Report by the East of England Ambulance Service NHS Trust

The Ambulance Response Programme (ARP)

The Ambulance Response Programme is a national programme aiming to help patients get the right response, first time. More details about ARP are in members' packs.

Every ambulance service is England is moving across to ARP this year. The East of England Ambulance Service NHS Trust (EEAST) has planned to go live on the 18th October. The key changes are:

- Call handlers have a new way of managing calls to allow earlier identification and recognition of life-threatening conditions and more time to assess patients who do not have life-threatening conditions
- Call categories and response standards will change; simplifying the system and ensuring all calls are reported against nationally.
- Due to the change in standards and response model, EEAST will be transferring much of its existing staffing from Rapid Response Vehicles (RRV) to ambulances to facilitate an increase in ambulance cover. This will mean a reduction in cars and every ambulance service is going through a similar change in response mix.
- End to end system standards for stroke and heart attack patients.

Demand and performance

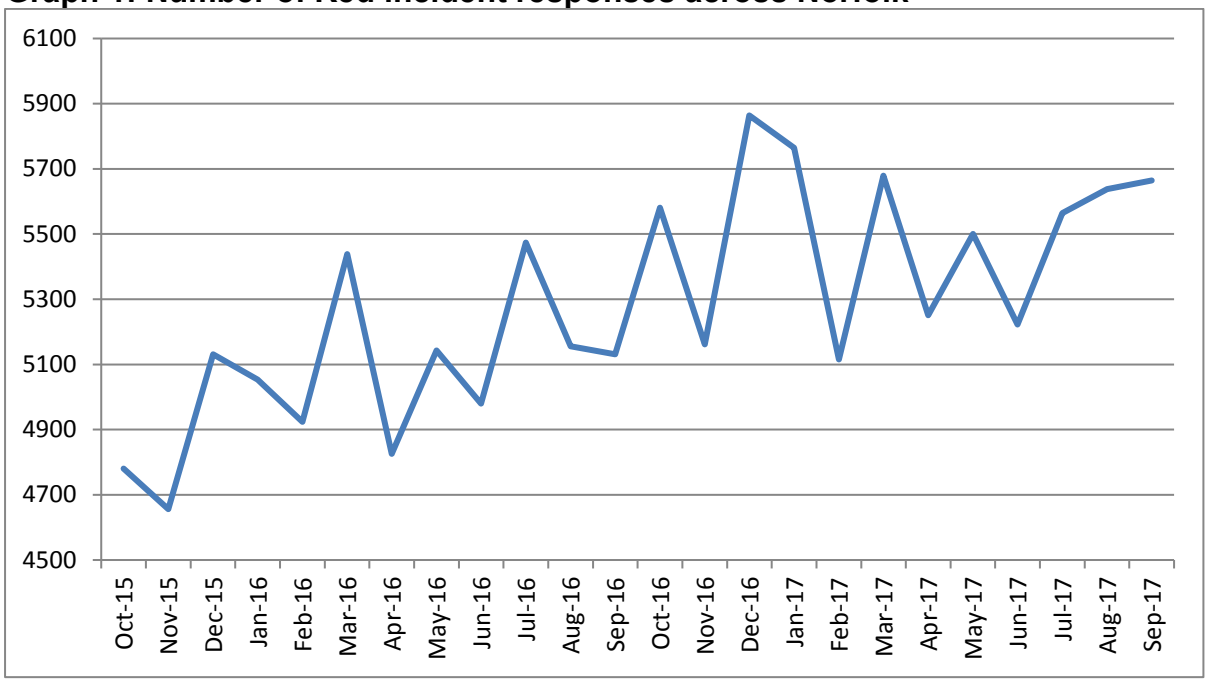
EEAST is commissioned at a regional level, not on a CCG level. The new ambulance standards under ARP cannot be compared to the existing standards as the call categories and associated response times are significantly different.

The number of incidents EEAST responds to in Norfolk has fallen by around 4% over the last two years. However the number of high acuity patients (Red calls, which could be potentially life threatening) has risen by around 18% (see graph 1).

