triage system. At the same time EMAS Community First Responder (CFR) desk will activate the LIVES Responder who is 'on-duty'. LIVES responders are dispatched using a response 'isochrones map' determined by an ability to get to the patient within six minutes. Because of being embedded in their community, the responder very often arrives first on the scene (currently 86% CFRs arrive first) and can begin to treat the patient by following a Danger, Responsiveness, Airway, Breathing, Circulation model (DR-ABC). This schema leads to the responder:

- clearing and controlling the airway of an unconscious patient
- providing resuscitation and defibrillation
- giving oxygen therapy
- controlling any bleeding
- taking observations; blood pressure, blood glucose, temperature, respirations and pulse.
- being the 'eyes and ears' of the ambulance service and feeding back information to control if the situation is not as initially expected.
- making the patient feel more comfortable and at ease; reassuring worried relatives and taking charge of the situation
- using local knowledge to ensure that the ambulance can find the location quickly.

In cases where the patient has suffered a cardiac arrest and has stopped breathing, the responder follows Resuscitation Council guidelines to optimise the chance of survival. In this situation, the patient's heart needs to receive a shock (defibrillation) as quickly as possible, ideally within the first five to ten minutes of collapse. The earlier this can happen, the better the patient's chance of survival. First Responders carry a defibrillator, which can deliver a controlled shock in an attempt to correct the patient's heart rhythm. A defibrillator costs approximately £1,000, but it can mean the difference between life and death for some people.

The 999 calls where the responders make the biggest, most obvious differences are to the calls coded by the AMPDS system as Red 1 or Red 2 calls. These are 999 calls which have been deemed "serious and/or life threatening". EMAS aims to be at these calls within 8 minutes, but as these calls require medical help to arrive as quickly as possible, LIVES Responders can shave off vital minutes due to their unique position within the community.

Examples of Red calls are:

- signs of cardiac arrest
- unconsciousness and collapse
- chest pains (for example, heart attack and acute angina)
- breathing difficulties (for example, asthma)
- diabetic emergencies (for example, hypoglycemia)
- fitting or convulsions (for example epilepsy)
- stroke
- anaphylaxis (severe allergic reaction)
- choking.

More than 70% of cardiac arrests occur out of hospital. For this reason, the ability of a LIVES Responder to get to a patient quickly and administer basic life support and early defibrillation until the ambulance arrives is vital, especially in rural areas where an ambulance cannot always reach the scene straight away.

Our more experienced volunteers also respond to traumas and some to road traffic collisions and make the early assessment of whether additional resources are required, the speed at which they are deployed and begin the clinical management of patients in these circumstances.

Medics

LIVES medics have been voluntarily providing advanced pre-hospital emergency care since the inception of the charity in the early 1970s. These members are qualified healthcare professionals; doctors, nurses, paramedics and technicians, who freely offer their spare time to respond to 999 calls when available.

The LIVES medic role is twofold:

1. Timely Response - Providing a first responder service to the local community in the same way as their lay First Responder counterparts.
2. Adding Value – LIVES Medics provide advanced or critical care intervention, taking skills above and beyond those provided by the statutory ambulance service.

Medics may attend the following incidents:

- life-threatening medical emergencies
- cardiac arrest
- paediatric emergencies
- road traffic collisions
- major trauma
- major incidents
- responding to requests for on-scene advanced clinical support.

LIVES medics offer skills appropriate to their level of professional training. The highest level medic members are able to offer some or all of the following skill sets:

- advanced airway management, and management of the difficult airway including pre-hospital emergency anaesthesia (“medically-induced coma”)
- on-scene chest surgery in traumatic cardiac arrest or severe chest trauma
- advanced ventilatory strategies
- advanced vascular access techniques
- sedation and advanced analgesia
- senior clinical support and decision making
- major incident management
- further critical care interventions.

Performance

2016 was the busiest year in the 48 year history of LIVES.

