The document *Achieving world-class cancer outcomes: a strategy for England 2015-20* provided a thorough and thoughtful analysis of the shortcomings in cancer diagnosis and treatment and a comprehensive plan to deliver a step change. Some 15 months later, it is clear that the ambitions in the Strategy will not be fulfilled. This is a failing on the part of the Cancer Transformation Board to seize the initiative rapidly enough and by the Government to make the investment needed.

The RCR applauded the Strategy on its publication in July 2015 and in September 2015 published *Turning the ambition into action: how the Cancer Strategy 2015-2020 can be implemented*. In that document we focused on five themes setting out the actions we could take and the action others should take so as to have some possibility that the ambitions would be met. Those themes were:

1. Building diagnostic capacity to support early diagnosis
2. World-class radiotherapy services
3. Integration of care
4. Data as a driver for improvement
5. Innovation and research

We made it clear that action needed to commence immediately for the Strategy to have a chance of succeeding. This meant that rapid and concerted activity was required in the first twelve months. Too little has happened. As it stands, the public is being misled into thinking that by 2020 England will be at the forefront in cancer outcomes. It will not.

The RCR has a unique perspective on cancer care as our doctors deliver and manage the diagnosis and non-surgical treatment of cancer, and as such can offer an in depth and holistic view. In the following sections we comment under each of the five themes on what we wanted to see happen and what has happened. We also say what we have done. Our conclusions can be found at the end of this document.

**Building diagnostic capacity to support early diagnosis**

Outcomes for patients with cancer will only start to improve when more cancers are identified at an earlier stage. Earlier diagnosis means more patients having more scans. The Strategy included a welcome recognition that the capacity of radiology services was inadequate. Screening programmes are also at risk due to the scarcity of the radiological workforce.

We said that the development of radiology services must start immediately:

(a) A major increase in the number of clinical radiologist training places.

*This has not happened. We have seen very small increases in recent years, but nowhere near enough: the number of new trainees recruited in 2016 was slightly lower than 2015. The Secretary of State’s announcement on 4 October to create more medical school places in 2018 is of course welcome, but the junior doctors who emerge from those places will be spread across numerous specialties, of which radiology is only one.*
Furthermore, it will be 2030 before radiology services would start to benefit from such investment, since 12 years is the minimum time it takes to complete medical training to specialise in clinical radiology.

(b) Investment in new equipment.
No structured, national programmes of radiology equipment investment have been announced. A rolling programme for CT, MR, ultrasound, fluoroscopy, digital radiography and PET-CT replacement equipment is urgently needed.

(c) A vigorous overseas recruitment campaign to fill vacant consultant radiologist posts.
No such campaign has been announced. Indeed, with the failure of the Government to give support and assurance to overseas doctors working in the UK in the wake of the Brexit result, the situation has deteriorated as doctors are leaving the UK (1). The RCR has held events and created a range of resources in an attempt to attract radiologists to work in the UK and give them the support they need when they get here.

(d) The concept of radiology training academies to be re-launched.
There has been interest in this concept and some local activity in a few regions but no co-ordinated plan to make it happen. The RCR published Radiology training 2016-2026: a vision and a solution in June 2016 which explained how e-learning, radiology training academies and networked reporting models could all offer immediate gains and benefits.

(e) Pilot and evaluate new models of service provision, such as radiology networks.
Despite the New Models of Care Initiative and the Vanguards launched by NHS England, progress on creating workable radiology networks has been slow and patchy. The RCR held a workshop in May exploring the requirements for and the challenges of creating networked solutions and this learning was shared. The RCR document Who shares wins: efficient collaborative radiology solutions1 will explain what needs to be done to set up regional, networked teleradiology platforms in the NHS.

World-class radiotherapy services
Diagnosing early cancers in an increasingly elderly patient population will increase the need for radiotherapy as a curative treatment. The Strategy acknowledged that numbers in training for clinical oncology needed to grow and a funded programme to replace linear accelerators was required.

