NOT PROTECTIVELY MARKED

Public Board Meeting	**September 2019** **Item No 05**
THIS PAPER IS FOR DISCUSSION	
TOWARDS 2020: TAKING CARE TO THE PATIENT AND QUALITY IMPROVEMENT	
Lead Director **Author**	Pauline Howie, Chief Executive Executive Directors
Action required	The Board is asked to discuss progress within the 2020 delivery programme and:- 1. Discuss actions being taken to make improvements. 2. Discuss work being taken to transform the Service in the 3 strategic work streams.
Key points	This paper highlights performance for our Hear and Treat and See and Treat performance measures and includes updates from the Clinical Services Transformation Programme, Enabling Technology and Workforce Development strategic work streams. Each programme has active risk registers which are reviewed at each of the Programme Boards. <u>Clinical Services Transformation</u> • Over 36% of patents were managed at home or an alternative to hospital in July and August 2019, surpassing our 35% aim. • The changes made in December 2018 to improve the number of patients that can be safely managed by telephone triage have been sustained, and there continues to be an upward trend. In July and August 2019, 17% of patients were managed by telephone triage surpassing our 15% aim. • Implementation of the Out of Hospital Cardiac Arrest programme is saving more lives, demonstrated by the statistical positive shift in return of spontaneous circulation (ROSC) rates. This is a result of continued strengthening of the chain of survival; working with Save A Life for Scotland and to date more than 495,000 members of the public have received bystander CPR awareness. The National Defibrillator Network went live in August 2019; and the Service went live with the use of GoodSAM at the end of August 2019 to alert cardiac responders when someone is in cardiac arrest nearby, so that CPR can be started while the ambulance is on the way.

- ScotSTAR North was formally launched by the Cabinet Secretary on 24 July 2019, following the service going live in April 2019. This service is providing a retrieval service for patients in the North of Scotland improving outcomes for this population.

- The team of Advanced Practitioners in Pre-Hospital Care based in Inverness started in post in August 2019, and will be working closely with the Pre-Hospital Immediate Care and Trauma (PICT) team to provide enhanced critical care skills to the North of Scotland trauma region.

<u>Enabling Technology</u>

- Ambulance Telehealth Programme – the programme is now complete and is being formally closed. The outstanding Back Office delivery has been handed over to business as usual for completion and will be incorporated within the ICT workplan.
- The electronic patient record major incident module development has been completed and is ready for release.

- Emergency Service Network (ESN) Programme – Local programme timescales are not yet known due to significant timescale slippage in the GB wide Emergency Service Mobile Communications Programme (ESMCP). The Airwave National Shutdown Date has been extended to 31st December 2022. The ESMCP Team have indicated that they now expect their revised ESMCP Full Business Case (FBC) to be released for consultation from October 2019 with a view to approval in Q1 2020. Current concerns include coverage gaps, planning dependencies, resilience, control room integration and ESN costs.

  Provision of an ESN compatible Integrated Communications Control System (ICCS) - Service staff are fully engaged with the UK Government Ambulance Radio Programme (ARP) team with a view to employing their 'ESN ready' Frequentis LifeX ICCS solution. The target timescale for implementation is July 2020. Capital funding has been confirmed from Scottish Government and further proposals are being considered to support the non recurring revenue costs until the current airwave costs can be offset
- Defibrillator Replacement – Testing and configuration work is complete and a trial is scheduled to commence in Aberdeen in September. The training programme has been trialled in pilot areas and a training plan has been developed and approved. Roll out is expected to be completed by March 2020.

- The Patient Transport System Mobile Data Procurement Project has had the Initial Agreement approved by the Scottish Government Capital Investment Group. The Outline Business

	Case is being prepared alongside the development of the 2030 strategy, which will incorporate the next Scheduled Care Strategy. The 2030 strategy is planned for Board approval for March 2020. <u>Workforce Development</u> • We are on track for delivery of recruitment and training targets for 2019-21, with particular focus of maximising our Paramedic intakes as we progress the plan for transition to the new Paramedic Education Model. The 2019/20 programme has been filled, and the work is now progressing to fill the 2020/21 training groups. • Development of the first level leadership & management development programme commencing in October is being finalised. The first cohort will comprise Area Service Managers to 'road test' and gain a good understanding of the content, so they can support first level managers through the programme. Thereafter the programme will be delivered to all of our Team Leader and equivalent roles, and will inform future induction and Continuing Professional Development (CPD) programmes for managers.
Timing	The Board receive an update at every meeting on the key programmes of work for the 2020 Strategy.
Link to Corporate Objectives	The Corporate Objectives this paper relates to are: 1.1 Engage with partners, patients and the public to design and co-produce future service. 1.2 Engaging with patients, carers and other providers of health and care services to deliver outcomes that matter to people. 1.3 Enhance our telephone triage and ability to See and Treat more patients at home through the provision of senior clinical decision support. 2.1 Develop a bespoke ambulance patient safety programme aligned to national priorities. Early priorities are Sepsis and Chest Pain. 2.4 Develop our mobile Telehealth and diagnostic capability. 3.1 Lead a national programme of improvement for out of hospital cardiac arrest. 3.2 Improve outcomes for stroke patients. 3.4 Develop our education model to provide more comprehensive care at the point of contact. 3.5 Offer new role opportunities for our staff within a career framework. 4.1 Develop appropriate alternative care pathways to provide more care safely, closer to home building on the work with frail elderly fallers - early priorities being mental health and COPD. 5.1 Improve our response to patients who are vulnerable in our communities.

	6.2 Use continuous improvement methodologies to ensure we work smarter to improve quality, efficiency and effectiveness. 6.3 Invest in technology and advanced clinical skills to deliver the change.
Contribution to the 2020 vision for Health and Social Care	This programme of work underpins the Scottish Government's 2020 Vision. This report highlights the Service's national priority areas and strategy progress to date. These programmes support the delivery of the Service's quality improvement objectives within the Service's annual Operational Delivery Plan.
Benefit to Patients	This 'whole systems' programme of work is designed to support the Scottish Ambulance Service to deliver on the key quality ambitions within Scottish Government's 2020 Vision and our internal Strategic Framework "Towards 2020: Taking Care to the Patient", which are to deliver safe, person-centred and effective care for patients, first time, every time. A comprehensive measurement framework underpins the evidence regarding the benefit to patients, staff and partners and supports the Service's transition towards 2020.
Equality and Diversity	This paper highlights progress to date across a number of work streams and programmes. Each individual programme is required to undertake Equality Impact Assessments at appropriate stages throughout the life of that programme. In terms of the overall approach to equality and diversity, key findings and recommendations from the various Equality Impact Assessment work undertaken throughout the implementation of Towards 2020: Taking Care to the Patient are regularly reviewed and utilised to inform the equality and diversity needs.

