



REVERSING THE SKILLS GAP IN THE SPECIALIST CANCER CARE WORKFORCE THROUGH DIGITAL EDUCATION

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It is no secret that cancer patient care is under immense strain. Ageing populations, improved detection strategies and advances in medical understanding are among the many reasons the number of cancer patients has risen significantly in recent years.

[Data from Macmillan](#) shows 3 million people are currently living with cancer across the UK – expected to rise to 4 million by 2030. The blunt reality: one in two Britons are expected to be diagnosed with cancer throughout their lifetime, according to [Cancer Research UK](#).

These figures point towards increased demand for oncology specialists across a variety of roles, from the discovery research, which is essential to developing new diagnostic services through to the delivery of cancer care. Given a critical shortfall of such specialists already pervades the field, this represents a major issue. Harnessing opportunities to develop a workforce with mixed skills (such as clinical pharmacists or specialist technologists), and a knowledge base which will facilitate innovation and digital expertise, has the potential to greatly increase capacity.

[A recent report from Health and Social Care Committee](#) estimates that, on a full-time equivalent basis, the NHS is short of 189 clinical oncologists, 390 consultant pathologists and 1,939 radiologists. By 2030, it predicts the NHS will be short of 3,371 specialist cancer nurses.

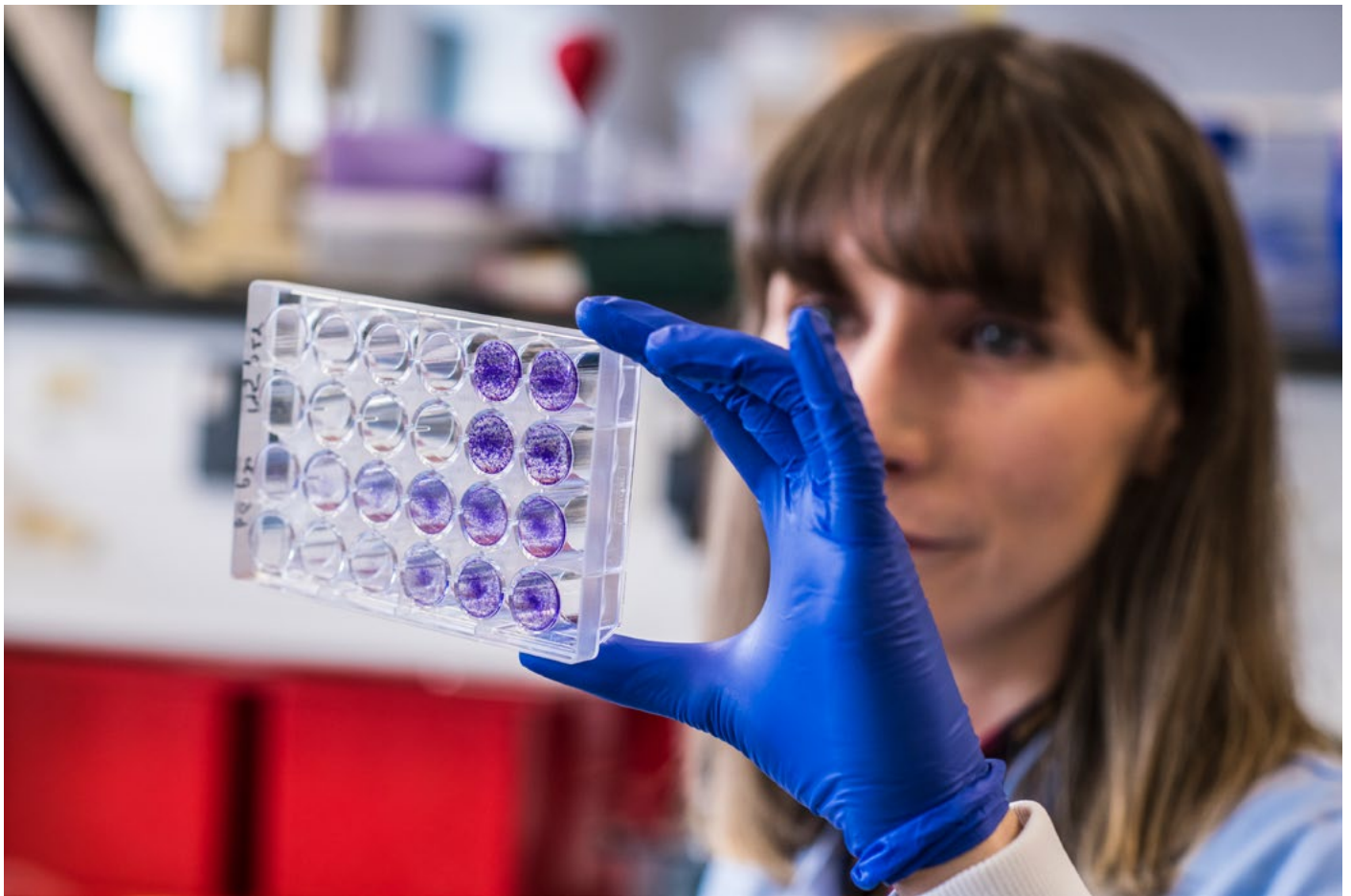
Such a deficit inevitably puts patients at greater risk, jeopardising access to vital care and limiting the opportunity for early detection, which is so critical to giving patients the widest range of treatment possibilities. Indeed, as many as 340,000 people between 2019 and 2028 could have missed out on an early cancer diagnosis, that same Health and Social Care Committee report estimates.

