Scottish Ambulance Service
Taking Care to the Patient

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NOT PROTECTIVELY MARKED

Public Board Meeting	**January 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 35% of patients were managed at home or an alternative to hospital in December 2018. • 29.5 wte Clinical Advisors (against a budget of 30wte) are now in post in the Clinical Hub and have been practicing independently since December 2018. • Additional prompts to dispatch a Specialist Paramedic response for patients triaged within the yellow response category where this skill set has been identified as appropriate were added to the system on 14 November 2018. A new process of dispatching Specialist Paramedics through the Alternative Response Desk went live on 19 November 2018 with initial positive results. This process is being reviewed and refined based on the data and feedback from staff. • New roles of Advanced Practitioners in both Critical Care and Urgent and Primary Care are now in place with postholders undergoing induction. The Advanced Practitioners in Urgent and Primary Care will be the first SAS cohort to commence the Non Medical Prescribing training course in February 2019. • The joint test of change with NHS 24 triaging in hours primary care in Musselburgh with referral to Specialists Paramedics went live on 7 January 2019.

	Enabling Technology • Ambulance Telehealth Programme – The rollout of the SAS App was completed in December 2018. A review of the Back Office delivery will now take place with the aim to trial in vehicles access to GRS and Datix and complete roll out by end March 2019 prior to formal project closure. • Completion of the Major Incident Module development for the ePR has been delayed by the supplier until end January 2019 due to resources working on higher priority SAS development work. Rollout is anticipated to be completed by end March 2019 subject to NRRD testing approval. • 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 will be extended to 31st December 2022. A further iteration of the ESMCP Full Business Case (FBC) has been released and the Services' position has been noted through feedback given by the Scottish Government (SG). Among other things, concerns have been noted around coverage gaps, Air to Ground provision, resilience and the costs associated with these issues. A Scottish working group involving SG and the three emergency services has been set up to provide FBC assurance. • Provision of an ESN compatible Integrated Communications Control System (ICCS) – The Service had indicated a preference to join with the ARP in delivering an 'ESN ready' ICCS solution, however, Airwave have offered an upgrade path for the current ICCS to a new ESN compatible ICCS as part of the Airwave 'Bundle 2' extension. This option is currently being assessed and a paper prepared for Board consideration. • Defibrillator Replacement – The final business case was approved by the Board in September 2018 and initial implementation meetings and workshops with the preferred contractor took place in December 2018. Workforce Development • Based on the outputs of our Service resourcing plan for 2018/19 we are now in the planning stage for delivery of recruitment and training targets for 2019-21; • The clinical training prospectus for 2019/20 is being finalised to allow our workforce target delivery to be planned. • We are developing our organisational learning needs analysis activity to identify and deliver on priority development needs for teams and Directorates to support our Strategic intent.
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

