

Bench To Bedside

Optimising Medical Research in Scotland
through Collaboration

Executive Summary

Together we will beat cancer



CANCER
RESEARCH
UK

Around 32,000 people are diagnosed with cancer every year in Scotland¹. Today, around half of the people diagnosed with cancer will survive for more than 10 years. This figure has doubled in the last 40 years. Cancer Research UK's ambition is to accelerate progress so that three-quarters of people survive the disease by 2034. Research has been a vital part of this progress so far and is crucial to further improve outcomes for cancer patients.

This study was conducted to analyse the state of the medical research environment in Scotland and to identify policy actions to optimise it. This report uses the term "medical research" to encompass basic, translational and clinical health research across all disease areas. While the findings are reflective of the broader environment, we have focused on cancer in some areas. The report combines analysis of available data and interviews with medical research stakeholders, 21 with Scotland-wide remits and 9 UK-wide.

Scotland has a strong research base for its size, significantly overperforming in competitive research funding per capita. For example, Scotland received €533 million in Horizon 2020 funding between 2014-2016. This equates to €55 per capita, higher than any other UK nation².

Whilst our respondents highlighted Scotland's strength in medical research, they emphasised a need for policy action to maintain and expand on this success in the medium and long term. It is becoming increasingly difficult for universities in Scotland to individually compete for research funding. Some actions have been taken to enable collaboration in Scotland's research environment and it's important that this work continues.



Additionally, our respondents emphasised that NHS workforce pressures and ways of working are impacting the ability of health professionals to engage in research, potentially restricting patient access to research in Scotland.

FINDINGS

There are several factors that enable a high- quality research environment, including: leadership, policy and collaboration; funding; infrastructure; workforce; and patient access to research.

LEADERSHIP, POLICY & COLLABORATION

Scotland's basic research environment is performing well in funding gained from competitive sources. This is, in part, due to the historic strength of its universities and ongoing support from the Scottish Government, which has established significant policy direction for Scotland's medical research environment through a number of strategies including in life sciences³, health and social care research⁴ and cancer⁵.

Despite this, there are concerns about the ability of Scottish universities to compete with the increasing critical mass of research expertise at larger research

institutions in the UK and internationally. Increasing collaboration within Scotland is a solution to this and would enable researchers in Scotland to compete more effectively for major research funding.

The Scottish Funding Council (SFC) is currently consulting on its Scottish Research Pooling Initiative including the work of the Scottish Universities Life Sciences Alliance (SULSA). It is crucial that this consultation looks at how such research collaboration can be increased⁶.

RECOMMENDATIONS

- Universities, the Chief Scientist Office (CSO) and the Scottish Funding Council (SFC) should work together to maximise the impact of the Scottish Research Pooling Initiative and explore further mechanisms to support collaboration between research teams from multiple universities. This could include financial support for meetings where collaborative grant applications could be developed.

FUNDING

The levels of Quality-related (QR) funding awarded to universities by the Scottish Funding Council (SFC) is high, more than twice that awarded in England per capita. However, there are concerns about how this funding is distributed. Whilst, the overall QR pot has grown by £6.5 million since 2014/15⁷, funding for some of Scotland's best performing universities fell and has reportedly affected the ability of some to maintain PhD student levels.

More serious concerns were expressed about the outlook for clinical research funding. Much of the available funding is provided through the Chief Scientist Office's contribution to the National

Institute for Health Research (NIHR) funding pools. However, the current arrangement only buys into four of the nine NIHR funding streams⁸ and there is a desire amongst researchers for this provision to be expanded.

Researchers and politicians are concerned about the impact of leaving the EU on research funding. Scotland is a major beneficiary of EU research funding and it is vital that the Scottish Government explores all options to minimise the impact of this potential loss.

RECOMMENDATIONS

- The SFC should engage with the universities ahead of the next Research Excellence Framework (REF) in 2021 and review how the changes have impacted medical research in Scotland's leading research Universities.
- The CSO should review the portfolio of clinical research funding available in Scotland, including access to NIHR funding and whether this can be expanded. The clinical research community should be consulted to ensure no gaps exist.
- The Scottish Government and Scotland's funding bodies should urgently quantify the impact of the potential loss of EU funds as the UK leaves the EU and seek funding sources – including UKRI and others – to mitigate against this loss.

INFRASTRUCTURE

Our respondents identified Scotland's basic research infrastructure as world leading. However, there were some concerns about the levels of support staff in some institutions. There were also positive responses about the interface

between clinical and academic research, and ongoing efforts to perform clinical research across Scotland.

However, there are issues around accessing patient data which delay and prevent some clinical research projects. There is work ongoing into Scotland's data infrastructure through the Innovative Healthcare Delivery Programme (IHDP) and it is important that this continues⁹.

RECOMMENDATIONS

- The Scottish Government should continue to support and enable projects like IHDP that are seeking to link patient data to improve practices and outcomes.

WORKFORCE

Our respondents highlighted that Scotland's reputation for research is helping to attract early-career researchers but also expressed concerns about the retention of mid-level researchers.

Of most concern was the development and retention of clinical researchers. Our respondents highlighted the lack of opportunities for health professionals to engage in research. Currently, those who wish to take part in research only have one block of research time to nine for clinical practise. It is crucial that this research time is expanded to allow health professionals to take part in research.

It was highlighted that the number of CSO Clinical Academic Fellowships¹⁰ available is lower than the NIHR Academic Clinical Fellowships, limiting the number of health professionals that can take part in research.

Our respondents highlighted that challenges in the wider NHS workforce

were beginning to impact clinical research. It is crucial that these gaps are addressed to allow patients to take part in research.

RECOMMENDATIONS

- The Scottish Government should increase its support for clinical academic development through increasing the funding of the CSO Clinical Academic Fellowship scheme.
- The Scottish Government, NHS Health Boards and CSO should work with the medical research community to develop sustainable approaches to ensure health service staff have sufficient time to develop, undertake and participate in research.

PATIENT ACCESS TO CLINICAL TRIALS

The results of the Scottish Cancer Patient Experience Survey (CPES)¹¹ show that less than a quarter of patients in Scotland had a discussion about taking part in research, low compared to the average across the UK.

The Scottish Government is working to increase public participation in health research through the NHS Research Scotland (NRS) research networks¹² which aims to increase the number of trials available to patients across Scotland. It is crucial that the CSO, NRS and the Scottish Government continue to take steps to increase research participation.

RECOMMENDATIONS

- The Scottish Government should continue to promote engagement in health research and should seek further opportunities to increase the number of conversations with patients about clinical research participation.

REFERENCES

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