We said that -
(a) Numbers in training needed to increase to meet the demands for more complex radiotherapy services now and to meet the resultant higher workloads
There has been absolutely no increase in the numbers in training in clinical oncology. We can only hope that the Health Education England workforce plan to fulfil the needs of the Cancer Strategy will address this.

(b) A firm and continuing programme of linear accelerator replacement was needed
We have welcomed the proposed investment of £130m in radiotherapy, but the funding allocation does not go far enough and represents less than one third of that pledged by the Scottish Government earlier this year.

(c) We would work with our membership to develop the required treatment regimens and protocols
The RCR has updated its radiotherapy dose fractionation document to incorporate all evidence-based, new treatment regimens. In addition we have published a UK-wide consensus document on state-of-the-art techniques for breast radiotherapy treatment.

1 Publication expected w/c 31 October 2016
(d) We would deliver courses to ensure clinical oncologists are upskilled as we did successfully in 2013 for intensity modulated radiotherapy
We will be running dedicated radiotherapy planning workshops at our 2017 annual educational meeting and are commissioning a sustainable training package for radiotherapy planning skills.

(e) There must be encouragement for the wider take-up and equitable provision of Intensity Modulated Radiotherapy and other forms of advanced radiotherapy across the country
The RCR continues to highlight problems for patients in accessing radiotherapy services. The national RCR audit showed that patients are declining to travel for some forms of radiotherapy. We believe the limited number of centres delivering newer radiotherapy will reduce access and equity for patients – contrary to the thrust of the Strategy.

(f) Preparation of the workforce is necessary for the rollout of proton beam therapy when it comes on stream in England
The RCR is producing an e-learning module and running educational meetings to ensure the workforce is aware of the indications for, and benefits of, proton therapy. We continue to support fellowships for clinicians not practising in the designated proton beam therapy centres to aid their understanding of proton therapy.

(g) The way forward for the delivery of molecular radiotherapy must be developed
The RCR is working with Public Health England to streamline the process of regulation of those who deliver molecular radiotherapy so as to facilitate dissemination of new radionuclide therapies as they become available.

(h) Work must be carried out with Health Education England and others to encourage core medical trainees to opt for a career as a clinical oncologist
The RCR has produced resources to encourage medical students and junior doctors to opt for clinical oncology as a career, and in addition, for clinical oncology departments to support taster sessions and other careers activities.

(i) Our regular workforce surveys must continue annually, to provide high quality data on the clinical oncology workforce
The RCR 2015 workforce census for clinical oncology confirms the increasing strain on the workforce. The number of consultants working above 10 professional activities (usually viewed as being a full time job) has continued to increase, as has the vacancy rate. The shortfall between headcount and whole time equivalents continues to grow.

(j) Work is needed with the Institute of Physics and Engineering in Medicine and the Society and College of Radiographers to develop optimum skill mix
The RCR continues to work with the other professional bodies involved in the delivery of radiotherapy through the multi-professional Radiotherapy Board.

(k) Work must continue with medical oncology colleagues
The RCR continues to work with medical oncology colleagues through the Joint Collegiate Council for Oncology (JCCO) and with other professionals delivering systemic anti-cancer therapy (SACT) through the Chemotherapy Board. The Board has recently published Best practice guideline on managing toxicities in SACT delivery. The RCR, with a wide range professionals involved in non-surgical oncology, has successfully bid for the Cancer Research UK project on workforce modelling.

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2 Publication expected w/c 7 November 2016
Integration of care
The Strategy paid much attention to integration of services and planning a patient-centred pathway for cancer diagnosis, treatment, follow-up and survivorship and recommended a system-wide approach that we wholeheartedly supported.

We said that:
(a) the creation of bodies such as a National Cancer Team, a National Cancer Advisory Board and Cancer Alliances was urgently required.

*The indication by the CTB that Cancer Alliances are about to be created is welcome but long overdue. The Alliances should have been formed much sooner to make the rapid implementation of the Strategy a reality across England.*

(b) integrated palliative care/end-of-life care, commissioning of the entire cancer pathway, integrated cancer alliances and skills and training, developed around the patient and future needs (all of which were proposals in the Strategy) were needed.