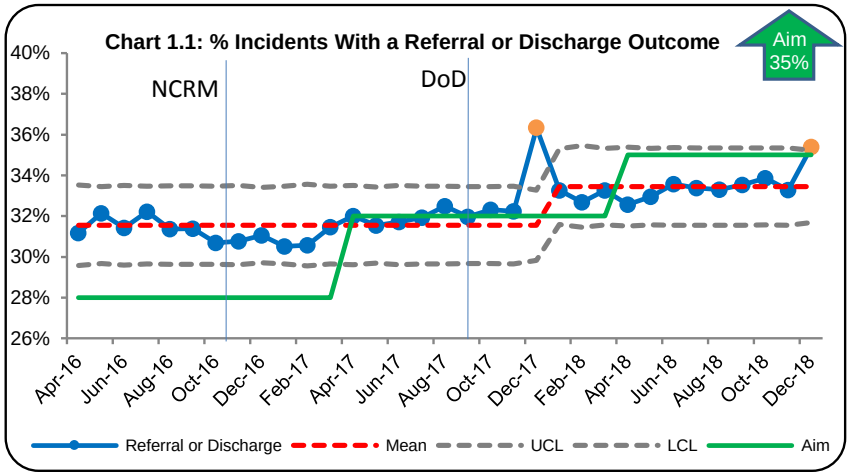


Chart 1.2 % Incidents with a Hear & Treat Referral or Discharge Outcome

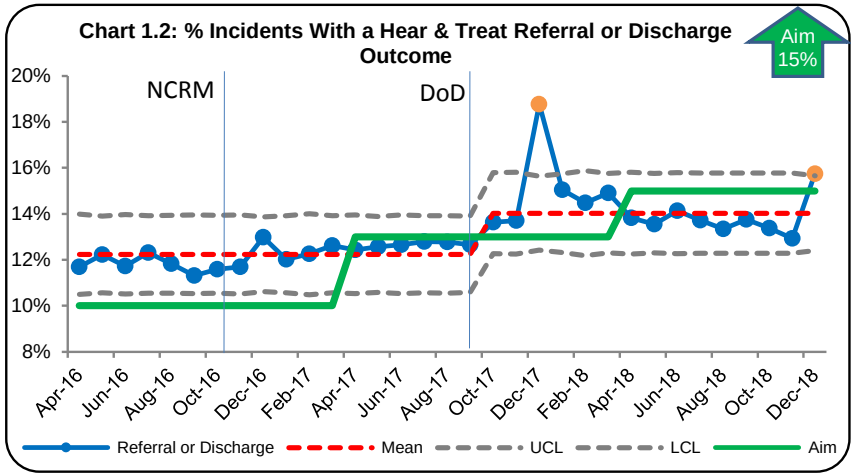
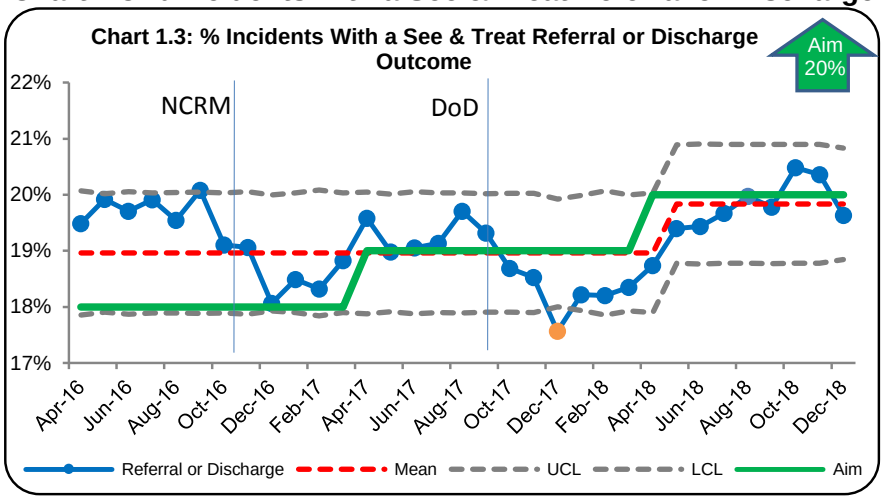


Chart 1.3 % Incidents with a See & Treat Referral or Discharge Outcome



NCRM = New clinical Response Model DoD = Dispatch on disposition

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 has been observed in December 2018 with 35.4% of patients managed at home or by an alternative to the Emergency Department. This has surpassed our aim of 35%, although currently this is only one data point and we will continue to monitor the data in 2019.

For incidents with a Hear and Treat referral or discharge outcome (Chart 1.2) the data shows variation within normal limits between January and November. Another peak exhibiting Special Cause Variation, although smaller than that seen in December 2017 (18.77%), is observed in December 2018 with 15.75% of patients receiving a Hear and Treat referral or discharge outcome. This data point for December surpasses our aim of 15%.

For incidents with a See and Treat referral or discharge outcome (Chart 1.3), the data shows a statistical shift with the last 8 consecutive data points above the mean. This is a positive change and follows the previous upward trend between January and September 2018. In December 19.63% of patients received a See and Treat referral or discharge outcome.

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 with initial data showing this is making a positive impact on hear and treat outcomes. The data will continue to be closely monitored to understand if this is a sustainable improvement.