SECTION 1 - SAS T1 Reduce hospital admissions - % of unscheduled calls not conveyed

Chart 1.1 % Incidents with a Referral or Discharge Outcome

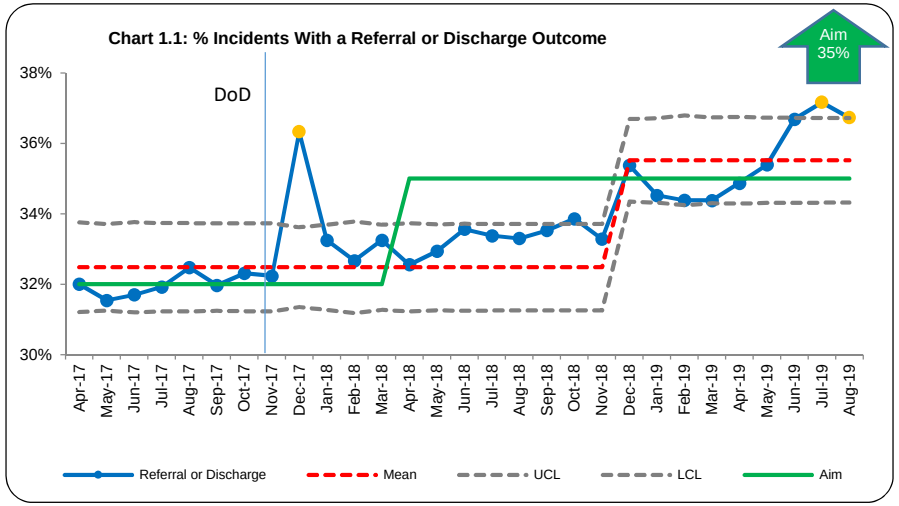


Chart 1.2 % Incidents with a Hear & Treat Referral or Discharge Outcome

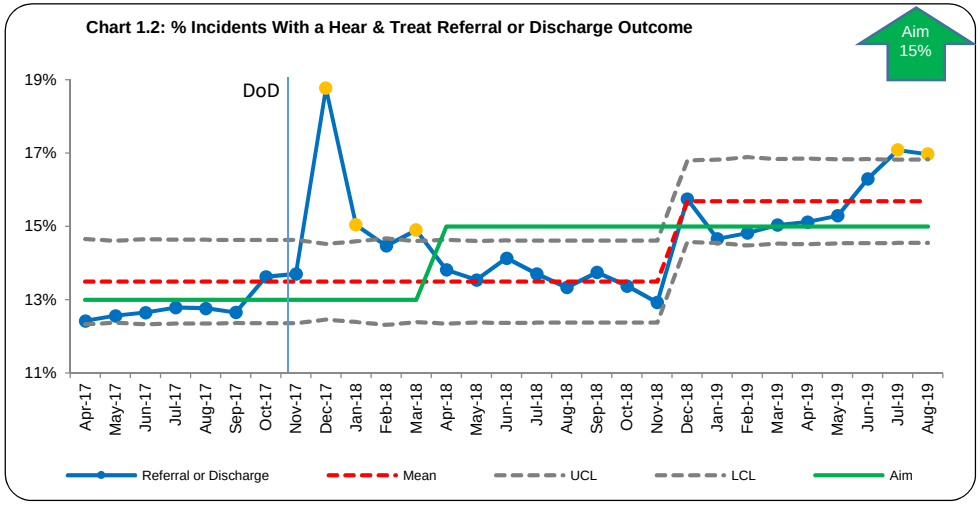
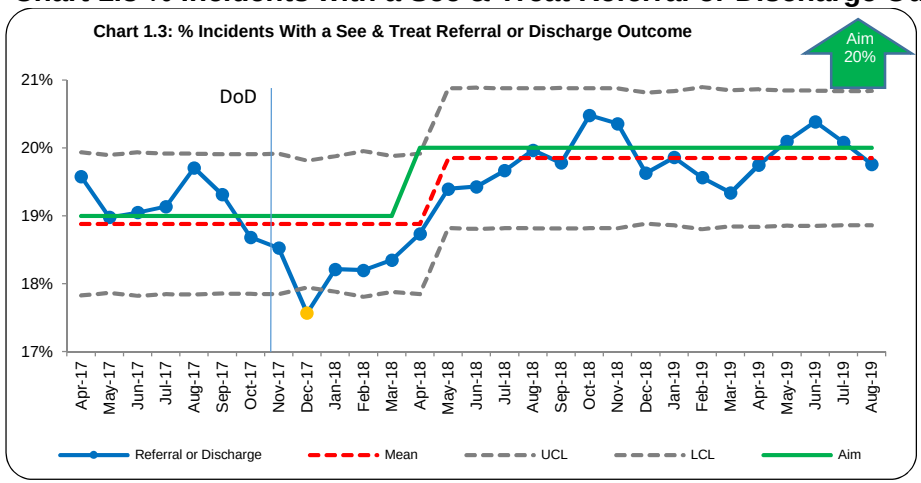


Chart 1.3 % Incidents with a See & Treat Referral or Discharge Outcome



What is the data telling us – For incidents with a referral or discharge outcome (Chart 1.1) the data demonstrates that performance stabilised around the mean of 33.4% following winter 2017/18 when special cause variation was observed. Another peak exhibiting special cause variation was observed in December 2018. However, there has been a sustainable upward trend and the recalculated mean at December 2018 demonstrates a statistical shift in improving the number of patients who are provided with a referral or discharge outcome and therefore provided with care at home or in the community.

The June to August 2019 data points show over 36% of patients have been managed at home or by an alternative to the Emergency Department. The last two months data points are just above the upper control limit suggesting special cause variation.

For incidents with a Hear and Treat referral or discharge outcome (Chart 1.2) the data shows a similar pattern to that seen in Chart 1.1. Following the special cause variation seen in December 2018, there has been a sustainable upward trend and the recalculated mean at December 2018 demonstrates a statistical shift in improving the number of patients who are provided with a referral or discharge outcome following telephone triage. In July and August 2019, 17% of patients were managed by telephone triage. The last 6 months have surpassed our aim of 15%.

For incidents with a See and Treat referral or discharge outcome (Chart 1.3), the data shows variation within normal limits, following re-calculation of the mean at April 2018 after the previous positive statistical shift observed. Performance continues to remain stable at this increased level. In August 2019, 19.8% of patients were managed by face to face assessment without requiring onward transport to the Emergency Department.