So whilst the fall in overall demand is welcome, the surge in high acuity patients has added significant pressure on the service, as these patients need a faster response and often multiple emergency responses.

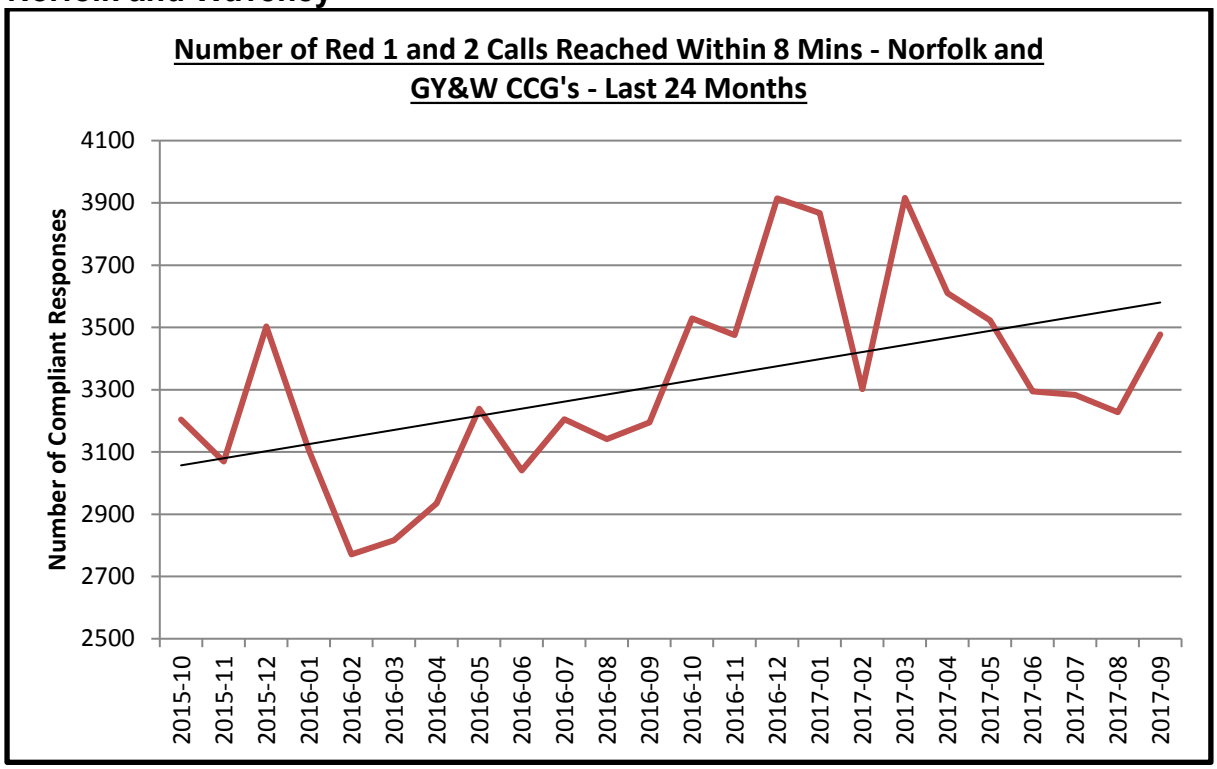
Performance is also impacted on by hospital handover delays and student abstractions (releasing students to complete their education and studies). These issues are covered later in the report.

Graph 1: Number of Red incident responses across Norfolk



Despite the significant rise in high acuity patients, EEAST has seen a sustained improvement in the number of Red call patients being reached within eight minutes across Norfolk and Waveney (see graph 2)

Graph 2: number of Red call patients being reached in 8 minutes across Norfolk and Waveney



Despite the improvement in the number of patients being reached in 8 minutes, and as a result of the pressure from the increasing levels of Red calls, we have seen a slight worsening of response times across Norfolk as table 1 shows.