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 this year's learning in practice training, which over 75% of Paramedics and 83% of Technicians have now completed.

In addition, a test of change targeting Specialist Paramedics to patients with low acuity illness and injury that are likely to be able to be safely treated at home or in the community, has been underway since 17 July 2018. A second system change took place on 14 November to increase the cohort of low acuity patients that Specialist Paramedics will be dispatched to within the green and yellow response categories, as well as a new process of dispatching Specialist Paramedics to these cohorts of patients via the Alternative Response Desk which went live on 19 November 2018.

What are we doing and by when - Programmes of improvement and transformation are underway for both Hear and Treat and See and Treat outcomes through the Clinical Services Transformation (CST) programme in 2018/19. More information is provided in Section 2 below (pages 6 to 14).

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 OHCA victims 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 SAS 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 will save more lives. We continue to perform above the 42% aim with 48.4% of VF/VT patients achieving return of spontaneous circulation (ROSC) in December 2018. This is the tenth consecutive month that we have surpassed our 42% aim, and 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 Scottish Ambulance 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 9 months into year 4 of the OHCA Strategy for Scotland. To date more than 300,000 members of the public have received bystander CPR awareness and Scotland continues to work towards being recognised as centre of excellence for OHCA outcomes.

Planned activities –

- Appoint Clinical Outcomes Analyst to develop the Cardiac Arrest Registry
- Development of a faculty strategy to enable sustainability and spread of 3RU.
- Continue to develop End of Life Care work stream in partnership with MacMillan Cancer Support Scotland
- Develop and agree strategic direction for co-responding with Scottish Fire and Rescue Service and Police Scotland
- Contribution to Resuscitation Academy Faculty

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, piloting the use of Advanced Practitioners working closely with Major Trauma Centres and 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.

Improvement

- The trauma desk in the Ambulance Control Centre is fully operational and has improved the identification of major trauma patients and pre-hospital critical care team tasking (data published, Sinclair et al, Injury, 2018).
- Enhanced trauma equipment has been rolled out to all front line crews.
- We have provided all our operational staff with ATMIST aide memoire cards to record information and support standardisation of the format in which clinical reports are passed to the Trauma desk and hospitals within the trauma network.
- The Major Trauma Triage Tool is embedded within the ePR and being used to support the North and East of Scotland Trauma Networks which went live in October and November 2018 respectively.
- We have successfully recruited 6 new Advanced Practitioners in Critical Care to the South East Trauma Region, with the intention of further improving outcomes for patients requiring critical care.
- ScotSTAR West operational hours increased from 07.30-18.00 to 07.00-23.00 from August 2018.
- Development of a ScotSTAR North Hub to provide an enhanced response to trauma patients in the North of Scotland, as well as increasing capacity to manage emergency medical retrievals across Scotland.

Planned activities -

- Implementation for North ScotSTAR hub to go live in April 2019 – complete recruitment of 12 Consultants and 3 Advanced Retrieval Practitioners to be based at ScotSTAR North.
- Electronic Patient Report Form (ePRF) version of Paediatric Trauma Triage Tool to be incorporated on to 2019 software update.

- Modelling the impact of the Major Trauma Triage Tool on operations.
- Complete induction for the 6 new Trainee Advanced Practitioners (Critical Care) in the South East Trauma Region who commenced in post on 5 November.

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. 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 by Spring 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 provide 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 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 for call handlers and a consistent approach for Healthcare Professionals to arrange the most appropriate level of response. Implementation will take place over the first quarter of 2019, with ongoing engagement and communication with HCPs.
- Continue to monitor the data from the Specialist Paramedic tasking test of change (additional Specialist dispatch prompts were embedded on 14 November, and a new dispatch process through the alternative response desk went live on 19 November) and refine the process.
- Publication of the comprehensive internal evaluation of NCRM and the commissioned external review by the University of Stirling following feedback from Scottish Government.

Other considerations – NCRM underpins most 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 Specialist Paramedics and Advanced Practitioners in urgent and primary care that can provide more care at home.