Why – After the significant winter pressures in 2017/18, the Service has made improvements in transferring calls to NHS 24 for patients to receive the most appropriate care, as well as creating capacity for clinical advisors to provide clinical assessment by telephone. A further change to transfer more calls to NHS 24 was made on 11 December 2018. The data shows this has made a positive and sustainable improvement in managing patients by telephone triage. The July and August data points which are above the upper control limit are likely to be due to increased demand within this patient cohort and the data will continue to be monitored to better understand. June, July and August saw the numerator go over 8000 – to date this has normally been seen over the winter period. This needs to be better understood but is likely to be due to continued transfer of calls to NHS 24 and improved training and capacity of clinical advisors resulting in CSD H&T outcomes as well as transfer to NHS24. Other factors like increase in demand of low acuity callers due to Edinburgh festival and sunny days will have played a part but we do not normally see this level of impact.

The Service continues to support staff in providing the most appropriate care for patients following face to face assessment by developing clinical decision making skills. The Clinical Decision Making Framework was distributed to all staff in October 2017 and has been delivered through learning in practice training. This framework is now being reviewed and refreshed to further support staff.

What are we doing and by when - Programmes of improvement and transformation are underway through the Clinical Services Transformation (CST) programme in 2019/20, these include:

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- Further development of the joint NHS 24/SAS work to ensure patients are provided with safe and effective care when transferring calls between 999 and 111, including a focus on a two-way electronic data link between the services as a priority in this financial year
- Review of the hear and treat ability within the yellow response category – part of ongoing refinement of the clinical response model, to be developed and agreed by Winter 2019
- Implementation of the Clinical Advisor roster review and 12-month training/CPD programme
- Development of the Clinical Hub's role within the joint NHS 24/Police/SAS mental health collaboration to ensure patients get appropriate help at the time of call.
- Continue to improve dispatch of Specialist Paramedics/Advanced Practitioners in urgent and primary care to patients that are likely to be able to be safely treated at home or in the community – trial of SP/APs in Urgent and Primary Care within the ACC to test clinician-led tasking, complementing the existing code-based system that has been tested and refined since July 2018 (further Specialist dispatch prompts were embedded on 16 April 2019, following earlier phases over 2018, and a new dispatch process through the alternative response desk went live on 19 November 2018). Planned go-live date for a 4 week trial in October 2019.
- Building relationships with Health and Social Care Partnerships to get access to community care based on the evidence of patient demand, thereby supporting the aim of shifting the balance of care. Follow-up workshop with East Dunbartonshire and West Dunbartonshire HSCPs taking place in September 2019, with the aim to develop joint tests of change ahead of winter 2019.

Section 2 Clinical Services Transformation

1. Out of Hospital Cardiac Arrest - Lead a national programme for improvement for Out of Hospital Cardiac Arrest

Background – Out of Hospital Cardiac Arrest (OHCA) remains a significant healthcare challenge in Scotland. Approximately 3,000 patients undergo attempted resuscitation each year after OHCA. The survival rate in Scotland from this condition is approximately 8%, compared to the UK average of 9%, with some other European centres claiming to return almost a quarter of all people who have experienced an OHCA home alive.

Aim - In response to this, the Service chaired a multi partner group hosted by Scottish Government to develop a national Out of Hospital Cardiac Arrest Strategy. Out of Hospital Cardiac Arrest - A Strategy for Scotland was published in 2015 and sets out the following high level aims:

- We aim to increase survival rates after OHCA by 10% across the country within five years. Reaching this level of performance would mean around 300 more lives being saved every year compared to recent years, with a 1,000 additional lives saved by 2020.

- We aim to equip an additional 500,000 people with CPR skills by 2020. Increasing the rate of bystander CPR is the cornerstone of improving outcomes because prompt bystander CPR can increase the likelihood of survival after OHCA by 2 or 3 times.

Status - A programme of work is underway across the following areas:

1. **Cardiac Arrest Registry:** Linking ambulance service data with other datasets to allow patient outcomes to be measured and system performance and Service changes to be monitored.

2. **Telephone CPR, telephone dispatch and PAD utilisation.** The Ambulance Control Centre (ACC) is the hub of the co-ordination of all the resources involved in the pre-hospital care of out of hospital cardiac arrests. ACC call handlers need to be effectively trained and supported and then reliably use the best triage tools available so that they can rapidly identify OHCA, initiate telephone Cardiopulmonary Resuscitation (CPR) and task appropriate resources. ACC call handlers also need up to date and accurate information about available resources requiring the mapping of community first responders and defibrillators.

3. **High performance CPR, Feedback and Second-tier response**. Rapid deployment of responders with the appropriate skills to perform high quality resuscitation. Robust clinical governance and feedback systems to maintain skills, motivation and morale. The use of second-tier responding by Specialist Paramedics where appropriate.

4. **PAD programme, Bystander CPR, Community Engagement.** Concerted effort to increase bystander CPR rates by supporting and strengthening existing community assets. Engaging with partner organisations through a full partnership in the Save a Life for Scotland (SALFS) initiative. Developing systems to ensure that best use is made of Public Access Defibrillators (PADs) including: governance for mapping and maintenance, encouraging servicing and maintenance in the community, ensuring PAD mapping is kept up to date, review of public information available about PADs.

5. **Co-responder model.** Working with partner organisations such as Police Scotland and the Scottish Fire and Rescue Service (SFRS) to optimise early response to OHCA by using community assets.

6. **Culture of Excellence.** It is essential that we emphasise through our internal communications to all staff that OHCA is potentially survivable and that we need to focus on continuous improvement of clinical performance and patient outcomes.

Through the above actions we are optimising our process to provide highly reliable care. We are embedding practice to ensure that Service staff are supported through the challenging experiences they face. Communication and recognition of our improvement and achievements are being highlighted through national and international forums.

Improvement - Implementation of the Out of Hospital Cardiac Arrest programme is saving more lives. We continue to perform above the 45% aim with 52.4% of VF/VT patients achieving return of spontaneous circulation (ROSC) in August 2019 and 59.4% in July 2019. The

last 19 months have surpassed 40%, with the last 6 months surpassing our current 45% aim. The statistical positive shift seen since the end of 2017 shows we are reliably improving the rate of ROSC and saving more lives.

Colleagues from across the Service as well as those of our partner agencies, continue to work extremely hard to improve our response to, and management of, OHCA patients. With reference to our strategic aims, we are now nearing the end of year 4 of the OHCA Strategy for Scotland. To date more than 495,000 members of the public have received bystander CPR awareness and Scotland continues to work towards being recognised as centre of excellence for OHCA outcomes.