This strain on the NHS is mirrored in many countries across the globe. Further, the issue has only been exacerbated by the treatment backlog caused by the pandemic. [A report by the Institute for Public Policy Research](#) suggested that it

could take until 2033 to clear the Covid-induced backlog of patients across the cancer care pathway.

Moreover, the dearth of specialised professionals is leading to burnout, stress and concern for patient outcomes among healthcare professionals, a point of contention evidenced by the waves of strike action taking place across the UK public healthcare sector – even leading some to exit the profession.

Addressing this shortfall remains one of cancer care's most pressing priorities for improving patient outcomes. But why has the deficit arisen, and how can it be resolved to improve patient outcomes in the long-term?



THE GROWING NEED FOR PERSONALISED CARE

Outside medicine, there is a common misconception of cancer as a single entity: in fact, cancer is hundreds of distinct diseases, with our understanding of each type constantly evolving with every advance in research. Cancer is known to behave differently on a case-by-case basis, largely depending on the patient's individual genetics and the biology of the tumour itself.

At present, all patients with the same condition currently receive the same first-line treatment even though it may be only 30 to 60% effective, [according to the NHS](#). It is, however, widely accepted that the future of cancer care will be highly specialised: professionals will examine the intact genome of every patient and analyse individual tumours in order to devise personalised therapies that will drastically enhance outcomes for patients.

Such advanced, personalised care, however, will require highly specialised professionals – as established, these are currently in critically short supply. For instance, although nursing may previously have been considered a pastoral role in a healthcare system, demand is rising drastically for technically trained cancer nurse specialists to provide highly skilled, specialised care. These oncology workforce shortages mean, therefore, many healthcare systems are currently unable to keep pace with the rapid advancements in research. This is by no means limited to frontline professionals; the entire oncology workforce – such as geneticists, health data scientists and researchers – will need to develop a deeper understanding of individual cancer types to progress towards personalised therapies.



HOW CAN THE ONCOLOGY FIELD REVERSE THE SKILLS GAP?

Regardless of a professional's role within the cancer care pathway, placing a focus upon education and upskilling will be essential to reversing the skills gap. Further, education must be uniquely positioned to foster multi-disciplinary and patient-focused learning among healthcare professionals.

A disconnect is often observed between research and clinical practice, with each side having limited practical insight into how research translates across the cancer treatment pathway into patient care. Education must play a key role in bridging this gap, providing professionals with a broader understanding of translational oncology. What's more, for medical professionals and biologists wishing to carve out a path in oncology, facilitating a greater synergy between education, research and clinical decision-making can also create better pathways to channel their skills into the cancer care space.

Naturally, it would be illogical to draw large numbers of medical professionals out of the workforce to upskill on lengthy, full-time programmes to address the shortage. In response to this, pioneering educational programmes have been developed as digital, modular courses to give professionals opportunities to build their skillset incrementally around their professional and personal lives. Further, enabling professionals with opportunities to build their qualifications through agile, micro-credentials is an effective way to achieve rapid, meaningful advances. Online programmes which provide key learning that can be directly integrated into working practice, combined with a more holistic and global understanding of the oncology field, will enhance the workforce with new future-focussed perspectives.

As cancer patient numbers rise and care becomes increasingly specialised, there is one long-term clear solution that will improve the strain on healthcare systems around the globe and, in turn, patient outcomes. Education that is accessible to existing medical professionals will be the key to reversing the skills gaps across the oncology field, delivering more personalised care, while simultaneously bridging the gap between research and clinical practice and effectively transforming clinical outcomes for patients.

ABOUT THE AUTHOR



Dr Suzanne Johnson is Programme Director of The University of Manchester's [online Masters programme in Transformative Oncology](#), a course designed to upskill cancer professionals and ultimately transform clinical outcomes for patients with cancer. With a background in basic and translational cancer research, she is also a lecturer in the Division of Cancer Sciences and Division lead for Social Responsibility.



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