4. **Hear and Treat** - Enhance our telephone triage and ability to See and 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 using alternate treatment pathways as an alternative to 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 discharging patients to an alternative care pathway or self-care advice.

Status – The Clinical Hub has been strengthened with additional Clinical Advisors – from November there was 29.5wte Clinical Advisors against a budget of 30wte. A measurement framework has been developed to support improvement. 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 the results of this are being closely monitored, with initial data being positive. 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 more timely manner, resulting in better clinical outcomes and patient experience. System changes which allow Clinical Advisors to refer to Specialist Paramedics and Advanced Practitioners in urgent and primary care will also provide better clinical outcomes and patient experience.

Planned activities:-

- Continue to monitor the impact of transferring an increased number of triaged eligible 999 calls to NHS 24 which will support patients to access the service they need in a timely manner.
- Further development of the joint NHS 24/SAS project group.
- Implementation of the Clinical Advisor roster review and 12 month training/CPD programme.
- Development of the Clinical Hub role in mental health response.

Other considerations - We already work closely with NHS 24 and this will increase over 2018/19 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. **Specialist and Advanced Practitioners 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 Specialist and Advanced Practitioners 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 90 Specialist Paramedics in urgent and emergency care. One third of them work in primary care multidisciplinary teams within out of hour's services and GP practices across the country. We have successfully recruited 15 additional Specialist Paramedics and 5 new Advanced Practitioners (Urgent and Primary Care) who commenced in post in September and November 2018 respectively, with a further cohort of Specialist Paramedics confirmed to begin training in January 2019. The Advanced Practitioner cohort will commence the Non Medical Prescribing training module in February 2019 and will be the first cohort of SAS clinicians to do so.

Improvement - As well as effectively managing the increasing urgent demand from 999 calls, Specialist Paramedics and Advanced Practitioners in urgent and primary care can play an important role in the Primary Care in hour's 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 to patients with low acuity illness and injury that are likely to be able to be safely treated at home or in the community.
- Measurement of the joint test of change with NHS 24 in primary care in Musselburgh which went live on 7 January 2019.
- 4 Advanced Practitioners will commence the Non-Medical Prescribing course in February 2019.
- Further guidelines governance will be developed and agreed for Specialist Paramedics and Advanced Practitioners in Urgent and Primary Care.

Other considerations - Specialist Paramedics and Advanced Practitioners in urgent and primary care are crucial to achieve further development through the New Clinical Response Model, so that patients with lower acuity needs 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 the process including the scope of practice of PTS staff and its match to the patient profile. In addition, the processes for identifying patient bookings as suitable for PTS and allocation of calls by ACC have been reviewed.

Work has also been done to measure the volume of calls deemed suitable for PTS and the proportion of this demand actually handled by such resources. This has revealed wide variation in how the process is used and how productive Low Acuity resources are in different areas. This has highlighted the need to identify the reasons for this variation and take steps to promote best practice and increase utilisation with tests of change being planned and carried out to address this. The aim of this work is to remove some of this workload from A&E crews, freeing 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.

A number of rapid Quality Improvement Events have also been carried out to map the PTS planning process and identify prospective improvement initiatives. One of the outputs is to trial a Patient Experience Co-ordinator role in ACC, dedicated to improving patient experience who will liaise with Health Boards on behalf of patients to rearrange appointment times where they are unsuitable for PTS. This will negate the need for patients to make multiple telephone calls, ensure availability of ambulance transport for rescheduled appointments and reduce cancellations.

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.
- Test of change to be carried out in West ACC to improve utilisation of PTS resources for same day 4 hour urgent requests.
- Continue to identify the high number of patients that do not require the assistance of A&E resources.
- Analysis to be carried out at two hospitals in relation to patient requests which were denied transport due to SAS capacity levels. This includes consulting with the Health Boards to establish how many of those patients who did not rebook ambulance transport still attended their appointment in addition to details of the mobility of those patients.
- Agree a 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 is being delivered over two overlapping phases and will be complete during Q1 2019.