The National Defibrillator Network went live in August 2019, where the Service is working in partnership with the British Heart Foundation and West Midlands Ambulance Service.

The Service went live with the use of GoodSAM at the end of August to alert cardiac responders when someone is in cardiac arrest nearby, so that CPR can be started while the ambulance is on the way. The GoodSAM responder app can be downloaded onto smart phones of these volunteers. Sandpiper Wildcat responders, an existing cardiac responding scheme, are now being alerted by the Service on GoodSAM. We will be extending alerts to further responders across Scotland, starting with off-duty Service clinicians in September and rolling out to other community groups, non–clinical members of staff and the wider public over the next two years.

All these activities are strengthening the chain of survival and supporting improved outcomes for people in cardiac arrest.

Planned activities –

- Clinical Outcomes Analyst commenced post in April and is developing the Cardiac Arrest Registry, with planned publication of the cardiac arrest linked data report for 18/19 in the autumn;
- Development of a faculty strategy to enable sustainability and spread of 3RU;
- Develop phase 2 3RU with sites in Ayrshire, Paisley, Renfrew, Inverness and Fife – Paisley and Fife went live in July, Inverness went live in August and dates are being finalised for Ayrshire;
- Continue to develop End of Life Care work stream in partnership with MacMillan Cancer Support Scotland – the project lead started in post in July 2019;
- Progress co-responding options with Scottish Fire and Rescue Service and Police Scotland – a Clinical Effectiveness Lead is currently being recruited to lead this work;
- Develop case report for the Global Resuscitation Alliance and Resuscitation Academy by December 2019;

Other considerations - There are a number of inter-dependencies with the Enabling Technology programme, particularly the Defibrillator Replacement project, and the New Clinical Response Model which are supporting identification of cardiac arrest patients earlier in the call cycle and dispatching three resources to provide the best pre-hospital care.

2. **Developing a Scottish Trauma Network – Implementation of Scottish Ambulance Service/Pre-hospital minimum requirements** - Support NHS Scotland to deliver a high quality major trauma service.

Background - Trauma remains the fourth leading cause of death in western countries and the leading cause of death for people under 40. Each year in Scotland, around 4000 people are seriously injured, with around 800-1000 cases being defined as 'major trauma'. The Scottish Trauma Network has been established to meet the needs of the population of Scotland. The Service is a crucial partner of the Trauma Network and responsible for ensuring patients are taken to the most appropriate facility for their injuries and receive quicker access to expert specialist care and intervention.

Aim - Improve triage and response to major trauma patients, thereby saving more lives and improving outcomes.

Status - We have undertaken a number of projects funded through the Scottish Trauma Network. These include the implementation of the Trauma Desk, introduction of Advanced Practitioners working closely with Major Trauma Centres, implementation of a Major Trauma Triage Tool for use by ambulance crews to support decision making on where a patient should go depending on the severity of their injuries, launch of ScotSTAR North, extension of ScotSTAR West operating hours, and roll-out of enhanced trauma equipment to all frontline vehicles.

Improvement – We are a crucial partner of the Scottish Trauma Network and are working closely with each of the four trauma regions. The North and East trauma regions went live in October and November 2018, and we are planning with the South East and West regions for a go live date in 2021. We have made a number of improvements to our pre-hospital care provision which are now business as usual, including enhanced equipment, 24/7 trauma desk, and extensions to the ScotSTAR service.

6 trainee Advanced Practitioners in Rural Pre-Hospital Care started in post in August 2019 in Inverness. This team are working closely with the Pre-Hospital Immediate Care and Trauma (PICT) team and providing enhanced critical care skills to the North of Scotland trauma region. This team joins the Advanced Practitioners in Critical Care in the South East Trauma region that began in post November 2018, and successfully completed their clinical competencies in August 2019, as well as the Advanced Practitioners in Critical Care in the West Trauma region that started the pathfinder for this work in December 2017.

ScotSTAR North was formally launched by the Cabinet Secretary on 24 July 2019, following the service going live in April 2019. This service is providing a retrieval service for patients in the North of Scotland improving outcomes for this population.

Planned activities -

- Continue roll out of the Major Trauma Triage Tool and Paediatric Trauma Triage Tool
- Modelling the impact of the Major Trauma Triage Tool on operations – 6 month trial in West July-December 2019

- Introduce ePR version of the Paediatric Trauma Triage Tool in October 2019
- Deliver induction training for the Advanced Practitioners in pre-hospital care
- Development of data visualisation for trauma activity and outcomes
- Benefits realisation and lessons learned following go live of ScotSTAR North

Other considerations - We are working closely with the four trauma regions and national co-ordinating team to ensure we provide high quality pre-hospital care for trauma patients. This can be challenging to provide a consistent service approach that meets the needs of all regions.

3. New Clinical Response Model - Invest in technology and advanced clinical skills to deliver the change.

Background - Following a review of nearly 500,000 patient records, a New Clinical Response Model (NCRM) pilot programme was introduced in November 2016. The model focuses on improving patient outcomes, rather than simply measuring the time it takes to respond. Resources are now allocated on confirmation of the severity of the incident, rather than the location of the incident. The model allows us to respond faster to more patients with time-critical, immediately life-threatening conditions, such as cardiac arrest. It also supports our call handlers to better understand our patients' health needs in less urgent cases, so that our dispatchers can more effectively send the right resource first time for patients.

Aim –

- More accurately identify patients with immediately life threatening symptoms to ensure the most rapid dispatch of resource, resulting in more lives saved.
- Safely and more effectively identify and send the right resource first time for patients, for example dispatching a conveying resource first time to chest pain and stroke patients, resulting in better overall clinical outcomes.

Status - Phase 1 and 2 of the project are complete. 'Dispatch on disposition' was introduced in October 2017, and subsequently two Pre-Entry Questions were introduced to identify critically ill patients as early as possible. The project is now in phase 3 and 'key phrases' was successfully implemented in April 2018 to further improve identification of critically ill patients earlier in the call cycle. Our evaluation report, alongside the University of Stirling report, was published in February 2019. An extensive engagement exercise with members of the public has been undertaken over the summer.

Development of an improved Healthcare Professional call process that better matches the response to the clinical need of the patient is underway with the aim to implement the revised process to respond to HCP emergencies by October 2019.

Improvement - We have more accurately identified patients with immediately life threatening symptoms, with a number of patient groups being re-triaged to the highest priority purple response category based on the high probability that resuscitation will be required. We have also improved identification of critically ill or injured patients as early as possible in the call cycle in order to dispatch a resource as quickly as possible by introduction of two pre-entry questions and a list of 'key phrases'.