Number of calls	20,516	
Increase of 3,628 on the previous year		
Proportion of EMAS Red calls attended by a LIVES CFR		18.8%
LIVES contribution to Red 1 – Dec 2016	11.8%	
LIVES contribution to Red 2 – Dec 2016	7.4%	

LIVES contribution to EMAS performance has reduced in the last year although the number of calls attended has increased. LIVES is currently working with NHS commissioners to understand the reason behind this. Two possible explanations are delays in dispatching CFRs due to dispatch resource constraints or extended travelling times to the call. LIVES does not have access to the data to allow the organisation to analyse and respond to this change.

One of the ways in which we measure the impact of LIVES is the achievement of ROSC (return of spontaneous circulation) in patients suffering an out of hospital cardiac arrest. In 2016 LIVES responders achieved a ROSC rate of 31.8% in patients we attended which is a significant improvement on the national average of 10-13%. This performance can be attributed to a number of factors including geographic reach, availability of responders and focus on training and equipping volunteers to 'do the basics well'.

Funding

LIVES is a charity that is dependent on generating income to enable our volunteers to deliver their response. It costs more than £1m per year to deliver LIVES services.

Lincolnshire CCGs provide £307,000 of funding under a contract to deliver the CFR service. No funding is received for medic response or the new CAS response. The remainder of income is generated through fundraising and commercial activities.

LIVES is focused on diversifying its income streams to ensure the organisation is financially sustainable. This includes:

- development of more robust fundraising models including regular giving and business sponsorship
- commercial activities including the sale of first aid training and equipment and the provision of event first aid
- grant funding to facilitate new service or operational developments.

LIVES has been awarded two grants totalling £29,000 to fund the development of a Cycle Response Unit (CRU) in the Lincoln shopping precinct. It has also been awarded a small grant by North Lincolnshire Council to facilitate the delivery of CPR training to secondary schools in the area.

However the organisation was very disappointed to be passed over for a grant from the LIBOR funds distributed by the Chancellor in the Autumn statement. The grants were made available for military and emergency services charities. LIVES submitted a bid for £850,000 to fund monitoring equipment for volunteer medics to allow them to more safely deliver life-saving interventions at the roadside such as advanced sedation and analgesia and anaesthesia and included telemedicine functionality to improve quality. Following intervention by Karl McCartney MP the organisation received feedback that their bid had been rejected due to concerns around additionality due to the close working with the NHS and the size of the grant in proportion to the turnover of the organisation. The organisation disagrees with both rationale; firstly all air ambulance trusts and a number of NHS organisation's charitable trusts were awarded grants, and secondly, the bid was based on capital funding and therefore is sustainable; also a similar charity was awarded a grant for the same equipment that was twice its annual turnover. The chief executive is currently meeting with Lincolnshire MPs to secure support for a future funding bid.

Operational Developments

LIVES is a progressive organisation that is always looking for opportunities to develop responses that support Lincolnshire communities. Developments of note that may be of interest to the Committee include:

- Clinical Assessment Service. This is a partnership between Lincolnshire healthcare providers to deliver telephone based assessment of calls that have originated in 111 or been coded as green 3 or 4 by EMAS. LIVES is a disposition that is trained and equipped to respond to non-injury falls to assist the patient in re-mobilising, or to the unwell patient where the clinician requires clinical observations to inform their decision-making. LIVES has been responding to calls since October 2016 but the service development is slow and a number of issues are being encountered in process and dispatch. LIVES believes that there is significant value for patients in this service, particularly in avoiding unnecessary admissions and so continues to work with NHS partners to develop this response.
- Lincoln Cycle Response Unit. A highly successful pilot of a LIVES responder on a bicycle responding to 999 calls in the centre of Lincoln was undertaken during the summer of 2016. In the seven weeks of the pilot the bicycle operated two days per week and saw 52 patients with an average response time of 5:28 minutes from the time of call, or 2:52 from the time of dispatch. 96.3% of red calls were attended within 8 minutes and 27% of calls were cleared without EMAS attendance. £29,000 of funding has been secured from two grant partners, People's Postcode Lottery and Morrison's Foundation, to continue the service on a permanent basis. Responders are trained to a minimum of LIVES level 3 and undertake additional public safety cycle training. The CRU is kindly hosted by the Waterside Centre and will be fully operational from May 2017.
- LIVES is committed to the ongoing development of our volunteers. In 2016 six paramedics were trained in advanced analgesia and pain management skills. LIVES now has 20 medics with advanced skills and it is this development which informed the unsuccessful LIBOR grant referred to earlier in this paper. Furthermore, the organisation trained a wider cohort of medics to assist senior