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

Ambulance Telehealth Phase 2 (Electronic Patient Record & Supporting Software) - Phase 2 involves the procurement and design of a new electronic patient report (ePR) application and other supporting software including a new SAS app. The roll out of the new ePR was completed in December 2017. The Enabling Technology Programme Board approved the formal closure of the (ePR) Project following submission of a comprehensive End of Project Report. The SAS 'app' was piloted in Coatbridge Station in summer 2018 and subsequently rolled out in November and December 2018. Project staff are now working with station team leaders to ensure any residual issues are identified and rectified promptly.
A review of the Back Office delivery will now take place with the aim of trialling in-vehicle access to GRS & Datix and then completing the roll out by end March 2019 prior to formal project closure.
Completion of the Major Incident Module development for the ePR has been delayed by the supplier until end January 2019 due to resources working on higher priority SAS development work. Rollout is anticipated to be completed by end March 2019 subject to NRRD testing approval.

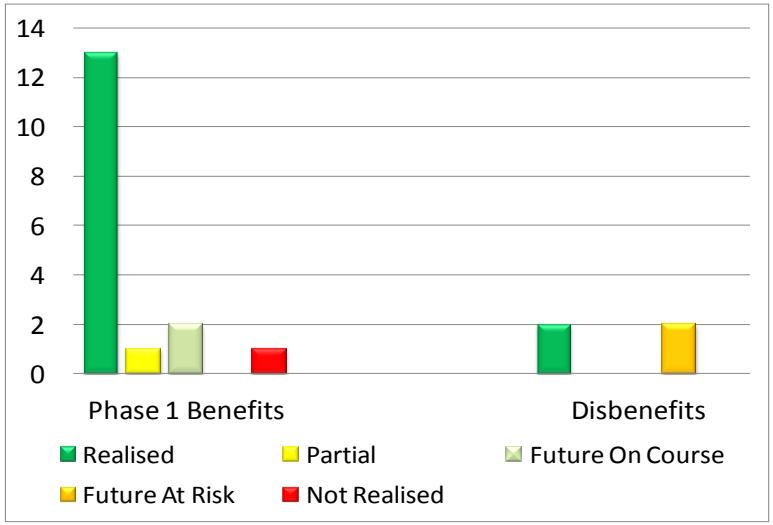
Improvement - Improved ease of use, additional functionality, increased clinical data collection and data quality, ready access to additional relevant information, increased productivity, improved patient care and experience. Ease of use is being measured through surveying users before and after the new tablets and ePR are 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 - Complete the SAS app installations, complete Major Incident Module, trial access to back office systems, formally close the Programme.

Other Considerations - Work continues with Communications colleagues and operational areas of the organisation to implement the agreed update mechanism for the SAS App to ensure the App is kept up-to-date with accurate, timely information. Ubiquitous access to mobile broadband data (as will be delivered by the Emergency Service Network Programme) will be a key enabler for maximising the benefits derived from the Ambulance Telehealth Programme.

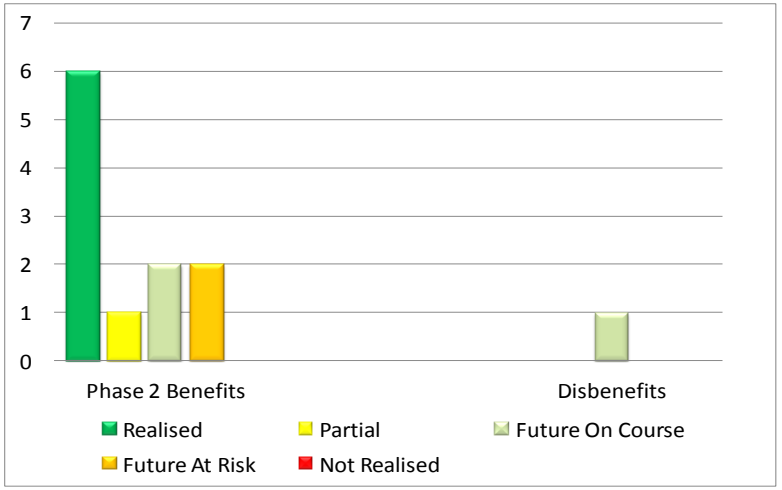
Benefit Realisation / Return on Investment - Delivery of the expected benefits from the Ambulance Telehealth Programme is overseen by the Enabling Technology Programme Board. Benefits include lower like for like costs, improved electronic Patient Record completion rates and data quality. A comprehensive benefits realisation plan is in place and the delivery of key benefits is being actively progressed by the Programme Business Change Manager. The one benefit that is listed as 'Not Realised' during Phase 1 relates to the interim ePR which was implemented on the new hardware while a completely new ePR was being developed. It was anticipated that the interim ePR would deliver a benefit in terms of the user interface and ease of use. Feedback from staff was less positive than anticipated so this benefit was formally recorded as not realised. The interim ePR has now been replaced by the new ePR.