The new clinical response model supports the dispatch of multiple responses to patients in the highest priority purple response category; the closest resource will be dispatched as well as ensuring the response includes a double crewed emergency ambulance to ensure an effective resuscitation team ('triple response') and if required the ability to transport to hospital. Over the pilot period we have seen an almost 100% increase in patients receiving a multi-resource/clinician response in our highest priority response category, providing a greater chance of survival.

The response model focuses on improving patient outcomes rather than simply measuring the time it takes to respond. We have demonstrated that response times have been maintained to our most acutely unwell patients who require a time critical response. However, for the majority of patients requiring an emergency response the most important factor in effective care is the ability to target clinical skills to provide treatment and/or refer the patient to the most appropriate care for further assessment and treatment – providing the right response first time. While there has been a slight increase in response times to patients that are less acutely unwell, there has been no increase in clinical deterioration of these patients and the outcomes for these patients have remained stable.

Over the course of the pilot we have consistently identified patients within our amber response category who have a low identified need for resuscitation but a defined and identified need for specific acute pathway care, for example ST Elevation Myocardial Infarction (STEMI) and hyper acute strokes. These patients still require an emergency response and are likely to be transported to the Emergency Department, therefore a response with an emergency ambulance that can transport the patient to hospital is crucial. Over the first year of the NCRM pilot this was achieved for more than 90% of our patients, providing the right response first time.

Planned activities:-

- New ProQA modules have been developed by the IAED academy meeting our requirements in order that we can improve the Healthcare Professional (HCP) call process so patients receive a response based on their clinical need. Currently calls from Healthcare Professionals are unscripted and taken by non-clinical call handlers. We have developed a systems based protocol, similar to that of the wider 999 emergency call protocol, for call handlers and a consistent approach for Healthcare Professionals to arrange the most appropriate level of response. Engagement with HCPs is continuing to take place ahead of a planned go-live date in October 2019.
- Trial of Specialist Paramedics/Advanced Practitioners in Urgent and Primary Care within the ACC to test clinician-led tasking, complementing the existing code-based system that has been tested and refined since July 2018 (further Specialist dispatch prompts were embedded on 16 April 2019, following earlier phases over 2018, and a new dispatch process through the alternative response desk went live on 19 November 2018). Planned go-live date for a 4 week trial in October 2019.
- Review and development of proposals to implement a yellow split to improve management of the yellow response category.

Other considerations – NCRM underpins much of our service transformation work. To ensure further development of the model it is essential we have alternative pathways available that we can refer for the most appropriate treatment and advice. This includes availability of Paramedics in urgent and primary care that can provide more care at home.

4. **Hear and Treat** - Enhance our telephone triage and ability to treat more patients at home through the provision of senior clinical decision support.

Background - The Service's strategy aims to enhance the number of patients that can be safely and appropriately dealt with by alternative treatment pathways than a traditional ambulance response.

Hear and Treat is defined by the Service as: The number and proportion of emergency incidents that have been resolved by providing advice over the phone, where no physical response arrives at scene.

Aim - To redesign the Service's Ambulance Control Centres Clinical Advisor Hear and Treat outcomes to improve patient experience through effective clinical triage with the view to referring patients to an alternative care pathway or self-care advice.

Status – The Clinical Hub has been strengthened with additional Clinical Advisors – from November 2018 there were 29.5 WTE Clinical Advisors against a budget of 30 WTE. Following previous tests over winter 2017/18, it was agreed with NHS 24 to further increase the number of calls that are transferred as part of business as usual in order that patients receive the most appropriate care. This change happened on 11 December 2018 and there has been a sustainable upward trend with the recalculated mean at December 2018 demonstrating a statistical shift in improving the number of patients who are provided with a referral or discharge outcome following telephone triage (see chart 1.2 above). In July and August 2019, 17% of patients were managed by telephone triage. The last 6 months have surpassed our aim of 15%.

A joint NHS 24/SAS strategic group has been established to take forward a number of joint activities aiming to improve the continuity of care provided to patients by phone, whether they call 111 or 999.

Improvement - An increase in calls transferred to NHS 24 results in patients with low acuity conditions receiving access to the service they require in a timelier manner, resulting in better clinical outcomes and patient experience. System changes which allow Clinical Advisors to refer to Advanced Practitioners in urgent and primary care will also provide better clinical outcomes and patient experience.

Planned activities:-

- Further development of the joint NHS 24/SAS project group focusing on a two-way electronic data link as a main priority
- Implementation of the Clinical Advisor roster review and 12-month training/CPD programme.
- Development of the Clinical Hub's role within the joint NHS 24/Police/SAS mental health collaboration to ensure patients get appropriate help at the time of call.
- Review Hear and Treat ability within the yellow response category.

Other considerations - We already work closely with NHS 24 and this will increase over 2019/2020 as we seek to create a seamless experience for patients whether they dial 111 or 999, and provide access to the service they need in a timely manner.

5. **SAS clinicians in Urgent and Primary Care** – Develop our education model to provide more comprehensive care at point of contact, and enhance our ability to See and Treat more patients at home through the provision of senior clinical decision support.

Background - Towards 2020: Taking Care to the Patient clearly sets out our aims to transform our clinical model to ensure the right resource gets to the right patient at the right time. This has resulted in the development of our out of hospital clinical service where our clinicians are providing more comprehensive care at home, and supporting access to alternative care pathways that are integrated with communities and the wider health and social care service.

We have developed new roles of Specialist Paramedics and Advanced Practitioners in urgent and primary care with an advanced scope of practice to be able to treat more people at home or in a homely setting.

Aim - Our aim by December 2020 is that our clinicians in urgent and primary care are able to work as a key component of integrated multidisciplinary teams within a rotational model across health and care settings as autonomous practitioners and support care in a home or homely setting.

Status - We have approximately 110 Specialist Paramedics in urgent and emergency care. Over a third of them work on rotation in primary care multidisciplinary teams within out of hour's services and GP practices across the country. To align our clinicians with the transforming roles work across NHSScotland, we are currently transitioning Specialist Paramedics to trainee Advanced Practitioners in urgent and primary care. Detailed discussions and contractual arrangements are taking place in September 2019.

Improvement - As well as effectively managing the increasing urgent demand from 999 calls, SAS clinicians in urgent and primary care can play an important role in the Primary Care multi-disciplinary team. The pilot underway in Inverclyde has indicated 230,000 hours of GP time could be saved if the model was adopted nationally, 65% of home visits are suitable for Specialist Paramedics and Advanced Practitioners. This represents improved clinical outcomes and patient experience, as well as a potential financial benefit of up to around £56 million per year.

