What do you consider have been the main successes of the existing Scottish Government’s eHealth and telecare/telehealth strategies and why?

1. In its evaluation report entitled Telecare for People with Dementia, the Scottish Centre for Telehealth & Telecare (SCTT) commented that telecare is cost saving for users with dementia. In a time when the National Health Service is struggling with the financial and resource demands being placed upon it by a growing and ageing population, the idea that telehealth could potentially cost-save for the NHS Scotland is welcomed.

2. The study concluded: “estimated savings from avoided emergency hospital admissions, more efficient discharge from hospital and delaying or avoiding the move to a care home generated material savings of about £2.6 million over five years of evaluating clients with dementia in Renfrewshire CHP.” The College also welcomes any initiatives that help to reduce attendances at Scottish Emergency Departments (EDs), albeit small.

3. The European United for Health study on impact of Home Monitoring (which included the SCTT as a partner and reported in November 2016) demonstrated improved outcomes and decreased admission to hospital for patients with Diabetes, Hypertension, Heart Failure and Chronic Pulmonary Obstructive Disease (COPD). In Scotland, remote monitoring of patients with COPD and heart failure in Ayrshire has led to improved quality of life and admission prevention in Girvan. Many of the factors which precipitate admission are related to patient anxiety and ability to manage. Furthermore, anxiety is not dependent on geography. As such, similar systems could be just as effective at patient care and admission avoidance in an urban setting.

4. The College supports expansion of such programmes throughout Scotland, reducing unnecessary ED attendance and supporting the Scottish Government’s strategy of supporting care in the community.

5. The College supports the Technology Enabled Care (TEC) programme, which is developing the infrastructure to implement successful, evidence based eHealth solutions at scale over five work streams, expanding: Home Health Monitoring, Use of Video consulting, National Digital Platforms, Uptake of Telecare and Switch from Analogue to Digital. All of these initiatives have the potential to support care in the community and more effective triage of unscheduled Care cases, leading to reduced over triage to EDs and, subsequently, admissions.

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1 Scottish Centre for Telehealth & Telecare, Telecare for People with Dementia (2013)
What do you consider have been the main failures of the existing Scottish Government’s eHealth and telecare/telehealth strategies and why?

6. The Scottish Government’s eHealth strategy 2011-17 aimed to “maximise efficient working practices, minimise wasteful variation” and “improve the availability of appropriate information for healthcare workers and the tools to use and communicate that information effectively to improve quality”. The RCEM Scotland does not believe that the Government has optimised these aims.

7. There has undoubtedly been an improvement in information sharing and integration of services. However, there are still areas where this may be improved upon, namely patient data sharing between primary services, social care services and emergency departments.

8. Information is still not integrated between health and social care in Scotland. The College believes that NHS Scotland should develop shared systems so that the patient journey through different specialities is smoother and patient care and outcomes are improved.

9. The significant delays in the implementation of NHS24’s Futures technology programme has delayed other planned innovations including the Common Triage Tool between NHS24 and the Scottish Ambulance Service and the development of new modalities for triage such as video consulting and image transfer. This has resulted in continuing over triage to EDs.

10. Currently, there are a significant number of technology enabled health and care initiatives being developed and undertaken, as recorded by the SCTT. However, the limited uptake and implementation of such solutions at scale has mitigated their impact on the demand for health and social care services in Scotland.

How well does the Scottish Government’s draft Digital Health and Social Care Vision 2017-2022 address the future requirements of the NHS and social care sector?

11. The Government’s Making the Vision Real – Wellbeing plan is patient focussed and considers the best way of communicating patients’ health needs by giving the patient access to various forms of digital information and resources.

12. The RCEM was pleased to see a variety of case studies focusing on dementia. The number of people with dementia in the UK is forecast to increase to 2,092,945 by 2051, an increase of 156% over the next 38 years. Therefore, it is imperative that we provide services and technologies that support patients suffering from this epidemic.

13. The Government’s Information plan is particularly encouraging. The integration and sharing of patient information in an emergency department is crucial, when rapid and potentially life altering decisions have to be made.

14. Effective sharing of patient information, which will significantly aid the integration of services, may significantly improve the overall quality of care patients receive by making the patient journey through different specialities, and systems, easier and smoother.

15. The lack of accessibility to patient care records means that patients have a higher likelihood of being admitted into hospital than a patient whose medical history is at hand. Systems such as the Clinical Portal may provide ED staff with up to date diagnosis and specialist opinion. The

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2 Scottish Centre for Telehealth & Telecare
3 Alzheimer’s Society, Demography (2014)
normal for a patient may quickly be determined, and whether any actual deterioration, requiring acute care input, has occurred.