Table 1: Average response times to Red calls in Norfolk by CCG area

Month Year	Great Yarmouth and Waveney	North Norfolk	Norwich	South Norfolk	West Norfolk	Grand Total
2015-10	00:07:33	00:11:35	00:06:08	00:10:26	00:08:55	00:08:39
2015-11	00:07:15	00:11:56	00:06:27	00:10:52	00:08:39	00:08:47
2015-12	00:07:34	00:11:10	00:06:32	00:10:17	00:07:58	00:08:32
2016-01	00:08:23	00:12:44	00:07:14	00:11:22	00:09:01	00:09:33
2016-02	00:08:39	00:13:26	00:08:03	00:12:07	00:10:18	00:10:15
2016-03	00:09:43	00:14:31	00:08:59	00:13:12	00:11:22	00:11:20
2016-04	00:07:45	00:13:00	00:07:16	00:11:18	00:09:43	00:09:33
2016-05	00:07:38	00:11:43	00:07:12	00:11:29	00:09:02	00:09:12
2016-06	00:08:14	00:13:02	00:07:12	00:11:28	00:09:38	00:09:43
2016-07	00:08:33	00:13:42	00:07:41	00:12:05	00:10:10	00:10:10
2016-08	00:08:16	00:12:30	00:07:00	00:11:40	00:09:49	00:09:39
2016-09	00:07:24	00:12:42	00:07:15	00:11:18	00:08:48	00:09:18
2016-10	00:06:58	00:12:00	00:06:53	00:12:16	00:09:18	00:09:17
2016-11	00:06:26	00:11:40	00:06:41	00:10:49	00:09:03	00:08:42
2016-12	00:06:27	00:11:57	00:06:30	00:10:37	00:08:43	00:08:40
2017-01	00:06:55	00:12:07	00:06:32	00:11:02	00:08:45	00:08:51
2017-02	00:06:57	00:11:58	00:06:53	00:11:26	00:09:03	00:09:05
2017-03	00:07:05	00:11:25	00:06:20	00:10:35	00:08:15	00:08:35
2017-04	00:06:51	00:11:36	00:06:06	00:10:29	00:08:34	00:08:31
2017-05	00:07:27	00:12:13	00:06:44	00:11:22	00:09:36	00:09:12
2017-06	00:07:23	00:12:34	00:07:09	00:11:16	00:09:35	00:09:20
2017-07	00:08:18	00:13:55	00:07:11	00:12:06	00:10:12	00:10:04
2017-08	00:08:28	00:13:31	00:07:38	00:12:00	00:10:24	00:10:12
2017-09	00:07:46	00:13:15	00:07:08	00:11:13	00:09:30	00:09:30
Grand Total	**00:07:41**	**00:12:31**	**00:07:01**	**00:11:22**	**00:09:21**	**00:09:22**