Planned activities:-

- Continue to improve dispatch of Specialist Paramedics/Advanced Practitioners in urgent and primary care to patients that are likely to be able to be safely treated at home or in the community.
- Development of a measurement framework for all sites where SAS clinicians are working directly with primary care services.
- Written evaluation of current direct work in primary care services.

Other considerations – SAS clinicians in urgent and primary care are crucial to achieve further development through the New Clinical Response Model, so that patients are provided with the right response and are treated at home where safe and appropriate to do so.

6. **Scheduled Care Service** - We continue to develop our scheduled care service in partnership, supporting outpatient services and effective discharge and transfer to improve patient flow, and deliver a better experience for patients.

Background - Transformation in health and social care delivery across Scotland aims to reform Scheduled Care by supporting patients to attend the most appropriate centre of care or return home from care centres. The Service plays a fundamental role to achieving improved patient flow and experience. During 2018/19, a wide range of tests of change have provided clear direction in how we respond to requests on the day of travel for urgent admissions to acute hospital sites and urgent transfers between acute hospital sites. Some patients may require a quick response to get to definitive care without necessarily requiring any clinical intervention en route. Therefore, a proportion of these requests could safely be undertaken by the Scheduled Care Service.

Aim - Provide an agile and responsive scheduled care service that makes best use of resources and provides improved patient care and experience.

Status - Work has been carried out to review the use of PTS and Low Acuity resources to handle same day requests for admission. A short life Focus Group, led by a Clinical Governance Manager, has reviewed incident reports and the processes for identifying patient bookings as suitable for PTS and allocation of calls by ACC. A number of recommendations have been made and these are being taken forward through the work plan of the Scheduled Care Development group.

Development of the C3 to Cleric gateway is supporting the electronic transfer of information between A&E and PTS control. Refinement of the business and technical processes is continuing. A test of change took place in December 2018 in the West region to transfer appropriate urgent admissions to PTS which demonstrated the potential for PTS to accommodate these admissions, thereby increasing utilisation, supporting A&E crews to free capacity to help reduce lengthy delays on non-ILT emergency calls, improve compliance with rest breaks and reduce the number of shift over-runs, thus improving both staff and patient experience. This went live nationally in August 2019.

Improvement - An improved Scheduled Care service will provide better patient flow across acute hospital sites, support reduced hospital bed days and provide an improved patient experience.

Planned activities: -

- Further testing of PTS 24-hour cover in Lothian.
- Evaluation of the C3 to Cleric gateway nationally.
- Continue to identify the high number of patients that do not require the assistance of A&E resources.
- Progress the work plan to take forward the recommendations of the PTS/Low Acuity review through the Scheduled Care Advisory Group and the Urgent Improvement Group.

7. Clinical Data Set Development

Background - All UK ambulance services have traditional performance measures predominantly based on a time based response. This approach has limitations as it does not reflect the clinical abilities of the modern ambulance clinician workforce or provide a framework for the measurement of best clinical practice across the entire patient pathway. There is now a need and opportunity to re-design this measurement framework and shift the culture from historic time targets to optimal patient care.

Aim - To re-design how the Service uses clinical and operational data to allow for the measurement of clinical effectiveness across the entire patient pathway of different clinical acuities.

Status

- Clinical Data Group formed.
- Development of clinical data sets aligned to key areas of practice and strategy – in final testing.
- Electronic Patient Report completion quality framework in final testing.

Improvement – this will allow us to understand the quality of care we provide to patients, alongside the time it takes us to respond. It will also support feedback to frontline staff on the care they provided and any areas where improvements could be made.

Planned Activities - Development of a national clinical effectiveness implementation plan. A key element of measurement of clinical practice is to have the ability to feedback areas of success and areas of improvement. At present there is an opportunity to develop the Service's systems so this could be delivered, identifying resource and structures to take ownership of this information.

Section 3 Enabling Technology

1. Ambulance Telehealth Programme

Aim – The aim of the Ambulance Telehealth Programme is to replace and enhance the cab-based technology in the unscheduled care (emergency) ambulance fleet. The Programme has been delivered over two overlapping phases, it will formally close during Q3 2019.

Status - **Ambulance Telehealth Phase 1 (Hardware Replacement) –** Completed – New tablets, communications hubs and printers were installed throughout the unscheduled care ambulance fleet during 2016 (approx. 525 vehicles).

Ambulance Telehealth Phase 2 (Electronic Patient Record & Supporting Software) - The roll out of the new ePR and the SAS app are complete. A review of the Back Office delivery has taken place, various technical issues are being addressed and the aim is now to trial in-vehicle access to GRS and Datix before completing the roll out during summer 2019.

The ePR major incident module development has been completed and is ready for release alongside other ePR developments.

Improvement - Improved ease of use, additional functionality, increased clinical data collection and data quality, ready access to additional decision support information, increased productivity, improved patient care and experience. Ease of use has been measured through surveying users before and after the new tablets and ePR were rolled out. Data collection quantity and quality is being measured through a combination of automated and manual ePR database analysis. Feedback has been received to advise there has been an increase in reporting of PVC bundles and pre-hospital stroke compliance.

Planned Activities – Formally close programme. Assist with rollout of major incident module.

Other Considerations - Ubiquitous access to mobile broadband data (as is scheduled to be delivered by the Emergency Service Network Programme) will be a key enabler for maximising the benefits derived from the Ambulance Telehealth Programme.

Benefit Realisation / Return on Investment - Delivery of the expected benefits from the Ambulance Telehealth Programme is overseen by the Enabling Technology Programme Board. Benefits include lower like for like costs, improved electronic Patient Record completion rates and data quality. A benefits realisation strategy is in place and each project has a benefits management plan in place. Delivery of key benefits is actively progressed by the Programme Business Change Manager.

2. Emergency Service Network Programme

Aim - The Emergency Service Network (ESN) Programme aims to deliver a mobile communications capability that will, as a minimum, match Airwave in terms of functionality, availability and geographic coverage. It also aims to provide a very significantly enhanced mobile broadband capability when compared to Airwave.

Status – The UK Government ESMCP Team continue to progress their revised FBC. The latest timeline shows that full ESN adoption will take place in Scotland from 2021 with various ESN 'products' being made available before this. However, this timeline is under debate and a new Integrated Programme Plan is expected by end of Oct 2019.