16. If ED staff were given real time access to primary care records, health care plans would be formulated earlier and easier, making the transition from hospital based care to community services more timely.

17. The Scottish Ambulance Services’ electronic transfer of on-scene patient information case study might also be instrumental in improving emergency care handover times. For the most severe cases that present to EDs, for example road traffic collisions, access to patient information, recorded prior to arrival at the emergency department, will enable the department to more effectively prepare for the patient’s arrival and, subsequently, improve the decision making, diagnosis and treatment.

18. There is great potential for eHealth to deliver cost-effective, quality healthcare that improves patient outcomes by integrating services and sharing data. Therefore, RCEM Scotland welcomes the third part of the 2017-2022 plans to improve services.

Do you think there are any significant omissions in the Scottish Government’s draft Digital Health and Social Care vision 2017-2022?

19. The draft vision encourages the development of electronic health and social care information, which may be widely integrated and shared. However, the RCEM Scotland believes that the Government should create a robust and reliable national record database, which in turn will help to successfully and fully integrate health and social care services. The development of one programme that enables health and social care professionals’ access to patient data across services, securely and safely, would help to improve the patient experience and the overall care that they receive.

20. The Nuffield Trust states that use of electronic patient records “is one of the most effective ways to engage patients, often leading to improved communication, adherence to lifestyle advice and shared decision-making. It tends to be highly valued by patients”.

21. Online systems and resources should be amalgamated in order to achieve effective integration of the health and social care system. Electronic integration would undoubtedly enable staff to more effectively treat and support the patient.

22. The College believes that existing systems (e.g. KIS) do not fully realise the potential of electronic records in Unscheduled Care. Improved access to primary care records by EDs might help admissions avoidance because anomalies in patients’ health may be better understood, treated, transferred or discharged in a more timely fashion. A greater use of eHealth resources in community services might also help to avoid unnecessary attendances.

23. Access to reliable and up to date patient records is important to reduce misdiagnoses, guide patient centred medication administration and treat any underlying causes of pain, which may not be immediately apparent. When dealing with vulnerable people in emergency departments, information sharing between agencies is vital.

24. To share patient information robustly, specialities should use the same electronic system to combat local variation and more effectively integrate services.

25. Currently, there is huge variation of recording data within NHS Scotland. For example, Mental health, primary care and maternity services use different programmes to record and access patient information. There is even variation within Emergency Departments: e.g. some Departments use Symphony, whilst others use TrakCare. Data sharing frequently requires direct telephone contact with other departments, which is not time efficient and may be crucial when dealing with time dependent emergencies.

26. Emergency Departments see and treat a wide range of morbidities, including mental health patients, dementia sufferers and substance abuse patients etc. Universal access patient notes would be an invaluable tool for Emergency Department staff, ensuring referral of the right patient to the right services at the right time.

27. ED patients frequently express the expectation that their records are accessible across all health and social care facilities. Yet, unfortunately, this is not the case.

28. Delayed, or inaccurate, transfer of information between hospitals, primary care and social care services is common and may adversely affect patient care. Standardised systems will help to facilitate more timely transfers of patient information and make follow-up care more relevant.5

**What key opportunities exist for the use of technology in health and social care over the next 10 years?**

29. There are a myriad of benefits to be gained by using healthcare technology; for patients, for health and social care staff and for NHS Scotland.

30. NHS Scotland’s medical workforce faces a significant challenge to meet the health needs of a growing and aging population. Scotland’s population is projected to rise by 7% by 2039 and the number of people aged 75 and over is predicted to grow by 85% by 2039.6 Accompanying this growth will be an increasing propensity to access the health and social care services. As such, Government and healthcare providers alike are increasingly concerned about how the system will cope under extreme pressure.

31. There is an opportunity to develop technology usage in health and social care to provide better care and keep up with this increasing demand within the next 10 years, as the Scottish Centre for Telehealth and Telecare alludes to.7 Indeed, the use of technology in health and social care is viewed as integral to solving problems facing healthcare systems around the world.8

32. For patients, e-resources may play a potentially important role in helping to ensure people access the care and support they require. For example, although in its preliminary stages, some evidence suggests that mental health patients could benefit from telehealth resources which help them to understand their conditions, read about similar cases, offer advice and support and, in some cases, provide self-management or identify patients at risk.9

5 JAMA, *Deficits in Communication and Information Transfer Between Hospital-Based and Primary Care Physicians* (2007)  
7 SCTT, *A weight off my mind*  
33. At least 63% of adults in Scotland own a Smartphone and many access health information online. Therefore, within the next 10 years, it would be realistic to suggest that more valuable healthcare information, support and services will be found digitally.