Ambulance Telehealth Phase 1 benefits



1

Ambulance Telehealth Phase 2 (ePR) benefits



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2. Emergency Service Network Programme

Background - Radio and Short Data Communications are provided to the Service, and all other GB Emergency Services through the Airwave network. The original Airwave contracts were due to expire on a phased basis from 2016 to 2020; however, a National Shutdown Date of 31 December 2019 was negotiated for all Airwave customers. The UK Government established the Emergency Service Mobile Communications Programme (ESMCP) in 2011 to identify a replacement for Airwave. The programme will deliver a voice and broadband data network that will be known as the Emergency Services Network (ESN). The main ESMCP contracts were awarded in 2015. The Service was due to transition to the ESN from late 2018 through to late 2019 but this timescale has slipped due to wider ESMCP slippage. Following a change of ESMCP Programme Director a review by senior UK government civil servants and their

specialist advisors and a subsequent programme 'reset', the programme is now being progressed based on an incremental approach whereby new services and capabilities are implemented as they become available. Programme delivery will use a 'product based' approach

Aim - The Emergency Service Network 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.

Status – The ESMCP Programme Team continues to progress their revised FBC. The latest timeline shows that full ESN adoption will take place in Scotland during 2022 with various 'products' being made available before this.

The ESMCP Team had planned to gain approval for the revised FBC from the ESMCP Programme Board in December 2018, however the FBC was not approved due to a number of contentious issues. The Scottish Government will seek FBC 'assurance' from the Service and the other Scottish emergency services in Q1 2019 and an FBC Assurance Group has been set up to facilitate this. The very high level summary is that SG and the three Scottish emergency services (3ESS) have significant concerns about the affordability, 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 SG and 3ESS. The potential financial pressures presented by ESMCP have been acknowledged by SG but no firm funding decisions have been made.

Airwave contract extensions are now signed to December 2022, with an additional 12 months contingency built in. Heads of Terms have also been agreed with the key ESN suppliers (EE and Motorola) to define a new way forward based on revised timescales and the incremental approach to delivery. These Heads of Terms will be converted to a formal Change Advisory Notice on approval of the FBC. These are required to be signed off by the Home Office by 31st March 2019.

The Service had indicated a preference to join with the ARP in delivering an 'ESN ready' ICCS solution and the Service Board approved the ICCS Replacement Business Case in September 2018. Discussions to finalise a Memorandum of Understanding with ARP and to sign up to the Frequentis contract were nearing completion when Airwave offered an upgrade path for the current ICCS to the ESN compatible DS3000 ICCS as part of the Airwave 'Bundle 2' extension. A paper is being developed for review by the Board in March.

ESMCP are investigating the viability of utilising the EE 4G network to provide air to ground (A2G) coverage in GB. The Service is liaising with ESMCP to run test flights in Scotland to gather data to assess if this approach is viable.

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. The situation is exacerbated by the turnover of senior SG staff leading in this area. A new SG SRO has been announced in December. The lack of continuity is not ideal at this critical time when the FBC is undergoing approvals. From a Service perspective, these risks are being managed through the Scottish Government (SG) Strategic Group, the 2020

Steering Group and the Enabling Technology Board.

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. Ongoing review of ICCS replacement options. Engagement with Motorola regarding terminal extensions.