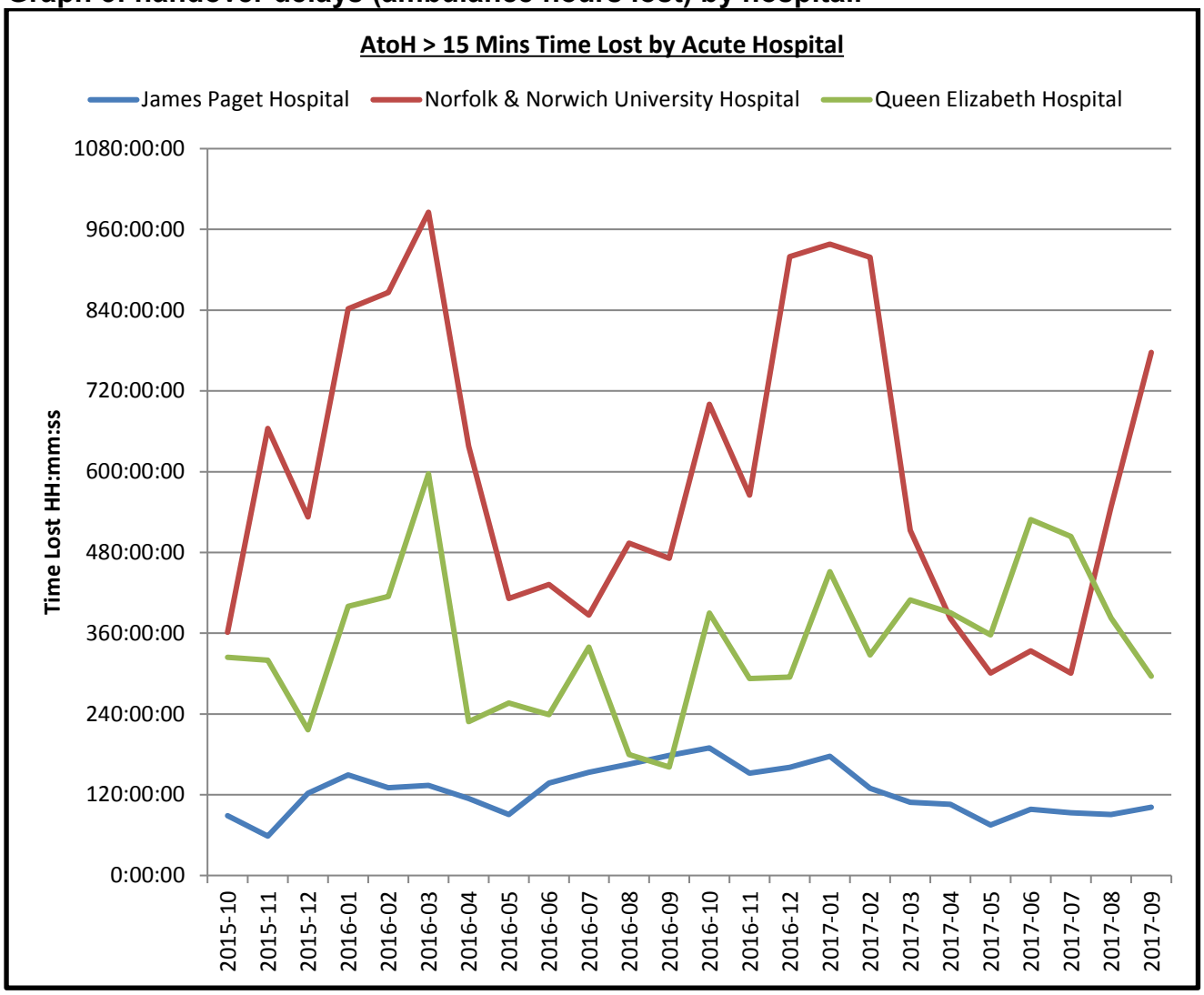
Hospital handovers

EEAST currently treats around 50% of its patients without conveying them to hospital. This is either through hear and treat services over the phone or see and treat face to face with the patient in their home or at the scene of the incident.

Hospital handover delays have a direct impact on response times. Where there are increased hospital handover delays it means we have fewer resources to send to patients.

Graph 3 shows the amount of hours lost at each of the hospitals over the last two years (hours which are over the 15 minute handover standard). As this graph shows, there have been spikes in handover delays each winter. Each 12 hours lost is the equivalent to taking off one double staffed ambulance for a 12 hour shift.

Graph 3: handover delays (ambulance hours lost) by hospital.



In the first five months of the financial year EEAST lost almost 4,500 hours (or the equivalent of 374 ambulance shifts) across the three Norfolk & Waveney hospitals. This is discussed at each of the A&E Delivery Boards and discussions/actions taken to reduce the impact for patients waiting in the community. We work closely with hospital teams to identify where any improvements can be made; some of these already include alternate pathways or destinations within the hospital such as the UCC or Ambulatory Emergency Care (AEC).

We have recently introduced a dedicated resource to treat our fallen and elderly patients. This is a collaborative scheme with our colleagues at NCH&C who provide an occupational therapist to respond with us as part of a team. This has been operating across the central Norfolk system since January and has now been funded outside of the core contract by Norwich CCG until the end of the financial year.

We have also received additional funding via the STP to put on two further resources over the winter period until the end of March 2018. This has been a very positive addition to our provision to patients, and had reduced emergency admissions to fallen and sub-acute elderly patients that might otherwise have been taken to hospital.