*None of these things has happened to date, although we look forward to the Alliances being established.*

The RCR report *It's good to share: medical image and report exchange between UK health care providers* revealed that the problems in sharing vital X-rays and scans between doctors and hospitals were commonplace across the NHS. Our solutions document *Who shares wins: efficient, collaborative radiology solutions* will be published imminently.

(c) There was an opportunity for further integrated planning and delivery to focus the successor Cancer Drugs Fund (CDF) on all appropriate non-surgical cancer treatments, so that there is equity of access for patients. This particularly applies to curative radiotherapy treatment where equitable investment and support has been lacking for a long time.

*The reformed CDF is an improvement, but the opportunity to make it a wider, non-surgical cancer treatment fund has been missed and radiotherapy remains the poor relation in cancer treatment despite its clear therapeutic advantages in treating many forms of cancer.*

Data as a driver for improvement
The Strategy focused on the value and use of data to improve services and learn from change coupled with the recognition that there are extremely valuable datasets for cancer diagnosis and treatment as major resources on which to build.

We said that
(a) we particularly welcomed moving away from measuring “referral to test” for diagnostic imaging to the more meaningful “referral to result”.

*This has not happened.*

(b) the importance of regulators focusing on submissions to the systemic anti-cancer treatment (SACT) dataset was a valuable recommendation.

*The RCR welcomed the instruction that all providers must be using electronic prescribing by April 2017 or they will not be reimbursed for that activity. In June, the RCR brought together stakeholders submitting data with Public Health England to explore ways of improving SACT data quality. While this will help improve data submissions to SACT, unless data analysis is centrally supported and widely shared across the oncology community, the potential to inform patients about the risks and benefits of treatment will not be realised.*
(c) the sustainability and reliable foundations of the SACT dataset, the Radiotherapy Dataset (RTDS) and the Diagnostic Imaging Dataset (DID) were essential. We have seen no assurances on this.

Innovation and research
The Strategy’s important focus on the UK maintaining its world-leading position in cancer studies was welcomed, underpinned as it was by recommendations on ensuring that as many patients as possible entered into clinical trials. At the time we viewed these recommendations as difficult to implement given the workforce issues and the focus on productivity in the NHS. A further difficulty identified was in building clinical radiology academic practice.

Since the Strategy was published, the Brexit vote has led to clear challenges in maintaining the current UK research position. This has not been helped by a lacklustre response from the Government to those additional pressures. In the interim, the RCR has established a Clinical Oncology Academic Committee to provide the necessary focus on sustainable academic careers, an essential driver of quality improvement in any modern oncology service.

Our conclusions
The English Cancer Strategy painted a picture of a significantly improved prospect for cancer outcomes. It rightly paid much attention to the major determinants of health and causes of cancer and the preventative measures needed. Such shifts can take years to achieve although the need to make the changes was correct.

The Strategy also exposed, through the work of the Independent Cancer Taskforce, the dire state of radiology services and how ill equipped they were, and are, to deliver the vital earlier diagnosis of cancer. This bears out what the RCR has been saying for some time and has continued to say. Fifteen months on and radiology services are in no better state at all: in fact all the indicators of vacancy rates, the vast spend on outsourcing and increasing workloads point to services under even more stress (2). Very similar messages are emerging in the 2015 clinical oncology workforce census. The concomitant investment in radiotherapy services so vital for English cancer patients to be able to experience the same quality of treatments as other comparable countries, is not sufficient to support delivery of a radiotherapy service fit for the twenty-first century.

In 2015 we said that to realise the ambitions of the Strategy, action was need without delay. That has not happened. This first annual report of the Cancer Transformation Board, appearing 15 months after publication of the Strategy, is hugely disappointing. For the Government to let this go without comment risks patients and the public believing that they will see the cancer outcomes they deserve, and have been promised, by 2020. We call upon the Government and the Cancer Transformation Board to be honest and re-set expectations to what is achievable and what can truly be delivered.

References