Other Considerations - It is worthy of note that the 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 is providing governance for a number of Fleet related projects. This is principally the Vehicle Replacement Project but also includes the upgrading of the server infrastructure under the Fleet Management System Replacement Project. The Vehicle Telematics Project is 'on-hold' due to a lack of sponsor and uncertainty around the likelihood of benefits being realised.

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 2018/19 fleet replacement programme is managed by the Fleet Department, it is well underway and is progressing to plan. In terms of the Fleet Management System Replacement Project, the Enabling Technology Board agreed to scale back the project scope with the current system being retained albeit with an upgraded server platform. This upgrade work has now been completed. From an Enabling Technology Programme perspective, the Telematics Project has been placed 'on-hold' until a viable 'business case' is established and funding has been 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. Initial discussions around production of the next Fleet Business Case will also be undertaken.

Other Considerations – There are a number of inter-dependencies between the Fleet Projects and other Service Programmes e.g. Clinical Service Transformation, Defibrillator Replacement Project and the ESN Programme.

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. The aim being to improve patient care and staff experience.

Aim – The objective of the Defibrillator Replacement Project is to manage and deliver the replacement of defibrillators used by Scottish Ambulance Service clinicians. The aims being to improve patient care through innovation and clinical transformation, enable 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 Full Business Case (FBC) was approved by the Service Board in September and by the Scottish Government Capital Investment Group (CIG) in October. A preferred bidder has been identified and notified. The unsuccessful bidder raised concerns which extended the standstill period by a number of weeks. As a result of detailed feedback and a face-to-face meeting, this bidder has now accepted the result of the process. Implementation kick-off meetings have taken place with the preferred supplier and the project implementation team has been formed and met. An initial implementation plan has been developed. As it stands, the exact roll-out dates have still to be finalised but the initial plan has a rollout taking place over summer / autumn 2019.

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 – Finalise contract award. Implementation kick-off activities. Roll out plan development.

Other Considerations – There are a number of inter dependencies between the Fleet Projects and other Service Programmes e.g. Clinical Service Transformation, Defibrillator Replacement Project and the ESN Programme.

5. 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, Cyber Resilience and renewing or re-procuring a number of key ICT related contracts. For example, work to develop an Initial Agreement for a new in-vehicle Patient Transport System is now commencing and the upgrade of the LAN and COIN are underway. Further details regarding these additional projects and initiatives are available via the Enabling Technology Programme Team as required.

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 – Implementation/Planning – completing delivery of 2018/19 intake plans and developing 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 needs to be sustained over the remainder of the period and with pending changes to our education model we are likely to need to increase the volume of activity to support transitional arrangements. Technician recruitment has continued to be very successful, with the number of applicants per vacancy significantly increasing.

In total we have 151 Paramedics recruited and/or commenced training (which will increase with the direct recruitment of qualified Paramedics). This increases to 206 with the inclusion of the 55 Undergraduate intake. In addition we have appointed 15 Specialist Paramedics and 5 Advanced Paramedics in Unscheduled &Emergency Care, and a further 6 Advanced Paramedics in Critical Care. We are completing a second recruitment campaign for Specialist Paramedics to commence January 2019.

This is an improved position from the earlier part of the year, and as well as maximising qualified recruitment to increase our overall numbers, other options have been reviewed to consider how we can maximise numbers in line with 2020 targets. This has focused on the possibility of increasing our current training capacity and the balance and timing of additional direct entry Paramedic students and Technicians.

We continue to look for best practice and opportunities to make quality improvements to our recruitment and selection activity.

Planned Activities Include – To support ongoing recruitment towards 2020, several process improvements have been delivered. The aim to continually improve the candidate and recruiting manager's experience through the recruitment process will continue to be a key aim throughout 2019.

The introduction of our candidate management system, has streamlined the administrative process for candidate, managers and the recruitment team. The system also enables the production of better management information reporting, which allows recruitment trends to be reviewed and analysed, therefore ensuring robust and reliable production of Equality Monitoring reports. We are also alert to the roll out of a new cloud based national recruitment platform following recent financial sign off by the Scottish Government and will incorporate this into our work as the national implementation occurs.