colleagues with the delivery of emergency out of hospital anaesthesia. CFRs have been trained in the use of the iGel airway in cardiac arrest under a CQUIN development. Evidence shows that the use of an iGel can improve outcomes in cardiac arrest through improving oxygenation and reducing the time in which chest compressions are not done. This is the highest quality of Basic Life Support that a non-healthcare professional can deliver.

Operational developments planned for 2017/18 include the pilot of LIVES volunteers on the CFR dispatch desk at EMAS to support the timely and effective dispatch of responders; a pilot of a smartphone app for dispatching responders to improve the effectiveness and safety of deployment; introduction of telemedicine and advanced monitoring capability for medics; and NHS Commissioners have accepted LIVES 2017/18 CQUIN proposal to train and equip responders to undertake near patient urine testing. The information gathered from such a test can make a big difference in terms of detecting underlying abnormalities before they lead to an injury fall, or worsening of the condition to become sepsis, or just simple clinical deterioration, thus avoiding unnecessary A&E attendance and hospital admission whilst reducing morbidity and mortality of patients with community urine infections.

Community Engagement Activity

A lesser recognised element of the work of LIVES is the commitment to education and sharing skills, both with healthcare colleagues and the wider community. Two key developments may be of interest to the Committee:

- LIVES believes that learning CPR is a basic life skill that should be available to all. International evidence indicates that where young people are taught CPR at school the incidence of bystander CPR increases as does successful outcomes. LIVES is engaged with a number of schools, youth and community organisations in delivering CPR education. The organisation has recently received a grant from North Lincolnshire Council to support this work in secondary schools. The organisation is also involved in discussions with The EBP regarding the pilot of a more structured youth programme to engage young people in lifesaving work. This has the potential to benefit the wider NHS in recruitment and development of a future workforce.
- LIVES believes that there is a place for everyone within the organisation at a level that is appropriate to both their interest and ability. As pre-hospital emergency medicine has developed as a specialism, the skills of LIVES CFRs has also grown. However it has been recognised that there is a cohort of volunteers who originally joined LIVES to respond to their neighbour in cardiac arrest and are not interested in developing skills beyond this level. A review of all CFR training has been undertaken with the creation of a meaningful Level 1 where responders will be trained and equipped to respond to cardiac arrests only, using community public access defibrillators. LIVES anticipates that this will increase the overall availability of a responder in these specific circumstances. LIVES also believes that the development of training pathways for individuals who want a career in health has the potential to have a positive impact on NHS recruitment.

Issues for the Committee

The Committee is invited to explore the following issues:

- the nature and impact of the response delivered by LIVES volunteers;
- support from and liaison with the East Midlands Ambulance Service;
- future working with Lincolnshire Fire & Rescue and the context of blue light collaboration;
- opportunities for LIVES to make a larger contribution to community resilience and challenges in the health economy;
- funding issues and in particular support from central government grants (LIBOR) and Lincolnshire CCGs.

2. Conclusion

The Committee is requested to consider the information on LIVES.

3. Consultation

This is not a consultation item.

4. Appendices

No appendices are included.

5. Background Papers

No background papers within Section 100D of the Local Government Act 1972 were used in the preparation of this report.

This report was written by Nikki Silver, Chief Executive Officer, who can be contacted on 01507 525 999 or nsilver@lives.org.uk