We have seen some 500 patients in this time with a near 70% non-conveyance rate for this cohort of patients. This model has been praised by patients, commissioners, and networks as a great example of collaborative working across a system to improve patient outcomes and experience. Due to the success of the Norfolk model, this is also being replicated in a number of CCG areas across the EEAST region.

NHS Improvement recently published a video about the impact of handover delays, featuring the story of a patient called Matthew. It can be viewed here: https://improvement.nhs.uk/resources/matthews-story/

NHS Improvement have also published a good practice guide on improving patient flow. They have also launched a 'fit to sit' campaign which encourages health professionals, including paramedics, to put an end to patients lying down on trolleys and stretchers if they are well enough to sit. This aims to help prevent loss of muscle strength, promote a speedier recovery, help patients get home sooner and save lost time to the 999 system.

The Hospital Ambulance Liaison Officer (HALO) role at the NNUH remains pivotal for the hospital and EEAST. They provide an early warning of impending activity, data collection and validation, welfare support and direct and visible contact with the hospital teams. This cover is provided 20 hours per day/7 days per week. The recent visit from the Emergency Care Improvement Programme support team highlighted the good work that they do in support of patient flow and experience. They have also started to support streaming to other departments and provide immediate operational leadership for cohorting decisions. This is still, however, funded outside of the core contract and will cease again at the end of the financial year should this not be resolved through the contracting round.

Recruitment and retention

Norfolk & Waveney are currently over-established by approximately 12% (80 staff). There is a funded budget for 618 staff and currently there are 700 in post. However, over a quarter of these staff are on a student pathway. That might be student paramedic, student technician or specialist paramedic programmes.

The student paramedic programme commenced some four years ago, and we have been successful in recruiting, and retaining, significant numbers. This is in part due to the positive relationship that we have with the University of East Anglia (UEA). The most challenging aspect for EEAST is that in year two of the student paramedic programme the staff member is either away at university or on placement for 44 weeks. This in effect takes our over-establishment position to an under-establishment position by about 15%.

We have also been successful in employing a number of graduate paramedics from UEA that we had supported with placements at EEAST during their studies. Of the 28 places offered, we employed 26. This is another example of our relationship with UEA and a testament to the hard work that our mentors have put into to help develop these staff.

We have enjoyed a period of stable workforce movements in the past year, with most leavers due to retirement, ill health or career opportunities. Our attrition rates have reduced and we have a waiting list of staff wanting to commence training or transfer into Norfolk & Waveney from other parts of the Trust.

We are awaiting the results of the Independent Service Review, commissioned by our regulators, to identify if we need to recruit more staff into Norfolk & Waveney. This is planned to report in the coming weeks.

Estates and fleet transformation
EEAST is planning a £42 million investment in its estates over the next five years. This strategy is looking at how we are going to develop a better estate and facilities for staff, and one that is more cost effective.

Currently EEAST spends the most percentage of its non-pay spend on its estate out of any ambulance service in England. This means that we are spending more on our estate than we could be and we could deliver a better service to our staff from implementing a modern estate with make ready facilities.

The existing estate does not support the requirements of a modern ambulance service. A final set of proposals are being drawn up around where 18 depots will be located and the supporting network of community ambulance stations and shared facilities. This will improve staff access to line managers and enable EEAST to develop better health and wellbeing facilities which we can't do on our existing estate. This is about making the most of our estate and working with partners to share more facilities and buildings to help increase our presence in the local community, especially in more rural areas.

Each depot would incorporate the following:
• Staff facilities for the centrally reporting complement of staff for the 'cluster' served by that depot;
• Local management staff for that 'cluster';
• A make ready centre (ie a centre where ambulances are prepared for the crew in terms of washing and stocking) for all fleet vehicles assigned to that 'cluster'; *and*
• Local workshop facilities as suitable for on-site (*or adjacent*) servicing, maintenance and repair of the fleet vehicles assigned to the 'cluster'.

We could not replicate this on the scale of the existing number of reporting ambulance stations. As a result most of our staff currently have to come into work and prepare the ambulance before they respond to patients – clearly an ineffective use of a clinician's time. By moving to a depot model, we can employ ambulance fleet assistants to wash and stock the ambulances, working in the right facilities, so they are ready for the clinicians to use.

