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Pwyllgor yr Economi, Masnach a Materion Gwledig
Ymchwil a Datblygu
RD06
Ymateb gan: Sefydliad Prydeinig y Galon Cymru (BHF)

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Welsh Parliament
Economy, Trade, and Rural Affairs Committee
Research and Development
RD06
Evidence from: British Heart Foundation Cymru (BHF)





British Heart Foundation Cymru

Response to the Economy, Trade, and Rural Affairs Committee call for written evidence for a one-day snap-shot inquiry to access the current position of research, development, and innovation landscape in Wales.

Introduction

The British Heart Foundation (BHF) is the largest independent funder of medical research into heart and circulatory diseases in Wales and the third largest charitable funder of medical research in the UK. BHF funds nearly £4 million of research in Wales and provides the secretariat to the Senedd Cross Party Group on Medical Research. We are pleased to respond to the Economy, Trade and Rural Affairs Committee's consultation and have sought to respond primarily to the question '*How effective is Welsh Government's Innovation Strategy likely to be in supporting research, development and innovation in Wales?*' If the Committee would like any further evidence please contact **Emily Wooster, Policy and Public Affairs Manager for Wales** at woostere@bhf.org.uk

The Cross Party Group on Medical Research (CPGMR)

The CPGMR has published two reports since it was established in 2018. The first was a report on Welsh Government's implementation of the Reid Review to improve the medical research environment published in 2021 at the end of the fifth Senedd. The CPG's most recent report published in November 2023 focusses on the benefits of medical research and provides practical recommendations to improve the research environment.

The benefits of medical research to the economy

In the CPGMR's most recent report it established that there are many potential benefits of a thriving medical research environment. Medical research at universities or in the NHS makes a vital contribution to the Welsh economy and saves lives. The recipients of research funding purchase goods and services to undertake their research. In turn, this generates activity in their supply chains and across the whole of the Welsh economy. 82% of people in Wales believe it is important for medical research to happen in Wales.¹ The Campaign for Science and Engineering (CaSE) found that more than half of people felt that R&D was either essential or important for addressing the cost-of-living crisis.² Businesses in the UK life sciences industry generated £94.2 billion in turnover in 2021, a 9% increase from the £86.4 billion in 2020. The pharmaceutical industry alone has resulted in a £40.8 billion turnover in 2021.³ The pharmaceutical industry in the UK amounted to £23.4 billion export value and £21.4 billion import value in 2021.⁴

In Wales, the life sciences sector employs over 11,000 people and contributes over £2 billion in turnover to the Welsh economy.⁵ Welsh commercial health research activity resulted in £34 million gross value added (GVA) and made £37,053 direct pharmaceutical saving for each patient recruited onto a commercial study, in 2018/19.⁶ In England, between 2016/17 and 2018/19 NHS England received on average £9,000 per patient recruited to a commercial clinical trial and saved over £5,800 in drug costs for each patient, equating to an income of £355 million in 2018/19.⁷

Charities tend to fund early stage medical research, de-risking the research for future commercial development. Not only does this drive medical advancements, but it also creates significant economic benefits. Modelling commissioned by the BHF suggests that charity-funded medical research plays a vital role in Wales' economy and has the potential to drive economic growth. Research by the Fraser of Allander Institute (FAI) at the University of Strathclyde estimated that charity funding makes up 35% of all third sector and public funding of medical research in Wales, with active research funding of £21m in 2018.⁸ FAI found that in 2019, medical research funding by charities supported £86 million output⁹ and £55 million gross value added (GVA).

However, of the three devolved nations of the UK and each of the 9 regions of England, Wales has the lowest R&D expenditure as a proportion of GVA.¹⁰ Although Wales makes up around 5% of the UK population, it has just 2% of R&D spend in the UK – spending which is less than half of what should be expected of a population of Wales's size. More needs to be done so that Wales can access the huge economic benefits of a thriving medical research environment.

How effective is Welsh Government's Innovation Strategy likely to be in supporting research, development, and innovation in Wales?

What the Innovation Strategy seeks to achieve is commendable, especially the commitments to improving collaboration in Wales. However, what can be achieved is severely limited by the lack of resource and more needs to be done to attract external sources of funding.

More needs to be done to incentivise collaboration.