The approval of the revised ESMCP FBC is expected to take place at programme level by late 2019, with the Scottish Government indicating April 2020 as a realistic timescale for sponsor approval. Sponsor bodies (including the Scottish Government) have intimated that they require further assurance on costs and around various technical elements of the programme before approval can be given.

The Scottish Government will seek FBC 'assurance' from the Service and the other Scottish emergency services. The Scottish Government is working up the 'ask' of each of the Services regarding the assurance of the FBC. The very high level summary is that SG and the three Scottish emergency services (3ESS) have significant concerns about the affordability and contingency, the assumptions made in the FBC, meeting all user requirements and the robustness of the decision making to arrive at the preferred option. A Scottish Finance Sub-Group has also been established with representation from Scottish Government and 3ESS. The potential financial pressures presented by ESMCP have been acknowledged by Scottish Government but no firm funding decisions have been made. A new financial model will be released as part of the new FBC which will be examined by each of the 3ESS individually and collectively with Scottish Government.

Change Authorisation Notices (CANs) have been signed with the key ESN suppliers (EE and Motorola) to ensure contracts are in place to support the revised ESN timescales and the incremental approach to ESN delivery. The CAN with Motorola allows for Airwave contract extensions to December 2022, there is an option to extend by an additional 12 months if required. The EE CAN allows for more masts than originally planned to boost the coverage footprint. The CAN is currently being reviewed by 3ESS to assess any impact elsewhere on coverage. The ESMCP continues move from 'reset' to 'ramp-up'. A new governance structure has been implemented and is bedding in.

The strategic risks relating to ESMCP are increasing as senior government level scrutiny increases and timescales slip. This includes financial, commercial, operational and technical risks. From a Service perspective, these risks are being managed through the Scottish Government Strategic Group, the Service's 2020 Steering Group and the Enabling Technology Board. A new Scottish Government ESMCP SRO has been appointed and is scheduled to commence in the role from November 4th - services had formally raised concerns about the lack of an SRO and the number of personnel who have fulfilled this role in the last 3 years prior to the current gap. A new Scottish government ESMCP finance lead is also being recruited.

The scope of the Service ESN Programme includes replacing the current Integrated Communications Control System (ICCS). Having

reviewed and rejected the option from Airwave to upgrade the current Capita ICCS to a new ESN compatible Capita ICCS, Service staff are now fully re-engaged with the Department of Health Ambulance Radio Programme (ARP) team with a view to employing their 'ESN ready' Frequentis LifeX ICCS solution by July 2020. This timescale reflects the requirement for the Service to have moved off the current Airwave ICCS by December 2020. Kick-off workshops have taken place. A Memorandum of Understanding has been drafted and is awaiting SAS approval to enable SAS to formally join the ARP-Frequentis contract.

Improvement - Reduced like for like costs (although this is now at risk), ubiquitous access to mobile broadband data to support the effective and efficient delivery of clinical services out-with the hospital environment. Improvements will be measured through 'before and after' data analysis and through the use of user surveys.

Planned Activities – Continued review of ESMCP FBC and input into the FBC and Finance assurance groups. Collaboration and liaison with Police Scotland, Scottish Fire & Rescue, the Scottish Government and the ESMCP Programme Team regarding ESN transition planning. Engagement with ARP regarding SAS ICCS including progressing technical requirements and finalising planning.

Other Considerations - Delivery of the internal ESN Programme relies on the corresponding delivery of the risky and highly complex GB-wide Emergency Service Mobile Communications Programme.

3. Fleet Projects

Background - The Enabling Technology Programme currently provides governance for the Vehicle Replacement Project. The Vehicle Telematics Project is also in scope and Fleet Department are investigating the business case for adopting telematics.

Aim – The Vehicle Replacement Project aims to manage the annual fleet replacement activities in line with the approved Fleet Replacement Business Case. It also aims to take advantage of technology to improve the operation and management of the Service fleet.

Status - The 2019/20 fleet replacement programme is managed within the Fleet Department and is progressing in line with agreed budgets and plans. The Telematics Project is being revisited by Fleet Services and the Best Value Programme to assess the project viability. From an Enabling Technology Programme perspective, the work is 'on hold' but will be recommenced if a viable 'business case' is established and funding is identified.

Improvement - Reduced running costs, improved reliability and vehicle availability, improved vehicle specifications, improved management information. Improvements will be measured through 'before and after' data analysis and through the use of user surveys.

Planned Activities – From an Enabling Technology perspective the main activities in relation to the fleet projects are project management

support and benefits realisation. The development and implementation of staff surveys to aid benefit realisation and inform future vehicle requirements.

4. Defibrillator Replacement

Background – The current Philips MRX defibrillators are at the end of their serviceable life. A project is now underway to replace them with new Advanced Life Support (ALS) monitor/defibrillator units.

Aim – The objective of the Defibrillator Replacement Project is to commission and deploy replacement defibrillators for use by Scottish Ambulance Service clinicians. The aim being to improve patient care and staff experience through innovation and clinical transformation, support the delivery of the Out Of Hospital Cardiac Arrest Strategy for Scotland (2015) and to deliver better care to patients wherever they may be.

Status – The implementation phase of the project is underway and testing and configuration work is now complete. A trial is to take place in September in Aberdeen. A training course has been developed and staff in the pilot area have now undergone training. The Training Plan has been approved. Trainers in the North region have been recruited and advertising is ongoing in other areas of the country in preparation for rollout. Logistics staff have been recruited and storage facilities identified. Fitting teams are now on board and there is agreement on the fit in the various vehicle types. On the back of a successful pilot, rollout is scheduled to commence in November with completion planned for March 2020.

Improvement – Implementation of new defibrillators will deliver various benefits including enhanced clinical care for patients and improved staff experience through full integration with the new ePR.

Planned Activities – Pilot completion and learning, rollout of training to North Region, logistics preparation for rollout.

5. PTS Mobile Data Procurement

Background - The PTS Mobile Data Procurement Project is managed under the Enabling Technology Programme. The project is being initiated as the current solution was commissioned in 2012, it is nearing the end of its serviceable life and the contract is due for renewal.

Aim – The PTS Mobile Data Procurement Project aims to develop a business case, secure funding and then procure a 'fit for purpose' PTS Mobile Data solution to replace the current one.

Status - The PTS Mobile Data Procurement Project is at the second stage of a three stage procurement process. The Initial Agreement (IA) has been approved by the Scottish Government Capital Investment Group. The Outline Business Case (OBC) has been developed and is undergoing internal service review. Supplier engagement visits have taken place as have staff workshops to look at the specification and benefits/risks.