The new estate is expected to enable service delivery improvements by reducing the amount of time crews are out of service for issues that can be managed more effectively and efficiently. This reduced out of service time will provide some additional resourcing to support overall improvement but at lower estate costs with improved facilities for staff. This model allows for the provision of a more comprehensive support and well-being package for staff which will support our efforts to reduce sickness and improve retention.

Each depot would serve a 'cluster' network of Community Ambulance Stations. However, the wide geography operated by the Trust means that some outlying community ambulance stations will need to have vehicles based at them and therefore incorporate some measure of local staff reporting. This is particularly important in more rural areas, especially in parts of Norfolk, for example Cromer.

We will need to review what the estate requirements are for the cluster network of supporting Community Ambulance Stations in each area. Our aim is to invest to extend our reach into the local community. We are also looking to work collaboratively with our partners, especially police and fire colleagues to share facilities where possible as we already successfully do in some parts of the region. In Norfolk, we are already well placed as we have existing depots in both Longwater and Waveney. Work to review where we need the cluster of community ambulance stations in Norfolk has not begun.

A good example of this is the new depot in Stevenage. This investment programme has seen the ambulance service extend its reach into the community by developing a new depot in Stevenage and retaining the existing facilities at Stevenage fire station and Letchworth as community ambulance stations.

Both NHS England and NHS Improvement are seeking an improvement in efficiency and a reduction in variation across Ambulance Trusts as identified by the recent National Audit Office report debated by the Public Accounts Committee on the 20th March 2017. This plan was also requested by the CCGs as part of the Trusts Remedial Action Plan in 2016/17.

Stroke Performance
EEAST is measured against two stroke targets. One is around the level of care given (called the stroke bundle) and the second is a time response based target (called stroke 60).

The stroke care bundle target measures if EEAST delivered the right clinical care to each patient. As can be seen from table 2, EEAST across Norfolk and Waveney has excellent care bundle results. The target is 95% achievement of the stroke care bundle.

Table 2: stroke care bundle results by CCG

	April 2017	**May 2017**	**June 2017**	**July 2017**	**Year to date**
Great Yarmouth & Waveney	100.0%	100.0%	100.0%	100.0%	100.0%
North Norfolk	96.0%	100.0%	100.0%	100.0%	99.0%

Norwich	100.0%	100.0%	100.0%	100.0%	100.0%
South Norfolk	95.5%	100.0%	100.0%	100.0%	98.9%
West Norfolk	100.0%	100.0%	100.0%	100.0%	100.0%

The current stroke 60 target is the percentage of Face Arm Speech Test (FAST) positive stroke patients (assessed face to face) potentially eligible for stroke thrombolysis, who arrive at a hyperacute stroke centre within 60 minutes of call; this should happen 56% of the time.