There are examples of improved collaboration in Wales, such as the establishment of HCRW funded research centres, which have supported collaboration in a number of areas. However, the respondents to the CPGMR's 2021 inquiry suggested that more action is needed to support research collaboration in Wales.

Respondents to the CPG inquiry agreed that there needs to be improved collaboration between Welsh Government, healthcare, HEIs, third sector, and industry in Wales. Respondents suggested that there also needs to be improved collaboration across different areas of research such as cancer, heart and circulatory diseases, diabetes and endocrinology and rheumatology.

Wales needs to attract industry funding.

In a recent CPGMR meeting there were also concerns that Welsh Government is not doing enough to attract industry investment into Wales. The CPGMR recommended that Welsh Government look to the example set by the BioRegion in Catalonia to identify ways to attract more industry partners.

The Government of Catalonia have worked to create a thriving clinical research environment which now places Catalonia among the top five in Europe in the capture and execution of clinical research trials.¹¹ On request from the Department of Health from the Catalonian Government, BioCat was created to develop the BioRegion of Catalonia. The BioRegion is a 'healthcare and life sciences ecosystem in Catalonia' that hosts a wide network of research groups, hospitals, and industry to promote and strategize the sector.¹²

The Barcelona Clinical Trials Platform (BCTP) was created within the BioRegion as a 'one-stop' gateway to simplify the process of clinical trials reaching main university hospitals and primary healthcare centres (reaching more than five million patients). The BCTP also 'embeds talent and technology developed in the lab into clinical trials, bridging such trials into personalised medical practice'.¹³

The outcome of government investment into the BioRegion of Catalonia has resulted in the Barcelona region having one of the world's most effective and high-quality healthcare systems.¹⁴ The general population are able to access top-level hospitals and participate in pioneering clinical trials. Overall, the region has attracted international investment from industry to conduct clinical trials and improved patient outcomes.

There are huge gaps in clinical research funding.

BHF is also concerned that there is no commitment by Welsh Government to address huge funding shortages in Wales. The CPGMR in 2021 found that in the research community there are concerns about the low levels of Welsh Government funding available for clinical and public health research in Wales compared to the funds made available by the UK Government in England. These research areas have been invaluable in efforts to tackle Covid-19 and to improve the health of the people of Wales.¹⁵

In 2019, the annual budget of HCRW stood at £42 million¹⁶ around 3.2% pro rata of the £1.3 billion announced for the National Institute for Health Research (NIHR) and Genomics England in the UK Spending Review in November 2020.¹⁷ When compared to Wales' population size in relation to England¹⁸, HCRW's budget is less than 60% of that of NIHR pro rata. It is important that the Welsh Government provides a significant uplift to HCRW funding.

Welsh universities are chronically underfunded.

In 2018 Professor Graeme Reid, commissioned by Welsh Government published his review on the research environment in Wales. Five years on from the Reid Review, there is still much work to be done by the Welsh

Government in implementing its recommendations. Of the five recommendations in the Reid review, only one - the creation of a Welsh Research and Innovation office in London - has been implemented. In 2018, for example, the Reid Review placed the highest priority on the role of QR funding in encouraging research and innovation in Wales. Higher Education Funding Council for Wales (HEFCW)'s QR budget for 2022/23 is £81.7 million.¹⁹ Research England has announced £1.789 billion for QR funding for 2022/23.²⁰ If Welsh universities were supported to compete with England, pro rata QR funding in Wales should be around £100 million.²¹

Welsh universities are therefore suffering from a shortfall of £18 million in funding for vital infrastructure. The QR funding pot is also significantly lower than comparable budgets in other UK nations. Low QR funding, is limiting the grants that researchers in Wales can apply for and is making Wales a less attractive place to invest in research. The CPGMR in 2021 found that low levels of QR funding force higher education institutions in Wales to compete against each other for a small pot of money. This often means that universities only run projects which contribute to a high-profile publication or an impact case study.

Recommendations

1. Welsh Government should consider the experience in Catalonia and identify whether elements of this approach could be implemented in Wales. This should include increased incentivisation of collaboration between the NHS, Welsh universities, and industry.
2. For the innovation strategy to have a positive impact on research in Wales it is vital that Welsh Government addresses funding gaps which have historically held back R&D in Wales. The Welsh Government should increase funding to support clinical, public health, and social care through greater investment in the work of Health and Care Research Wales, in line with equivalent investment in other UK nations.
3. Increase QR funding for Welsh Universities at least in line with the rest of the UK pro-rata.