Improvement – The solution procured will offer modern technology, improved hardware reliability, enhanced data access and a new compliant contract that will offer best value. It will enable the Scheduled Care Service to support patient needs and adapt to future service change. Benefits and improvements will be measured through 'before and after' data analysis and through the use of user surveys.

Planned Activities – From an Enabling Technology perspective the main activities in relation to the PTS Mobile Data Procurement will involve; the development of a suitable Business Case for approval, research commercial offerings, benchmark against other Ambulance Services, stakeholder engagement, development of a specification and completion of a procurement process.

6. Enabling Technology – Other Projects

The scope of the Enabling Technology Programme currently extends beyond the programmes and projects already covered in this section. It also includes a number of projects related to the delivery of the Service eHealth Strategy. For example, upgrades for the ACC network infrastructure and the delivery of the BHF PAD database are ongoing. One area that will be 'ramped up' significantly during late 2019 into 2020 is the Service response to the national Microsoft Office 365 Programme. Migrating from the current 'on premise' model to a 'cloud based' model will involve significant effort in terms of planning, implementation and business change. Resourcing this work will be a challenge due to the scope and scale involved. Further details regarding these additional projects and initiatives are available via the Enabling Technology Programme Team as required.

Other Considerations – There are some interdependencies between the various Enabling Technology Projects and other Service Programmes & Projects e.g. Clinical Service Transformation, Workforce Development etc. These interdependencies are managed through integrated planning meetings. Six of seven Enabling Technology staff have contracts that expire in March 2020. Funding is assumed to be continued from the ehealth strategic fund but this is not currently confirmed. Work is progressing on a service wide PMO with a centralised pool of resources to work across a number of projects both in delivering the 2020 strategy and also as we progress the 2030 strategy.

Section 4 Workforce Development

1. Employee Resourcing

Aim – To recruit and retain staff to ensure the Service has the necessary skills to deliver its 2020 workforce profile and improve staff experience.

Status – On track to deliver 2019-21 plans based on continuing strategic direction of travel.

Improvement – Our extensive recruitment effort has kept us on track with the workforce plan targets as set out in the Service's 2020 workforce plan. This effort will continue to support transition to our new Paramedic education model. Technician recruitment has continued to be very successful, with the number of applicants per vacancy significantly increasing.

In total we had 200 Paramedic training places available in 2019/20. Approval has been provided from HCPC to increase this number by 50 places, totalling 250 places, which will revise our 2020/21 targets subject to financial support. An additional 50 Undergraduates will commence their BSc paramedic degree programme at Glasgow Caledonian University in September 2019. The recruitment campaign for Advanced Practitioner roles in our East, West and North regions launched in July 2019 and is ongoing and will increase our overall Paramedic numbers.

Planned Activities Include – Recruitment to the 2019/20 training groups for Paramedics has resulted in full training group capacity being achieved, and we have already established a pipeline for next year. Recruitment to the 2020/21 programme will commence in September 2019, which represents an earlier start date to the process than previous years, with the aim of having all places filled by April 2020. In order to maximise our training number, the recruitment team will continue to liaise with regional workforce leads throughout the process. The allocation of places for Technician and ACA roles continues in line with Regional workforce plan requirements. The allocation of places for Technician and ACA roles continues in line with Regional workforce plan requirements. An additional 32 course places for the November ACA course, split between the East and West region, has been approved and the recruitment team will continue to liaise with regional workforce leads and hiring managers to fill these course places. We have successfully recruited 6 Pre-Hospital Advanced Rural Care Practitioners in the North region who all commenced last month.

Other Considerations – Resourcing model developments will support continuing target delivery over the next three years as we prepare for changes to the Educational Model to align with the introduction of honours degree level HCPC registration requirements in 2021. This

will build on the external pipeline which was expanded in 2017 with commencement of the first full time degree programme in Scotland (first graduates in 2020).

We are actively engaged as one of the 6 boards in the East Region Recruitment Transformation Programme Board to inform the development of the Recruitment Shared Service. Part of the strategic proposal is the implementation of the National Recruitment IT system, Jobtrain. It is expected to provide consistency, standardisation and improvement to the current recruitment service. Core Scottish Government funding is in place for Jobtrain until the year 2022/2023. We are on track to achieve the Scottish Government target for all boards to be live with Jobtrain by the end of 2019, with our go live date with the new system set for December 2019.

Benefit Realisation/Return on Investment – Ensuring the Service has the right mix of skill and resources will enable it to effectively contribute in an integrated health and social care system.

2. Employee Development

Aim - To identify the employee development requirements arising from workforce modelling which will underpin the delivery of our Workforce Plan and ensure we have developed a workforce capable of delivering our strategic aims.

Status – Planning (review of work to date and response to workforce re-modelling activity) and implementation of changes arising from development needs assessment.

Improvement – An organisational learning needs analysis, overseen by the Capable Workforce Group, was undertaken at the end of 2018. A variety of learning needs from across Directorates were raised and the Group committed to supporting a number of these financially in order for development of staff to take place, as reported to the Workforce Development Programme Board. It was acknowledged that the tool used potentially did not fully capture learning needs of Service staff, and will be developed iteratively through future cycles to align with strategic developments and embedded within directorates' annual activities.

Planned Activities Include – Implementing a Learning Management system as the single source for all learning administration and reporting for the Service. The initial phase has commenced, but has been delayed due to resource challenges. Phased roll out options are being reviewed in line with overall HR system self-service implementation.

The present focus of work is the first level leadership and management development programme commencing in October initially 'road tested' with the Area Service Manager cohort. This will give this cohort an opportunity both to refresh their skills but also knowledge of what will be delivered in the programme so they can actively support the first level leaders and managers throughout the programme. The programme content is presently in development, and arrangements being progressed for the scheduling of the initial phase. The two days will provide a starting point to the required development with the expectation that a number of activities will be completed throughout the

year to support staff engagement activity e.g. completion of all direct reports' appraisals. This programme will also inform development of ongoing manager induction, annual Continuing Professional Development (CPD) for managers and emerging leaders development.

Other Considerations – The Clinical Service Transformation (CST) programme leads on developing advanced practice within the Service, and close working arrangements between Clinical Services Transformation and Workforce Development are required and in place to manage interdependencies.

Benefit Realisation/Return on Investment – To support the delivery of the Service's strategic workforce development targets, for delivery of see and treat and hear and treat aims, with greater integration of health and social care, managing patient care at home, supporting anticipatory care planning for patients with long term conditions, prescribing and referring directly to clinical services. In addition, this work will ensure that leadership & management and support function needs are incorporated into our development planning, ensuring that priority development needs are identified and supported.