In the meantime, a root and branch review of our recruitment processes and procedures will be undertaken in 2019, which will result in a refreshed resourcing activity being developed, covering the employee life cycle.

To meet the challenge of sustaining the recruitment and progression of staff to meet our desired increase in Paramedic numbers, experience over the last two years has confirmed the need to develop our range of pathways for resourcing to avoid reliance on internal routes only (and aligns to longer term changes to our education model – see other considerations below). The approach will evolve to deliver our required numbers across the next 3-5 years as we transition into new arrangements. Work will include the assessment of direct recruitment opportunities, along with the expansion of the undergraduate degree route at the core of our new model. This may require review of lead in times to deliver Paramedic numbers. Our present effort is focusing on maximising Technician to qualified Paramedic training and the increase of recent Paramedic applications means a healthier pipeline to start the planning of the next intakes.

Other Considerations –The mixed resourcing model developments referenced above 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 degree level HCPC registration requirements in 2021. This will build on the external pipeline which was expanded last year with commencement of the first full time degree programme in Scotland (first graduates in 2020).

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

The Scope of Practice framework has been developed which defines how all of the Service's frontline roles will operate to support our 2020 Strategy. This framework continues to evolve to align with transformational organisational change. From an initial focus on the development and deployment of the Specialist Paramedic role in Urgent & Emergency Care, planning for 2018/19 has included reviewing needs across all areas, incorporating the development of advanced paramedic practice, reflecting re-banding implications and incorporating major trauma, national operations (Ambulance Control Centres, National Risk & Resilience Department, ScotSTAR and Air Ambulance) and support/corporate functions.

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 – Career Framework underpins and directs staff advancement with the Learning & Development policy and underpinning processes approved and adopted to ensure there is a framework for the identification and prioritisation of resources to support our 2020 strategy. Educational Governance improvements are being led by the Capable Workforce Group (reporting to the Workforce Development Steering Group), which aims to bring key stakeholders together to take an organisational view of our dispersed training delivery model and advise on improvements to the identification, delivery and reporting on key development priorities.

Planned Activities Include – Modelling activity to inform employee development requirements is a current priority. Learning & Development infrastructure development is focusing on both the development of processes connecting personal development planning and access to learning delivery, and on the development of supporting IT systems for development activity recording and supporting online learning access. The career framework model will evolve to align and incorporate pathways for all clinical, operational and management requirements.

The roll out of Turas Appraisal continues after its launch on 2nd April 2018 as replacement for the eKSF system. We are still awaiting the next national functionality update to allow the reporting of present organisational activity levels. However, we are now receiving data downloads which will support some reporting capability and will be reported back through our educational governance channels. The Turas Appraisal system supports the recording of Executive Performance Management and the system has recently been updated to support mid-year review functionality as part of the 2018/19 objective setting cycle. This is one element of Project Lift, the new national level Executive level talent management and succession planning framework, which launched at the end of May 2018. Engagement in the roll out of Project Lift has been undertaken at Executive and Senior Leadership Team level. Initial Board level information has just been released to inform our leadership talent management activity. Work is underway to incorporate Project Lift into our developing local Talent Management processes and plans to ensure cohesion between approaches. At the service level we are completing a leadership

development needs assessment and progression of national board collaborative activity aligned to national NHS Scotland Leadership Framework. Management Matters, the output of the national board collaborative activity will become the standard approach for first line and aspiring managers to demonstrate their professional development in management practice at the Service. Agreement of key metrics to measure progression will support these changes.

This year will also include engagement with national developments led by NHS Education for Non-Executive and Board Development for the purpose of supporting the national rollout of the refreshed NES Board Development Tool and three key themes identified by the Scottish Government for delivery, namely Strategic Quality Improvement, Governance (focused on Financial Governance) and Leadership (and engagement with Project Lift).

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 See and Treat and Hear and Treat targets, 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. This work will also ensure that support function needs are incorporated into our development planning, ensuring that priority development needs are identified and supported.