¹ Figures from YouGov Plc. Total sample size was 1,107 adults. Fieldwork was undertaken between 5th - 7th September 2022. The survey was carried out online. The figures have been weighted and are representative of all adults in Wales (aged 16+).

² Campaign for Science and Engineering (2023). *The Discovery Decade Project*.

<https://www.sciencecampaign.org.uk/what-we-do/public-opinion/public-attitudes-to-r-d/>

³ GOV.UK (2023) *Bioscience and health technology sector statistics 2021*.

<https://www.gov.uk/government/statistics/bioscience-and-health-technology-sector-statistics-2021#:~:text=Employment%20in%20core%20businesses%20was,in%20the%20core%20biopharmaceutical%20sector>

⁴ Ibid

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- ⁵ Association of the British Pharmaceutical Industry (2023) *ABPI Cymru Wales*. <https://www.abpi.org.uk/about-the-abpi/abpi-cymru-wales/>
- ⁶ Health and Care Research Wales (2020) *Making a difference: the impact of health and care research in Wales*. [Health and Care Research Wales: Making a difference: The impact of health and care research in wales | HSR UK](https://www.hcrwales.org.uk/Health-and-Care-Research-Wales-Making-a-difference-The-impact-of-health-and-care-research-in-wales)
- ⁷ NHS England (2023) *Maximising the benefits of research: Guidance for integrated care systems*. <https://www.cancerresearch.wales/blog/international-clinical-trials-day-increasing-cancer-clinical-trial-capacity-in-wales>
- ⁸ Fraser of Allander Institute (2022) The contribution of medical research by charities to the Welsh economy. <https://fraserofallander.org/publications/the-contribution-of-medical-research-by-charities-to-the-welsh-economy/>
- ⁹ Output is the value of all goods and services produced.
- ¹⁰ <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/bulletins/ukgrossdomesticexpenditureonresearchanddevelopment/2019>
- ¹¹ BioCat (2021) *Clinical Trials in the BioRegion*. <https://www.biocat.cat/en/about-bioregion/what-bioregion/clinical-trials-bioregion>
- ¹² BioCat (2022) *2022 BioRegion Report*. [https://report.biocat.cat/? qa=2.172152544.271126940.1688468545-2080855722.1674482316](https://report.biocat.cat/?qa=2.172152544.271126940.1688468545-2080855722.1674482316)
- ¹³ BioCat (2022) *2022 BioRegion Report*. [https://report.biocat.cat/? qa=2.172152544.271126940.1688468545-2080855722.1674482316](https://report.biocat.cat/?qa=2.172152544.271126940.1688468545-2080855722.1674482316)
- ¹⁴ BioCat (2022) *2022 BioRegion Report*. [https://report.biocat.cat/? qa=2.172152544.271126940.1688468545-2080855722.1674482316](https://report.biocat.cat/?qa=2.172152544.271126940.1688468545-2080855722.1674482316)
- ¹⁵ <https://www.bhf.org.uk/what-we-do/in-your-area/wales/campaigning-and-influencing/the-cross-party-group-on-medical-research>
- ¹⁶ Health and Care Research Wales, Annual Report 2019/2020 - New annual report highlights how research has ‘never been more important’. <https://bit.ly/39xsQB1>
- ¹⁷ HM Treasury, Spending Review 2020. <https://bit.ly/3bH87hE>
- ¹⁸ Office for National Statistics, Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2019. <https://bit.ly/38KH4jg>
- ¹⁹ HEFCW (2022) *Funding allocations for academic year 2022/23*. https://www.hefcw.ac.uk/wp-content/uploads/2022/07/W22-27HE-HEFCWs-Funding-Allocations-for-Academic-Year-2022_23-English.pdf
- ²⁰ Research England (2022) *Funding budgets for 2022-23 to 2024-25*. <https://www.ukri.org/wp-content/uploads/2022/07/RE-140722-FundingBudgets-2022-25.pdf>
- ²¹ BHF Estimates based on ONS population data mid-2020. <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2020>