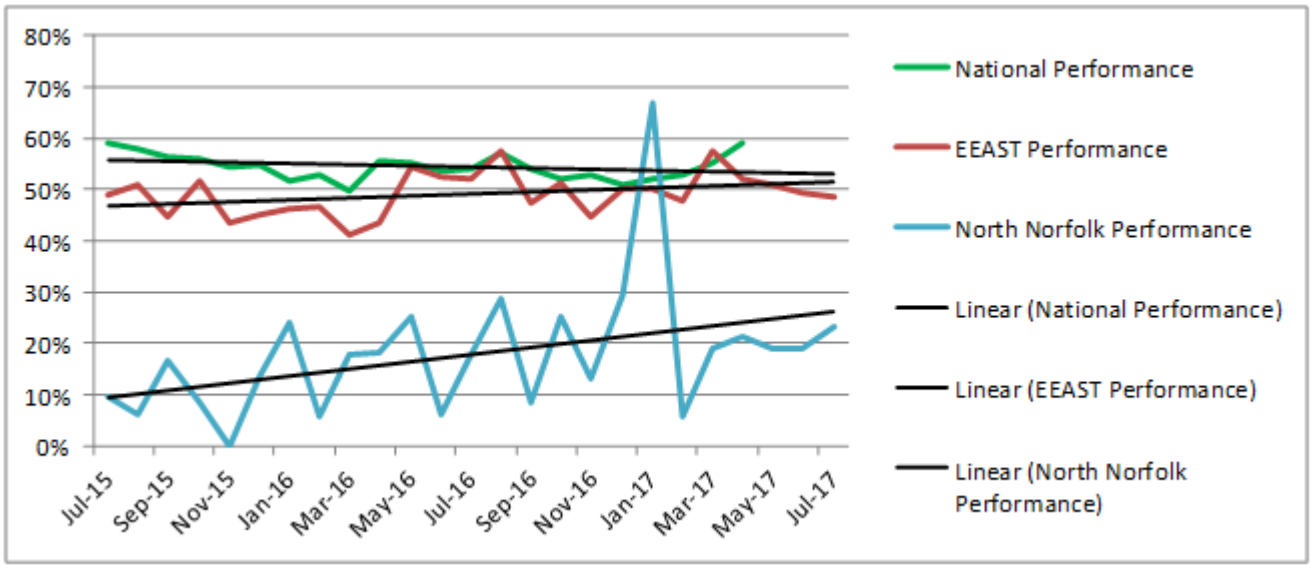
This target is not outcome based and takes no account of the end to end care the patient receives. However, evidence shows that the quicker a patient receives specialist treatment for a stroke, the better their outcome. Therefore under ARP and the new ambulance standards, the NHS will measure the proportion of patients that receive appropriate treatment - that is, thrombolysis where appropriate, or first CT scan for those where it is not - within 180 minutes of making a 999 call, with an expectation that 90% of patients will meet this standard by 2022.

The existing stroke 60 target remains a challenge, due to a number of factors, not least the rural nature of the area. There are some areas of North Norfolk where it is impossible to get a patient to hospital in under 60 minutes.

We review all missed stroke 60 calls internally and with commissioners to identify whether there was any patient harm as a result of the delayed response. We have reviewed North Norfolk as it is historically the most difficult area to deliver.

Over the previous two year period North Norfolk Stroke 60 performance is below both regional and national levels, the exception being January 2017 where 66.7% was achieved. This is likely to be due to that month having the lowest patient numbers over the period. The trend for North Norfolk is encouraging and from graph 4 it is noticeable that performance is increasing, recognising not to the national standard.

Graph 4: Stroke 60 performance nationally, regionally and in North Norfolk



From our investigations the findings causing the delays were as follows:

- Calls coded as Green wait longer for resources especially at times of demand surges
- RRV's attending first and then awaiting ambulance back up
- Geographical challenges
- Prolonged on scene times with FAST positive patients
- Delays at acute and system wide pressures
- Gap in knowing what the HASU outcome was

As a result, we have implemented a series of actions to be taken, which will also support potential improvements across all CCG areas:

- Emergency Operation Centre (EOC) processes being reviewed
- Communication with RRV clinicians to increase understanding of back up processes
- Work with Stroke Network around areas where there is delay in calling 999
- Continued work with external stakeholders to improve collaborative and communicative approach to system pressures
- Direct feedback given to crews where reviews show prolonged on scene times
- Trust review of on scene times
- Collaborate with HASU's regarding patient outcome and link ambulance and acute hospital data together to enable a potential system outcome (complete at NNUH – requires more sustainable process as currently manual not automatic)

Mental Health Pathways

EEAST are currently working with commissioners and partners in NSFT to review and identify gaps in the transport pathway for mental health patients. Currently there is confusion on some types of journeys, particularly out of area transfers and out of hours requests for transport. We have an agreed transport/referral mechanism for those patients that require a formal assessment in a section 136 facility, which

ensures a smooth and planned transition for these patients. This is received well by the NSFT professionals involved.

The confusion is within some patient transfers to places such as the Julien Hospital or the facility at Mundesley. The ongoing work is aimed at identifying how journeys should be provided, as some currently sit outside of the EEAST contract. ERS and our commissioners are also engaged with these discussions. EEAST will be hosting a workshop event to identify the most appropriate transport pathway for each type of patient.