34. In hospitals, improvements in electronic recording and usage of data may increase the coverage, timeliness, and quality of the data for secondary uses – NHS staff, primary care providers and social care workers. This would be of great benefit to both patient care and NHS staff to inform evidence based healthcare research.

35. The Scottish Government has a significant opportunity to improve patient record sharing across the health and social care systems in Scotland in this timeframe. As previously stated, integrating all NHS systems into one programme will help NHS professionals provide patients with appropriate care, and after care, in a timely fashion and improve communication and integration of services.

36. Technology is key to successful use and collaborative working with NHS24. Currently, the College believes that the NHS24 service is not being utilised to its full potential. Once the Futures Programme is fully implemented, the next 10 years may see innovative and improved communication between NHS24 and emergency care services.

37. Extended and innovative Clinical Decision Support (CDS) systems, facilitated by technology, will improve triage of both Unscheduled and Scheduled cases, ensuring harmful and, particularly, wasteful variation in practice is minimised. Emergency Department Clinicians have the potential to support clinical decision making as part of the integration agenda. Increasing interface amongst SAS, NHS24, Primary Care and Social Care will require effective information sharing and technology enabled care. Integrated Joint Boards may facilitate this but some solutions may require a national approach.

38. The use of near patient diagnostics, combined with remote Clinical Decision Support, has the potential to improve patient care and reduce unnecessary transfer to hospital/admissions. Examples include assessment of biochemical markers in the community in chest pain, sepsis, direct video consulting of children, patients with Do Not Resuscitate orders at home and ultrasound assessment of trauma patients, which have all been shown to have beneficial effect. Usage of such technology may result in benefits ranging from early administration of life saving treatment (antibiotics in sepsis) prior to transfer, through direct admission to specialty (chest pain directly to cardiology) bypassing the ED, to complete avoidance of transfer with care given in the community.

What actions are needed to improve the accessibility and sharing of the electronic patient record?

39. Currently, there is too much variation in the programmes used to record patient data within services and throughout the entire health and social care system.

40. RCEM Scotland recommends that one system is implemented so that NHS professionals may effectively and efficiently share patient records to improve patient experience and outcomes. One integrated electronic system would help to improve communication between services and the integration of Scotland’s health and social care system.

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10 Ofcom, Scotland becomes a ‘smartphone society’ (2015)
11 Science Direct, Factors influencing online health information search (2014)
41. Nevertheless, to build confidence, both professionally and publicly, the Scottish Government needs to implement a national steer, or even supportive legislation, regarding patient confidentiality, particularly in the field of Emergency and Unscheduled Care.

What are the barriers to innovation in health and social care?

42. The issues regarding innovation, Technology Enabled Care and eHealth in Scotland’s health and social care services are varied and include technical, procedural, legal, ethical, financial, cultural and professional challenges.12

43. The costs and time delays associated with implementing eHealth may be viewed as barriers. In addition, concern among health professionals about the security of patient data, the potential harm to patient-doctor confidentiality and the fear of an increased workload or patients receiving inaccurate advice is prevalent.13 As stated above, the Scottish Government might have to implement a national plan regarding patient confidentiality in order to build confidence and support.

44. However, perhaps the most challenging issue that accompanies innovation, especially with technology, is arguable scepticism, from both within the health and social care professional community and the public domain. This is in part due to the complexity of health care innovation and, despite the existence of large numbers of successful small to medium scale trials of Technology Enabled Care, the lack of evidence showing that eHealth technologies can improve health care at scale.14

45. Therefore, to improve the credibility of the use of technology in health and social care, the Scottish Government should consider:
   - Addressing policy and financial barriers to health care technology.
   - Introducing eHealth and health care technology in curricula in medical and nursing schools to facilitate continued learning in this area and develop new skills and expertise.
   - Developing appropriate indicators to assess outcomes of new initiatives, thereby making case studies and plans more accessible, transparent and evidence based.
   - Creating a holistic approach to this development that is evidence-based and focuses on responding to patients’ needs, the impact on existing care pathways and improving care.15 The Digital Health Institute is employing new methods of assessing the “Real World” impact of introducing new technologies at scale and may facilitate the implementation and adoption of new technological solutions.

46. Finally, The College recognises that Technology and Innovation holds great potential for improving the quality, efficiency and effectiveness of care for Emergency Medicine patients and welcomes progress in this area. As the King’s Fund suggests: “many technologies could transform health and care but more evidence is needed on their costs and benefits to deliver on their promise. Ask too much or give too few opportunities for real-world testing and we risk protecting an outdated status quo. Ask too little and we risk spending public money on something ineffective”.16

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13 BMJ, Exploring the challenges of implementing e-health (2017)
15 Ibid.
16 The King’s Fund, The digital revolution: eight technologies that will change health and care (2016)